Process Analysis Report for the Retaining Employment and Talent After Injury/Illness Network (RETAIN) Demonstration

May 30, 2024

Rosalind Keith, Sarah Croake, Meagan Ager, Jayna Jones, Cayla Roby, Will Suh, Catherine Turvey, Moriah Bauman, Imani Williams, and Jillian Berk

Submitted to:

Social Security Administration
OAG/DPC
6401 Security Boulevard
1540 Robert M. Ball Bldg.
Baltimore, MD 21235-0001
Project Officer: Taffy McCoy
Contract Number: 28321319C00060001

Submitted by:

Mathematica Policy Research
P.O. Box 2393
Princeton, NJ 08543-2393
Telephone: (609) 799-3535
Facsimile: (609) 799-0005
Project Director: Yonatan Ben-Shalom
Reference Number: 50751

This page has been left blank for double-sided copying.

Contents

List of Acronyms xii

Executive Summary of the Process Analysis Report for the RETAIN Demonstration xiv

A. Introduction xiv

B. Data sources and analysis methods xiv

C. Key findings xv

D. Conclusion xxv

I. Introduction 1

A. Purpose of the process analysis report 1

B. The RETAIN program 1

C. Research questions guiding this report 4

II. Data sources and methods 7

A. Data sources 7

B. Analysis methods 12

C. Limitations 14

III. RETAINWOR*KS* 16

A. Overview of RETAINWOR*KS* 17

B. RETAINWOR*KS* partnerships to support enrollment and service delivery 17

C. Program environment surrounding RETAINWOR*KS* implementation and service delivery 20

D. RETAINWOR*KS* recruitment and enrollment 21

E. RETAINWOR*KS* implementation and service delivery 30

F. Staff time spent on RETAINWOR*KS* 39

G. Costs of RETAINWOR*KS* 40

H. Plans for sustaining RETAINWOR*KS* 41

I. Implications for replication of RETAINWOR*KS* 41

J. Implications for interpretation of impacts on outcomes 41

IV. RETAIN Kentucky 43

A. Overview of RETAIN Kentucky 44

B. RETAIN KY partnerships to support enrollment and service delivery ... 44
C. Program environment surrounding RETAIN KY implementation and service delivery ... 46
D. RETAIN KY recruitment and enrollment ... 47
E. RETAIN KY implementation and service delivery ... 56
F. Staff time spent on RETAIN KY ... 67
G. Costs of RETAIN KY ... 68
H. Plans for sustaining RETAIN KY ... 69
I. Implications for replication of RETAIN KY ... 69
J. Implications for interpretation of impacts on outcomes ... 70
V. MN RETAIN ... 72
A. Overview of Minnesota RETAIN ... 73
B. MN RETAIN partnerships to support enrollment and service delivery ... 73
C. Program environment surrounding MN RETAIN implementation and service delivery ... 76
D. MN RETAIN recruitment and enrollment ... 77
E. MN RETAIN implementation and service delivery ... 85
F. Staff time spent on MN RETAIN ... 97
G. Costs of MN RETAIN ... 98
H. Plans for sustaining MN RETAIN ... 99
I. Implications for replication of MN RETAIN ... 99
J. Implications for interpretation of impacts on outcomes ... 100
VI. Ohio RETAIN ... 102
A. Overview of Ohio RETAIN ... 103
B. OH RETAIN partnerships to support enrollment and service delivery ... 103
C. Program environment surrounding OH RETAIN implementation and service delivery ... 105
D. Ohio RETAIN recruitment and enrollment ... 106
E. OH RETAIN implementation and service delivery ... 115
F. Staff time spent on OH RETAIN ... 126
G. Costs of OH RETAIN ... 128

H. Plans for sustaining OH RETAIN ... 129

I. Implications for replication of OH RETAIN ... 129

J. Implications for interpretation of impacts on outcomes ... 130

VII. Vermont RETAIN ... 131

A. Overview of VT RETAIN ... 131

B. VT RETAIN partnerships to support enrollment and service delivery ... 132

C. Program environment surrounding VT RETAIN implementation and service delivery ... 136

D. VT RETAIN recruitment and enrollment ... 137

E. VT RETAIN implementation and service delivery ... 144

F. Staff time spent on VT RETAIN ... 153

G. Costs of VT RETAIN ... 155

H. Plans for sustaining VT RETAIN ... 155

I. Implications for replication of VT RETAIN ... 156

J. Implications for interpretation of impacts on outcomes ... 156

VIII. Treatment Enrollees' Experiences with RETAIN ... 158

A. Introduction ... 158

B. Treatment enrollees' experiences with RETAIN enrollment ... 159

C. Treatment enrollees' experiences with RETAIN ... 159

D. Treatment enrollees' experiences with RETAIN overall ... 161

E. Treatment enrollees' receipt of non-RETAIN services ... 163

F. Treatment enrollee's experiences with staying at or returning to work ... 163

IX. Conclusion ... 165

A. Factors that influenced RETAIN program implementation ... 165

B. Potential implications for the impact evaluation ... 166

References ... 168

Appendix A. Background Information and Supplemental Exhibits for Chapter III ... A1

Appendix B. Background Information and Supplemental Exhibits for Chapter IV ... B1

Appendix C. Background Information and Supplemental Exhibits for Chapter V ... C1

Appendix D. Background Information And Supplemental Exhibits For Chapter VI.......... D1

Appendix E. Background Information and Supplemental Exhibits for Chapter VII.......... E1

Exhibits

Exhibit I.1. Planned RETAIN program components 2

Exhibit II.1. Process analysis report data sources 7

Exhibit II.2. RETAIN program documents 9

Exhibit II.3. RETAIN semistructured interviews 10

Exhibit II.4. Number of interviewed treatment enrollees and all treatment enrollees enrolled through June 2022, by state 10

Exhibit II.5. Characteristics of treatment enrollees who participated in telephone interviews in 2022 and all treatment enrollees enrolled through June 2023, by state (percentages) 11

Exhibit II.5. CFIR domains that might influence RETAIN program implementation 13

Exhibit II.6. RETAIN enrollment data variables 13

Exhibit II.7. ICD-10 code classification to primary diagnosis category 14

Exhibit III.1. RETAINWOR*KS* organization chart 18

Exhibit III.2. RETAIN program environment in Kansas 21

Exhibit III.3. Race and ethnicity of RETAINWOR*KS* treatment enrollees (percentages) 27

Exhibit III.4. Primary diagnosis characteristics of RETAINWOR*KS* treatment enrollees (percentages) 28

Exhibit III.5. Length of time since last worked at enrollment among RETAINWOR*KS* treatment enrollees (percentages) 29

Exhibit III.6. Occupational classification of pre-injury/illness job among RETAINWOR*KS* treatment enrollees (percentages) 29

Exhibit III.7. Planned RETAINWOR*KS* medical provider services 30

Exhibit III.8. Planned RETAINWOR*KS* RTW coordination services 31

Exhibit III.9. Treatment enrollees' use of RTW coordination services 32

Exhibit III.10. RETAINWOR*KS*: Communication among RTW coordinator, treatment enrollee, employer, medical providers, and other service providers 33

Exhibit III.11. Percentage of RETAINWOR*KS* treatment enrollees whose RTW coordinator communicated with others involved in their RTW plans 34

Exhibit III.12. Planned RETAINWOR*KS* other RTW services 35

Exhibit III.13. RETAINWOR*KS* treatment enrollees' use of workplace-based services 36

Exhibit III.14. Treatment enrollees' use of retraining or rehabilitation services 37

Exhibit III.15. Percentage distribution of administrative and direct service staff hours across RETAINWOR*KS* activities ... 40

Exhibit IV.1. RETAIN KY organizational chart ... 45

Exhibit IV.2. RETAIN program environment in Kentucky ... 47

Exhibit IV.3. Race and ethnic characteristics of RETAIN KY treatment enrollees (percentages) ... 53

Exhibit IV.4. Primary diagnosis characteristics of RETAIN KY treatment enrollees (percentages) ... 54

Exhibit IV.5. Length of time since last worked at enrollment among RETAIN KY treatment enrollees (percentages) ... 55

Exhibit IV.6. Occupational classification of pre-injury/illness job among RETAIN KY treatment enrollees (percentages) ... 55

Exhibit IV.7. Planned RETAIN KY medical provider services ... 56

Exhibit IV.8. Planned RETAIN KY RTW coordination services ... 57

Exhibit IV.9. Treatment enrollees' use of RTW coordination services ... 57

Exhibit IV.10. RETAIN KY: Communication between RTW coordinator, treatment enrollee, employer, medical providers, and other service providers ... 60

Exhibit IV.11. Percentage of RETAIN KY treatment enrollees whose RTW coordinator communicated with others involved in their RTW plans ... 61

Exhibit IV.12. Planned other RETAIN KY RTW services ... 63

Exhibit IV.13. RETAIN KY treatment enrollees' use of workplace-based services ... 63

Exhibit IV.14. Treatment enrollees' use of retraining and rehabilitation services ... 64

Exhibit IV.15. Percentage distribution of administrative and direct service staff hours across RETAIN KY activities ... 68

Exhibit V.1. MN RETAIN organization chart ... 74

Exhibit V.2. RETAIN program environment in Minnesota ... 76

Exhibit V.3. Race and ethnic characteristics of MN RETAIN treatment enrollees (percentages) ... 82

Exhibit V.4. Primary diagnosis characteristics of MN RETAIN treatment enrollees (percentages) ... 83

Exhibit V.5. Length of time since last worked at enrollment among MN RETAIN treatment enrollees (percentages) ... 84

Exhibit V.6. Occupational classification of pre-injury/illness job among MN RETAIN treatment enrollees (percentages) ... 84

Exhibit V.7. Planned MN RETAIN medical provider services ... 85

Exhibit V.8. Planned MN RETAIN RTW coordination services ... 87

Exhibit V.9. Treatment enrollees' receipt of RTW coordination services ... 88

Exhibit V.10. MN RETAIN: Communication among RTW coordinator, treatment enrollee, employer, medical providers, and other service providers ... 89

Exhibit V.11. Percentage of MN RETAIN treatment enrollees whose RTW coordinators communicated with others involved in enrollees' RTW plans ... 90

Exhibit V.12. Planned other MN RETAIN RTW services ... 92

Exhibit V.13. MN RETAIN treatment enrollees' use of workplace-based interventions ... 93

Exhibit V.14. Treatment enrollees' use of retraining or rehabilitation services ... 94

Exhibit V.15. Percentage distribution of administrative and direct service staff hours across MN RETAIN activities ... 98

Exhibit VI.1. OH RETAIN organization chart ... 104

Exhibit VI.2. RETAIN program environment in Ohio ... 106

Exhibit VI.3. Race and ethnic characteristics of OH RETAIN treatment enrollees (percentages) ... 112

Exhibit VI.4. Primary diagnosis characteristics of OH RETAIN treatment enrollees (percentages) ... 113

Exhibit VI.5. Length of time since last worked at enrollment among OH RETAIN treatment enrollees (percentages) ... 114

Exhibit VI.6. Occupational classification of pre-injury/illness job among OH RETAIN treatment enrollees (percentages) ... 114

Exhibit VI.7. Planned OH RETAIN medical provider services ... 115

Exhibit VI.8. Planned OH RETAIN RTW coordination services ... 117

Exhibit VI.9. Treatment enrollees' use of RTW coordination services ... 117

Exhibit VI.10. OH RETAIN: Communication among RTW coordinator, treatment enrollee, employer, medical providers, and other service providers ... 119

Exhibit VI.11. Percentage of OH RETAIN treatment enrollees whose RTW coordinator communicated with others involved in their RTW plans ... 120

Exhibit VI.12. Planned other OH RETAIN RTW services ... 121

Exhibit VI.13. OH RETAIN treatment enrollees' use of workplace-based services ... 123

Exhibit VI.14. Treatment enrollees' use of retraining and rehabilitation services ... 123

Exhibit VI.15. Percentage distribution of administrative and direct service staff hours across OH RETAIN activities ... 128

Exhibit VII.1. VT RETAIN organizational chart 133

Exhibit VII.2. RETAIN program environment in Vermont 137

Exhibit VII.3. Race and ethnic characteristics of VT RETAIN treatment enrollees (percentages) 141

Exhibit VII.4. Primary diagnosis characteristics of VT RETAIN treatment enrollees (percentages)....142

Exhibit VII.5. Length of time since last worked at enrollment among VT RETAIN treatment enrollees (percentages)....143

Exhibit VII.6. Occupational classification of pre-injury/illness job among VT RETAIN treatment enrollees (percentages)....144

Exhibit VII.7. Planned VT RETAIN medical provider services 145

Exhibit VII.8. Planned VT RETAIN RTW coordination services....146

Exhibit VII.9. Treatment enrollees' use of RTW coordination services....146

Exhibit VII.10. VT RETAIN: Communication among RTW coordinator, treatment enrollee, employer, medical providers, and other service providers....148

Exhibit VII.11. Percentage of VT RETAIN treatment enrollees whose RTW coordinator communicated with others involved in their RTW plans 149

Exhibit VII.12. Planned other VT RETAIN RTW services 151

Exhibit VII.13. VT RETAIN treatment enrollees' use of workplace-based services....151

Exhibit VII.14. Treatment enrollees' use of retraining and rehabilitation services....152

Exhibit VII.15. Percentage distribution of administrative and direct service staff hours across VT RETAIN activities 154

Exhibit A.1. RETAINWOR*KS* program partners....A.3

Exhibit A.2. RETAINWOR*KS* recruitment and enrollment process A.4

Exhibit A.3. Facilitators and barriers to recruitment and enrollment....A.5

Exhibit A.4. RETAINWOR*KS* monthly enrollment outcomes through June 2023....A.7

Exhibit A.5. RETAINWOR*KS* enrollment outcomes....A.7

Exhibit A.6. Demographic characteristics of RETAINWOR*KS* treatment and control enrollees (percentages unless noted otherwise)....A.8

Exhibit A.7. Illness or injury characteristics of RETAINWOR*KS* treatment and control enrollees (percentages unless noted otherwise)....A.9

Exhibit A.8. Employment status and characteristics of RETAINWOR*KS* treatment and control at enrollment (percentages unless noted otherwise) A.10

Exhibit A.9. Facilitators and barriers to implementation and service delivery A.12

Exhibit A.10. RETAINWOR*KS* costs A.15

Exhibit B.1. RETAIN KY program partners B.3

Exhibit B.2. RETAIN KY recruitment and enrollment process B.4

Exhibit B.3. Facilitators and barriers to recruitment and enrollment B.6

Exhibit B.4. RETAIN KY cumulative enrollment through June 2023 .... B.8

Exhibit B.5. RETAIN KY enrollment outcomes B.8

Exhibit B.6. Demographic characteristics of RETAIN KY treatment and control enrollees (percentages unless noted otherwise) B.9

Exhibit B.7. Illness or injury characteristics of RETAIN KY treatment and control enrollees (percentages unless noted otherwise) B.10

Exhibit B.8. Employment status and characteristics of RETAIN KY treatment and control enrollees at enrollment (percentages unless noted otherwise) B.11

Exhibit B.9. Facilitators and barriers to implementation and service delivery B.13

Exhibit B.10. RETAIN KY costs B.16

Exhibit C.1. MN RETAIN program partners C.3

Exhibit C.2. MN RETAIN recruitment and enrollment process C.4

Exhibit C.3. Facilitators and barriers to recruitment and enrollment C.5

Exhibit C.4. MN RETAIN cumulative enrollment through June 2023 .... C.7

Exhibit C.5. MN RETAIN enrollment outcomes C.7

Exhibit C.6. Demographic characteristics of MN RETAIN treatment and control enrollees (percentages unless noted otherwise) C.8

Exhibit C.7. Illness or injury characteristics of MN RETAIN treatment and control enrollees (percentages unless noted otherwise) C.9

Exhibit C.8. Employment status and characteristics of MN RETAIN treatment and control enrollees at enrollment (percentages unless noted otherwise) C.10

Exhibit C.9. Facilitators and barriers to implementation and service delivery C.12

Exhibit C.10. MN RETAIN costs C.17

Exhibit D.1. OH RETAIN program partners D.3

Exhibit D.2. OH RETAIN recruitment and enrollment process D.4

Exhibit D.3. Facilitators and barriers to recruitment and enrollment D.5

Exhibit D.4. OH RETAIN monthly enrollment outcomes through June 2023 ..... D.7

Exhibit D.5. OH RETAIN enrollment outcomes D.7

Exhibit D.6. Demographic characteristics of OH RETAIN treatment and control enrollees (percentages unless noted otherwise) D.8

Exhibit D.7. Illness or injury characteristics of OH RETAIN treatment and control enrollees (percentages unless noted otherwise) D.9

Exhibit D.8. Employment status and characteristics of OH RETAIN treatment and control enrollees at enrollment (percentages unless noted otherwise) D.10

Exhibit D.9. Facilitators and barriers to implementation and service delivery D.12

Exhibit D.10. OH RETAIN costs D.15

Exhibit E.1. VT RETAIN program partners E.3

Exhibit E.2. VT RETAIN recruitment and enrollment process E.4

Exhibit E.3. Facilitators and barriers to recruitment and enrollment E.5

Exhibit E.4. VT RETAIN cumulative enrollment through June 2023 ..... E.7

Exhibit E.5. VT RETAIN enrollment outcomes E.7

Exhibit E.6. Demographic characteristics of VT RETAIN treatment and control enrollees (percentages unless noted otherwise) E.8

Exhibit E.7. Illness or injury characteristics of VT RETAIN treatment and control enrollees (percentages unless noted otherwise) E.9

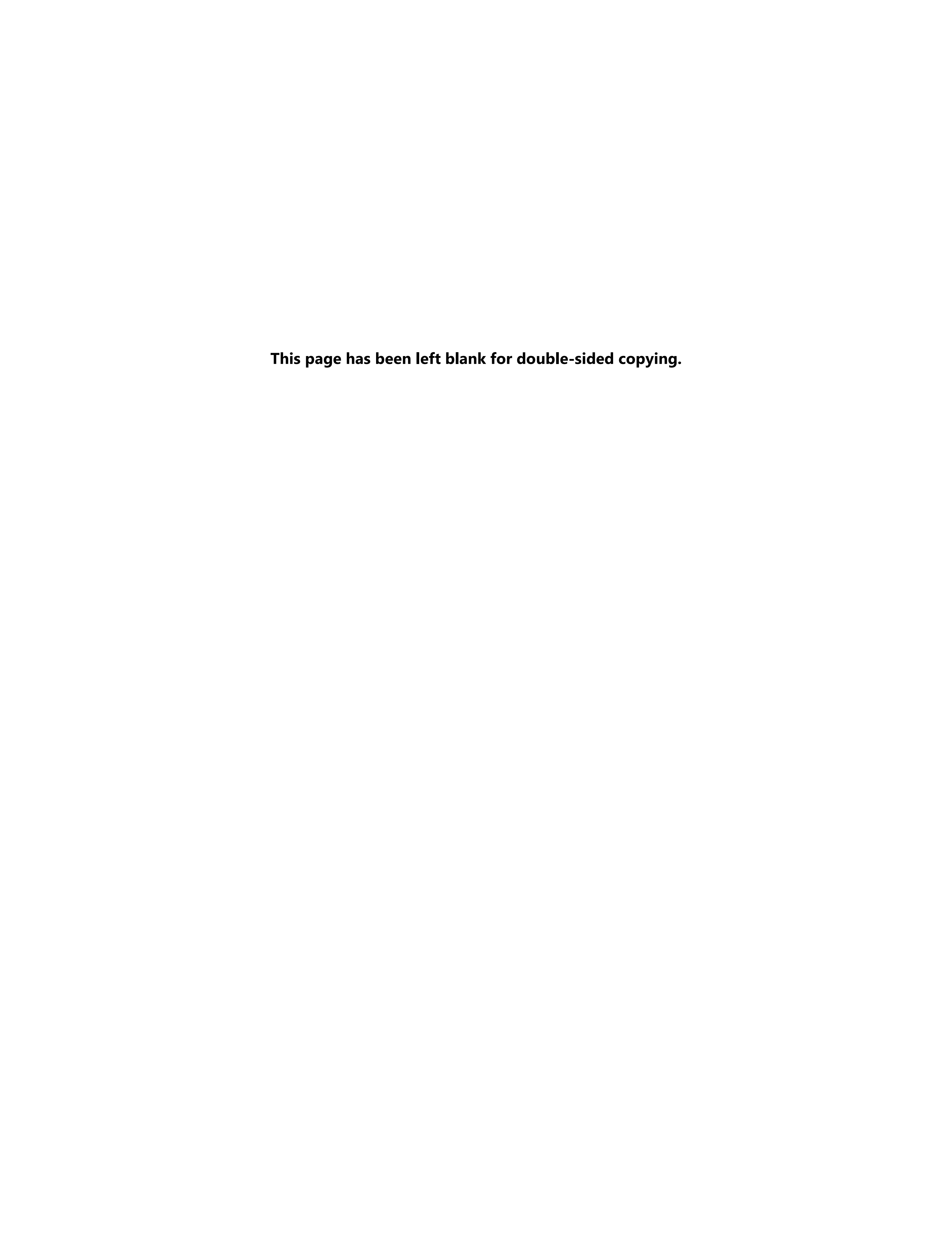
Exhibit E.8. Employment status and characteristics of VT RETAIN treatment and control enrollees at enrollment (percentages unless noted otherwise) E.10

Exhibit E.9. Facilitators and barriers to implementation and service delivery E.12

Exhibit E.10. VT RETAIN costs E.16

List of Acronyms

AIR	American Institutes for Research
APRN	Advanced practice registered nurse
AVC	Ascension Via Christi
CFIR	Consolidated Framework for Implementation Research
CMDS	Case Management Data System
CME	Continuing medical education
COHE	Center for Occupational Health & Education
COVID	Coronavirus disease
CQI	Continuous quality improvement
DEED	Department of Employment and Economic Development
DOL	U.S. Department of Labor
EAP	Employee Assistance Program
EMR	Electronic medical record
HDI	Human Development Institute
HIPAA	Health Insurance Portability and Accountability Act
ICD	International Classification of Diseases
IRB	Institutional review board
JAN	Job Accommodation Network
KS	Kansas
KY	Kentucky
LGBTQ+	Lesbian, gay, bisexual, transgender, and queer
MN	Minnesota
ODJFS	Ohio Department of Job and Family Services
OH	Ohio
OVR	Office of Vocational Rehabilitation
REDCap	Research Electronic Data Capture
RETAIN	Retaining Employment and Talent After Injury/Illness Network
RTW	Return to work
SAW	Stay at work
SSA	Social Security Administration
SSDI	Social Security Disability Insurance
SSI	Supplemental Security Income
UI	Unemployment Insurance
UK	University of Kentucky
VDOL	Vermont Department of Labor
VR	Vocational rehabilitation
VT	Vermont
WDI	Workforce Development, Inc.
WF1	Workforce One
YMCA	Young Men’s Christian Association


This page has been left blank for double-sided copying.

Executive Summary

A. Introduction

The Retaining Employment and Talent After Injury/Illness Network (RETAIN) demonstration was a collaborative effort between the U.S. Department of Labor (DOL) and the Social Security Administration (SSA) to help workers with recently acquired injuries or illnesses remain in the labor force. The goal of RETAIN was to implement and build evidence on the effectiveness of early stay-at-work and return-to-work (SAW/RTW) interventions to help those who develop a potentially disabling condition.

The RETAIN demonstration included two phases. During Phase 1, which started in 2018, DOL awarded grants to eight state agencies to develop and pilot test projects to help those who experience a potentially disabling condition remain at or return to work. During Phase 2, which started in 2021, DOL and SSA competitively awarded cooperative agreements to five state agencies to expand programs they began in Phase 1 of RETAIN. Each state's RETAIN program model centered on early coordination of healthcare and employment-related services and supports to help injured or ill workers remain in the workforce. The RETAIN states differed in how they implemented these services and supports to account for differences in their intended populations and the services available to support program outcomes.

This report assesses RETAIN program implementation and service delivery in five state-specific chapters and one chapter that describes treatment enrollees' experiences with the RETAIN programs in all five states. Each state began enrollment at a different time between November 2021 and March 2022. Our assessment covers program implementation and service delivery through June 2023, which was midway through the 48 months of program operations funded under the Phase 2 grants. The findings focus on (1) program partnerships and the environment surrounding RETAIN implementation and service delivery, (2) recruitment and enrollment of eligible workers, and (3) RETAIN implementation and service delivery. We report on implications for replicating each state's program and interpretation of impacts on outcomes.

B. Data sources and analysis methods

Data sources. We combined qualitative and quantitative data sources and methods to conduct the assessments and generate the findings presented in this report. The qualitative data sources included program documents (states' Phase 2 applications and quarterly progress reports), published indicators, and semistructured interviews conducted virtually with RETAIN enrollees, program administrators, staff, and partners. The quantitative data sources included state-submitted enrollment and program service use data, logs of staff time spent on program activities, and program cost data.

Analysis methods. We used the Consolidated Framework for Implementation Research (CFIR) to structure the qualitative data collection and analysis. The CFIR is a conceptual framework developed to assess implementation in different settings to identify factors (facilitators and barriers) that may influence intervention implementation and effectiveness (Damschroder et al. 2009). We coded all interview transcripts using qualitative data analysis software (NVivo 12) and identified themes of implementation barriers and facilitators in each state's RETAIN program.

To analyze quantitative data, we produced descriptive statistics. To analyze the enrollment data, we generated descriptive statistics on enrollees' characteristics. To analyze the service use data, we produced descriptive statistics on variables reflecting treatment enrollees' receipt of RTW coordination services and other RTW services. To analyze logs of staff time on program activities, we reviewed hours spent on program activities by different staff types. To analyze program cost data, we compared total program costs to the total number of treatment enrollees. It was not possible to exclude costs for recruiting and enrolling control group members.

C. Key findings

Below, we summarize key findings from each state-specific chapter and the chapter on treatment enrollee experiences with RETAIN.

1. RETAINWOR*KS*

Program partnerships. The Kansas Department of Commerce (Commerce) was the lead agency for the state's RETAIN program, called RETAINWOR*KS*. The lead healthcare partner, Ascension Via Christi, and three local healthcare partners, Kansas Clinical Improvement Collaborative, Stormont Vail Healthcare Inc., and the University of Kansas Hospital, supported enrollment and provided RTW coordination services to all treatment enrollees. Five local workforce development area partners helped treatment enrollees with workplace-based interventions and provided retraining and rehabilitation services as needed.

Regular implementation meetings supported coordination, knowledge sharing, and problem-solving among the RETAINWOR*KS* partners. Under the guidance of the lead workforce development area, other local workforce development area partners onboarded staff and developed processes for implementing RETAINWOR*KS* within the context of their workforce development area and the needs of their communities.

Enrollment. The intended population comprised adults ages 18 to 65 who were employed or currently in the labor force and who experienced the onset or worsening of one of the following (work- or non-work-related) conditions: a musculoskeletal injury, a mental health disorder, a chronic disease, or another newly diagnosed illness or injury that affected their employment. The program catchment area was the entire state of Kansas, organized by the five local workforce development areas.

RETAINWOR*KS*'s enrollment remained low through the enrollment period, with 8 percent of its enrollment goal met at the midway point of enrollment. The primary referral source was medical providers affiliated with the healthcare partners. These medical providers were required to authorize patient referrals to RETAINWOR*KS*, but competing demands on their time made it a challenge to engage them in authorizing referrals. The requirement for referrals to come from RETAIN-associated providers was also a barrier to recruiting people from communities that have been historically underserved. Referrals from employers and the general public remained low.

On average, treatment and control enrollees had similar baseline characteristics, which was expected given that enrollees were randomly assigned to the treatment and control groups. We found two statistically significant differences between the two groups (out of 23 baseline characteristics): the age

distribution (but no significant difference in average age) and the percentage of enrollees reporting that their injury was work-related. The average age of treatment enrollees was 42. Many treatment enrollees reported a primary diagnosis of a musculoskeletal condition (69 percent). Treatment enrollees had an average of 51 days between the onset of their primary diagnosis and enrollment. Most treatment enrollees were employed at the time of enrollment (80 percent), with the highest proportion of treatment enrollees holding a service occupation (36 percent).

RETAINWORKS implementation and service delivery. RETAINWOR*KS* developed a medical provider training focused on RETAINWOR*KS* and its benefits, the Centers of Occupational Health & Education model, and the opioid crisis. Program leaders promoted the training among medical providers affiliated with the partner health systems across the state. Medical providers' perceptions of the time required to complete the training was a barrier to engaging them in RETAINWOR*KS*. To improve relatively low completion rates among providers, program leaders said they were developing a consolidated, hour-long version of this training to make it shorter and easier to complete.

Medical providers received compensation for the time they and their office staff spent on RETAINWOR*KS* activities: $100 for completing a successful referral, $50 for submitting an activity assessment for an enrollee, $25 for making or answering RETAINWOR*KS*-related phone calls, $100 for completing an RTW plan for an enrollee, and $100 for completing a 30-day risk assessment for an enrollee. However, program staff found that medical providers were motivated to meet the requirements to participate in RETAINWOR*KS* out of a desire to help their patients rather than financial compensation.

Almost all treatment enrollees used RETAINWOR*KS* services beyond enrollment (97 percent). Program leaders described RETAINWOR*KS* as having a diverse mix of staff, including those with disabilities, those who identified as members of communities that have been historically underserved (such as rural and multicultural communities), and those who had experience working in trauma, spine, and burn injuries. This helped staff build rapport and increased trust in the program among enrollees. Joint meetings between RTW coordinators, employment counselors and the enrollee also increased enrollees' trust in the program.

RTW coordinators communicated at least once with 97 percent of treatment enrollees' medical providers and at least once with 7 percent of treatment enrollees' employers. To address the challenge of competing demands on medical providers' time, RTW coordinators reviewed the information providers documented in the electronic medical record to complete RTW plans, instead of relying on providers' review and input. Some enrollees, especially those with a mental health diagnosis, did not permit program staff to communicate with their employer for fear of stigma or retaliation, which was a barrier to engaging employers in supporting enrollees' return to work.

Treatment enrollees were assigned an employment counselor and an RTW coordinator, both of whom coordinated to offer treatment enrollees support with workplace-based interventions and provide retraining and rehabilitation services. They also provided social supports to enrollees as needed. About one-quarter of enrollees (27 percent) received a workplace-based intervention, with workplace accommodations being the most prevalent (17 percent of treatment enrollees), and no enrollees received an ergonomic assessment. Program staff found that treatment enrollees were generally more interested in financial support than employment services. Although a large proportion of treatment enrollees received

retaining and rehabilitation services (69 percent), program staff felt the six-month time frame for enrollment in the program was too short to effectively provide these services.

Service contrast. After randomization, workforce partner staff referred control enrollees to workforce center services available to the community by providing a list of Kansas' workforce services and communicating that the enrollee was responsible for seeking out services independently. Neither the RTW coordinators nor the employment counselors had further contact with control enrollees.

Sustainability. RETAINWOR*KS*'s sustainability plans focused on promoting the view of employment as a medical outcome and fostering coordination between medical providers and workforce development providers to achieve this outcome.

2. RETAIN Kentucky

Program partnerships. The Kentucky Office of Vocational Rehabilitation (OVR) was the lead agency for RETAIN Kentucky (RETAIN KY). Two lead healthcare partners, UK HealthCare and UofL Health supported enrollment. The lead workforce partner, the University of Kentucky Human Development Institute (HDI), oversaw implementation of RETAIN KY. HDI led enrollment and provided RTW coordination services to all treatment enrollees and employment services to those who were unemployed or seeking a job transition. Midway through enrollment, RETAIN KY partnered with an online clinical research platform to increase referrals to the program.

The lead agency (OVR) and the lead workforce partner (HDI) had a longstanding and collaborative relationship before RETAIN KY, and the collective networks of program leaders, staff, and partners facilitated several aspects of the RETAIN KY recruitment and enrollment process. Program leaders attributed the successful partnership between OVR and HDI to their well-established relationship, open communication, and regular meeting structure between the organizations.

Enrollment. The intended population comprised people who were employed or who had been employed within the past 12 months and who had an injury or illness that was not work-related that affected their employment. This focus complemented the workers' compensation system in Kentucky, which supported SAW/RTW for workers with work-related injuries or illnesses. The program's catchment area included the entire state of Kentucky.

RETAIN KY's enrollment started slowly and increased sharply midway through the enrollment period, with 34 percent of its goal met at the midway point of enrollment. Enrollment increased after adding an online clinical research recruitment platform as a referral source, improving referral processes, and offering potential enrollees an enrollment incentive. In particular, the addition of referrals from the online clinical research platform reportedly doubled the number of monthly referrals to the program. One of the lead healthcare partners had existing initiatives in place to reach and serve communities that have been historically underserved, which facilitated recruiting enrollees from these communities.

As expected, treatment and control enrollees had similar baseline characteristics. The average age of treatment enrollees was 42. About one-third of treatment enrollees reported a primary diagnosis of a mental health condition (30 percent). Treatment enrollees had an average of 679 days between the onset of their primary diagnosis and enrollment; however, the median time was 50 days. Because RETAIN KY's

model is not embedded within a healthcare provider's referral sources, there could be a lag in connecting with people who could benefit from RETAIN KY. Many treatment enrollees were employed at the time of enrollment (63 percent), with the largest proportion of enrollees holding a service occupation (36 percent).

RETAIN KY implementation and service delivery. RETAIN KY developed a medical provider training covering best practices in supporting return to work and providing an overview of the RETAIN KY program. However, the rollout of the formal training was delayed while RETAIN KY completed the accreditation process required to offer continuing medical education credits to providers who completed the training. Receiving accreditation was an important step, because providers seemed more motivated by continuing medical education credits than financial incentives. In the meantime, outreach to medical providers about RETAIN covered similar topics.

Around three-quarters of treatment enrollees used any RETAIN KY services beyond enrollment (77 percent). RTW coordinators were reportedly skilled and well-supported to provide RTW coordination services, including consultations with mental health professionals. However, they faced challenges engaging treatment enrollees who had health-related social needs and mental health conditions or those who were not motivated to return to work. Treatment enrollees valued peer mentor services in addition to RTW services because peer mentors recognized barriers enrollees faced in returning to work and understood how to support them, which improved enrollee engagement in returning to work.

For about one-third of treatment enrollees, the RTW coordinator communicated with at least one of the parties (medical provider, employer, or workforce professional) who may be involved in an enrollee's RTW plan. Some treatment enrollees were reluctant to sign waivers allowing RTW coordinators to communicate with medical providers and employers, which limited related communication. When permitted, program staff found it helpful to communicate with enrollees' medical providers and access medical records; however, medical providers did not consistently share enrollee information with RTW coordinators.

Program service use data submitted by RETAIN KY showed that a low proportion of treatment enrollees received workplace-based services (7 percent) or job search or retraining services (14 percent) from individuals other than RTW coordinators. RTW coordinators referred treatment enrollees who experienced a loss of functioning to an assistive technology specialist, who facilitated feasible work accommodations. RTW coordinators provided job seeking and rehabilitation services to treatment enrollees who were unemployed or seeking a job transition. They also coordinated on behalf of enrollees with OVR and local career centers.

Service contrast. Dedicated RTW coordinators offered an expedited version of RTW coordination services to control enrollees within a two-week period. Expedited services were shorter than those offered to treatment enrollees and did not involve service coordination. Challenges with some treatment enrollees being reluctant to sign waivers granting permission for the RTW coordinator to communicate with parties involved in their RTW plans could reduce the contrast between treatment and control services.

Sustainability. RETAIN KY built partnerships and learning opportunities intended to sustain systems changes in support of early SAW/RTW strategies beyond the Phase 2 grant period.

3. Minnesota RETAIN

Program partnerships. The Minnesota Department of Employment and Economic Development was the lead agency for Minnesota RETAIN (MN RETAIN). The Department of Employment and Economic Development led outreach efforts to raise awareness of MN RETAIN among employers and the general public in an effort to prompt referrals throughout the state. The lead healthcare partner, the Mayo Clinic, led enrollment and provided RTW coordination services to all treatment enrollees. Midway through the enrollment period, the Mayo Clinic established contracts with four subrecipient healthcare partners to increase referrals to the program. The lead workforce partner, Workforce Development, Inc., provided job transition services and financial support to treatment enrollees as needed. Midway through the enrollment period, Workforce Development, Inc., established a subrecipient partner contract with Goodwill-Easter Seals Minnesota to expand service capacity and the availability of in-person employment services to treatment enrollees throughout the state.

Program partners faced initial coordination challenges resulting from different organizational missions and cultures and not having established relationships before working together to implement MN RETAIN. Program leaders, staff, and partners described a shared commitment to MN RETAIN and a meeting structure that supported program-wide communication as helping to overcome coordination challenges.

Enrollment. The intended population comprised adults ages 18 and older who were employed or currently in the labor force and had experienced the onset or worsening of an injury or illness (work- or non-work-related) that affected their employment. This included workers who had an invasive procedure (including surgery) within the past 12 weeks or who anticipated one within eight weeks. The program's catchment area included the entire state of Minnesota, including 87 counties.

MN RETAIN's enrollment increased steadily through the enrollment period, with 43 percent of its enrollment goal met at the midway point of enrollment. MN RETAIN recruited most enrollees by recruitment staff identifying and reaching out to potential enrollees included on a patient registry maintained by the lead healthcare partner in its electronic medical record. The patient registry listed patients who indicated that they needed help returning to work on a questionnaire. The pace of enrollment remained steady after the addition of the four subrecipient healthcare partners. MN RETAIN invested time and resources in conducting outreach to communities that have been historically underserved, including convening a community advisory board to facilitate outreach to these communities. However, these efforts resulted in few enrollments, which program leaders attributed to building trust in these communities taking significant time. Referrals from employers and the general public also remained low.

As expected, treatment and control enrollees had similar baseline characteristics. The average age of treatment enrollees was 43. Many treatment enrollees reported a primary diagnosis of a musculoskeletal condition (62 percent). Treatment enrollees had an average of 41 days between the onset of their primary diagnosis and enrollment. Most treatment enrollees were employed at the time of enrollment (87 percent), with the largest proportion of treatment enrollees holding a management, professional, or related occupation (37 percent).

MN RETAIN implementation and service delivery. MN RETAIN developed a medical provider training focused on (1) including work as part of a patient's physical and mental health; (2) using evidence-based work restrictions; (3) communicating among employers, patients, and healthcare providers; and (4) avoiding unnecessary or prolonged use of opioids in pain management. Program leaders and staff alerted providers to take the training when one of their patients enrolled in the treatment group. Medical providers could attend an in-person training or access an on-demand training online. It is possible that a medical provider who completed the training would treat patients enrolled in both the treatment and control groups. Medical provider training completions increased during the grant period as a result of the MN RETAIN provider champions emailing medical providers directly to engage them in MN RETAIN. Training completions were also facilitated by offering the training during in-person meetings and decreasing the length of the training.

All treatment enrollees used MN RETAIN services beyond enrollment. Program staff noted that warm handoffs from recruitment staff to an RTW coordinator and providing cell phones to RTW coordinators facilitated communication between RTW coordinators and enrollees. Program leaders and staff described RTW coordinators as having a range of professional backgrounds, which, in addition to receiving training on cultural competence, helped them meet enrollees' diverse needs.

For almost all treatment enrollees, the RTW coordinator sent their medical provider a message through the electronic medical record to notify providers of their patient's enrollment in MN RETAIN. Over time, medical providers' increased recognition of the value of the RTW coordinator role, trust in RTW coordinators, and awareness of MN RETAIN improved their communication with RTW coordinators. RTW coordinators communicated with less than half of enrollees' employers at least once (48 percent). Employers hesitated to communicate with RTW coordinators because they did not perceive value in MN RETAIN over their other priorities and preferred to communicate directly with their employees rather than RTW coordinators.

RTW coordinators supported enrollees in navigating work accommodations; however, they did not include this service in the service use data if they did not communicate directly with an employer. Therefore, the program data submitted by MN RETAIN shows that no enrollees received a workplace-based intervention. RTW coordinators referred enrollees to an employment counselor at the lead workforce development partner if they identified that the enrollee had a need for workforce development services or financial support. Program service use data submitted by MN RETAIN showed that few treatment enrollees received retraining services; the data were unclear about how many received job search services. Program staff noted that many treatment enrollees referred to the workforce development partner received financial assistance services.

Service contrast. RTW coordinators provided a list of resources available to the general public to enrollees assigned to the control group. Although medical providers who completed the MN RETAIN training could potentially use occupational medicine best practices with patients enrolled in the control group, program leaders were not concerned about contamination effects. Leaders noted that the role of the RTW coordinator in supporting treatment enrollees was the key intervention contributing to service contrast for treatment and control enrollees.

Sustainability. MN RETAIN leaders held sustainability planning meetings on securing state funding to continue service delivery but explored other options for sustaining services because they were concerned about not yet having evidence of MN RETAIN's effectiveness.

4. Ohio RETAIN

Program partnerships. The Ohio Department of Job and Family Services was the lead agency for Ohio RETAIN (OH RETAIN). The lead healthcare partner, Bon Secours Mercy Health, led enrollment and provided RTW coordination services to all treatment enrollees. The lead workforce partners, the local workforce development boards operating in three regions in the state (Youngstown, Toledo, Cincinnati), provided career and retraining to treatment enrollees as needed. Another workforce partner, Opportunities for Ohioans with Disabilities, provided vocational rehabilitation to referred treatment enrollees and consulted with employers on work accommodations for treatment enrollees as needed.

The lead agency and healthcare partner had a strong collaborative relationship but faced challenges coordinating with multiple local workforce development boards. Program leaders said that the communication between the lead healthcare partner and lead workforce partners could be improved to enhance service continuity for enrollees.

Enrollment. The intended population comprised adults ages 18 to 65 who were employed or in the labor force and had experienced the onset or worsening of a non-work-related musculoskeletal, cardiovascular, mental or behavioral health, or a select neurological condition, or a select abdominal surgery in the past three months. In addition, potential enrollees must have been receiving care from a medical provider employed by the lead healthcare partner who had completed OH RETAIN training. The program catchment area was three regions in Ohio: Youngstown, Toledo, and Cincinnati.

OH RETAIN's enrollment remained strong through the enrollment period; with 72 percent of its enrollment goal met at the midway point of enrollment, it was on pace to surpass its enrollment goal. OH RETAIN recruited most enrollees by nurses identifying potential enrollees listed on reports of patients generated from the lead healthcare partner's electronic medical record. The reports listed patients' ages, medical conditions, and timing of condition onset or worsening of the condition relative to the eligibility criteria. To promote recruitment and enrollment among people from communities that have been historically underserved, program leaders planned local events and connected with community leaders. Despite program staff reporting that the local events were successful, these efforts resulted in few enrollments. Referrals from employers and the general public remained low.

As expected, treatment and control enrollees had similar baseline characteristics. The average age of treatment enrollees was 44. Most treatment enrollees reported a primary diagnosis of a musculoskeletal condition (81 percent). Treatment enrollees had an average of 24 days between the onset of their primary diagnosis and enrollment. Most treatment enrollees were employed at the time of enrollment (84 percent), with the largest proportion of treatment enrollees holding a service occupation (39 percent).

OH RETAIN implementation and service delivery. Program staff alerted medical providers they identified as having patients who were eligible for OH RETAIN to complete training. The training focused on OH RETAIN program services and occupational medicine best practices and addressed the benefits of medical

providers using a biopsychosocial model to proactively identify any behavioral barriers (for example, fear of re-injury, fear of movement) that might impede an enrollee's recovery. Medical providers could access an on-demand training online. It is possible that a medical provider who completed the training would treat patients enrolled in both the treatment and control groups. Busy medical provider schedules made the medical provider training difficult to complete, but consistent follow-up and recruiting providers to participate on the OH RETAIN advisory board helped increase the number of providers who completed the training.

Medical providers who completed the training could receive compensation for using occupational medicine best practices in their delivery of care to treatment enrollees. Compensation was based on the average time necessary to complete each occupational medicine best practice, multiplied by the provider's billing rate. However, the effect of incentives to encourage medical providers to use occupational medicine best practices seemed minimal.

Most treatment enrollees used OH RETAIN services beyond enrollment. Program leaders and staff described RTW coordinators as having interpersonal skills and professional backgrounds to effectively engage treatment enrollees in RTW coordination services and support them in their recovery. In addition, robust onboarding and training processes and educational materials prepared RTW coordinators well to deliver RTW coordination services. RTW coordinators consistently followed up with enrollees in an effort to help them stay on track with their recovery.

For 100 percent of treatment enrollees, the RTW coordinator communicated with their medical provider, because all providers worked for the lead healthcare partner and enrollees provided consent to this communication to enroll in OH RETAIN. Streamlining the process for a medical provider to approve an RTW plan improved communication between the RTW coordinator and medical providers, which subsequently boosted provider engagement. RTW coordinators communicated with many of the enrollees' employers at least once (71 percent), which they reported improved service provision and the implementation of work accommodations. RTW coordinators facilitated non-physical workplace-based interventions, like a change in work schedule or work responsibilities for employed enrollees.

The lead healthcare partner employed dedicated social workers funded by OH RETAIN to provide social services to address treatment enrollees' psychosocial needs. One year into the enrollment period, program leaders recognized that some enrollees needed additional services, so program leaders provided select enrollees with a stipend of $750 to cover rent payments, car payments, and utility payments.

RTW coordinators referred treatment enrollees to local workforce development boards for employment services when enrollees could not return to their previous jobs. Program service use data submitted by OH RETAIN reported that almost no treatment enrollees received employment services. The low use of employment services was consistent with qualitative findings: program leaders reported that the employment services recorded by employment counselors in Ohio's workforce case management system, implemented in April 2022, were not transferring to RETAIN enrollee records. Program staff reported that very few enrollees engaged in employment services because they were not eligible for the service to which they were referred.

Service contrast. Enrollees assigned to the control group could access services available to the general public, which generally did not include RTW coordinator services unless an employer offered disability management services to its employees for non-work-related illness and injury. Both groups could access employment services offered by the local workforce centers and vocational rehabilitation services offered by the state vocational rehabilitation agency. Beyond work-related services, program leaders described medical providers and employers as having increased awareness of supporting a return to work after illness or injury. They attributed this change to OH RETAIN's outreach and training and other policy activities in the state. This increased awareness could indirectly affect health and employment outcomes for control and treatment enrollees alike.

Sustainability. Sustainability planning involved the lead healthcare partner focusing on expanding staff capacity to deliver RETAIN-like services, while the lead agency focused on sustaining partnerships and piloting RETAIN-like services at a lower cost per enrollee.

5. Vermont RETAIN

Program partnerships. The Vermont Department of Labor (VDOL) was the lead agency for Vermont RETAIN (VT RETAIN). VDOL partnered with OneCare Vermont, the state's accountable care organization, to help recruit primary care practices to prescreen patients for enrollment in VT RETAIN. Program staff also recruited practices not affiliated with OneCare Vermont to participate in VT RETAIN. The lead workforce partner, the Workforce Development Division (WFD) within VDOL, had less capacity to engage in VT RETAIN than planned. VT RETAIN also partnered with HireAbility, the state's vocational rehabilitation program housed within the Vermont Agency of Human Services, to provide vocational rehabilitation counseling, assistive technology support, and job placement and retention services to treatment enrollees as needed. VDOL established a range of other partnerships to support implementation, service delivery, and sustainability efforts.

VT RETAIN's structure of interconnected responsibilities across partner organizations introduced complexity to the coordination of partners, including federal partners. Program leaders described all partners as being committed to their roles on VT RETAIN, and they strengthened partner coordination by developing workgroups, refining partner roles, and increasing the lead agency's decision-making responsibility to improve the pace of decision making across all partners.

Enrollment. The intended population comprised adults ages 18 or older who were employed or currently in the labor force and had experienced the onset or worsening of an injury or illness (work- or non-work-related) that affected their employment. The program's catchment area was the entire state of Vermont.

VT RETAIN's enrollment remained low throughout the enrollment period, with 10 percent of its enrollment goal met at the midway point of enrollment. The primary source of referrals was a self-screener available to patients in participating primary care practices. Distinct from other RETAIN states, the evaluation of VT RETAIN used a cluster random assignment model. In this model, Mathematica assigned participating primary care practices to either the treatment or control group. VT RETAIN offered RTW coordination services and referrals to various other services to all enrollees recruited at treatment practices. These practices were overburdened by the COVID-19 pandemic and had limited capacity to implement self-screeners into practice workflows. To expand referral sources, VT RETAIN implemented self-screening in

public spaces, such as grocery stores and libraries, and at other healthcare providers, such as urgent care, physical therapy, and specialty clinics. Program leaders and staff said implementing self-screening through organizations that serve people in communities that have been historically underserved helped with recruitment.

The average age of treatment enrollees was 45. About one-third of treatment enrollees reported that their primary diagnosis was a musculoskeletal, non-back condition (29 percent), and 20 percent reported that their primary diagnosis was a mental health condition. About one-third of treatment enrollees reported a condition other than a musculoskeletal, long COVID, or mental health condition. Treatment enrollees had an average of 472 days between the onset of their primary diagnosis and enrollment. Many treatment enrollees were employed at the time of enrollment (65 percent), with the highest proportion of treatment enrollees holding a management, professional, or related occupation (38 percent). We found significant differences in education between treatment and control enrollees.

VT RETAIN implementation and service delivery. VT RETAIN's medical provider training focused on VT RETAIN and occupational medicine best practices. VT RETAIN's healthcare lead and program staff delivered the training in person and virtually to medical providers at participating primary care practices. Efforts to deliver medical provider training were slowed due to their limited availability and competing priorities, challenges with coordination among program partners in developing a recorded training, and with program staff's time being focused on recruitment and enrollment efforts.

Less than three-quarters of treatment enrollees used VT RETAIN services beyond enrollment (64 percent). While treatment enrollees were mostly receptive to RETAIN services, lack of enrollee responsiveness presented challenges to delivering RTW coordination services. Program staff said that RTW coordinators had diverse professional backgrounds and strong connections to the communities they served, in addition to access to educational resources and support from experts that helped them to meet enrollees' needs.

Program staff reported that RTW coordinators used a strength-based coaching model that encouraged enrollees to communicate directly with their employer or medical providers on the goals outlined in their RTW plan. Beyond sending the RTW plan to treatment enrollees' primary care practice, RTW coordinators communicated at least once with 20 percent of the enrollees' medical providers and at least once with 3 percent of their employers. The amount of direct communication the RTW coordinators had with treatment enrollees' employers and providers depended on the preferences of enrollees, many of whom preferred that the RTW coordinator not communicate with their employer or medical provider. Enrollees, employed and unemployed, felt they did not need the RTW coordinators' help with employer communication.

As part of the strength-based coaching model, RTW coordinators prepared enrollees to communicate directly with their employers and medical providers about workplace accommodations. RTW coordinators referred enrollees to HireAbility for support with workplace accommodations. According to self-reporting from treatment enrollees, less than 10 percent of enrollees received a workplace accommodation, less than 1 percent received an ergonomic assessment, and none received an on-site job analysis.

RTW coordinators referred treatment enrollees to employment services provided by the lead workforce partner, WFD's American Job Centers, and vocational rehabilitation counseling services through WFD's

HireAbility. Program service use data submitted by VT RETAIN showed that few treatment enrollees reported to their RTW coordinator that they received job search or retraining services.

Service contrast. Enrollees in both the treatment and control groups received a packet that included 10 tips for staying at work with an injury or illness and the SAW/RTW services resource inventory that the RTW coordinators continually updated. Access to RTW coordination services and strength-based coaching from an RTW coordinator was the most significant contrast between what was available to the treatment and control groups.

Sustainability. VT RETAIN's sustainability planning group was focused on identifying funding mechanisms; filling service gaps; and exploring policy changes that would help sustain the program, such as training care managers and community health workers in SAW/RTW best practices.

6. Treatment enrollees' experiences with RETAIN

Most commonly, people enrolled in RETAIN because they thought the program could provide them with information, resources, or services to help them stay at work or return to work. Treatment enrollees liked the empathetic and individualized support they received from their RTW coordinator, including plain language translations of information they received from their medical provider. However, many enrollees said they would have liked more communication from RETAIN staff (both enrollment staff and RTW coordinators). Enrollees noted that turnover among RETAIN staff was a key hindrance to communication between RETAIN staff and enrollees. Many enrollees described limited or inconsistent communication with their medical provider while enrolled in RETAIN. Overall, enrollees did not report delays in their receipt of services. Enrollees' reasons for not using RETAIN services varied and included not being aware of a service, not needing a particular service, or having an injury or illness that limited their ability to engage in RETAIN. Many enrollees had a positive experience with RETAIN and would recommend the program to a friend or family member. Many enrollees were working in the same jobs that they had before they enrolled in RETAIN.

D. Conclusion

Our assessment of states' and treatment enrollees' experiences with the RETAIN programs shows the progress states made in implementing the RETAIN programs and delivering RTW coordination services. Most notably, states were successful in staffing RTW coordinators with diverse backgrounds and strong interpersonal skills and providing them with training and access to subject matter experts to effectively build trust with enrollees and deliver RTW coordination services to meet enrollee needs. States worked to overcome challenges with potential enrollees' unresponsiveness to outreach efforts and with the competing demands on medical providers. States made less progress in delivering other RTW services, such as implementing work accommodations and providing employment services. Despite states' efforts to promote the RETAIN programs among employers, program staff reported that they did not perceive value in the program, and, as a result, RTW coordinators generally had limited communication with enrollees' employers. The six-month enrollment period was often too short to engage enrollees in employment services.

I. Introduction

Each year, more than two million workers in the United States leave the labor force, at least temporarily, because of a medical condition or illness (Hollenbeck 2015). Many of these workers fall through the cracks in the current support system and exit the workforce permanently. Exits from the workforce can lead to subsequent adverse effects on standard of living (Ben-Shalom and Burak 2016; Schimmel and Stapleton 2012) and well-being (Ben-Shalom et al. 2018a; Michaud et al. 2016). Without steady income from employment, these workers and their families might turn to public supports such as Social Security Disability Insurance (SSDI), Supplemental Security Income (SSI), Medicare, and Medicaid.

The Retaining Employment and Talent After Injury/Illness Network (RETAIN) demonstration is a collaborative effort between the U.S. Department of Labor (DOL) and the Social Security Administration (SSA) to help workers with recently acquired injuries and illnesses remain in the labor force. The goal of RETAIN is to implement and build evidence on the effectiveness of early stay-at-work and return-to-work (SAW/RTW) interventions to help those who develop a potentially disabling condition.

The Interventions in the RETAIN demonstration sought to influence the following outcomes:

- **Employment:** to increase employment retention and labor force participation of individuals who acquired or were at risk of developing disabilities that inhibited their ability to work
- **Reliance on disability programs:** to reduce long-term work disability among program participants, including the need for SSDI and SSI

To influence these outcomes, DOL and SSA awarded cooperative agreements to five state agencies to continue and expand programs they began in Phase 1 of RETAIN. The ultimate purpose of the demonstration is to validate and bring to scale evidence-based interventions that support injured or ill workers in remaining at or returning to work.

A. Purpose of the process analysis report

This report presents findings that address research questions related to the implementation of the RETAIN programs midway through the 48 months of program operations funded under the Phase 2 grants. These findings assess implementation focused on (1) program partnerships and the environment surrounding RETAIN programs, (2) recruitment and enrollment of eligible workers, and (3) RETAIN service delivery. We report the findings in five state-specific chapters. The Final Impact Report will assess each RETAIN program's impacts on key outcomes, benefits, and costs.

B. The RETAIN program

All RETAIN program models focused on early coordination of healthcare and employment-related supports and services to help injured or ill workers remain in the workforce. The RETAIN states differed in how they implemented these supports and services to account for differences in their intended populations and services available to support program outcomes. Nonetheless, certain services and supports were central to all state RETAIN programs.

1. Program model

The RETAIN program model builds on key features of the Washington State Center for Occupational Health and Education (COHE) model, for which prior evaluations demonstrated positive impacts (Wickizer et al. 2011, 2018; Franklin et al. 2015). The key components of the COHE model include care coordination, occupational medicine best practices, regular provider training and performance feedback, provider incentives, and community outreach (Wickizer et al. 2004). In addition to the care coordination and provider training components, RETAIN emphasized access to employment-related services and supports. This included providing support for workplace-based interventions and assistance with retraining and rehabilitation if treatment enrollees could no longer perform their job.

The RETAIN programs followed a core program model (Exhibit I.1). Medical provider and RTW coordination services were central components of the model. Other components of the model could vary by program or treatment enrollee.

Exhibit I.1. Planned RETAIN program components

Service category	Program component	Definition
Medical provider services		
	Training medical providers	Training delivered to medical providers covers occupational medicine best practices and alternatives to opioids for pain management.
	Incentivizing medical providers	Programs offer incentives for medical providers to use occupational medicine best practices and alternatives to opioids for pain management.
RTW coordination services		
	Coordinating RTW services	Programs coordinate the delivery of medical and employment services, including developing and implementing an RTW plan. An RTW coordinator usually leads the coordination of RTW services.
	Communicating among parties involved in RTW plan	This component involves communicating among all RETAIN parties about the treatment enrollee returning to work. This communication should occur early in delivering RETAIN services to support the treatment enrollee in returning to work as soon as possible.
	Monitoring treatment enrollees' progress	This component involves tracking and monitoring the treatment enrollee's medical and employment progress.
Other RTW services		
	Supporting workplace-based interventions	These services accommodate the treatment enrollee's return to work. This might include modifying their duties and adjusting their schedules, tasks, and physical worksites.
	Retraining or rehabilitating enrollees	These services involve retraining or rehabilitating the treatment enrollees when they can no longer perform their primary jobs or suitable alternate work.

Source: The U.S. Department of Labor's RETAIN Funding Opportunity Announcement.

RETAIN = Retaining Employment and Talent After Injury/Illness Network; RTW= return to work.

2. Program partners

DOL and SSA expected successful RETAIN programs to provide services through coordinated partnerships between state and local workforce development entities, healthcare providers, and other partners. The

RETAIN cooperative agreement required the three types of entities shown in Box 1 to coordinate efforts to support RETAIN implementation and service delivery. DOL and SSA gave the lead agency flexibility to choose other partners to provide expertise or services relevant to the state's intended population and specific program goals. RETAIN programs also pursued informal partnerships with employers and other organizations to prompt referrals of workers who could benefit from RETAIN.

Box 1. Entities required to form partnerships under the RETAIN cooperative agreement

1. State department of labor, state workforce development agency, or an equivalent entity responsible for labor employment and workforce development. DOL expected this entity to lead RETAIN implementation.
2. Workforce development boards. DOL expected workforce development boards to play a vital role in providing expertise on RTW and employment-related services, coordinating with healthcare providers to address treatment enrollees' health-related social needs,[1] and engaging employers in the RETAIN program.
3. Health systems practicing coordinated care and population health management. DOL expected healthcare systems to play a vital role in delivering services to improve SAW/RTW outcomes among the intended population. ◢

3. Intended population

Although the COHE model focused the population of interest on people with work-related injuries or illnesses, RETAIN expanded the intended population to include those with non-work-related injuries, if they were employed or in the labor force when the injury or illness first occurred. The RETAIN cooperative agreement specified minimum eligibility criteria that the intended populations in each state must meet (Box 2 provides additional details about these criteria).

Box 2. Minimum eligibility criteria under the RETAIN cooperative agreement

1. Individual had either (a) an existing disability or chronic condition or (b) a new injury or illness or worsening of an existing condition while employed and may otherwise be at risk of developing work disabilities. The health condition could be work- or non-work-related.
2. Individual was employed or in the labor force at the onset of the injury, illness, or condition for which they enrolled in RETAIN.
3. Individual did not have an application for SSDI or SSI benefits pending and was not already receiving such benefits at the onset of the injury or illness. ◢

DOL and SSA expected treatment enrollees to receive RETAIN services for up to six months. States had to enroll 80 percent of enrollees within 12 weeks of their disability onset and ideally began providing services to treatment enrollees immediately upon enrollment. If a treatment enrollee required medical care and employment services after enrolling in RETAIN for six months or if the enrollee needed services beyond the scope of the RETAIN program, states should have referred the treatment enrollee to other available services, such as vocational rehabilitation (VR), and discharge them from RETAIN.

[1] Health-related social needs were defined as needs that affect individuals' ability to maintain their health and well-being, such as stable housing, utilities, food, personal safety, and transportation (U.S. Department of Health and Human Services 2023).

4. Technical assistance provided to the states to support RETAIN implementation and service delivery

American Institutes for Research (AIR), under contract to DOL, provided technical assistance to each state to support RETAIN implementation and service delivery. AIR provided technical assistance to all states on needs and challenges common to all RETAIN programs, while more intensive program-specific support was driven by each RETAIN program's unique needs and interests. AIR delivered technical assistance to RETAIN programs by holding monthly telephone calls with staff from each program, inviting them to attend Communities of Practice (CoP) roundtables on topics relevant to their specific RETAIN roles, and hosting two-day annual convenings to bring together RETAIN programs for shared learning and networking. AIR also connected states to support one another on specific topics, such as identifying potentially eligible enrollees.

AIR provided technical assistance to states on a range of topics to support RETAIN implementation including topics such as effective strategies by which to engage the workforce system and employers and outreach strategies to support recruitment and enrollment. Other examples of technical assistance included continuous quality improvement resources, strategies to engage medical providers, and support in developing enrollee success stories. AIR provided the states with opportunities for peer-to-peer engagement through learning events and CoP sessions, which were organized based on roles within the RETAIN programs. RTW coordinators participated in CoP sessions that focused on competencies to help them successfully engage enrollees and strategies to engage medical providers about RETAIN participant needs.

C. Research questions guiding this report

Each of the five state-specific chapters is organized around five research topics and related research questions guiding the process analysis.

1. Program partnerships and the environment surrounding RETAIN implementation and service delivery

a. Program partnerships

The quality, coordination, and nature of the program partnerships established under RETAIN could affect the implementation and delivery of RETAIN services in ways that influenced demonstration outcomes. To guide our understanding of the program partnerships established to support the RETAIN programs, this report addressed the following research questions:

- What entities did the agency leading implementation (lead agency) partner with to implement and deliver RETAIN services?
- What were the different partners' roles in RETAIN?
- What helped or hindered coordination among program partners?

b. Environment surrounding RETAIN implementation and service delivery

The employment and policy environments surrounding RETAIN implementation in each state could have affected the implementation of the RETAIN program components in ways that influenced demonstration

outcomes. The COVID-19 public health emergency also could have affected RETAIN implementation and outcomes. To guide our understanding of the environment surrounding RETAIN implementation and service delivery, we addressed the following research questions in this report:

- What economic conditions, employment environment, and other state-specific characteristics might have influenced RETAIN's service delivery and impact on outcomes?
- What was each state's experience with the COVID-19 pandemic? How did the COVID-19 pandemic influence RETAIN's service delivery, and what was the potential impact of the pandemic on outcomes?

2. Recruiting and enrolling eligible workers

Assessing how states defined, recruited, and enrolled eligible workers was critical to ensuring the RETAIN programs reached the intended populations and effectively enrolled eligible workers who would benefit from the intervention. To guide our understanding of recruiting and enrolling eligible workers in RETAIN programs, we addressed the following research questions in this report:

- How did each state screen, recruit, and enroll eligible workers into RETAIN? How did recruitment and enrollment change during the project? How did each state overcome recruitment and enrollment challenges?
- What populations of workers did states target for recruitment into the project? How and why did this change during the project?
- How did states promote recruitment and enrollment of people with recently acquired injuries and illnesses in communities that have been historically underserved? How and why did this change during the project? What helped or hindered states' efforts to recruit and enroll communities that have been historically underserved?
- How did the race and ethnicity of recruitment staff influence workers' decision making about enrolling in RETAIN?
- What challenges did states face collecting and reporting enrollment data?
- What were the characteristics of RETAIN enrollees?

3. RETAIN implementation and service delivery

Assessing how program partners implemented an intervention is critical to understanding where and why agencies and partners adapted the intervention during implementation. In addition, describing the implementation experiences of program partners is central to understanding the implementation process and lessons learned for program replication. Finally, the degree to which an intervention condition and a comparison condition differed lays a foundation for understanding intervention impacts. To guide our understanding of RETAIN implementation and service delivery, we addressed the following research questions in this report:

- How did the lead agency and its partners implement the RETAIN program components?
- What were the costs of delivering RETAIN?

- To what extent did service providers implement the RETAIN program components as planned at the start of Phase 2?
- To what extent did treatment enrollees receive RETAIN services?
- What factors (facilitators and barriers) enhanced or hindered RETAIN implementation?
- How did the race and ethnicity of RTW coordinators influence enrollees' experience with RETAIN?
- What challenges did states face collecting service use data? How and why did this change over time?
- What was the contrast between the program's services and the counterfactual (that is, the services available to the control enrollees)?
- What were states' plans for sustaining RETAIN services after the project?

4. Staff time spent on RETAIN

Assessing the time administrative and direct service staff spent on program activities is helpful for understanding a program's implementation and the allocation of labor costs across the different program activities. To guide our understanding of the staff time spent on RETAIN, we addressed two research questions in this report:

- How did staff allocate their time across activities core to the RETAIN program?
- How much time did staff spend on activities related to administering the project and other activities?

5. Costs of RETAIN

We addressed one research question to assess the economic costs of implementing RETAIN:

- What were the costs of delivering RETAIN?

6. Treatment enrollees' experiences with RETAIN

This report includes a chapter that describes treatment enrollees' experiences with the RETAIN program. The following research questions guided our data collection and analysis for this chapter:

- What motivated treatment enrollees to enroll in RETAIN?
- What did treatment enrollees like or not like about RETAIN services?
- Why did treatment enrollees not use RETAIN services?
- What did treatment enrollees like about employment services included as part of RETAIN?
- How were medical providers engaged in treatment enrollees' return to work?
- What was treatment enrollees' interest in or perceived ability to stay at work or return to work?
- What barriers to employment did treatment enrollees experience?
- How did states' employment environments influence treatment enrollees' experiences with RETAIN services?

II. Data sources and methods

Based on the plan outlined in the RETAIN Evaluation Design Report (Berk et al. 2021), we used a combination of qualitative and quantitative data sources and methods to conduct the early assessments and generate the findings presented in this report. We describe these data sources and methods below.

A. Data sources

We map the data sources to the process analysis research questions in Exhibit II.1 and describe each source in the sections that follow. The qualitative data sources include program documents (states' Phase 2 applications and quarterly progress reports); published indicators; and semistructured interviews with RETAIN program leaders, staff, partners, and treatment enrollees. The quantitative data sources include state-submitted enrollment and program service use data, logs of staff time on program activities, and program cost data.

Exhibit II.1. Process analysis report data sources

	Qualitative data				Quantitative data			
Research questions	**Program document review**	**Published indicators**	**Virtual interviews**	**Enrollee interviews**	**Enrollment data**	**Program service use data**	**Staff activity logs**	**Cost forms**
Program partnerships								
1. What entities did the agency leading implementation (lead agency) partner with to implement and deliver RETAIN services?	X		X					
2. What were the different partners' roles on RETAIN?	X		X					
3. What helped or hindered coordination among program partners?			X					
Environment surrounding RETAIN implementation and service delivery								
4. What economic conditions, employment environment, and other state-specific characteristics might have influenced RETAIN's service delivery and impact on outcomes?		X	X					
5. What was the state's experience with the COVID-19 pandemic? How did the COVID-19 pandemic influence RETAIN's service delivery and impact on outcomes?		X	X					
Recruiting and enrolling eligible workers								
6. How did each state screen, recruit, and enroll eligible workers into RETAIN? How did recruitment and enrollment change during the project? How did each state overcome recruitment and enrollment challenges?	X		X					
7. What populations of workers did states target for recruitment into the project? How and why did this change during the project?	X		X					

Research questions	Qualitative data				Quantitative data			
	Program document review	Published indicators	Virtual interviews	Enrollee interviews	Enrollment data	Program service use data	Staff activity logs	Cost forms
8. How did states promote recruitment and enrollment of people with recently acquired injuries and illnesses in communities that have been historically underserved? How and why did this change during the project? What helped or hindered states' efforts to recruit and enroll people from communities that have been historically underserved?	X		X					
9. How did the race and ethnicity of recruitment staff influence workers' decision making about enrolling in RETAIN?			X					
10. What challenges did states face to collecting and reporting enrollment data?			X					
11. What were treatment enrollees' characteristics?					X			
RETAIN implementation and service delivery								
12. How did states implement RETAIN program components (medical provider services, RTW coordination services, and other RTW services)? How and why did this change during the project? What factors helped or hindered the implementation of RETAIN program components?	X		X					
13. How did the race and ethnicity of RTW coordinators influence enrollees' experience with RETAIN?			X					
14. How did RTW coordinator turnover affect the delivery of RTW coordination services?			X					
15. How were RETAIN services distinct from services available to the control group?	X		X					
16. What challenges did states face collecting service use data? How and why did this change over time?			X					
17. What were states' plans for sustaining RETAIN services after the project?			X					
Staff time spent on RETAIN								
18. How do staff allocate their time across activities core to the RETAIN program?							X	
19. How much time did staff spend on activities related to administering the project and other activities?							X	
Costs of RETAIN								
20. What were the costs of delivering RETAIN?								X
Treatment enrollees' experiences with RETAIN								
21. What motivated treatment enrollees to enroll in RETAIN?				X				
22. What did treatment enrollees like or not like about RETAIN services?				X				

Research questions	Qualitative data				Quantitative data			
	Program document review	Published indicators	Virtual interviews	Enrollee interviews	Enrollment data	Program service use data	Staff activity logs	Cost forms
23. Why did treatment enrollees not use RETAIN services?				X				
24. What did treatment enrollees like about RTW coordination services?				X				
25. What did treatment enrollees like about employment services included as part of RETAIN?				X				
26. How were medical providers engaged in treatment enrollees' return to work?				X				
27. What was treatment enrollees' interest in or perceived ability to stay at work or return to work?				X				
28. What barriers to employment did treatment enrollees experience?				X				
29. How did states' employment environments influence treatment enrollees' experiences with RETAIN services?				X				

RETAIN = Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

1. Qualitative data sources

The qualitative data sources included program documents (states' Phase 2 applications and quarterly progress reports); published indicators; and semistructured interviews conducted virtually with RETAIN enrollees, program administrators, staff, and partners.

a. Program documents

We reviewed two types of program documents to understand how states implemented their RETAIN programs: (1) the Phase 2 state awardees' grant applications and (2) the states' quarterly progress reports submitted to DOL (Exhibit II.2).

Exhibit II.2. RETAIN program documents

Program documents	Description
States' RETAIN Phase 2 grant applications	These documents describe states' plans for implementing each RETAIN program component and their proposed strategies for enhancing implementation in Phase 2. They include information on program inputs such as the environment in which the program would be implemented, the program partners, key program staff, intended populations, and geographic area.
States' quarterly progress reports for DOL	These reports include documentation of states' major activities over the prior quarter, their program implementation progress, their challenges and accomplishments, deviations from their plans for implementation, and their planned activities for the following quarter.

DOL = U.S. Department of Labor; RETAIN = Retaining Employment and Talent After Injury/Illness Network.

b. Semistructured interviews

To learn about states' implementation progress, barriers, and facilitators, we conducted two rounds of semistructured interviews with each state's RETAIN program leaders, staff, and partners; for each round, we conducted between 15 and 18 interviews in each state. We conducted the first round of interviews approximately six months after Phase 2 enrollment began and the second round one year later (Exhibit II.3).

Exhibit II.3. RETAIN semistructured interviews

Site visit activity	Description
Interviews with program administrators, staff, and partners	• Program administrators include program directors, managers, and medical directors leading the implementation of RETAIN in their states. Program staff include grant coordination staff, recruitment and enrollment staff, and RETAIN coordination service delivery staff. Program partners include representatives from organizations on states' RETAIN leadership teams, such as workforce partners, government agency partners, or other partners who provide consultation. • Interview topics included program partnerships, recruitment and enrollment activities, implementation of program components and plans to sustain them beyond the grant period, and the counterfactual service environment.
Interviews with treatment enrollees	• Interview topics included treatment enrollees' experiences with enrollment, RTW coordinators, medical providers, work, employment services, and non-RETAIN services.

RETAIN = Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

To learn about treatment group enrollees' experiences with RETAIN, we conducted 67 semistructured interviews with treatment enrollees in late 2022. We conducted outreach to representative samples of treatment enrollees in each of the five state RETAIN programs based on enrollment data submitted from the states through June 2022 (Exhibit II.4). We oversampled enrollees who were non-White or Hispanic to support the inclusion of their experiences and perspectives (Exhibit II.5).

Exhibit II.4. Number of interviewed treatment enrollees and all treatment enrollees enrolled through June 2022, by state

	Total	Kansas	Kentucky	Minnesota	Ohio	Vermont	Oversample of non-White or Hispanic enrollees
Interviewed enrollees	67	6	12	14	15	6	15
Total number of enrollees	587	18	101	142	308	18	--

Source: Enrollment data submitted by each RETAIN state through June 30, 2022.

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

Exhibit II.5. Characteristics of treatment enrollees who participated in telephone interviews in 2022 and all treatment enrollees enrolled through June 2023, by state (percentages)

	Enrollees interviewed	Kansas	Kentucky	Minnesota	Ohio	Vermont
White non-Hispanic	56.7	68.8	70.4	80.0	76.4	87.5
Non-White or Hispanic	43.3	31.2	29.1	19.3	23.5	12.5
Male	46.3	43.4	44.9	43.6	39.3	34.8
Female	53.7	56.6	55.1	55.9	60.7	64.3
Reported a behavioral health condition	31.3	31.2	57.1	40.2	15.3	48.2
Did not report a behavioral health condition	68.7	68.8	42.9	59.8	84.7	57.8
Age 50 and under	56.7	67.1	68.1	63.2	61.1	61.4
Over age 50	43.3	32.8	31.9	36.8	38.8	38.4

Source: Enrollment data submitted by each RETAIN state through June 30, 2023.

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

2. Quantitative data sources

The quantitative data sources included state-submitted enrollment and program service use data, logs of staff time spent on program activities, and program cost data.

a. Published indicators

To contextualize the program environment in each state, we identified published data on states' unemployment rates and employment rates among working-age people with and without disabilities. The sources of this data include the U.S. Bureau of Labor Statistics and the University of New Hampshire Institute on Disability/ University Center for Exc1ellence in Disability.

b. Enrollment data

To document states' enrollment outcomes and the characteristics of RETAIN treatment and control enrollees, we drew from enrollment data from October 2021 through the end of June 2023 provided by each RETAIN state. These data include baseline information on enrollees' demographic and socioeconomic characteristics, the injury or illness that qualifies their eligibility for RETAIN, their employment status, and whether they previously received SSDI benefits. All states but Vermont submitted quarterly enrollment data to Mathematica through the Confirmit system;[2] Vermont submitted monthly enrollment data to SSA.

c. Service use data

We used service use data from October 2021 through the end of June 2023 to quantify treatment enrollees' use of RTW coordination services, communication among RETAIN parties involved in treatment enrollees' return to work, and treatment enrollees' use of other RTW services. States submitted these data

[2] Certain baseline characteristics (from Part 2 of the enrollment form) are not included in Confirmit but are reported quarterly with the service use data.

to SSA in quarterly evaluation reports. The quarterly reports consist of data that DOL requires RETAIN grantees to collect and report about service provision.

d. Staff activity logs

We collected information about how RETAIN program leaders, partners, and staff spent their time to understand the allocation of labor costs across different program components. We collected activity logs from 10–12 individuals representing different roles in each RETAIN program for a one-week period in February/March 2023 and again in May/June 2023. The logs captured time spent on activities core to the RETAIN program, such as recruitment and enrollment, RTW services, and communication with and training for medical providers and employers. The logs also captured time spent administering the project (evaluation, training, and other management) or doing other project activities.

e. Cost data

We collected aggregated cost data from RETAIN programs in Spring 2023 to understand the distribution of costs to implement their programs. The data captured costs RETAIN programs invoiced to DOL, including total program costs, direct costs (such as labor costs, incentive payments, and outreach costs), and indirect costs (administrative and overhead costs).

B. Analysis methods

We analyzed the qualitative and quantitative data sources using a conceptual framework and descriptive statistics.

1. Qualitative data analysis

We used the Consolidated Framework for Implementation Research (CFIR) to structure our analysis of qualitative data from the interviews we conducted with program leaders, partners, and staff. The CFIR is a conceptual framework developed to guide systematic and transparent assessment of implementation in different settings to identify factors (facilitators and barriers) that may influence intervention implementation and effectiveness (Damschroder et al. 2009). The CFIR is intended to be flexible in application so researchers can tailor the framework to the specific intervention design and context being studied. The CFIR organizes these factors into five domains, which can be tailored to the specific intervention design and context being studied.

We organized our interview guide, coding, and analysis around the CFIR framework, which we adapted to the context of RETAIN implementation (Exhibit II.5). We coded all interview transcripts using NVivo (qualitative data analysis software). The coded data enabled us to identify themes about RETAIN implementation that captured the different perspectives of various respondents involved in each state's program.

Exhibit II.5. CFIR domains that might influence RETAIN program implementation

CFIR domain	Description as it relates to RETAIN
Characteristics of RETAIN	Perceived ease or difficulty of explaining RETAIN to program partners and enrollees and complexity of carrying out processes to support recruitment and enrollment and service delivery.
Characteristics of individuals involved in RETAIN	Characteristics of RETAIN recruitment and enrollment staff, RTW coordinators, and medical providers that were perceived to affect program implementation or enrollee-level needs and characteristics that were perceived to affect their interest and engagement in RETAIN services.
Characteristics of the entities delivering RETAIN services	Features of the organizations involved in delivering RETAIN, such as technological systems, practices to support information sharing within and between program partners, and access to information and resources.
Characteristics of the external environment	Features outside the entities implementing RETAIN services, such as characteristics of the local economy and job availability, impact of COVID-19 on program implementation and service delivery, and connections to external organizations that support RETAIN implementation.
Implementation strategies supporting RETAIN	Strategies RETAIN programs use to support implementation, such as using provider champions to engage medical providers and conducting continuous quality improvement.

CFIR = Consolidated Framework for Implementation Research; RETAIN = Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

2. Quantitative data analysis

To help contextualize the employment environment in each state, we identified published data on states' unemployment rates and their employment rates among working-age people with and without disabilities. We compared these state-level indicators with national indicators.

To analyze the enrollment data, we generated descriptive statistics on enrollee characteristics (Exhibit II.6). We conducted statistical tests of difference to compare treatment and control enrollee characteristics. We used chi-square tests for categorical variables and *t*-tests for binary and continuous variables. To understand enrollees' primary impairments using enrollment data, we classified International Classification of Diseases-10 (ICD-10) codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental health; and Other (Exhibit II.7). These groupings build on previous studies of return to work among injured or ill workers, such as Contreary et al. (2018), Neuhauser et al. (2018), and Bourbonniere and Mann (2018).

Exhibit II.6. RETAIN enrollment data variables

Enrollee characteristics	Description
Demographic characteristics	Sex, age, race, ethnicity, preferred language, education
Injury or illness characteristics	Type of illness
Employment and benefits characteristics	Health insurance, employment status, length of time since last worked, tenure at current job, occupational classification of pre-injury/illness job, earnings

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

Exhibit II.7. ICD-10 code classification to primary diagnosis category

Primary diagnosis category	ICD-10 codes
Musculoskeletal, back	M40-M54; M96.1; M99.2-M99.7; S13.4; S23.3; S30-S39.
Musculoskeletal, non-back	M00-M36; M60-M95; M96 (except M96.1); M97; M99 (except M99.2-M99.7); S00-S29 (except S13.4;S23.3); S40-S99
Mental	Codes beginning with F
Long COVID	Z86.16; U09
Other	ICD10 codes that do not fall under any of the four categories above

To analyze the service use data, we produced descriptive statistics on variables reflecting treatment enrollees' receipt of RTW coordination services and other RTW services. We coded free-text response variables as binary values to include in the quantitative analysis. To present the results of the enrollment and service use data, we use "many" to denote more than 50 percent and less than 80 percent and "most" to denote 80 percent or more.

To analyze the staff activity logs, we produced descriptive statistics on hours spent across core program activities by different staff types. To categorize different staff types, we considered their primary role in the program: program administration, recruitment and enrollment, RTW coordination services, or workforce development services. We reviewed aggregated time spent on the following activities: program administration; recruitment and enrollment; RTW coordination services; training medical providers or employers; communication with medical providers; communication with employers or workforce professionals; workforce development services; and travel.

To analyze program cost data, we identified the total program costs invoiced to DOL through March 2023. We calculated the total cost per treatment enrollee based on the number of workers assigned to the treatment group through March 2023. We focused on total program costs rather than direct and indirect costs. The allocation of invoiced direct and indirect costs was influenced by each RETAIN program's distinct organizational structures, making it difficult to draw conclusions about their use of funds. Our analysis includes the costs of recruiting and enrolling control enrollees because these costs were combined with the costs related to treatment enrollees in invoices to DOL; therefore, it was not possible to exclude them.

3. Limitations

Our analysis of RETAIN program implementation has several limitations. Each RETAIN program continued to evolve, some with recent changes as of the second round of interviews with each program, which took place approximately 18 months into implementation. Our ability to assess implementation barriers and facilitators related to evolving implementation is limited. For example, one state had recently added a new high-volume referral source, while another had developed plans to expand capacity for RTW coordination services but had not yet carried them out. In addition, because we interviewed only a selection of administrators and service providers involved in RETAIN in each state, the perspectives we heard may not fully represent the experiences of all such individuals in those states. In some cases, we heard different perspectives on implementation that we could not reconcile. To account for this, we noted the data sources our findings were based on throughout the report.

The treatment enrollee interviews provide valuable insight into their experiences with RETAIN programs. However, the interviews included a small subset of enrollees and are not generalizable to all enrollees. Of 124 enrollees who received an outreach letter, 67 participated in an interview. Due to potential response bias, readers should interpret the findings with this caveat in mind.

Our analysis of quantitative data on service use is influenced by how each RETAIN program interpreted reporting requirements and collected data. For example, programs that considered information provided during enrollment calls as a service appear to have high levels of service use compared with programs that recorded the first service use at a later step. As a result, findings on service use should be interpreted within the context of the state's program.

Another limitation of the quantitative data analysis relates to some states having low enrollment at approximately 18 months into implementation. In these cases, the analysis of treatment enrollees' use of services may be limited because they are based on relatively small sample sizes.

III. RETAINWOR*KS*

Key findings

- The lead partners had not previously worked together and faced challenges understanding the services each partner organization offered. Regular meetings between the lead agency and partners supported coordination and service delivery.
- RETAINWOR*KS* used a phased approach to implementation where the lead workforce and healthcare partners in a single workforce area acted as an example for the rest of the state to follow. The other local healthcare and workforce partners were able to implement successful strategies and lessons learned.
- Kansas had low unemployment rates and increased job opportunities in the state. Program staff stated employers were more open to alternate work locations and sought alternative methods to retaining and attracting employees.
- RETAINWOR*KS* enrollment remained low midway through the enrollment period, with 8 percent of its enrollment goal met. The primary referral source was medical providers affiliated with the healthcare partners.
- Limited medical provider engagement was the primary challenge to recruitment. Medical providers were required to authorize patient referrals to RETAINWOR*KS*; however, competing demands on their time were a barrier to engaging them in completing training and paperwork necessary for them to make a referral.
- Program leaders and staff developed new outreach strategies to engage with clinical support staff (such as advanced practice nurses and physician assistants) in other healthcare systems, which were helpful in facilitating the referral process.
- RETAINWOR*KS* promoted outreach and recruitment to historically underserved communities by partnering with local organizations focused serving communities that have been historically underserved.
- All RETAINWOR*KS* treatment enrollees met with an employment counselor during enrollment; some went on to meet with an employment counselor again after enrollment. This connection with an employment counselor added complexity to the enrollment process but also linked enrollees with potential support for returning to and staying at work.
- Almost all treatment enrollees used any RETAINWOR*KS* services beyond enrollment (97 percent); however, less than three-quarters established an RTW plan (71 percent). Beyond RTW coordination services, 17 percent of treatment enrollees received a workplace-based intervention, and around 70 percent used retraining and rehabilitation services. Treatment enrollees were generally more interested in supportive services than workplace accommodations. Although a high proportion of treatment enrollees received retaining and rehabilitation services, the 6-month timeframe for enrollment in the program was too short to effectively provide these services to enrollees.
- For all treatment enrollees, RTW coordinators communicated with at least one of the parties (medical provider, employer, or workforce professional) who may be involved in an enrollee's RTW plan. Medical providers, the primary source of referrals, were required to authorize referrals of their patients to RETAINWOR*KS*, which likely contributed to the high communication rate between RTW coordinators and medical providers (97 percent). Whereas RTW coordinators communicated with around 7 percent of treatment enrollees' employers. Some enrollees did not permit their RTW coordinator to communicate with their employer out of concern for being stigmatized.
- RETAINWOR*KS*'s sustainability plans focused on promoting the view of employment as a medical outcome and fostering coordination between medical providers and workforce development providers to achieve this outcome. ◢

A. Overview of RETAINWOR*KS*

The Kansas Department of Commerce (Commerce) was the lead agency for the state's Retaining Employment and Talent After Injury/Illness Network (RETAIN) program, called RETAINWOR*KS*. The program catchment area was the entire state of Kansas, organized by the five local workforce development areas that cover the state's 105 counties. RETAINWOR*KS* enrolled adults who were employed or seeking employment and had a work- or non-work-related injury or illness, including (a) a musculoskeletal injury, (b) a mental health disorder, (c) a chronic disease, or (d) another newly diagnosed illness or injury affecting the individual's employment. RETAINWOR*KS* provided return to work (RTW) coordination services to all treatment enrollees. RTW coordinators referred treatment enrollees interested in workforce services or experiencing health-related social needs to employment counselors.

In this chapter, we document recruitment, enrollment, and program operations approximately midway through the two-and-a-half-year enrollment period.[3] The findings we present about the implementation of RETAINWOR*KS* are based on the analysis of qualitative data collected during semistructured interviews and program data collected by RETAINWOR*KS* through June 30, 2023, 21 months after the start of enrollment.[4]

B. RETAINWOR*KS* partnerships to support enrollment and service delivery

As the lead agency for RETAINWOR*KS*, Commerce brought together a range of partners to support implementation in Kansas's five local workforce development areas (Exhibit III.1). Commerce received signed letters of commitment to support RETAINWOR*KS* from the lead healthcare system, all five local workforce development boards, and other organizations before submitting its Phase 2 application. We include supplemental information about the roles of RETAIN partners in Appendix A, Exhibit A.1.

[3] At the time of this report, enrollment was scheduled to end in May 2024, and program operations funded under the RETAIN Phase 2 grant were scheduled to end in May 2025.

[4] RETAINWOR*KS* enrolled the first worker on October 17, 2021. We collected qualitative data about implementation experiences during interviews 18 months after the start of enrollment. We collected program data through June 30, 2023, 21 months after the start of enrollment.

Exhibit III.1. RETAINWORKS organization chart

Lead Agency
Kansas Department of Commerce*
Workforce services director
Workforce development manager for commerce
Special projects and coordinator
Project lead*
Program coordinator
State evaluation liaison
Data manger
State technical assistance liaison
Grants and data program manager

State Leadership
Kansas Department of Health and Environment
Kansas Department of Administration
Kansas State Workforce Development Board
Kansas Vocational Rehabilitation Services
Kansas Business Group on Health
Kansas Society for Human Resource Management
Mid-American Coalition on Health Care
The University of Kansas Medical Center Research Institute

Lead Workforce Partner
Workforce Alliance of South Central Kansas*
Area IV
Workforce development lead
2 employment counselors†

Lead Healthcare Partner
Ascension Via Christi*
Area IV (Wichita)
Medical director*
2 Referral and enrollment lead
2 RTW coordinators^

Local Workforce Partner
Kansas WorkforceONE*
Area I
2 employment counselors

Local Healthcare Partner
Kansas Clinical Improvement Collaborative
Area I
Medical director
2 RTW coordinators

Local Workforce Partner
Heartland Works, Inc.*
Area II
2 employment counselors

Local Healthcare Partner
Ascension Via Christi*
Area II (Manhattan)
Medical director
Referral and enrollment lead
RTW coordinator

Local Healthcare Partner
Stormont Vail Healthcare, Inc.
Area II (Topeka)
Medical director
Referral and enrollment lead
RTW coordinator
Screener

Local Workforce Partner
Workforce Partnership*
Area III
2 employment counselors

Local Healthcare Partner
University of Kansas Medical Center
Area III (Kansas City)
Medical director
Referral and enrollment lead
3 RTW coordinators

Local Workforce Partner
Southeast KANSASWORKS*
Area V
2 employment counselors

Local Healthcare Partner
Ascension Via Christi
Area V (Pittsburg)
Medical director
RTW coordinator

Local Healthcare Partner
Stormont Vail Healthcare, Inc.
Area V (Emporia)
Medical director
Referral and enrollment lead
RTW coordinator

* RETAINWORKS Leadership Team
State titles: † Workforce System Coordinator, Employment Services Coordinator; ^ RTW Nurse Navigator
RTW = return to work.
RETAINWORKS = Kansas Retaining Employment and Talent After Injury/Illness Network.

1. Lead healthcare partners

The lead healthcare partner (Ascension Via Christi) and three local healthcare partners (Kansas Clinical Improvement Collaborative, Stormont Vail Healthcare, Inc., and the University of Kansas Hospital) were large health systems and organizations. They supported implementation of RETAINWOR*KS* by (1) recruiting and engaging medical providers to refer patients; (2) raising awareness about RETAINWOR*KS* to medical providers and potential enrollees; (3) recruiting, training, and overseeing RTW coordinators; and (4) screening and recruiting referred people. Each healthcare partner had a medical director who acted as a provider champion for engaging medical providers.

Each healthcare partner helped implement RETAINWOR*KS* in at least one workforce development area. The lead healthcare partner, Ascension Via Christi (AVC), helped implement RETAINWOR*KS* in workforce development Areas II, IV, and V, which included the Manhattan, Wichita, and Pittsburg, Kansas areas, respectively, and supported implementation in the other local workforce development areas. The local healthcare partner Kansas Clinic Improvement Collaborative helped implement RETAINWOR*KS* in workforce Area I, in Western Kansas. The local healthcare partner Stormont Vail Healthcare helped implement RETAINWOR*KS* in workforce Area II, in Topeka and Emporia, Kansas. The local healthcare agency the University of Kansas Hospital helped implement RETAINWOR*KS* in workforce development Area III and is in Kansas City. The partners implemented RETAINWOR*KS* in phases, starting with Area IV, and expanded implementation to include the entire state by the fourth quarter of 2022.

2. Lead workforce partners

The five local workforce development area partners provided expertise on workforce services, such as career training and job search resources. They oversaw implementation in their respective local workforce area by (1) engaging employers in employment services; (2) recruiting, training, and overseeing employment counselors; and (3) enrolling eligible people in RETAIN.

The lead workforce partner, the Workforce Alliance of South-Central Kansas (Workforce Alliance), was the local workforce development board in Area IV. Kansas WorkforceONE, Heartland Works, Inc., Workforce Partnership, and Southeast RETAINWOR*KS* were the local workforce partners in Areas I, II, III, and V, respectively.

3. Other partners

Program leaders relied on three employer partners to educate employers about RETAINWOR*KS* and encourage them to refer employees. The three employer partners (Kansas Business Group on Health, Mid-America Coalition on Health Care, and Society for Human Resource Management) assisted in developing outreach messaging and employer education.

4. Coordination of program partners

Program leaders and staff expressed a strong commitment to RETAINWOR*KS* and desired to help new partners launch RETAIN services. Staff in the lead workforce development area IV mentored other local implementation teams. This mentorship helped local implementation teams onboard staff to the complex program structure and understand how they can implement RETAINWOR*KS* within the context of their unique organizational processes. To support communication across partners and roles, program leaders

held frequent meetings. Each local workforce development area's implementation team (the workforce and healthcare partner) also met regularly.

Regular implementation meetings supported coordination, knowledge sharing, and problem-solving among the RETAINWOR*KS* partners. Program leaders and staff said that frequent state-level and local workforce development area meetings (at least every two weeks) helped partners understand the services provided to enrollees, learn about different approaches to enrollment and recruitment across areas, and discuss operational challenges and potential solutions. For example, partners in various workforce areas had different opportunities and approaches to using electronic medical record (EMR) data for recruitment and enrollment. Program staff also used these meetings to address rare instances of co-enrollments (when an enrollee was enrolled across multiple areas) and transfer enrollees' services (in the event an enrollee moved) across local workforce development areas. While these meetings were helpful overall, some program staff noted that the frequent meetings reduced the time available for enrollment and service delivery.

Having the same staff support multiple local workforce development areas was helpful in expanding implementation across the state. In particular, staff at the lead healthcare partner and lead workforce partner in Area IV adapted the implementation strategies and lessons they learned in their local workforce development area to share with staff in the other local workforce development areas. Program leaders said this was helpful to staff in other areas as they began to implement RETAINWOR*KS*. Having Area IV as a model for the other local workforce development areas positioned them well as they planned for staffing and recruited providers to support RETAIN.

The lead agency hosted an annual summit for all RETAINWOR*KS* partners, which program staff described as facilitating learning and coordination among partners. The summit featured training sessions, question and answer sessions, and speaker presentations. Presentation topics included promoting RETAINWOR*KS*; engaging with enrollees, providers, and employers; collecting data; and other topics of interest. Program leaders said the in-person setting helped partners build relationships across the state more effectively than they could in regular teleconference calls.

C. Program environment surrounding RETAINWOR*KS* implementation and service delivery

In this section, we describe the program environment in which RETAINWOR*KS* was implemented to understand factors outside the study's control that may contribute to or inhibit program implementation and the detection of impacts.

1. Employment and policy environment

In Kansas, the unemployment rate was lower than the national average, and the employment rate of people with disabilities was higher (Exhibit III.2). Program staff said that the state's low unemployment rate made employers more open to retaining staff with an injury or illness.

"We have a very low unemployment rate right now. It creates a challenge for employers [for hiring]. We're trying to be very strategic about doing some outreach efforts to reach provider groups and employers in particular to try to make the connection [for employers] with this population."

—Program staff

Program partners and staff said that the opening of a casino, Amazon fulfillment center, and cybersecurity company headquarters added hundreds of jobs in the state over the last year, in addition to existing manufacturing and aviation jobs. The large number of job opportunities reportedly resulted in employee retention challenges for some employers.

Exhibit III.2. RETAIN program environment in Kansas

Economic indicators (percentages)	Kansas	United States
Unemployment rate (June 2023)[a]	2.8	3.6
Employment rate among working-age people without disabilities (2022)[b]	81.5	78.9
Employment rate among working-age people with disabilities (2022)[b]	51.5	44.5

[a] U.S. Bureau of Labor Statistics (2023a).

[b] U.S. Bureau of Labor Statistics (2023b).

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

2. COVID-19 pandemic

Program leaders, staff, and partners said the COVID-19 pandemic had mixed effects on work opportunities and interest in work for RETAINWOR*KS* enrollees. They observed that some enrollees had less interest in working after reevaluating their priorities, receiving support from multigenerational living arrangements, or spending time caring for family. Because of the pandemic, others wanted to shift from manufacturing to office-based jobs, but retraining on necessary digital literacy skills was a lengthy process that often took longer than the six-month RETAINWOR*KS* enrollment period.

Program partners stated the COVID-19 pandemic challenged medical providers' engagement in RETAINWOR*KS*, contributing to a slow ramp-up of referrals. The pandemic limited medical providers' time and capacity for referring patients to RETAINWOR*KS*. Program partners also noted that the pandemic contributed to burnout among medical providers, and it was especially challenging to gain providers' attention remotely.

D. RETAINWOR*KS* recruitment and enrollment

RETAINWOR*KS* sought to enroll people diagnosed with an injury or illness (work- or non-work-related). Enrollment was lower than expected midway through the enrollment period. In this section, we first describe RETAINWOR*KS* referral sources and experiences prompting referrals, including recruiting people

who have been historically underserved.[5] We then describe the experience of RETAINWOR*KS* in applying its eligibility criteria and enrolling eligible people. Appendix A, Exhibit A.2 includes supplemental information about the recruitment and enrollment process.

1. Referral sources

RETAINWOR*KS* enrollments were primarily driven by referrals from medical providers employed by the healthcare partners. This was due to the requirement for all RETAIN enrollees to be seen and referred by a RETAINWOR*KS*-trained provider to complete the enrollment process. In addition, employers and the local workforce development areas could refer clients, and people could self-refer to RETAINWOR*KS*. To be able to enroll patients, medical providers must first complete a RETAINWOR*KS* training for medical providers, and their medical practice must have a signed letter of agreement with RETAINWOR*KS* to receive reimbursement for (1) completing referral forms, (2) submitting activity assessments that outline enrolled patients' work restrictions, (3) participating in RETAIN-related communications, (4) completing an RTW plan for enrolled patients, and (5) completing a 30-day risk assessment for enrolled patients. RETAINWOR*KS* considers medical providers who completed the training and whose practice had a signed letter or agreement with RETAINWOR*KS* to be RETAIN-affiliated providers.

Limited medical provider engagement was the primary reason for lower-than-expected patient referrals to RETAINWOR*KS*. RETAIN-affiliated providers were required to authorize their patients' referrals to RETAINWOR*KS*. However, program leaders reported that competing demands on medical providers' time were a challenge to engaging them in authorizing patient referrals. In most workforce development areas, recruitment and enrollment staff had to follow up with providers several times to request the completed referral form and activity assessment. In some instances, program staff had to ask the potential enrollee to ask their provider to complete the referral. One healthcare partner shifted to relying on the provider champion (the Medical Director) to authorize referrals for all patients within the health system instead of the patient's medical provider.

> "We are having trouble with provider engagement [to complete referral paperwork]. We've kind of thrown around the idea of maybe we don't need a provider referral, but it sets us apart from the other states in that we do include the provider in the process.... But I would say that's our biggest obstacle is just having the provider engagement."
>
> —Program staff

[5] SSA's Equity Action Plan points to the Federal Executive Order on Advancing Racial Equity and Support for Underserved Communities, which defines the term "underserved communities" as populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.

Engaging specific types of medical providers and clinical support staff helped to increase referrals to RETAINWOR*KS*. Healthcare partners strategically focused on expanding outreach efforts to specialists, such as chiropractors, behavioral health providers, orthopedists, and pain management providers, because these specialists were likely to have patients who were eligible for RETAINWOR*KS*. Program staff said that engaging advanced practice nurses and physician assistants in partner health systems was helpful in identifying potential enrollees and completing referral paperwork. Program staff observed that providers became more willing to engage after they saw RETAINWOR*KS* benefit their patients. However, the random assignment design of the program limited the number of patients from any single provider who received RETAINWOR*KS* services, which meant it could take time before providers could observe benefits for their patients.

"Our APRNs and PAs are phenomenal, and they are also our most productive providers currently that are referring."

—Program staff

2. Outreach strategies

Program staff conducted outreach to referral sources to increase awareness of RETAINWOR*KS* and prompt referrals. They educated medical providers and people experiencing an illness or injury about RETAINWOR*KS* and, if the person permitted, requested a referral from the person's medical provider or encouraged people to self-refer to RETAINWOR*KS*.

In-person office visits increased medical provider engagement. Program staff noted that a provider champion was especially effective at engaging providers in the lead health system due to having longstanding professional relationships with those providers. RTW coordinators also worked to engage with providers and practice managers by hosting in-person lunch meetings with office managers and emphasizing the benefits of RETAINWOR*KS* to patients.

The program expanded outreach to the public to increase self-referrals; however, self-referrals remained low. Program staff increased social media marketing (such as YouTube) of RETAINWOR*KS* and added a new outreach coordinator in Area IV, who met with employers, attended conferences, and spoke with the general public about RETAINWOR*KS*. The RETAINWOR*KS* team expanded outreach to the public, for example by adding a 10-minute YouTube video found at the bottom of program staff emails, televisions located throughout the health system, and social media posts. Though they expanded outreach to the public, self-referrals remained low.

Reviewing patient information in healthcare partners’ EMRs in four workforce areas yielded a large volume of potential enrollees; however, few enrolled. After learning about using the EMR to identify potential enrollees from other RETAIN states, program staff generated lists of patients based on eligibility criteria from the EMRs to identify patients with a recent emergency department visit or primary care visit. Program staff would text these potential enrollees to tell them about RETAINWOR*KS* and if they were interested, recruitment staff reached out to the patient’s medical provider and requested a referral. Program leaders in one workforce area noted that identifying patients in the EMR yielded a weekly pool of 800–1,200 potential enrollees, but the percentage of those who enrolled was low mostly due to enrollee nonresponse.

> “There are so many options that are beneficial to an employer, and [I] let them know, hey, we can help you with … modifications and accommodations. But more importantly, if there's training programs or you're going to have someone come in, you can receive financial resources for someone that would do on-the-job training or a work experience. So there's resources there that can make this program look like a win, because it is a win.”
>
> —Program staff

RETAINWOR*KS* expanded outreach activities and adjusted messaging to increase referrals from employers. However, workforce partners in some local workforce development areas lacked staff capacity for outreach to employers. Program staff described attending Society for Human Resources Management meetings and convening employer roundtables to promote RETAINWOR*KS*. Program partners and staff said some employers were concerned about the potential burden of complying with a federal grant and hesitant about the random assignment design in which services were not guaranteed to referred employees. In response, program staff changed their messaging to employers to highlight training opportunities for employees and avoid referring to RETAINWOR*KS* as a federal grant. One healthcare partner in Area II hired a dedicated chart screener and a workforce partner in Area IV hired an outreach coordinator. The outreach coordinator spoke with the general public about RETAIN. While much of their work was focused on Area IV, they attended state level events and explained RETAIN services and delivery. Workforce partners faced challenges in hiring staff to increase their capacity to expand outreach to employers, while their existing staff remained focused on managing their treatment enrollee caseloads.

3. Strategies for recruiting people who have been historically underserved

To promote recruitment and enrollment among historically underserved communities and reach potential enrollees not typically served by RETAIN-associated providers, program leaders encouraged healthcare partners to partner with community clinics, federally qualified health systems, and community health workers. Partners identified people who had emergency department visits, attended sliding scale community clinics, or worked with community health workers. While pursuing this strategy, program staff also worked with the chambers of commerce that represented various ethnicities, such as the Asian, Hispanic, and Black chambers of commerce, to promote outreach to member communities.

The requirement for referrals to come from RETAIN-associated providers was a barrier to recruiting from historically underserved communities. Partners said that few people in these communities had a

medical provider associated with RETAINWOR*KS* who could refer them to the program. The degree to which limited provider connections were a barrier to enrollment varied by geographical location. For example, there were fewer health systems located in rural Western Kansas to serve the individuals living there.

> "We've reached out to a couple of FQHCs in our community. And with mixed results. Hey, it sounds like a great program. And then providers just don't have the time. And they say, well, we don't have the time to do this. So they kind of back away from it. We haven't really had any success with any of the FQHCs to say, hey, we want to be a part of this program. Do we get referrals from them? I said we get a handful, a quarter. And we have to handle those as kind of courtesy referrals because the providers won't slow down to do our education and get the training."
>
> —Program leader

4. Eligibility criteria

RETAINWOR*KS* enrolled people with an injury or illness (work- or non-work-related). Enrollees must have been employed or seeking employment at enrollment, ages 18 to 64, and living or working in Kansas. The injury or illness must have been one of the following: (a) a musculoskeletal injury, (b) a mental health disorder, (c) a chronic disease, or (d) another newly diagnosed illness or injury affecting the individual's employment. They also must have had a valid Social Security number and be legally authorized to work in the United States.

Overall, program leaders and staff did not note challenges with using the eligibility criteria. Program staff stated they were able to identify individuals who met the eligibility criteria.

5. Enrollment

Upon receiving a referral for RETAINWOR*KS*, recruitment staff contacted the potential enrollee to review eligibility. If eligible and interested, recruitment staff obtained the completed informed consent and alerted the potential enrollee they would be contacted by an employment counselor. If the referral did not originate with the provider, the recruitment staff contacted the medical provider for the referral. Once the referral was received, the recruitment staff would coordinate with the provider to ensure completion of the activity assessment. Both the healthcare recruitment staff and the employment counselor worked together with the enrollee to collect documentation confirming eligibility. Eligible individuals receive a $50 incentive for completing enrollment paperwork.

Despite initially low enrollment, using the EMR to identify potential enrollees helped legitimize outreach and simplified the process of prompting providers to complete referral paperwork. Across four of the five local workforce development areas (Areas II, III, IV, and V), healthcare partners developed a process to proactively identify potential enrollees through EMR reports. Program staff said potential enrollees from the EMR-generated reports were responsive to outreach because staff could mention the provider's name to legitimize the demonstration. Across local workforce development areas, recruitment and enrollment staff reached out to the patient as well as their provider to encourage enrollment. Staff of

one workforce development area believed that messaging providers through the EMR was a more successful way to prompt providers to complete referrals. By reviewing the message in the EMR system program staff could track if the provider had received the email and reach clinical support staff to remind providers to complete referrals. Area I did not implement this strategy due to the large number of health systems in the 62-county area and the lack of interoperability across their EMR systems.

RETAINWOR*KS* reduced the documentation required for people to enroll. Program staff said that potential enrollees struggled to meet an early requirement to provide a physical Social Security card, and dropping the requirement helped increase enrollment.

Some potential enrollees were not interested in enrolling because they did not trust the demonstration, did not need RETAIN services, or did not want to be placed in the control group. Some potential enrollees reportedly thought RETAINWOR*KS* was not legitimate because it seemed too good to be true, and they suspected it was a scam. Some hesitated to share their information with the government, especially if they could be assigned to the control group. There was also a group of potential enrollees who noted they were already receiving support from their employer and RETAIN services would be duplicative.

Collecting potential enrollees' signatures electronically simplified the informed consent step of the enrollment process. However, it removed the opportunity for enrollment staff to address enrollee questions when completing the documentation. After an enrollee had the initial conversation about RETAINWOR*KS* with enrollment staff and agreed to enroll, enrollment staff asked them to submit enrollment documentation via DocuSign. Program staff said that having enrollees complete and submit enrollment paperwork using DocuSign saved time and provided a mechanism for staff to track an enrollee's progress on document completion. Enrollment staff could see when the enrollee partially completed forms and would call the potential enrollee if forms were not submitted within three to five days. One drawback to asking potential enrollees to complete the forms without being present was that sometimes potential enrollees became confused about how to respond to a question or considered themselves no longer a fit for the demonstration. Enrollment staff could not address these concerns immediately, and as a result, some potential enrollees did not complete and submit the documentation.

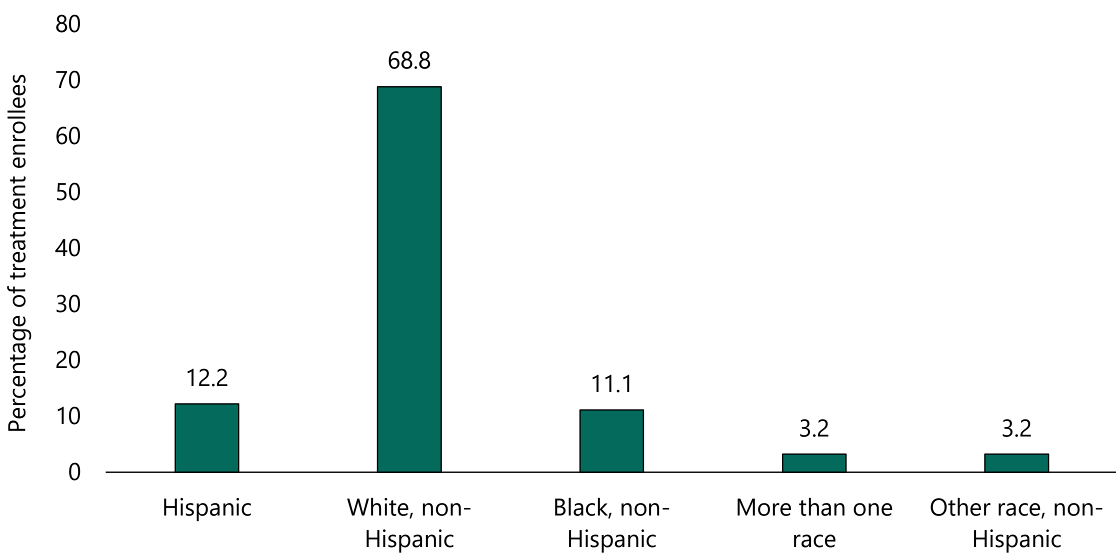
6. Enrollment outcomes

Cumulative enrollment was lower than expected (Appendix A, Exhibit A.4). Midway through the enrollment period, the healthcare partners became concerned about the small number of treatment enrollees and thought medical providers would become discouraged and stop referring patients to RETAINWOR*KS*. To address this concern, on January 24, 2023, the Social Security Administration and the U.S. Department of Labor approved RETAINWOR*KS* temporarily shifting to an 80/20 split of treatment to control enrollees for a three-month period. This was followed by a 60/40 split of treatment to control enrollees for a two-month period. In June 2023, the program resumed assigning 50 percent of enrollees to the treatment group and 50 percent to the control group. During the first 21 months of enrollment (mid-October 2021 through June 2023), RETAINWOR*KS* enrolled 328 people or 8 percent of its goal of enrolling 4,000 workers. The first 21 months of enrollment represented two-thirds (66 percent) of the total 32-month enrollment period. Approximately 58 percent of all enrollees were treatment enrollees, and 42 percent were control enrollees (Appendix A, Exhibit A.5).

7. Treatment enrollee characteristics

We used enrollment data submitted by RETAINWOR*KS* to assess demographic characteristics for the 189 people who enrolled during the first 21 months of the enrollment period (October 2021 to June 2023) and were assigned to the treatment group. More than half of the treatment enrollees were female (57 percent). The average age of the treatment enrollees was 42. White, non-Hispanic enrollees represented the largest racial/ethnic group (69 percent), followed by Hispanic enrollees (12 percent) and Black, non-Hispanic enrollees (11 percent) (Exhibit III.3). Most treatment enrollees had at least a high school diploma, GED, or certificate of completion (95 percent). Almost all preferred English (99 percent) (Appendix A, Exhibit A.6). We include additional information about treatment enrollee characteristics in Appendix A, Exhibits A.6, A.7, and A.8.

Exhibit III.3. Race and ethnicity of RETAINWOR*KS* treatment enrollees (percentages)



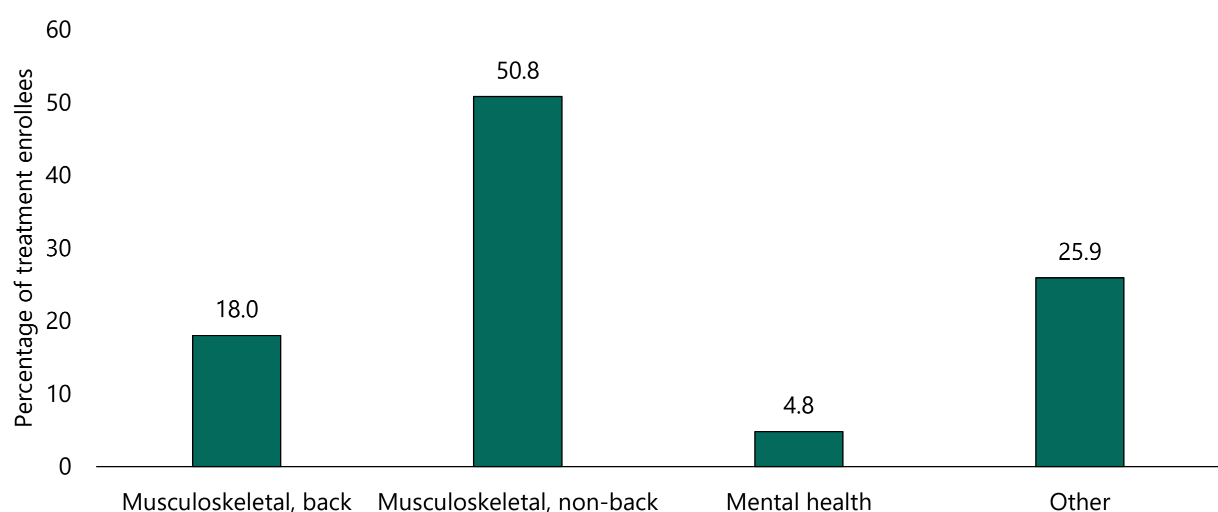
Source: RETAINWOR*KS* enrollment data through June 30, 2023.

Note: The sample size was 189 treatment enrollees. We suppressed the category "Asian, non-Hispanic" to avoid disclosing information about individuals. We did not include "missing" responses; therefore, percentages may not add to 100 percent.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

We also used the enrollment data to assess illness and injury characteristics for the same 189 treatment enrollees (Exhibit III.4). The RETAINWOR*KS* program enrolled people with an injury or illness related or unrelated to work. About half of treatment enrollees reported that their primary diagnosis was a musculoskeletal, non-back condition (51 percent). Few enrollees (5 percent) reported that their primary diagnosis was a mental health condition. People with a new or pre-existing condition were eligible for enrollment. For RETAINWOR*KS*, 63 percent of enrollees reported their illness or injury was a new condition at enrollment. The average time between treatment enrollees' onset of their primary condition and enrollment into RETAIN was 51 days.

Exhibit III.4. Primary diagnosis characteristics of RETAINWOR*KS* treatment enrollees (percentages)



Source: RETAINWOR*KS* enrollment data through June 30, 2023.

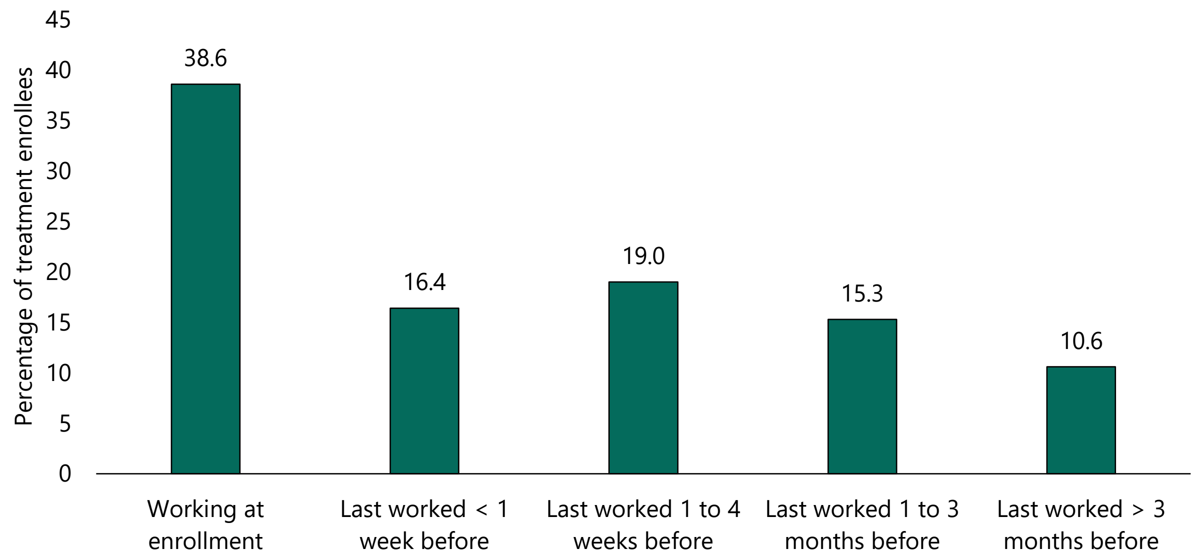
Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental health; and Other. These groupings build on previous studies of return to work among injured or ill workers. We include the mapping of ICD-10 codes into these categories in Appendix A, Exhibit A.6.

Note: The sample size was 189 treatment enrollees. We suppressed the category "Long COVID" to avoid disclosing information about individuals. We did not include "missing" responses; therefore, percentages may not add to 100 percent.

ICD = International Classification of Diseases; RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to assess recent work histories for the same 189 treatment enrollees described above (Appendix A, Exhibit A.7). All RETAIN programs must enroll people who are employed or in the labor force, and. For RETAINWOR*KS*, 80 percent of treatment enrollees were employed at the time of enrollment and 39 percent were working (and not on leave) at that time (Exhibit III.5). Many treatment enrollees had last worked within one month of enrollment (77 percent). Only a small share (11 percent) had last worked more than three months before enrollment. On average, treatment enrollees were employed full-time (41 hours per week) before the onset of injury or illness. Just over half of enrollees were employed for two years or less at their most recent job (56 percent), and 26 percent were employed for more than five years at their most recent job. In the year before enrollment, most treatment enrollees (80 percent) worked at a job that paid at least $1,000 per month. Upon enrollment, the largest proportion of treatment enrollees reported being employed in a service occupation (36 percent) (Exhibit III.6). Other treatment enrollees reported having occupations in production, transportation, or material moving (25 percent); management, professional, or related (23 percent); natural resources, construction, or maintenance (10 percent); or sales and office (6 percent).

Exhibit III.5. Length of time since last worked at enrollment among RETAINWOR*KS* treatment enrollees (percentages)

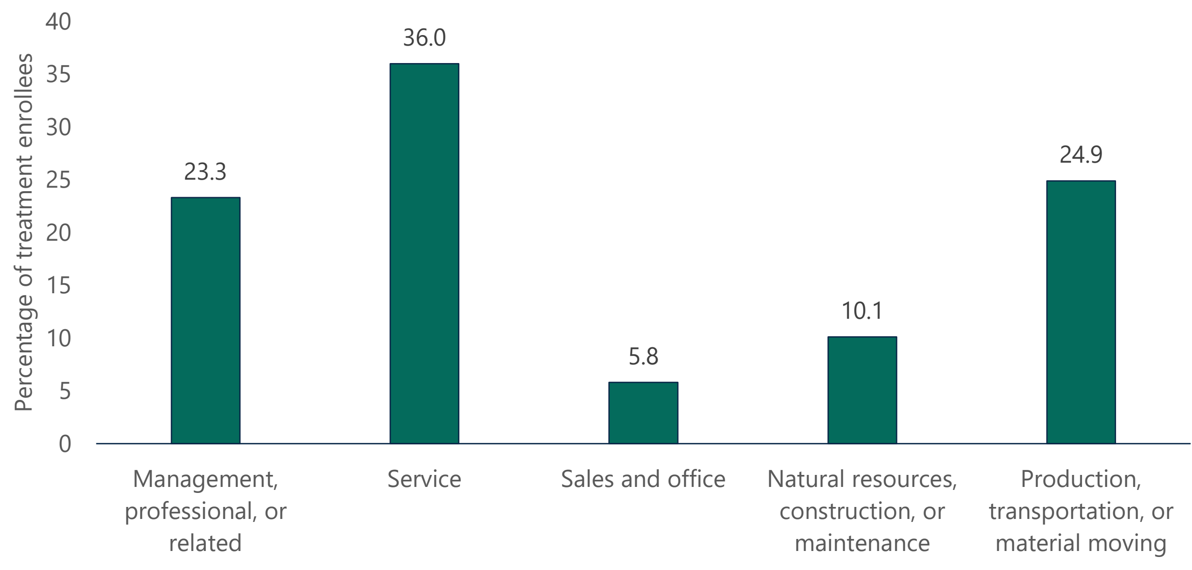


Source: RETAIN enrollment data through June 30, 2023.

Note: The sample size was 189 treatment enrollees.

RETAIN = Retaining Employment and Talent After Injury/Illness Network; RETAINWOR*KS* = Kansas RETAIN.

Exhibit III.6. Occupational classification of pre-injury/illness job among RETAINWOR*KS* treatment enrollees (percentages)



Source: RETAIN enrollment data through June 30, 2023.

Note: The sample size was 189 treatment enrollees.

RETAIN = Retaining Employment and Talent After Injury/Illness Network; RETAINWOR*KS* = Kansas RETAIN.

We also used enrollment data to compare treatment enrollees' characteristics with control enrollees' characteristics. As outlined in the Evaluation Design Report, we expected treatment and control enrollees to have similar baseline characteristics because each state had a random assignment design (Berk et al.

2021). We compared the two groups across 23 characteristics at the time of random assignment (Appendix A, Exhibits A.6, A.7, and A.8) and found two statistically significant differences between the two groups: the age distribution (but no significant difference in mean age) and the percentage of enrollees reporting that their injury was work-related.

E. RETAINWOR*KS* implementation and service delivery

In this section, for each RETAINWOR*KS* program component, we first describe how the component was operationalized and then describe facilitators and challenges to its implementation. Overall, during the interviews in April 2023, program leaders and staff reported delivering services as planned in the RETAINWOR*KS* program model. However, medical providers' completion of the four-hour, self-paced training on occupational medicine best practices took longer than expected and completion rates were low. We describe the details of this delay below.

1. Medical provider services

During early implementation, program leaders promoted medical provider training among providers affiliated with the partner health systems across the state. As of June 2023, 222 providers had completed the training and their medical practice had signed a letter of agreement with RETAINWOR*KS*. Program staff managed payments to the providers to compensate them for the time they and their office staff spent on other RETAINWOR*KS* activities (Exhibit III.7).

Exhibit III.7. Planned RETAINWOR*KS* medical provider services

Program component	Description
Training medical providers on occupational medicine best practices	• Medical providers must complete a four-hour, self-paced online training on (1) RETAINWOR*KS* and its benefits, (2) the COHE model, and (3) the opioid crisis. • RETAINWOR*KS* developed provider training via the University of Kansas's Project ECHO involving peer support. This training offers continuing medical education credits.
Incentivizing medical providers for using occupational medicine best practices	• Practices that have signed a letter of agreement with RETAINWOR*KS* receive the following on behalf of providers: – $100 for completion of referral form for successful referral to RETAINWOR*KS* – $50 for submitting an activity assessment for the enrollee – $25 for making or answering RETAIN-related phone calls – $100 for completing an RTW plan for the enrollee – $100 for completing a 30-day risk assessment for the enrollee

COHE = Centers of Occupational Health & Education; ECHO = Extension for Community Healthcare Outcomes; RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Medical providers' perceptions of the time required to complete the RETAINWOR*KS* training and the paperwork required to onboard providers contributed to low provider engagement in the program. Program staff said that many providers were interested in RETAINWOR*KS*; however, the burden of completing required training and related paperwork was a barrier for providers, resulting in a loss of momentum. One program staff member estimated that it took providers 50 days to complete all requirements, from first hearing about RETAINWOR*KS* to being ready to start referring patients. Some providers refused to complete the training or took extensive time to do so. Program staff said that primary care providers were often interested in the training, whereas specialists expressed that they

already had the necessary training to support ill or injured patients in returning to work and didn't feel it necessary to devote the additional training time. To improve relatively low completion rates among providers, program leaders said they were developing a consolidated, hour-long version of this training to make it shorter and easier to complete. While slow, they have experienced an improvement in provider engagement in trainings over the last year and hope to see continued advancements with this shorter training.

Providers were motivated to meet the requirements to participate in RETAINWOR*KS* out of a desire to help their patients, rather than the financial incentives. While they noted that the financial incentives potentially motivated some providers, program staff reported that many were already well compensated and more motivated to help their patients. However, they observed that providers such as advanced practice nurses and physician assistants, which made up most of the RETAINWOR*KS* trained providers in one workforce development area, were more responsive to the incentives. RETAINWOR*KS* made most payments to the provider's practice, which then distributed a percentage or the full amount of the payment to the provider. Independent providers received the full amount.

2. RTW coordination services

Across all healthcare partners, eight RTW coordinators provided RTW coordination services to treatment enrollees. These services included developing an RTW plan and communicating with the enrollee's employer, medical provider, and others as needed to coordinate the enrollee's staying at or returning to work (Exhibit III.8). RTW coordination services ended, and each enrollee's case was closed after six months of enrollment or eight weeks after the enrolled returned to work, whichever came first.

Exhibit III.8. Planned RETAINWOR*KS* RTW coordination services

Program component	Description
Coordinating RTW services	• RTW coordinator provides the treatment enrollee with work activity assessments that outline work restrictions and an RTW plan and uses these tools to guide service delivery. RTW coordinator meets with enrollee weekly. • RTW coordinator refers enrollee to social service providers external to RETAIN, if needed. • RTW coordinator provides the enrollee a 30-day risk assessment after returning to work.
Communicating among parties involved in RTW plan	• RTW coordinator and employment counselor work as a team to provide medical, social, and employment-related supports to the treatment enrollee. They communicate frequently and meet weekly to discuss cases and service coordination. • RTW coordinator communicates with medical provider to develop an activity assessment, which outlines work restrictions, and an RTW plan, which documents what an enrollee is able to do when they are ready to return to work without restrictions.
Monitoring treatment enrollee progress	• RTW coordinator monitors the treatment enrollee's progress through weekly contacts to assess medical progress, identify potential accommodations, and conduct a 30-day risk assessment if the enrollee has not yet returned to work. • If a treatment enrollee returns to work, the RTW coordinator checks in at regular intervals (2, 4, and 8 weeks after RTW). • RTW coordinator updates the RTW plan every 30 days or as needed.

Note: The 30-day risk assessment was completed to assess any risks or changes that could affect an enrollee's ability to perform work duties.

RETAIN = Retaining Employment and Talent After Injury/Illness Network; RETAINWOR*KS* = Kansas RETAIN; RTW = return to work.

Program data submitted by RETAINWOR*KS* indicate that most treatment enrollees (97 percent) used RETAINWOR*KS* services, including RTW coordination services or other RTW services (Exhibit III.9). Many treatment enrollees (71 percent) had an established RTW plan, and an average of 12 days elapsed between enrollment and establishing an RTW plan. As of the end of June 2023, 37 percent of treatment enrollees had exited RETAINWOR*KS*. Treatment enrollees who exited the program used services for about 77 days. The program referred a small percentage of treatment enrollees to services beyond RETAIN after six months (2 percent).

Exhibit III.9. Treatment enrollees' use of RTW coordination services

Service used (percentages unless noted otherwise)	Mean value or percentage
Used any services beyond enrollment [a]	97.4
Established RTW plan	70.9
Average time elapsed between enrollment and established RTW plan (days)	12.4
Exited RETAINWOR*KS*	37.0
Average duration of services, if exited (days)	77.0
Referred to services beyond RETAINWOR*KS* after six months	2.1

Source: RETAINWOR*KS* service use data through June 30, 2023.

Note: The sample size was 189 treatment enrollees.

[a] Any services beyond enrollment includes establishing an RTW plan or receiving an employment service such as job search assistance, training, on-site job analysis, ergonomic assessment, or transitional work opportunities.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

a. Coordinating RTW services

Program leaders and staff perceived a range of benefits of RTW coordination services in supporting treatment enrollees to return to work. Program leaders and staff said the biggest advantages of RTW coordination services is the support provided to enrollees as they balanced navigating their recovery period, worked to maintain household expenses, and set goals for returning to work.

Staff providing RTW coordination services represented diverse backgrounds, which supported service use among those from communities that have been historically underserved. Program leaders described RETAINWOR*KS* as having a diverse mix of staff including those with disabilities, who identified as members of communities that have been historically underserved such as from rural and multicultural communities, and who had experience working in trauma, spine, and burn injuries. Program staff members said this helped them build rapport and increased trust of the program among enrollees. For example, they found that sharing similar experiences with adversity made them more relatable to enrollees. To improve language accessibility, RETAINWOR*KS* made translation services available through mobile interpreters and outreach and enrollment materials available in Spanish and other languages.

Program leaders noticed an increase in enrollees with behavioral health needs. As a result, they revised RETAIN documentation, hired staff with relevant expertise, and conducted staff trainings to meet enrollee needs. RETAINWOR*KS* staff stated they saw an increasing number of RETAIN enrollees with barriers to work related to behavior health conditions or concerns, some as a result of the physical injuries they experienced. In response, program leaders hired more staff with behavioral health backgrounds and introduced more behavioral health-related trainings to address this increased need. In

addition, recruitment and enrollment staff began to systematically reach out to mental health providers to promote referrals and modified documents such as their RTW plan and activity assessment to not just address physical health conditions but behavioral health also. Program staff said this information helped them provide extra social and emotional support to these enrollees to help the enrollees build coping skills and connect with these enrollees through sharing their own lived experiences as they return to work. To assist their low-income enrollee populations, they referred enrollees to COMCARE, a grant focused on expanding comprehensive services to adults and youth in the state of Kansas with behavioral health conditions, to address behavioral health-related barriers to returning to work.

Joint communication and meetings between workforce and healthcare partners and the enrollee improved trust. When possible, workforce and healthcare partner staff had joint meetings with enrollees. Program staff said these meetings improved enrollees' responsiveness and helped confirm the legitimacy of the demonstration so enrollees would not think phone calls from RETAIN staff were spam.

b. Communicating among parties involved in enrollee's return to work

Central to the RETAIN program model is the role of the RTW coordinator in communicating among parties involved in a treatment enrollee's RTW plan to coordinate necessary services. In Exhibit III.10, we present the various communication flows that occurred to support an enrollee's return to work.

Exhibit III.10. RETAINWOR*KS*: Communication among RTW coordinator, treatment enrollee, employer, medical providers, and other service providers

Communication flows specific to an individual treatment enrollee		
	During the enrollment process	• RETAIN-trained provider signs off on referral and communicates approval to RETAIN enrollment staff. • RTW coordinator contacts enrollee to review eligibility, complete informed consent, and alert them an employment counselor will contact them. • RTW coordinator refers the enrollee to an employment counselor to determine the need for a work accommodation, short-term or work-related training, and other community services, as needed. • Employment counselor communicates with the enrollee to develop an individualized employment plan to assess the enrollee's workplace-based intervention needs and provide follow-up services.
	While receiving RTW coordination services	• RTW coordinator communicates with the enrollee's medical provider to develop an activity assessment, which outlines work restrictions and elements of the RTW plan. • RTW coordinator works with the enrollee to develop an RTW plan and provides support based on the activity assessments. • RTW coordinator communicates with the enrollee at least weekly to assess medical progress, identify potential accommodations, and conduct a 30-day risk assessment after enrollment. This risk assessment evaluates their abilities and needs to support an individualized RTW strategy. • RTW coordinator trains the enrollee on self-advocacy skills and encourages them to communicate with parties involved in their RTW plan.

Communication flows specific to an individual treatment enrollee		
	While receiving other RTW services	• RTW coordinator and employment counselor communicate frequently and meet weekly to provide medical, social, and employment-related supports to the enrollee. • Employment counselor communicates with RTW coordinator to identify interventions recommended by the treating medical provider. • When needed and permitted, the employment counselor contacts the enrollee's employer to discuss workplace accommodations. • Employment counselor follows up with the enrollee after two weeks and again after 30 days to assess changes that could affect the enrollee's ability to work and updates the employment plan accordingly.
	Upon enrollment ending	• RTW coordinator contacts the enrollee two, four, and eight weeks after enrollee returns to work. • RTW coordinator provides the enrollee with a 30-day risk assessment after returning to work. • RTW coordinator closes the enrollee's case after six months or after the enrollee has returned to work for eight weeks without restrictions.

RETAIN = Retaining Employment and Talent After Injury/Illness Network; RETAINWOR*KS* = Kansas RETAIN; RTW = return to work.

In Exhibit III.11, we report the prevalence of communication between RTW coordinators and other parties involved in enrollees' RTW plans, including employers, medical providers, and workforce professionals, based on service use data provided by RETAINWOR*KS*. For almost all treatment enrollees (close to 100 percent), the RTW coordinator communicated with at least one of these parties. Most RTW coordinators communicated with an enrollee's medical provider at least once (97 percent of treatment enrollees) and with an enrollee's workforce professional at least once (97 percent). RTW coordinator communication with an enrollee's employer was less common (7 percent of treatment enrollees).

Exhibit III.11. Percentage of RETAINWOR*KS* treatment enrollees whose RTW coordinator communicated with others involved in their RTW plans

Communication among parties involved in treatment enrollees' RTW plans	Percentage of treatment enrollees
RTW coordinator communicated with employer at least once	6.9
RTW coordinator communicated with medical provider at least once	97.4
RTW coordinator communicated with workforce professional at least once	96.8
RTW coordinator communicated with any of the above	99.5

Source: RETAINWOR*KS* service use data through June 30, 2023.

Note: The sample size was 189 treatment enrollees.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Some enrollees, especially those with a mental health diagnosis, did not permit RETAINWOR*KS* staff to communicate with their employer for fear of stigma or retaliation, which was a barrier to engaging employers in supporting enrollees' return to work. During the development of the individual employment plan, employment counselors asked treatment enrollees for permission to contact enrollees' employers. Program staff said that when enrollees did not permit employment counselors to communicate with their employer, it was difficult for the counselors to get employers to understand the needed accommodations. If enrollees thought their employer was understanding and would not

stigmatize mental health conditions, program staff said the enrollee was more likely to give coordinators permission to communicate with the employer. When permission is provided, program staff said they can address accommodations without issue.

Competing demands on medical providers' time limited their capacity to complete activity assessments, which delayed RTW coordinators' development of RTW plans. To address this issue, RETAINWOR*KS* staff asked providers to document needed information, such as findings from recent patient visits, in the enrollee's medical record so they could complete the RTW plans.

c. Monitoring treatment enrollee progress

Program staff said their management information system, REDCap, was working well to support RTW services. Capabilities such as visibility of enrollee information across local workforce development areas and partners supported monitoring treatment enrollee progress.

3. Other RTW services

Employment counselors, in close coordination with RTW coordinators, offered treatment enrollees support with workplace-based interventions and provided retraining and rehabilitation services. They also provided social supports to enrollees as needed (Exhibit III.12). In this section, we first describe how these services were operationalized and then describe facilitators and challenges to their implementation.

Exhibit III.12. Planned RETAINWOR*KS* other RTW services

Program component	Description
Supporting workplace-based interventions	• Employment counselor communicates with the RTW coordinator to identify interventions recommended by the treating provider. • When needed and permitted by the treatment enrollee, the employment counselor contacts the enrollee's employer to discuss workplace interventions, such as work schedule modifications and physical accommodations. • Employment counselor follows up with the enrollee after two weeks and again after 30 days to assess any changes that could affect the enrollee's ability to perform work duties and updates the IEP accordingly.
Retraining or rehabilitating enrollees	• RTW coordinator refers treatment enrollee to the employment counselor to determine needs, short-term or work-related training, transitional work opportunities, and other community services. • If a treatment enrollee must seek a new career, the employment counselor refers the enrollee to all Workforce Innovation and Opportunity Act programs for which the enrollee is eligible.

IEP = individualized employment plan; RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

a. Supporting workplace-based interventions

When treatment enrollees permitted, employment counselors reached out to their employers about supporting workplace-based interventions. In Exhibit III.13, we list the different workplace-based interventions treatment enrollees received and the percentage of enrollees that received each, as reported in the RETAINWOR*KS* program data. About one-quarter of enrollees (27 percent) received a workplace-based intervention with workplace accommodations being the most prevalent.

Exhibit III.13. RETAINWOR*KS* treatment enrollees' use of workplace-based services

RETAINWOR*KS* service	Used service (percentages)
On-site job analysis	10.6
Ergonomic assessment	0.0
Workplace accommodation	16.9
Any of the above interventions	27.0

Source: RETAINWOR*KS* service use data through June 30, 2023.

Note: The sample size was 189 treatment enrollees.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

Employment counselors were challenged with the slow pace of medical provider referrals to RETAINWOR*KS* and low engagement among medical providers. Program staff reported low morale among employment counselors eager to support enrollees. Program leaders said they took steps to improve communication between employment counselors and referring medical providers because their input was especially helpful to working with enrollees to secure workforce accommodations.

Improved coordination between workforce and healthcare partners helped program staff communicate with employers to support work accommodations. RETAINWOR*KS* partners noted that when treatment enrollees gave them permission to communicate with their employers, working with employers to support workplace accommodations was a smooth process. In some instances, the enrollee did not need accommodations facilitated by RETAINWOR*KS* staff, such as when the enrollee's employer already implemented an accommodation or the enrollee worked remotely until they recovered. When a work accommodation was required, workforce staff worked closely with the healthcare partner. Program staff noted that medical providers' input was especially useful for employment counselor work with enrollees to secure work accommodations.

Employment counselors' experience with work accommodations helped them provide effective services. RETAINWOR*KS* partners created an interdisciplinary team of employment counselors with diverse skillsets and backgrounds. They noted that employment counselors with lived expertise and backgrounds in disability and workplace accommodations were able to apply this experience to supporting enrollees and other RETAINWOR*KS* staff. Program staff noted having this background provided a more tailored experience for enrollees and ensured the services delivered were aligned with the enrollees' employment goals and medical needs.

RTW coordinators and employment service staff built rapport and established trust with potential enrollees, including enrollees from communities that have been historically underserved, to encourage the use of workforce services. Program staff said that reminding enrollees there was no cost to services helped support their engagement in employment services. They observed that cost would otherwise be a barrier for some enrollees from communities that have been historically underserved, even to engage in needed services. For example, individuals from communities that have been historically underserved sought assistance with employment, resumes, interviews, or use of workforce facilities such as computer labs. Providing these types of services to enrollees reportedly helped build rapport and trust.

Enrollees were more interested in financial support than employment services. Program staff noted that after experiencing an injury or illness, many enrollees were focused on maintaining household expenses and their healthcare journey before they focused on returning to work. As such, program staff saw more enrollee interest in supportive services provided by workforce partners through financial assistance, such as rental or housing assistance, utilities assistance, and childcare assistance than interest in employment services.

b. Retraining or rehabilitating enrollees

While the use of more intensive training services was infrequent, employment counselors did provide retraining and rehabilitation services to treatment enrollees who sought a job transition. RTW coordinators referred enrollees to the Office of Vocational Rehabilitation at the end of the six-month intervention period if the enrollee needed longer-term services.

In Exhibit III.14, we list the retraining or rehabilitation services that treatment enrollees used and the percentage of enrollees that used each service, as reported in RETAINWOR*KS* program data. About 69 percent of enrollees used retraining or rehabilitation services offered by RETAINWOR*KS* with job search services being used by all who used any such services.

Exhibit III.14. Treatment enrollees' use of retraining or rehabilitation services

RETAINWOR*KS* service	Used service (percentages)
Job search services	69.3
Training services	2.1
Transitional work opportunity [a]	0.0
Other employment services	5.8
Any of the above services	69.3

Source: RETAINWOR*KS* service use data through June 30, 2023.

Note: The sample size was 189 treatment enrollees.

[a] Transitional work opportunity is a time-limited job at a new employer during an enrollee's recovery period to meet the enrollee's work restrictions until their employer can provide work accommodations.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

The six-month time frame for RETAIN enrollment was too short to effectively support enrollees who needed or wanted retraining services. Program leaders and staff said that retraining often took longer than six months. In these cases, employment counselors tried to connect enrollees with Workforce Innovation and Opportunity Act services to allow them to continue receiving support beyond RETAINWOR*KS*. Program leaders also noted that serving enrollees is more time intensive than serving the workforce services' usual caseload, due to the enrollees' medical needs and the involvement of multiple parties (for example, medical providers and employers).

4. Service contrast

There was a clear distinction between the RETAINWOR*KS* services offered to treatment enrollees and the usual services available to control enrollees. After randomization, workforce partner staff referred control enrollees to workforce center services available to the community by providing a list of Kansas's workforce

services and communicating that the enrollee was responsible for seeking out services independently. Neither the RTW coordinators nor the employment counselors had further contact with control enrollees.

RETAINWOR*KS* offered unique RTW services relative to those available outside of the program. Workers injured on the job received workers' compensation, which might cover physical therapy or include case management; however, services covered by workers' compensation benefits ranged widely by employer. Those with identified disabilities could receive services from vocational rehabilitation. Any community member could seek employment services at a workforce center. Program staff noted that none of the non-RETAIN services are as individualized and frequent as what is offered in RETAINWOR*KS*, nor do they help people navigate the health system, bridge the gap between the workforce and medical systems, or offer incentives for medical providers to engage in RTW activities.

5. Collecting and reporting program data

RETAINWOR*KS* used a REDCap management information system to track all RETAIN services. In addition to REDCap, workforce staff tracked employment services in their management information system KANSASWOR*KS*. Healthcare partner staff tracked RTW services in the EMR. The REDCap system, which the lead agency introduced in January 2023 across all five workforce development areas specifically for RETAINWOR*KS*, enabled program leaders and staff to access enrollee information across workforce and healthcare partners.

As the program expanded across the state, RETAINWOR*KS* implemented REDCap to lessen administrative burden and support systematic data sharing among partners. At the time of the Round 1 site visit, RETAINWOR*KS* faced challenges in reporting program data for the RETAIN evaluation because it lacked a single management information system. Instead, program staff manually entered data into an Excel-based data collection tool. The REDCap system still required dual documentation in REDCap and KANSASWOR*KS* or healthcare partners' EMR systems because employment counselors were required to use KANSASWOR*KS* and healthcare partners stored information on RTW services in their EMR systems. However, program staff said that after initial training and data transfer, the transition to REDCap improved the process for collecting and reporting enrollment and service delivery data and reduced administrative burden.

"But I would say the number one thing that has helped us recently is implementing REDCap and then kind of retiring that manual data collection tool, because it was proving to be more of a burden than like an efficient step in the process."

—Program staff

Regular data quality checks supported accurate and reliable data collection and entry. Program staff pulled extracts of employment services from KANSASWOR*KS* and RTW services from REDCap to create comprehensive quarterly reports on service delivery. Ensuring data quality and accuracy was reportedly a priority for staff. Data quality checks between the workforce and healthcare partners began as soon as program staff entered baseline data during the enrollment process. Workforce staff stated they reviewed enrollment information for completion and accuracy before random assignment. Regular quality checks between program staff provided timely information about data quality issues, which were addressed by the partners during weekly and biweekly coordination meetings.

F. Staff time spent on RETAINWOR*KS*

We used staff activity logs to collect information about the time RETAINWOR*KS* administrative and direct service staff spent on program activities to help understand the program's implementation and the allocation of labor costs across program activities. These logs captured staff time spent on activities related to recruitment and enrollment, RTW services, workforce development services, communication with and training employers or medical providers, and program administration. We collected the logs from 12 to 13 individuals for two one-week periods representing periods of steady-state operations (when the program was neither ramping up nor closing down).[6]

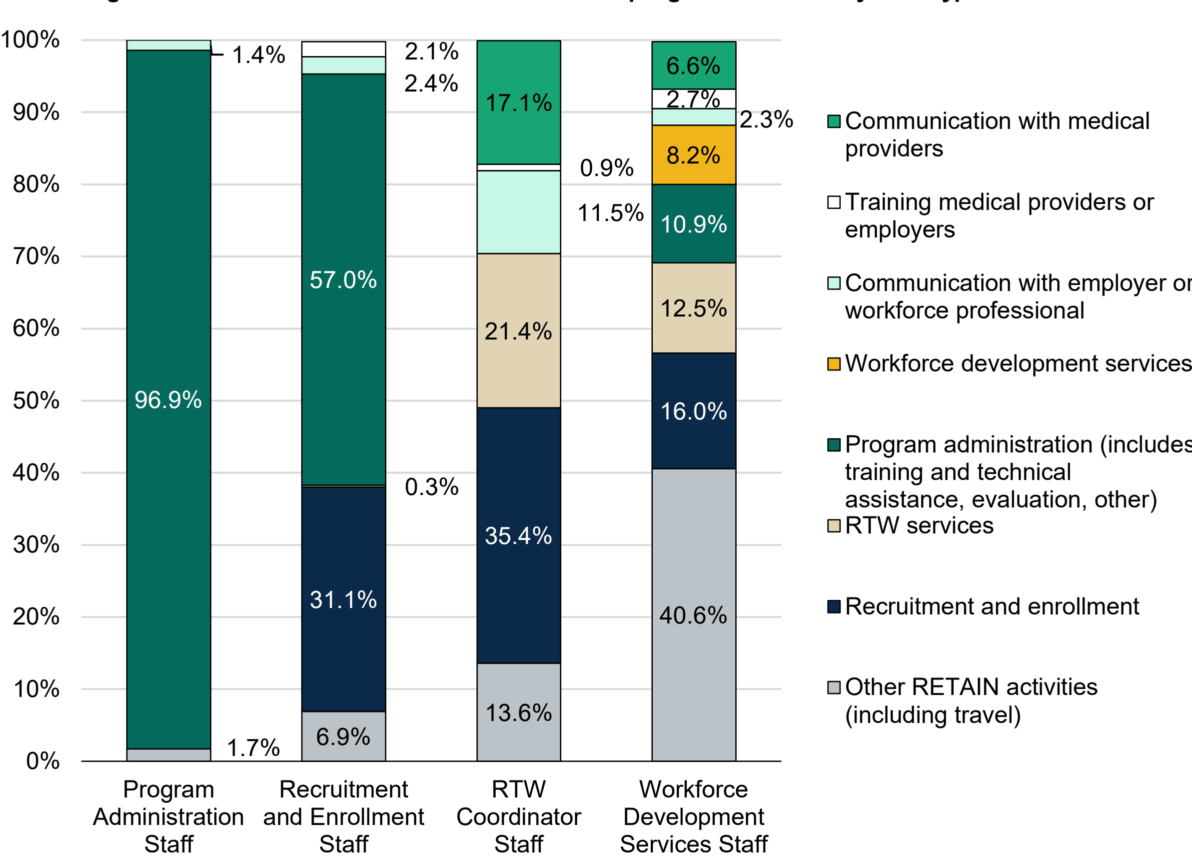
As expected, RETAINWOR*KS* administrators, enrollment and recruitment staff, RTW coordinators, and workforce development staff reported different allocations of time across activities (Exhibit III.15). RETAINWOR*KS* administrators allocated the largest proportion of their time to program administration activities, which included training and technical assistance, evaluation, and other activities, and the lowest proportion to communication with employer or workforce professionals and workforce development services. Both recruitment and enrollment staff and RTW coordinator staff spent about one-third of their time on recruitment and enrollment activities (31.1 percent and 35.4 percent, respectively). RTW coordinator staff spent less time on RTW services (21.4 percent)[7] and about a third of their time on communication with medical providers and employer or workforce professionals (17.1 percent and 11.5 percent, respectively).[8] Notably, only workforce development staff spent time delivering workforce development services (8.2 percent) and allocated the largest proportion of their time to other RETAIN activities including travel.

[6] We collected the staff activity logs from 13 staff for the period February 27–March 3, 2023, and from 12 staff for the period May 15–19, 2023. Eight staff members that reported hours were full-time RETAIN staff and the remaining were part-time staff.

[7] RTW services were defined as activities to support participants in staying at or returning to work, including developing and implementing a plan including regular check-ins with participants and monitoring participants' progress for returning to work, and referring participants workforce development providers such as vocational counseling and job search assistance services

[8] Program administration included training and technical assistance, evaluation, and other activities. RTW coordinators likely spent the bulk of this time on data entry across various systems.

Exhibit III.15. Percentage distribution of administrative and direct service staff hours across RETAINWOR*KS* activities



Source: Activity logs completed by 13 RETAINWOR*KS* program leaders, partners, and staff in February 2023 and 12 in May 2023.
RETAIN = Retaining Employment and Talent After Injury/Illness Network; RETAINWOR*KS* = Kansas RETAIN; RTW = return to work.

G. Costs of RETAINWOR*KS*

We used program cost data submitted by RETAINWOR*KS* to assess the economic costs of implementing RETAINWOR*KS*. In the period of May 17, 2021, through March 31, 2023, which is 48 percent of the total grant period, RETAINWOR*KS* incurred $1,838,765.12 in costs, or 9 percent of the program's total grant award (Appendix A, Exhibit A.10). Most of these costs were personnel or labor costs (89 percent). The remaining costs were indirect costs (8 percent); outreach costs to providers, patients, or employers (2 percent); direct costs for providing services to participants and providers (2 percent); and other direct costs (0.2 percent). The average cost of providing services per treatment enrollee was $16,716 (including direct and indirect costs).[9]

[9] The average cost of providing services per treatment enrollee was calculated as the total costs incurred by the RETAINWOR*KS* program from May 17, 2021, through March 31, 2023, divided by the number of treatment enrollees as of March 31, 2023. Total costs incurred by the program include personnel or labor costs, direct costs of providing services to participants and providers, and indirect costs.

H. Plans for sustaining RETAINWOR*KS*

In this section, we describe the plans for sustaining KANSASWOR*KS* that program leaders and staff reported on during the interviews in May 2023. Their plans were focused changing how healthcare providers view employment as a medical outcome and continue to coordinate with workforce partners. Program leaders worked with local state leaders to promote policy recommendations to promote RTW principles in practice and policy.

Program staff said their vision is to change the culture in the healthcare system so employment is viewed as a medical outcome. At the time of the site visit, program leaders were beginning to have sustainability discussions internally and with partners. For example, they initiated conversations with local political leaders and partners to identify ways to continue delivering RETAINWOR*KS* services after the demonstration ends. Program leaders said these conversations aimed to change the culture so that healthcare partners would continue to coordinate with workforce partners and view employment as a service. Program leaders were considering the possibility of asking local employers to financially support a RETAIN-like program annually, to sustain services. Overall, staff said that they would like to see RETAIN-like services continue, with additional federal support to ensure the continuation.

I. Implications for replication of RETAINWOR*KS*

Our analysis of RETAINWOR*KS* implementation and service delivery points to key factors that may be important to consider for replicating the program. Overall, these findings suggest RETAINWOR*KS* had a staffing infrastructure that supported implementation and service delivery but faced challenges engaging medical providers and employers to support implementation.

- Requiring medical providers to complete training, authorize their patients' enrollment in RETAINWOR*KS*, and complete paperwork such as work activity prescriptions once their patient was enrolled was a barrier to provider enrollment in the program.
- In-person meetings with medical providers and having a provider champion who drew on longstanding relationships with providers facilitated provider engagement in RETAINWOR*KS*.
- Enrollment was challenging because fewer-than-expected medical providers, the primary referral source, completed the training required to refer patients to RETAINWOR*KS*. Outreach efforts to engage employers and the general public resulted in few referrals.
- Midway through the enrollment period, RETAINWOR*KS* removed requirements for enrollment, including a physical Social Security card and a signed informed consent form, which simplified the enrollment process for potential enrollees.
- Program staff reported that the six-month enrollment period was too short to deliver the full range of RTW coordination and retraining services to some enrollees.

J. Implications for interpretation of impacts on outcomes

In this section, we report on the findings about factors that may support the interpretation of RETAINWOR*KS* impacts on outcomes that will be included in the Final Impact Report.

- Cumulative enrollment was lower than expected, and RETAINWOR*KS* was working to identify additional referral sources, including expanding the types of medical providers who could refer and relying on EMR data to identify potentially eligible patients.
- About half of treatment enrollees reported that their primary diagnosis was a musculoskeletal, non-back condition.
- More than half of enrollees reported their illness or injury was a new condition at enrollment. The average time between treatment enrollees' onset of their primary illness and enrollment into RETAIN was just under two months (51 days).
- RTW coordination services included regular communication between an RTW coordinator and treatment enrollee to support their return to work.
- Program staff described concerns with a lack of provider engagement to refer patients to RETAINWOR*KS*. For almost all treatment enrollees (97 percent), the RTW coordinator communicated with their medical provider at least once.
- The onboarding process and accredited medical provider training covering best practices in support of return to work was a lengthy process due to the self-paced nature of the training. In such, program staff stated it took providers 50 days to complete all requirements, from first hearing about RETAINWOR*KS* to being ready to start referring patients.
- Employment services and counselors had a role in delivering RETAIN services to treatment enrollees. Program staff saw more interest in supportive services provided by workforce partners through financial assistance.
- There were clear distinctions between the services available to treatment and control enrollees. While control enrollees were offered standard workforce services, none of the non-RETAIN services are as individualized and frequent as what is offered in RETAINWOR*KS*.

IV. RETAIN Kentucky

Key findings

- The lead agency and the lead workforce partner (which oversaw implementation) had a longstanding and collaborative relationship before RETAIN KY, and the collective networks of program leaders, staff, and partners facilitated several aspects of the RETAIN KY recruitment and enrollment process.
- RETAIN KY's enrollment started slowly and increased sharply midway through the enrollment period after adding an online clinical research recruitment platform, improving referral processes, and offering potential enrollees an enrollment incentive. Midway through the enrollment period, RETAIN KY achieved 34 percent of its enrollment goal.
- One of the lead healthcare partners had existing initiatives in place to reach and serve communities that have been historically underserved, which facilitated recruiting enrollees from these communities.
- To improve the recruitment and enrollment process, RETAIN KY expanded the capacity of recruitment staff by cross-training existing staff, adding part-time staff to conduct intake, and streamlining the communication channels through which they received referrals. Potential enrollees who declined to enroll either were not interested in the services, did not want to participate in a research study, or preferred to apply for federal disability benefits.
- The intended population comprised people who were employed or had been employed within the past 12 months and who had an injury or illness that was not work-related but that affected their employment. Around one-third of treatment enrollees reported that their illness was a new condition at enrollment. The average time between the onset of treatment enrollees' primary condition and enrollment into RETAIN KY was over two years.
- About a third of treatment enrollees reported that their primary diagnosis was a mental health condition (30 percent). About a quarter reported that their primary diagnosis was a musculoskeletal condition (24 percent). Almost half of treatment enrollees reported a condition other than musculoskeletal, long COVID, or mental health.
- Most treatment enrollees had at least a high school diploma, GED, or certificate of completion (94 percent), and among those, a quarter had a four-year college degree or post-graduate degree (24 percent). Many treatment enrollees were employed at enrollment (63 percent), with the largest proportion employed in a service occupation.
- Medical provider training was delayed while RETAIN KY completed the accreditation process required to offer continuing medical education credits to providers who completed the training. However, receiving accreditation was an important step because providers seemed more motivated by continuing medical education credits than financial incentives.
- Around three-quarters of treatment enrollees used any RETAIN KY services beyond enrollment (77 percent), and a similar proportion established an RTW plan (76 percent). Beyond RTW coordination services, 7 percent of treatment enrollees received a workplace-based intervention, and around 14 percent used retraining or rehabilitation services. RTW coordinators were reportedly skilled and well-supported to provide RTW coordination services; however, they faced challenges in engaging treatment enrollees with health-related social needs, mental health conditions, or a lack of motivation to return to work. Treatment enrollees valued peer mentor services because peer mentors recognized barriers they faced in returning to work and understood how to support them, which improved their engagement in returning to work.
- For about one-third of treatment enrollees, the RTW coordinator communicated with at least one of the parties (medical provider, employer, or workforce professional) who may be involved in an enrollee's RTW plan. Program staff found it helpful to communicate with enrollees' medical providers and access their medical records; however, medical providers did not consistently share enrollee information with RTW coordinators.

- RETAIN KY built partnerships and learning opportunities intended to sustain systems changes in support of early SAW/RTW strategies beyond the Phase 2 grant period. ◢

A. Overview of RETAIN Kentucky

The Kentucky (KY) Office of Vocational Rehabilitation (OVR) was the lead agency for RETAIN Kentucky (RETAIN KY). The program catchment area was the entire state of Kentucky, including 120 counties. RETAIN KY enrolled people whose injuries or illnesses were not work-related and provided return to work (RTW) coordination services to all treatment enrollees. RTW coordinators referred enrollees with health-related social needs to social service providers and to assistive technology specialists who identified work accommodations for those who experienced a loss of functioning. For treatment enrollees looking for work, RTW coordinators provided employment services and referred them to employment service providers. For enrollees interested in peer mentoring services, peer mentors provided psychosocial support.

The RETAIN KY program used a vocational rehabilitation model, in contrast to other RETAIN states, which used an occupational medicine model. The vocational rehabilitation model considers employment as a contributing factor to a person's recovery process and health outcomes. The occupational medicine model helps people get as healthy as possible to return to work.

In this chapter, we document recruitment, enrollment, and program operations approximately midway through the two-and-a-half-year enrollment period.[10] The findings we present about the implementation of RETAIN KY are based on the analysis of qualitative data collected during semistructured interviews and program data submitted by RETAIN KY[11] collected through June 30, 2023, 21 months after the start of enrollment.

B. RETAIN KY partnerships to support enrollment and service delivery

The lead agency for RETAIN KY, OVR brought together a range of partners to support implementation (Exhibit IV.1). The OVR received signed letters of commitment from health systems, workforce agencies, and other organizations to support RETAIN KY before submitting its Phase 2 application. The OVR also refers eligible clients to RETAIN KY. In this section, we describe these partner organizations and their roles in supporting RETAIN KY. We include supplemental information about the roles of RETAIN KY partners in Appendix B, Exhibit B.1.

[10] At the time of this report, enrollment was scheduled to end in May 2024, and program operations funded under the RETAIN Phase 2 grant were scheduled to end in May 2025.

[11] RETAIN KY enrolled the first person on October 18, 2021. We collected qualitative data about implementation experiences during interviews 18 months after the start of enrollment. We collected program data through June 30, 2023, 21 months after the start of enrollment.

Exhibit IV.1. RETAIN KY organizational chart

Lead Agency
Kentucky Department of Workforce Investment, Office of Vocational Rehabilitation
Executive director*
Deputy executive directors*
Grant administrator*

State Leadership Team
Kentucky Workforce Innovation Board
7 Local Workforce Development Boards
Kentucky Hospital Association
Kentucky Department for Public Health
University of Kentucky/UK HealthCare
Council of State Governments
Mental health consultant
Workforce development consultant

Lead Workforce Partner
University of Kentucky, Human Development Institute
Lead RTW coordinator*
RTW coordinators
RTW liaisons
Intake coordinators
Workforce development lead*
Referral and enrollment lead*
Referral and enrollment coordinator*
Intervention and capacity building lead*
Implementation lead*
Technical assistance liaison*
Evaluation liaison*
Assistive technology specialist
Peer mentor

Lead Healthcare Partner
UK HealthCare
Healthcare co-lead/provider champion*

Lead Healthcare Partner
UofL Health
Healthcare co-lead/provider champion*

Recruitment Partner
Build Clinical

** Serves on leadership team*
RETAIN = Retaining Employment and Talent after Injury/Illness Network; RTW = return to work.

1. Lead healthcare partner

Both lead healthcare partners—the University of Kentucky (UK) HealthCare and UofL Health—are large health systems. They supported implementation of RETAIN KY by recruiting eligible patients and staff for enrollment. Three healthcare co-leads were embedded across the health systems and acted as provider champions for recruiting medical providers to take the RETAIN KY training and refer patients and health system employees.

2. Lead workforce partner

The lead workforce partner, UK Human Development Institute (HDI), provided expertise on services for people with disabilities. They oversaw implementation by (1) recruiting, engaging, and training medical providers; (2) engaging employers and workforce organizations to raise awareness about RETAIN KY and

encourage referrals; (3) enrolling referred people; and (4) recruiting, training, and overseeing RTW coordinators who delivered stay-at-work (SAW)/RTW services.

3. Other partners

The RETAIN KY leadership team included partners who advised on systems-level improvements to support sustainability. These partners included statewide and local workforce agencies, the state public health agency, and consultants in workforce policy and mental health. Members of the leadership team helped identify potential solutions to program challenges and promoted RETAIN KY within their professional and member networks.

4. Coordination of program partners

The lead agency (OVR) and lead workforce partner (HDI) had a longstanding relationship and stayed coordinated through regular meetings. The leadership team, made up of staff from the lead agency and the lead workforce partner, met quarterly to review the work plan from their approved Phase 2 proposal, assess progress on goals and identify risks to accomplishing them in a timely manner, and discuss operational challenges and potential solutions. During these meetings, the lead RTW coordinator shared challenges and feedback from the RTW coordinators, including how the management information system (Case Management Data System [CMDS]) could better support service delivery. A subset of the leadership team, including the OVR and HDI executive directors, met biweekly to address any administrative challenges and opportunities.

Program leaders attributed the successful partnership between OVR and HDI to their longstanding relationship and open communication between the organizations. If issues arose, the partners communicated proactively and were responsive to one another. Partners involved one another in leadership and staff meetings to support coordination.

C. Program environment surrounding RETAIN KY implementation and service delivery

In this section, we describe the program environment in which RETAIN KY was implemented to understand factors outside the study's control that may contribute to or inhibit program implementation and the detection of impacts.

1. Employment and policy environment

In Kentucky, about one-third of working-age people with disabilities were employed in 2022, lower than the national average (Exhibit IV.2). Kentucky became an Employment First State in 2018, meaning employment is the preferred option for people with disabilities. Program leaders viewed this as providing momentum for RETAIN KY and supporting its sustainability. Program staff and partners described various barriers to work for people with disabilities, including lack of transportation, employer stigma around disabilities, and local attitudes about applying for Social Security Disability Insurance (SSDI) benefits instead of returning to work.

Program leaders and staff said there was a labor shortage in the state, leading to job opportunities, including for RETAIN KY enrollees. They observed employers trying to keep workers in the workforce due

to the difficulty of replacing them in a tight labor market, which could have helped RETAIN KY enrollees find jobs. To the extent that a tight labor market motivated employers to increase their efforts to keep workers engaged, it could limit the impact of RETAIN KY services on the treatment group.

Exhibit IV.2. RETAIN program environment in Kentucky

Economic indicator (percentages)	Kentucky	United States
Unemployment rate (June 2023)[a]	3.8	3.5
Employment rate among working-age people without disabilities (2022)[b]	78.0	79.0
Employment rate among working-age people with disabilities (2022)[b]	38.0	44.0

[a] U.S. Bureau of Labor Statistics (2023a).

[b] U.S. Bureau of Labor Statistics (2023b).

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

2. COVID-19 pandemic

Program leaders and staff described mixed effects of the COVID-19 pandemic on RETAIN KY. In Phase 1, the program shifted to virtual recruitment and RTW coordination service delivery. Most recruitment and service delivery remained virtual in Phase 2, which posed challenges to RTW coordinators' efforts to forge connections with enrollees, conduct assistive technology assessments, and implement work accommodations. However, virtual recruitment and service delivery enabled the program to have a statewide reach. At the same time, the pandemic reportedly contributed to burnout among healthcare providers, employers, and enrollees or potential enrollees, who struggled to prioritize RETAIN KY with other demands on their time.

Program leaders and staff said the COVID-19 pandemic had mixed effects on work opportunities for RETAIN KY enrollees. It reportedly increased remote work opportunities, which alleviated some barriers to work, such as transportation and the need for certain accommodations. However, program leaders and staff said the pandemic made some enrollees experience greater stress and anxiety about work, including concerns about exposure to COVID-19 in a job setting. They also described the pandemic as having adverse effects on mental health, substance use, and domestic violence in Kentucky.

D. RETAIN KY recruitment and enrollment

RETAIN KY sought to enroll anyone with an illness or injury (unrelated to work) who came into contact with various referral sources or program outreach materials. The pace of enrollment increased sharply midway through the enrollment period. In this section, we first describe RETAIN KY's referral sources and experiences prompting referrals from those sources, including recruiting people from communities that have been historically underserved.[12] We then described RETAIN KY's experience with applying its

[12] SSA's Equity Action Plan points to the Federal Executive Order on Advancing Racial Equity and Support for Underserved Communities, which defines the term "underserved communities" as populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.

eligibility criteria and then enrolling eligible people.[13] Appendix B, Exhibit B.2 includes supplemental information about the recruitment and enrollment process.

1. Referral sources

RETAIN KY received referrals from various sources, including lead agency counselors and staff, an online clinical research recruitment platform, and lead healthcare partner staff. Midway through the enrollment period, Build Clinical, an online clinical research recruitment platform, became the primary source of referrals, followed by OVR counselors and staff using a streamlined referral process. Before 2023, the primary source of referrals was clinical support staff at the two lead healthcare partners, UK HealthCare and UofL Health.

RETAIN KY's partnership with an online clinical research recruitment platform generated increased referrals and enrollment. In March 2023, RETAIN KY staff began receiving referrals from Build Clinical. A similar percentage of referrals reportedly enrolled compared with other referral sources (about 20 percent), and their monthly enrollment numbers doubled.

Program leaders improved training and processes for OVR counselors, which increased their referrals to RETAIN KY. Program leaders trained OVR counselors on referring cases to RETAIN KY. Program staff worked with OVR to embed RETAIN KY eligibility questions into their intake form, allowing OVR staff to refer potential enrollees to RETAIN KY before they were formally connected to an OVR counselor, capitalizing on RETAIN KY's ability to provide services within 24 to 48 hours of enrollment. Program leaders said they developed a confidentiality agreement between OVR and RETAIN KY that allowed staff to share information about potential enrollees, which supported referrals. Following these improvements, referrals from OVR increased sharply (from 7 in one month to 125 in the following month).[14]

RETAIN KY simplified the process for providers at partner healthcare systems to refer patients by adding a referral button to the electronic medical record (EMR). With one click in a patient's EMR, a medical provider at UK HealthCare or UofL Health could share referral information with RETAIN KY staff, eliminating additional steps to make a referral. The button also attached information about RETAIN KY to the patient's after-visit summary so they could refer themselves to the program. Program staff and partners described overcoming initial challenges in incorporating the referral pathway into different EMR systems and clinical workflows by leveraging existing relationships and being present on-site to help clinical staff support medical providers in adopting the referral pathway.

Medical providers' motivation to refer patients to RETAIN KY varied by specialty. Program staff and partners observed that physical medicine providers and rehabilitation specialists saw the value of RETAIN KY because they often helped patients make SAW/RTW decisions, while other types of providers needed help understanding the benefits of RETAIN KY. Program staff said providers were also discouraged by the possibility that patients could be assigned to the control group. To address these challenges, RETAIN KY

[13] Appendix B, Exhibit B.3 lists the barriers and facilitators that emerged from our analysis.

[14] Before these changes, OVR counselors provided clients with RETAIN KY materials and clients could choose to refer themselves. Self-referral remained an option.

had two liaisons follow up with providers regularly to keep them engaged and provide ongoing information about RETAIN KY.

2. Outreach strategies

Eight RETAIN KY staff conducted outreach to employers, career centers, local workforce innovation boards, medical providers, and other types of clinicians to increase awareness of RETAIN KY and prompt referrals. These staff educated people experiencing an illness or injury about RETAIN and, if the person permitted, they made a referral or encouraged the person to self-refer to RETAIN KY.

Program leaders and staff described their extensive professional networks as helpful in identifying formal and informal partners who made referrals to RETAIN KY. Program leaders and staff presented information about RETAIN KY to employers, career centers, and local workforce innovation boards. Within the lead healthcare partners and beyond, lead workforce partner staff introduced RETAIN KY to physicians, occupational therapists, and physical therapists; community health workers; primary care office managers, and other staff. The presentations included information about RETAIN KY services and the referral process, encouragement to refer patients, employees, and clients to RETAIN KY, and education about SAW/RTW best practices. In addition, program staff hosted a virtual monthly employment seminar series that built awareness of RETAIN KY among employers and reinforced SAW/RTW best practices.

RETAIN KY liaisons and provider champions generated interest in RETAIN KY among patients and providers. Program staff said that having two RETAIN KY liaisons on site at the healthcare partners helped them engage providers because it allowed them to function as RETAIN KY ambassadors who informed and reminded physicians, nurses, physicians assistants, and other staff about RETAIN KY and its benefits. Program partners and staff said formal and informal provider champions increased providers' interest in RETAIN KY by emphasizing the shared goal of supporting their patients and sharing the positive impact RETAIN KY had on their patients.

Referrals from trusted sources increased potential enrollees' interest in RETAIN KY. Program staff and partners said that patients tended to follow up on a referral to RETAIN KY when it came from a trusted provider. In addition, people were reportedly more likely to enroll in RETAIN KY if they heard about it from a family member or enrollee. Program staff said on-site RETAIN KY staff presence and spontaneous word-of-mouth endorsements from enrollees helped generate interest in RETAIN KY.

3. Strategies for recruiting people who have been historically underserved

To promote recruitment and enrollment among communities that have been historically underserved, RETAIN KY program staff conducted outreach to organizations serving these communities throughout the state. These organizations included Family Resource Centers located in public schools and the Kentucky Rural Health Association, which focuses on equitable access to healthcare for people living in rural

> "Being on site and having multiple patients being enrolled in a study, they get to talking to each other, that's helpful as well. And it's not even something that I'm a part of. They can say, hey, man, RETAIN has helped me in these ways. And they're like, oh, hey, you helped them, what's in it for me?"
>
> —Program staff

underserved areas. In addition, program staff worked with other entities—including the University of Kentucky extension offices, libraries, and police departments—to disseminate RETAIN KY materials.

Program partners' and referral sources' connections to communities that have been historically underserved reportedly helped the program recruit enrollees from these communities. Program leaders and partners said UK HealthCare served patients with various types of insurance or who were uninsured and intentionally connected to LGBTQ+ communities, rural and historically marginalized communities (via community health workers and specific clinics), refugee communities, and public school systems. Program leaders said informal partnerships with employers helped them reach additional communities. For example, Goodwill Industries referred employees to RETAIN KY, including people with disabilities, criminal records, and substance use disorders. Program leaders observed that RETAIN KY had a larger portion of people who identify as Black or African American compared to the state population overall.

Recruitment and enrollment materials in multiple languages and interpreter services helped program staff recruit and serve diverse enrollees. Program documents, including the informed consent required for enrollment, were reportedly available in more than a dozen languages. Program staff said that intake staff and RTW coordinators could access virtual or in-person interpreter services. Intake staff reviewed referral forms to identify whether they needed an interpreter to communicate with an enrollee or connected with enrollees through an initial telephone call or text message to learn more about their preferred language. Few enrollees (1 percent) reported a preferred language other than English.

4. Eligibility criteria

The RETAIN KY program enrolled people with an injury or illness unrelated to work. Eligible people must have been employed within 12 months of enrollment and lived in Kentucky. This focus complemented Kentucky's workers' compensation system, which supported SAW/RTW for workers with work-related injuries or illnesses.

Some people screened as eligible for RETAIN KY were not medically ready for work. Program staff said some eligible people needed much or all the six-month RETAIN KY intervention period before they could benefit from its services (for example, those who experienced a traumatic brain injury, stroke, or amputation). Some people did not enroll, but others learned of expectations for a lengthy recovery after their enrollment or did not feel ready to consider work after being enrolled for six months.

The program eligibility criteria excluded Supplemental Security Income (SSI)/SSDI applicants who reportedly could benefit from RETAIN KY. Program leaders and partners said the complexity of the RETAIN KY eligibility criteria increased the burden on providers to consider more than whether a patient would benefit from RETAIN KY and created confusion for potential enrollees. Program partners and staff said it was common for people experiencing injuries or illness to apply for SSI or SSDI benefits, especially in Eastern Kentucky, because providers, educators, peers, and family members encouraged it. However, some people who applied for SSI/SSDI benefits could work part-time and benefit from RETAIN KY services. In early 2022, the Department of Labor (DOL) briefly allowed the state to enroll people who

applied for and/or were already receiving SSI/SSDI benefits.[15] Program leaders noted that enrolling people who had applied for or already received SSI/SSDI could affect the evaluation's ability to detect impacts on this outcome. About 4 percent of treatment and control enrollees had applied for and/or received SSI/SSDI in the three years before enrollment in RETAIN KY; about 2 percent of enrollees were current recipients (Appendix B, Exhibit B.6).

5. Enrollment

Upon receipt of a referral for RETAIN KY, intake staff reached out to potential eligible people to confirm their eligibility and discuss RETAIN KY. If eligible people were interested in enrolling, the intake coordinator obtained their informed consent and completed the enrollment. Then, the enrollee was randomized to either the treatment or the control group and was given an incentive payment between $100 and $150 (Appendix B, Exhibit B.2).

The RETAIN KY team expanded its capacity to manage an increase in referrals by cross-training existing staff and streamlining processes. Program staff said it was initially challenging for intake coordinators to keep up with the increased volume of referrals from Build Clinical and OVR. To meet this challenge, they cross-trained existing staff and added part-time staff to conduct intake. They also shifted the work hours for some intake coordinators to reach potential enrollees outside the typical workday. In addition, program staff reportedly made it easier to track referrals by merging multiple referral mailboxes specific to different communication methods (emails, telephone calls, and faxes) into a single mailbox. Program staff automated the complex process for receiving and entering data on referred people. The two partner health systems automatically uploaded referrals to the CMDS, avoiding the need for staff to manually enter each referral. CMDS automatically emailed the referrer, thanking them for the referral.

Program staff introduced incentives to encourage potential enrollees to enroll in RETAIN KY; however, the evidence of the incentive's impact on referrals was mixed. Program leaders said that after implementing the incentives,[16] the rate of referrals who enrolled appeared to be unchanged. However, program staff reported that some referrals mentioned the incentive as the reason they were interested in RETAIN KY. Program partners said the incentive encouraged patients to consider RETAIN KY. Providers explained that they would receive between $100 and $150 for enrolling and would lose nothing besides their time.

Program staff said that some potential enrollees were not interested in RETAIN KY services or did not want to participate in a research study. Some potential enrollees did not enroll because they were working and did not need RETAIN KY services or because they believed they would not be able to hold the types of jobs available in their communities, such as manual labor. Other potential enrollees were disappointed that RETAIN KY provided referrals to social services but did not provide financial assistance. Some potential enrollees were reluctant to share their social security number (SSN), which was necessary for enrollment. To address reluctance about the research study, program staff emphasized the support

[15] DOL updated the guidance to states in May 2022 to exclude people who applied for or were already receiving SSDI benefits. As of June 2023, 1.6 percent of treatment enrollees received SSDI or SSI and 4.1 percent had applied for or received SSDI or SSI in the past three years.

[16] As of February 2023, following institutional review board (IRB) and UK HealthCare approval, treatment enrollees received $100 for completing the intake interview and $50 for completing a RTW plan.

provided by RETAIN KY, and when possible (such as for the RETAIN KY liaisons with an on-site presence), they worked to develop trust with potential enrollees.

Program leaders and staff said that reviewing enrollment data helped focus their outreach and motivated staff. Evaluation and data staff reviewed and shared data on referrals and enrollees, such as the number of referrals from each source, the conversion rate from referrals to enrollment, the characteristics of enrollees, and retention in the program. Program leaders said the data allowed them to understand the effectiveness of outreach and recruitment efforts. Program leaders said weekly reports on the number of referrals and enrollees encouraged staff to celebrate their progress toward enrollment goals.

6. Enrollment outcomes

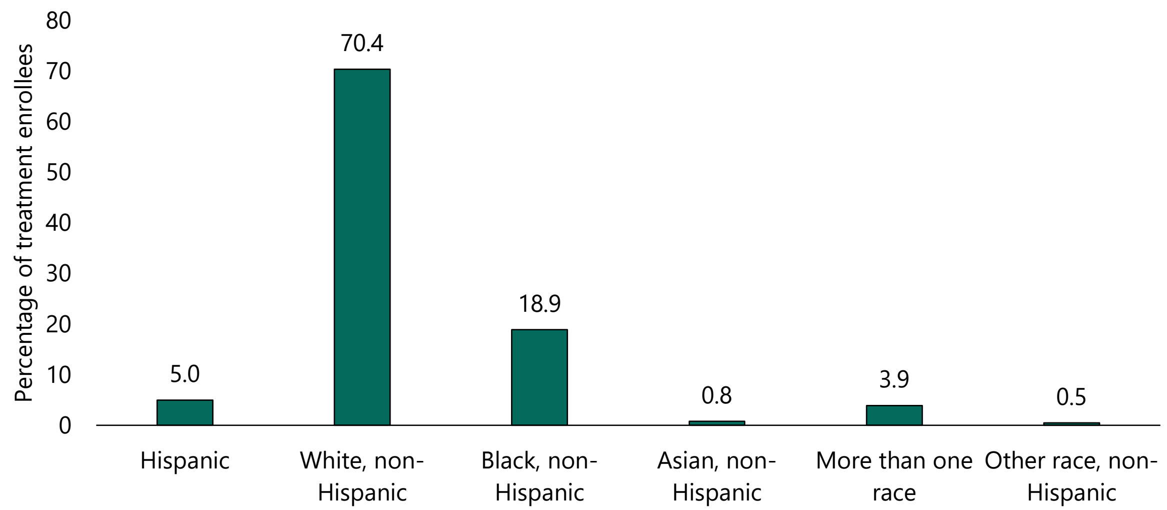
Cumulative enrollment through June 2023 was lower than expected, but the pace of enrollment increased sharply midway through the enrollment period (March 2023). During the first 21 months of enrollment (October 18, 2021, through June 30, 2023), RETAIN KY enrolled 1,078 people, or 34 percent of its goal of enrolling 3,200 people. The first 21 months of enrollment represented two-thirds (66 percent) of the total 32-month enrollment period. Approximately 57 percent of all enrollees were treatment enrollees, and 43 percent were control enrollees (Appendix B, Exhibit B.5).[17]

7. Treatment enrollee characteristics

We used enrollment data submitted by RETAIN KY to assess demographic characteristics for the 615 people who enrolled during the first 21 months of the enrollment period (October 2021 to June 2023) and were assigned to the treatment group. A little more than half of the treatment enrollees were female (55 percent). The average age of the treatment enrollees was 42. White, non-Hispanic enrollees represented the largest racial/ethnic group (70 percent), followed by Black, non-Hispanic enrollees (19 percent) (Exhibit IV.3). Most of the treatment enrollees had at least a high school diploma, GED, or certificate of completion (94 percent), and almost all preferred English (99 percent) (Appendix B, Exhibit B.5). We include additional information about treatment enrollee characteristics in Appendix B, Exhibits B.5, B.6, and B.7.

[17] The difference in size between the treatment and control groups was due to a temporary adjustment in the random assignment probability. In January 2023, Mathematica adjusted the random assignment algorithm to assign 80 percent of RETAIN KY enrollees to the treatment group and 20 percent to the control group. The adjustment was designed to increase demonstration enrollment by boosting morale among program staff and referral sources who were eager to see enrollees receive services. Mathematica reverted back to the original random assignment probability of 50 percent in April 2023. As enrollment increases, the treatment and control groups will trend towards equal sizes.

Exhibit IV.3. Race and ethnic characteristics of RETAIN KY treatment enrollees (percentages)



Source: RETAIN KY enrollment data through June 30, 2023.

Note: The sample size was 615 treatment enrollees. We did not include "missing" responses (0.5 percent); therefore, percentages may not add to 100 percent.

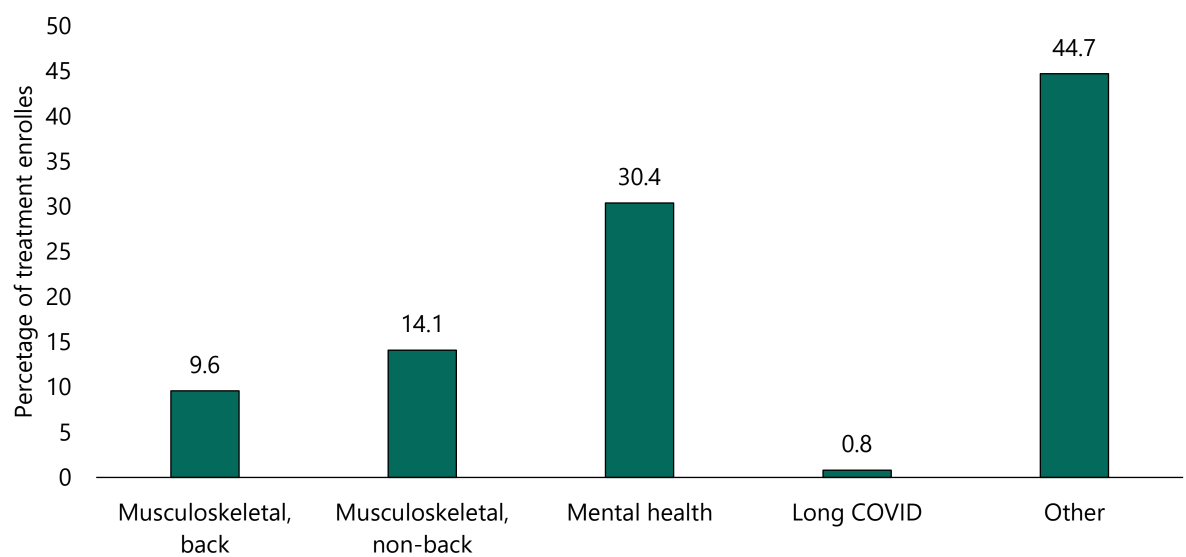
RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

We also used the enrollment data to assess illness and injury characteristics for the same 615 treatment enrollees (Exhibit IV.4). The RETAIN KY program enrolled people with an injury or illness unrelated to work, but 8 percent of enrollees reported their injury or illness was work related. Nearly half of treatment enrollees reported a primary diagnosis of a condition that did not fall under the RETAIN evaluation's four identified primary diagnosis categories (45 percent).[18] About one-third of enrollees reported that their primary diagnosis was a mental health condition (30 percent). People with a new or pre-existing condition were eligible for enrollment. For RETAIN KY, 29 percent of enrollees reported their illness or injury was a new condition at enrollment. The average time between treatment enrollees' onset of their primary illness and enrollment into RETAIN was 679 days, however, the median time was 50 days.[19] (Appendix B, Exhibit B.6). Because RETAIN KY's model is not embedded within a healthcare provider's referral sources, there could be a lag in connecting with people who could benefit from RETAIN KY.

[18] RETAIN KY had a relatively high percentage of treatment enrollees with a primary diagnosis in the "other" category. This is likely explained by RETAIN KY's model, which relied on referrals from a range of referral sources and did not focus recruitment efforts on enrollees with particular medical conditions.

[19] In all, 66 of the 615 treatment enrollees (11 percent]) in RETAIN KY reported that the onset of their primary diagnosis occurred before 2020. RETAIN KY confirmed that this finding is in part a result of the way intake staff asked enrollees about their conditions; they retrained staff to ask about the date of worsened symptoms in July 2022. The retraining improved data collected after that date; it is not possible to retroactively correct enrollment data submitted by RETAIN KY before then. The average time between onset and enrollment for treatment enrollees between July 2022 and June 2023 exceeds a year.

Exhibit IV.4. Primary diagnosis characteristics of RETAIN KY treatment enrollees (percentages)



Source: RETAIN KY enrollment data through June 30, 2023.

Note: The sample size was 615 treatment enrollees. We did not include "missing" responses; therefore, percentages may not add to 100 percent.

Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental; and Other. These groupings build on previous studies of return-to-work among injured or ill workers. We include the mapping of ICD-10 codes into these categories in Appendix B, Exhibit B.6.

ICD = International Classification of Diseases; RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to assess recent work histories for the same 615 treatment enrollees described above (Appendix B, Exhibit B.7). All RETAIN programs must enroll people who are employed or in the labor force, and, for RETAIN KY, many treatment enrollees were employed at the time of enrollment (63 percent), and 22 percent were currently working (and not on leave) at the time of enrollment (Exhibit IV.5). Many treatment enrollees worked within one month of enrollment (60 percent), and most last worked within three months of enrollment (81 percent). On average, treatment enrollees were employed close to full-time (38 hours per week) before the onset of injury or illness. More than half of enrollees were employed for two years or less (59 percent) at their most recent job, and 24 percent were employed for more than five years at their most recent job. In the year before enrollment, many treatment enrollees (82 percent) worked at a job that paid at least $1,000 per month. Upon enrollment, the largest proportion of treatment enrollees reported being employed in a service occupation (36 percent) (Exhibit IV.6). Other treatment enrollees reported being employed in occupations in management, professional, or related (28 percent); production, transportation, or material moving (25 percent); natural resources, construction, or maintenance (6 percent); or sales and office (6 percent).

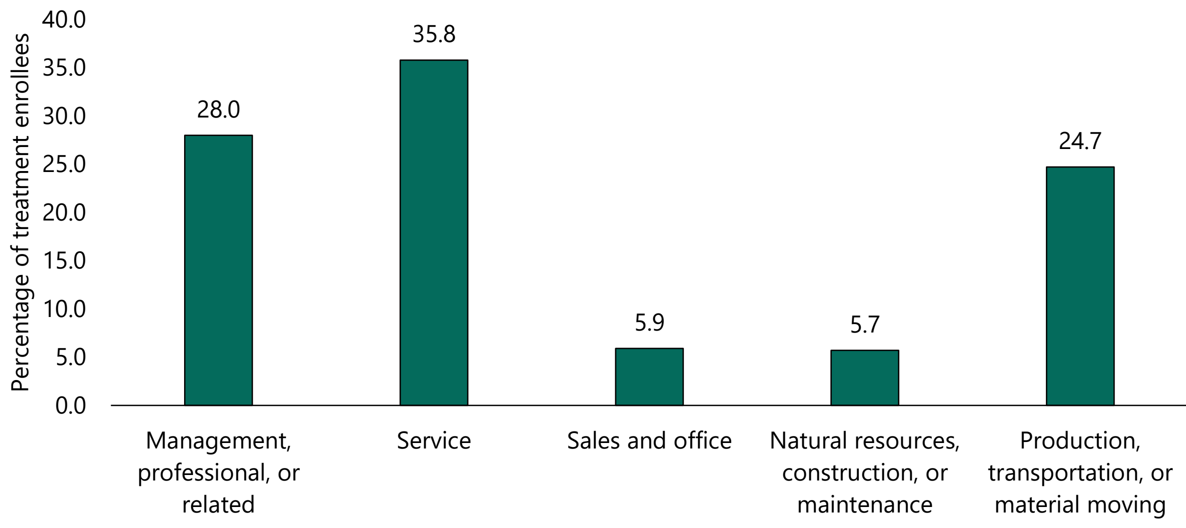
Exhibit IV.5. Length of time since last worked at enrollment among RETAIN KY treatment enrollees (percentages)

Source: RETAIN KY enrollment data through June 30, 2023.

Note: The sample size was 615 treatment enrollees.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Exhibit IV.6. Occupational classification of pre-injury/illness job among RETAIN KY treatment enrollees (percentages)



Source: RETAIN KY enrollment data through June 30, 2023.

Note: The sample size was 615 treatment enrollees. We did not include "missing" responses; therefore, percentages may not add to 100 percent.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to compare treatment enrollees' characteristics with control enrollees' characteristics. As outlined in the Evaluation Design Report, we expected treatment and control enrollees to have similar baseline characteristics because each state had a random assignment design (Berk et al.

2021). We found no significant differences between treatment and control enrollees (Appendix B, Exhibits B.5, B.6, and B.7.

E. RETAIN KY implementation and service delivery

In this section, for each RETAIN KY program component we first describe how the component was operationalized and then describe facilitators and challenges to its implementation.[20] Overall, during the interviews in April 2023, program leaders and staff reported delivering services as planned in the RETAIN KY program model. However, training medical providers on SAW/RTW best practices was delayed. We describe the details of this delay below.

1. Medical provider services

Lead workforce partner staff led outreach about the RETAIN KY medical provider training to medical providers at the lead healthcare partners and across the state (Exhibit IV.7). Program staff also introduced RETAIN KY to medical providers in forums such as grand rounds and training events. They shared the benefits of providing SAW/RTW coordination services to injured or ill people and information about how medical providers could refer patients to the program.

Exhibit IV.7. Planned RETAIN KY medical provider services

Program component	Description
Training medical providers on occupational medicine best practices	• Medical providers are able to access in-person and/or online outreach training covering best practices in supporting return to work and an overview of the RETAIN KY program (such as referral processes). • An accredited training with additional content will launch in late 2023.
Incentivizing medical providers for using occupational medicine best practices.	• None offered. However, providers will receive continuing medical education credit after the training is approved.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Program leaders expected an offer of continuing medical education (CME) credits to motivate providers to complete training more than an offer of a financial incentive. They noted that medical providers perceived training for CME credits as helping with their medical license renewal and not as an extra burden for which they received a financial incentive. Program partners said that having the training accredited and disseminated by an academic medical center at the University of Louisville gave the training legitimacy and increased providers' receptiveness to completion of the course. However, the medical provider training was delayed by the closure of the accreditation organization from which RETAIN KY initially sought approval for CME credits, after which they sought approval from the accreditation office at the University of Louisville.

2. RTW coordination services

HDI employed nine RTW coordinators to provide RTW coordination services to treatment enrollees (Exhibit IV.8). These services included developing an RTW plan and communicating with the enrollee's

[20] Appendix B, Exhibit B.8 lists the barriers and facilitators to implementing each RETAIN program component that emerged from our analysis.

employer, medical provider, and others to coordinate their SAW/RTW services as needed. RTW coordination services ended after six months or when the enrollee returned to work with a completed RTW plan, whichever came first.

Exhibit IV.8. Planned RETAIN KY RTW coordination services

Program component	Description
Coordinating RTW services	• RTW coordinator engages with the treatment enrollee and reviews their medical information and work restrictions to develop an RTW plan. The plan outlines the steps for the enrollee to maintain employment, including an RTW date and services needed. • RTW coordinator communicates with the enrollee weekly using the enrollee's preferred contact method. • RTW coordinator assists the enrollee with addressing health-related social needs that may hinder their participation in RETAIN KY or ability to return to work by referring them to appropriate social service providers.
Communicating among parties involved in RTW plan	• RTW coordinator contacts the treatment enrollee's employer, medical provider, and others involved in their RTW plan, if the enrollee signs a release of information. • RTW coordinator trains the enrollee on self-advocacy skills and encourages them to communicate with the parties involved in their RTW plan. • RTW coordinator uses a case management data system (CMDS) to document information collected from treatment enrollees and parties involved in enrollees' RTW plans.
Monitoring treatment enrollee progress	• RTW coordinator monitors the treatment enrollee's progress through weekly communications. The coordinator asks the enrollee a list of questions about recent medical appointments and the status of the steps in the RTW plan. • RTW coordinator records every interaction with the enrollee and other parties involved in the enrollee's RTW plan into the CMDS. • RTW coordinator uses the CMDS to track modifications to RTW plans, accommodations, and concerns about the enrollee's safety.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Program data submitted by RETAIN KY indicate that many treatment enrollees (77 percent) used RETAIN KY services, including RTW coordination services or other RTW services (Exhibit IV.9). Many treatment enrollees (76 percent) had an established RTW plan and an average of 5.5 days elapsed between enrollment and establishing an RTW plan. As of the end of June 2023, about 68 percent of treatment enrollees had exited RETAIN KY. Treatment enrollees who exited the program used services for about 78 days (about two and a half months).

Exhibit IV.9. Treatment enrollees' use of RTW coordination services

Service used (percentages unless noted otherwise)	Mean value or percentage
Used any services beyond enrollment[a]	77.2
Established RTW plan	76.3
Average time elapsed between enrollment and established RTW plan (days)	5.5
Exited RETAIN KY	68.3
Average duration of services, if exited (days)	78.0
Referred to services beyond RETAIN KY after six months	3.9

Source: RETAIN KY service use data through June 30, 2023.
Note: The sample size was 615 treatment enrollees.

[a] Any services beyond enrollment includes establishing an RTW plan or receiving an employment service such as job search assistance, training, on-site job analysis, ergonomic assessment, contact with a peer mentor, or transitional work opportunities.
RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

a. Coordinating RTW services

Coordinating RTW services was guided by an RTW plan and involved regular contact between the RTW coordinator and enrollee to support the enrollee in achieving goals documented in the RTW plan. RTW coordinators assisted enrollees with health-related social needs by referring them to appropriate social service providers.

Program leaders and staff perceived a range of benefits of RTW coordination services in supporting treatment enrollees to return to work. Program leaders and staff said one of the biggest advantages of RTW coordination services is the support provided to enrollees with navigating services within the fragmented social service and healthcare systems. Program staff noted their efforts to empower enrollees to advocate for themselves to meet their needs within these complex systems. Program staff described one of the most valuable benefits of the services they provided enrollees was hope that they could return to work and motivation to overcome challenges they may face in the process.

Two perspectives on the value of RTW coordination services:

"The majority of my people love it. Just kind of having somebody, we give them hope. This is the thing that I hear so much. We're giving them hope when they didn't think that they had any."

"So you have the medical provider. And you have occupational therapy and physical therapy. You have your return to work coordinator. And then you have these outside entities, a career coach or something like that, that's working with them. We are the person that is communicating with all of them. We're the ones that kind of tie it all together."

—Program staff

Program staff faced challenges in supporting treatment enrollees who had (1) health-related social needs, (2) mental health conditions, or (3) no motivation to return to work. Program staff described meeting some enrollee’s needs and supporting their progress toward returning to work as a challenge because enrollees’ needs could be very different, and some needs were difficult to address. They could refer an enrollee to social services, but there was no guarantee that the enrollee would receive the needed services. Program staff noted that the stress of financial insecurity among some enrollees limited their capacity to engage in RETAIN KY services. Depression and anxiety related to illness or injury made it difficult for enrollees to think about taking steps to return to work. Program leaders and staff noted that enrollees with few employment opportunities were less motivated to return to work, particularly those dissatisfied with their job or employer. It could take several meetings with an enrollee before they made progress on their RTW goals, and it was common for an enrollee to disappear after their intake meeting.

> "When a participant says well ... I can't pay for my rent. It's not a guarantee that if I call Community Action, they're going to give me $800, $900 right away. And then you have situations where participants have already contacted Community Action to receive financial assistance for their bills, so now they don't qualify. So now it's this repetitive thing where you're calling different people every single day to try to get assistance. ... Some of these social agencies, they don't have the money and some of these resources have been exhausted. And there's really not much that we could do as return to work coordinators...."
>
> —Program staff

Program leaders and staff described improvements to the CMDS that facilitated RTW coordinators' management of their caseloads. Program leaders developed a template to ensure RTW coordinators collected comprehensive information necessary for documenting the RTW plan in the CMDS during the intake meeting. Then, during the weekly meetings with enrollees, RTW coordinators documented detailed notes in the CMDS that facilitated monitoring enrollees' progress toward achieving their RTW goals, such as changes to their overall health and whether they were attending appointments with service providers. They also documented communications with medical providers, social service providers, and employers in the CMDS. Coordinators were also able to access all case notes entered in CMDS for an enrollee, which was beneficial for obtaining an overview of an enrollee's progress as well as providing coverage for another RTW coordinator's enrollees. Another improvement program staff noted was a CMDS-generated reminder of the documents that needed to be completed when an RTW coordinator closed a case.

Overall, program leaders and staff reported that RTW coordinators were well-supported in serving treatment enrollees' diverse needs, which fostered a growth-oriented environment. RTW coordinators received intensive training on an evidence-based vocational case management approach called the Crux model.[21] The lead workforce partner provided ongoing training that covered a range of topics, including the CMDS, inclusive communication and cultural humility, supporting people from communities that have been historically underserved, interacting with the criminal justice system, understanding long COVID, and managing mental health and substance use challenges in the workplace. In addition, during weekly case meetings, medical providers and mental health specialists advised RTW coordinators on enrollees' diagnoses, medications, potential community referrals, and other medical needs.

[21] The Crux model is centered on the worker's needs and interests and has been used for about 30 years since being developed by staff at the lead workforce partner.

Program leaders reported that the staff providing RTW coordination services represented a unique blend of characteristics that strengthened the team's ability to support all enrollees. Program leaders and staff described RTW coordinators and peer mentors as having a range of professional backgrounds and licensures, including social work, rehabilitation counseling, and drug and alcohol counseling, and diverse demographic characteristics, which facilitated their ability to meet enrollees' various needs. In addition, program staff noted their commitment to building trust with enrollees by being empathetic, accessible, and responsive to enrollees while encouraging them to advocate for themselves.

> "But the reality of the matter is they are going through a difficult situation. So just being empathetic and allowing them to feel like they have the power in this whole thing. And I'm just there as a guide, as a support system, somebody that can connect them to different resources, somebody that can advocate for them. I feel like that helps build the rapport."
>
> —Program staff

RTW coordinators managed the increase in enrollment by prioritizing enrollees' urgent needs over routine, or nonessential services, which in some cases resulted in contacting enrollees less than weekly. Program staff also reported less flexibility in accommodating enrollees' schedules to facilitate weekly meetings to provide RTW coordination services and monitor enrollees' progress.

There was no turnover among RTW coordinators during the study period. Program leaders attributed this to the lead workforce partner's ability to hire staff with a range of backgrounds, unlike a medical setting that would require RTW coordinators to have a medical background. In addition, program leaders said it is helpful that the position allows RTW coordinators to grow and learn, and work remotely.

b. Communicating among parties involved in enrollee's return to work

Central to the RETAIN program model is the role of the RTW coordinator in communicating among parties involved in a treatment enrollee's RTW plan to coordinate necessary services. In Exhibit IV.10, we present the various communication flows that occurred to support an enrollee's return to work.

Exhibit IV.10. RETAIN KY: Communication between RTW coordinator, treatment enrollee, employer, medical providers, and other service providers

Communication flows specific to an individual treatment enrollee		
	During the enrollment process	• RTW coordinator engages with the enrollee and reviews their medical information and work restrictions to develop an RTW plan. • Enrollee signs consent forms that allow the RTW coordinator to communicate with the enrollee's medical provider, employer, and others involved in their RTW plan.

Communication flows specific to an individual treatment enrollee		
	While receiving RTW coordination services	• RTW coordinator and enrollee communicate approximately weekly to monitor the enrollees' progress • RTW coordinator communicates with the enrollee's employer, medical provider, and others involved in the RTW plan, as needed if permitted. • RTW coordinator documents every interaction with the enrollee, their employer, medical provider, and others involved in the RTW plan in the case management data system. • RTW coordinator trains the enrollee on self-advocacy skills and encourages them to communicate with parties involved in their RTW plan.
	While receiving other RTW services	• RTW coordinator refers enrollees who experienced a loss of functioning to an assistive technology specialist and communicates with them as needed to engage with the enrollee's employer. • RTW coordinator engages with the enrollee if they want to find a job. • RTW coordinator describes peer mentor services to all enrollees and refers the enrollee to a peer mentor if the enrollee is interested in support with the psychosocial aspects of experiencing a disability; the RTW coordinator communicates with the peer mentor as needed. • RTW coordinator communicates with other workforce professionals involved in the RTW plan, as needed.
	Upon enrollment ending	• RTW coordinator closes the enrollee's case after six months or after the enrollee returns to work and completes their RTW plan. • If the enrollee needs additional services, RTW coordinator referred them to vocational rehabilitation.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

In Exhibit IV.11, we report the prevalence of communication between RTW coordinators and other parties involved in enrollees' RTW plans including employers, medical providers, and workforce professionals. For about one-third of treatment enrollees, the RTW coordinator communicated with at least one of these parties. RTW coordinator communication with medical providers was most common (24 percent of treatment enrollees) and communication with employers was least common (3 percent of treatment enrollees).

Exhibit IV.11. Percentage of RETAIN KY treatment enrollees whose RTW coordinator communicated with others involved in their RTW plans

Communication among parties involved in treatment enrollees' return to work plans	Percentage of treatment enrollees
RTW coordinator communicated with employer at least once	2.8
RTW coordinator communicated with medical provider at least once	23.9
RTW coordinator communicated with workforce professional at least once	13.8
RTW coordinator communicated with any of the above	31.1

Source: RETAIN KY service use data through June 30, 2023.

Note: The sample size was 615 treatment enrollees.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Program staff reported that communicating with an enrollee's medical provider and accessing their medical records were helpful in understanding their needs and developing an RTW plan. They said

that more information gave RTW coordinators a better understanding of what affected the enrollee's recovery and progress toward returning to work. One program staff gave the example of the benefit of obtaining information from these sources that the enrollee may not share during their weekly meetings, such as the enrollee's health status or whether the enrollee attended physical therapy appointments. However, some medical providers did not share information when RTW coordinators requested it, for example, urgent care providers, where enrollees often sought care because they did not have a primary care provider.

Program leaders and staff reported different experiences with treatment enrollees being willing to permit RTW coordinators to communicate with their medical providers and employers. Program leaders and staff noted that RTW coordinators expressed sensitivity to enrollees' rights to privacy when they requested permission to communicate with their medical providers and employers, emphasized the importance of accessing this information, and explained how it would be used. They said that, as a result, enrollees were often willing to sign the waivers granting permission. However, one program staff reported that approximately 90 percent of the enrollees in their caseload granted this permission to communicate with medical providers, while another reported that approximately 25 percent of enrollees in their caseload granted this permission.[22] Another noted that many enrollees did not grant permission to communicate with their employer because they planned to find a new job rather than return to their previous or current employer. Program staff noted that efforts to obtain signed waivers from enrollees often required following up with several reminders to sign and return the waiver forms.

c. Monitoring treatment enrollee progress

Program staff said the CMDS had functionalities that were helpful for tracking and assessing enrollees' progress. The CMDS included checklists that helped RTW coordinators organize notes and document their contacts with enrollees. It also provided a one-page snapshot of recent, relevant information about each enrollee and sent RTW coordinators notifications to remind them of follow-up steps related to the enrollee's RTW plan.

3. Other RTW services

In addition to supporting workplace-based interventions and retraining or rehabilitating enrollees (core components of the RETAIN model), RETAIN KY offered all interested treatment enrollees peer mentor services (Exhibit IV.12). In this section, we first describe how the component was operationalized and then describe facilitators and challenges to its implementation.

[22] Enrollees provided separate permission for medical providers, employers, and any other parties involved in their return to work planning. For example, an enrollee could permit communication with their medical provider but not their employer.

Exhibit IV.12. Planned other RETAIN KY RTW services

Program component	Description
Supporting workplace-based interventions	• RTW coordinator refers treatment enrollees who experienced a loss of functioning (for example, loss of vision or use of hands) to an assistive technology specialist at the lead workforce partner. • RTW coordinator and assistive technology specialist engage the enrollee's employer to consult on the physical requirements of the enrollee's job, review workplace accommodations and assistive technology, and assist with reassignment to other positions or temporarily modified duties and how to comply with the Americans with Disabilities Act.
Retraining or rehabilitating enrollees	• RTW coordinator provides treatment enrollees seeking employment with resume development, job search, placement assistance, workplace accommodation planning, and transferable skills analysis, and may refer to vocational rehabilitation or career center services
State-specific services: peer mentor support	• RTW coordinator refers interested treatment enrollees to a peer mentor at the lead workforce partner. The peer mentor outreaches to interested enrollees and communicates with them weekly.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

a. Supporting workplace-based interventions

RTW coordinators referred treatment enrollees who experienced a loss of functioning to an assistive technology specialist during the six-month enrollment period. The assistive technology specialist's role was to identify and facilitate the implementation of workplace-based interventions. RTW coordinators also referred treatment enrollees to the Job Accommodation Network (JAN)[23] for information on potential work accommodations they might ask their employer to provide.

In Exhibit IV.13, we list the different workplace-based interventions treatment enrollees received and the percentage of enrollees that received each, as reported in the RETAIN KY program data. Only seven percent of enrollees received a workplace-based intervention.

Exhibit IV.13. RETAIN KY treatment enrollees' use of workplace-based services

RETAIN KY service	Used service (percentages)
On-site job analysis	1.1
Ergonomic assessment	2.6
Workplace accommodation	7.0
Any of the above interventions	7.3

Source: RETAIN KY service use data through June 30, 2023.

Note: The sample size was 615 treatment enrollees.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

The assistive technology specialist recommended feasible accommodations to help treatment enrollees return to work and trained employers on accessible work environments. Their recommendations included accommodations that could improve an enrollee's activities of daily living, such as removable shower wands or grab bars in the shower. Program staff noted that RETAIN KY did not

[23] Additional information available at https://askjan.org/index.cfm.

cover the costs of assistive technology, but the assistive technology specialist aimed to make recommendations that were low-cost and simple to implement and helped enrollees locate and learn to use assistive devices. In some cases, employers covered the costs, OVR covered some of the costs for enrollees with an active referral, or enrollees had to cover the cost, sometimes with a low-interest loan through the Kentucky Assistive Technology Loan Corporation.

Program staff said the CMDS supported information sharing between RTW coordinators and the assistive technology specialist. For example, the CMDS included relevant case history about treatment enrollees, which the assistive technology specialist accessed without burdening the RTW coordinators. The CMDS was also helpful as a tool to communicate and store the assistive technology specialist's recommendations for workplace accommodations and other supports.

RTW coordinators valued a resource on work accommodations to support communications with employers. Before RETAIN KY, staff at the lead workforce partner had developed a resource titled "The Win-Win Approach to Reasonable Accommodations."[24] Program staff said the resource was helpful in framing communications with employers.

b. Retraining or rehabilitating enrollees

RTW coordinators provided job seeking skills training and rehabilitation services to treatment enrollees who were unemployed or seeking a job transition. They also coordinated on behalf of enrollees with OVR and local career centers. RTW coordinators referred enrollees to OVR at the end of the six-month intervention period if they needed longer-term services.

In Exhibit IV.14, we list the retraining or rehabilitation services provided by individuals other than RTW coordinators that treatment enrollees used and the percentage of enrollees that used each service, as reported in RETAIN KY program data. About 10 percent of enrollees used job search services. Enrollees also used training services (3 percent) and participated in a transitional work opportunity (2 percent). Only 11 percent of enrollees used retraining or rehabilitation services offered by RETAIN KY.

Exhibit IV.14. Treatment enrollees' use of retraining and rehabilitation services

RETAIN KY service	Used service (percentages)
Job search services	10.1
Training services	2.9
Transitional work opportunity[a]	1.5
Other employment services	6.8
Any of the above services	14.3

Source: RETAIN KY service use data through June 30, 2023.

Note: The sample size was 615 treatment enrollees.

[a] Transitional work opportunity is a time-limited job at a new employer during an enrollee's recovery period to meet the enrollee's work restrictions until their employer can provide work accommodations.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

[24] Available at https://cdn.sanity.io/files/y936aps5/production/1cbc3e215329ef0e97fa1c0f2974090e04cd9669.pdf.

RTW coordinators' backgrounds in workforce development and vocational rehabilitation helped them provide employment services. Program staff said some RTW coordinators brought long-time experience providing vocational and employment services, making them well suited to serve enrollees. They also supported less experienced RTW coordinators as they delivered services, improving the quality of service delivery.

Proactively strengthening communication with employment service providers aided RTW coordinators in referring enrollees, but making referrals was time consuming. Program staff described how their efforts to train employment service provider staff on the referral process facilitated coordination. Program staff said that visiting the career centers was helpful in understanding the employment services offered to treatment enrollees and learning about the various offerings between career centers. However, they observed that the initial referrals to career centers involved time-consuming back-and-forth communication, including obtaining a release of information from the enrollee.

c. Peer mentor support services

Peer mentor support involved pairing enrollees with a peer mentor who drew on lived experience with a disability to support them with the psychosocial aspects of experiencing a disability.

Peer mentors established strong rapport with RTW coordinators and demonstrated the value of peer mentoring, contributing to increased referrals. Program staff said RTW coordinators became more comfortable with peer mentor services and prompted more referrals, at the same time program enrollment increased. The initial peer mentor's caseload doubled from around 10 cases to 20. The lead workforce partner hired three additional peer mentors to accommodate the increased demand for services.

Peer mentors recognized barriers treatment enrollees faced in returning to work and understood how to support them. Program staff observed that enrollees out of work for a long time were anxious about returning to work. The peer mentors shared with enrollees their experiences with different employment resources and communicated with RTW coordinators about how to support these enrollees.

Program staff observed the connection between the peer mentor and treatment enrollee as important to the enrollee's engagement in returning to work. Program staff observed that peer mentors established shared connections with enrollees, such as an interest in music or having grandchildren, which increased enrollees' engagement. Because of these personal connections, program staff found it challenging to discontinue peer mentoring services for enrollees who were not well enough to return to work at the end of the six-month period of RETAIN KY services.

> "And then there are times where you really feel good, like somebody's really made a breakthrough and they really are doing well and they're good to go. But just from being a human being, it's tough sometimes to just kind of end that contact."
>
> —Program staff

4. Service contrast

To measure the impact of RETAIN KY, we will compare the outcomes from the RETAIN KY services offered to the treatment group to those from the services available to the control group. The control group could access services generally available in the community and an expedited version of RTW coordination services provided by RETAIN KY. Two RTW coordinators offered an expedited version of RTW coordination services to control enrollees within a two-week period for up to three hours total.[25] Expedited services consisted of two meetings that included a work experience survey, the development of an RTW plan, guidance on self-advocating with their employer, and referrals to other services. RTW coordinators tried to contact treatment enrollees every week over a six-month period, and the RTW coordinator communicated on the enrollee's behalf with the medical provider, employer, and others (if permitted). While treatment group enrollees received a referral to OVR, control group enrollees received information on how to self-refer to OVR.

The challenges of treatment enrollees not signing the waivers granting permission for the RTW coordinator to communicate with parties involved in their RTW plans could reduce the contrast between treatment and control services. Specifically, RTW coordinators cannot communicate with medical providers or employers about treatment enrollees who declined to sign the waivers; instead, they provide guidance to the enrollees on advocating for themselves. In these situations, the main difference between treatment and control enrollees is the duration of services. However, RTW coordinators did not perceive limited communication with medical providers or employers as a challenge to providing RTW services.

Beyond expedited services, control enrollees had access to other work-related services available in Kentucky to people with disabilities. These services reportedly did not change during the study period. Program staff described several entities that provide work-related services to people with disabilities in the state. The Kentucky Career Center provided employment services that were reportedly less individualized and less comprehensive than RETAIN KY services. Like RETAIN KY, OVR provided individualized services to workers with injuries or illnesses unrelated to work. However, program staff said it could take months to receive services from OVR, in contrast to the early intervention offered by RETAIN KY, whose services included more coordination and were more comprehensive. However, RTW coordinators had smaller caseloads than OVR counselors, according to program staff.

Beyond work-related services, program leaders described medical providers and employers as having increasing awareness about supporting a return to work after illness or injury. They attributed this change to RETAIN KY-related outreach and training and other policy activities in the state. This increased awareness could improve how providers and employers support control group enrollees and treatment group enrollees alike.

5. Collecting and reporting enrollment data

The lead workforce partner developed the CMDS for Phase 2 of the RETAIN grant, and program staff refined the system based on user feedback. Intake coordinators entered information in CMDS during

[25] Program leaders said the presence of the expedited services for control enrollees helped promote referrals to the program; it reassured referral sources that any referred person who enrolled would receive at least some services.

enrollment, RTW coordinators recorded information for delivering RTW services, and other program staff accessed data for the evaluation from the CMDS.

Program staff said RTW coordinators received clear guidance for collecting and entering data about treatment enrollee service use, which increased the quality of the data and RTW coordinator buy-in to using the CMDS. Supervisors and data evaluation staff provided specific guidance, checklists, and feedback to RTW coordinators to guide their data entry. For example, they identified and helped RTW coordinators resolve instances of missing data or reinforced the use of structured fields rather than free-text entries. Program leaders noted that RTW coordinators made time to enter service delivery information by the end of the same business day, supporting data accuracy. Program staff observed that RTW coordinators were invested in entering service data correctly because they helped develop the process for data entry, which engaged them from the start. In addition, an established process for RTW coordinators to provide feedback on the CMDS reportedly gave them a stake in collecting high-quality service use data. Program staff uniformly described the system as user-friendly for delivering RTW services and recording information.

The CMDS worked effectively to report data required for the RETAIN evaluation. Program staff said that the automated processes the team developed to produce and check data files for DOL and Mathematica worked well. For example, program staff could produce required data submissions for the evaluation by following four simple preprogrammed steps. Program staff also changed the defaults on some variables to avoid blank cells that initially appeared to Mathematica to be missing data.

RETAIN KY staff said they resolved early challenges to providing unemployment insurance (UI) wage data on schedule to support the RETAIN evaluation. These data came from the Kentucky Education and Workforce Development Cabinet. Program staff said they addressed early turnover in the state Cabinet staff by educating the new staffers on the process and the need for the data. After this education, Cabinet and RETAIN KY staff consistently submitted complete UI wage data on time.

F. Staff time spent on RETAIN KY

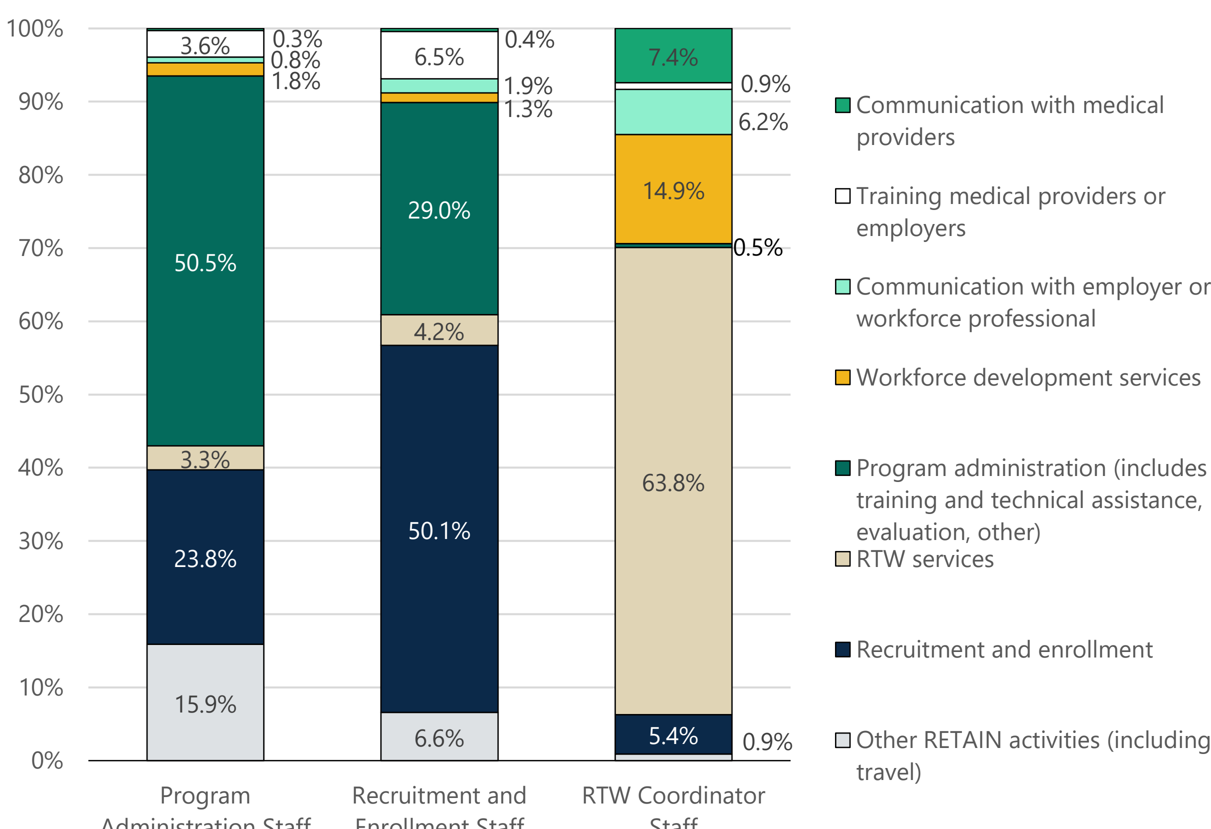
We used staff activity logs to understand how RETAIN KY administrative and direct service staff allocated their time across program activities. These logs captured staff time spent on activities related to recruitment and enrollment, RTW services, employment services, communication with and training employers or medical providers, and program administration. We collected the logs from 12 to 14 RETAIN KY staff for two one-week periods representing periods of steady-state operations (when the program was neither ramping up nor closing down).[26]

As expected, RETAIN KY administrators, enrollment and recruitment staff, and RTW coordinators reported different allocations of time across activities (Exhibit IV.15). RETAIN KY administrators allocated the largest proportion of their time to program administration activities, which included training and technical assistance, evaluation, and other activities, and the lowest proportion to communication with medical providers. Recruitment and enrollment staff spent half of their time on recruitment and enrollment (50.1

[26] We collected the staff activity logs from 13 staff for the period March 20–24, 2023, and from 12 staff for the period June 5–9, 2023. Seven staff members that reported hours were full-time RETAIN staff and the remaining were part-time staff.

percent) and about one-third of their time on program administration (29.0 percent). RTW coordinator staff allocated the largest proportion of time to RTW services (63.8 percent). RTW coordinator staff spent less time communicating with medical providers than communicating with employer or workforce professionals (14.9 percent and 7.4 percent, respectively).

Exhibit IV.15. Percentage distribution of administrative and direct service staff hours across RETAIN KY activities



Source: Activity logs completed by 13 RETAIN KY program leaders, partners, and staff in March 2023 and 12 in June 2023.
RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

G. Costs of RETAIN KY

We used program cost data submitted by RETAIN KY to assess the economic costs of implementing RETAIN KY. In the period of May 17, 2021, through March 31, 2023, which is 48 percent of the total grant period, RETAIN KY incurred total costs of $6,179,274.50, or 29 percent of the total grant awarded to RETAIN KY (Appendix B, Exhibit B.10). Most of the total costs were payments to the lead workforce partner (University of Kentucky's HDI) to oversee implementation and provide RETAIN services to enrollees (98 percent). The remaining costs were personnel or labor costs incurred by the lead agency (2 percent) and indirect costs (0.2 percent). The average cost of providing services per treatment enrollee was $15,525

(including direct and indirect costs).[27] This high allocation of costs to treatment enrollees receiving services reflects that the lead agency (OVR) passed most of the funding through to the lead workforce partner to provide RETAIN services to enrollees. The Final Impact Report will include an evaluation of the benefits of RETAIN KY relative to the costs.

H. Plans for sustaining RETAIN KY

In this section, we describe the plans for sustaining RETAIN KY that program leaders and staff reported on during the interviews in April 2023. Their plans were focused on establishing sustainability workgroups, offering an accredited training, and influencing state policies to promote RTW principles in practice and policy.

Program leaders established two workgroups to develop plans for sustaining program services. One workgroup focused on sustaining partnerships, while the other focused on securing funding beyond the RETAIN Phase 2 grant period. The workgroups conducted research and coordination with state-level partners. They actively pursued grant proposals from the Social Security Administration and the U.S. Department of Education's Rehabilitation Services Administration to continue elements of the RETAIN model after the grant period.

Beyond the RETAIN Phase 2 grant period, program leaders and partners planned to offer an accredited training to various medical professionals involved in supporting a person's return to work and an RTW certificate to various undergraduate majors. Program leaders and partners planned to adapt the accredited training for continuing medical education credits to also educate employment and RTW service providers. In addition, the 12-credit undergraduate certificate in RTW will provide undergraduate students with background, tools, and hands-on experience to sustain RTW initiatives like RETAIN. At the time of the interviews, program leaders expected about 20 students to enroll annually, starting in the Fall of 2023, and planned to continue to offer the certificate after the grant period.

RETAIN KY staff planned to continue working with formal and informal partners to influence state policies that would promote return-to-work principles beyond the grant period. Program leaders said the Inclusive Worker Health Network, a workgroup that included medical professionals, public health leaders, and employers, would continue collaborating. This workgroup identified best practices and policy priority areas for building a workforce inclusive of workers with disabilities or at risk of developing a disability and made policy recommendations to state leaders that would help workers return to work beyond RETAIN KY.

I. Implications for replication of RETAIN KY

Our analysis of RETAIN KY implementation and service delivery point to key factors that may be important to consider for replicating the program. Overall, these findings suggest RETAIN KY had a staffing

[27] The average cost of providing services per treatment enrollee was calculated as the total costs incurred by the RETAIN KY program from May 17, 2021, through March 31, 2023, divided by the number of treatment enrollees as of March 31, 2023. Total costs incurred by the program include personnel or labor costs, direct costs of providing services to participants and providers, and indirect costs.

infrastructure that supported implementation and service delivery but faced challenges engaging enrollees.

- Strong partnerships between the lead agency and program partners supported implementation, increased awareness of RETAIN KY, and promoted referrals to the program, including from communities that have been historically underserved.
- Program leaders' and staffs' professional networks helped to encourage referrals, overcome implementation challenges, such as simplifying the process through which medical providers referred patients to RETAIN KY, and convened workgroups to focus on systems change and sustaining RETAIN KY.
- The lead workforce partner implemented various strategies to engage RETAIN KY staff in learning and collaboration. Program staff valued ongoing training and access to specialized knowledge from subject matter experts and peers. The diverse and well-supported staff delivered services to enrollees with different needs. RETAIN KY cross-trained staff to help them adapt to changing circumstances (such as increased enrollment) and may have limited staff turnover. In addition, RETAIN KY's collaborative approach promoted staff buy-in, including recording service data for the evaluation.
- RETAIN staff faced several challenges engaging potential enrollees and treatment enrollees. Intake and enrollment staff faced challenges reaching potential enrollees to complete enrollment, and once enrolled, some lacked interest or ability to use RETAIN KY services despite being screened as eligible. It was unclear whether potential enrollees were influenced by an enrollment incentive. However, referrals from trusted sources and timely contact from intake and enrollment staff increased potential enrollees' interest in RETAIN KY, and recruitment materials available in multiple languages helped recruit diverse enrollees. Once enrolled, RTW coordinators faced challenges addressing enrollees' health-related social needs and motivating those who had limited employment options or job dissatisfaction.
- Ongoing Continuous Quality Improvement (CQI) processes helped to resolve several inefficiencies associated with early recruitment and enrollment and supported high-quality documentation and resulting data on RETAIN KY service delivery.

J. Implications for interpretation of impacts on outcomes

In this section, we report on the findings about factors that may support the interpretation of RETAIN KY's impacts on outcomes that will be included in the Final Impact Report.

- Cumulative enrollment was initially lower than expected, but the pace of enrollment increased mid-way through the enrollment period due to the addition of a new referral source.
- Nearly half of treatment enrollees reported a primary diagnosis of a condition that did not fall under the RETAIN evaluation's four identified primary diagnosis categories.
- RETAIN KY may enroll more people with a longstanding primary diagnosis than expected for an early intervention program. Treatment enrollees reported an average of about two years (679 days) between the onset of their primary diagnosis and enrollment in RETAIN KY.
- RTW coordination services included regular communication between an RTW coordinator and treatment enrollee to support their return to work.

- Program staff described concerns with a lack of treatment enrollee engagement. A key element of RTW coordination services was an RTW plan developed by the RTW coordinator and enrollee. Midway through the enrollment period, 76 percent of treatment enrollees had established an RTW plan, which was a lower percentage compared to earlier in the grant period.
- RTW coordination services included lower-than-expected communication between RTW coordinators and others involved in a treatment enrollee's RTW plan.
- Accredited medical provider training covering best practices in support of return to work was delayed.
- RETAIN KY offered more intensive services than previously existed in Kentucky.
- RETAIN KY offered "expedited" RTW services to control enrollees. The contrast between treatment and control services may be smaller than expected if treatment enrollees do not stay engaged in the program and RTW coordinators do not have permission to communicate with other parties involved in a treatment enrollee's RTW plan.

V. MN RETAIN

Key findings

- The lead partners had not previously worked together, and through strong communication and a shared commitment to the goals of MN RETAIN, they navigated differences in organizational missions and cultures.
- MN RETAIN's enrollment increased steadily midway through the enrollment period, with 43 percent of its enrollment goal met. MN RETAIN recruited most enrollees by recruitment staff identifying and reaching out to potential enrollees from a patient registry maintained by the lead healthcare partner in its electronic medical record. The pace of enrollment remained steady after the addition of four healthcare partners. Referrals from employers and the general public remained low.
- MN RETAIN invested time and resources in conducting outreach to communities that have been historically underserved, including convening a community advisory board to facilitate outreach to these communities. However, these efforts resulted in very few enrollments, which program leaders attributed to building trust in these communities taking significant time.
- To improve the likelihood of potential enrollees attending their enrollment meetings, MN RETAIN scheduled these meetings close to the initial contact with potential enrollees. For patients at the lead healthcare partner, MN RETAIN added enrollment meetings to the electronic medical record so these meetings would appear in a patient's upcoming appointment list and would generate automated reminders.
- The intended population comprised people who were employed or currently in the labor force and had experienced the onset or worsening of an injury or illness (work- or non-work-related) that affected their employment. Approximately half of enrollees reported that their illness or injury was a new condition at enrollment. The average time between the onset of treatment for enrollees' primary condition and enrollment into MN RETAIN was 41 days.
- About half of treatment enrollees reported their primary diagnosis was a musculoskeletal, non-back condition (49 percent). Few enrollees (5 percent) reported that their primary diagnosis was a mental health condition.
- Most treatment enrollees had at least a high school diploma, GED, or certificate of completion (97 percent), and a third had a four-year college degree or post-graduate degree (31 percent). Many treatment enrollees were employed at enrollment (87 percent), with the largest proportion holding a job in a management, professional, or related occupation (37 percent).
- Medical provider training completions increased as a result of the MN RETAIN provider champions emailing medical providers directly to engage them in MN RETAIN. Training completions were also facilitated by offering the training during in-person meetings and decreasing the length of the training.
- All treatment enrollees received MN RETAIN services beyond enrollment (100 percent), and almost all of them established an RTW plan (98 percent). Beyond RTW coordination services, none of the treatment enrollees received a workplace-based intervention involving communication between the RTW coordinator and the enrollee's employer. Program service use data submitted by MN RETAIN showed that 99 percent of treatment enrollees received career counseling, which may include an individualized employment plan, resume and cover letter review, or career exploration services. Program staff shared that many treatment enrollees referred to retraining services received financial assistance services; however, financial assistance services were not reported in MN RETAIN's service use data.
- For almost all treatment enrollees, the RTW coordinator sent their medical provider a message through the electronic medical record to notify them of their patient's enrollment in MN RETAIN. Over time, medical providers' increased recognition of the value of the RTW coordinator role, trust in RTW coordinators, and awareness of MN RETAIN improved their communication with RTW coordinators. RTW coordinators communicated with less than half (41 percent) of enrollees' employers at least once. Employers hesitated to

communicate with RTW coordinators because they did not perceive value in MN RETAIN over their other priorities and preferred to communicate directly with their employees rather than RTW coordinators.

- MN RETAIN leadership was holding sustainability planning meetings focused on securing state funding to continue service delivery while exploring other options for sustaining services. They were concerned that a lack of evidence of MN RETAIN's effectiveness would not make a compelling case for potential funders. ◢

A. Overview of Minnesota RETAIN

The Minnesota Department of Employment and Economic Development (DEED) was the lead agency for Minnesota Retaining Employment and Talent after Injury/Illness Network (MN RETAIN). The program catchment area was the entire state of Minnesota, including 87 counties. MN RETAIN enrolled people with work-related or non-work-related injuries or illnesses and provided return-to-work (RTW) coordination services to all treatment enrollees. RTW coordinators referred enrollees interested in employment services or financial support services to the lead workforce partner, Workforce Development, Inc. (WDI).

In this chapter, we document recruitment, enrollment, and program operations approximately midway through the two-and-a-half-year enrollment period.[28] The findings we present about the implementation of MN RETAIN are based on the analysis of qualitative data collected during semistructured interviews and program data submitted by MN RETAIN collected through June 30, 2023, 18 months after the start of enrollment.[29]

B. MN RETAIN partnerships to support enrollment and service delivery

As the lead agency for MN RETAIN, DEED brought together a range of partners to support implementation (Exhibit V.1). DEED obtained signed memoranda of understanding and letters of commitment from several organizations to support MN RETAIN implementation prior to submitting its Phase 2 application. DEED also led outreach efforts to raise awareness of MN RETAIN among employers and the general public in an effort to prompt referrals throughout the state. In this section, we describe these partner organizations and their roles on MN RETAIN. We include supplemental information about the roles of MN RETAIN partners in Appendix C, Exhibit C.1.

[28] At the time of this report, enrollment was scheduled to end in May 2024, and program operations funded under the RETAIN Phase 2 grant were scheduled to end in May 2025.

[29] MN RETAIN enrolled the first person on December 23, 2021. We collected qualitative data about implementation experiences during interviews 17 months after the start of enrollment. We collected program data through June 30, 2023, 18 months after the start of enrollment.

Exhibit V.1. MN RETAIN organization chart

Leadership Team
Minnesota Department of Health
Minnesota Department of Labor and Industry

Lead Agency
Department of Employment and Economic Development (DEED)
Program director*
Program supervisor*
Grant coordinator
State program administrative coordinator
Evaluation & technical assistance liaison
Community engagement specialist
Employer engagement specialist

Lead Healthcare Partner
Mayo Clinic
2 Healthcare leads/provider champions*
Program manager/referral & enrollment lead
RTW coordinator supervisor
6 RTW coordinators
6 Recruitment staff

Lead Workforce Partner
Workforce Development, Inc.
Workforce development lead*
Grant coordinator
3 Career navigators

Employer Partner
Crest View Senior Services
Employer champion

Subrecipient Healthcare Partners
Rochester Clinic
HealthPartners TRIA
Novacare
Fulcrum Healthcare Network

Subrecipient Workforce Partner
Goodwill-Easter Seals of Minnesota
2 Career navigators

** Serves on leadership team*
MN RETAIN = Minnesota Retaining Employment and Talent after Injury/Illness Network; RTW = return to work.

1. Lead healthcare partner

The lead healthcare partner, Mayo Clinic, is a large health system based in Rochester, Minnesota. The lead healthcare partner supported implementation by providing expertise in occupational medicine and oversight of (1) recruiting, engaging, and training medical providers; (2) training and overseeing RTW coordinators; and (3) screening, recruiting, and enrolling eligible people. Two healthcare co-leads/provider champions recruited medical providers to complete the MN RETAIN provider training and refer their patients.

Midway through the enrollment period, the Mayo Clinic established contracts with four subrecipient healthcare partners to increase referrals to the program. These subrecipient healthcare partners included (1) Fulcrum Health, a large network of chiropractic and acupuncture providers located across Minnesota

and in neighboring states; (2) Rochester Clinic, a small primary care clinic focused on lifestyle medicine based in Rochester, Minnesota; (3) HealthPartners TRIA, a group of orthopedic clinics based in Minneapolis and Saint Paul, Minnesota; and (4) NovaCare, a nationwide network of physical and occupational therapists with locations across Minnesota.

2. Lead workforce partner

The lead workforce partner, WDI, is based in Rochester, Minnesota. WDI provided employment services and financial support services to treatment enrollees referred by the RTW coordinators. The lead workforce partner established a subrecipient partner contract with Goodwill-Easter Seals Minnesota to expand service capacity and the availability of in-person employment services to treatment enrollees throughout the state.

3. Other partners

The MN RETAIN advisory board included two state agencies. The Minnesota Department of Health provided statewide occupational medicine data to support program implementation and provider recruitment, facilitated organizational connections for MN RETAIN employer outreach efforts, and informed community engagement strategies. The Minnesota Department of Labor and Industry provided guidance to ensure that MN RETAIN did not impede workers' compensation law.

4. Coordination of program partners

Strong communication and a shared commitment to the goals of MN RETAIN enabled program partners to overcome coordination challenges. Program leaders noted that the lead agency and lead healthcare partner had not previously worked together and had to navigate differences in organizational missions and cultures. For example, the lead agency's and lead healthcare partner's typical processes for identifying subrecipient partners differed. The lead agency was required to issue a Request for Proposals to provide interested organizations equal opportunities to be selected for partnership, while the lead healthcare partner was accustomed to directly reaching out to organizations with which it already had rapport. Program leaders reported that by clarifying the roles and responsibilities of each program partner, establishing leadership meetings that allowed time to discuss key decisions and reach consensus, and focusing on their shared goals, partners cultivated greater collaboration and cohesion.

When bringing on subrecipient healthcare partners, MN RETAIN navigated challenges identifying the right people to engage in executing contracts and ensuring partner organizations could fulfill research study requirements. Program leaders noted that healthcare organizations tend to be protective of their organizations, and it took time to develop the trust needed to form the healthcare subrecipient partnerships. While leaders at the subrecipient healthcare partners were supportive of partnering with MN RETAIN, it took time for MN RETAIN staff to identify the right people at those organizations to establish contracts. In addition, leadership turnover at the subrecipient healthcare partners further delayed contract execution. It also took the subrecipient healthcare partners significant time to complete the human subjects research trainings and obtain the institutional review board (IRB) approvals needed to execute their subrecipient contracts.

C. Program environment surrounding MN RETAIN implementation and service delivery

In this section, we describe the program environment in which MN RETAIN was implemented to understand factors outside the study's control that might contribute to or inhibit program implementation and the detection of impacts.

1. Employment and policy environment

In Minnesota, over half of working-age people with disabilities were employed in 2022, higher than the national average (Exhibit V.2). According to program leaders, compared to other states, Minnesota has appropriated significant funding for employment and training programs and sought to make programs accessible to communities across the state. Program leaders described state leaders as being committed to supporting a healthy workforce that contributes to the state's economy, including ensuring workers have access to training and employment services. Program staff described health-related social needs, such as a lack of child care, transportation, and housing, as being the most common barriers to people returning to work after illness or injury.

Program leaders and staff cited Minnesota's labor shortage and low unemployment rate as drivers of the state's current focus on workforce development across different industries. They described employers as interested in enhancing pathways to the labor force for diverse populations and investing in innovative worker retention programs.

Exhibit V.2. RETAIN program environment in Minnesota

Economic indicators (percentages)	Minnesota	United States
Unemployment rate (June 2023)[a]	2.9	3.6
Employment rate among working-age people without disabilities (2022)[b]	84.5	78.9
Employment rate among working-age people with disabilities (2022)[b]	51.4	44.5

[a] U.S. Bureau of Labor Statistics (2023a).

[b] U.S. Bureau of Labor Statistics (2023b).

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

2. COVID-19 pandemic

Program leaders and staff described mixed effects of the COVID-19 pandemic on MN RETAIN. The biggest challenge MN RETAIN faced related to the pandemic was engaging medical providers, employers, and people from communities that have been historically underserved.[30] Program leaders and staff noted that surges in COVID variants created a strain on medical providers while they were already experiencing staff burnout and turnover. Therefore, medical providers believed they lacked the capacity to adequately

[30] SSA's Equity Action Plan points to the Federal Executive Order on Advancing Racial Equity and Support for Underserved Communities, which defines the term "underserved communities" as populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.

assess patients' functional capabilities and recommend appropriate work restrictions. Program leaders and staff said employers dealing with turnover prioritized filling full-time positions rather than accommodating treatment enrollees' work restrictions or providing transitional work opportunities. One program leader noted that the pandemic heightened the need for support among populations still not in or at risk of exiting the workforce. Program leaders and staff described communities that have been historically underserved as being overwhelmed with the amount of outreach related to public programs that emerged during the pandemic. On the other hand, one program leader noted that successful efforts to administer vaccinations in these communities informed MN RETAIN recruitment efforts.

D. MN RETAIN recruitment and enrollment

MN RETAIN sought to enroll people diagnosed with an injury or illness (work- or non-work-related) who had a medical provider at the lead healthcare partner (Mayo Clinic) or one of the subrecipient healthcare partners (Rochester Clinic, HealthPartners TRIA, Fulcrum, or NovaCare). Enrollment increased steadily throughout the enrollment period. In this section, we first describe MN RETAIN's referral sources and experiences prompting referrals from those sources, including recruiting people from communities that have been historically underserved. We then describe MN RETAIN's experience with applying its eligibility criteria and enrolling eligible people.[31] Appendix C, Exhibit C.2 includes supplemental information about the recruitment and enrollment process.

1. Referral sources

MN RETAIN received referrals from various sources, including the lead healthcare partner's electronic medical record (EMR), medical providers, and self-referrals. The primary source of referrals was a patient registry maintained by the lead healthcare partner in its EMR. Both the lead agency (DEED) and lead healthcare partner (Mayo Clinic) worked to expand referral sources.

The lead healthcare partner's EMR was the greatest source of referrals for MN RETAIN. Recruitment staff identified most potential enrollees from a registry listing patients who indicated they needed help returning to work on a questionnaire. MN RETAIN relied on EMR functionality to send mass emails to tens of thousands of patients, inviting them to complete a survey to determine their eligibility for MN RETAIN. Program leaders and staff said that sending these mass emails was an efficient way to identify potential enrollees, because patients who received the email and completed the survey were more likely to enroll than patients contacted via cold calling.

Program leaders and staff expected that subrecipient healthcare partners would vary in how many enrollments they generated. Program leaders and staff noted that they anticipated high referrals from one of the subrecipient healthcare partners, which had enrolled several people shortly after becoming a partner and had the infrastructure to conduct research already in place. At the time of the interviews, other subrecipient healthcare partners had not converted many referrals to enrollment, which program staff attributed to their patient populations not being compatible with the eligibility criteria. For example, a program leader noted that one subrecipient healthcare partner is a network of chiropractors whose patients have usually had their injury for a long time rather than having acquired it recently.

[31] Appendix C, Exhibit C.3 lists the barriers and facilitators that emerged from our analysis.

Referrals from medical providers increased as they gained awareness of and appreciation for MN RETAIN. Program staff said that over time, medical providers expressed excitement about how the program could benefit their patients. Program staff said providers at the lead healthcare partner increasingly referred patients to MN RETAIN through the EMR and found this process fit easily into their workflows, and patients were more likely to see MN RETAIN as a credible program when referred by their provider.

MN RETAIN referrals generated through employer outreach, social media, and community outreach remained low. Program leaders shared that employers were generally not interested in learning about referring workers to MN RETAIN due to competing priorities for their time. They also shared that employers prioritized programs that helped build a pipeline of workers and fill their vacant positions over programs like MN RETAIN. Additionally, some of the large employers in the state had their own RTW programs and did not perceive a relative advantage of MN RETAIN services for their employees. While community outreach and social media outreach similarly generated few referrals, midway through the enrollment period, MN RETAIN leaders started to explore whether to partner with the Build Clinical online clinical research recruitment platform as a new referral source. MN RETAIN had not yet begun recruiting enrollees through Build Clinical at the time of the site visit.

2. Outreach strategies

MN RETAIN staff conducted outreach to medical providers, employers, and the general public to increase awareness of MN RETAIN and prompt referrals; however, these outreach efforts generated few enrollments. These staff educated medical providers and employers about MN RETAIN and encouraged them to refer their patients or employees who had injuries or illnesses affecting their ability to work. MN RETAIN staff also conducted outreach to community organizations and the general public, encouraging self-referrals by people who might be eligible for the program.

Program leaders and staff noted that provider champions were integral in getting medical providers to refer their patients to MN RETAIN. Program leaders felt that provider champions promoting MN RETAIN to their colleagues legitimized the program for providers who may have been otherwise wary of it being a "too good to be true" scam. Provider champions who saw their own patients' experiences with MN RETAIN highlighted how RTW coordinators took work off their own plates, which increased the interest of their fellow providers in MN RETAIN.

> "In the healthcare setting, there's something that legitimizes the clinical application of it [MN RETAIN] when a physician has a conversation with another physician and actually talks about how this can actually be incorporated and rolled out in the clinic."
>
> —Program leader

Outreach efforts were time-intensive for MN RETAIN staff, which led to challenges when staff had limited capacity or when there was turnover among outreach staff. Program leaders noted that the community outreach specialist role required significant time to travel to community events across the state, and, ideally, there would have been additional staff to expand capacity for these outreach efforts. Staff availability was also a challenge for employer outreach, as there was turnover in the employment

outreach specialist position midway through the enrollment period, and the role was then vacant for several months.

Using a customer relationship management platform improved the MN RETAIN team's ability to monitor outreach efforts. Midway through the enrollment period, outreach staff began using a customer relationship management platform (Salesforce) to track metrics related to their community and employer outreach efforts. Staff shared that using this platform was an improvement over their previous methods of tracking outreach efforts in Word or Excel documents.

3. Strategies for recruiting people who have been historically underserved

To promote recruitment and enrollment among communities that have been historically underserved throughout the state, MN RETAIN convened a Community Advisory Board and conducted outreach to organizations serving these communities and directly to community members at community events. In addition, program staff worked with entities such as an ethnic media consortium, grocery stores, and public libraries to disseminate MN RETAIN materials. Program staff reported that MN RETAIN continually exceeded its benchmark of 15 percent of enrollees being from Black, Indigenous, and People of Color communities, with most enrollees being identified through the lead healthcare partner's EMR rather than through community outreach efforts.

Program leaders emphasized that building trust in MN RETAIN among communities that have been historically underserved took significant time and investment. Leaders shared that many of these communities mistrust research, medical establishments, and government programs, as these institutions remind them of the legacy of harmful programs such as the Tuskegee Syphilis Study. Leaders said building trust in these communities required repeated interactions at community events and did not translate into MN RETAIN enrollments. They noted that DEED built rapport and name recognition with communities that have been historically underserved over the past five to seven years by engaging with community-based organizations and tribal leaders, which helped promote MN RETAIN. Program leaders had mixed opinions on how the Mayo Clinic's rapport with communities that have been historically underserved helped or hindered outreach efforts. While some leaders noted that the Mayo Clinic's prestige and name recognition lent credibility to these communities, others noted that historical mistrust of medical establishments, research, and lack of access to medical care in these communities extended to Mayo Clinic programs.

> "In Minnesota, we have communities that prefer face-to-face interaction. They want to talk to somebody in person to get information about programs. And building these kinds of relationships and community connections takes a lot of time. So, just because we have a table at one event in one community doesn't mean a bunch of people are going to come and sign up for the program. They have to see you a lot more often. You have to build that relationship, strengthen that relationship. It takes time to build trust."
>
> —Program leader

Endorsement of MN RETAIN by community leaders helped members of communities that have been historically underserved trust the program. Minnesota convened a Community Advisory Board of leaders who promoted MN RETAIN within their communities, which program leaders said helped community members' perception that the program was legitimate. Program staff oftentimes invited a member of the Community Advisory Board to attend community events along with them to help with buy-in in these communities; however, staff noted that they did not observe these efforts result in increases in self-referrals.

MN RETAIN's outreach to communities that have been historically underserved focused on reaching people through their preferred media and within their own communities. Program staff worked with an ethnic media consortium and local newspapers to advertise MN RETAIN across the state, which they expected to help reach people in communities that have been historically underserved. Staff placed flyers in grocery stores and public libraries in several counties, expecting that people who frequented these places would access the materials. Program staff noted, however, that these outreach efforts resulted in few self-referrals.

Program staff perceived that having outreach staff of similar racial and ethnic backgrounds to the communities where they were conducting outreach was helpful in building trust. Program staff noted that establishing meaningful connections to support outreach in communities that have been historically underserved can be challenging when cultural differences exist. When outreach staff identified as members of these communities themselves, community members were more likely to trust and communicate with them.

4. Eligibility criteria

MN RETAIN enrolled people ages 18 and older with an injury or illness (work- or non-work-related). At least 80 percent of enrollees must have been employed within three months of enrollment, and the remaining 20 percent within six months.

The program eligibility criteria excluded people who had been out of the workforce for more than six months but who could have benefitted from MN RETAIN. Program staff noted that one challenge with implementing the eligibility criteria was that many people who were interested in participating and otherwise eligible had been out of work longer than the eligibility criteria allowed. Oftentimes, this was because they had lost their employment due to the COVID-19 pandemic. In these instances, staff emphasized that the eligibility criteria were in place due to MN RETAIN's premise as an early intervention RTW program.

5. Enrollment

Upon receipt of a referral for MN RETAIN, recruitment staff reached out to potentially eligible people to confirm their eligibility and discuss MN RETAIN. If eligible and interested in enrolling, the recruitment staff obtained their informed consent and completed the enrollment. Then, they randomized the enrollee to either the treatment or the control group and provided a $100 incentive payment.

Program leaders and staff reported that recruitment staff members' diverse backgrounds and experience working on MN RETAIN helped them communicate effectively with potential enrollees.

Program leaders noted that recruitment staff drew on their professional and personal backgrounds to connect with potential enrollees and help them feel comfortable. Staff shared that as recruitment staff spent more time in the role, they became more confident in their ability to explain MN RETAIN, walk through the informed consent and privacy notice in an understandable way, and anticipate enrollees' questions.

Program staff reported that some potential enrollees were not interested in MN RETAIN services or were hesitant to enroll due to the possibility of being randomized to the control group. Program staff shared that some potential enrollees said they had supportive employers, strong family support, or other forms of support and did not have a need for MN RETAIN services. Many did not want to enroll because they were not guaranteed assignment to the treatment group, and some did not understand the focus of the research study.

A barrier to enrollment was potential enrollees not attending their scheduled enrollment meetings. Program staff shared multiple strategies they implemented to try to improve the likelihood of seemingly interested people attending their enrollment meetings. Among these strategies were scheduling enrollment meetings as close as possible to initial contact with potential enrollees and, for patients at the lead healthcare partner, scheduling these meetings in the EMR so the enrollment meeting would show up as an appointment and the potential enrollee would receive EMR-generated reminders.

Enrollees appreciated the flexible enrollment meeting formats offered by recruitment staff. Recruitment staff accommodated enrollees' preferences for conducting enrollment meetings virtually, over the phone, or in-person. Program staff shared that conducting enrollment meetings virtually went smoothly and worked well with most enrollees. Enrollees who experienced technological challenges completing the virtual informed consent, those who were reluctant to share their Social Security number over the phone, or those who wanted extra reassurance about the credibility of the program oftentimes chose to attend the meeting in-person and expressed appreciation for this option.

6. Enrollment outcomes

Cumulative enrollment through June 2023 was lower than expected, but the pace of enrollment continued to increase throughout the enrollment period (Appendix C, Exhibit C.4). During the first 18 months of enrollment (December 23, 2021, through June 30, 2023), MN RETAIN enrolled 1,387 people, or 43 percent of its goal of enrolling 3,200 people. The first 18 months of enrollment represented nearly two-thirds (62 percent) of the 29-month enrollment period. As designed, approximately 50 percent of all enrollees were treatment enrollees, and 50 percent were control enrollees (Appendix C, Exhibit C.5).

7. Treatment enrollee characteristics

We used enrollment data submitted by MN RETAIN to assess the demographic characteristics of the 691 people who enrolled during the first 18 months of the enrollment period (December 2021 to June 2023) and were assigned to the treatment group. A little more than half of the treatment enrollees were female (56 percent). The average age of the treatment enrollees was 43. White, non-Hispanic enrollees represented the largest racial/ethnic group (80 percent), followed by Hispanic enrollees (7 percent) and Black, non-Hispanic enrollees (7 percent) (Exhibit V.3). Most treatment enrollees had at least a high school diploma, GED, or certificate of completion (97 percent), and almost all preferred English (97 percent)

(Appendix C, Exhibit C.6). We include additional information about treatment enrollee characteristics in Appendix C, Exhibits C.6, C.7, and C.8.

Exhibit V.3. Race and ethnic characteristics of MN RETAIN treatment enrollees (percentages)

Race/ethnicity	Percentage of treatment enrollees
Hispanic	7.2
White, non-Hispanic	80.0
Black, non-Hispanic	6.5
Asian, non-Hispanic	1.2
More than one race	2.7
Other race, non-Hispanic	1.7

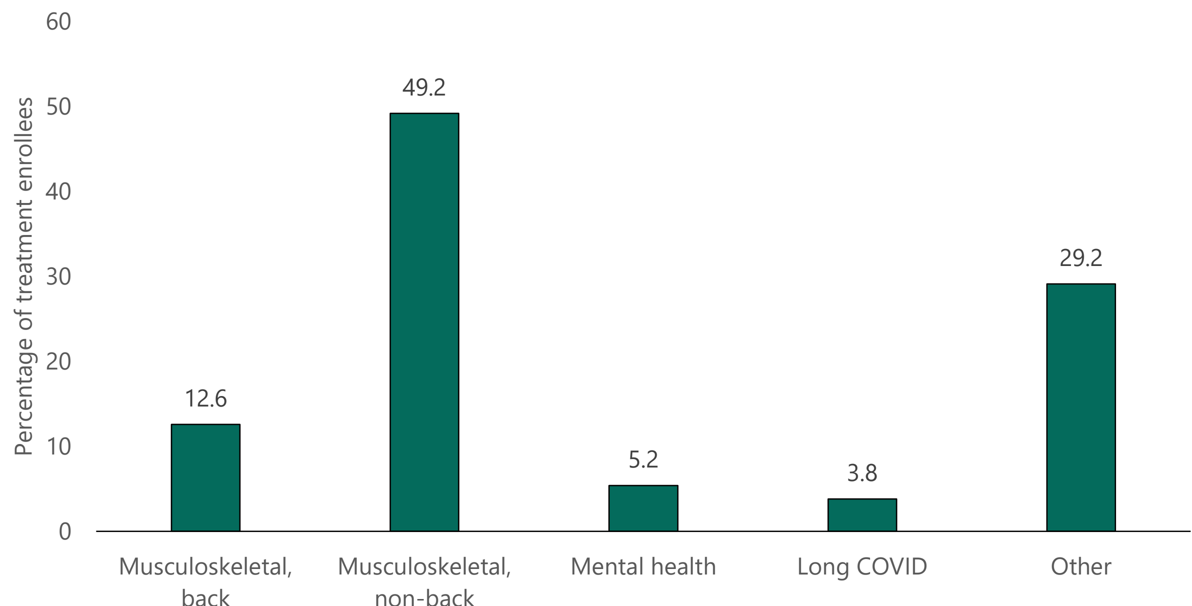
Source: MN RETAIN enrollment data through June 30, 2023.

Note: The sample size was 691 treatment enrollees. We did not include "missing" responses (0.6 percent); therefore, percentages may not add to 100 percent.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

We also used the enrollment data to assess illness and injury characteristics for the same 691 treatment enrollees (Exhibit V.4). Fifteen percent of MN RETAIN treatment enrollees reported their injury or illness was work related. Many treatment enrollees reported a primary diagnosis of a musculoskeletal condition, with 49 percent reporting a non-back musculoskeletal condition and 13 percent reporting a musculoskeletal back condition (Exhibit V.4). Few treatment enrollees reported that their primary diagnosis was a mental health condition (5 percent). People with a new or pre-existing condition were eligible for enrollment, and about half (52 percent) of enrollees reported their illness or injury was a new condition at enrollment. The average time between treatment enrollees' onset of their primary illness and enrollment into MN RETAIN was 41 days (Appendix C, Exhibit C.7).

Exhibit V.4. Primary diagnosis characteristics of MN RETAIN treatment enrollees (percentages)



Source: MN RETAIN enrollment data through June 30, 2023.

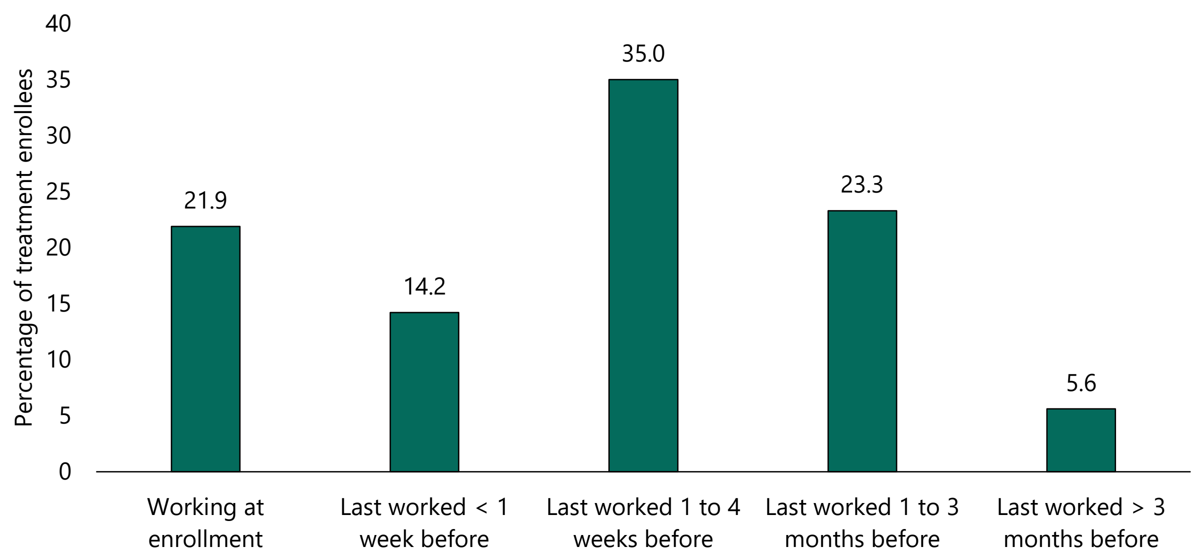
Note: The sample size was 691 treatment enrollees. We did not include "missing" responses; therefore, percentages may not add to 100 percent.

Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental health; and Other. These groupings build on previous studies of return to work among injured or ill workers. We include the mapping of ICD-10 codes into these categories in Appendix C, Exhibit C.6.

ICD = International Classification of Diseases; MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to assess recent work histories for the same 691 treatment enrollees described above (Appendix C, Exhibit C.8). All RETAIN programs must enroll people who are employed or in the labor force, and, for MN RETAIN, many treatment enrollees were employed at the time of enrollment (87 percent), and 22 percent were working (and not on leave) at that time (Exhibit V.5). Many treatment enrollees had worked within one month of enrollment (71 percent), and most last worked within three months of enrollment (94 percent). On average, treatment enrollees were employed full-time (40 hours per week) before the onset of injury or illness. About half of enrollees were employed for two years or less (45 percent) at their most recent job, and 38 percent were employed for more than five years at their most recent job. In the year before enrollment, many treatment enrollees (86 percent) worked at a job that paid at least $1,000 per month. The largest proportion of treatment enrollees reported being employed in a management, professional, or related occupation (37 percent) (Exhibit V.6). Other treatment enrollees reported being employed in occupations in service (30 percent); production, transportation, or material moving (15 percent); natural resources, construction, or maintenance (11 percent); or sales and office (7 percent).

Exhibit V.5. Length of time since last worked at enrollment among MN RETAIN treatment enrollees (percentages)

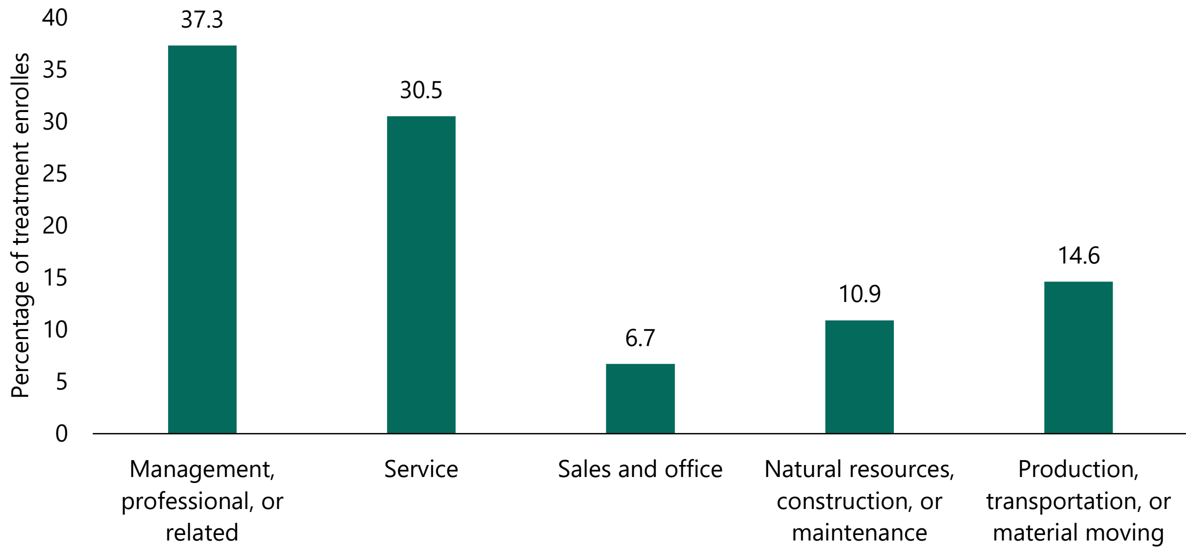


Source: MN RETAIN enrollment data through June 30, 2023.

Note: The sample size was 691 treatment enrollees.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

Exhibit V.6. Occupational classification of pre-injury/illness job among MN RETAIN treatment enrollees (percentages)



Source: MN RETAIN enrollment data through June 30, 2023.

Note: The sample size was 691 treatment enrollees. We did not include "missing" responses; therefore, percentages may not add to 100 percent.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to compare treatment enrollees' characteristics with control enrollees' characteristics. As outlined in the Evaluation Design Report, we expected treatment and control enrollees

to have similar baseline characteristics because each state had a random assignment design (Berk et al. 2021). We found no significant differences between treatment and control enrollees (Appendix C, Exhibits C.6, C.7, and C.8).

E. MN RETAIN implementation and service delivery

In this section, for each MN RETAIN program component, we first describe how the component was operationalized and then describe facilitators and challenges to its implementation.[32] Overall, during the interviews in May 2023, program leaders, staff, and partners reported delivering services as planned in the MN RETAIN program model. They described overcoming initial challenges with getting medical providers to complete the MN RETAIN training and noted that medical providers increasingly engaged with the RTW coordinators. However, employer engagement with MN RETAIN remained challenging, and treatment enrollees' use of employment services remained low.

1. Medical provider services

MN RETAIN advertised the medical provider training to providers affiliated with the lead healthcare partner (Mayo Clinic), subrecipient healthcare partners (Fulcrum Healthcare Network, HealthPartners, Rochester Clinic, and Novacare), and unaffiliated medical providers across the state (Exhibit V.7). The MN RETAIN healthcare co-leads sent individual emails to providers advertising MN RETAIN and the opportunity to obtain continuing medical education (CME) credits by completing the training on occupational medicine best practices.

Exhibit V.7. Planned MN RETAIN medical provider services

Program component	Description
Training medical providers on occupational medicine best practices	• Program leaders and staff alert providers to take the MN RETAIN training when one of their patients enrolls in the treatment group. • Providers can attend an in-person training or access an on-demand training online. The training focuses on (1) including work as part of a patient's physical and mental health; (2) using evidence-based work restrictions; (3) communicating among employers, patients, and healthcare providers; and (4) avoiding unnecessary or prolonged use of opioids in pain management. • Program staff offer providers at the lead and subrecipient healthcare partners a $100 gift card for completing the training within 30 days of one of their patients enrolling and being assigned to the treatment group. The provider can then receive a $100 gift card for each additional patient enrolled and assigned to the treatment group, without having to complete the training again. • At subrecipient healthcare partners where individual providers are not allowed to receive monetary incentives, program staff offer $100 to the organization for each of their providers completing the training. • Providers can receive continuing medical education credits for completing the training. • Providers can access consultations from RTW coordinators and occupational medicine providers for writing effective work restrictions.

[32] Appendix C, Exhibit C.9 lists the barriers and facilitators to implementing each MN RETAIN program component that emerged from our analysis.

Program component	Description
Incentivizing medical providers for using occupational medicine best practices	• None offered.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Program leaders said the individualized emails that the MN RETAIN healthcare co-leads sent to medical providers helped get providers to complete the training. They noted that this approach was more effective than sending postcards about the training. Approximately 60–70 percent of providers who received an email from a healthcare co-lead completed the training.

MN RETAIN staff presented the medical provider training during in-person meetings and decreased the length of the training, both of which they reported facilitated training completions. MN RETAIN staff held in-person trainings with provider groups that had patients enrolled in MN RETAIN or had expressed interest in the program. Program leaders said this was more effective than asking providers to complete an online training on their own time. Program leaders shared that consolidating the training into a single 45-minute module facilitated more training completions than when providers had to review several modules, which was more time-consuming.

Program leaders reported that limited time and competing CME training opportunities were barriers to medical provider training completions. Program leaders emphasized that medical providers received several CME training invitation emails daily, and they prioritized trainings that their employing healthcare organizations required. Medical providers experienced burnout and busy schedules, creating barriers to completing the MN RETAIN provider training.

Program leaders found that MN RETAIN's monetary incentives were ineffective in getting medical providers to complete the training. They said that even providers with several patients enrolled in the treatment group who were, therefore, eligible for hundreds of dollars' worth of incentive gift cards chose not to complete the training due to time constraints. Some providers expressed that they were skeptical of the legitimacy of the incentive; however, providers who received individual emails from the healthcare co-leads about the training felt assured the incentive was legitimate.

2. RTW coordination services

The Mayo Clinic employed six RTW coordinators to provide RTW coordination services to treatment enrollees (Exhibit V.8). These services included working with an enrollee to develop an employment plan and an RTW plan; meeting regularly with the treatment enrollee; and communicating with the enrollee's medical provider, employer, and others as needed to coordinate the enrollee's staying at or returning to work. RTW coordinators worked with each enrollee until they returned to work without restrictions, returned to work with permanent restrictions, or participated in the program for six months.

Exhibit V.8. Planned MN RETAIN RTW coordination services

Program component	Description
Coordinating RTW services	• RTW coordinator engages with the treatment enrollee to develop an employment plan and an RTW or SAW plan. The plan includes the enrollee's medical information, RTW goals, barriers, and health-related social needs. • RTW coordinator must communicate with the enrollee at least twice a month. • RTW coordinator provides guidance to the enrollee regarding appropriate medical care and work restrictions. • RTW coordinator provides support to the enrollee's medical provider on recommendations for appropriate treatment and work restrictions. • RTW coordinator documents the enrollee's work restrictions in the Occupational Case Management system and REDCap.
Communicating among parties involved in RTW plan	• RTW coordinator uses standardized procedures to communicate with treatment enrollees, their medical provider, and their employer to optimize the provision of work accommodations. • RTW coordinator documents interactions with medical providers and employers in the Occupational Case Management system and REDCap.
Monitoring treatment enrollee progress	• RTW coordinator monitors the treatment enrollee's progress through weekly or biweekly contacts and for one month after the enrollee returns to work.

Note: REDCap is a secure web application used to manage data collection for research.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; SAW = stay at work; REDCap = Research Electronic Data Capture.

Program data submitted by MN RETAIN indicate that all treatment enrollees (100 percent) used MN RETAIN services, including RTW coordination services or other RTW services (Exhibit V.9). Most treatment enrollees (97 percent) had an established RTW plan by an average of 1.4 days after enrollment. As of the end of June 2023, about 68 percent of treatment enrollees had exited MN RETAIN. Treatment enrollees who exited the program used services for 120 days on average (about four months).

Exhibit V.9. Treatment enrollees' receipt of RTW coordination services

Service used	Mean value or percentage
Used any services beyond enrollment [a]	100.0
Established RTW plan	97.7
Average time elapsed between enrollment and established RTW plan (days)	1.4
Exited MN RETAIN	68.3
Average duration of services, if exited (days)	120.0
Referred to services beyond MN RETAIN after six months	0.3

Source: MN RETAIN service use data through June 30, 2023.

Note: The sample size was 691 treatment enrollees.

[a] Any services beyond enrollment includes establishing an RTW plan or receiving an employment service such as job search assistance, training, on-site job analysis, ergonomic assessment, or transitional work opportunities.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

a. Coordinating RTW services

Program staff reported that a warm handoff from recruitment staff to an RTW coordinator and providing cell phones to RTW coordinators facilitated communication between RTW coordinators and enrollees. Once MN RETAIN hired dedicated recruitment staff and shifted the responsibility of completing enrollment to these staff from the RTW coordinators, they implemented warm handoffs. This provided an opportunity for recruitment staff and RTW coordinators to share relevant information with the enrollee present and ensure that the enrollee made contact with the RTW coordinator. Program staff reported that having a cell phone enabled them to text enrollees, which facilitated enrollee engagement as some enrollees were more likely to respond to a text than a phone call.

Co-developing RTW plans with treatment enrollees provided an opportunity for RTW coordinators to understand an enrollee's health and health-related social needs and establish realistic RTW goals. Although RTW coordinators could review enrollees' medical information in the EMR, program staff reported that having conversations with enrollees was the most fruitful way to understand their physical and mental health status. Throughout the course of developing an RTW plan, RTW coordinators learned about barriers enrollees faced in returning to work, such as transportation or financial barriers, which enabled RTW coordinators to connect enrollees with appropriate support. In addition, RTW coordinators found the Official Disability Guideline, a proprietary tool that estimates the timeline needed to return to work, helpful in co-developing employment and RTW plans with enrollees and setting realistic, data-driven expectations for recovery and RTW time frames.[33]

Program leaders and staff described RTW coordinators as having a range of professional backgrounds, which in addition to receiving training on cultural competence, helped them meet enrollees' diverse needs. RTW coordinators had backgrounds in workforce development, vocational rehabilitation, college counseling, job coaching, and nursing, which facilitated their ability to meet enrollees' various needs. The lead agency (DEED) trained RTW coordinators on building self-awareness of

[33] The Official Disability Guideline tool utilizes claims data to estimate the time frame an enrollee with a specific injury or illness may need to return to work safely. The lead healthcare partner paid for a license to make the tool available to RTW coordinators.

one's biases when talking to people from different communities. RTW coordinators also completed cultural competence training offered through the lead healthcare partners on an annual basis.

Program staff noted that MN RETAIN's six-month enrollment period was too short for some treatment enrollees to engage with RTW coordination services to the extent that would have been most beneficial for them. Program staff observed that some enrollees did not engage with MN RETAIN until they were close to the end of the enrollment period, once they had time to recover from their injury or illness and were closer to returning to work. They noted that the six-month MN RETAIN enrollment period constrained RTW coordinators' abilities to deliver all services from which enrollees may benefit.

Turnover among RTW coordinators had minimal impact on service delivery. Program leaders noted that turnover occurred early on in the study period when RTW coordinators' caseloads were not so large that they could not absorb the cases of enrollees who had been working with the departing RTW coordinators. Although there was turnover in four of the six RTW coordinator positions, program leaders did not attribute enrollee attrition or other challenges with service delivery to staff turnover.

b. Communicating among parties involved in enrollee's return to work

Central to the RETAIN program model is the role of the RTW coordinator in communicating among parties involved in a treatment enrollee's RTW plan to coordinate necessary services. In Exhibit V.10, we present the various communication flows that occurred to support an enrollee's return to work.

Exhibit V.10. MN RETAIN: Communication among RTW coordinator, treatment enrollee, employer, medical providers, and other service providers

Communication flows specific to an individual treatment enrollee		
	During the enrollment process	• RTW coordinator communicates with the enrollee to develop an employment plan and RTW/SAW plan. • RTW coordinator verbally confirms whether the enrollee gives permission to contact the enrollee's employer. • If the enrollee permits, RTW coordinator notifies the enrollee's employer by phone or email that the employee is enrolled in MN RETAIN. • RTW coordinator notifies the enrollee's medical provider through a message in the EMR that the patient is enrolled in MN RETAIN.
	While receiving RTW coordination services	• RTW coordinator and enrollee communicate at least twice a month to monitor the enrollee's progress. • RTW coordinator contacts the enrollee's medical provider and employer to support appropriate treatment, work restrictions, and work accommodations, as needed. • RTW coordinator documents employment-specific interactions in the Occupational Case Management system and detailed case notes in REDCap. • RTW coordinator refers the enrollee to the lead workforce partner to be connected to alternative employment, transitional work opportunities, training services, and financial support, as needed.

Communication flows specific to an individual treatment enrollee		
	While receiving other RTW services	• If the enrollee has work restrictions, RTW coordinator contacts the enrollee's employer to assist with implementing work accommodations, as needed. • Employment counselor (at lead workforce partner) communicates with enrollee once a month (or more frequently, as needed). • Employment counselor communicates with the enrollee to identify the enrollee's RTW goals and barriers and to develop an individual service strategy. • RTW coordinator regularly communicates with the employment counselor to stay aligned on the enrollee's progress.
	Upon enrollment ending	• RTW coordinator contacts the enrollee at least twice during the month after the enrollee returns to work (with or without restrictions) to monitor progress.

Note: REDCap is a secure web application used to manage data collection for research.

EMR = electronic medical record; MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; SAW = stay at work.

In Exhibit V.11, we report the prevalence of communications between RTW coordinators and other parties involved in enrollees' RTW plans, including employers, medical providers, and workforce professionals. For almost all treatment enrollees (99 percent), the RTW coordinator communicated with at least one of these parties. As described in Exhibit V.10, the RTW coordinator sends a message through the EMR to each treatment enrollee's medical provider to notify the provider of the patient's enrollment in MN RETAIN. Therefore, most RTW coordinators communicated with an enrollee's medical provider at least once (98 percent of treatment enrollees). RTW coordinator communication with an enrollee's employer was less common (41 percent of treatment enrollees).

Exhibit V.11. Percentage of MN RETAIN treatment enrollees whose RTW coordinators communicated with others involved in enrollees' RTW plans

Communication among parties involved in treatment enrollees' return to work	Percentage of treatment enrollees
RTW coordinator communicated with employer at least once	41.1
RTW coordinator communicated with medical provider at least once	98.0
RTW coordinator communicated with workforce professional at least once	70.9
RTW coordinator communicated with any of the above	99.1

Source: MN RETAIN service use data through June 30, 2023.

Note: The sample size was 691 treatment enrollees.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Communication between RTW coordinators and medical providers improved over time as medical providers developed greater recognition of the value of the RTW coordinator role, trust in the RTW coordinators, and awareness of the MN RETAIN program. Program leaders noted that it took time for medical providers to understand the role RTW coordinators could play as part of the care team. As medical providers gained experience working with RTW coordinators and understood the benefits of MN

RETAIN for patients after completing the medical provider training, program leaders observed that they generally became more engaged and communicative with RTW coordinators.

Program staff described how the lead healthcare partner's EMR facilitated communication from RTW coordinators to treatment enrollees' medical providers. RTW coordinators added themselves to enrollees' care teams and documented in the EMR that enrollees were participating in MN RETAIN, so providers were aware. RTW coordinators also communicated directly with medical providers at the lead healthcare system using the EMR's messaging feature; communicating with medical providers at the subrecipient healthcare partners was less streamlined because RTW coordinators typically did not have access to as much of enrollees' medical information in these partners' EMRs as they did at the lead healthcare partner.

Program staff reported several challenges that RTW coordinators faced in their efforts to communicate with treatment enrollees' employers. First, program staff said enrollees often declined to allow their RTW coordinators to contact enrollees' employers. One concern enrollees had about this communication was that their employer would react negatively to the RTW coordinator's recommendations for work accommodations. In addition, program staff said employers were generally hesitant to communicate with RTW coordinators. Program staff attributed this hesitancy to employers' lack of trust in MN RETAIN, as well as employers' preferences to communicate directly with their employees about work accommodations. RTW coordinators attempted to make the most of these situations by coaching enrollees to advocate for themselves in communications with employers. Program staff also noted that language in the MN RETAIN overview materials shared with employers made employers wary that it was an oversight program due to its federal funding.

"I've had very minimal success with employer engagement. I do a ton of coaching my patients on how to advocate for themselves, how to approach that, helping them fill paperwork that's needed. I had a gal who had to fill out ADA accommodation request just to work light duty work at her position. So, kind of helping her navigate that, but the employers have been pretty hesitant to engage with me."

—Program staff

c. Monitoring treatment enrollee progress

Throughout treatment enrollees' participation in MN RETAIN, RTW coordinators updated the RTW plan to reflect changes to enrollees' employment status, goals, restrictions, and accommodations. RTW coordinators documented detailed case notes on enrollees' medical and employment progress in the HIPAA-compliant REDCap system and recorded high-level information, including the service use data used for the RETAIN evaluation, in the Occupational Case Management system.[34,35] The Occupational Case Management System was also used by other MN state programs and was not HIPAA-compliant. Program staff noted that it was helpful for RTW coordinators to access the EMR to track enrollees' medical

[34] HIPAA refers to the Health Insurance Portability and Accountability Act, which established standards to safeguard individuals' protected health information.

[35] REDCap is a secure web application used to manage data collection for research.

appointments, clinical notes, and referrals for medical treatment or therapy. For enrollees at the subrecipient healthcare partners, RTW coordinators were able to access EMRs using a health information exchange platform.

3. Other RTW services

MN RETAIN RTW coordinators offered treatment enrollees support with workplace-based interventions and referrals for employment or financial support services (Exhibit V.12). In this section, we first describe how MN RETAIN operationalized these services and then describe facilitators and challenges to their implementation.

Exhibit V.12. Planned other MN RETAIN RTW services

Program component	Description
Supporting workplace-based interventions	• RTW coordinators support treatment enrollees with restrictions to develop work accommodations with their employers. When employers are willing to discuss work accommodations for treatment enrollees, RTW coordinators communicate directly with employers along with treatment enrollees.
Retraining or rehabilitating enrollees	• RTW coordinators refer treatment enrollees to the lead workforce partner, Workforce Development, Inc., to be connected to job search services, transitional work opportunities, training services, and financial support (if the enrollee is interested in these services). • Treatment enrollees may work in transitional work opportunities that meet their work restrictions until their employer is able to provide work accommodations. • Employment counselor works with treatment enrollees to identify enrollee's goals and barriers to achieving those goals and develop an individual service strategy. • Employment counselor must communicate with treatment enrollees once a month (or more frequently, as needed). • RTW coordinators regularly engage with the employment counselor assigned to a treatment enrollee to stay up-to-date on an enrollee's use of employment or support services. • RTW coordinators do not make referrals to rehabilitation services. Employment counselors make these referrals if needed.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

a. Supporting workplace-based interventions

When treatment enrollees permitted, RTW coordinators reached out to treatment enrollees' employers about supporting workplace-based interventions. When employers declined to engage with the RTW coordinator, the coordinator provided accommodations support to the enrollee without the employer's involvement.

Although MN RETAIN service use data indicate that RTW coordinators did not provide accommodation support services to enrollees (Exhibit V.13), these data do not tell the full story. RTW coordinators supported enrollees in navigating work accommodations; however, they could not include this service in the service use data if they did not communicate directly with an employer.

Exhibit V.13. MN RETAIN treatment enrollees' use of workplace-based interventions

MN RETAIN service use	Percentage of treatment enrollees using service
On-site job analysis	0.0
Ergonomic assessment	0.0
Workplace accommodation	0.0
Any of the above interventions	0.0

Source: MN RETAIN service use data through June 30, 2023.

Note: The sample size was 691 treatment enrollees.

Note: MN RETAIN service use data do not include accommodation support services provided by RTW coordinators if the RTW coordinator did not communicate with the employer about these services.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

RTW coordinators coached treatment enrollees to communicate with their medical providers and employers about work accommodations. Program staff noted that RTW coordinators assisted medical providers with documenting appropriate work restrictions for enrollees, including obtaining information to inform the restrictions from other providers on the enrollee's care team when necessary. They said that this helped RTW coordinators ensure that employers had the documents necessary to safely provide the accommodation so the enrollee could return to work.

Program staff reported that many employers feared that enrollees returning to work with restrictions might re-injure themselves in the workplace and were unwilling to risk this liability. For instance, program staff noted cases of manufacturing employers not wanting to risk the liability of employees reinjuring themselves should they return to their usual positions on a factory line, and these employers did not have other positions available that might involve a lower risk of injury. Program staff expressed that there were no effective incentives in place for some employers to provide accommodations. In many cases, employers' concerns about workers' compensation liability if enrollees returned to work too early with restrictions seemed to outweigh the value of retaining employees by accommodating their restrictions.

b. Retraining or rehabilitating enrollees

RTW coordinators made a referral for employment or financial support services if they identified a treatment enrollee as needing these services. Employment counselors at the lead workforce partner (WDI) and the subrecipient workforce partner (Goodwill-Easter Seals of Minnesota) provided employment services, including general job search services (such as resume review and mock interviews), access to training if the enrollee is looking to transition to a different career, and access to paid transitional work opportunities that align with the enrollee's work accommodations (Exhibit V.14). Employment counselors also provided financial support services to help enrollees pay bills such as rent, utility, or car payments.

Exhibit V.14. Treatment enrollees' use of retraining or rehabilitation services

MN RETAIN service	Used service (percentages)
Job search services	1.7
Training services	1.9
Transitional work opportunity [a]	0.1
Other employment services	99.9
Any of the above services	99.9

Source: MN RETAIN service use data through June 30, 2023.

Note: The sample size was 691 treatment enrollees.

Other employment services were recorded as career counseling in the MN RETAIN service use data. Career counseling included services such as development of an individualized employment plan, resume and cover letter reviews, and career exploration. These services were provided by RTW coordinators or employment counselors.

[a] Transitional work opportunity is a time-limited job at a new employer during an enrollee's recovery period to meet the enrollee's work restrictions until their employer can provide work accommodations.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

Program staff reported referrals for employment and support services went more smoothly once the program hired additional employment counselors midway through the enrollment period. Program leaders shared that the lead workforce partner's initial staffing plans for employment counselors assumed that RTW coordinators would refer a similar proportion of treatment enrollees for employment and support services in Phase 2 as they did in Phase 1 of RETAIN. However, RTW coordinators referred a much larger proportion (around 80 to 90 percent) of enrollees for these services in Phase 2. Employment counselors lacked sufficient capacity to serve all referred enrollees in a timely manner. Program leaders noted that after hiring additional employment counselors at both the lead workforce partner and subrecipient workforce partner, the referrals went more smoothly. They also attributed smooth referrals to effective communication practices such as RTW coordinators providing a warm handoff to employment counselors and regular case meetings between RTW coordinators and employment counselors. Program leaders noted, however, that employment counselors continued to experience capacity constraints at times because they split their time between MN RETAIN and other programs.

Program staff reported that confusion around eligibility requirements for financial support services resulted in inconsistent communication to enrollees about these services. Program leaders and staff said RTW coordinators and employment counselors sometimes provided different explanations to enrollees about which expenses were eligible for financial assistance, resulting in enrollee dissatisfaction. Leaders and staff attributed staff's confusion partly to differences in eligibility requirements between MN RETAIN and other state workforce programs and partly to the fact that limits on financial assistance offered through MN RETAIN changed over time as spending for these services approached the budgeted amount.

While some referred enrollees readily engaged in employment and support services, others faced barriers to accessing these services due to the status of their recovery and limited technological skills. Program staff said that, depending on how enrollees were feeling physically and mentally in their recovery, enrollees were not always ready to engage with these services during the enrollment period. For some enrollees, sharing their stories with one more person—in this case, an employment counselor—was more

than they could handle, which prevented them from using the services. Program staff noted another barrier related to enrollees not having the technological skills to engage with the services effectively—for instance, not knowing how to send the employment counselor necessary documentation. To address this barrier, employment counselors taught enrollees technological skills they could apply in their careers; however, this could be frustrating and time-consuming for enrollees. In addition, employment counselors offered enrollees options to access employment services in the way that was most comfortable for them: in-person, over the phone, or through video chats. On the whole, staff noted that enrollees who engaged with employment and support services were happy to receive them and said the services filled gaps not addressed by other services.

"I find people that are so thankful because they haven't had to switch careers in 20 years or so and they have no idea where to start. Things have changed so much since then. And so they really do just want to have that one person that they can count on that's going to kind of be by their side through the process."

—Program staff

Program staff expressed mixed perspectives on how employment counselors helped enrollees understand potential career opportunities. Some program staff noted that employment counselors used their expertise to help treatment enrollees understand available career opportunities and how their skills might translate to skills demanded in the job market. This was especially beneficial for enrollees who worked for many years in one position and needed to make a career pivot due to their illness or injury. Other program staff noted that employment counselors were somewhat undertrained and did not always tailor employment services to enrollees' individual situations. Overall, staff shared that treatment enrollees expressed finding it helpful to have an employment counselor who provided moral support during a difficult time in their lives.

Some enrollees did not provide the information employment counselors needed to support them, which program staff attributed in part to enrollee's confusion about what the employment services entailed. At times, enrollees stopped engaging with the services because of the information required on their part, such as a draft resume for a resume review service. Staff noted challenges related to enrollees not being willing to put in the work required to find employment. However, in some cases, they attributed this lack of engagement to enrollees holding onto a misconception that the workforce partner's role was similar to that of a temporary staffing agency.

Enrollees mostly declined transitional work opportunities to avoid losing unemployment or short-term disability payments. Program leaders and staff reported that most enrollees returned to positions with their original employers without needing or wanting transitional work opportunities. For enrollees who participated, program staff perceived that these opportunities provided a short-term paid position that fit their accommodations and allowed them to explore a new career.

Enrollees underutilized retraining services due to the constraints of the six-month RETAIN enrollment period. Program staff expressed that RETAIN's six-month enrollment period was a barrier to enrollees pursuing retraining such as degree programs, because unless the program was shorter than six months and aligned with the enrollee's time in MN RETAIN, the enrollee would have to bear the financial burden of training.

4. Service contrast

To measure the impact of MN RETAIN, we will compare the outcomes from the MN RETAIN services offered to the treatment group to those from the usual services offered to the control group. RTW coordinators provided a list of resources available to the general public to enrollees assigned to the control group. These resources included services available at American Job Centers and the Job Accommodation Network. RTW coordinators communicated to control enrollees that they could access these resources independently.

Program leaders noted that increased state investments in workforce development may have reduced barriers for control enrollees to access non-MN RETAIN employment services or improved the effectiveness of these services. Midway through the enrollment period, the MN state legislature advanced an economic agenda with significant investments in services to promote worker upskilling and fill job vacancies.

Although medical providers who completed the MN RETAIN training could potentially use occupational medicine best practices with patients enrolled to the control group, program leaders were not concerned about contamination effects. Leaders noted that the role of the RTW coordinator in supporting treatment enrollees was the key intervention contributing to service contrast for treatment and control enrollees.

5. Collecting and reporting program data

The lead agency built an MN RETAIN module within its existing Occupational Case Management system, Workforce One (WF1), to collect and report program data. WF1 is maintained by the lead agency, which uses it for other state programs.

Program staff shared that data on workplace-based intervention support did not capture the time RTW coordinators spent supporting enrollees' accommodations. Staff noted that, although RTW coordinators helped enrollees navigate accommodations, per the grant data reporting guidelines, they did not count this support as "workplace accommodations" if the RTW coordinator did not interact directly with the enrollee's employer. This was the case most of the time because most employers did not want to communicate with RTW coordinators about accommodations.

Program leaders expressed uncertainty about how many enrollees received job search services due to the way MN RETAIN reported service use data. Although the data showed that less than 2 percent of enrollees received job search services, program leaders shared that RTW coordinators and employment counselors recorded job search service delivery under "other employment services." However, the data on other employment services also included services such as development of individualized employment plans, making it uncertain how many enrollees received job search services.

Program staff said that the training and resources developed by the lead agency's data team generally facilitated their understanding of how to record service use data appropriately. Staff shared that the data team provided the RTW coordinators and employment counselors with an informational packet outlining how to record data for different scenarios. Staff noted that the data team

was responsive to their questions about data entry and implemented changes to reduce data entry burden where possible.

Program staff indicated that the enrollment data entry process was complex, time-consuming, and error-prone. Staff shared that they recorded enrollment data in four separate systems (Confirmit, WF1, REDCap, and an Excel spreadsheet). The order of fields varied across these systems, and some fields did not allow copy and paste functionality, which staff noted led to human error, especially when inputting Social Security numbers. Because MN RETAIN staff did not have access to data they entered in Confirmit, they were not able to identify if there were mismatches in Confirmit data and WF1 data for a given enrollee. Therefore, MN RETAIN relied on Mathematica to flag if there were data entry errors in Confirmit records.

F. Staff time spent on MN RETAIN

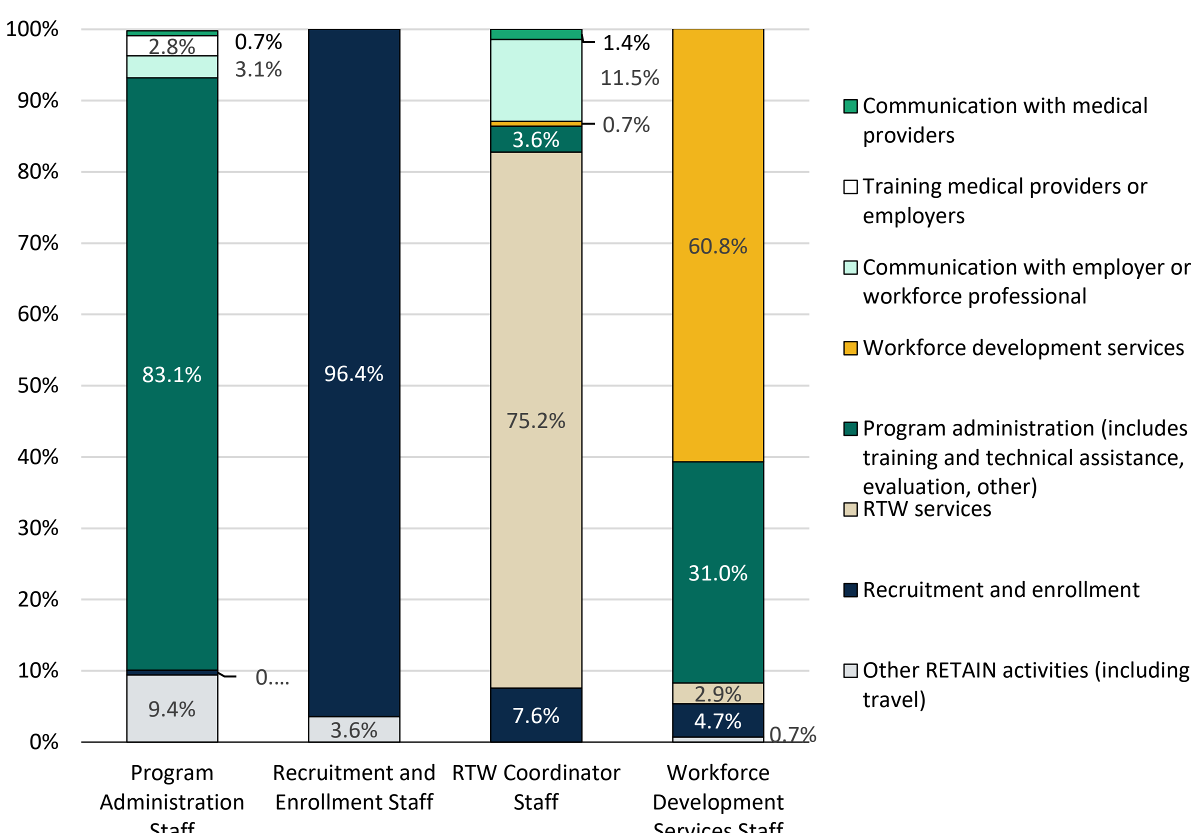
We used staff activity logs to understand how MN RETAIN administrative and direct service staff allocated their time across program activities. These logs captured staff time spent on activities related to recruitment and enrollment, RTW services, workforce development services, communication with and training employers or medical providers, and program administration. We collected the logs from 11 to 12 MN RETAIN staff for two one-week periods representing periods of steady-state operations (when the program was neither ramping up nor closing down).[36]

As expected, MN RETAIN administrators, enrollment and recruitment staff, and RTW coordinators reported different allocations of time across activities (Exhibit V.15). MN RETAIN administrators allocated the largest proportion of their time to program administration activities, which included training and technical assistance, evaluation, and other activities, and the lowest proportion to communication with employer or workforce professionals and workforce development services. Recruitment and enrollment staff spent most of their time (96.4 percent) on recruitment and enrollment activities, RTW coordinator staff spent three-quarters (75.2 percent) of their time on RTW services,[37] and Workforce Development staff spent 60.8 percent of their time on workforce development services.

[36] We collected the staff activity logs from 11 staff for the period March 13–17, 2023, and from 12 staff for the period June 5–9, 2023. All but two staff members that reported hours were full-time RETAIN staff.

[37] RTW services were defined as activities to support participants in staying at or returning to work, including developing and implementing a plan including regular check-ins with participants and monitoring participants' progress for returning to work, and referring participants workforce development providers such as vocational counseling and job search assistance services.

Exhibit V.15. Percentage distribution of administrative and direct service staff hours across MN RETAIN activities



Source: Activity logs completed by 11 MN RETAIN program leaders, partners, and staff in March 2023 and 12 in June 2023.
MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work

G. Costs of MN RETAIN

We used program cost data submitted by MN RETAIN to assess the economic costs of implementing MN RETAIN. In the period of May 17, 2021, through March 31, 2023, which is 48 percent of the total grant period, MN RETAIN incurred total costs of $5,471,591.09, or 25 percent of the total grant awarded to MN RETAIN (Appendix C, Exhibit C.10). About half of the total costs were personnel or labor costs (52 percent), and the remaining costs were indirect costs (32 percent) and payments on behalf of treatment enrollees receiving services (16 percent). The average cost of providing services per treatment enrollee was $10,749 (including direct and indirect costs).[38] The Final Impact Report will include an evaluation of the benefits of MN RETAIN relative to the costs.

[38] The average cost of providing services per treatment enrollee was calculated as the total costs incurred by the MN RETAIN program from May 17, 2021, through March 31, 2023, divided by the number of treatment enrollees as of March 31, 2023. Total costs incurred by the program include personnel or labor costs, direct costs of providing services to participants and providers, and indirect costs.

H. Plans for sustaining MN RETAIN

In this section, we describe the plans for sustaining MN RETAIN that program leaders and staff reported on during the interviews in May 2023. Their plans were focused on securing state funding and starting to explore other sustainability options.

Program leaders were starting to hold sustainability planning meetings but noted that, while leaders agreed on wanting to sustain MN RETAIN, developing a common vision and finding time to devote to sustainability planning were challenging. Leaders noted that not all lead partners were aligned on what the structure of MN RETAIN might look like after the Phase 2 grant period, and part of the goal of these meetings was to develop a vision for the future of MN RETAIN together. Leaders also shared that they focused their time on achieving enrollment targets, which detracted from their ability to focus on sustainability planning.

Program leaders sought to secure funding beyond the RETAIN Phase 2 grant period from the state legislature. The MN RETAIN team submitted a proposal to the state legislature in early 2023, but the state declined to commit to funding at that point, in part because there were still funds available through the RETAIN Phase 2 grant. Leaders said the DEED team planned to submit another proposal in the next legislative cycle in January 2025. If this proposal succeeds, legislative funding will begin in July 2025.

Leaders were beginning to explore other options for sustainability but noted that one challenge to securing funding was not having impact data available. At the time of the site visit, leaders shared that they planned to attend the Council of State Governments convening in the summer of 2023 to gather ideas for sustainability. They believed that without evidence of MN RETAIN's effectiveness, their applications for funding were not compelling.

Program leaders were concerned about retaining MN RETAIN staff if they did not secure funding soon. Leaders shared that even if they secure state legislative funding in 2025, this funding would not be assured in time to retain the program staff whose positions are currently funded through the Phase 2 grant. Leaders were concerned about disruptions to MN RETAIN service delivery and operations if staff left their positions before the end of the grant period.

I. Implications for replication of MN RETAIN

Our analysis of MN RETAIN implementation and service delivery points to key factors that may be important to consider for replicating the program. Overall, these findings suggest over time, improved communication among partners and program staff facilitated various aspects of implementation and service delivery. However, program staff faced challenges engaging employers in MN RETAIN and engaging treatment enrollees in employment services.

- Improved communication among the lead partners increased the leadership team's overall cohesion and efficiencies in MN RETAIN's outreach efforts. Communication between medical providers and RTW coordinators improved as medical providers recognized the value of MN RETAIN and developed trust in RTW coordinators.

- During implementation, MN RETAIN changed several processes that improved service delivery, including having MN RETAIN provider champions contact medical providers individually about MN RETAIN and holding in-person training to facilitate medical provider training completions. Recruitment staff started introducing enrollees to RTW coordinators through warm hand-offs, and MN RETAIN provided RTW coordinators with cell phones. Both changes facilitated communication with enrollees.
- Employers hesitated to communicate with RTW coordinators because they did not perceive value in MN RETAIN over their other priorities and preferred to communicate directly with their employees rather than RTW coordinators. Employers also feared that enrollees returning to work with restrictions might become re-injured in the workplace and were unwilling to risk this liability. Enrollees also feared that their employer would react negatively to the RTW coordinator's recommendations for work accommodations. RTW coordinators coached enrollees to communicate with their employers about work accommodations.
- Program staff reported that the six-month enrollment period was too short to deliver the full range of RTW coordination and retraining services to some enrollees.

J. Implications for interpretation of impacts on outcomes

In this section, we describe findings about factors that may support the interpretation of MN RETAIN's impacts on outcomes that will be included in the Final Impact Report.

- Cumulative enrollment was initially lower than expected, but the pace of enrollment steadily increased throughout the enrollment period, with the source of most enrollments being the lead healthcare partner's EMR.
- Approximately half of enrollees reported that their illness or injury was a new condition at enrollment, with an average of 41 days between onset of the primary illness or injury and enrollment into MN RETAIN.
- RTW coordination services included regular communication between an RTW coordinator and treatment enrollee to support the enrollee's return to work.
- RTW coordinators communicated with an enrollee's medical provider at least once in most cases (98 percent of treatment enrollees); however, the frequency of communication with medical providers after this initial contact varied.
- RTW coordination services included less-than-expected communication between RTW coordinators and treatment enrollees' employers. RTW coordinators directly supported enrollees seeking accommodations rather than working with enrollees' employers to support accommodations.
- Employment services included less-than-expected delivery of retraining and transitional work opportunity services. There was uncertainty about how many enrollees received job search services. Almost all treatment enrollees (99.9 percent) received "other RTW services," which may have included an individualized employment plan, resume and cover letter review, or career exploration services. Program staff reported that many treatment enrollees referred to WDI received financial support services.
- MN RETAIN offers a list of publicly available employment services to control enrollees. The Minnesota state legislature recently made significant investments in workforce development to promote worker

upskilling and to fill job vacancies. These state investments could potentially reduce barriers for control enrollees to access non-MN RETAIN employment services and improve the effectiveness of those services, possibly weakening the treatment-control service contrast for this component of RETAIN services.

VI. Ohio RETAIN

Key findings

- The lead agency and lead healthcare partner had a strong, collaborative relationship but faced challenges coordinating with several local workforce development boards.
- OH RETAIN's enrollment remained strong midway through the enrollment period; with 72 percent of its enrollment, it was on pace to surpass its enrollment goal. OH RETAIN recruited most enrollees using reports of patients generated from the lead healthcare partner's electronic medical record. Referrals from employers and the general public remained low.
- To improve enrollees' understanding of the program, OH RETAIN revised informational resources to provide more of an overview of the program and modified recruitment and enrollment scripts to more explicitly describe the services OH RETAIN offered. In addition, over time recruitment staff increased their understanding of OH RETAIN which increased their confidence when responding to potential enrollees' questions. Potential enrollees' lack of responsiveness to recruitment staff's initial outreach efforts remained the most significant barrier to enrollment.
- The intended population comprised people who were employed or in the labor force and had experienced the onset or worsening of a non-work-related musculoskeletal, cardiovascular, mental, or behavioral health, or select neurological condition, or a select abdominal surgery in the past three months. In addition, they must have had a medical provider employed by the lead healthcare partner who had completed OH RETAIN training. Around half of treatment enrollees reported that their illness or injury was a new condition at enrollment. The average time between the onset of treatment enrollees' primary condition and enrollment was less than a month.
- About three-quarters of treatment enrollees reported that their primary diagnosis was a musculoskeletal, non-back condition (72 percent), and less than one percent reported that their primary diagnosis was a mental health condition.
- Most treatment enrollees had at least a high school diploma, GED, or certificate of completion (96 percent), and about a quarter had a four-year college degree or post-graduate degree (24 percent). Many treatment enrollees were employed at enrollment (84 percent), with the largest proportion employed in a service occupation (39 percent).
- Medical providers faced competing demands on their time, which was a barrier to engaging them in OH RETAIN and medical provider training completions. Financial incentives were minimally effective in increasing their engagement. Program leaders recruited medical providers to the OH RETAIN advisory board, and program staff increased the consistency with which they reached out to providers to engage them in OH RETAIN; both efforts helped engage providers to complete training and use occupational medicine best practices in their treatment of enrollees.
- Most treatment enrollees used at least one OH RETAIN services beyond enrollment (91 percent), and a similar proportion established an RTW plan (90 percent). About one-third of treatment enrollees received a work accommodation (20 percent) , and less than one percent received retraining or rehabilitation services. RTW coordinators were reportedly skilled and well-supported to provide RTW coordination services. While retraining and rehabilitation services were largely available, treatment enrollees struggled to use these services due to restrictive Workforce Innovation and Opportunity Act program eligibility and negative attitudes about certain industries.
- For all treatment enrollees, the RTW coordinator communicated with at least one of the parties (medical provider, employer, or workforce professional) who may have been involved in an enrollee's RTW plan. For all treatment enrollees, the RTW coordinator communicated with their medical provider (100 percent of treatment enrollees) because all medical providers were employed by the lead healthcare partner, and enrollees were required to consent to this communication to enroll in OH RETAIN. In their efforts to engage employers in OH

RETAIN, the lead healthcare and workforce partners encouraged employers to sign an OH RETAIN pledge indicating that they would implement occupational medicine best practices in their workplace. Midway through the enrollment period, 173 employers had signed the pledge, which may have contributed to the relatively high rate of communication between RTW coordinators and employers (71 percent).

- Sustainability planning involved the lead healthcare partner focusing on expanding staff capacity to deliver RETAIN-like services, while the lead agency focused on sustaining partnerships and piloting RETAIN-like services at a lower cost per enrollee.

A. Overview of Ohio RETAIN

The Ohio Department of Job and Family Services (ODJFS) was the lead agency for Ohio Retaining Employment and Talent after Injury/Illness Network (OH RETAIN). The program catchment area was three regions in Ohio: Youngstown, Toledo, and Cincinnati. OH RETAIN enrolled people who experienced the onset or worsening of various non-work-related conditions in the three months before enrollment and provided RTW coordination services to all treatment enrollees. RTW coordinators referred enrollees with social or behavioral health needs to a team of social workers at the lead healthcare partner. RTW coordinators referred enrollees interested in employment services to the lead workforce partner in each region, the local workforce development board.

In this chapter, we document recruitment, enrollment, and program operations approximately midway through the two-and-a-half-year enrollment period.[39] The findings we present about the implementation of OH RETAIN are based on the analysis of qualitative data collected during semistructured interviews with program leaders, partners, and staff, as well as program data submitted by OH RETAIN collected through June 30, 2023, 18 months after the start of enrollment.[40]

B. OH RETAIN partnerships to support enrollment and service delivery

The lead agency for OH RETAIN, ODJFS, brought together a range of partners to support implementation (Exhibit VI.1). The lead agency established a memorandum of understanding with a health system, local workforce development boards, and other agencies before submitting its Phase 2 application. In this section, we describe the partner organizations and their roles in supporting OH RETAIN. We include supplemental information about the roles of OH RETAIN partners in Appendix D, Exhibit D.1.

[39] At the time of this report, enrollment was scheduled to end in May 2024, and program operations funded under the RETAIN Phase 2 grant were scheduled to end in May 2025.

[40] OH RETAIN enrolled its first participant on January 19, 2022. We collected program data and qualitative data about implementation experiences during interviews through June 30, 2023, 18 months after the start of enrollment.

Exhibit VI.1. OH RETAIN organization chart

Leadership Team
Ohio Bureau of Worker's Compensation
Governor's Office of Workforce Transformation
Ohio Department of Health

Lead Agency
Ohio Department of Job and Family Services
Lead project manager*
2 evaluation liaisons

Lead Healthcare Partner
Bon Secours Mercy Health
Program manager*
Healthcare lead/provider champion
Training and education lead
Recruitment lead
9 recruitment staff
3 severity review nurses
Lead RTW coordinator
7 RTW coordinators
Lead social worker
3 social workers

Lead Workforce Partners
Local Workforce Development Boards
Area 9 workforce development lead
Area 12 workforce development lead
Area 13 workforce development lead
Area 17 workforce development lead*
Area 18 workforce development lead

Workforce Partner for Vocational Rehabilitation Services
Opportunities for Ohioans with Disabilities
Primary contact*

* *Serves on leadership team*
OH RETAIN = Ohio Retaining Employment and Talent after Injury/Illness Network;
RTW = return to work.

1. Lead healthcare partner

The lead healthcare partner, Mercy Health, was the sole health system implementing OH RETAIN. It supported implementation by (1) recruiting, engaging, and training medical providers; (2) training and overseeing RTW coordinators; (3) identifying, screening, and enrolling eligible people; and (4) in coordination with the lead workforce partners, raising awareness of OH RETAIN among employers and the general public in an effort to prompt referrals and engagement in OH RETAIN. To enhance internal program processes, the lead healthcare partner led continuous quality improvement efforts.

To be able to refer patients to OH RETAIN, medical providers affiliated with Mercy Health were required to complete the OH RETAIN training on occupational medicine best practices.

2. Lead workforce partners

The lead workforce partners, the local workforce development boards operated in Youngstown, Toledo, and Cincinnati, provided career and retraining services to treatment enrollees through their OhioMeansJobs centers. OhioMeansJobs centers provide job seekers with job search, job training, and other employment supports and provide employers with employee recruitment assistance.

Another workforce partner and member of the OH RETAIN leadership team, Opportunities for Ohioans with Disabilities, worked with the OhioMeansJobs centers and provided vocational rehabilitation services to referred treatment enrollees. This workforce partner consulted with employers on work accommodations for treatment enrollees as needed.

3. Other partners

The state leadership team included partners who consulted with OH RETAIN on program implementation. The Ohio Bureau of Workers' Compensation served in an advisory role. The Governor's Office of Workforce Transformation oversaw the state agency partners involved in OH RETAIN. The Ohio Department of Health provided Institutional Review Board oversight.

In their efforts to engage employers in OH RETAIN, the lead healthcare and workforce partners encouraged employers to sign an OH RETAIN pledge indicating that they would implement occupational medicine best practices in their workplace. They considered employers who signed the pledge as being enrolled in RETAIN; at the time of the site visit, 173 employers were enrolled.

4. Coordination of program partners

Program leaders and staff were positive about partner coordination and acknowledged room for improvement. Program partners expressed that establishing a memorandum of understanding between partners, having open lines of communication, establishing clear workflows (such as intra-agency referral processes), and drawing on partners' areas of expertise facilitated coordination efforts. The leadership team met quarterly to discuss implementation progress and focus areas for the next quarter. Program leaders said that the communication between the lead healthcare partner and lead workforce partners could be improved to enhance service continuity for enrollees.

C. Program environment surrounding OH RETAIN implementation and service delivery

In this section, we describe the program environment in which OH RETAIN was implemented to understand factors outside the study's control that might have contributed to or inhibited its implementation and the evaluation's ability to detect impacts.

1. Employment and policy environment

In Ohio, about 44 percent of working-age people with disabilities were employed in 2022, similar to the national average (Exhibit VI.2). Program leaders and partners noted that although there were numerous job openings in Ohio, many jobs were physically demanding. Employers often did not have less physically demanding jobs for workers needing accommodations. Social workers described barriers to work for people with disabilities, including lack of transportation in rural areas and unmet basic needs (such as food and financial insecurity), which needed to be addressed before they could focus on returning to work.

Exhibit VI.2. RETAIN program environment in Ohio

Economic indicators (percentages)	Ohio	United States
Unemployment rate (June 2023)[a]	3.4	3.5
Employment rate among working-age people without disabilities (2022)[b]	80.5	79.0
Employment rate among working-age people with disabilities (2022)[b]	43.5	44.0

[a] U.S. Bureau of Labor Statistics (2023a).

[b] U.S. Bureau of Labor Statistics (2023b).

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

2. COVID-19 pandemic

Program leaders and partners described minimal effects of the pandemic on OH RETAIN's service delivery. The pandemic minimally affected service delivery because OH RETAIN had already shifted its processes (for example, recruitment and enrollment, RTW coordination service delivery) to occur virtually even before the start of the public health emergency.

Program leaders and partners said the COVID-19 pandemic had mixed effects on work opportunities for enrollees. It reportedly increased remote work opportunities, alleviating some work barriers (such as transportation and the need for certain accommodations). However, they noted that the pandemic pushed more enrollees to seek retraining services to match the job market better. Program staff shared that enrollees were less reluctant to agree to the RTW coordinator contacting their employers than in Phase 1, which staff attributed partly to enrollees' perception of greater job security in Ohio's employment environment. They also described the pandemic as having adverse effects on mental health and treatment enrollee motivation in Ohio.

D. Ohio RETAIN recruitment and enrollment

OH RETAIN sought to enroll people with an illness or injury (unrelated to work) who were using a medical provider at the lead healthcare partner, Mercy Health. Enrollment remained steady throughout the enrollment period. In this section, we first describe OH RETAIN's referral sources and outreach strategies and experiences prompting referrals from those sources, including recruiting people from communities that have been historically underserved.[41] We then describe OH RETAIN's experience with applying and expanding its eligibility criteria and enrolling eligible workers.[42] Appendix D, Exhibit D.2 includes supplemental information about the recruitment and enrollment process.

[41] SSA's Equity Action Plan points to the Federal Executive Order on Advancing Racial Equity and Support for Underserved Communities, which defines the term "underserved communities" as populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.

[42] Appendix D, Exhibit D.3 lists the barriers and facilitators that emerged from our analysis.

1. Referral sources

Since the program's start, the lead healthcare partner staff generated daily EMR reports and reviewed patients' age, medical condition, and timing of condition onset or worsening of condition relative to the eligibility criteria. This EMR review was the primary source of referrals. Midway through the enrollment period, OH RETAIN expanded its eligibility criteria to include more medical conditions, which expanded the number of patients identified through the EMR report. OH RETAIN also changed its employer recruitment strategies, which resulted in increased referrals. This combination of changes helped the state surpass its enrollment targets.

The lead healthcare partner's systematic review of the EMR and expanded eligibility criteria were the greatest sources of referrals for OH RETAIN. Program leaders confirmed that 95 percent of referrals were identified by nurses reviewing a report generated from the EMR. OH RETAIN expanded the eligibility criteria after program leaders consulted with providers about which diagnoses affect patients' ability to work. Expanding the eligibility criteria to include more medical conditions, such as behavioral health conditions, increased the types of providers making referrals to OH RETAIN and the number of patients identified by the nurses reviewing the EMR reports.

Using the EMR to screen for potentially eligible patients was generally effective and efficient despite challenges due to incomplete information. Recruitment staff said patients' EMR charts sometimes did not include information about their employment status, whether their injury or illness was related to work, their desire to work, or whether they had applied for Social Security Disability Insurance or Supplemental Security Income. Program staff also noted that it was challenging to use the EMR to screen for patients with behavioral health conditions, as documentation in the EMR tended to be more limited or less descriptive for patients with these conditions.

2. Outreach strategies

OH RETAIN employed nine recruitment staff who conducted outreach to employers, medical providers, and the general public to increase awareness of OH RETAIN and prompt referrals. These staff educated employers and workers about the OH RETAIN program and encouraged employers to refer workers and workers to self-refer to OH RETAIN.

Program staff increased employer engagement in OH RETAIN by using sales principles and sending employers a satisfaction survey and monthly OH RETAIN newsletter. Program leaders trained recruitment staff to use a sales-pitch approach in their employer outreach efforts. Before contacting an employer, program staff researched the employer to personalize their outreach. Following outreach, they sent the employer a satisfaction survey and then called to follow up on the survey completion. Although these follow-up calls did not lead to survey completions, program leaders said these efforts

> "Basically, the sales approach, I would call it. It has changed. Training the team more on treating it like a sale other than like, how will you participate in this? I think has helped, kind of given it more like a business aspect instead of just seeing if you can get somebody to participate in something you're doing."
>
> —Program leader

increased employer interest in RETAIN. Program staff said they promoted program awareness by emailing a monthly newsletter that highlighted OH RETAIN success stories and articles about returning to work and staying at work.

Efforts to promote OH RETAIN to the general public via advertisements increased awareness of the program but resulted in few referrals. Program leaders described several outreach strategies to promote OH RETAIN, including ads on social media platforms and a podcast that included discussions of RTW/SAW best practices and interviews with program leaders, partners, and staff. Program staff described challenges in finding community events to promote OH RETAIN and noted that the community events they attended yielded a small number of enrollments. They suggested this was because the events were scheduled during typical working hours when potentially eligible people could not attend. Additionally, program staff expressed challenges with this outreach approach when potential enrollees at the community events did not have a medical provider employed by the lead healthcare partner. Program leaders said they tracked the source of referrals, whether from community events, word of mouth, or social media, and monitored the number of clicks on their social media ads. Although the referral outcomes from these sources were limited, program leaders reported that advertisement platforms generated interest from employers and health insurance companies.

Program staff described their efforts to streamline outreach to medical providers, which increased provider engagement. In an effort to accommodate busy medical provider schedules, program staff shortened their presentation of OH RETAIN to three minutes. After which, if a provider expressed interest, they quickly demonstrated the referral process in the EMR and gave providers access to the medical provider training, allowing them to refer patients. Program staff described reaching out to medical providers each quarter and periodically bringing them lunch to remind them that OH RETAIN is a resource for patients. Program staff also left OH RETAIN-branded products like mugs, pens, and posters around the lead healthcare partner's medical practices to remind providers about OH RETAIN. They said these reminders increased medical providers' familiarity with the OH RETAIN program and the staff.

Adding medical providers to the OH RETAIN Advisory Board helped increase providers' interest in OH RETAIN. Program leaders invited medical providers to join the advisory board, which allowed providers to give input on the program's direction. These providers also raised awareness of the program and increased OH RETAIN's credibility among their colleagues, which helped to convince resistant providers to complete the training so they could refer patients.

3. Strategies for recruiting people from communities that have been historically underserved

To promote recruitment and enrollment among people from communities that have been historically underserved, program leaders planned local events and connected with community leaders. One successful workshop, in the Toledo region, convened the YMCA and Cherry Street Mission, an organization focused on eradicating poverty. It used the YMCA's computer lab to help community members with their resumes and job search process while spreading awareness about OH RETAIN services. In the Youngstown region, program leaders met with a community event organizer monthly to identify how to support events for communities that have been historically underserved. In the Toledo area, program staff joined a community coalition, which partners with community health workers, community members, employers, and representatives from other health systems to better identify

community needs. Through this coalition, program staff and leaders discussed how to build trust with communities that have been historically underserved, like sustaining the program so community members have ongoing access to these services.

Recruitment and enrollment materials in multiple languages and interpreter services helped program staff recruit and serve enrollees with diverse language needs. Program documents, including the informed consent required for enrollment, were translated into Spanish in all three regions, as well as into Arabic to fit the demographic needs of the Youngstown region. Program staff said that intake staff and RTW coordinators completed an annual mandatory training on how to serve enrollees with different language needs and access the broader Mercy Health interpreter services. Nonetheless, few enrollees (1 percent) reported a preferred language other than English. In such cases, program staff appreciated technical tip sheets with reminders about how to access interpreter services when they needed them.

4. Eligibility criteria

OH RETAIN enrolled patients who had experienced the onset or worsening of a non-work-related injury or illness in the three months before enrollment. Eligible enrollees must have been employed or in the labor force, ages 18 to 65, and living in or receiving medical care in Ohio. In addition, they must have had a medical provider employed by the lead healthcare partner who had completed OH RETAIN training. While OH RETAIN originally focused on enrolling patients with musculoskeletal and cardiovascular conditions, midway through the enrollment period, the program expanded its enrollment criteria to also include certain mental and behavioral health diagnoses, certain abdominal surgeries (for example, bariatric surgery, hysterectomies), and select neurological conditions. In addition, OH RETAIN introduced two timing considerations to its eligibility criteria: (1) recruitment and enrollment staff enrolled patients no more than two weeks before a scheduled surgery, and (2) if a patient planned to stay at their job, they must have been out of work for at least 30 days *or* needed to modify their job.

Adapting the eligibility criteria was effective in identifying patients who could most benefit from program services and engaging medical providers and employers to make referrals. Program staff said that expanding the eligibility criteria to include additional conditions was “straightforward” and worked well to identify patients who might have had difficulty staying at work. They noted that introducing the aforementioned timing considerations promoted the identification of enrollees who could most benefit from OH RETAIN’s services over a six-month period. The inclusion of new conditions and diagnoses to the eligibility criteria also widened the pool of potentially eligible enrollees and allowed program staff to engage medical providers in different specialties (for example, neurosurgeons, psychiatrists, general surgeons, obstetricians, and gynecologists), which boosted medical provider referrals. Program staff mentioned that both medical providers and employers had been especially receptive to the expansion of the eligibility criteria to include behavioral health conditions. Employers, in particular, expressed excitement about the inclusion of behavioral health conditions, which encouraged employers to sign the OH RETAIN pledge.

Although the program expanded its eligibility criteria, the criteria still excluded patients who could have benefitted from OH RETAIN services. Program staff specifically said the requirement for enrollees to be younger than age 65 and the timing requirements prevented interested patients who would have

likely benefitted from OH RETAIN from enrolling in the program. Program leaders noted that as the American workforce grows older, there are increasingly more people over age 65 who could use support in returning to or staying at work following an injury or illness. Program staff also noted that requiring enrollees to have experienced an injury or illness in the three months before enrollment created barriers to enrollment for patients who could have benefitted from RETAIN's support. However, program staff said that if a patient's illness or injury was older than three months but there had been a more recent exacerbation, the patient could meet the program's eligibility criteria.

5. Enrollment

Recruitment staff reached out to potentially eligible patients to confirm their eligibility and interest in enrolling in OH RETAIN. Once a patient was confirmed eligible and interested, an RTW coordinator obtained informed consent and completed the enrollment process. Then, the enrollee was randomized to either the treatment or control group and received a $100 incentive payment (Appendix D, Exhibit D.2).

Potential enrollees' lack of responsiveness to OH RETAIN's initial outreach was the most significant barrier to enrollment. Program leaders and staff said that although OH RETAIN made changes to improve patients' responsiveness to outreach (such as ensuring that when recruitment staff called a potential enrollee, the caller ID read "Mercy Health"), a lack of response from potential enrollees continued to challenge enrollment efforts. Program staff described that recruitment staff tried to call each potential enrollee two times to confirm eligibility and gauge interest in the program. If the potential enrollee expressed interest in the program, the RTW coordinator attempted to call the potential enrollee three times to complete enrollment. If the potential enrollee did not respond to the RTW coordinator's second call, recruitment staff sent a non-response letter to the patient before the RTW coordinator made their third and final outreach call. Program staff said that occasionally, potential enrollees would respond to the non-response letter and subsequently complete the enrollment process.

Program staff introduced more informational resources in the recruitment and enrollment process to improve potential enrollees' perception and understanding of OH RETAIN. Once recruitment staff confirmed a patient's eligibility, they sent a copy of the informed consent form to review. Midway through the program's enrollment period, recruitment staff began to include a written overview of the OH RETAIN program and refer potential enrollees to the OH RETAIN website, the OH RETAIN podcast, or the online medical portal (which included information on OH RETAIN) after they had confirmed a patient's eligibility.

Modifications to the recruitment and enrollment scripts strengthened the appeal of OH RETAIN to potential enrollees. To address the concerns of potential enrollees expressed during recruitment calls, such as "not needing handout," program staff modified the recruitment script to explicitly describe the services OH RETAIN offered and how these services could benefit patients. Program staff said that the language in the recruitment script assured potential enrollees there were no costs associated with OH RETAIN and enrollment in the program did not require a significant time commitment. When a medical provider referred a patient, recruitment staff mentioned this referral to the potential enrollee, as staff found that potential enrollees were more receptive to a program endorsed by their medical provider. Program staff noted that the language in the enrollment script described a holistic care approach, which they found made the enrollment questions seem less intrusive. If a potential enrollee expressed hesitation about enrolling or fear about returning to work, RTW coordinators found it helpful to remind patients that OH RETAIN staff would support them in achieving their RTW goals for six months.

> "Typically we'll say, 'Well, we're working with the provider', but instead I will say, 'Your provider actually referred you to the program' and then go through what the program is so it's just like a tiny change... and it usually helps recruitment a little bit more because then they feel better like answering the phone and answering those questions."
>
> —Program staff

Recruitment staffs' backgrounds and strong staff retention were critical to successful enrollment efforts. Program leaders noted that the professional backgrounds of the nurses reviewing the EMR reports for potentially eligible patients provided them with the appropriate clinical knowledge to interpret medical details to identify potential enrollees who could benefit from OH RETAIN. In addition, program leaders perceived that over time, the recruitment and enrollment staff developed a comprehensive understanding of the program. This understanding enabled them to confidently explain OH RETAIN and answer potential enrollees' questions during the recruitment and enrollment process.

6. Enrollment outcomes

Cumulative enrollment through June 2023 was higher than expected, and OH RETAIN was on pace to reach and surpass its enrollment goal (Appendix D, Exhibit D.3). During the first 18 months of enrollment (January 16, 2022, through June 30, 2023), OH RETAIN enrolled 2,519 people, or 72 percent of its goal of enrolling 3,500 people. The first 18 months of enrollment represented nearly two-thirds (62 percent) of the total 29-month enrollment period. As designed, approximately 50 percent of all enrollees were treatment enrollees, and 50 percent were control enrollees (Appendix D, Exhibit D.4).

7. Treatment enrollee characteristics

We used enrollment data submitted by OH RETAIN to assess the demographic characteristics of the 1,258 people who enrolled during the first 18 months of the enrollment period (January 2022 to June 2023) and were assigned to the treatment group. More than half of the treatment enrollees were female (61 percent). The average age of the treatment enrollees was 44. White, non-Hispanic enrollees represented the largest racial/ethnic group (76 percent), followed by Black, non-Hispanic enrollees (17 percent) (Exhibit VI.3). Most of the treatment enrollees had at least a high school diploma, GED, or certificate of completion

(96 percent), and almost all preferred English (99 percent) (Appendix D, Exhibit D.5). We include additional information about treatment enrollee characteristics in Appendix D, Exhibits D.5, D.6, and D.7.

Exhibit VI.3. Race and ethnic characteristics of OH RETAIN treatment enrollees (percentages)

Race/ethnicity	Percentage of treatment enrollees
Hispanic	4.4
White, non-Hispanic	76.4
Black, non-Hispanic	16.5
Asian, non-Hispanic	0.4
More than one race	1.6
Other race, non-Hispanic	0.6

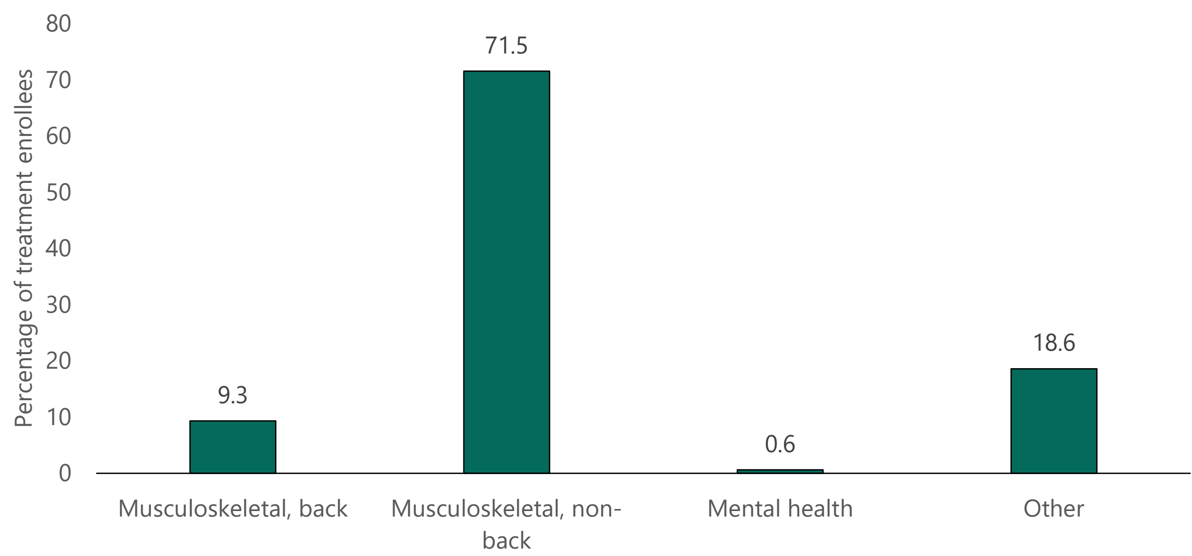
Source: OH RETAIN enrollment data through June 30, 2023.

Note: The sample size was 1,258 treatment enrollees. We did not include “missing” responses; therefore, percentages may not add to 100 percent.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

We also used the enrollment data to assess the illness and injury characteristics of the same 1,258 treatment enrollees (Exhibit VI.4). The OH RETAIN program enrolled people with an injury or illness unrelated to work; nonetheless, 3 percent of enrollees reported their injury or illness was work related. Many enrollees reported that their primary diagnosis was a musculoskeletal, non-back condition (72 percent). About 1 percent of enrollees reported that their primary diagnosis was a mental health condition. People with a new or pre-existing condition were eligible for enrollment; 47 percent of enrollees reported that their illness or injury was a new condition at enrollment. The average time between treatment enrollees’ onset of their primary illness and enrollment into OH RETAIN was 24 days (Appendix D, Exhibit D.6).

Exhibit VI.4. Primary diagnosis characteristics of OH RETAIN treatment enrollees (percentages)



Source: OH RETAIN enrollment data through June 30, 2023.

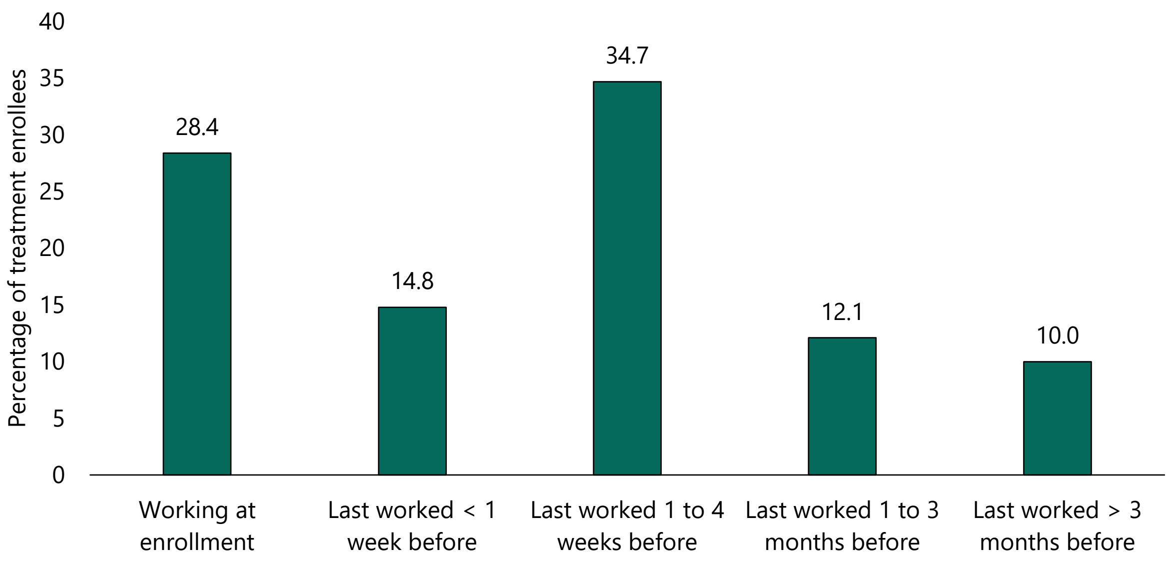
Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental health; and Other. These groupings build on previous studies of return-to-work among injured or ill workers. We include the mapping of ICD-10 codes into these categories in Appendix D, Exhibit D.6.

Note: The sample size was 1,258 treatment enrollees. We suppressed the categories "Long COVID" to avoid disclosing information about individuals. We did not include "missing" responses; therefore, percentages may not add to 100 percent.

ICD = International Classification of Diseases; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to assess recent work histories for the same 1,258 treatment enrollees described above (Appendix D, Exhibit D.7). All RETAIN programs must enroll workers who are employed or in the labor force, and, for OH RETAIN, most treatment enrollees were employed at the time of enrollment (84 percent), and 28 percent were working (and not on leave) at the time of enrollment (Exhibit VI.5). Many treatment enrollees had worked within one month of enrollment (78 percent), and most last worked within three months of enrollment (90 percent). On average, treatment enrollees were employed full-time (39 hours per week) before the onset of injury or illness. Less than half of enrollees were employed for two years or less (42 percent) at their most recent job, and 41 percent were employed for more than five years at their most recent job. In the year before enrollment, most treatment enrollees (81 percent) worked at a job that paid at least $1,000 per month. Upon enrollment, the largest proportion of treatment enrollees reported being employed in a service occupation (39 percent) (Exhibit VI.6). Other treatment enrollees reported being employed in occupations in management, professional, or related (24 percent); production, transportation, or material moving (21 percent); sales and office (10 percent); or natural resources, construction, or maintenance (6 percent).

Exhibit VI.5. Length of time since last worked at enrollment among OH RETAIN treatment enrollees (percentages)

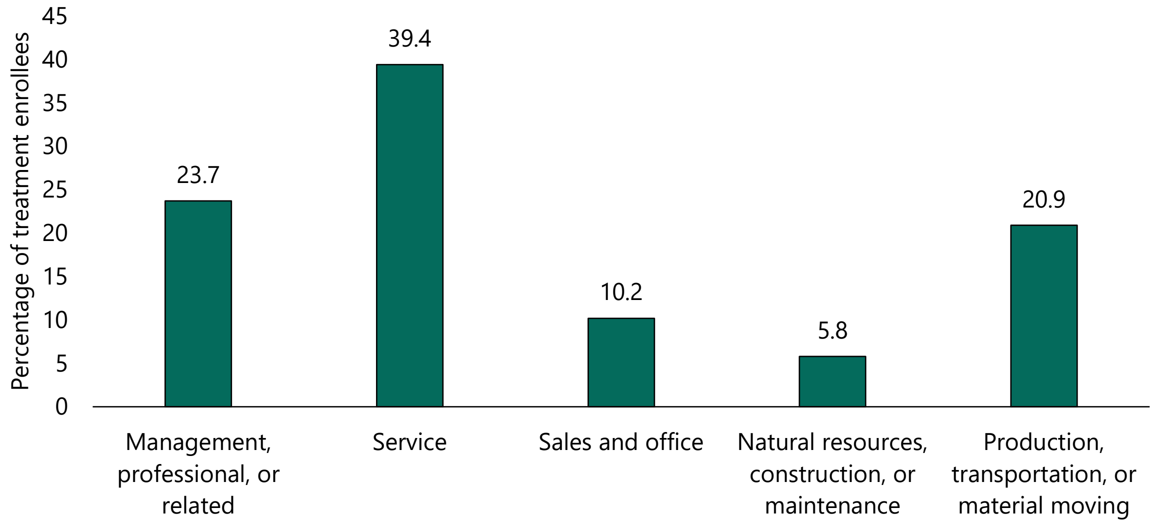


Source: OH RETAIN enrollment data through June 30, 2023.

Note: The sample size was 1,258 treatment enrollees.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

Exhibit VI.6. Occupational classification of pre-injury/illness job among OH RETAIN treatment enrollees (percentages)



Source: OH RETAIN enrollment data through June 30, 2023.

Note: The sample size was 1,258 treatment enrollees. We did not include "missing" responses; therefore, percentages may not add to 100 percent.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to compare treatment enrollees' characteristics with control enrollees' characteristics. We expected treatment and control enrollees to have similar baseline characteristics because each state had a random assignment design. We compared the two groups across 23

characteristics at the time of random assignment (Appendix D, Exhibits D.5, D.6, and D.7) and found one statistically significant difference between the two groups in the distribution of primary diagnosis.

E. OH RETAIN implementation and service delivery

In this section, for each OH RETAIN program component, we first describe how the component was operationalized and then describe facilitators and challenges to its implementation.[43] Overall, during the interviews in June 2023, program leaders and staff reported delivering services as planned in the OH RETAIN program model, except for referring enrollees to other RTW services. It was also challenging training medical providers on occupational medicine best practices. We describe the details of this challenge below.

1. Medical provider services

The lead healthcare partner required its medical providers to complete OH RETAIN online trainings, after they enrolled in RETAIN, and compensated them for using occupational medicine best practices in their delivery of care to treatment enrollees (Exhibit IV.7). Program staff also followed up with providers they identified as having patients who were eligible for RETAIN to engage the providers in training; once providers pledged to implement occupational medicine best practices and completed training, their patients could enroll in RETAIN. The trainings focused on OH RETAIN program services and SAW/RTW best practices. The trainings also addressed the benefits of medical providers using a biopsychosocial model to proactively identify any behavioral barriers (for example, fear of re-injury, fear of movement) that might impede an enrollee's recovery. At the time of the interviews, program leaders reported a training completion rate of 90 percent. To address medical provider feedback from Phase 1, program leaders developed a refresher training, which providers completed one year after the initial training. Providers received one-on-one training from program staff on documenting procedure codes in the EMR when they use SAW/RTW best practices with treatment enrollees, for which they received additional compensation.

Exhibit VI.7. Planned OH RETAIN medical provider services

Program component	Description
Training medical providers on occupational medicine best practices	• Provider can access five training modules in the lead healthcare partner's online learning system. These training modules provide information on occupational medicine best practices and the OH RETAIN program. Provider completes a refresher training on occupational medicine best practices one year after completing the initial training. • Providers who complete the five training modules receive a $500 incentive payment and 3.75 CME credits. Providers receive a $100 incentive payment and 1.5 CME credits for completing the refresher training.
Incentivizing medical providers for using occupational medicine best practices	• Providers receive compensation for using occupational medicine best practices when treating treatment enrollees. Compensation is based on the average time necessary to complete each best practice, multiplied by the provider's billing rate.

CME = continuing medical education; OH RETAIN = Ohio Retaining Employment and Talent after Injury/Illness Network.

[43] Appendix B, Exhibit B.8 lists the barriers and facilitators to implementing each RETAIN program component that emerged from our analysis.

Program staff reported that medical providers' busy schedules continued to be a challenge for medical provider training completions. Program staff noted that while the description of the training informed providers that it would take nearly two hours to complete, most providers were able to complete the training in 30 minutes. Providers' perception that the training would take longer to complete than it actually did also dissuaded some providers from engaging in the training. Program staff noted, however, that the refresher training was much shorter, which encouraged providers' participation in the refresher training.

Program staff said that consistent follow-up with medical providers promoted completion of the training, adoption of occupational medicine practices, and overall engagement in OH RETAIN. Program staff monitored providers' training completion rates and followed up with those who had not completed their training within 30 days of the provider's initial agreement to provide RETAIN occupational medicine model to remind them of the $500 incentive payment and continuing medical education credits they would receive upon completion. Program staff said they followed up with providers who completed the training once per quarter to provide any additional training or technical assistance needed on the RETAIN workflows. OH RETAIN built a notification in the EMR to alert providers when they had an appointment with a treatment enrollee and to remind them to use occupational medicine best practices. In addition, program staff sent regular emails to providers to remind them of the various occupational medicine best practices (for example, functional capacity exam, workability assessment) and the corresponding codes to record in the EMR to receive compensation for using these practices.

Program staff said that the effect of incentives to encourage medical providers to complete the training and use occupational medicine best practices seemed minimal. Program staff believed that while some providers seemed appreciative of the compensation they received, overall, the incentives did not play a significant role in encouraging providers to participate in OH RETAIN. In addition, the payment model under which some providers operated did not allow them to receive the compensation. Program staff said that providers were often more incentivized to participate in OH RETAIN given the benefit of the program to their patients.

2. RTW coordination services

The lead healthcare partner employed seven RTW coordinators to provide RTW coordination services to treatment enrollees (Exhibit VI.8). These services included developing an RTW plan and communicating with the enrollee's employer, medical provider, and others to coordinate the enrollee's staying at or returning to work. RTW coordination services ended after six months or when the enrollee returned to work with a completed RTW plan, whichever came first.

Exhibit VI.8. Planned OH RETAIN RTW coordination services

Program component	Description
Coordinating RTW services	• RTW coordinator engages with the treatment enrollee and reviews their medical information to develop an RTW plan. The plan outlines the enrollee's treatment goals and steps for the enrollee to return to or maintain employment, including an RTW date and services needed. RTW coordinator contacts treatment enrollee at least every 30 days. • RTW coordinator refers treatment enrollee to a team of social workers for social and behavioral health resources, if needed. • RTW coordinator refers enrollees unable to return to their previous job or in need of additional services to the local lead workforce partner's job center.
Communicating among parties involved in RTW plan	• RTW coordinators are responsible for timely communications with treatment enrollees, their employer, and their medical provider. • RTW coordinator communicates with the enrollee's medical provider to assess the enrollee's ability to work and their need for work accommodations. • RTW coordinator communicates with the enrollee's employer to understand workplace policies and potential accommodations and notifies the employer of the enrollee's RTW date if the medical provider allows them to return to work without restrictions. • RTW coordinator communicates with the social workers through the EMR or in biweekly interdisciplinary team meetings.
Monitoring treatment enrollee progress	• RTW coordinator tracks treatment enrollees' progress in the EMR. RTW coordinators capture data on enrollees' employment and health status through conversations with enrollees, their employer, and their medical provider, and by reviewing case notes in enrollees' medical record. • Social workers track case management progress in the EMR.

EMR = electronic medical record; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Program data submitted by OH RETAIN indicate that most treatment enrollees (91 percent) used OH RETAIN services, including RTW coordination services or other RTW services (Exhibit VI.9). Most treatment enrollees (90 percent) had an established RTW plan and an average of 20.1 days elapsed between enrollment and establishing an RTW plan. As of the end of June 2023, about 63 percent of treatment enrollees had exited OH RETAIN. Treatment enrollees who exited the program used services for about 117 days (about three and a half months). Few enrollees (10 percent) were referred to services beyond OH RETAIN after the six month enrollment period.

Exhibit VI.9. Treatment enrollees' use of RTW coordination services

Service used (percentages unless noted otherwise)	Mean value or percentage
Used any services beyond enrollment [a]	90.5
Established RTW plan	89.7
Average time elapsed between enrollment and established RTW plan (days)	20.1
Exited OH RETAIN	62.5
Average duration of services, if exited (days)	117
Referred to services beyond OH RETAIN after six months	10.3

Source: OH RETAIN service use data through June 30, 2023.

Note: The sample size was 1,258 treatment enrollees.

[a] Any services beyond enrollment includes establishing an RTW plan or receiving an employment service such as job search assistance, training, on-site job analysis, ergonomic assessment, or transitional work opportunities.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

a. Coordinating RTW services

Coordinating RTW services was guided by an RTW plan and involved regular contact between the RTW coordinator and enrollee to support the enrollee in achieving goals documented in the RTW plan. RTW coordinators assisted enrollees with health-related social needs by referring them to appropriate social service providers within the lead healthcare partner.

Program leaders and staff perceived a range of benefits of RTW coordination services in supporting treatment enrollees' return to work. Program leaders focused on hiring experienced nurses as RTW coordinators and found this prepared program staff to provide services to meet enrollee needs. Program staff described their efforts to empower treatment enrollees to advocate for themselves to meet their needs within these complex healthcare and employment systems. Program staff noted that one of the most valuable benefits of the services they provided enrollees was hope that they could return to work and motivation to overcome challenges they may face in the process.

Robust onboarding and training processes and educational materials prepared RTW coordinators well to deliver RTW coordination services. When Mercy Health hired new staff, they participated in the broader Mercy Health system trainings as well as an onboarding process specific to OH RETAIN. Program leaders paired each new staff with a peer mentor (usually in the same position) and gave them a checklist to guide their onboarding process. As part of the checklist, new staff met with a member of each OH RETAIN team (for example, education and training staff, RTW coordinators, and social workers) for 30 minutes, and program staff said that this helped new staff to gain an understanding of how the various program teams worked together to deliver program services. The checklist also provided an overview of the processes that the new staff member was responsible for. After a new RTW coordinator completed the onboarding process and settled into their role, they had access to frequent training opportunities. Topics for training were identified both by RTW coordinators as well as through continuous quality improvement processes. RTW coordinators and other Mercy Health RETAIN staff also had access to tip sheets, which outlined the various processes and services that staff were responsible for and provided a resource for continued staff learning.

Consistent follow-up with enrollees helped them stay on track with their recovery. RTW coordinators followed up with enrollees once every 30 days, or after the EMR notified the RTW coordinator of an enrollee appointment with their medical provider. Program staff said that during follow-up calls, RTW coordinators focused on thoroughly educating enrollees so they understood the next steps to advance their recovery; the RTW coordinators also provided unbiased guidance amidst conflicting advice from loved ones and misinterpretations of medical provider direction. Program staff noted that RTW coordinators knew when to advise enrollees to schedule another appointment with their provider, which helped enrollees stay on track with their recovery.

RTW coordinators had interpersonal skills and professional backgrounds to effectively engage treatment enrollees in RTW coordination services and support them in their recovery. Program leaders shared that they prioritized hiring RTW coordinators with diverse and experienced nursing

backgrounds, including hospice, behavioral health, and trauma. They noted that some RTW coordinators had lived experiences with work-limiting injuries, which guided their empathetic approach with enrollees. Program staff shared that several enrollees trusted that their RTW coordinators could help find medical providers who could provide culturally responsive care. Program leaders said these previous professional and personal experiences positively informed RTW coordinators' approaches and strengthened their ability to support enrollees.

Turnover for the RTW coordinator position, "though low, was due to life transitions such as retirement and starting a business. Although program staff transitioned out of OH RETAIN amicably, program leaders expressed concern about the resultant dip in enrollment numbers and the increased workloads of other program staff, while they looked to fill those positions.

Enrollees who were encouraged by RTW coordinators to advocate for themselves and who received different types of OH RETAIN services were more engaged in the program. Program staff believed that enrollees who were convinced they were "running the show" were more invested in their RTW plan and more motivated to take the necessary steps towards recovery than other enrollees. In addition, program staff noted that enrollees with more serious injuries or those who depended on the various components of RETAIN (such as medical, social work, and workforce services) were engaged in the program for longer periods of time.

"If you can make the patient their own advocate from day one [and] really empower them ... it's a smoother track to return to work."

—Program staff

b. Communicating among parties involved in enrollee return to work

Central to the RETAIN program model is the role of the RTW coordinator in communicating among parties involved in a treatment enrollee's RTW plan to coordinate necessary services. To enroll in OH RETAIN, enrollees consented to communication between the RTW coordinator and providers as well as with their employer. In Exhibit VI.10, we present the various communication flows that occurred to support an enrollee's return to work.

Exhibit VI.10. OH RETAIN: Communication among RTW coordinator, treatment enrollee, employer, medical providers, and other service providers

Communication flows specific to an individual treatment enrollee		
	During the enrollment process	• RTW coordinator talks the enrollee through the informed consent to explain the treatment enrollee's participation in RETAIN, including permission for the RTW coordinator to communicate with the enrollee's employer and provider. • RTW coordinator communicates with enrollee to establish treatment goals and creates an RTW plan to which the medical provider has access. • RTW coordinator contacts the enrollee's medical provider and employer within three days to notify them of enrollment.

Communication flows specific to an individual treatment enrollee		
	While receiving RTW coordination services	• RTW coordinator contacts the enrollee's employer to explore work accommodations, as needed. • RTW coordinator refers the enrollee to a team of social workers to provide social or behavioral health supports, as needed. • If the enrollee cannot return to their previous job, the RTW coordinator refers them to the lead workforce partner to provide additional RTW services. • RTW coordinator notifies the enrollee's employer if the enrollee's medical provider releases them to return to work without restrictions. • RTW coordinator and social work team communicate frequently and have biweekly team meetings to discuss complex cases.
	While receiving other RTW services	• Employment counselor communicates with the enrollee to assess RTW needs and offer an orientation on available services. • If the enrollee has a physical or mental disability that meets VR eligibility criteria, the RTW coordinator refers them directly to the workforce partner for VR services. • Workforce partner for VR services consults with the enrollee's employer if the employer requests support with an accommodation.
	Upon enrollment ending	• If the enrollee returns to and stays at work without complications for two weeks, they are exited from the program but can contact the RTW coordinator if any problems persist. • If an enrollee reaches six months enrolled in the program without returning to work, the RTW coordinator refers them to workforce services and their case is closed.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; VR = vocational rehabilitation.

In Exhibit VI.11, we report the prevalence of communication between RTW coordinators and other parties involved in enrollees' RTW plans, including employers, medical providers, and workforce professionals. RTW coordinators communicated with the medical providers of 100 percent of treatment enrollees; all providers worked for the lead healthcare partner and enrollees provided consent to this communication to enroll in OH RETAIN. Communication with workforce professionals was low (9 percent of treatment enrollees). RTW coordinators only referred enrollees to workforce services if enrollees could not return to their previous employers or if they required a higher level of employment support than what was offered through RTW services by the lead healthcare partner.

Exhibit VI.11. Percentage of OH RETAIN treatment enrollees whose RTW coordinator communicated with others involved in their RTW plans

Communication among parties involved in treatment enrollees' RTW plans	Percentage of treatment enrollees
RTW coordinator communicated with employer at least once	70.7
RTW coordinator communicated with medical provider at least once	100.0
RTW coordinator communicated with workforce professional at least once	9.1
RTW coordinator communicated with any of the above	100.0

Source: OH RETAIN service use data through June 30, 2023.

Note: The sample size was 1,258 treatment enrollees.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Streamlining the process to approve an RTW plan improved communication between the RTW coordinator and enrollee's medical provider. Program leaders described that, initially, providers reported that it took approximately 20 clicks to finalize an enrollee's RTW plan in the EMR. In response to providers' concerns about limited bandwidth, program leaders prioritized the information providers needed to review. These updates to the EMR reduced the overall approval process to six clicks and subsequently boosted provider engagement.

RTW coordinator communication with employers facilitated service provision. Program staff shared that when employers did not respond to RTW coordinators' outreach, RTW coordinators struggled to understand and communicate the employers' leave policies, coordinate additional time off for enrollees, and implement work accommodations. When employers were responsive, RTW coordinators discussed if and when an enrollee planned to return to work and work accommodations, while avoiding disclosure of sensitive protected health information, as well as work accommodations.

> "A lot of [enrollees] don't know what their benefits are.... They don't really understand that whole process of short-term versus long-term disability, and they don't know what their employer provides."
>
> —Program leader

c. Monitoring treatment enrollee progress

Program leaders and staff said their biweekly interdisciplinary team meetings were particularly helpful in monitoring treatment enrollee progress and communicating about difficult enrollee situations. The biweekly meetings were organized by region and included a variety of program staff. Program leaders expressed that these meetings were helpful in talking about patient progress and barriers, as well as reminding staff which enrollees were exiting from the program.

3. Other RTW services

In addition to supporting workplace-based interventions and retraining or rehabilitating enrollees (core components of the RETAIN model) (Exhibit IV.12), OH RETAIN also offered qualified treatment enrollees social work services. In this section, we first describe how the component was operationalized and then describe facilitators and challenges to its implementation.

Exhibit VI.12. Planned other OH RETAIN RTW services

Program component	Description
Supporting workplace-based interventions	• The lead healthcare partner staff provides non-physical workplace accommodations to treatment enrollees and ergonomic assessments to employers who sign the OH RETAIN pledge. • The workforce partner for VR services consults with employers needing support with individual worker accommodations.

Program component	Description
Retraining or rehabilitating enrollees	• If treatment enrollees are no longer able to perform their prior job, RTW coordinators refer them to the lead workforce partners, local workforce development boards for workforce services. Employment counselors contact enrollees, assess enrollees' needs, and offer an orientation on available services. • Employment counselors may offer treatment enrollees job search assistance or enrollment in partner programs for more intensive services, such as VR, training, supportive services, and job search assistance. • RTW coordinators can refer enrollees with physical or mental disabilities severe enough to meet VR eligibility criteria directly to the workforce partner for VR services. • The lead workforce partners' job centers track services provided to enrollees in the statewide workforce case management system. [a]

[a] Advancement through Resources, Information, and Employment Services (ARIES) is Ohio's case management system. ARIES replaces the Ohio Workforce Case Management System.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; VR = vocational rehabilitation.

The lead healthcare partner employed dedicated social workers funded by RETAIN to provide referrals to social services to address treatment enrollees' psychosocial needs. There are two ways RTW coordinators identified an enrollee's psychosocial needs: (1) by completing a three-question screening tool for psychosocial needs during enrollment or (2) by identifying an emergent need or future concern during the six-month enrollment period. Program leaders described that RTW coordinators generally referred enrollees to the social workers because of financial needs, food insecurity, or mental health needs.[44] In the fall of 2022, one year into the enrollment period, program leaders recognized that some enrollees needed additional services, so program leaders provided enrollees with a stipend of $750 to cover rent payments, car payments, and utility payments. This stipend was only available to enrollees who met additional eligibility criteria.[45]

a. Supporting workplace-based interventions

RTW coordinators facilitated non-physical workplace-based interventions, like a change in work schedule or work responsibilities for enrollees who were already employed. They also offered employers support with creating functional job descriptions, assessing workplace safety, and developing behavioral health toolkits, regardless of whether they had an employee enrolled in OH RETAIN. Midway through the enrollment period, seven program staff at the lead healthcare partner became Occupational Safety and Health Administration-certified in ergonomic assessments, which were also offered to employers regardless of whether they had an employee enrolled.

In Exhibit VI.13, we list the different workplace-based interventions treatment enrollees received and the percentage of enrollees who received each, as reported in the OH RETAIN program data. Almost one-third of enrollees received a workplace-based intervention (29 percent), which was likely facilitated by

[44] Ohio RETAIN offers supportive services for utilities, workplace accommodations, transportation, medical expenses, housing, and miscellaneous expenses.

[45] To qualify, treatment enrollees must have not received a paycheck within two weeks prior to application or other modes of financial assistance, and they must have exhausted the referred community resources.

RTW coordinators' ability to contact employers. The apparently low use of services such as on-site job analysis and ergonomic assessments may be because OH RETAIN considered these services to be employer engagement and did not track them at the employee level.

Exhibit VI.13. OH RETAIN treatment enrollees' use of workplace-based services

OH RETAIN service	Used service (percentages)
On-site job analysis	0.0
Ergonomic assessment	0.0
Workplace accommodation	29.3
Any of the above interventions	29.3

Source: OH RETAIN service use data through June 30, 2023.

Note: The sample size was 1,258 treatment enrollees.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

b. Retraining or rehabilitating enrollees

RTW coordinators referred treatment enrollees to local workforce development boards for retraining and rehabilitation services when enrollees could not return to their previous jobs. RTW coordinators made this referral once an enrollee's condition improved so employment counselors could accurately assess their abilities for returning to work. At times, this was not determined until the end of the six-month service period, which often led to lower levels of engagement with workforce services.

In Exhibit VI.14, we list the retraining or rehabilitation services that treatment enrollees used and the percentage of enrollees who used each service, as reported in OH RETAIN program data. However, program leaders said these data may underreport enrollees' use of retraining and rehabilitation services due to interoperability challenges with a workforce case management system implemented in April 2022. The employment counselors at the local workforce development boards provided job search services (such as resume review and mock interviews) and referrals to training services. During the interviews conducted in spring 2023, program staff said very few enrollees engaged in employment services because they were not eligible for the services they were referred to.

Exhibit VI.14. Treatment enrollees' use of retraining and rehabilitation services

OH RETAIN service	Used service (percentages)
Job search services	0.0
Training services	0.0
Transitional work opportunity [a]	0.0
Other employment services	0.5
Any of the above services	0.5

Source: OH RETAIN service use data through June 30, 2023.

Note: The sample size was 1,258 treatment enrollees.

Program leaders said these data may underreport treatment enrollees' use of retraining and rehabilitation services due to interoperability challenges with a new workforce case management system implemented in April 2022.

[a] Transitional work opportunity is a time-limited job at a new employer during an enrollee's recovery period to meet the enrollee's work restrictions until their employer can provide work accommodations. OH RETAIN did not provide transitional work opportunities.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

The state's low unemployment rate helped some enrollees consider jobs in new fields where they were relatively unqualified, while others' negative attitudes about working limited their pursuit of these opportunities. Program leaders said that with a statewide unemployment rate under 4 percent,[46] employers that were actively recruiting job candidates were, at times, willing to offer training to potential candidates. In addition, program leaders perceived employers were becoming more flexible with part-time schedules, which was advantageous for enrollees needing accommodations. They also noted that new industries emerging in Ohio motivated enrollees to seek skills-based training rather than credentialing or degree programs so they could fill the need in these new industries.[47] On the other hand, program staff observed enrollee perceptions of certain industries, negative attitudes towards employment, and post-COVID mental health needs were barriers to their pursuit of retraining opportunities.

Employment counselors faced challenges using the information they received from RTW coordinators to identify services for enrollees. RTW coordinators referred enrollees to workforce services via a secure email, with basic information about the enrollee (including their interest in training, resume writing, or need to transition back to work). Employment counselors said that this referral was limited, and they lacked the time and resources to appropriately evaluate enrollees' employment needs and physical limitations. Program leaders suspected that there was lower enrollee engagement with workforce services because enrollees did not have the same level of rapport with employment counselors as they did with RTW coordinators. They recognized the need for more training for both employment counselors and healthcare partner staff around enrollee referrals to workforce services.

"You know, the workforce system is largely self-service, especially when you first get into it. So it's like, okay, you need a job? Go to the resource room. Go write your resume. Go take a workshop. It's on you. A lot of these patients have had a lot more hands on care from the return-to-work coordinators under Mercy Health because there's a lot of money there and there's a lot of staff there that can provide a lot more hand holding. But the public workforce system is woefully underfunded. So, when they hit the one-stop, it's like, okay, go sit in the resource room with the 500 other people that came in today and, you know, call me if you have a problem."

—Program leader

When treatment enrollees engaged with workforce services, the services were often self-directed; many enrollees did not meet the eligibility requirements for more intensive workforce services. Program leaders described that the public workforce systems were underfunded and did not receive funding from OH RETAIN. In an attempt to provide more intensive services to enrollees, employment counselors referred enrollees to the Workforce Innovation and Opportunity Act-funded career services. However, enrollees often did not meet the eligibility criteria to receive these more intensive services, because their income was too high. Therefore, employment counselors provided self-directed, universal

[46] Please reference "Exhibit VI.2. RETAIN program environment in Ohio."

[47] Program staff referenced new work opportunities such as jobs manufacturing electric vehicles, in an Intel chip factory, in a Honda battery plant, and other infrastructure-related jobs.

services to RETAIN enrollees, which were the same services they provided to the general public. In addition, to overcome the barrier of the eligibility requirements, program leaders allocated funding for state-employed Wagner-Peyser[48] staff to provide personalized workforce services to enrollees.

4. Service contrast

To measure the impact of OH RETAIN, we will compare the outcomes from the OH RETAIN services offered to the treatment group to those from the usual services available to the control group. Treatment enrollees received intensive RTW service coordination and could work closely with their RTW coordinator to set and achieve RTW goals. The control group could access services available to the general public, which generally do not include RTW coordinator services unless an employer offers disability management services to its employees for nonwork-related illness and injury. Both groups could access employment services offered by the local workforce centers and VR services from the state VR agency. Program leaders said that no changes were made to community services available to enrollees in the control group during the enrollment period. Program staff described the state VR agency, as the main entity that provided work-related services to people with disabilities in the state.

Program staff said it was a challenge for RTW coordinators to connect enrollees who could not return to their jobs to workforce services due to limited e-mail communication between RTW coordinators and workforce staff. This limited communication could reduce the contrast between the coordination support the program intended for treatment enrollees, relative to the experience of control enrollees seeking workforce services as members of the community.

Beyond work-related services, program leaders described medical providers and employers enrolled in RETAIN as having increased awareness of supporting a return to work after illness or injury. They attributed this change to OH RETAIN's outreach and the requirement for providers to complete training on occupational medicine best practices. Providers who completed the training could have patients assigned to the control group. This increased awareness could indirectly affect health and employment outcomes for control and treatment enrollees alike.

5. Collecting and reporting program data

OH RETAIN staff used the lead healthcare partner's EMR to document enrollment data, case information, and enrollee progress. Staff also used customer relationship management software to track medical provider, employer, and worker recruitment and enrollment. Ohio's new statewide workforce case management system—Advancement through Resources, Information, and Employment Services—was used by the lead workforce partners' job centers to track information on referred enrollees who registered for career services in this system. [49]

The use of multiple systems to enter and track data made data collection—particularly for enrollment—more time-consuming. Program staff, based in the lead healthcare partner's organization, used multiple systems to track data: the lead healthcare partner's EMR system, customer relationship

[48] Wagner-Peyser is a federally funded program providing labor exchange services to employers and job seekers statewide.

[49] Ohio launched the new statewide workforce case management system in 2022. The system tracks basic information about workforce program enrollees, referrals, and service use.

management software, and the Confirmit tool used to randomize enrollees to treatment or control status. Program staff said that while the process for entering data in each system was straightforward, the need to ensure that data were accurate and consistent across all three systems was time-consuming and burdensome.

Data transfers between two separate data systems were complex and resulted in incomplete and missing data, presenting challenges to the process for data collection and reporting. Program staff said that transferring data from Mercy Health to ODJFS required multiple steps and was burdensome. They noted the data that ODJFS ultimately received were often incomplete or missing information (for example, enrollees' birth date, the date enrollees exited the program). As a result, ODJFS staff had to manually calculate the enrollees' date of exit from the program and input the enrollees' birth date. Program staff also noted that when they transferred data from Mercy Health to ODJFS, the ODJFS data management staff received multiple partial enrollee records. So, if ODJFS data management staff detected a data error in one file, they needed to fix the error in all partial records.

"I would say that there's just a lot of—not a lot of steps—but just like clicks that when you're dealing with patients, you don't want to mess anything up or you don't want to enter anything wrong. So, I do spend a little bit more and I'm more diligent about ensuring that my entry is correct in both [systems]."

—Program staff

There were ongoing challenges with the state's new workforce case management system, Advancement through Resources, Information, and Employment Services. Program leaders said that the system, which housed information such as workforce service use and wage data for each enrollee, lacked interoperability with the state's centralized data repository. This ultimately limited OH RETAIN's ability to collect and report fully integrated information on each enrollee.

Data validation checks and increased communication among OH RETAIN partners improved the data collection and reporting process. To improve the data collection and reporting process, program staff introduced two strategies: (1) conducting several data validation checks and (2) holding regular check-in meetings with the evaluation TA liaisons and the lead healthcare partner staff. Before Mercy Health staff transferred the data from Mercy Health to ODJFS, Mercy Health program staff conducted an internal data check to address any issues. Once ODJFS received the data, ODJFS program staff ran another data validation check. In addition, program staff said the check-in meetings provided both partners with a better understanding of the other's data needs and systems and enabled them to proactively address and resolve any data issues.

F. Staff time spent on OH RETAIN

We used staff activity logs to understand how OH RETAIN administrative and direct service staff allocated their time across program activities. These logs captured staff time spent on activities related to recruitment and enrollment, RTW services, workforce development services, communication with and training employers or medical providers, and program administration. We collected the logs from 11

individuals for two one-week periods representing periods of steady-state operations (when the program was neither ramping up nor closing down).[50]

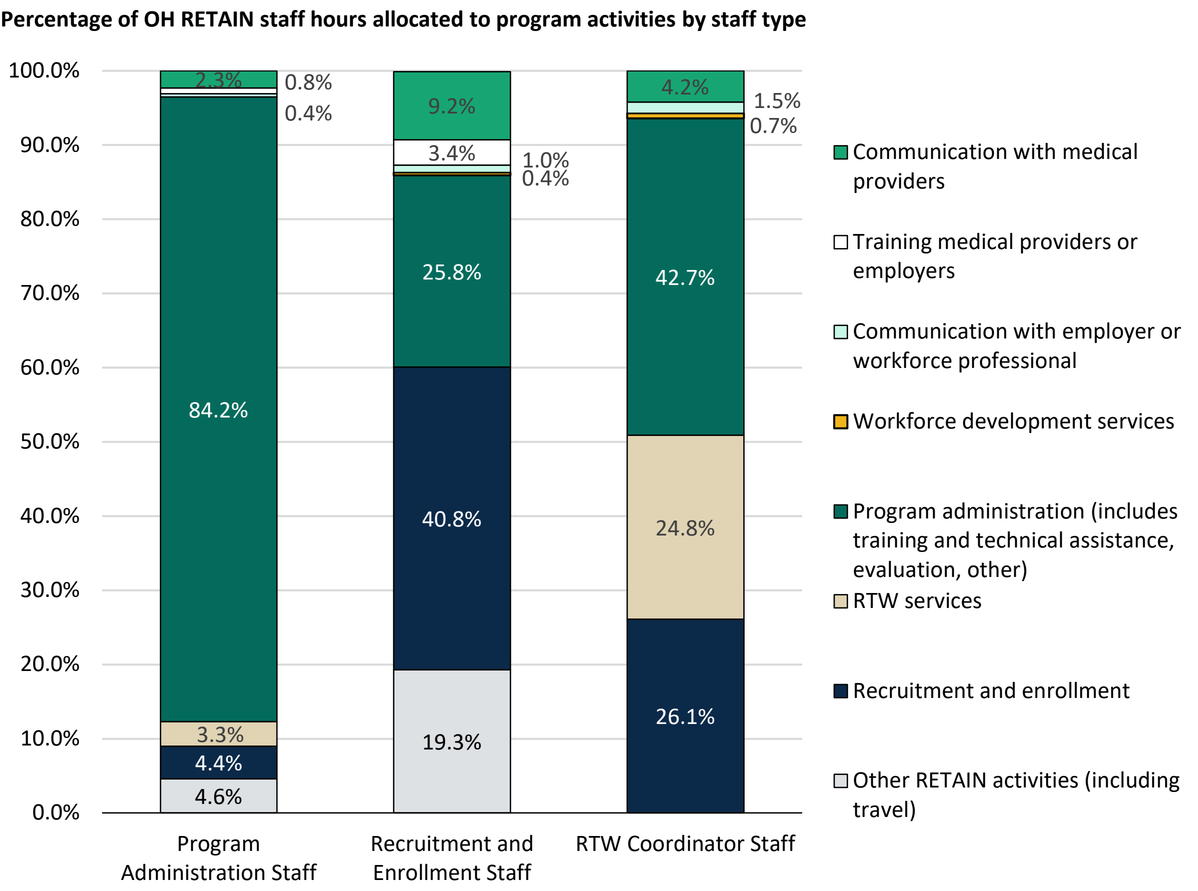
As expected, OH RETAIN administrators, enrollment and recruitment staff, and RTW coordinators reported different allocations of time across activities (Exhibit VI.15). OH RETAIN administrators allocated the largest proportion of their time to program administration activities, which included training and technical assistance, evaluation, and other activities, and the smallest proportion to communication with employers or workforce professionals and workforce development services. Both recruitment and enrollment staff and RTW coordinator staff spent about one-quarter of their time on recruitment and enrollment activities (27 percent and 26 percent, respectively). RTW coordinator staff spent less time on RTW services (16 percent)[51] and about half of their time on program administration (52 percent).[52] Notably, compared with RTW coordinator staff, recruitment and enrollment staff reported spending more time communicating with medical providers, employers, or workforce professionals in attempts to recruit and enroll them in RETAIN.

[50] We collected the staff activity logs for the periods of March 20–24, 2023, and May 15–19, 2023. All but two staff members that reported hours were full-time OH RETAIN staff.

[51] RTW services were defined as activities to support participants in staying at or returning to work, including developing and implementing a plan including regular check-ins with participants and monitoring participants' progress for returning to work, and referring participants workforce development providers such as vocational counseling and job search assistance services.

[52] Program administration included training and technical assistance, evaluation, and other activities. RTW coordinators likely spent the bulk of this time on data entry across various systems.

Exhibit VI.15. Percentage distribution of administrative and direct service staff hours across OH RETAIN activities



Source: Activity logs completed by 11 OH RETAIN program leaders, partners, and staff in March 2023 and 11 in May 2023.

Note: We did not receive activity logs from OH RETAIN employment counselors. Therefore, we did not have staff hours to report for Workforce Development Services Staff.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

G. Costs of OH RETAIN

We used program cost data submitted by OH RETAIN to assess the economic costs of implementing OH RETAIN. In the period of May 17, 2021, through March 31, 2023, which is 48 percent of the total grant period, OH RETAIN incurred total costs of $3,453,659.56, or 16 percent of the total grant awarded to OH RETAIN (Appendix D, Exhibit D.10). More than half of the total costs were payments on behalf of treatment enrollees receiving services (69 percent), and the remaining costs were indirect costs (13 percent); outreach materials and other direct costs (12 percent); and payments on behalf of treatment enrollees receiving services (6 percent). The average cost of providing services per treatment enrollee was $3,376 (including direct and indirect costs).[53]

[53] We calculated the average cost of providing services per treatment enrollee as the total costs incurred by the OH RETAIN program from May 17, 2021, through March 31, 2023, divided by the number of treatment enrollees as of

H. Plans for sustaining OH RETAIN

In this section, we describe the plans for sustaining OH RETAIN as reported by program leaders during the interviews in June 2023. The lead healthcare partner focused on expanding staff capacity to deliver RETAIN-like services, while the lead agency focused on sustaining partnerships and piloting RETAIN-like services at a lower cost per enrollee. Both partners hoped to pilot the delivery of these services and generate accurate budget considerations, to advocate for legislative funding.

The lead agency's program leaders hoped that with enough employer momentum around the RETAIN pledge, they could change the culture of RTW/SAW statewide. The lead healthcare partner had a lobbyist who was advocating to the state legislature for policy change and funding for RETAIN-like services in the state.

Before the grant ends, program leaders planned to use RETAIN funding to pilot RETAIN-like services at a lower cost per enrollee. Program leaders said they planned to repurpose the current lead healthcare partner training to train providers at a federally qualified health center to deliver RTW services to rural populations. Program leaders from the lead agency said they planned to maintain the program's eligibility criteria. They also planned to build an online module to capture basic data elements (for example, contact information, illness/injury, services received, and employment outcome) to sustain the tracking and delivery of RETAIN-like services after the grant period. They anticipate that these simplified data can be captured at a lower cost per enrollee than the data needed for the Phase 2 RETAIN evaluation. In addition, program leaders planned to eliminate the $100 enrollment incentive to cut program costs and serve enrollees committed to returning to work.

The lead healthcare partner planned to restructure the program internally and provide RETAIN-like services beyond the state of Ohio. Program leaders communicated plans to merge OH RETAIN operations with the chronic care division within the health system to increase internal bandwidth to serve an expanded pool of patients and streamline the patient experience. Program leaders at the lead healthcare partner said they planned to expand the eligibility criteria to offer RETAIN-like services to people with a chronic condition struggling to return to work or stay at work. They also planned to provide leave management services to employers, providers, and workers to ensure employment-leave paperwork is completed in the appropriate time frame.

I. Implications for replication of OH RETAIN

Our analysis of OH RETAIN implementation and service delivery points to key factors that may be important to consider for replicating the program. Overall, these findings suggest OH RETAIN had a staffing infrastructure that largely supported implementation and service delivery but faced challenges engaging enrollees with workforce services.

- Inviting medical providers to participate in the OH RETAIN advisory board, streamlining outreach and referral processes, and consistently following up with providers helped to increase provider

March 31, 2023. Total costs incurred by the program include personnel or labor costs, direct costs of providing services to participants and providers, and indirect costs.

engagement in OH RETAIN; expanding the eligibility criteria increased the number and types of providers who could refer patients to OH RETAIN.

- Engaging employers in OH RETAIN remained challenging, in large part because they did not perceive significant value to the program. This resulted in challenges to RTW coordinators' efforts to implement work accommodations. Program staff offered employers supports (such as ergonomic assessments) when they had an employee enrolled in OH RETAIN.
- During enrollment, program staff improved how they presented OH RETAIN to increase potential enrollees' understanding of the program. They adapted their recruitment and enrollment scripts to clearly describe OH RETAIN and its benefits, provided potential enrollees with more informational resources about OH RETAIN, and translated resources into multiple languages.
- The most significant enrollment challenge was potential enrollees' lack of responsiveness to OH RETAIN's initial outreach.
- Program staff's diverse nursing specialization and interpersonal skills helped to engage and support enrollees.
- Challenges to employment services referrals include lack of enrollee interest in these services and the limited capacity of employment counselors to engage enrollees whom RTW coordinators referred. Enrollees faced barriers to accessing workforce development services due to eligibility requirements.

J. Implications for interpretation of impacts on outcomes

The interviews with program staff and analyses of program data suggest several factors that may support the interpretation of OH RETAIN's impacts on outcomes that will be included in the Final Impact Report.

- Cumulative enrollment aligned with what was expected, and OH RETAIN exceeded the enrollment goal of 3,500 enrollees approximately three-quarters of the way through the enrollment period, largely due to expanding the eligibility criteria to include more medical conditions.
- RTW coordination services included regular communication between RTW coordinators and treatment enrollees to support enrollees' return to work.
- OH RETAIN required enrollees to consent to communication with providers and employers, which may have increased the delivery of supports like workplace accommodations.
- All enrollees, both treatment and control, had providers who were affiliated with the lead healthcare partner and completed the training on occupational medicine best practices.
- OH RETAIN referred enrollees with health-related social needs that were barriers to employment (for example, financial and food insecurity and mental health) to a team of social workers, who then referred them to services and provided financial support for some enrollees.
- Few treatment enrollees received intensive services from workforce partners due to a lack of funding at the local workforce development boards, limited communication between RTW coordinators and workforce partners, or the enrollees' ineligibility.

VII. Vermont RETAIN

Key findings

- The lead agency faced challenges coordinating implementation across several partners. VT RETAIN strengthened partner coordination by developing workgroups and refining partner roles. VT RETAIN reportedly expanded the role of the state's vocational rehabilitation program because the lead workforce partner had less capacity to engage in implementation than originally planned.
- VT RETAIN's enrollment remained low midway through the enrollment period, with 10 percent of its enrollment goal met. The primary source of referrals was a self-screening tool available to patients in participating primary care practices. These practices were overburdened by the COVID-19 pandemic and had limited capacity to implement self-screeners into practice workflows. To expand referral sources, VT RETAIN distributed outreach materials in public spaces, such as grocery stores and libraries, and at other healthcare providers, such as urgent care, physical therapy, and specialty clinics.
- VT RETAIN slowed efforts to deliver medical provider trainings midway through the enrollment period, so program staff could focus on recruitment and enrollment. Coordination challenges among program partners involved in developing the trainings also slowed these efforts.
- About two-thirds (64 percent) of treatment enrollees used any VT RETAIN services beyond enrollment, and three-quarters (75.9 percent) established an RTW plan. Beyond RTW coordination services, 8 percent of treatment enrollees used a workplace-based intervention, and 10 percent received retraining or rehabilitation services. Unresponsiveness to outreach efforts made it difficult for RTW coordinators to engage some enrollees in services.
- RTW coordinators used a strength-based coaching model that prepared treatment enrollees to communicate directly with their employer or medical providers on the goals outlined in their RTW plan. Many enrollees preferred that the RTW coordinator not communicate with their employer or medical provider.
- For about one-quarter of treatment enrollees (26 percent), the RTW coordinator communicated with at least one of the parties (medical provider, employer, or workforce professional) involved in the enrollee's RTW plan.
- VT RETAIN's sustainability planning group was focused on identifying funding mechanisms, filling service gaps, and exploring policy changes to help sustain the program such as training care managers and community health workers in SAW/RTW best practices.

A. Overview of VT RETAIN

The Vermont Department of Labor (VDOL) was the lead agency for Vermont Retaining Employment and Talent after Injury/Illness Network (VT RETAIN). The program catchment area was the entire state of Vermont, including 14 counties. VT RETAIN enrolled people diagnosed with an injury or illness that could limit their ability to stay at work (SAW) or return to work (RTW).

Distinct from other RETAIN states, the evaluation of VT RETAIN used a clustered random assignment model. In this model, Mathematica assigned participating primary care practices to either the treatment or control group.[54] VT RETAIN offered RTW coordination services and referrals to various other services to all

[54] Mathematica stratified random assignment based on clinic size. In other words, among clinics of roughly the same size, about half were randomly assigned to the treatment group while the other half were randomly assigned to the

enrollees recruited at treatment practices, as well as SAW/RTW education for all Vermont providers and employers.

In this chapter, we document recruitment, enrollment, and program operations approximately midway through the two-and-a-half-year enrollment period.[55] The findings we present about the implementation of VT RETAIN are based on the analysis of qualitative data collected during semistructured interviews and program data submitted by VT RETAIN[56] collected through June 30, 2023, 21 months after the start of enrollment.

B. VT RETAIN partnerships to support enrollment and service delivery

The lead agency for VT RETAIN, VDOL, organized implementation and evaluation efforts into four centers, including (1) the operational center, (2) the clinical coordinating center, (3) the development center, and (4) the data coordinating center (Exhibit VII.1). The lead agency led the operational center and collaborated with numerous partners to support the other centers and various aspects of VT RETAIN (Appendix E, Exhibit E.1). In this section, we describe the main partners and their roles in supporting VT RETAIN. We include supplemental information about the roles of all the VT RETAIN partners in Appendix E, Exhibit E.1.

control group. However, clinic size was estimated based on historical data on number of total patients; Mathematica did not have data to estimate the number of patients at each clinic that could be potentially eligible for RETAIN.

[55] At the time of this report, enrollment was scheduled to end in May 2024, and program operations funded under the RETAIN Phase 2 grant were scheduled to end in May 2025.

[56] VT RETAIN enrolled the first person on March 8, 2021. We collected qualitative data about implementation experiences during interviews 25 months after the start of enrollment. We collected program data through June 30, 2023, 21 months after the start of enrollment.

Exhibit VII.1. VT RETAIN organizational chart

Lead Agency
Operational Center
Vermont Department of Labor (VDOL)
Workers' Compensation and Safety Division
Project director
Grant administrator
Grant program manager
Administrative services coordinator
Data analyst
Data coordinator
Workforce Development Division
VDOL workforce development staff

Clinical Coordinating Center
Dartmouth Health
Program director
Healthcare lead
Referral and enrollment lead
Lead RTW coordinator
RTW coordinators
Lead recruitment staff
Recruitment staff
Administrative assistant
Program specialists
Occupational therapist
Physical therapist
Technical assistance liaison

Training and Development Partner
Development Center
Haig Consulting, LLC
PI and development director
Administrative assistant
Strategist for value-based services
Project manager
Learning platform manager
Equity and sustainability strategist
Training and development SMEs
Medical rehabilitation team

Data and Evaluation Partner
Data Coordinating Center
University of Pittsburgh
Data and evaluation director
Lead biostatistician
Data manager/analyst
Research project manager

Vocational Rehabilitation Partner
HireAbility

Lead Healthcare Partner
OneCare Vermont
Primary care practices affiliated with OneCare Vermont
Primary care practice-based RTW coordinators

Primary care practices not affiliated with OneCare Vermont

LLC = limited liability company; PI = principal investigator; RTW = return to work; SME = subject matter expert; VT RETAIN = Vermont Retaining Employment and Talent after Injury/Illness Network.

1. Lead healthcare partner

VDOL partnered with OneCare Vermont to recruit primary care practices to participate in the clustered random assignment evaluation and prescreen patients for enrollment in VT RETAIN. OneCare is the state's accountable care organization and was founded by the University of Vermont and Dartmouth Health. VT RETAIN program leaders and staff noted that OneCare Vermont's statewide influence and extensive network of medical providers facilitated the recruitment of primary care practices affiliated with OneCare Vermont across the state to participate in VT RETAIN. Program staff also recruited practices not affiliated with OneCare Vermont to participate in VT RETAIN. In June 2023, VT RETAIN had recruited 83 primary care practices, surpassing its goal to recruit at least 68 practices to participate in VT RETAIN. Mathematica randomly assigned the clinics to the treatment or control group in a 50/50 split (41 clinics assigned to treatment and 42 assigned to control).

2. Lead workforce partner

The lead workforce partner, the Workforce Development Division (WFD) within VDOL, was less engaged in VT RETAIN than planned. Initially, VDOL planned to have WFD staff help VT RETAIN access WFD data, foster employer connections as a referral source, develop employer trainings, and help connect treatment enrollees to WFD's American Job Centers.[57] Program leaders said WFD had significant staff turnover and

[57] The U.S. Department of Labor funds American Job Centers throughout the country to provide career services to job seekers.

leadership vacancies, which inhibited its planned involvement in VT RETAIN. At the time of the site visits in May 2023, new staff had joined WFD, and program leaders were redeveloping a role for WFD.

In addition to the four centers (operational center, clinical coordinating center, development center, and data coordinating center), VT RETAIN partnered with HireAbility, Vermont's vocational rehabilitation program housed within the Vermont Agency of Human Services. HireAbility was available to provide vocational rehabilitation counseling, assistive technology support, and job placement and retention services to all Vermont residents at risk of work disability. VT RETAIN referred treatment enrollees to HireAbility and funded positions within the state-based employee and organizational assistance program, Invest Employee Assistance Program (InvestEAP). In collaboration with InvestEAP, VT RETAIN staff began developing a mental health and substance use disorder recovery training and certification program for employers. At the time of the site visit, VT RETAIN was working with InvestEAP to implement a behavioral health screening for treatment enrollees.

3. Other partners

VDOL established a range of partnerships to support VT RETAIN implementation, service delivery, and sustainability efforts. Below, we describe the partners that program staff reported as having a significant role in VT RETAIN.

Dartmouth Health, a large medical center, oversaw VT RETAIN's clinical coordinating center. The clinical coordinating center supported (1) recruiting and enrolling eligible people; (2) recruiting, training, and supporting RTW coordinators who delivered VT RETAIN services; and (3) training medical providers.

Haig Consulting, LLC oversaw the VT RETAIN development center, which coordinated a sustainability planning group and developed services to fill gaps that VT RETAIN identified in a needs assessment conducted in Phase 1. The assessment identified gaps in knowledge of SAW/RTW best practices among employers, employees, and medical providers; communication among these groups; access to SAW/RTW services; and challenges navigating health and employment systems. In response to these needs, program staff developed educational resources and live and recorded trainings for an online learning platform they planned to make available to the public.

Through its development center, VT RETAIN aimed to increase the number of medical providers trained in SAW/RTW best practices throughout the state by providing free continuing medical education. To fill gaps in medical rehabilitation services, The program planned to award grants to three to four hospitals to train a multidisciplinary team of providers at each hospital in rehabilitation team assessments. The program also planned to award grants to eight to 10 hospitals to develop community Functional Restoration Programs to support return to work. The grants would fund time for providers to receive training in functional restoration. VT RETAIN planned to make treatment enrollees aware of these services to support work outcomes by listing them in a VT RETAIN SAW/RTW service resource inventory and having RTW coordinators recommend these services.

The University of Pittsburgh oversaw the VT RETAIN data coordinating center, which managed the evaluation data and reviewed program data to support continuous quality improvement efforts. The director of the data coordinating center oversaw the continuous quality improvement team, which also

included the director of the VT RETAIN development center, project director, healthcare lead, and referral and enrollment lead.

4. Coordination of program partners

VT RETAIN's structure of interconnected responsibilities across partner organizations introduced complexity to the coordination of partners. Program staff and leaders described strengths and coordination challenges associated with organizing implementation and evaluation across the four centers.

Leaders and staff at each of the four centers were committed to their roles on VT RETAIN. Program leaders described the center leaders and staff as dedicated, motivated, and collaborative, which facilitated proactive and frequent communication. Program staff said that this constant communication was important, given the interconnected nature of their work.

To simplify coordination and share expertise across partners, center leaders met frequently and organized cross-center workgroups that reported to an executive committee. Program leaders assigned program staff to workgroups focused on specific efforts, such as marketing, sustainability, equity, and employer initiatives. Workgroup members tracked their progress toward implementation milestones and reported monthly to an executive committee made up of workgroup leads, center leaders, the lead RTW coordinator, the VT RETAIN project administrator, and the grant program manager. Program leaders and staff noted that the workgroups and monthly reporting processes improved coordination across partners and drew on the insights of diverse expertise.

Program leaders developed role definitions and increased the lead agency's decision-making responsibility to improve the pace of decision making across the four centers. Program staff and leaders said aligning four diverse organizations was challenging. Each partner organization had its own administrative processes, technology systems, expertise, and priorities. In addition, leadership of the individual partner organizations had different and sometimes contradicting perspectives of and opinions about the program's priorities. To support decision making, VT RETAIN positioned the VDOL administrator in a stronger decision-making role. It also developed a conflict resolution process, which helped staff resolve different opinions on how to approach the work. A subcontractor acted as a mediator between groups when disagreements arose.

> "It's a big grant and it has a lot of components. So, I think one of the things we're working on is making sure we're kind of staying coordinated… just because there's so many different arms to this grant and so many different components the grant is working on, I think it's really just making sure we're staying coordinated with our efforts."
>
> —Program leader

The amount of time needed to implement VT RETAIN was a challenge for VDOL, but project managers at each center helped overcome this challenge. Managing and monitoring large subawards to each center generated an administrative burden for VDOL, which operated with fewer administrative staff than anticipated due to funding delays at the state level. As a result, VDOL staff were sometimes overwhelmed with their workloads. To assist, project management staff within each center helped manage operations

including reporting, financial management, note taking, agendas, email management, and timelines. The project manager at one center supported coordination across the centers, along with an operations workgroup.

Program leaders and staff reported challenges in managing the requirements associated with the grant. In their experience, time spent on the grant's reporting, evaluation, and coordination requirements, limited their time for implementation—particularly, for their recruitment and enrollment efforts. Program staff said turnover at DOL resulted in VT RETAIN needing to re-educate DOL staff on its program and seek approval multiple times for the same decisions. Program staff also reported confusion about what required approval from DOL and said the process to get approval from DOL and AIR delayed development of outreach materials. For example, program staff said VT RETAIN was unable to distribute a brochure to employer groups because of a delay in DOL approval.

C. Program environment surrounding VT RETAIN implementation and service delivery

In this section, we describe the program environment in which VT RETAIN was implemented to understand factors outside the study's control that may contribute to or inhibit program implementation and the detection of impacts.

1. Employment and policy environment

In Vermont, about half of working-age people with disabilities were employed in 2022, a rate higher than the national average (Exhibit VII.2). Program leaders said Vermont's low unemployment rate meant there were many job opportunities for enrollees. The tight labor market in the state may have facilitated finding jobs and encouraged employers to focus on employee retention.

> "A lot of people are worried that if they do take the help, it'll take away from somebody else who maybe needs it more."
>
> —Program staff

Program staff described aspects of a statewide culture that led to help-rejecting behaviors, which may have been a barrier to enrollment and to engaging enrollees in VT RETAIN services. Program staff said research showed that Vermont residents could be resistant to accepting help for a variety of reasons, including distrusting government, valuing self-reliance, or feeling too overwhelmed to seek help, which may have contributed to a lack of engagement with VT RETAIN. Program staff reported that some declined to participate because they did not want to take a spot from others who may have greater needs than themselves.

Program staff reported that behavioral health conditions and unmet needs for behavioral healthcare due to provider shortages posed a significant barrier to staying at or returning to work in Vermont. They referenced a 2020 United Way study that found Vermont residents were the least likely to seek care for mental health—which was the most common reason for long-term work disability in Vermont (United Way of the National Capital Area 2020). The needs assessment conducted in Phase 1 revealed that

employers lacked knowledge and resources to support the workplace needs of people with mental health and substance use conditions.

Exhibit VII.2. RETAIN program environment in Vermont

Economic indicators (percentages)	Vermont	United States
Unemployment rate (June 2023)[a]	1.9	3.6
Employment rate among working-age people without disabilities (2022)[b]	82.4	78.9
Employment rate among working-age people with disabilities (2022)[b]	51.2	44.5

[a] U.S. Bureau of Labor Statistics (2023a).

[b] U.S. Bureau of Labor Statistics (2023b).

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

2. COVID-19 pandemic

Program leaders and staff said the COVID-19 pandemic delayed primary care practices' efforts to implement processes for screening patients for eligibility in VT RETAIN. Overburdened practices experienced staff shortages and burnout and prioritized patient care, and therefore had limited time to focus on VT RETAIN recruitment.

According to program staff, the pandemic improved work opportunities for VT RETAIN enrollees in some ways. It reduced the labor supply and prompted employers to increase wages, focus on retention, and offer flexibility to meet workers' needs. For example, the increased acceptance of teleworking during the pandemic provided opportunities for people in need of remote work accommodations.

D. VT RETAIN recruitment and enrollment

VT RETAIN sought to enroll people diagnosed with an injury or illness that limited or could limit their ability to stay at or return to work. In this section, we first describe VT RETAIN's referral sources and experiences prompting referrals from those sources, including recruiting people from communities that have been historically underserved.[58] We then describe VT RETAIN's experience with applying its eligibility criteria and then enrolling eligible people.[59] Appendix E, Exhibit E.2 includes supplemental information about the recruitment and enrollment process.

1. Referral sources

At the beginning of enrollment, VT RETAIN's primary referral source was patients completing a self-screening tool at participating primary care practices. The self-screening tool was intended to identify potential enrollees and limit the burden on practice staff and providers. VT RETAIN allowed practices to administer the self-screening to all of the practices' adult patients in a way that fit with each practice's

[58] SSA's Equity Action Plan points to the Federal Executive Order on Advancing Racial Equity and Support for Underserved Communities, which defines the term "underserved communities" as populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.

[59] Appendix E, Exhibit B.3 lists the barriers and facilitators that emerged from our analysis.

unique workflows. For example, some practices distributed materials such as posters, postcards, or fact sheets in waiting and exam rooms. The materials included a QR code that led to screening questions. Other practices used tablets or kiosks to administer electronic self-screening. Practices had self-screeners available in multiple languages.

VT RETAIN offered to establish agreements with practices to identify potential enrollees by reviewing their EMRs. Program leaders said VT RETAIN had EMR access for all participating Dartmouth Health practices, but other practices either did not have a method, technical support, or time to establish EMR access for VT RETAIN. Most practices outside of Dartmouth Health used different EMR systems, and they faced challenges modifying existing screening tools embedded in the EMR. Ultimately, VT RETAIN was unable to use EMRs for screening.

The impact of COVID-19 on primary care practices prevented practices from generating as many self-referrals as expected. Practice staff and clinicians had limited time for RETAIN, and some practices delayed implementation of self-screening. Due to turnover of practice staff, RTW coordinators often had to educate new practice staff on the program. VT RETAIN staff could not always provide on-site recruitment support because pandemic safety precautions limited visitors.

"Primary care is in complete and utter shambles and disarray throughout the state and the region and the country. And the primary care offices are struggling and can't focus or change or do pretty much anything. And that became an insurmountable barrier to identifying the patients within the primary care office setting."

—Program staff

VT RETAIN began to use other referral sources, which became an important strategy following low enrollments from primary care practices. Recruitment staff and RTW coordinators began engaging additional referrals sources, which included public spaces like grocery stores and libraries, as well as clinical sites like urgent care, physical therapy, or chiropractors' offices. At the time of the site visit, there were about 170 additional referral sources. Program leaders said recruiting outside of participating primary care practices enabled VT RETAIN to reach a larger population for self-screening, including people who went to specialty clinics for an injury or illness and not a primary care practice. When potential enrollees were not affiliated with a participating primary care practice, program staff said they contacted their primary care providers to ask them to participate in VT RETAIN and receive randomization as a treatment or control practice. According to program staff, not only was this not a barrier to recruitment but enrolling these new practices enabled VT RETAIN to expand its referral network. Staff were optimistic about the new focus but said it was too early to assess its success in generating self-referrals. VT RETAIN program leaders said DOL's delays in approving funding for new materials and approving new referral sources were initial barriers to the new approach. Program staff said they wished for another year of funding to recruit more enrollees and demonstrate VT RETAIN's value.

2. Outreach strategies

VT RETAIN conducted outreach to potential enrollees through participating primary care practices and the other referral sources. Program staff (usually the healthcare lead and RTW coordinator lead) held

orientation meetings with practices to educate them about VT RETAIN and provide options for implementing self-screening. Recruitment staff developed relationships with the other referral sources to distribute promotional materials in those locations. Promotional materials at both primary care practices and other screening sites directed people to a self-screening tool. Program staff said they improved outreach materials with new designs, inclusive language, and content emphasizing VT RETAIN's differentiation from other programs.

Partnering with InvestEAP, the state-based employee and organizational assistance program, helped VT RETAIN engage employers who could serve as referral sources. Program staff noted that employers respected and trusted InvestEAP, which helped VT RETAIN persuade employers to engage with the program. Program staff envisioned that large employers like the State of Vermont and University of Vermont could connect their employees to VT RETAIN by distributing self-screening materials. They developed an employer initiatives workgroup, including InvestEAP representation, to focus on increasing employer engagement.

3. Strategies for recruiting people from communities that have been historically underserved

VT RETAIN used results from a needs assessment in the pilot phase of the program and guidance from its equity-focused workgroup to support efforts to recruit and enroll people from communities that have been historically underserved. For example, VT RETAIN recruited federally qualified health centers, free clinics, and primary care practices in opportunity zones to reach potential enrollees in communities that have been historically underserved. VT RETAIN worked to simplify the verbiage in their outreach materials to make them more accessible for people with limited literacy. Program staff said they tried to use inclusive language when communicating with potential enrollees.

"I can't think of anything specifically challenging [with screening in FQHCs]. I think it's similar to problems we're seeing across all of our clinics."

—Program leader

VT RETAIN staff also translated recruitment and enrollment materials into multiple languages including Spanish and French, selected based on the languages spoken by primary care practices' patient populations. VT RETAIN staff had access to a 24/7 language interpreter service. Program staff believed these strategies helped with recruiting people from communities that have been historically underserved, however, enrollment numbers from these communities were low.

Program leaders and staff were unsure whether the characteristics of recruitment staff influenced potential enrollees' decision to enroll. Program staff wondered if the fact that most recruitment staff worked virtually and did not live in Vermont affected their ability to connect with potential enrollees in Vermont as part of the recruitment and enrollment process. Program leaders believed that recruitment staff's patient care backgrounds and lived experience with disabilities helped them connect with potential enrollees.

4. Eligibility criteria

The VT RETAIN program enrolled people with an injury or illness that limited or could limit their ability to stay at or return to work. This included an injury or illness that occurred or flared in the past six months.

Individuals must have been employed or actively looking for a job, age 18 or older, and living or working in Vermont, or be willing to include Vermont in a job search. The program excluded people who previously received VT RETAIN services, were currently applying for or receiving Social Security Administration benefits, or had an active substance use disorder that was untreated. Due to VT RETAIN's cluster random assignment design, all individuals enrolled in RETAIN needed to be affiliated with a participating primary care practice.

VT RETAIN's eligibility criteria were unclear to many potential enrollees, which hindered enrollment and required additional efforts by staff to improve clarity. For example, program staff said that potential enrollees found it challenging to interpret the criteria about whether they had applied for Social Security Disability Insurance or were in the process of applying for Social Security Disability Insurance. In response to feedback from practice staff, VT RETAIN changed the wording on some of their prescreening questions to improve clarity. When enrollment staff received questions they could not answer, they contacted other program staff or used a built-in feature of their information tracking system to ask questions of the medical director.

5. Recruitment

Recruitment staff contacted potential enrollees who screened positive on the self-screener. Recruitment staff confirmed their eligibility and interest in enrolling. If they were interested in enrolling, recruitment staff obtained their informed consent and completed their enrollment.

Making initial contact with people who self-screened as eligible was challenging. Sometimes, potential enrollees did not answer the phone or were not responsive because they were unfamiliar with VT RETAIN or worried it was a scam. Program staff said that potential enrollees sometimes worried that letters from Dartmouth Health were regarding outstanding bills. To overcome this challenge, recruitment staff attempted to contact potential enrollees in multiple ways (phone, text, and email) so that they would not dismiss the contact as a scam or telemarketing. Program staff arranged for VT RETAIN to appear as the stated caller on caller identification. They included "VT RETAIN" in their email signatures to clarify that they were not reaching out from Dartmouth Health. In addition, program leaders improved the response time for recruitment staff to reach out to potential enrollees by setting up automatic notifications that went to all recruitment staff when someone prescreened as eligible.

Program leaders and staff attributed a high enrollment rate among people who were eligible to the communication skills and persistence of recruitment staff. They reported that 96 percent of people whom recruitment staff deemed eligible for VT RETAIN ultimately enrolled. Program staff said recruitment staff were skilled at explaining VT RETAIN and using compassion and active listening to connect with potential enrollees. They were friendly, patient, and willing to walk enrollees through the entire enrollment and consent process over the phone.

> "We need to hear their story. So listening to their story, understanding their story, pointing out certain things like yes, we have the resources here. This is our resources that we're going to send to you. And since you've told me this story, here is one that may be particularly helpful to you. So it's not just to let me check the box for you."
>
> —Program staff

6. Enrollment outcomes

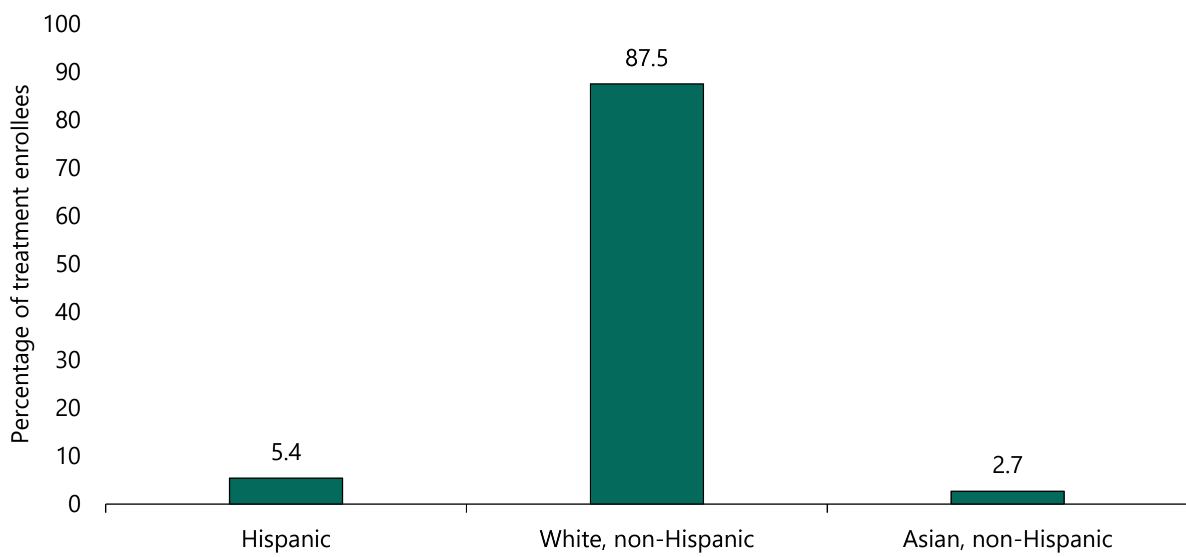
Cumulative enrollment was lower than expected, and the pace of enrollment was consistently low throughout the enrollment period (Appendix E, Exhibit E.3). During the first 16 months of enrollment (March 8, 2022, through June 30, 2023), VT RETAIN enrolled 200 people, or 10 percent of its goal of enrolling 2,040 people. The first 16 months of enrollment represented nearly two-thirds (60 percent) of the total 27-month enrollment period.

Approximately 56 percent of all enrollees were treatment enrollees, and 44 percent were control enrollees (Appendix E, Exhibit E.4). Program staff reported that screening (and later recruitment) processes were the same for the treatment and control practices. Participating practices received $500 for implementing the screening process and $30 for each patient that enrolled in VT RETAIN. When communicating with referral sources, program staff addressed hesitancy about being randomized to the control group by emphasizing the benefits of involvement in VT RETAIN regardless of random assignment.

7. Treatment enrollee characteristics

We used enrollment data submitted by VT RETAIN to assess the demographic characteristics of the 112 people who enrolled during the first 21 months of the enrollment period (October 2021 to June 2023) and were linked to treatment clinics. Many of the treatment enrollees were female (64 percent). The average age of the treatment enrollees was 45. White, non-Hispanic enrollees represented the largest racial/ethnic group (88 percent) (Exhibit VII.3). Most treatment enrollees had at least a high school diploma, GED, or certificate of completion (95 percent), and almost all preferred English (99 percent) (Appendix E, Exhibit E.5). We include additional information about treatment enrollee characteristics in Appendix E, Exhibits E.5, E.6, and E.7.

Exhibit VII.3. Race and ethnic characteristics of VT RETAIN treatment enrollees (percentages)



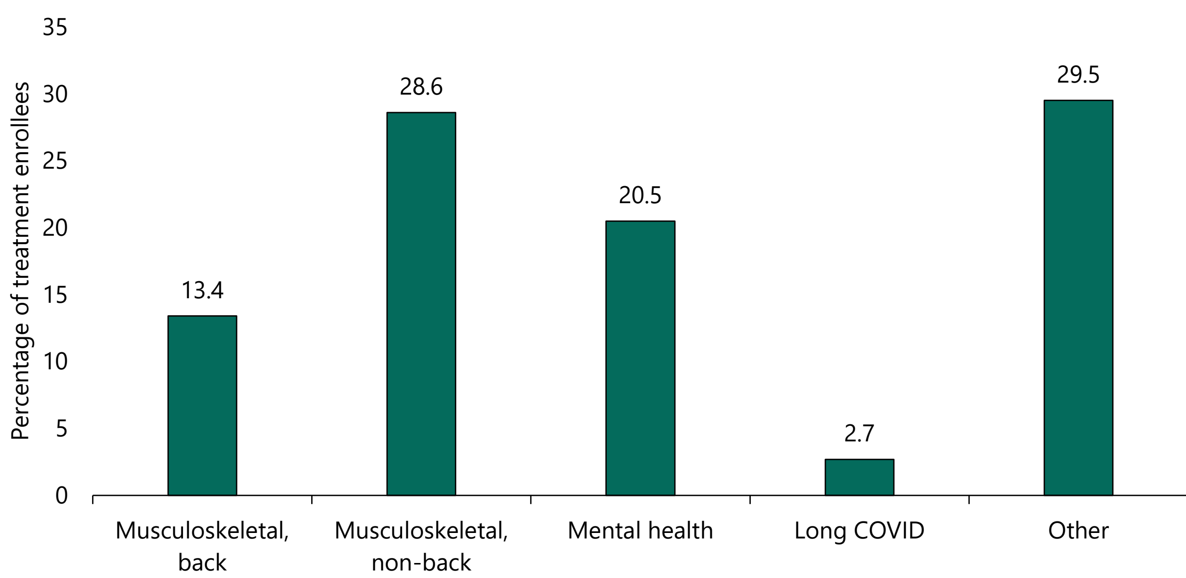
Source: VT RETAIN enrollment data through June 30, 2023.

Note: The sample size was 112 treatment enrollees. We suppressed the categories for "Black, non-Hispanic"; "more than one race"; and "other race, non-Hispanic" to avoid disclosing information about individuals. We did not include "missing" responses; therefore, percentages may not add to 100 percent.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

We also used the enrollment data to assess illness and injury characteristics for the same 112 treatment enrollees (Exhibit VII.4). One-third of enrollees reported their injury or illness was work related. Many treatment enrollees reported a musculoskeletal, non-back condition (30 percent) or a primary diagnosis of a condition that did not fall under the RETAIN evaluation's four identified primary diagnosis categories (30 percent). About one-fifth (21 percent) of enrollees reported that their primary diagnosis was a mental health condition. People with a new or pre-existing condition were eligible for enrollment. For VT RETAIN, 32 percent of enrollees reported that their illness or injury was a new condition at enrollment. The average time between treatment enrollees' onset of their primary illness and enrollment into VT RETAIN was 472 days; however, the median time was 141 days (Appendix E, Exhibit E.7).[60]

Exhibit VII.4. Primary diagnosis characteristics of VT RETAIN treatment enrollees (percentages)



Source: VT RETAIN enrollment data through June 30, 2023.

Note: The sample size was 112 treatment enrollees. We did not include "missing" responses (5.4 percent); therefore, percentages may not add to 100 percent.

Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental health; and Other. These groupings build on previous studies of return-to-work among injured or ill people. We include the mapping of ICD-10 codes into these categories in Appendix E, Exhibit E.7.

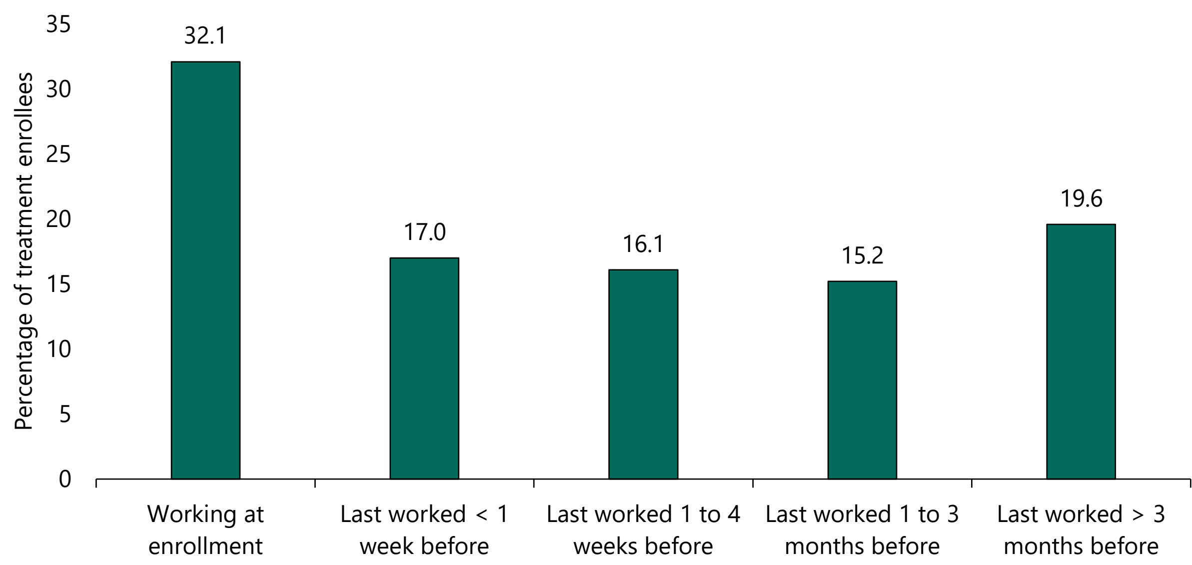
ICD = International Classification of Diseases; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to assess recent work histories for the same 112 treatment enrollees described above (Appendix E, Exhibit E.8). All RETAIN programs were required to enroll people who were employed or in the labor force. In VT RETAIN, many treatment enrollees were employed at the time of enrollment (65 percent), and 32 percent were currently working (and not on leave) at the time of enrollment (Exhibit VII.5). Many treatment enrollees worked within one month of enrollment (65 percent),

[60] In all, 11 of the 107 treatment enrollees with a date of onset reported that their primary diagnosis occurred before 2020. VT RETAIN noted that there were outliers and that there may have been instances where the date of the original injury or illness was entered instead of the date of worsening or flare-up. The average time between onset and enrollment for treatment enrollees between July 2022 and June 2023 exceeded a year.

and a large share last worked within three months of enrollment (80 percent). On average, treatment enrollees were employed full-time (39 hours per week) before the onset of injury or illness. About half of enrollees were employed for two years or less (56 percent) at that job, and 30 percent were employed for more than five years at their most recent job. In the year before enrollment, most treatment enrollees (82 percent) worked at a job that paid at least $1,000 per month. Upon enrollment, the largest proportion of treatment enrollees reported being employed in a management, professional, or related occupation (38 percent) (Exhibit VII.6). Other treatment enrollees reported being employed in occupations in service (28 percent); natural resources, construction, or maintenance (13 percent); production, transportation, or material moving (8 percent); or sales and office (8 percent).

Exhibit VII.5. Length of time since last worked at enrollment among VT RETAIN treatment enrollees (percentages)

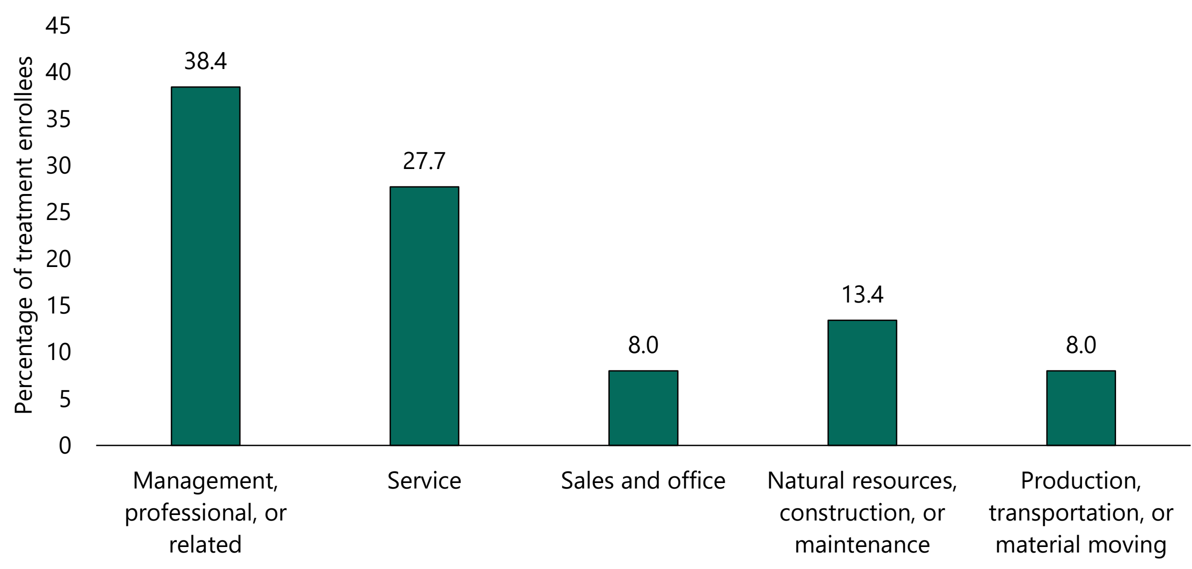


Source: VT RETAIN enrollment data through June 30, 2023.

Note: The sample size was 112 treatment enrollees.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit VII.6. Occupational classification of pre-injury/illness job among VT RETAIN treatment enrollees (percentages)



Source: VT RETAIN enrollment data through June 30, 2023.

Note: The sample size was 112 treatment enrollees. We did not include "missing" responses (4.5 percent); therefore, percentages may not add to 100 percent.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to compare treatment enrollees' characteristics with control enrollees' characteristics. As outlined in the Evaluation Design Report, we expected treatment and control enrollees to have similar baseline characteristics because VT RETAIN implemented a random assignment design (Berk et al. 2021). Nonetheless, we found significant differences in the education levels of treatment and control enrollees (Appendix E, Exhibits E.5, E.6, and E.7).

E. VT RETAIN implementation and service delivery

In this section, for each VT RETAIN program component, we first describe how the component was operationalized and then describe facilitators and challenges to its implementation (Exhibit E.9).[61] Overall, during the interviews in April and May 2023, program leaders and staff reported delivering services as planned in the VT RETAIN program model. However, training for medical providers at participating primary care practices was delayed. We describe the details of these delays below.

1. Medical provider services

VT RETAIN's healthcare lead and program staff delivered in-person and online trainings to medical providers at participating primary care practices to increase awareness of VT RETAIN, emphasize the importance of work for health, and implement screening into practice workflows (Exhibit VII.7). VT RETAIN did not provide financial incentives for using occupational medicine best practices or completing trainings, but providers could earn continuing medical education credits.

[61] Appendix E, Exhibit B.8 lists the barriers and facilitators to implementing each RETAIN program component that emerged from our analysis.

Exhibit VII.7. Planned VT RETAIN medical provider services

Program component	Description
Training medical providers on occupational medicine best practices	• All providers in Vermont may access live and on-demand online trainings and educational materials on SAW/RTW topics. • Providers in Vermont receive continuing medical education credits for completing VT RETAIN training.
Incentivizing medical providers for using occupational medicine best practices	• None offered.
State specific services: Training grants	• All providers in Vermont can apply for a grant to train a team of providers in multidisciplinary rehabilitation team assessment. • All providers in Vermont can apply for community Functional Restoration Programs grants to receive training on functional restoration.

RTW = return to work; SAW = stay at work; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

The healthcare lead paused training to medical providers at enrolled practices because VT RETAIN needed to focus on recruitment and enrollment efforts. Program staff said the healthcare lead also did not have availability to record trainings for the online learning platform. VT RETAIN instead focused on providing clinicians with work-health resources and re-educated practices about the VT RETAIN program, given frequent practice staff turnover.

Challenges associated with coordination among program partners slowed efforts to implement all planned medical provider trainings. Administrative processes were time-intensive, and decision making among partners was slow. For example, delays in executing a contract with the online learning platform provider prevented VT RETAIN from making educational resources and trainings available online. Delays in receiving funding approval from the U.S. Department of Labor and VDOL prevented them from awarding grants to train multidisciplinary teams in rehabilitation team assessments and award community Functional Restoration Program grants for hospitals to train medical providers in functional restoration. At the time of the site visits, Vermont had awarded only one of the nine community Foundation Restoration grants and trained one of four multidisciplinary rehabilitation team assessment teams.

2. RTW coordination services

Each treatment enrollee received RTW coordination services from a designated RTW coordinator (Exhibit VII.8). During intake, the RTW coordinator assessed the treatment enrollee's barriers to staying at or returning to work and their work goals, developed an RTW plan, connected the enrollee with resources to address health-related social needs, and provided referrals to resources like HireAbility and American Job Centers. RTW coordinators could also communicate with the enrollee's employer, medical providers, and others as needed to coordinate their SAW/RTW needs. Services ended once the enrollee achieved the goals documented in their RTW plan or after six months, whichever came first.

Exhibit VII.8. Planned VT RETAIN RTW coordination services

Program component	Description
Coordinating RTW services	• RTW coordinator conducts intake assessment of SAW/RTW barriers and work goals. • RTW coordinator works with the treatment enrollee to develop an RTW plan. • RTW coordinator uses the SAW/RTW services resource inventory to match the treatment enrollee with services. • RTW coordinator engages with the RTW expert team, which includes a substance use disorder counselor, mental health providers, and other medical providers, for support in providing appropriate RTW services and referrals.
Communicating among parties involved in RTW plan	• RTW coordinator uses a strength-based approach to encourage treatment enrollees to communicate directly with their medical provider, employer, and other RTW professionals. • Primary care providers receive the treatment enrollee's RTW plan, and the treatment enrollee provides permission for the RTW coordinator to communicate with their primary care provider. • If given permission, the RTW coordinator communicates with the treatment enrollee's employer, as needed.
Monitoring treatment enrollee progress	• RTW coordinator primarily monitors progress through check-ins with the enrollee, during which they record the enrollee's medical and employment information, case notes, medical provider notes, and results of assessments.

RTW = return to work; SAW = stay at work; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Program data submitted by VT RETAIN indicate that about two-thirds of treatment enrollees (64 percent) used VT RETAIN services, including RTW coordination services or other RTW services (Exhibit VII.9). About three-quarters of the treatment enrollees (76 percent) had an established RTW plan, with enrollees developing their plan an average of three weeks or more after enrollment. As of the end of June 2023, about 42 percent of treatment enrollees had exited VT RETAIN. Treatment enrollees who exited the program used services for about 171 days (almost the full six months).

Exhibit VII.9. Treatment enrollees' use of RTW coordination services

Service used (percentages unless noted otherwise)	Mean value or percentage
Used any services beyond enrollment [a]	64.3
Established RTW plan	75.9
Average time elapsed between enrollment and established RTW plan (days)	40.2
Exited VT RETAIN	42.0
Average duration of services, if exited (days)	171
Referred to services beyond VT RETAIN after six months	5.4

Source: VT RETAIN service use data through June 30, 2023.

Note: The sample size was 112 treatment enrollees.

[a] Any services beyond enrollment includes establishing an RTW plan or receiving an employment service such as job search assistance, training, on-site job analysis, ergonomic assessment, or transitional work opportunities.

RTW = return to work; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

a. Coordinating RTW services

RTW coordinators had access to learning opportunities, educational resources, and support from experts that enabled them to meet enrollees' needs. RTW coordinators received trainings regularly and could request trainings on topics of their choosing. They also maintained a shared SAW/RTW services resource inventory, which cataloged SAW/RTW programs and resources across the state. Program staff noted that VT RETAIN's advisory group of partners and subject matter experts also kept program staff apprised of new developments in the state, which helped RTW coordinators better understand Vermont's environment and available resources. RTW coordinators could also consult VT RETAIN's RTW expert team. Program staff said that the diversity of backgrounds and subject matter expertise of team members empowered RTW coordinators to make appropriate referrals and provide responsive services to enrollees with complex needs.

"So what we found is that because we have all of those different specialties represented on the team and we have a really cohesive team, the work-health coaches do a lot of collaboration amongst each other. So it seems like we're able to offer pretty well rounded services to our participants because even though there's just one coach working with the participant, there's a lot of collaboration that happens with and through the team."

—Program staff

RTW coordinators had strong connections to their communities and used their diverse professional backgrounds to support each other and to serve enrollees. Enrollees reportedly benefitted from the RTW coordinators' variety of professional backgrounds, including in nursing, social work, behavioral health, workers' compensation case management, employment services, and physical therapy. RTW coordinators used the skills gained from these experiences to provide responsive services to enrollees and to share their expertise with other RTW coordinators. Program staff noted that collaboration between RTW coordinators enabled them to provide well-rounded services to enrollees.

While treatment enrollees were mostly receptive to VT RETAIN services, lack of enrollee responsiveness presented challenges to delivering RTW coordination services. Program staff said that once enrollees learned more about VT RETAIN and began to engage with the program, they were appreciative of the services. However, program staff noted that some enrollees did not understand that they were enrolling in an intensive program or enrolled only to receive the financial incentives. Some enrollees were reportedly disappointed that VT RETAIN could not provide funding for job training or direct medical care. At other times, RTW coordinators struggled to make successful contact with enrollees after they enrolled

"The reason that they're reaching out to RETAIN is that they're overwhelmed with the healthcare system, not feeling their best, have some serious injury, illness, often also predominantly or on top of whatever else they have, some mental health concerns going on. ... So the only way through the issue or the only way to overcome the issue is through engaging with it, but that engagement is really hard to do."

—Program staff

in the program. Program staff noted that enrollees facing mental health, physical health, and health-related social needs were sometimes too overwhelmed to engage with the program. Unresponsiveness made it difficult for RTW coordinators to engage these enrollees in services.

b. Communicating among parties involved in enrollee return to work

Central to the RETAIN program model is the role of the RTW coordinator in communicating among parties involved in a treatment enrollee's RTW plan to coordinate necessary services. In Exhibit VII.10, we present the various communication flows that occurred to support an enrollee's return to work.

Exhibit VII.10. VT RETAIN: Communication among RTW coordinator, treatment enrollee, employer, medical providers, and other service providers

Communication flows specific to an individual treatment enrollee		
	During the enrollment process	• Recruitment staff provides enrollee with intake forms and program resources and assists enrollee in opening a Vermont JobLink account. • RTW coordinator assesses enrollee's barriers to staying at or returning to work and work goals and develops an RTW plan.[a] • If enrollee gives consent, RTW coordinator may contact the enrollee's medical provider(s), employer, and other members of the RTW team to discuss the RTW plan and progress toward its goals. • RTW coordinator uses a strength-based coaching approach to encourage enrollee to communicate directly with their medical provider(s), employer, and other RTW professionals.
	While receiving RTW coordination services	• RTW coordinator may communicate with a multidisciplinary rehabilitation team to develop the RTW plan. • RTW coordinator engages with the RTW expert team as needed for support in providing appropriate RTW services and referrals. • RTW coordinator checks in with enrollee to monitor progress and record medical and employment information, case notes, provider notes, and results of assessments.
	While receiving other RTW services	• The RTW expert team communicates with HireAbility about referrals for vocational rehabilitation counseling and assistance with workplace accommodations. • The RTW expert team communicates with the American Job Center about referrals for job search services. • RTW coordinator checks in with enrollee to monitor progress and collect required data.
	Upon enrollment ending	• RTW coordinator contacts enrollee at least twice during the month after an enrollee returns to work (with or without restrictions) to monitor progress.

[a] VT RETAIN refers to the RTW plan developed by RTW coordinators as a Work-Health Assessment and Plan to distinguish it from the RTW plans developed by Vermont Vocational Rehabilitation.

RTW = return to work; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

In Exhibit VII.11, we report the communication between RTW coordinators and other parties involved in enrollees' RTW plans, including employers, medical providers, and workforce professionals. For about one-quarter of treatment enrollees (26 percent), the RTW coordinator communicated with at least one of these parties beyond sending the RTW plan to providers. RTW coordinator communication with medical

providers was most common (20 percent of treatment enrollees), and communication with employers was least common (3 percent of treatment enrollees).

Exhibit VII.11. Percentage of VT RETAIN treatment enrollees whose RTW coordinator communicated with others involved in their RTW plans

Communication among parties involved in treatment enrollees' RTW work plans	Percentage of treatment enrollees
RTW coordinator communicated with employer at least once	2.7
RTW coordinator communicated with medical provider at least once	19.6
RTW coordinator communicated with workforce professional at least once	7.1
RTW coordinator communicated with any of the above	25.9

Source: VT RETAIN service use data through June 30, 2023.

Note: The sample size was 112 treatment enrollees.

RTW = return to work; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

RTW coordinators developed the RTW plan in collaboration with the enrollee. Each plan included details about the enrollee's case, including work goals, barriers to pursuing those goals, a plan for progress, and an associated timeline. The healthcare lead also reviewed and approved the RTW plans before they were sent to the treatment enrollee's primary care provider. RTW coordinators solicited authorization forms from treatment enrollees that gave them permission to speak with the treatment enrollees' employer, workforce professional, or other member of the RTW team about their RTW/SAW plan and progress.

RTW coordinators used a strength-based coaching model, in which they prepared treatment enrollees to communicate directly with their employer or medical providers about the goals outlined in their RTW plan. Program leaders and staff said that RTW coordinators had limited communication with enrollees' employers and medical providers. The amount of direct communication the RTW coordinators had with treatment enrollees' employers and providers depended on the preferences of enrollees, many of whom preferred that the RTW coordinator not communicate with their employer or medical provider. Program staff noted that particularly at the beginning of the program, some enrollees felt overwhelmed and wanted the RTW coordinator to communicate with employers or providers. RTW coordinators sometimes attended appointments with enrollees to help gather information and communicate the enrollee's needs to their medical provider. RTW coordinators coached enrollees on how to navigate communication themselves by the time they exited the program. RTW coordinators helped with appointment preparation by prompting enrollees to brainstorm questions and goals for their appointments in advance. VT RETAIN also developed tools to support communication with providers. For

example, VT RETAIN was working on a personal health history form to gather all information about an enrollee's health history in one document that enrollees could bring to their appointments.

RTW coordinators' ability to establish rapport and build trust with enrollees helped coordinators obtain permission to communicate with enrollees' employers or providers when appropriate. To obtain permission from enrollees necessary for this communication, RTW coordinators developed trust by investing time in listening and making enrollees feel heard. Program staff said enrollees were less willing to grant permission for their RTW coordinators to speak with their employers than they were for their medical providers. Enrollees who were unemployed or already had employer support did not need the RTW coordinators' help with employer communication, while others were uncomfortable granting permission for RTW coordinators to speak with their employers. These reasons may contribute to why RTW coordinators communicated with employers at least once for only 3 percent of enrollees.

Medical providers' limited availability was a barrier to providing input on RTW plans or confirming they had reviewed the plan. When treatment enrollees gave consent, RTW coordinators sent the RTW plan to the treatment enrollee's medical provider to coordinate care. Program staff reported that providers rarely responded to ask questions or provide input on the plans. RTW coordinators tried to increase provider responsiveness by working with clinical support staff to review the RTW plan and place it in the enrollee's medical record, encouraging enrollees to bring a printed version to their appointments, and seeking provider suggestions to improve engagement. Program staff said that responsive providers valued the ability to review the RTW plan and acknowledged that RETAIN was helping their patients get needed services.

> "The goal is over time that the participant is becoming more and more aware of their own care plan and capable of navigating it. And so yes, we do have interactions with employees and providers. But the goal ultimately, because we only work with people for six months, is that by the end of that six months, they're able to take what we've given them and continue to navigate the system."
>
> —Program staff

c. Monitoring treatment enrollee progress

RTW coordinators' scheduling flexibility and willingness to meet with enrollees in various ways (for example, by phone, Zoom) made it easier for RTW coordinators to monitor enrollees' progress. RTW coordinators followed enrollees' needs and preferences regarding how frequently to check in. RTW coordinators used an information tracking system developed by VT RETAIN to record enrollees' medical and employment information and store case notes, forms, provider notes, and results of assessments. VT RETAIN also provided smartphones to enrollees who did not have smartphones or computers, which program staff reported enabled enrollees to connect with RTW coordinators more easily.

3. Other RTW services

RTW coordinators supported workplace-based interventions and retraining or rehabilitation of enrollees (Exhibit VII.12). In this section, we first describe how VT RETAIN operationalized components of its model and then describe facilitators and challenges to their implementation.

Exhibit VII.12. Planned other VT RETAIN RTW services

Program component	Description
Supporting workplace-based interventions	• RTW coordinators coach treatment enrollees to speak with their employers about staying at work or returning to work. • RTW expert team provides assessment and consultation on workplace accommodations. • Vermont employers access trainings and educational materials related to supporting workplace-based interventions online. • Vermont employers apply for grants to receive training and certification in supporting workers with mental health and substance use conditions.
Retraining or rehabilitating enrollees	• RTW coordinators refer treatment enrollees to employment counselors at American Job Centers and to HireAbility. • RTW coordinators make referrals to Vermont's vocational rehabilitation program.

RTW = return to work; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

a. Supporting workplace-based interventions

As part of the strength-based coaching model, RTW coordinators encouraged and prepared enrollees to communicate directly with their employers and medical providers about workplace accommodations and staying at work or returning to work. VT RETAIN service use data indicated that 7 percent of treatment enrollees self-reported receiving a workplace accommodation (Exhibit VII.13).

RTW coordinators also consulted the RTW expert team, which provided assessment and guidance on workplace accommodations for enrollees. An ergonomist and employment specialist were among the members of the RTW expert team and had office hours to provide ad hoc support to RTW coordinators. Despite these resources, VT RETAIN reported that no treatment enrollees self-reported received receiving an on-site job analysis and only one self-reported received receiving an ergonomic assessment.

Exhibit VII.13. VT RETAIN treatment enrollees' use of workplace-based services

VT RETAIN service	Used service (percentages)
On-site job analysis	0.0
Ergonomic assessment	0.9
Workplace accommodation	7.1
Any of the above interventions	8.0

Source: VT RETAIN service use data through June 30, 2023.
Note: The sample size was 112 treatment enrollees.
VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Staff turnover at VDOL and staff leave at InvestEAP delayed the launch of a mental health and substance use disorder training and certification program for employers. VT RETAIN partnered with HireAbility's InvestEAP to develop a certification program for Vermont employers to create workplaces

that support and accommodate the needs of employees with mental health and substance use conditions. Through the program, employers would learn how to develop functional job descriptions that help providers, employers, and individuals understand the physical requirements of a job and plan for accommodations. Vermont employers would be able to apply for grants to fund participation in the program. Program staff said that their partnership with InvestEAP will facilitate rollout of the program to large employers throughout the state, not specifically employers of VT RETAIN treatment enrollees. Program leaders hoped to reach more than 10,000 employers through the program once they rolled out the training.

b. Retraining or rehabilitating enrollees

RTW coordinators referred treatment enrollees to employment services provided by the lead workforce agency, WFD's American Job Centers and vocational rehabilitation counseling services through WFD's HireAbility. VT RETAIN planned to refer treatment enrollees to multidisciplinary rehabilitation teams, but midway through the enrollment period, only one team was trained to provide these services.

In Exhibit VII.14, we list the retraining or rehabilitation services that treatment enrollees used and the percentage of enrollees who used each service, as reported in VT RETAIN program data. Less than 10 percent of treatment enrollees received retraining or rehabilitation services. This may again reflect that VDOL's WFD was not as engaged as expected, and VT RETAIN was strengthening its partnership with HireAbility. HireAbility provides vocational rehabilitation counseling and job placement and retention services.

Exhibit VII.14. Treatment enrollees' use of retraining and rehabilitation services

VT RETAIN service	Used service (percentages)
Job search services	0.9
Training services	0.0
Transitional work opportunity [a]	3.6
Other employment services	6.3
Any of the above services	9.8

Source: VT RETAIN service use data through June 30, 2023.

Note: The sample size was 112 treatment enrollees.

[a] Transitional work opportunity is a time-limited job at a new employer during an enrollee's recovery period to meet the enrollee's work restrictions until their employer can provide work accommodations.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

4. Service contrast

To measure the impact of VT RETAIN, we will compare the differences in outcomes from the services offered to the treatment group versus the services available to the control group. Both the treatment and control group received a packet which included 10 tips for staying at work with an injury or illness and the SAW/RTW services resource inventory that the RTW coordinators continually updated. Program staff said that Vermont has a robust and interconnected system of social services documented in the inventory. Both VT RETAIN treatment and control enrollees had access to publicly available resources described in the inventory, like WFD's American Job Centers and HireAbility.

Access to SAW/RTW coordination services from an RTW coordinator was the most significant contrast between what was available to the treatment and control groups. Rather than VT RETAIN providing services directly to enrollees, RTW coordinators made referrals to Vermont's existing programs and resources to address enrollees' employment and health-related social needs (for example, transportation, career services, and behavioral health support). Control participants had to navigate these services without the help of an RTW coordinator.

RTW coordinators also provided strength-based coaching to treatment enrollees and could communicate with medical providers and employers on a treatment enrollee's behalf. Control enrollees did not receive coaching or support from VT RETAIN to facilitate communication with providers or employers.

The educational resources and trainings VT RETAIN was developing for employers and medical providers will be accessible statewide, meaning employers and providers for control enrollees will be able to access the trainings. While these training resources aimed to improve outcomes for Vermont employees, midway through the enrollment period, they were still in development.

5. Collecting and reporting enrollment data

VT RETAIN developed an information tracking system to collect data for the evaluation and monitor enrollee progress. Recruitment staff used the system to enter enrollment information. RTW coordinators used the system to record enrollees' medical and employment information, house forms, and capture case notes.

Program staff experienced major challenges with the information tracking system and program lacked staff at the data coordinating center to implement improvements. For example, program staff said the information tracking system took significant time to pull up and save information. Recruitment staff had to keep enrollees waiting on the phone until they could enter enrollment information. RTW coordinators had challenges capturing data they received from enrollees, because the system often did not save properly or have adequate data entry fields. Program leaders and staff said that understaffing and turnover at the data coordinating center sometimes made it challenging to implement changes and meet the desired turnaround time of work requested by other centers. These challenges may have affected the quality of the data and contributed to RTW coordinator and recruitment staffs' workload.

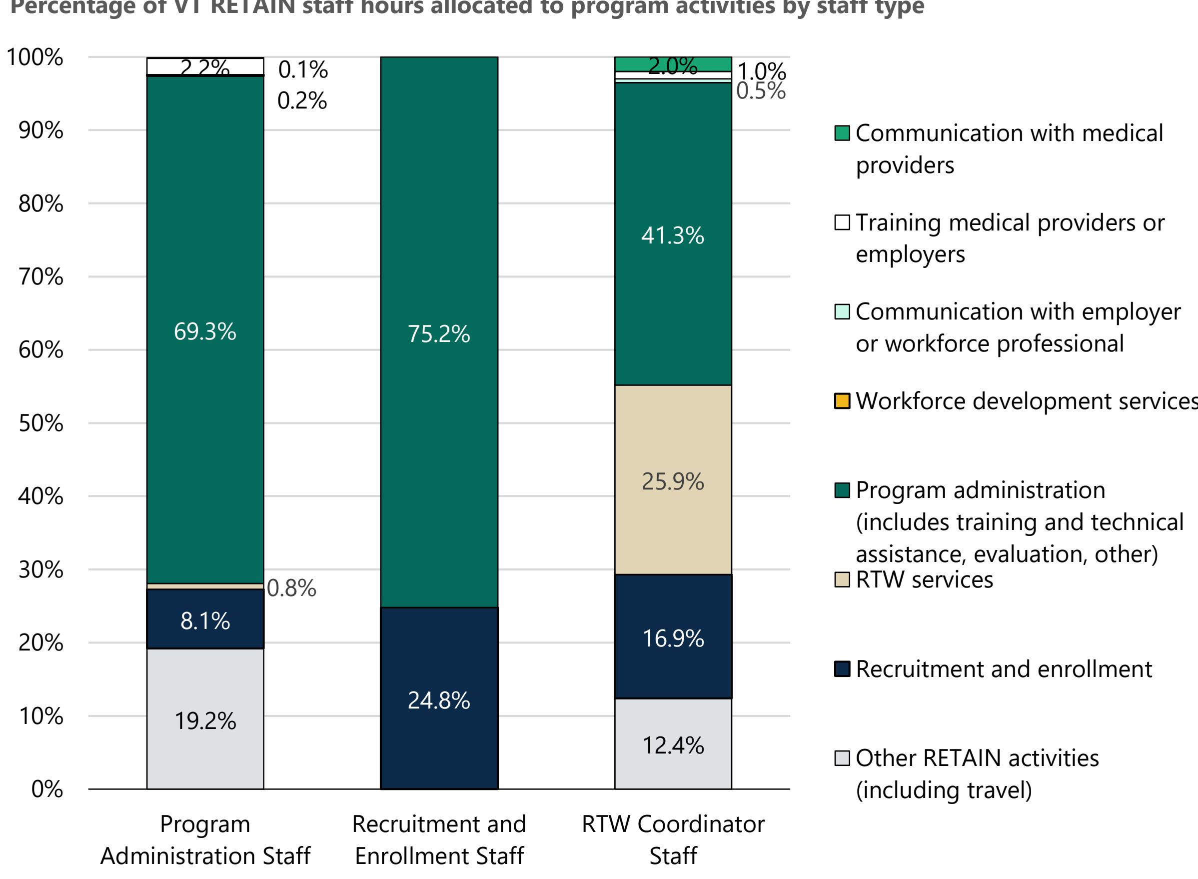
F. Staff time spent on VT RETAIN

We used staff activity logs to understand how VT RETAIN administrative and direct service staff allocated their time across program activities. These logs captured staff time spent on activities related to recruitment and enrollment, RTW services, workforce development services, communication with and training employers or medical providers, and program administration. We collected the logs from 10 individuals for two one-week periods representing periods of steady-state operations (when the program was neither ramping up nor closing down).[62]

[62] We collected the staff activity logs for the periods of April 10–14, 2023, and June 5–9, 2023. Half (five) of the staff members that reported hours were full-time RETAIN staff.

As expected, VT RETAIN administrators, enrollment and recruitment staff, and RTW coordinators reported different allocations of time across activities (Exhibit VII.15). VT RETAIN administrators allocated the largest proportion of their time to program administration activities, which included training and technical assistance, evaluation, and other activities. Recruitment and enrollment staff and RTW coordinator staff also spent most of their time on program administration (75 percent and 41 percent, respectively).[63] Recruitment and enrollment staff spent a quarter of their time on recruitment and enrollment activities. RTW coordinator staff also spent time on recruitment and enrollment (17 percent) and spent about a quarter of their time on RTW services (26 percent).[64] RTW coordinator staff spent just 2 percent of their time on communication with medical providers, employers, and workforce professionals, as well as workforce development services. This aligns with VT RETAIN's strength-based coaching approach, which encouraged treatment enrollees to communicate directly with providers, employers, and others.

Exhibit VII.15. Percentage distribution of administrative and direct service staff hours across VT RETAIN activities



[63] Program administration included training and technical assistance, evaluation, and other activities. RTW coordinators likely spent the bulk of this time on data entry across various systems.

[64] RTW services were defined as activities to support participants in staying at or returning to work, including developing and implementing a plan including regular check-ins with participants and monitoring participants' progress for returning to work, and referring participants workforce development providers such as vocational counseling and job search assistance services.

Source: Activity logs completed by 12 VT RETAIN program leaders, partners, and staff in April 2023 and 10 in June 2023.

Note: We did not receive activity logs from VT RETAIN employment counselors. Therefore, we did not have staff hours to report for Workforce Development Services Staff.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

G. Costs of VT RETAIN

We used program cost data submitted by VT RETAIN to assess the economic costs of implementing VT RETAIN. During the period from May 17, 2021, through March 31, 2023, representing 48 percent of the total grant period, VT RETAIN incurred total costs of $446,310.26, or 2.1 percent of the total grant awarded to VT RETAIN (Appendix E, Exhibit E.10). Much of the total costs were personnel or labor costs (78 percent), and the remaining costs were indirect costs (20 percent) and payments on behalf of treatment enrollees receiving services (2 percent). The average cost of providing services per treatment enrollee was $6,198 (including direct and indirect costs).[65]

H. Plans for sustaining VT RETAIN

In this section, we summarize plans for sustaining components of the VT RETAIN program that program leaders and staff reported on during the interviews in April and May 2023. A sustainability planning group, comprised of representatives of VT RETAIN partners, identified decision makers, funding mechanisms, and policy changes to help sustain VT RETAIN. Through the training and development program, they aim to educate employers, medical providers, and other service providers on SAW/RTW best practices and create educational resources that would last beyond the grant. One program leader said it was challenging to balance the centers' sustainability efforts with efforts to implement and evaluate the program.

VT RETAIN was exploring funding opportunities and developing educational initiatives to sustain access to RTW coordination services. They began training two community health workers to provide RTW coordinators services. They were piloting a model of embedded RTW coordinators in two primary care practices, which would be funded by providers after the grant period. VT RETAIN was also exploring opportunities to fund services through the state. Program staff reported that InvestEAP (within HireAbility) is likely a more suitable long-term home for VT RETAIN than VDOL, because InvestEAP has clinical staff who could support RTW coordination services. Program staff reported that they would like to train InvestEAP counselors to provide RTW coordination services.

Program leaders and staff reported that the training and development program is crucial to sustaining medical provider services and other RTW services. Through medical provider education, they aim to improve understanding of work as a health outcome and help providers address the work-related needs of their patients. Through the training grants for medical providers, they strive to increase access to rehabilitation and occupational medicine services statewide and fill gaps identified in the Phase 1 needs assessment. Similarly, employer trainings aim to improve the work and health experience of people at risk of disability who are trying to stay at or return to work. VT RETAIN was exploring how to sustain funding

[65] We calculated the average cost of providing services per treatment enrolled as the total costs incurred by the VT RETAIN program from May 17, 2021, through March 31, 2023, divided by the number of treatment enrollees as of March 31, 2023. Total costs incurred by the program include personnel or labor costs, direct costs of providing services to participants and providers, and indirect costs.

for use of the online learning platform so that recorded trainings and educational materials resources would be accessible after the grant ends.

I. Implications for replication of VT RETAIN

Our analysis of VT RETAIN implementation and service delivery point to key factors that may be important to consider in replicating the program. Overall, these findings suggest VT RETAIN staff were motivated and skilled to provide RTW services, though they experienced challenges coordinating among partners and reaching enrollment targets.

- The impact of the COVID-19 pandemic on primary care practices was a significant barrier to implementing VT RETAIN as planned. Some primary care practices delayed implementation of self-screening and therefore did not generate as many self-referrals as planned. RTW coordinators also faced challenges engaging primary care providers to review and provide input on RTW plans due to providers' limited availability.
- Challenges with coordination among partners and limited staff availability hindered the pace of implementation. Staff reported challenges with turnover, understaffing, and inadequate staff availability at the lead agency, lead healthcare partner, lead workforce partner, clinical coordinating center, data coordinating center, and HireAbility. VT RETAIN staff reported challenges with the time required for states to complete grant reporting and evaluation activities. Program staff reported that the time they spent on grant administration limited the time they planned to use for program implementation—particularly, for their recruitment and enrollment efforts.
- VT RETAIN staff's skills and diverse professional backgrounds facilitated implementation. The persistence and strong communication skills of recruitment staff contributed to enrollment among patients who self-screened. RTW coordinators' connection to their communities and diverse professional backgrounds enabled them to build rapport with enrollees, meet enrollees' needs, and support each other.
- More than one-quarter of treatment enrollees did not use any services beyond enrollment, and engagement of some treatment enrollees was a challenge for VT RETAIN. Program staff noted that a culture of help-rejecting behaviors and a high prevalence of behavioral health conditions were barriers to engaging treatment enrollees in VT RETAIN.
- Staff reported that some eligibility criteria excluded people who may have benefited from VT RETAIN, particularly those who had been out of work for more than 12 weeks.
- VT RETAIN used the results of a needs assessment conducted in Phase 1 to inform project planning and fill gaps in RTW/SAW services and resources in Vermont. VT RETAIN staff conducted continuous quality improvement initiatives, including implementing self-screening at satellite sites to reach a larger population for enrollment. VT RETAIN program leaders also consulted an advisory board of partners and subject matter experts.

J. Implications for interpretation of impacts on outcomes

Several key findings about factors support the interpretation of VT RETAIN's impacts on outcomes that will be included in the Final Impact Report;

- Cumulative enrollment was lower than expected and may limit the evaluation's ability to detect impacts.
- Approximately 56 percent of all enrollees were treatment enrollees, and 44 percent were control enrollees (Appendix E, Exhibit E.5). The reason for this imbalance was unclear but may reflect differences in the number of potentially eligible enrollees visiting treatment and control clinics.
- VT RETAIN may enroll more people with a longstanding primary diagnosis than expected for an early intervention program. Treatment enrollees reported an average 472 days and a median of 141 days between the onset of their primary diagnosis and enrollment in VT RETAIN. Program leaders noted that there were outliers and that there may have been instances where the date of the original injury or illness was entered instead of the date of worsening or flare-up.
- Both treatment and control enrollees could access a robust system of services such as HireAbility and the Career Services Center in Vermont. The involvement of RTW coordinators in helping treatment enrollees navigate services and return to work or stay at work was the primary contrast between treatment and control enrollees.
- Delays in treatment enrollee engagement in VT RETAIN following enrollment may be a concern, particularly given the brevity of the early intervention. More than one-quarter of treatment enrollees did not receive any services beyond enrollment, 76 percent had an RTW plan, and RTW plans took on average 40 days to develop.
- RTW coordination services included low levels of communication between RTW coordinators and others involved in a treatment enrollee's RTW plan. This can largely be explained by VT RETAIN's focus on strength-based coaching, which encouraged treatment enrollees to communicate directly with providers, employers, and others. Many enrollees preferred that the RTW coordinator not communicate with their employer or medical provider.
- State-wide trainings for medical providers and employers (including those serving the control group) were delayed, limiting their potential to reduce service contrast between the treatment and control group.

VIII. Treatment Enrollees' Experiences with RETAIN

Key findings

- Most commonly, people enrolled in RETAIN because they thought the program could provide them with information, resources, or services to help them stay at work or return to work.
- Enrollees liked the empathetic and individualized support they received from their RTW coordinator, including plain language translations of information they received from their medical provider.
- Many enrollees said they would have liked more communication from RETAIN staff (both enrollment staff and RTW coordinators). Turnover among RETAIN staff was a key hindrance to communication.
- Many enrollees described limited or inconsistent communication with their medical provider while enrolled in RETAIN.
- Overall, enrollees did not report delays in their receipt of services.
- Enrollees' reasons for not using RETAIN services varied and included not being aware of a service, not needing a particular service, or having an injury or illness that limited their ability to engage in RETAIN.
- Many enrollees had a positive experience with RETAIN and would recommend the program to a friend or family member.
- Many enrollees were working in the same jobs that they had before they enrolled in RETAIN.

A. Introduction

This chapter describes treatment enrollees' experiences with the RETAIN program. First, we describe their experiences with RETAIN enrollment (section B). We then describe their experiences with RETAIN RTW coordination services, their medical provider, and other RETAIN RTW services and their perceptions of RETAIN staff (section C). Next, we describe treatment enrollees' experiences with the RETAIN program overall (section D) and with services they received unrelated to RETAIN that supported their staying at or returning to work (section E). Finally, we describe enrollees' experiences with staying at or returning to work (section F).

We used information collected from qualitative interviews with 67 treatment enrollee respondents to inform the findings in this chapter. The enrollees we interviewed had a range of experiences with RETAIN service use. Some used limited or no RTW coordination services after enrollment, some used the RTW coordination services offered by RETAIN, and some used the RTW coordination services and other services offered by RETAIN, such as support with workplace-based interventions (Exhibit I.1). Although we attempted to recruit a representative sample of treatment enrollee respondents and the sample provides valuable insight into enrollees' experiences with the RETAIN programs, the interviews included a small subset of treatment enrollees and may not be generalizable to the larger population of treatment enrollees. Because of potential response bias, readers should interpret findings with caution.

Qualitative interviews might not cover all topics with all respondents. To present the findings, we use the word "couple" to denote two respondents, "few" to denote three or four respondents, "several" to denote five to 10 respondents, "many" to denote more than 10 respondents but fewer than three-fourths of relevant respondents, and "most" to indicate more than three-fourths of respondents. More detail about the methods we used for the treatment enrollee interviews are available in Chapter II.

B. Treatment enrollees' experiences with RETAIN enrollment

States varied in their eligibility requirements and how they recruited and enrolled potential enrollees. We described each state's eligibility requirements and recruitment and enrollment process in the state-specific chapters.

Treatment enrollees described various reasons for enrolling in RETAIN. Most commonly, enrollees said they enrolled in RETAIN because they thought the program would provide them with information, resources, or services to help them stay at work or return to work. Several enrollees said they were interested in financial resources, such as support with housing payments, while they felt vulnerable due to a lack of employment. Several others said a referral from a physical therapist, primary care provider, or vocational rehabilitation counselor encouraged them to enroll. Though features of the RETAIN program motivated many enrollees, several said they enrolled because they felt their participation in a study could help others, and several others said the study's financial incentive motivated them to enroll.

Many enrollees said it was easy to understand what RETAIN offered. They noted that enrollment staff clearly explained RETAIN, were available to answer questions, and provided them with written materials about the program. Yet others said they did not understand what RETAIN offered and would have liked clearer communication from RETAIN staff and written materials about RETAIN.

Many enrollees said they did not have concerns about enrolling in RETAIN; several, however, had concerns about the program's legitimacy. They worried RETAIN was a scam to obtain their personal information. Enrollees said they felt comfortable about RETAIN after they connected with RETAIN staff, reviewed written materials about RETAIN (including the website), or received a referral from their RTW coordinator to connect them with services that would help them return to work.

A few enrollees said they were hesitant to enroll because of the time commitment and having low energy as a result of their injury or illness. One of these enrollees questioned whether it was worthwhile going through the long enrollment process because of the chance that they could be assigned to the control group. Another described spending significant time in physical therapy and was unsure whether they had time and energy to also participate in RETAIN.

C. Treatment enrollees' experiences with RETAIN

1. Treatment enrollees' experiences with RETAIN RTW coordination services

Several enrollees said they valued the individualized support their RTW coordinator provided, including psychological support. These enrollees said that this support motivated them to stay focused throughout their job search. Most enrollees described being at transitional points in their lives and noted that the caring and empathetic support from their RTW coordinator improved their morale and helped them navigate challenging experiences. One treatment enrollee shared that because the RTW coordinator consistently checked in, they did not feel "forgotten about."

Many enrollees liked that RTW coordinators helped them understand how their medical care related to staying at work or returning to work. These enrollees appreciated when RTW coordinators checked in after their medical appointments and translated technical jargon from their medical provider and

answered questions their medical provider did not cover. Enrollees noted that their RTW coordinator helped them to better understand the work restrictions their medical provider recommended. A few enrollees valued direct communication between their RTW coordinator and their medical provider. They noted that this communication helped them to build rapport with their medical provider. In one case, the enrollee said their medical provider better understood the severity of their experience with domestic violence through discussions with their RTW coordinator.

Enrollees described mixed experiences with the referrals they received from their RTW coordinator. Several enrollees appreciated that RTW coordinators connected them with services to support their return to work. These enrollees described a sense of safety, knowing there were ways to get connected to employment opportunities, even if they were not ready to return to work. Several enrollees were confused, however, about the referrals they received from their RTW coordinator. These enrollees did not think the services were applicable to them because they had a supportive employer or family member, or they were not ready to engage with these services.

2. Treatment enrollees' experiences with their medical provider

Many enrollees described limited or inconsistent communication with their medical providers while enrolled in RETAIN. These enrollees said that their medical provider documented their work restrictions and accommodations for their employer and assisted them with their Family Medical Leave Act (FMLA) paperwork or their clearance to return to work. Several enrollees said that they were too early on in their recovery to discuss returning to work with their medical provider, but shared that their provider helped with pain management for their injury or illness through a prescription or referral to physical therapy. A couple of these enrollees particularly appreciated referrals to physical therapy, which helped them better understand their physical limitations.

3. Treatment enrollees' experiences with other RETAIN RTW services

Most enrollees said they did not use the RETAIN employment services provided by employment counselors because they felt they did not need these services. Enrollees who did work with an employment counselor often described their communication as limited and inconsistent because of frequent turnover among employment counselors. They described how this limited or inconsistent communication with employment counselors made it difficult to access the services they wanted, such as financial support and career counseling, or to fully understand the employment counseling services available to them. One enrollee reported that their employment counselor "paint[ed] a really pretty picture, and then [left them] out to dry."

Most of the enrollees who worked with an employment counselor reported a greater interest in financial support than career counseling or job-related services.[66] The few enrollees who said they successfully received services from an employment counselor described receiving support with making car, housing, and utility payments; help developing resumes and cover letters and preparing for interviews; career

[66] The Kentucky and Minnesota programs' workforce partners offer treatment enrollees financial support as part of employment services.

counseling; support with transportation; and assistance communicating with employers to request accommodations.

Several enrollees reported accessing other RTW services through RETAIN-employed social workers.[67] These enrollees said that RETAIN social workers provided helpful referrals to social services, such as transportation, utilities, and rental assistance; nutrition services; and other financial supports. A couple of enrollees also mentioned interactions with a peer mentor, which they described as helpful and encouraging as they recovered from their injuries or illnesses.[68]

4. Treatment enrollees' perception of RETAIN staff characteristics

Research from other care settings indicates that the demographic characteristics of program staff can affect participants' experiences with programs.[69] To explore how demographic characteristics of RETAIN staff might have influenced enrollees' experiences with RETAIN, interviewers first shared with enrollees that they were interested in learning about how RETAIN is supporting all enrollees, no matter who they are, their race, ethnicity, gender; what language they speak; or their employment history or income level. Interviewers asked enrollees about their impressions of enrollment staff and RTW coordinators.

Many enrollees had positive impressions of enrollment staff and RTW coordinators. When probed, many enrollees said their RTW coordinators' demographic characteristics did not make it easier or harder to work with them, or they were unaware of their demographic characteristics. Several enrollees said that it was easier to connect with enrollment staff who shared characteristics with them, including gender, race, language, or age, or experience with disability, being a parent, or living in the same city.

> "I was very impressed because they are also disabled. They are in a [wheel]chair, and they had a lot of health issues going on during our time as well because of COVID. And I just respected it madly because it showed me that I'm going to be able to do this. I can learn from all the things."
>
> —Treatment enrollee

D. Treatment enrollees' experiences with RETAIN overall

Many enrollees said they would recommend RETAIN to a friend or family member. They appreciated that RTW coordinators and other RETAIN staff genuinely cared about them and wanted to help them. Enrollees said they liked that RETAIN supported them in navigating new experiences and complex systems. They appreciated that RETAIN provided them with information about available services, such as vocational rehabilitation. Enrollees also liked that RETAIN connected them with tangible resources, such as housing or utility payments, or transportation, while they felt financially vulnerable.

---

[67] Ohio is the only state that offers its program's treatment enrollees referrals to RETAIN social workers.

[68] Kentucky is the only state that offers its program's treatment enrollees the ability to connect with a peer mentor.

[69] Disparities in Patient Experiences, Health Care Processes, and Outcomes: The Role of Patient-Provider Racial, Ethnic, and Language Concordance, Lisa A. Cooper and Neil R. Powe, The Commonwealth Fund, July 2004.

> "Being able to have somebody there to help you, encourage you and guide you through getting a new job ... And being able to have somebody that's just right there for you and a phone call, an email, a text away is wonderful."
>
> —Treatment enrollee

Many enrollees said they would have liked more communication from RETAIN staff (both enrollment staff and RTW coordinators). Several enrollees said they would have liked clearer communication about all the services and resources available through RETAIN, and several enrollees would have liked more frequent, proactive communication from RETAIN staff. For example, one enrollee described having to take it upon themselves to get RETAIN staff to coordinate to support their case. A few enrollees expressed frustration with staff turnover or not having a clear point of contact within RETAIN. Notably, no enrollee said they received too much communication from RETAIN.

A few enrollees said that geographic barriers interfered with their access to RETAIN services. A couple wished that RETAIN offices were closer to where they lived so they could meet with their RTW coordinator in person, and a couple of others desired closer services. One enrollee experiencing housing instability wished to visit a RETAIN office to complete their applications to the RETAIN referred services.

Enrollees' reasons for not using RETAIN services varied. Many said they used all the RETAIN services they were aware of, but others said that because they were unaware of the full gamut of RETAIN services, they might not have used some services. Many treatment enrollees did not use certain RETAIN services because they received support from their employer, family, or an outside organization. For example, several enrollees lived with family members who could support them financially and provide transportation. A few did not use the services because they returned to work early in their RETAIN enrollment, and others did not engage in services because they were receiving supplemental income under employer-provided short-term disability.

Several treatment enrollees said mental health challenges, cognitive issues, and other impacts of illness and injury made it hard for them to engage with RETAIN before their enrollment expired. For example, one enrollee indicated that depression and cognitive issues related to a stroke made it hard for them to respond to their RTW coordinator. Another wished they could have paused their enrollment in RETAIN and started the program when they felt well enough to focus on looking for a job.

Several enrollees expressed frustration with restrictions on program eligibility or participation. A few enrollees said they were confused when they were abruptly discharged from the program before they returned to work. For example, one enrollee said they received a letter in the mail notifying them that their time in the program had ended. Another said they were discharged because they switched healthcare providers and the new provider was not affiliated with RETAIN. As a final example, one applied for social security benefits and was confused about why they could no longer work with their RTW coordinator.

E. Treatment enrollees' receipt of non-RETAIN services

Most enrollees reported that they did not receive any services outside RETAIN during their enrollment, except services that their RTW coordinator referred them to. Several enrollees said they received support from their employer while enrolled in RETAIN, including behavioral health counseling, workers' compensation, and help applying for medical leave through the FMLA. One enrollee mentioned that they worked with a job entry and retention support specialist that they accessed through an employer-sponsored program. Finally, a couple of enrollees said they received support from other government-sponsored programs during their time in RETAIN, including case management through Veterans Affairs, vocational rehabilitation services, and services through Medicare.

F. Treatment enrollee's experiences with staying at or returning to work

1. Treatment enrollees' experiences with and barriers to employment

At the time of the interviews, many enrollees were employed in the same job they held before they enrolled in RETAIN. Several of these enrollees mentioned that RETAIN staff worked directly with their employers to modify their workload, hours, or responsibilities to accommodate their needs. They reported that RETAIN was a helpful resource they could rely on if they lost their job, had to find a new job, or needed help requesting accommodations from their employer, though only a few credited RETAIN with helping them find a new job. Several working enrollees reported that they had changed their jobs or planned to change their jobs because of their illness or injury.

Of the enrollees who were not working at the time of the interviews, many reported plans to return to work and mentioned support from RETAIN in their job search. Several enrollees, however, did not plan to return to work because of the health impacts of their injury or illness, and a couple reported that they applied for Social Security Disability Insurance (SSDI). In addition to the challenges presented by their injury or illness, several enrollees discussed other barriers to employment, including being homeless or having a felony on their record.

2. Impact of RETAIN on treatment enrollees' experiences with employment

Many enrollees described RETAIN as a helpful source of support for returning to work or finding a new job. They cited the value of the practical support they received from RETAIN staff, including help getting medical supplies they needed to return to work, career counseling, support making car and utility payments while they were not working, guidance navigating medical providers' recommendations for returning to work, and help to coordinate with employers to request accommodations. Several other enrollees mentioned the value of the emotional support they received from RETAIN staff, noting increased confidence, motivation, and encouragement to return to work. A few enrollees reported that they were too early in their recovery for RETAIN to have an impact on their ability to return to work.

3. Impact of states' employment environments on treatment enrollees' experiences with employment

Overall, most enrollees said that the employment environments in their area did not affect their job or ability to work. Several enrollees, however, said that many of the jobs in their area required physical labor, which they were unable to perform because of their illness or injury; a couple of these enrollees cited their

lack of work experience outside physical labor as more of a barrier to employment than their injury or illness. A couple of enrollees expressed frustration with the low wages paid by jobs in their area, which made them feel uncertain about the benefit of returning to work.

Most enrollees said that the COVID-19 pandemic did not affect their jobs or ability to work in the long term.[70] In fact, many enrollees said that their workloads remained the same or even increased during the pandemic, which several said placed additional stressors on them and negatively affected their health. Many enrollees reported that they had lost some work or had been furloughed during the earlier phases of the pandemic, but most of these enrollees expressed that they had since been able to return to work.

[70] A couple of enrollees cited personal experiences with COVID-19 that created barriers to employment: One enrollee said that he was infected with COVID-19, and his persistent symptoms from the virus made it difficult for him to work. Another enrollee indicated that her decision not to get the COVID-19 vaccine restricted the work opportunities available to her.

IX. Conclusion

Our assessment of Retaining Employment and Talent After Injury/Illness Network (RETAIN) program implementation shows the progress the programs made in delivering RETAIN services and the complexities of the demonstrations. In this chapter, we describe common factors that emerged across the programs that influenced their implementation and may have potential implications for impact evaluation.

A. Factors that influenced RETAIN program implementation

RETAIN programs had common experiences that could inform the design or implementation of similar interventions in the future.

Recruitment and enrollment. At the midpoint of the enrollment period, the RETAIN programs had enrolled a cumulative total of 5,508 enrollees (35 percent of the cumulative enrollment target). Programs had varied success with meeting enrollment targets. The staff of the programs that identified potential enrollees using information maintained in an electronic medical record reported that this facilitated recruitment compared with other recruitment efforts. Meanwhile, the programs that depended on medical providers to make or authorize patient referrals reported challenges with providers not having the capacity to facilitate referrals. Although all programs faced challenges with unresponsiveness to their outreach efforts, they implemented strategies to engage potential enrollees. These strategies included making timely contact with potential enrollees after receiving referrals and enhancing information resources to highlight the benefits of enrolling in the program and address potential enrollees' questions. Another facilitator of recruitment and enrollment was the staffs' strong interpersonal skills and tenure in their roles, which increased their ability to build rapport with potential enrollees and effectively explain the program. Finally, across the programs, outreach efforts to engage employers and the general public resulted in few referrals.

Engaging medical providers. Medical providers had multiple roles in the RETAIN programs, including completing training about RETAIN and occupational medicine best practices, referring patients to the demonstration, informing enrollees' return-to-work plans, and using occupational medicine best practices in their treatment of enrollees. Medical providers faced competing demands for their time, which was a barrier to their engagement in the RETAIN programs and completing the medical provider training. Programs overcame limited provider engagement by initiating in-person meetings to provide a program overview and, in some states, train providers on different aspects of the program. Provider champions were successful in promoting the program among their colleagues to increase engagement, and over time, medical providers recognized the value of the RETAIN programs and the RTW coordinator's role, which increased their engagement.

Delivering RTW coordination services. RTW coordination services were central to all of the RETAIN programs. The programs were successful in staffing RTW coordinators with diverse backgrounds and strong interpersonal skills and providing them with training and access to subject matter experts to deliver RTW coordination services effectively. The two most common barriers RTW coordinators faced included addressing enrollees' health-related social needs and communicating with enrollees' employers. Enrollees prioritized addressing their basic needs (such as food, housing, and utility payments) over engaging in discussions about returning to work. Despite efforts to promote the RETAIN programs among

employers, employers did not perceive value in the programs, and commonly, enrollees expressed concerns to their RTW coordinator about speaking with their employer out of fear of stigma. Lack of medical provider engagement was a challenge to delivering RTW coordination services; among the programs that required medical providers to sign off on RTW plans, it was challenging for RTW coordinators to engage them to complete this step. Despite these challenges, program leaders and staff perceived a range of benefits of RTW coordination services, including coaching enrollees to advocate for themselves with their medical providers and employers.

Delivering other RTW services. Coordination, or lack thereof, between RTW coordinators and other RTW service providers was an important factor in delivering other RTW services across programs. For some enrollees, the six-month enrollment period was too short for them to benefit from using the full range of employment and workforce development services offered by the RETAIN programs, especially when enrollees prioritized obtaining financial support over returning to work. Although treatment enrollees' use of work accommodations was low in most programs, staff's knowledge of work accommodations, either through previous experience or training, facilitated the implementation of these supports.

B. Potential implications for the impact evaluation

In the upcoming Final Impact Report, we will examine the RETAIN program's effectiveness in improving the labor market outcomes of individuals who acquire or are at risk of developing disabilities that inhibit their ability to work and reducing their reliance on disability programs. We will draw on the process analysis findings reported in each chapter to support the interpretation of the impact of the RETAIN program on these program outcomes. In this section we describe potential implications for the impact evaluation.

Cumulative enrollment. In four of the five programs, cumulative enrollment was lower than expected. Low enrollment could decrease the evaluation's ability to detect the impact of a program on enrollees' work outcomes and reliance on disability programs. However, in two of four programs with lower-than-expected enrollment, the pace of enrollment increased mid-way through the enrollment period and may ultimately reach sample sizes that better support the evaluation's ability to detect impacts.

Enrollee characteristics. Across programs, the average time between treatment enrollees' onset of their primary illness and their enrollment into RETAIN ranged from approximately three weeks to more than two years. The RETAIN program design was built on past evidence that people with recently acquired injuries and disabilities might be able to stay in the labor force if they receive well-targeted interventions during the first few weeks after the onset of their medical condition (Ben-Shalom et al. 2018b). The extent to which programs enrolled people unlikely to benefit from RETAIN's early intervention services due to their longstanding illness or injuries could limit program impacts.

Implementation of the RETAIN program model. Across programs, between two-thirds and 100 percent of enrollees received services beyond enrollment, which would support program impacts. However, three components of the program model were not implemented as planned in several programs. First, while all programs delivered several features of RTW coordination services as planned, RTW coordinators communicated less than expected with medical providers in two programs, and less than expected with employers in all programs. Second, formal training for medical providers on best practices to support their

patients to stay at work or return to work after illness or injury was delayed or had lower than expected medical provider engagement in three programs. Third, in all but one program, enrollees received relatively few other RTW services, such as retraining and job search assistance. These deviations from the RETAIN program model could reduce program impacts.

Service contrast. In four of the five programs, there were clear distinctions between the services available to treatment and control enrollees. The fifth program provided limited RTW services to control enrollees; however, there was still a clear difference in the services offered. This clear contrast supports the program’s ability to achieve impacts.

References

Ben-Shalom, Y., and H. Burak. "The Case for Public Investment in Stay-at-Work/Return-to-Work Programs." SAW/RTW Issue Brief. Washington, DC: Mathematica Policy Research, 2016.

Ben-Shalom, Y., J. Christian, and D. Stapleton. "Investing in Job Retention for Workers with Medical Conditions." In *Investing in America's Workforce: Improving Outcomes for Workers and Employers*, edited by C.V. Horn, H. Prince, S. Andreason, and T. Greene. Kalamazoo, MI: The Upjohn Press, 2018a.

Ben-Shalom, Y., J. Christian, and D. Stapleton. "Reducing Job Loss Among Workers with New Health Problems." In *Investing in America's Workforce: Improving Outcomes for Workers and Employers*: *Volume I: Investing in Workers*, edited by C.V. Horn, H. Prince, S. Andreason, and T. Greene. Kalamazoo, MI: The Upjohn Press, 2018. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2018b.

Berk, J., A. Patnaik, R. Keith, T. Olszuk, D. Wittenburg, Y. Ben-Shalom, and J. Bologna. "Evaluation Design for the Retaining Employment and Talent After Injury/Illness Network (RETAIN) Demonstration." Report submitted to the Social Security Administration. Princeton, NJ: Mathematica, December 8, 2021.

Bourbonniere, A.M. and D. Mann. "Benefit Duration and Return to Work Outcomes in Short Term Disability Insurance Programs: Evidence from Temporary Disability Insurance Program." *Journal of Occupational Rehabilitation*, vol. 28, 2018, pp. 597–609.

Contreary, K., Y. Ben-Shalom, and B. Gifford. "Using Predictive Analytics for Early Identification of Short-Term Disability Claimants Who Exhaust Their Benefits." *Journal of Occupational Rehabilitation,* vol. 28, 2018, pp. 584–596.

Damschroder L.J., D.C. Aron, R.E. Keith, S.R. Kirsh, J.A. Alexander, J.C. Lowery. "Fostering Implementation of Health Services Research Findings into Practice: A Consolidated Framework for Advancing Implementation Science." *Implementation Science*. vol. 4, no. 50, 2009.

Franklin, G.M., T. Wickizer, N.B. Coe, and D. Fulton-Kehoe. "Workers' Compensation: Poor Quality Healthcare and the Growing Disability Problem in the United States." *American Journal of Industrial Medicine*, vol. 58, no. 3, 2015, pp. 245–251.

Hollenbeck, K. "Promoting Retention or Reemployment of Workers After a Significant Injury or Illness." Washington, DC: Mathematica Policy Research, 2015.

Michaud, P.C., E.M. Crimmins, and M.D. Hurd. "The Effect of Job Loss on Health: Evidence from Biomarkers." *Labour Economics*, vol. 41, August 2016, pp. 194–203.

Neuhauser, F., Y. Ben-Shalom, and D. Stapleton. "Early Identification of Potential SSDI Entrants in California: The Predictive Value of State Disability Insurance and Workers' Compensation Claims." *Journal of Occupational Rehabilitation*, vol. 28, 2018, pp. 574-583.

Schimmel, J., and D.C. Stapleton. "Earnings Loss and Income Replacement for Older Workers after the Onset of a Work-Limiting Health Condition." *Inquiry: A Journal of Medical Care Organization, Provision and Financing*, vol. 49, no. 2, 2012, pp. 141–163.

United Way of the National Capital Area. "Mental Healthcare Access by State." 2020. https://unitedwaynca.org/blog/mental-healthcare-access-by-state/.

U.S. Bureau of Labor Statistics. "Geographic Information." 2023a. https://www.bls.gov/web/laus/laumstrk.htm.

U.S. Bureau of Labor Statistics "Persons with a Disability: Labor Force Characteristics Summary." February 2023b. https://www.bls.gov/news.release/disabl.nr0.htm.

U.S. Department of Health and Human Services. "Addressing Health-Related Social Needs in Communities Across the Nation." 2023. https://aspe.hhs.gov/sites/default/files/documents/3e2f6140d0087435cc6832bf8cf32618/hhs-call-to-action-health-related-social-needs.pdf.

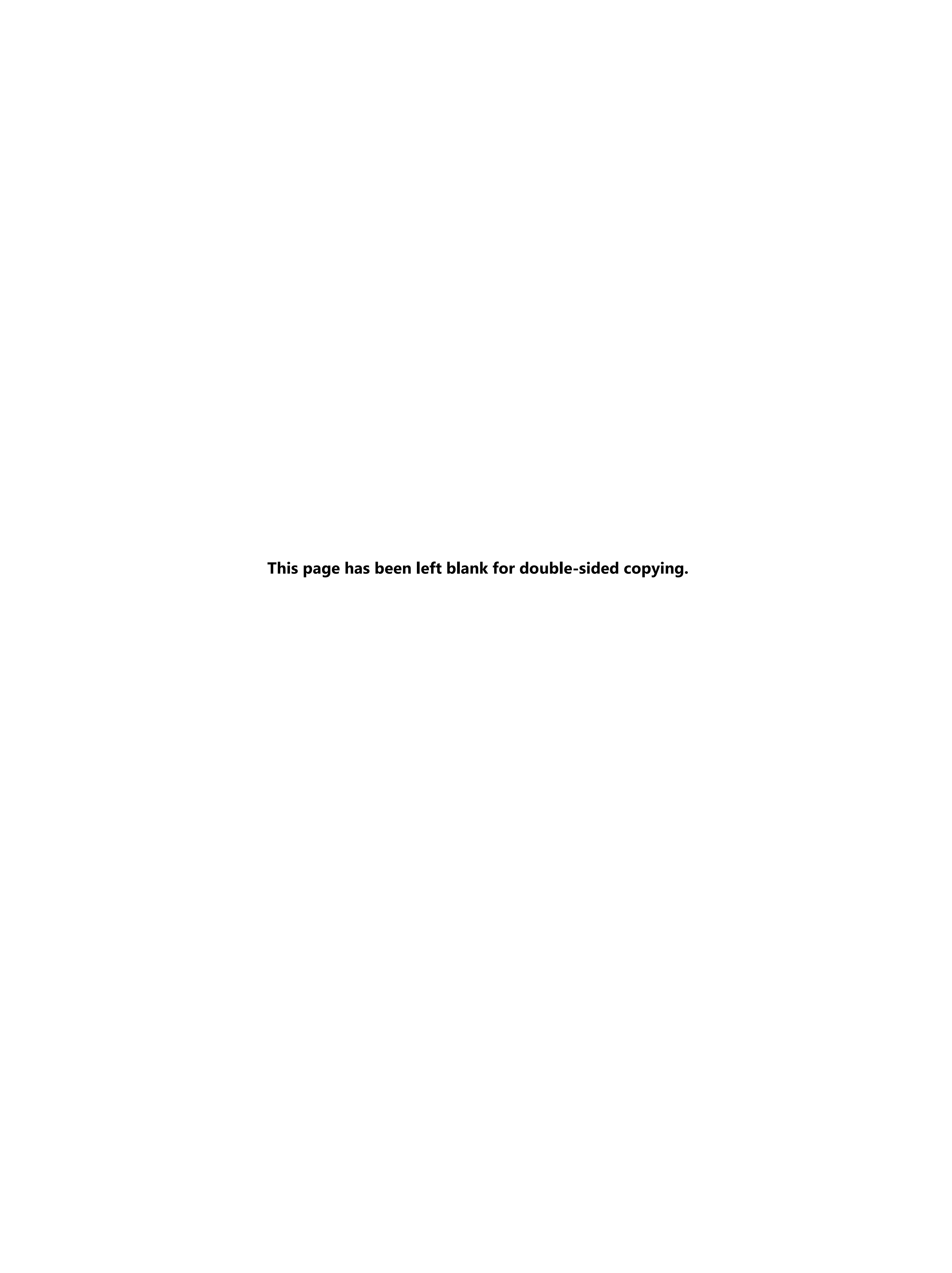
Wickizer, T.M., G.M. Franklin, R.D. Mootz, D. Fulton-Kehoe, R. Plaeger-Brockway, D. Drylie, J.A. Turner, and T. Smith-Weller. "A Communitywide Intervention to Improve Outcomes and Reduce Disability Among Injured Workers in Washington State." *Milbank Quarterly*, vol. 82, no. 3, September 2004, pp. 547–567.

Wickizer, T.M., G. Franklin, D. Fulton-Kehoe, J. Gluck, R. Mootz, T. Smith-Weller, and R. Plaeger-Brockway. "Improving Quality, Preventing Disability and Reducing Costs in Workers' Compensation Healthcare: A Population-Based Intervention Study." *Medical Care*, vol. 49, no. 12, December 2011, pp. 1105–1111.

Wickizer, T.M., G.M. Franklin, and D. Fulton-Kehoe. "Innovations in Occupational Health Care Delivery Can Prevent Entry into Permanent Disability: 8-Year Follow-up of the Washington State Centers for Occupational Health and Education." *Medical Care*, vol. 56, no. 12, December 2018, pp. 1018–1123

Appendix A.

Background Information and Supplemental Exhibits for Chapter III



This page has been left blank for double-sided copying.

Exhibit A.1. RETAINWOR*KS* program partners

Partner entity	Role in RETAINWOR*KS*	Leadership team
Kansas Department of Commerce	Lead agency for RETAINWOR*KS* across the five workforce development areas in Kansas. Led data collection and data sharing in support of the evaluation.	Yes
Healthcare partners		
Ascension Via Christi	Lead healthcare partner—Area IV. Healthcare partner in Areas I, II, and V. Recruited and trained medical providers, provided RTW coordination services to treatment enrollees.	Yes
Stormont Vail Healthcare, Inc.	Healthcare partner—Areas II and V. Recruited and trained medical providers, provided RTW coordination services to treatment enrollees.	No
University of Kansas Medical Center	Healthcare partner—Area III. Recruited and trained medical providers, provided RTW coordination services to treatment enrollees.	No
Kansas Clinical Improvement Collaborative	Healthcare partner—Area I. Recruited and trained medical providers, provided RTW coordination services to treatment enrollees.	No
Workforce partners		
Workforce Alliance of South-Central Kansas	Lead local Workforce development board—Area IV. Recruited potential enrollees, conducted employer outreach, provided workforce coordination services to treatment enrollees.	Yes
Kansas WorkforceONE	Local Workforce development board—Area I. Recruited potential enrollees, conducted employer outreach, provided employment services to treatment enrollees.	No
Heartland Works, Inc.	Local Workforce development board—Area II. Recruited potential enrollees, conducted employer outreach, provided workforce coordination services to treatment enrollees.	Yes
Workforce Partnership	Local Workforce partner—Area III. Recruited potential enrollees, conducted employer outreach, provided workforce coordination services to treatment enrollees.	No
Southeast KANSASWORKS	Local Workforce development board—Area II. Recruited potential enrollees, conducted employer outreach, provided workforce coordination services to treatment enrollees.	No
Kansas Department of Health and Environment	Provided state-level coordination to connect partners with resources needed for implementation.	Yes
Kansas State Workforce Development Board	Participated in leadership team.	Yes
Kansas Vocational Rehabilitation Services	Provided additional assessment and rehabilitation services to referred enrollees.	Yes
Kansas Business Group on Health	Contributed to strategy. Provided employer perspective and assisted in developing messaging and employer education. Distributed RETAINWOR*KS* outreach materials to members.	Yes
Kansas Society for Human Resource Management	Contributed to strategy. Provided employer perspective and assisted in developing messaging and employer education. Promotes RETAINWOR*KS* to its members.	Yes
Mid-American Coalition on Health Care	Contributed to strategy. Provided employer perspective and assisted in developing messaging and employer education.	Yes

Partner entity	Role in RETAINWOR*KS*	Leadership team
University of Kansas Medical Center Research Institute	State partner on the leadership team. Aided medical data collection and provider training. Provided REDCap to the RETAINWOR*KS* program through a subrecipient contract.	Yes
Kansas Department of Administration	Referred eligible employees to RETAINWOR*KS*.	Yes

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Exhibit A.2. RETAINWOR*KS* recruitment and enrollment process

Element of recruitment process	Description
Referral sources	• Healthcare partner staff review a report in the EMR to identify patients who may be potentially eligible for RETAINWOR*KS*. • Medical providers refer patients. • Local workforce development areas refer clients. • People self-refer. • Employers refer people.
Recruitment	• RTW coordinator receives completed referral forms and contacts the potential enrollee to review eligibility, complete informed consent form, and alert them an employment counselor would contact them.
Enrollment	• RTW coordinator contacts potential enrollee to review informed consent requirements and addresses any concerns that might prevent enrollment. (This is the first of two telephone calls to complete enrollment.)
Randomization	• Employment counselor contacts the potential enrollee to collect documentation confirming eligibility. (This is the second of two telephone calls to complete enrollment.) • Employment counselor enters enrollee's information into Confirmit to determines placement in either the treatment or control group and enters the required information from part 1 of the RETAIN national evaluation baseline survey into Confirmit. • The Confirmit software randomizes enrollees to either the treatment or control group.
Initial engagement in the program	• Eligible individuals receive a $50 incentive for completing enrollment paperwork.
Discharge from program	• RTW coordinators close the treatment enrollee's case after six months or after the treatment enrollee returned to work for eight weeks without restrictions.

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

EMR = electronic medical record; RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Exhibit A.3. Facilitators and barriers to recruitment and enrollment

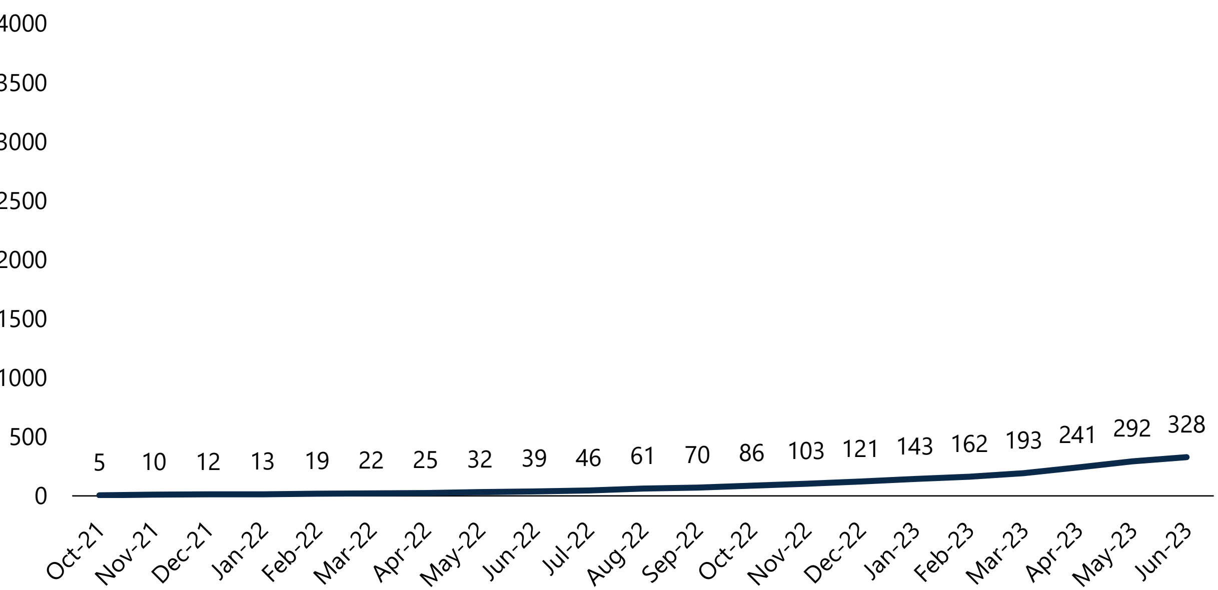
Finding	Referral sources	Outreach strategies	Recruiting people from historically underserved communities	Eligibility criteria	Recruitment
Characteristics of RETAINWOR*KS*					
Requiring referrals from RETAIN-affiliated providers was a barrier to recruiting people from communities that have been historically underserved because they were less likely to be connected to RETAIN-affiliated providers.			B		B
Some people were not interested in RETAINWOR*KS* services or were hesitant to enroll due to the possibility of being randomized to the control group.					B
Characteristics of individuals involved in RETAINWOR*KS*—program staff and medical providers					
Fewer-than-expected medical providers completed the training required to refer patients to RETAINWOR*KS*.	B				B
Medical providers faced competing demands for their time, which was a challenge to their authorizing referrals.	B				B
Characteristics of organizations delivering RETAINWOR*KS* services					
Recruiting potential enrollees identified in the EMR simplified the process for prompting providers to complete referral paperwork.	F				F
Reviewing EMR data in four workforce areas yielded many potential enrollees to contact via text message outreach; however, few enrolled.	B/F				B/F
Workforce partners in some local workforce areas lacked staff capacity for outreach to employers and to people from communities that have been historically underserved.		B	B		
Characteristics of the external environment					
Kansas had low unemployment rates in the state.					B/F
Characteristics of individuals involved in RETAINWOR*KS*—treatment enrollees					
Potential enrollees identified in the EMR perceived RETAINWOR*KS* as legitimate because recruitment staff referenced their medical provider.					F

Finding	Referral sources	Outreach strategies	Recruiting people from historically underserved communities	Eligibility criteria	Recruitment
Some potential enrollees did not trust the demonstration or did not need RETAIN services.					B
RETAINWOR*KS* implementation strategies					
The program increased medical provider engagement with in-person lunch meetings in which they involved providers and administrators.	F	F			
The provider champions drew on their long-standing relationships with medical providers to increase their engagement in RETAINWOR*KS*.	F	F			
Engaging providers whose patients were likely to benefit from RETAIN services and their clinical support staff helped to increase referrals to RETAINWOR*KS*.	F				F
RETAINWOR*KS* reduced the documentation required for people to enroll, no longer requiring a physical Social Security card, which simplified the enrollment process.					F
Collecting signatures electronically made it easier to collect informed consent from interested people.					F

Note: F indicates a facilitator to implementation or service delivery, and B indicates a barrier.

EMR = electronic medical record; RETAIN = Retaining Employment and Talent After Injury/Illness Network; RETAINWOR*KS* = Kansas RETAIN; RTW = return to work.

Exhibit A.4. RETAINWOR*KS* monthly enrollment outcomes through June 2023



Source: RETAINWOR*KS* enrollment data through June 30, 2023.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

Exhibit A.5. RETAINWOR*KS* enrollment outcomes

Enrollment indicator	Value
Enrollment target	4,000
Number of treatment enrollees	189
Number of control enrollees	139
Percentage of total enrollment target met	8.0

Source: RETAINWOR*KS* enrollment data through June 30, 2023.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

Exhibit A.6. Demographic characteristics of RETAINWORK*KS* treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value of difference
Total number of enrollees	328	189	139		
Sex					**0.826**
Male	43.9	43.4	44.6	-1.2	
Female	56.1	56.6	55.4	1.2	
Chose not to specify	s	s	s	s	
Age					**0.044††**
18–29	18.6	19.0	18.0	1.1	
30–39	22.3	24.3	19.4	4.9	
40–44	12.2	11.6	12.9	-1.3	
45–49	12.2	12.2	12.2	-0.1	
50–54	14.3	15.3	12.9	2.4	
55–59	11.0	12.7	8.6	4.1	
60+	9.5	4.8	15.8	-11.1	
Mean (years)	42.7	42.1	43.6	-1.6	0.249
Race and ethnicity					**0.524**
Hispanic	11.3	12.2	10.1	2.1	
White, non-Hispanic	71.0	68.8	74.1	-5.3	
Black, non-Hispanic	11.3	11.1	11.5	-0.4	
Asian, non-Hispanic	s	s	s	s	
More than one race	2.1	3.2	s	s	
Other race, non-Hispanic	3.4	3.2	3.6	-0.4	
Preferred language					**0.392**
English	99.1	99.5	98.6	0.9	
Spanish	0.9	s	s	s	
Other	s	s	s	s	
Education					**0.865**
Less than a high school diploma	5.5	4.8	6.5	-1.7	
High school diploma, GED, or certificate of completion	45.7	45.0	46.8	-1.8	
Occupational certificate, license, or two-year college degree	32.0	33.3	30.2	3.1	
Four-year college degree or post-graduate degree	16.8	16.9	16.5	0.4	

Source: RETAINWORK*KS* enrollment data through June 30, 2023.

s = Suppressed estimate representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

RETAINWORK*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

Exhibit A.7. Illness or injury characteristics of RETAINWOR*KS* treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value of difference
Total number of enrollees	328	189	139		
Primary diagnosis based on ICD-10 codes					**0.191**
Musculoskeletal, back	21.6	18.0	26.6	-8.6	
Musculoskeletal, non-back [a]	50.9	50.8	51.1	-0.3	
Mental health	3.7	4.8	2.2	2.6	
Long COVID	s	s	s	S	
Other	23.5	25.9	20.1	5.8	
Missing	s	s	s	s	
New condition	62.5	63.0	61.9	1.1	0.841
Injury or illness as a result of accident	62.2	59.8	65.5	-5.7	0.296
Work-related injury or illness	41.5	36.5	48.2	-11.7**	0.034
Injury or illness as part of a workers' compensation claim	30.8	27.0	36.0	-9.0*	0.082
Time between injury or illness and enrollment					**0.370**
4 weeks or less	42.1	43.4	40.3	3.1	
5 to 12 weeks	46.3	46.0	46.8	-0.7	
13 to 24 weeks	6.4	4.8	8.6	-3.9	
More than 24 weeks	4.3	4.2	4.3	-0.1	
Missing	0.9	1.6	S	s	
Time between injury or illness and enrollment (days)[b]	54	51	58	-6	0.478

Source: RETAINWOR*KS* enrollment data through June 30, 2023.

Note: Classification of the ICD-10 codes into five primary diagnosis categories is described in Chapter II.

[a] Musculoskeletal, non-back includes conditions that affect the joints, bones, muscles, or multiple body areas or systems.

[b] A small percentage of enrollees enrolled before the date of injury. These enrollees were not included when calculating the average time between illness or injury and enrollment.

ICD = International Classification of Diseases; RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

s = We suppressed estimates representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

Exhibit A.8. Employment status and characteristics of RETAINWORK*S* treatment and control at enrollment (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value of difference
Total number of enrollees	328	189	139		
Recent work history					
Employment status					0.431
Not employed	17.4	16.9	18.0	-1.1	
Self-employed	1.8	2.6	s	s	
Employed	80.8	80.4	81.3	-0.9	
Time since last worked at enrollment					0.551
Working at enrollment	38.7	38.6	38.8	-0.2	
Last worked less than one week before	15.2	16.4	13.7	2.7	
Last worked one to four weeks before	17.7	19.0	15.8	3.2	
Last worked one to three months before	15.2	15.3	15.1	0.2	
Last worked more than three months before	13.1	10.6	16.5	-6.0	
Hours per week usually worked before injury or illness	41.2	40.9	41.7	-0.8	0.503
Tenure at most recent job					0.204
Less than six months	21.3	22.2	20.1	2.1	
Six months to one year	15.5	18.0	12.2	5.8	
One to two years	19.2	15.3	24.5	-9.1	
Two to five years	19.2	18.5	20.1	-1.6	
More than five years	24.4	25.9	22.3	3.6	
Occupational classification of pre-injury or illness job					0.437
Management, professional, or related [a]	20.4	23.3	16.5	6.7	
Service [b]	38.4	36.0	41.7	-5.7	
Sales and office [c]	7.0	5.8	8.6	-2.8	
Natural resources, construction, or maintenance[d]	9.1	10.1	7.9	2.1	
Production, transportation, or material moving	25.0	24.9	25.2	-0.3	
Missing	s	s	s	s	
Economic well-being					
Worked at a job that paid at least $1,000 per month in the past year	81.4	80.4	82.7	-2.3	0.596
Receipt of income other than earnings					
SSDI or SSI	s	s	s	s	
Veterans' benefits	3.0	3.7	2.2	1.5	0.423
Workers' compensation	7.6	6.9	8.6	-1.8	0.555
Employer-provided or other private disability insurance	8.2	7.9	8.6	-0.7	0.821
Other public programs	2.1	1.6	2.9	-1.3	0.426

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value of difference
Applied for or received SSDI or SSI in the past three years	6.1	5.8	6.5	-0.7	0.807

Source: RETAINWORK*KS* enrollment data through June 30, 2023.

[a] The occupational classification of management, professional, or related occupation includes the following job functions: management, business, and financial operations; computer and mathematical; architecture and engineering; life, physical, and social science; community and social service; legal; educational instruction and library; arts; design; entertainment, sports, and media occupations; healthcare practitioners; and technical.

[b] The occupational classification of service includes the following job functions: healthcare support; protective services; food preparation and serving related; building and grounds cleaning and maintenance; and personal care and service.

[c] The occupational classification of sales and office includes the following job functions: sales and related; office and administrative support.

[d] The occupational classification of natural resources, construction, or maintenance includes the following job functions: farming, forestry, and fishing; construction and extraction; installation, maintenance, and repair.

s = Suppressed estimates representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

RETAINWORK*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

Exhibit A.9. Facilitators and barriers to implementation and service delivery

	Medical provider services		RTW coordination services			Other RTW services	
Finding	**Medical provider training**	**Medical provider incentive for using occupational medicine best practices**	**Coordinating RTW services**	**Communicating among parties involved in enrollee RTW**	**Monitoring treatment enrollee progress**	**Supporting workplace-based interventions**	**Retraining or rehabilitating enrollees**
Characteristics of RETAINWOR*KS*							
The burden of completing the required training was a barrier for medical providers.	B	B					
Program leaders and staff perceived a range of benefits of RTW coordination services.			F				
Characteristics of individuals involved in RETAINWOR*KS*—program staff and medical providers							
Providers were motivated to meet the requirements to participate in RETAINWOR*KS* out of a desire to help their patients, rather than the financial incentives.		B/F					
Medical providers' limited capacity to complete work activity prescriptions delayed RTW coordinators' development of RTW plans.			B				
Staff providing RTW coordination services represented diverse backgrounds, which helped engage enrollees from communities that have been historically underserved.			F				
Workforce staff's experience with work accommodations helped them provide effective services.						F	

	Medical provider services		RTW coordination services			Other RTW services	
Finding	Medical provider training	Medical provider incentive for using occupational medicine best practices	Coordinating RTW services	Communicating among parties involved in enrollee RTW	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
Characteristics of organizations delivering RETAINWOR*KS*							
RTW coordinators built rapport and trust with potential enrollees from communities that have been historically underserved by encouraging the use of workforce services.			F				
Improved coordination between workforce and healthcare partners helped program staff communicate with employers to support work accommodations.				F		F	
Meetings including both workforce staff and RTW coordinators improved enrollee trust in services.			F			F	
Characteristics of the external environment							
Low unemployment rates and increased job opportunities in the state improved employer support of enrollees.						F	
Characteristics of individuals involved in RETAINWOR*KS*—treatment enrollees							
Some enrollees, especially those with a behavioral health diagnosis, did not permit RETAINWOR*KS* staff to speak with their employer for fear of stigma or retaliation.				B			
Enrollees were more interested in supportive services than retraining and rehabilitation services.						F	

	Medical provider services		RTW coordination services			Other RTW services	
Finding	**Medical provider training**	**Medical provider incentive for using occupational medicine best practices**	**Coordinating RTW services**	**Communicating among parties involved in enrollee RTW**	**Monitoring treatment enrollee progress**	**Supporting workplace-based interventions**	**Retraining or rehabilitating enrollees**
The six-month time frame for RETAIN enrollment was too short to effectively support enrollees who needed or wanted retraining services.							B
RETAINWOR*KS* implementation strategies							
Program leaders revised RETAIN documentation, hired staff with relevant expertise, and conducted staff trainings to better serve enrollees with behavioral health conditions.			F				

Note: F indicates a facilitator to implementation or service delivery, and B indicates a barrier.

RETAIN = Retaining Employment and Talent After Injury/Illness Network; RETAINWOR*KS* = Kansas RETAIN; RTW = return to work.

Exhibit A.10. RETAINWOR*KS* costs

- Total costs incurred by the program: $1,838,765.12
- Breakdown of the above total costs by:
  - Personnel or labor costs
    - Wages: $1,348,187.91
    - Fringe benefits: $286,304.97
  - Direct costs of providing services to enrollees and providers
    - Payments for supportive services for enrollees: $4,134.40
    - Incentive payments (number of enrollees x incentive per enrollee): $11,725.00
    - Payments on behalf of enrollees receiving services (e.g., contractor payments): $0.00
    - Incentive payments to providers (number of providers x incentive per provider): $12,925.00
  - Outreach costs to providers, patients, or employers (e.g. brochures): $32,890.00
  - Other direct costs not mentioned above: $4,187.50
  - Indirect costs (e.g., administrative costs and overhead costs): $138,410.34
- Average cost of providing services per treatment enrollee: $16,716 (including direct and indirect costs)[a]
- Economic costs that do not appear in the budget:
  - Volunteer hours: 0
  - Value of donated goods: $0.00
  - Leveraged resources: $0.00

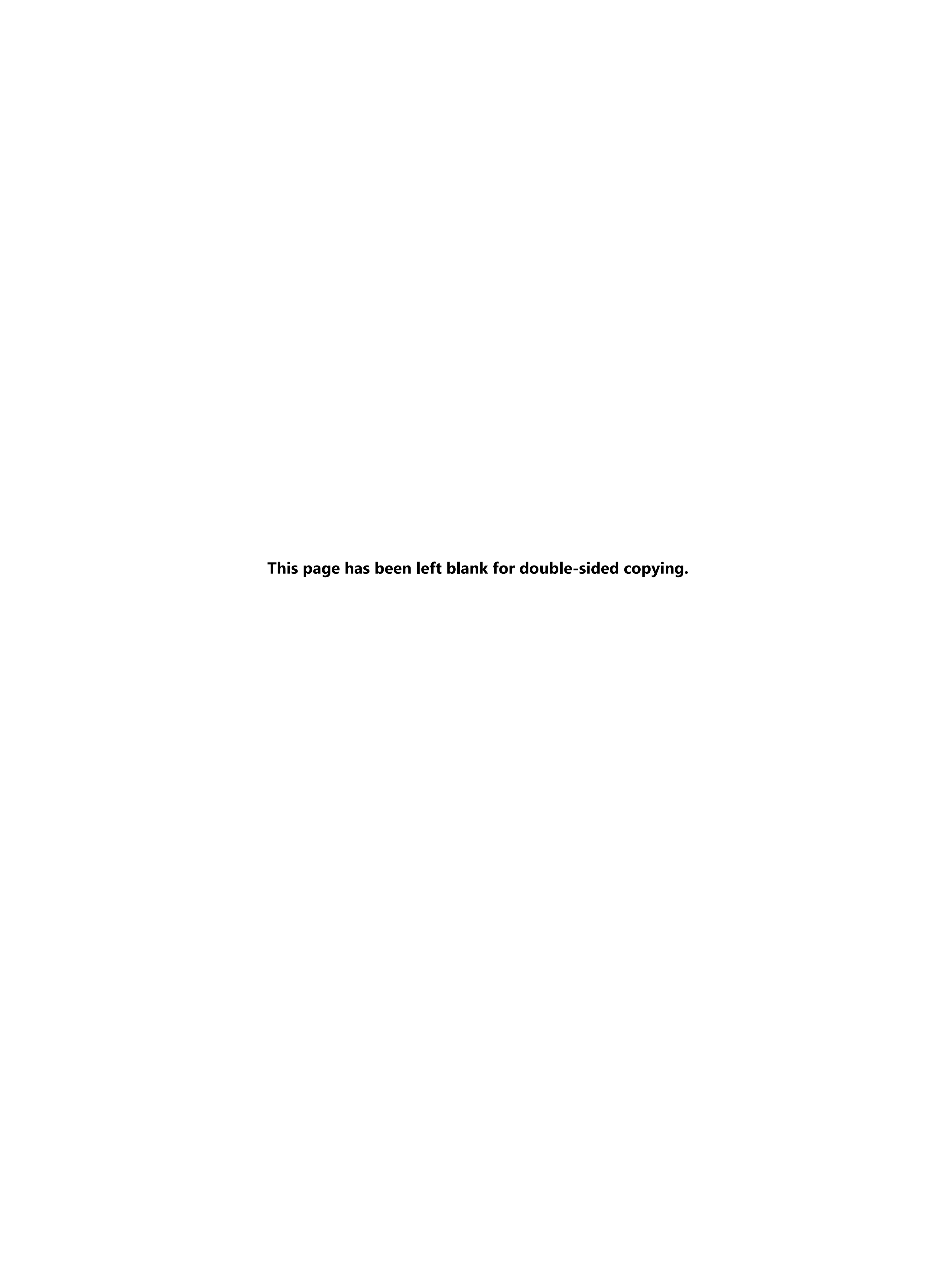
Source: Forms completed by RETAINWOR*KS* program staff.

Note: Costs for the period from May 17, 2021, to March 31, 2023.

[a] The average cost of providing services per treatment enrollee was calculated as the total costs incurred by the RETAINWOR*KS* program from May 17, 2021, through March 31, 2023, divided by the number of treatment enrollees as of March 31, 2023. Total costs incurred by the program include personnel or labor costs, direct costs of providing services to treatment enrollees and providers, and indirect costs.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

Appendix B.
Background Information and Supplemental Exhibits for Chapter IV



This page has been left blank for double-sided copying.

Exhibit B.1. RETAIN KY program partners

Partner entity	Role in RETAIN KY	Leadership team
Kentucky Department of Workforce Investment, Office of Vocational Rehabilitation (OVR)	Lead agency for RETAIN KY. Developed strategies and partnerships with medical providers, employers, and community resources. Responsible for expanding RETAIN KY services statewide. Referred clients for enrollment.	Yes
University of Kentucky (UK) HealthCare	Lead healthcare partner. Recruited patients and staff for enrollment.	Yes
University of Louisville	Lead healthcare partner. Recruited patients and staff for enrollment.	Yes
The University of Kentucky, Human Development Institute and UK HealthCare	Lead workforce partner. Trained medical providers, provided RETAIN KY services to treatment enrollees. Employed RTW coordinators, an assistive technology specialist, and peer mentors.	Yes
Council of State Governments	Supported project needs through technical assistance, project management, social media and marketing, and legislative outreach.	Yes
Local workforce development boards	Recruited employers and workers for referrals, reviewed employer training materials, and helped identify Inclusive Worker Health Leadership Network members.	Yes
Kentucky Workforce Innovation Board	Helped in marketing RETAIN KY to regional workforce development boards through presentations and networking opportunities.	Yes
Kentucky Hospital Association	Promoted awareness of RETAIN KY through training and presentation opportunities.	Yes
Kentucky Department for Public Health	Reviewed medical provider and employer training materials, supported recruitment of RETAIN enrollees.	Yes
Mental health consultant	Provided subject matter expertise in mental health and substance use disorders to inform the RETAIN KY intervention, provided relevant trainings and professional learning opportunities for RETAIN stakeholders.	Yes
Workforce development consultant	Recruited employers and workers for referrals, served as a subject matter expert for employer training materials.	Yes
Build Clinical	Referred potential enrollees through an online clinical research recruitment platform.	No
Kentucky Chamber of Commerce	Provided opportunities for employer trainings.	No
Unite Us	Community organization that recruited enrollees.	No
CHI St Joseph Medical Group	Healthcare partner who recruited and referred enrollees.	No
University of Louisville Health & Frazier Rehabilitation Institute	Healthcare partner who recruited and referred enrollees.	No
Norton Healthcare	Recruited patients identified in the healthcare system's electronic medical records (formal partnership pending).	No

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Exhibit B.2. RETAIN KY recruitment and enrollment process

Element of recruitment process	Description
Referral sources	• Office of Vocational Rehabilitation staff refer clients • Build Clinical's online platform prescreens and refers eligible people interested in participating in a research study. • University of Louisville Physical Medicine and Rehabilitation physicians group refers staff and patients using an electronic medical record (EMR) push-button referral. • UK HealthCare refers staff and patients using an EMR push-button referral. • Frazier Rehabilitation Institute refers staff and patients. • CHI Saint Joseph Medical Group refers staff and patients. • KY Workforce Innovation Board refers employers and workers. • Local workforce development boards refers employers and workers. • KY Chamber of Commerce refers employers and workers. • Unite Us, an online platform for referrals from community agencies, refers clients. • Employers refer workers. • People self-refer.
Recruitment	• Intake coordinator contacts potential enrollee within 24 hours of receiving the referral to confirm eligibility and introduce potential enrollee to the RETAIN program. • Potential enrollees found ineligible receive additional resources and a referral to the Office of Vocational Rehabilitation.
Enrollment	• Intake coordinator plays a 7-minute recording to obtain informed consent from potential enrollee. • Enrollee provides verbal consent to enroll, which the intake coordinator records in the case management data system (CMDS). The intake coordinator offers to send a copy of the consent document. • Enrollee completes RETAIN national evaluation baseline surveys 1 and 2.
Randomization	• Intake coordinator enters the information from part 1 of the RETAIN national evaluation baseline survey into Confirmit software. • Confirmit randomizes enrollee to either the treatment or control group. • Enrollee receives a $100 or $150 incentive payment for enrolling. • Intake coordinator identifies an RTW coordinator based on whether the enrollee is assigned to the treatment or control group.
Initial engagement in the program	• Treatment enrollee receives a packet of information electronically, including a consent form to release information to medical providers, employers, and others. The form includes a separate consent for each type of release. • Treatment enrollee selected and signed consents to release information, which allowed the RTW coordinator to communicate with other parties involved in the treatment enrollee's RTW plan.

Element of recruitment process	Description
Discharge from program	• RTW coordinator closes the treatment enrollee's case after six months or after the enrollee returns to work and the RTW plan is completed. RTW coordinators refer enrollees who need longer-term services to vocational rehabilitation. • RTW coordinator closes the control enrollee's case after two meetings over two weeks. • Treatment enrollee receives an additional $50 incentive if they complete their RTW plan and exit the program. No incentive is provided to treatment enrollees who do not complete their RTW plan before exiting the program or for control enrollees.

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Exhibit B.3. Facilitators and barriers to recruitment and enrollment

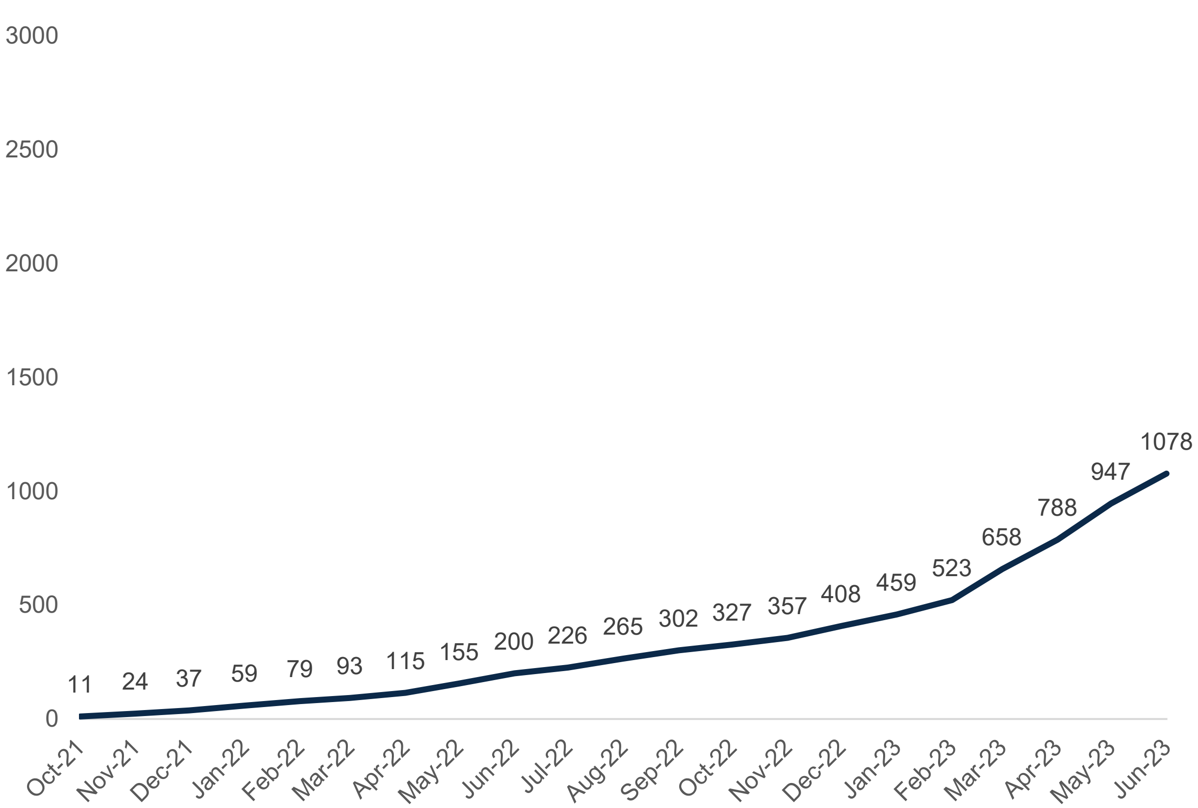
	Referral sources	Outreach strategies	Recruiting people from historically underserved communities	Eligibility criteria	Recruitment
Characteristics of RETAIN KY					
Intake telephone call was initially time consuming, but program staff took steps to streamline it					B
Characteristics of individuals involved in RETAIN KY—program staff and medical providers					
Medical providers' motivation to refer patients to RETAIN KY varied by medical specialty	B/F				
Program staff followed up with referred people quickly to capitalize on their initial interest in RETAIN.					F
Characteristics of organizations delivering RETAIN KY services					
Program staff automated the complex process for receiving and entering data on referred people					F
Characteristics of the external environment					
Program partners' and referral sources' connections to historically underserved communities helped recruit enrollees from these communities			F		
Program leaders' and staffs' extensive professional networks were helpful in identifying and reaching potential referral sources	F				
Program staff and partners' existing relationships with healthcare systems facilitated the implementation of a simplified process through which medical providers referred patients to RETAIN KY	F				
Characteristics of individuals involved in RETAIN KY—treatment enrollees					
Potential enrollees were more interested in RETAIN KY when they received a referral from a trusted source	F				
Some people who screened as eligible for RETAIN KY were not medically ready for work				B	
Program staff described challenges in reaching potential enrollees					B
Program staff said that some potential enrollees were not interested in RETAIN KY services or did not want to participate in a research study					B

	Referral sources	Outreach strategies	Recruiting people from historically underserved communities	Eligibility criteria	Recruitment
Some eligible people and enrollees were disappointed that RETAIN KY did not provide financial assistance					B
RETAIN KY implementation strategies					
RETAIN KY's partnership with an online clinical research recruitment platform generated a large increase in referrals	F				
Program staff hosted a virtual monthly employment seminar series that promoted awareness of RETAIN KY and reinforced SAW/RTW best practices among employers		F			
RETAIN KY liaisons and provider champions generated interest in RETAIN KY among patients and providers	F	F			
Cross-training existing staff and adding staff helped accommodate increased referrals					F
Recruitment and enrollment materials made available in multiple languages and interpreter services helped program staff recruit and serve diverse enrollees			F		
Program staff introduced incentives to encourage potential enrollees to enroll					F
Program leaders improved training and processes for OVR counselors, which increased their referrals to RETAIN KY	F				
Program leaders and staff said that reviewing enrollment data helped focus their outreach and motivated staff					F
RETAIN KY simplified the process for providers at partner healthcare systems to refer patients by adding a referral button to the EMR	F				

Note: F indicates a facilitator to implementation or service delivery, and B indicates a barrier.

EMR = electronic medical record; RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; SSI/SSDI = Social Security Insurance/Social Security Disability Insurance.

Exhibit B.4. RETAIN KY cumulative enrollment through June 2023



Source: RETAIN KY RETAIN enrollment data through June 30, 2023.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Exhibit B.5. RETAIN KY enrollment outcomes

Enrollment indicator	Outcome
Enrollment target	3200
Number of treatment enrollees	615
Number of control enrollees	463
Percentage of total enrollment target met	34

Source: RETAIN KY RETAIN enrollment data through June 30, 2023.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Exhibit B.6. Demographic characteristics of RETAIN KY treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	1078	615	463		
Sex					**0.683**
Male	44.3	44.9	43.6	1.2	
Female	55.7	55.1	56.4	-1.2	
Chose not to specify	s	s	s	s	
Age					**0.897**
18–29	19.9	20.8	18.6	2.2	
30–39	24.8	23.4	26.6	-3.2	
40–44	12.2	12.5	11.9	0.6	
45–49	11.3	11.4	11.2	0.2	
50–54	11.9	11.7	12.1	-0.4	
55–59	9.8	9.6	10.2	-0.6	
60+	10.1	10.6	9.5	1.1	
Mean (years)	42.1	42.0	42.2	-0.2	0.822
Race and ethnicity					**0.643**
Hispanic	4.3	5.0	3.2	1.8	
White, non-Hispanic	69.9	70.4	69.3	1.1	
Black, non-Hispanic	19.4	18.9	20.1	-1.2	
Asian, non-Hispanic	0.7	0.8	0.6	0.2	
More than one race	4.5	3.9	5.4	-1.5	
Other race, non-Hispanic	0.6	0.5	0.9	-0.4	
Missing	0.5	0.5	s	s	
Preferred language					**0.574**
English	98.8	98.9	98.7	0.2	
Spanish	0.4	0.5	s	s	
Other	0.8	0.7	1.1	-0.4	
Education					**0.880**
Less than a high school diploma	6.0	5.7	6.5	-0.8	
High school diploma, GED, or certificate of completion	50.5	50.7	50.1	0.6	
Occupational certificate, license, or two-year college degree	19.9	19.3	20.5	-1.2	
Four-year college degree or post-graduate degree	23.7	24.2	22.9	1.3	

Source: RETAIN KY enrollment data through June 30, 2023.

s = We suppressed estimates representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Exhibit B.7. Illness or injury characteristics of RETAIN KY treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	1,078	615	463		
Primary diagnosis based on ICD-10 codes					**0.417**
Musculoskeletal, back	8.9	9.6	8.0	1.6	
Musculoskeletal, non-back[a]	14.9	14.1	16.0	-1.8	
Mental health	29.7	30.4	28.7	1.7	
Long COVID	1.2	0.8	1.7	-0.9	
Other	45.1	44.7	45.6	-0.9	
Missing	s	s	s	s	
New condition	30.1	29.1	31.5	-2.4	0.390
Injury or illness as a result of accident	19.0	18.2	20.1	-1.9	0.438
Work-related injury or illness	7.5	7.8	7.1	0.7	0.677
Injury or illness as part of a workers' compensation claim	2.2	2.4	1.9	0.5	0.586
Time between injury or illness and enrollment					**0.393**
4 weeks or less	30.6	28.8	33.0	-4.3	
5 to 12 weeks	36.5	37.1	35.9	1.2	
13 to 24 weeks	10.2	10.1	10.4	-0.3	
More than 24 weeks	22.6	24.1	20.7	3.3	
Missing	s	s	s	s	
Time between injury or illness and enrollment (days) b	700	679 c	728	-49	0.734

Source: RETAIN KY enrollment data through June 30, 2023.

Note: Classification of the ICD-10 codes into five primary diagnosis categories are described in Chapter II.

[a] Musculoskeletal, non-back includes conditions that affect the joints, bones, muscles, or multiple body areas or systems.

[b] A small percentage of enrollees enrolled before the date of injury. These enrollees were not included when calculating the average time between illness or injury and enrollment.

[c] The median time between treatment enrollees' injury or illness and their enrollment into RETAIN was 50 days.

s = We suppressed estimates representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

ICD = International Classification of Diseases; RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Exhibit B.8. Employment status and characteristics of RETAIN KY treatment and control enrollees at enrollment (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	1078	615	463		
Recent work history					
Employment status					0.934
Not employed	32.5	32.5	32.4	0.1	
Self-employed	4.4	4.6	4.1	0.4	
Employed	63.2	62.9	63.5	-0.6	
Time since last worked at enrollment					0.935
Working at enrollment	21.6	22.4	20.5	1.9	
Last worked less than one week before	20.6	20.0	21.4	-1.4	
Last worked one to four weeks before	17.9	17.7	18.1	-0.4	
Last worked one to three months before	21.4	21.1	21.8	-0.7	
Last worked more than three months before	18.5	18.7	18.1	0.6	
Hours per week usually worked before injury or illness	37.9	37.7	38.1	-0.4	0.551
Tenure at most recent job					0.562
Less than six months	31.6	30.9	32.6	-1.7	
Six months to one year	14.8	15.1	14.5	0.7	
One to two years	11.9	13.2	10.2	3.0	
Two to five years	17.6	16.7	18.8	-2.0	
More than five years	24.0	24.1	24.0	0.1	
Occupational classification of pre-injury or illness job					0.747
Management, professional, or related[a]	28.4	28.0	28.9	-1.0	
Service[b]	36.2	35.8	36.7	-0.9	
Sales and office[c]	6.3	5.9	6.9	-1.1	
Natural resources, construction, or maintenance[d]	5.8	5.7	6.0	-0.4	
Production, transportation, or material moving	23.3	24.7	21.4	3.3	
Missing	s	s	s	s	
Economic well-being					
Worked at a job that paid at least $1,000 per month in the past year	81.8	81.5	82.3	-0.8	0.728
Receipt of income other than earnings:					
SSDI or SSI	1.9	1.6	2.2	-0.5	0.521
Veterans' benefits	2.2	1.8	2.8	-1.0	0.262
Workers' compensation	s	s	s	s	
Employer-provided or other private disability insurance	7.1	8.0	6.0	1.9	0.226
Other public programs	4.0	4.2	3.7	0.6	0.645
Applied for or received SSDI or SSI in the past three years	4.0	4.1	3.9	0.2	0.883

Source: RETAIN KY enrollment data through June 30, 2023.

[a] The occupational classification of management, professional, or related occupation includes the following job functions: management, business, and financial operations; computer and mathematical; architecture and engineering; life, physical, and social science; community and social service; legal; educational instruction and library; arts; design; entertainment, sports, and media occupations; healthcare practitioners; and technical.

[b] The occupational classification of service includes the following job functions: healthcare support; protective services; food preparation and serving related; building and grounds cleaning and maintenance; and personal care and service.

[c] The occupational classification of sales and office includes the following job functions: sales and related; office and administrative support.

[d] The occupational classification of natural resources, construction, or maintenance includes the following job functions: farming, forestry, and fishing; construction and extraction; installation, maintenance, and repair.

s = Suppressed estimates representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

Exhibit B.9. Facilitators and barriers to implementation and service delivery

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives	Coordinating RTW services	Communicating among parties involved in enrollee RTW	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
Characteristics of RETAIN KY							
Program leaders and staff perceived a range of benefits of RTW coordination services			F				
Program staff found it helpful to communicate with an enrollees' medical provider and access their medical records				F			
The assistive technology specialist recommended feasible accommodations and trained employers on accessible work environments						F	
Peer mentors recognized barriers treatment enrollees faced in returning to work and understood how to support them							F
Characteristics of individuals involved in RETAIN KY—program staff and medical providers							
Medical providers were motivated by CME credits more so than financial incentives	F						
RTW coordinators' diverse backgrounds and skills facilitated their ability to meet enrollees' various needs and support each other			F				F
RTW coordinators' commitment to building trust with enrollees empowered enrollees			F				

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives	Coordinating RTW services	Communicating among parties involved in enrollee RTW	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
Medical providers did not share enrollee information with RTW coordinators				B			
Characteristics of organizations delivering RETAIN KY services							
RTW coordinators had tools and processes that facilitated documenting and monitoring in the information system			F	F	F	F	
Characteristics of the external environment							
Strengthening communication with employment service providers facilitated coordinated referrals							F
RTW coordinators referrals to community social services providers sometimes did not result in services for enrollees			B				
Characteristics of individuals involved in RETAIN KY—treatment enrollees							
Enrollees' social needs were difficult to address and distracted them from engaging in services			B				
Enrollees' mental health conditions were a barrier to their taking steps to return to work			B				
Enrollees were not motivated to return to work due to limited employment opportunities or job dissatisfaction			B				
Enrollees willingness to grant RTW coordinators permission to communicate with their medical				F/B			B

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives	Coordinating RTW services	Communicating among parties involved in enrollee RTW	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
provider, employer, or other service providers							
Connecting enrollees with a peer mentor facilitated their engagement in returning to work							F
RETAIN KY implementation strategies							
Program partners pursued CME accreditation to incentivize medical providers to complete the RETAIN KY training. However, pursuing CME accreditation was a lengthy process	F/B						
RTW coordinators received intensive and ongoing training			F				
Weekly case meetings provided opportunities for RTW coordinators to seek advice			F				
A resource on work accommodations facilitated RTW coordinator communications with employers				F		F	

Note: F indicates a facilitator to implementation or service delivery, and B indicates a barrier.

CME = continuing medical education; RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Exhibit B.10. RETAIN KY costs

- Total costs incurred by your program: $6,179,274.50
- Breakdown of the above total costs by:
  - Personnel or labor costs
    - Wages: $61,695.77
    - Fringe benefits: $60,053.96
  - Direct costs of providing services to enrollees and providers
    - Incentive payments (number of enrollees x incentive per enrollee): $0.00
    - Payments on behalf of enrollees receiving services (e.g., contractor payments): $6,042,172.91
    - Incentive payments to providers (number of providers x incentive per provider): $0.00
    - Indirect costs (e.g., administrative costs and overhead costs): $15,351.86
- Average cost of providing services per treatment enrollee: $15,525 (including direct and indirect costs)[a]
- Economic costs that do not appear in the budget:
  - Volunteer hours: 0
  - Value of donated goods: $0.00
  - Leveraged resources: $0.00 ◢

Source: Forms completed by RETAIN KY program staff

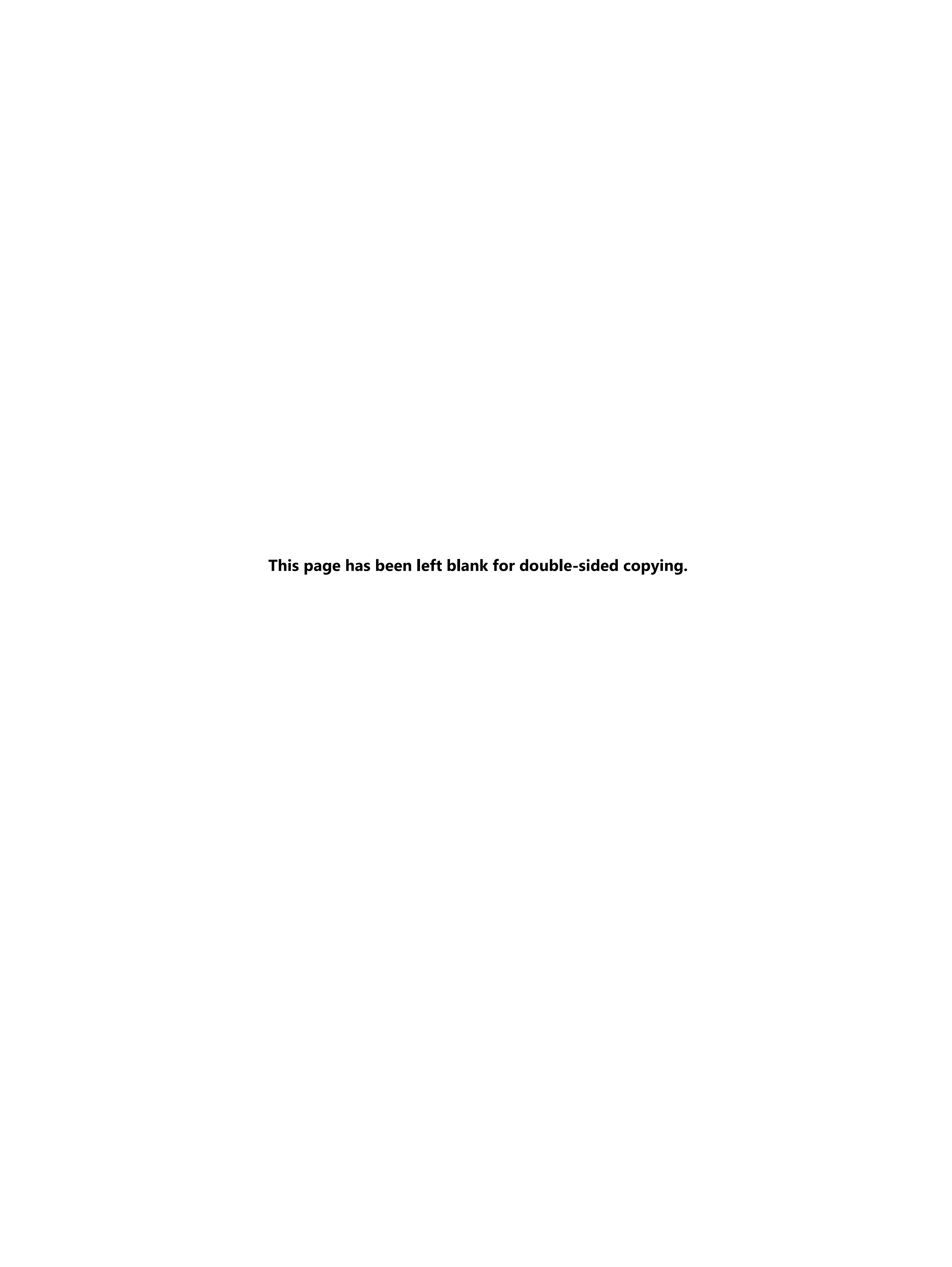
Note: Costs for the period from May 17, 2021, to March 31, 2023.

[a] The average cost of providing services per treatment enrollee was calculated as the total costs incurred by the RETAIN KY program from May 17, 2021, through March 31, 2023, divided by the number of treatment enrollees as of March 31, 2023. Total costs incurred by the program include personnel or labor costs, direct costs of providing services to treatment enrollees and providers, and indirect costs.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Appendix C.

Background Information and Supplemental Exhibits for Chapter V



This page has been left blank for double-sided copying.

Exhibit C.1. MN RETAIN program partners

Partner entity	Role in MN RETAIN	Leadership team
Department of Employment and Economic Development	Lead agency for MN RETAIN. Oversaw data collection and reporting, coordinated partners, managed continuous quality improvement efforts, and led the recruitment of employers and enrollees from communities that have been historically underserved across the state.	Yes
Mayo Clinic	Lead healthcare partner. Provided expertise in occupational medicine and oversight of (1) recruiting, engaging, and training medical providers; (2) recruiting, training, and overseeing RTW coordinators; and (3) screening, recruiting, and enrolling eligible people.	Yes
Workforce Development, Inc.	Lead workforce partner. Provided employment services and financial support to treatment enrollees.	Yes
Crest View Senior Care	Employer champion. Made the program a visible resource for employees.	Yes
Minnesota Department of Health	Provided statewide occupational medicine data to support MN RETAIN.	Yes
Minnesota Department of Labor and Industry	Provided guidance to ensure that MN RETAIN did not impede workers' compensation law.	Yes
Fulcrum Healthcare Network	Subrecipient healthcare partner that recruited and referred enrollees.	No
HealthPartners TRIA	Subrecipient healthcare partner that recruited and referred enrollees.	No
Rochester Clinic	Subrecipient healthcare partner that recruited and referred enrollees.	No
NovaCare	Subrecipient healthcare partner that recruited and referred enrollees.	No

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Exhibit C.2. MN RETAIN recruitment and enrollment process

Element of recruitment process	Description
Referral sources	• Mayo Clinic recruitment staff review a social determinants of health report and an orthopedics report in the EMR to identify patients who may be potentially eligible for MN RETAIN. • Mayo Clinic recruitment staff review a social determinants of health report and an orthopedics report in the EMR to identify patients who may be potentially eligible for MN RETAIN. • After sending mass emails inviting Mayo Clinic patients to complete a survey with work-related questions, Mayo Clinic recruitment staff contact patients who complete the survey and are potentially eligible. • Medical provider refers patient. • Employer refers workers. • Person self-refers.
Recruitment	• Recruitment staff reaches out to the potentially enrollee to confirm eligibility, introduce the RETAIN program, and determine interest in the program.
Enrollment	• Recruitment staff obtain informed consent from enrollee and coordinates completion of the MN RETAIN application and all necessary forms, including the baseline survey. • Recruitment staff provide the enrollee with a $100 incentive upon the completion of enrollment.
Randomization	• Recruitment staff enter the required information from part 1 of the RETAIN national evaluation baseline survey into Confirmit. • The Confirmit software randomizes enrollees to either the treatment or control group. • Recruitment staff provides control enrollee with a list of resources to help them return to work and tells them they can access the resources independently. The control enrollees do not receive any further support from MN RETAIN. • Recruitment staff provide a warm handoff to introduce treatment enrollees to the RTW coordinator.
Initial engagement in the program	• RTW coordinator notifies the treatment enrollee's medical provider through the EMR that their patient enrolled in the MN RETAIN study. • During the initial call, the RTW coordinator engages with the treatment enrollee to develop an individualized employment plan and RTW or SAW plan.
Discharge from program	• RTW coordinator works with the treatment enrollee until they return to work without restrictions, return to work with permanent restrictions, or meet the criteria for completing the program. RTW coordinator does not work with the treatment enrollee for more than six months. • RTW coordinator provides the treatment enrollee with a $100 study completion payment at the conclusion of their enrollment in MN RETAIN.

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

EMR = electronic medical record; MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; SAW = stay at work.

Exhibit C.3. Facilitators and barriers to recruitment and enrollment

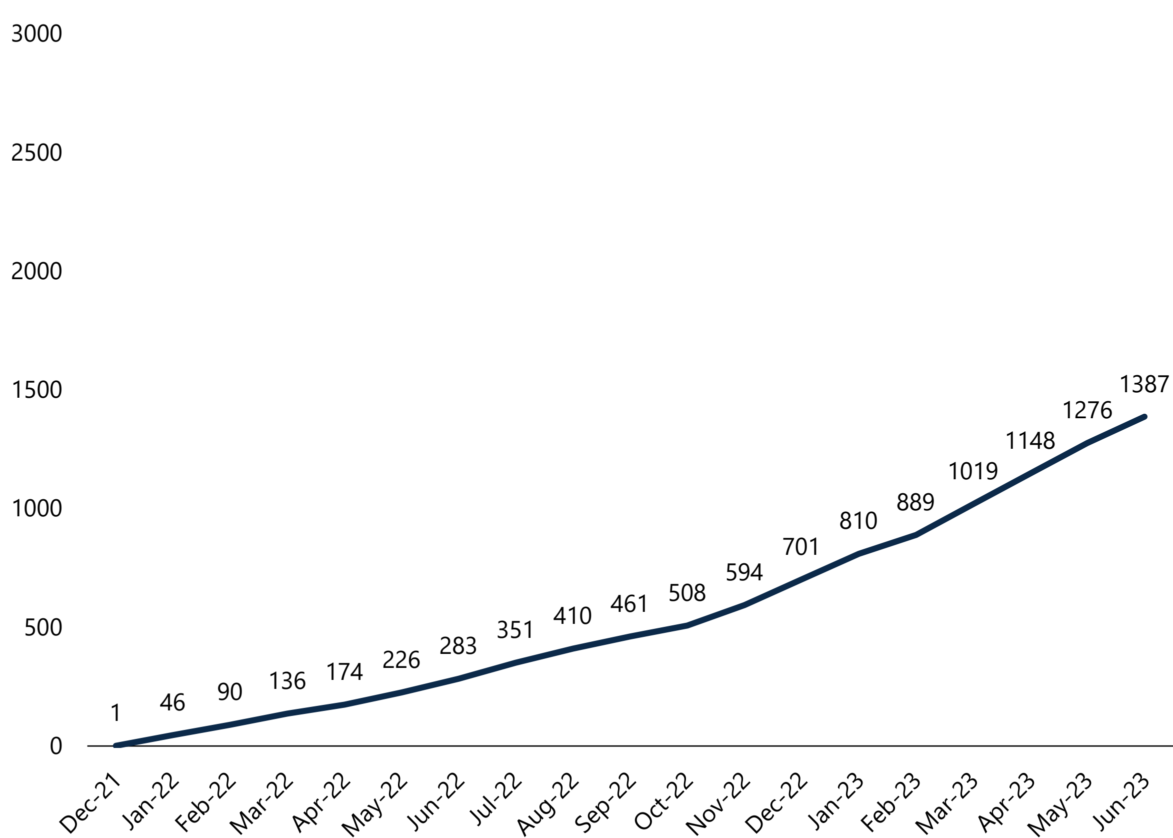
	Referral sources	Outreach strategies	Recruiting people from historically underserved communities	Eligibility criteria	Recruitment
Characteristics of MN RETAIN					
Outreach efforts were time-intensive for MN RETAIN staff, which led to challenges when staff had limited capacity or when there was turnover among outreach staff.		B			
The program eligibility criteria excluded people who had been out of the workforce for more than three months but could have benefitted from MN RETAIN.				B	
Some potential enrollees were not interested in MN RETAIN services or were hesitant to enroll due to the possibility of being randomized to the control group.					B
Characteristics of individuals involved in MN RETAIN – program staff and medical providers					
Referrals from medical providers increased as they gained awareness of and appreciation for MN RETAIN.	F				
Recruitment staff members' professional backgrounds and experience working on MN RETAIN helped them communicate effectively with potential enrollees.					F
Characteristics of organizations delivering MN RETAIN services					
The lead healthcare partner's EMR was the greatest source of referrals for MN RETAIN.	F				
Having outreach staff of similar racial and ethnic backgrounds to the communities where they were conducting outreach was helpful in building trust.			F		
Characteristics of the external environment					
Most employers did not see the value of engaging with MN RETAIN for various reasons.		B			
Building trust in MN RETAIN among communities that have been historically underserved took significant time and investment.			B		
Characteristics of individuals involved in MN RETAIN - treatment enrollees					
Some potential enrollees did not attend their scheduled enrollment meetings.					B
Enrollees appreciated the flexible enrollment meeting formats offered by recruitment staff.					F

	Referral sources	Outreach strategies	Recruiting people from historically underserved communities	Eligibility criteria	Recruitment
MN RETAIN implementation strategies					
Medical provider champions of MN RETAIN were integral to increasing provider referrals.	F				
MN RETAIN referrals generated through employer outreach, social media, and community outreach remained low.	B				

Note: F indicates a facilitator to implementation or service delivery, and B indicates a barrier.

EMR = electronic medical record; MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

Exhibit C.4. MN RETAIN cumulative enrollment through June 2023



Source: MN RETAIN enrollment data through June 30, 2023.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

Exhibit C.5. MN RETAIN enrollment outcomes

Enrollment indicator	Outcome
Enrollment target	3,200
Number of treatment enrollees	691
Number of control enrollees	696
Percentage of total enrollment target met	43%

Source: MN RETAIN enrollment data through June 30, 2023.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

Exhibit C.6. Demographic characteristics of MN RETAIN treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value of difference
Total number of enrollees	1387	691	696		
Sex					**0.952**
Male	44.0	43.6	44.4	-0.8	
Female	55.4	55.9	55.0	0.8	
Chose not to specify	0.6	0.6	0.6	0.0	
Age					**0.614**
18–29	17.2	16.2	18.1	-1.9	
30–39	21.1	22.4	19.7	2.7	
40–44	13.6	12.7	14.4	-1.6	
45–49	11.4	11.9	10.9	0.9	
50–54	13.5	14.2	12.8	1.4	
55–59	12.5	12.6	12.4	0.2	
60+	10.9	10.0	11.8	-1.8	
Mean (years)	43.4	43.3	43.4	-0.1	0.901
Race and ethnicity					**0.457**
Hispanic	7.9	7.2	8.6	-1.4	
White, non-Hispanic	80.0	80.0	79.9	0.1	
Black, non-Hispanic	5.6	6.5	4.7	1.8	
Asian, non-Hispanic	1.7	1.2	2.3	-1.1	
More than one race	2.6	2.7	2.4	0.3	
Other race, non-Hispanic	1.6	1.7	1.4	0.3	
Missing	0.6	0.6	0.6	0.0	
Preferred language					**0.694**
English	96.9	96.5	97.3	-0.7	
Spanish	1.2	1.3	1.1	0.2	
Other	1.9	2.2	1.6	0.6	
Education					**0.399**
Less than a high school diploma	2.6	3.2	2.0	1.2	
High school diploma, GED, or certificate of completion	37.1	35.7	38.4	-2.6	
Occupational certificate, license, or two-year college degree	28.8	29.8	27.9	1.9	
Four-year college degree or post-graduate degree	31.5	31.3	31.8	-0.5	

Source: MN RETAIN enrollment data through June 30, 2023.

s = We suppressed estimates representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

MN RETAIN = Minnesota Retaining Employment and Talent after Injury/Illness Network.

Exhibit C.7. Illness or injury characteristics of MN RETAIN treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value of difference
Total number of enrollees	**1,387**	**691**	**696**		
Primary diagnosis based on ICD-10 codes					**0.233**
Musculoskeletal, back	11.0	12.6	9.3	3.3	
Musculoskeletal, non-back [a]	49.3	49.2	49.4	-0.2	
Mental health	5.8	5.2	6.5	-1.3	
Long COVID	3.4	3.8	3.0	0.7	
Other	30.5	29.2	31.8	-2.5	
Missing	s	s	s	s	
New condition	52.7	52.4	53.0	-0.6	0.815
Injury or illness as a result of accident	39.2	39.8	38.6	1.1	0.662
Work-related injury or illness	13.9	14.6	13.2	1.4	0.452
Injury or illness as part of a workers' compensation claim	5.8	6.4	5.2	1.2	0.340
Time between injury or illness and enrollment					**0.953**
4 weeks or less	47.0	47.9	46.1	1.8	
5 to 12 weeks	28.6	27.9	29.3	-1.4	
13 to 24 weeks	12.0	11.6	12.4	-0.8	
More than 24 weeks	1.4	1.4	1.4	0.0	
Missing	11.0	11.1	10.8	0.4	
Time between injury or illness and enrollment (days) [b]	41	41	42	0	0.896

Source: MN RETAIN enrollment data through June 30, 2023.

Note: We describe our classification of the ICD-10 codes into five primary diagnosis categories in Chapter II.

[a] Musculoskeletal, non-back includes conditions that affect the joints, bones, muscles, or multiple body areas or systems.

[b] A small percentage of enrollees had enrollment dates occurring before the date of injury. We excluded these enrollees when calculating the average time between illness or injury and enrollment.

S = We suppressed estimates representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

ICD = International Classification of Diseases; MN RETAIN = Minnesota Retaining Employment and Talent after Injury/Illness Network.

Exhibit C.8. Employment status and characteristics of MN RETAIN treatment and control enrollees at enrollment (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value of difference
Total number of enrollees	**1387**	**691**	**696**		
Recent work history					
Employment status					0.686
Not employed	7.2	7.1	7.3	-0.2	
Self-employed	6.5	5.9	7.0	-1.1	
Employed	86.3	87.0	85.6	1.3	
Time since last worked					0.887
Working at enrollment	21.8	21.9	21.7	0.2	
Last worked less than one week ago	14.0	14.2	13.8	0.4	
Last worked one to four weeks ago	34.5	35.0	33.9	1.1	
Last worked one to three months ago	24.4	23.3	25.6	-2.3	
Last worked more than three months ago	5.3	5.6	5.0	0.6	
Hours per week usually worked before injury or illness	39.5	39.5	39.5	0.1	0.923
Tenure at most recent job					0.219
Less than six months	15.9	17.5	14.2	3.3	
Six months to one year	13.5	13.2	13.8	-0.6	
One to two years	14.1	14.3	13.8	0.5	
Two to five years	19.5	17.4	21.6	-4.2	
More than five years	37.1	37.6	36.6	1.0	
Occupational classification of pre-injury or illness job					0.269
Management, professional, or related [a]	38.2	37.3	39.1	-1.7	
Service [b]	28.8	30.5	27.2	3.4	
Sales and office [c]	7.7	6.7	8.8	-2.1	
Natural resources, construction, or maintenance [d]	9.9	10.9	9.1	1.8	
Production, transportation, or material moving	15.3	14.6	15.9	-1.3	
Missing	s	s	s	s	
Economic well-being					
Worked at a job that paid at least $1,000 per month in the past year [e]	84.9	85.7	84.2	1.5	0.442
Receipt of income other than earnings:					
SSDI or SSI	s	s	s	s	
Veterans' benefits	0.9	0.9	0.9	0.0	0.990
Workers' compensation	0.7	0.9	0.6	0.3	0.519
Employer-provided or other private disability insurance	4.5	3.8	5.2	-1.4	0.204
Other public programs	8.9	8.4	9.5	-1.1	0.478

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value of difference
Applied for or received SSDI or SSI in the past three years	1.4	1.3	1.4	-0.1	0.830

Source: MN RETAIN enrollment data through June 30, 2023.

[a] The occupational classification of management, professional, or related occupation includes the following job functions: management, business, and financial operations; computer and mathematical; architecture and engineering; life, physical, and social science; community and social service; legal; educational instruction and library; arts; design; entertainment, sports, and media occupations; healthcare practitioners; and technical.

[b] The occupational classification of service includes the following job functions: healthcare support; protective services; food preparation and serving related; building and grounds cleaning and maintenance occupations; and personal care and service.

[c] The occupational classification of sales and office includes the following job functions: sales and related; office and administrative support.

[d] The occupational classification of natural resources, construction, or maintenance includes the following job functions: farming, forestry, and fishing; construction and extraction; installation, maintenance, and repair.

S = We suppressed estimates representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

MN RETAIN = Minnesota Retaining Employment and Talent after Injury/Illness Network; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

Exhibit C.9. Facilitators and barriers to implementation and service delivery

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives for using occupational medicine best practices	Coordinating RTW services	Communicating among parties involved in enrollee return to work	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
Characteristics of MN RETAIN							
Decreasing the time it took medical providers to complete the MN RETAIN training facilitated training completion.	F						
The six-month enrollment period was too short to deliver the full range of RTW coordination and retraining services to some enrollees.			B				B
RTW coordinators coached treatment enrollees to communicate with their medical providers and employers about work accommodations.						F	
Program staff confusion around eligibility requirements for financial support services resulted in inconsistent communication to referred enrollees about these services.							B
Characteristics of individuals involved in MN RETAIN – program staff and medical providers							
Medical providers' increased recognition of the value of the RTW coordinator role, trust in RTW coordinators, and awareness of MN RETAIN				F			

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives for using occupational medicine best practices	Coordinating RTW services	Communicating among parties involved in enrollee return to work	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
improved their communication with RTW coordinators.							
Medical providers had limited time available to complete the MN RETAIN training.	B						
Medical providers received several CME training invitation emails daily and prioritized training required by their employing healthcare organization.	B						
Medical providers were not incentivized by financial reimbursement to complete the MN RETAIN training.	B						
RTW coordinators' range of professional backgrounds helped them meet enrollees' diverse needs.			F				
Employment counselors were adept at helping enrollees understand potential career opportunities and in providing them with moral support in some cases; in others, they did not sufficiently individualize employment services.							B/F
Characteristics of organizations delivering MN RETAIN services							
Warm handoffs between recruitment staff and RTW			F				

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	**Medical provider incentives for using occupational medicine best practices**	**Coordinating RTW services**	**Communicating among parties involved in enrollee return to work**	**Monitoring treatment enrollee progress**	**Supporting workplace-based interventions**	**Retraining or rehabilitating enrollees**
coordinators facilitated communication with enrollees.							
Providing cell phones to RTW coordinators facilitated communication with enrollees.			F				
Co-developing RTW plans with treatment enrollees provided an opportunity for RTW coordinators to understand an enrollee's health and social needs and establish realistic RTW goals.			F				
The lead healthcare partner's EMR facilitated communication between RTW coordinators and enrollee's medical providers.				F			
The EMR facilitated RTW coordinators' ability to track enrollees' medical appointments, clinical notes, and referrals for treatment or therapy.					F		
Increasing the number of employment counselors helped RTW coordinators' referrals to employment and financial support services go more smoothly.							F

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives for using occupational medicine best practices	Coordinating RTW services	Communicating among parties involved in enrollee return to work	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
Characteristics of the external environment							
Employers hesitated to communicate with RTW coordinators because they did not trust MN RETAIN and preferred to communicate directly with their employees about work accommodations.				B			
Many employers feared that enrollees returning to work with restrictions might become re-injured in the workplace and were not willing to risk this liability.						B	
Characteristics of individuals involved in MN RETAIN - treatment enrollees							
Enrollees declined to have RTW coordinators contact their employers, as enrollees were concerned that their employer would react negatively to the RTW coordinator's recommendations for work accommodations.				B		B	
Enrollees faced barriers to accessing services due to the status of their recovery.							B
Enrollees faced barriers to accessing services due to limited technological skills.							B

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives for using occupational medicine best practices	Coordinating RTW services	Communicating among parties involved in enrollee return to work	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
Enrollees did not provide the information employment counselors needed to support them.							B
Enrollees feared losing unemployment or short-term disability payments if they accepted transitional work opportunities.							B
MN RETAIN implementation strategies							
Receiving a training invitation email from the MN RETAIN provider champions helped get medical providers to complete the training.	F						
Holding in-person meetings to deliver the MN RETAIN medical provider training facilitated training completion.	F						
Training RTW coordinators on cultural competence helped them meet enrollees' diverse needs.			F				

Note: F indicates a facilitator to implementation or service delivery, and B indicates a barrier.

CME = continuing medical education; EMR = electronic medical record; MN RETAIN = Minnesota Retaining Employment and Talent after Injury/Illness Network; RTW = return to work.

Exhibit C.10. MN RETAIN costs

- Total costs incurred by your program: $5,471,591.09
- Breakdown of the above total costs by:
  - Personnel or labor costs
    - Wages: $2,143,431.98
    - Fringe benefits: $724,786.64
  - Direct costs of providing services to enrollees and providers
    - Incentive payments (number of enrollees x incentive per enrollee): $129,000.00
    - Payments on behalf of enrollees receiving services (e.g., contractor payments): $743,618.00
    - Incentive payments to providers (number of providers x incentive per provider): $9,500.00
  - Indirect costs (e.g., administrative costs and overhead costs): $1,721,254.47
- Average cost of providing services per treatment enrollee: $10,749 (including direct and indirect costs)[a]
- Economic costs that do not appear in the budget:
  - Volunteer hours: 0
  - Value of donated goods: $0.00
  - Leveraged resources: $0.00 ◢

Source: Forms completed by MN RETAIN program staff.

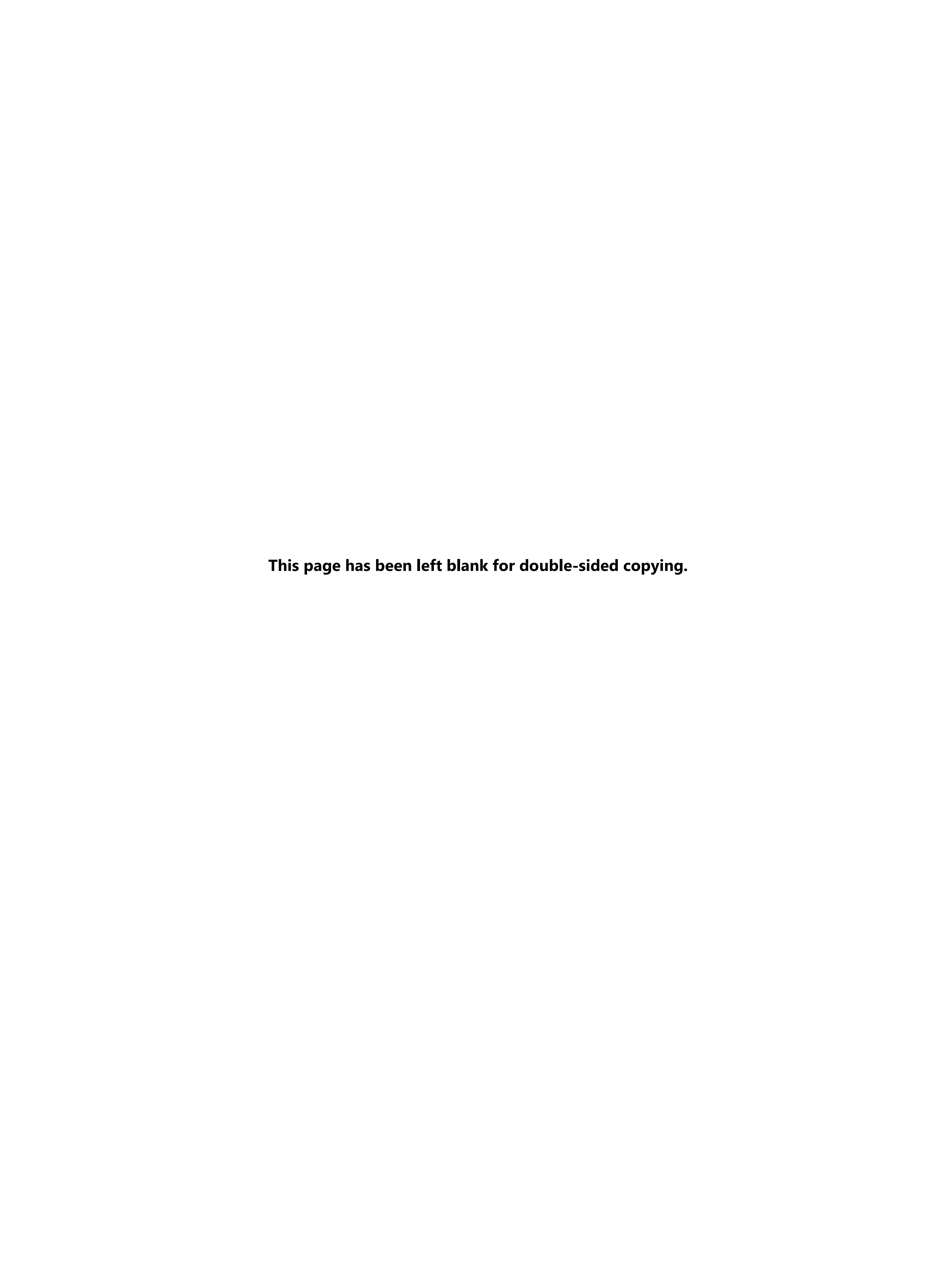
Note: Costs for the period from May 17, 2021, to March 31, 2023.

[a] The average cost of providing services per treatment enrollee was calculated as the total costs incurred by the MN RETAIN program from May 17, 2021, through March 31, 2023, divided by the number of treatment enrollees as of March 31, 2023. Total costs incurred by the program include personnel or labor costs, direct costs of providing services to treatment enrollees and providers, and indirect costs.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

Appendix D.

Background Information and Supplemental Exhibits for Chapter VI



This page has been left blank for double-sided copying.

Exhibit D.1. OH RETAIN program partners

Partner entity	Role in OH RETAIN	Leadership team
Ohio Department of Job and Family Services	Lead agency for OH RETAIN. Responsible for grant oversight, federal reporting, communications, and convening of the partners.	Yes
Bon Secours Mercy Health	Lead healthcare partner. Responsible for (1) identifying, recruiting, and enrolling participants; (2) employing RTW coordinators and social workers and coordinating SAW/RTW services; (3) recruiting and training medical providers; and (4) recruiting employers in coordination with the local workforce development boards.	Yes
Local Workforce Development Boards Areas 9, 12, 13, 17, and 18[a]	Lead workforce partners. Receive referrals of OH RETAIN treatment enrollees and provide local workforce development services through local OhioMeansJobs centers. Conduct outreach to employers in coordination with Mercy Health.	Yes
Opportunities for Ohioans with Disabilities	Lead workforce partner for VR services. Receives referrals of OH RETAIN treatment enrollees and provides VR services as appropriate and allowable. Provides technical assistance on policies and practices for employers of enrollees who need work accommodations.	Yes
Ohio Bureau of Workers' Compensation	Provides guidance on occupational health and safety, SAW/RTW strategies, and best practices.	Yes
Ohio Governor's Office of Workforce Transformation	Oversees coordination of OH RETAIN with other state agencies and programs; aligns with the administration's policy priorities; and provides a referral network of industry associations, employer groups, and businesses.	Yes
Ohio Department of Health	Oversees the Institutional Review Board that evaluates and approves OH RETAIN treatment protocols and consent form language.	Yes
Ohio Department of Medicaid	Consults on best practices and guidance for health interventions as requested.	No
Ohio Department of Mental Health and Addiction Services	Consults on improving employer and employee connections to Ohio's mental health and addiction services system and coordinating access to treatment and prevention resources.	No

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

[a] Ohio's Local Workforce Area 9 encompasses the Toledo region; Areas 12 and 13 encompass the Cincinnati region; and Areas 17 and 18 encompass the Youngstown region.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; SAW = stay at work; VR = vocational rehabilitation.

Exhibit D.2. OH RETAIN recruitment and enrollment process

Element of recruitment process	Description
Referral sources	• Mercy Health nurses review EMR reports to identify patients who meet initial eligibility criteria. • Medical provider refers patient. • Person self-refers. • Employer refers worker.
Recruitment	• Recruitment staff reach out to the potential enrollee to confirm eligibility, introduce the OH RETAIN program, and determine interest in the program. • If the potential enrollee is interested in participating in OH RETAIN, recruitment staff schedule an enrollment call and email OH RETAIN program and consent information to the patient.
Enrollment	• RTW coordinator calls potential enrollees to review OH RETAIN program and consent information. • RTW coordinator obtains consent from potential enrollees by having them sign the consent via DocuSign software or mail the signed consent forms to the OH RETAIN office. • RTW coordinator sends a welcome letter to enrollees with a copy of the signed forms upon receipt of consent forms. • Program administrator issues a $100 incentive payment (a Target gift card) to enrollees after completing the enrollment process.
Randomization	• RTW coordinator enters the required information from part 1 of the RETAIN national evaluation baseline survey and uploads the enrollee's consent form into Confirmit. • The Confirmit software randomizes enrollees to the treatment or control group. • RTW coordinator provides control enrollees with a packet of resources to help them return to work and tells them they can access the resources independently. Control enrollees do not receive any further support from OH RETAIN.
Initial engagement into the program	• During the enrollment call, the RTW coordinator establishes treatment goals with enrollees randomized to the treatment group. The RTW coordinator contacts the treatment enrollee's medical provider upon enrollment and the treatment enrollee's employer within three days to notify them of the person's enrollment in OH RETAIN.
Discharge from program	• OH RETAIN enrollment ends when a treatment enrollee returns to work without difficulty after completing six months of OH RETAIN services, or if an enrollee requests to end OH RETAIN services. Treatment enrollees who have not successfully returned to work after completing six months of OH RETAIN services are referred to local workforce development board for continuing workforce services.

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

EMR = electronic medical record; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Exhibit D.3. Facilitators and barriers to recruitment and enrollment

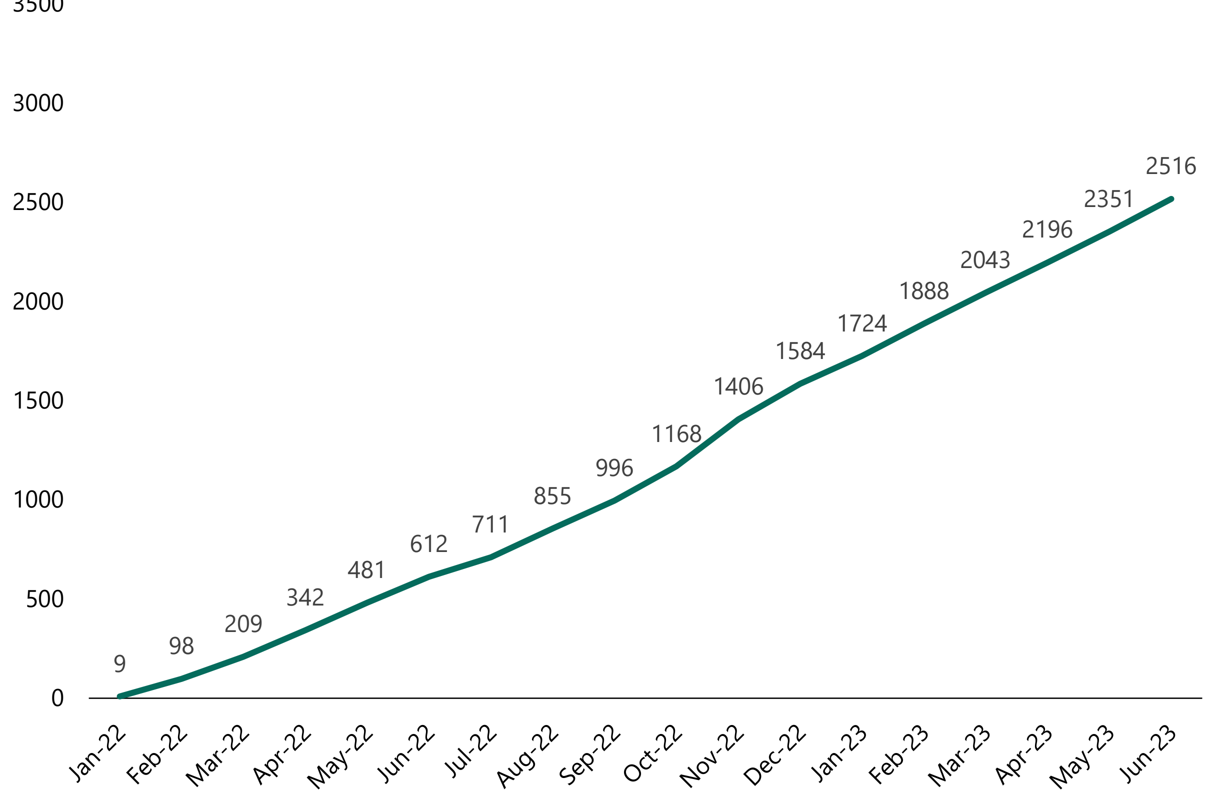
	Referral sources	Outreach strategies	Recruiting people from historically underserved communities	Eligibility criteria	Recruitment
Characteristics of OH RETAIN					
Recruitment and enrollment materials in multiple languages and interpreter services helped program staff recruit and serve enrollees with diverse language needs.			F		
OH RETAIN expanded eligibility criteria to include new conditions and diagnoses, which expanded the types of providers making referrals and the number of patients identified as eligible.				F	
The program's expanded eligibility criteria still excluded people who had been out of the workforce for more than three months or were older than 65 but could have benefitted from OH RETAIN.				B	
The addition of more informational resources improved potential enrollees' program understanding.					F
Modifying recruitment and enrollment scripts to include clear description and specific benefits of OH RETAIN strengthened its appeal to potential enrollees.					F
Characteristics of individuals involved in OH RETAIN—program staff and medical providers					
Recruitment staff's professional backgrounds and strong staff retention were critical to successful enrollment efforts.					F
Characteristics of organizations delivering OH RETAIN services					
The lead healthcare partner's EMR was the greatest source of referrals for OH RETAIN.	F				
Incomplete patient information in the EMR resulted in challenges in identifying potentially eligible patients.	B				
Characteristics of the external environment					
Most employers did not see the benefit of OH RETAIN for various reasons.		B			
Characteristics of individuals involved in OH RETAIN—treatment enrollees					
Potential enrollees' lack of responsiveness to OH RETAIN's initial outreach was the most significant barrier to enrollment					B

	Referral sources	Outreach strategies	Recruiting people from historically underserved communities	Eligibility criteria	Recruitment
OH RETAIN implementation strategies					
Adding providers to the Advisory Board increased provider interest in OH RETAIN.		F			
Monthly meetings with a community event organizer helped to identify supports for enrollees from communities that have been historically underserved.			F		
Finding from community events to promote OH RETAIN and getting people to enroll was challenging.			B		
Streamlined outreach to medical providers, including the initial OH RETAIN pitch and training on the referral process, increased provider engagement.		F			

Note: F indicates a facilitator to implementation or service delivery, and B indicates a barrier.

EMR = electronic medical record; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

Exhibit D.4. OH RETAIN monthly enrollment outcomes through June 2023



Source: OH RETAIN enrollment data through June 30, 2023.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

Exhibit D.5. OH RETAIN enrollment outcomes

Enrollment indicator	Outcome
Enrollment target	3,500
Number of treatment enrollees	1,258
Number of control enrollees	1,261
Percentage of total enrollment target met	72%

Source: OH RETAIN enrollment data through June 30, 2023 (representing 62 percent of the enrollment period).

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

Exhibit D.6. Demographic characteristics of OH RETAIN treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	**2516**	**1258**	**1261**		
Sex					**0.749**
Male	39.0	38.7	39.3	-0.6	
Female	61.0	61.3	60.7	0.6	
Chose not to specify	s	s	s	s	
Age					**0.244**
18–29	15.4	14.1	16.7	-2.5	
30–39	20.3	21.8	18.9	2.9	
40–44	12.7	12.7	12.6	0.1	
45–49	12.8	12.5	13.2	-0.7	
50–54	14.7	14.3	15.1	-0.8	
55–59	13.9	13.5	14.3	-0.8	
60+	10.2	11.0	9.3	1.8	
Mean (years)	44.0	44.2	43.8	0.4	0.469
Race and ethnicity					**0.850**
Hispanic	4.4	4.4	4.4	0.0	
White, non-Hispanic	76.4	76.4	76.4	0.0	
Black, non-Hispanic	16.9	16.5	17.2	-0.7	
Asian, non-Hispanic	0.4	0.4	0.5	-0.1	
More than one race	1.4	1.6	1.3	0.3	
Other race, non-Hispanic	0.4	0.6	0.2	0.3	
Missing	0.1	s	s	s	
Preferred language					**0.273**
English	99.6	99.8	99.4	0.4	
Spanish	0.4	0.2	0.6	-0.3	
Other	s	s	s	s	
Education					**0.192**
Less than a high school diploma	4.5	4.4	4.6	-0.2	
High school diploma, GED, or certificate of completion	40.7	42.2	39.1	3.1	
Occupational certificate, license, or two-year college degree	31.3	29.4	33.2	-3.8	
Four-year college degree or post-graduate degree	23.5	24.0	23.1	0.9	

Source: OH RETAIN enrollment data through June 30, 2023.

s = Suppressed estimate representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

Exhibit D.7. Illness or injury characteristics of OH RETAIN treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	2519	1258	1261		
Primary diagnosis based on ICD-10 codes [a]					**0.021††**
Musculoskeletal, back	9.3	9.3	9.4	-0.1	
Musculoskeletal, non-back [a]	73.5	71.5	75.4	-3.9	
Mental health	0.8	0.6	1.0	-0.4	
Long COVID	s	s	s	s	
Other	16.4	18.6	14.3	4.3	
Missing	s	s	s	s	
New condition	47.8	47.0	48.6	-1.6	0.412
Injury or illness as a result of accident	54.8	54.7	54.9	-0.2	0.925
Work-related injury or illness	3.2	2.8	3.6	-0.8	0.315
Injury or illness as part of a workers' compensation claim	s	s	s	s	
Time between injury or illness and enrollment					**0.806**
4 weeks or less	73.4	73.8	73.0	0.7	
5 to 12 weeks	24.7	24.4	24.9	-0.5	
13 to 24 weeks	1.5	1.5	1.4	0.1	
More than 24 weeks	0.3	s	0.4	s	
Missing	0.2	s	0.2	s	
Time between injury or illness and enrollment (days) [b]	24	24	24	-1	0.422

Source: OH RETAIN enrollment data through June 30, 2023.

Note: Classification of the ICD-10 codes into five primary diagnosis categories is described in Chapter II.

[a] Musculoskeletal, non-back includes conditions that affect the joints, bones, muscles, or multiple body areas or systems.

[b] A small percentage of enrollees enrolled before the date of injury. These enrollees were not included when calculating the average time between illness or injury and enrollment.

s = We suppressed estimates representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

ICD = International Classification of Diseases; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

Exhibit D.8. Employment status and characteristics of OH RETAIN treatment and control enrollees at enrollment (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	2519	1258	1261		
Recent work history					
Employment status					0.978
Not employed	13.2	13.0	13.3	-0.3	
Self-employed	2.7	2.7	2.7	0.0	
Employed	84.1	84.3	84.0	0.3	
Time since last worked at enrollment					0.781
Working at enrollment	28.2	28.4	28.1	0.3	
Last worked less than one week before	14.8	14.8	14.8	0.0	
Last worked one to four weeks before	33.9	34.7	33.1	1.7	
Last worked one to three months before	12.5	12.1	12.8	-0.8	
Last worked more than three months before	10.6	10.0	11.3	-1.2	
Hours per week usually worked before injury or illness	39.1	39.1	39.2	-0.1	0.834
Tenure at most recent job					0.457
Less than six months	16.4	15.9	16.9	-1.0	
Six months to one year	12.5	11.8	13.2	-1.5	
One to two years	13.0	14.0	12.0	2.0	
Two to five years	17.7	17.5	17.9	-0.4	
More than five years	40.4	40.9	40.0	0.9	
Occupational classification of pre-injury or illness job					0.271
Management, professional, or related [a]	25.3	23.7	27.0	-3.3	
Service [b]	38.1	39.4	36.7	2.7	
Sales and office [c]	9.7	10.2	9.2	1.0	
Natural resources, construction, or maintenance [d]	6.2	5.8	6.6	-0.8	
Production, transportation, or material moving	20.7	20.9	20.5	0.4	
Missing	s	s	s	s	
Economic well-being					
Worked at a job that paid at least $1,000 per month in the past year	81.5	81.1	81.8	-0.8	0.624
Receipt of income other than earnings:					
SSDI or SSI	s	s	s	s	
Veterans' benefits	0.9	0.7	1.0	-0.3	0.395
Workers' compensation	s	s	s	s	

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Employer-provided or other private disability insurance	25.2	25.6	24.9	0.7	0.688
Other public programs	0.4	0.6	0.3	0.2	0.363
Applied for or received SSDI or SSI in the past three years	0.7	0.5	0.9	-0.4	0.226

Source: OH RETAIN enrollment data through June 30, 2023.

[a] The occupational classification of management, professional, or related occupation includes the following job functions: management, business, and financial operations; computer and mathematical; architecture and engineering; life, physical, and social science; community and social service; legal; educational instruction and library; arts; design; entertainment, sports, and media occupations; healthcare practitioners; and technical.

[b] The occupational classification of service includes the following job functions: healthcare support; protective services; food preparation and serving related; building and grounds cleaning and maintenance; and personal care and service.

[c] The occupational classification of sales and office includes the following job functions: sales and related; office and administrative support.

[d] The occupational classification of natural resources, construction, or maintenance includes the following job functions: farming, forestry, and fishing; construction and extraction; installation, maintenance, and repair.

s = Suppressed estimates representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

Exhibit D.9. Facilitators and barriers to implementation and service delivery

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives	Coordinating RTW services	Communicating among parties involved in enrollee return to work	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
Characteristics of OH RETAIN							
RTW coordinators' encouragement of enrollees to be self-advocates increased enrollee program engagement.			F				
Program leaders and staff perceived a range of benefits of RTW coordination services in supporting treatment enrollees to return to work.			F				
Characteristics of individuals involved in OH RETAIN—program staff and medical providers							
Medical providers had limited time to complete medical provider training and perceived the training to take longer to complete than it actually did.	B						
Medical providers were not incentivized by financial reimbursement to complete the OH RETAIN training or use occupational medicine best practices.	B	B					
RTW coordinators' interpersonal skills and professional backgrounds helped to engage and support treatment enrollees.			F				
Characteristics of organizations delivering OH RETAIN services							
Employment counselors lacked the time and resources to appropriately evaluate enrollees' employment needs and physical limitations.						B	B

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives	Coordinating RTW services	Communicating among parties involved in enrollee return to work	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
Characteristics of the external environment							
RTW coordinators reported that communication with employers facilitated service provision.			F	F			
Program leaders said the state's low unemployment rate helped some enrollees consider jobs in new fields where they were relatively unqualified, while others' negative attitudes about working limited their pursuit of these programs.							B/F
Program staff offered employers supports such as ergonomic assessments regardless of whether the employer had an employee enrolled in RETAIN.						F	
Characteristics of individuals involved in OH RETAIN—treatment enrollees							
Treatment enrollees faced barriers accessing more intensive workforce services due to eligibility requirements and limited funding.							B
OH RETAIN implementation strategies							
Program staff's consistent follow-up with medical providers promoted training completions.	F						
Robust onboarding and training processes and educational materials prepared RTW coordinators well to deliver RTW coordination services.			F				

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives	Coordinating RTW services	Communicating among parties involved in enrollee return to work	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
Streamlining the process to approve the RTW plan improved communication between the RTW coordinator and providers.				F			
Social workers and social service funding helped to address treatment enrollees' health-related social needs.							F

Note: F indicates a facilitator to implementation or service delivery, and B indicates a barrier.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Exhibit D.10. OH RETAIN costs

- Total costs incurred by your program: $3,453,659.56
- Breakdown of the above total costs by:
  - Personnel or labor costs
    - Wages: $1,986,647.57
    - Fringe benefits: $401,119.16
  - Direct costs of providing services to enrollees and providers
    - Payments for supportive services for enrollees: $17,680.58
    - Incentive payments (number of enrollees x incentive per enrollee): $71,200.00
    - Payments on behalf of enrollees receiving services (e.g., contractor payments): $49,153.17
    - Incentive payments to providers (number of providers x incentive per provider): $92,400.00
  - Outreach costs to providers, patients, or employers (e.g. brochures): $186,371.35
  - Other direct costs not mentioned above: $226,487.50
  - Indirect costs (e.g., administrative costs and overhead costs): $440,280.81
- Average cost of providing services per treatment enrollee: $3,376 (including direct and indirect costs)[a]
- Economic costs that do not appear in the budget:
  - Volunteer hours: 0
  - Value of donated goods: $0.00
  - Leveraged resources: $0.00

Source: Forms completed by OH RETAIN program staff.

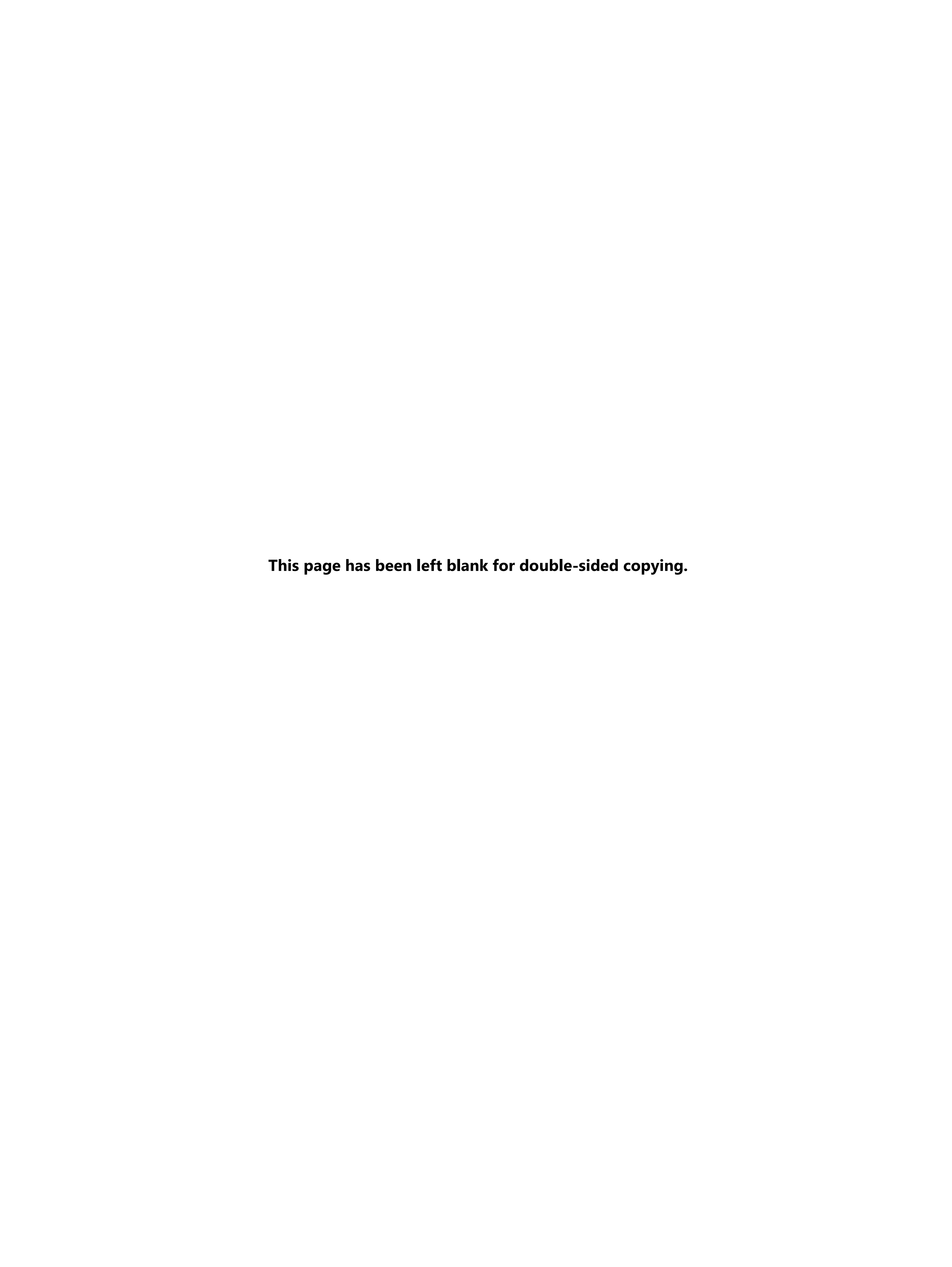
Note: Costs for the period from May 17, 2021, to March 31, 2023.

[a] The average cost of providing services per treatment enrollee was calculated as the total costs incurred by the OH RETAIN program from May 17, 2021, through March 31, 2023, divided by the number of treatment enrollees as of March 31, 2023. Total costs incurred by the program include personnel or labor costs, direct costs of providing services to treatment enrollees and providers, and indirect costs.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

Appendix E.

Background Information and Supplemental Exhibits for Chapter VII



This page has been left blank for double-sided copying.

Exhibit E.1. VT RETAIN program partners

Partner entity	Role in VT RETAIN	Leadership team
Vermont Department of Labor (VDOL)	Lead agency. Recipient of the cooperative agreement with the U.S. Department of Labor. Ran the operational center, which oversaw administration of the grant.	Yes
Dartmouth Health	Large medical center and subgrantee. Managed the clinical coordinating center. Recruited primary care practices into VT RETAIN. Provided oversight of (1) recruiting and enrolling eligible people and (2) recruiting, training, and supporting RTW coordinators who delivered VT RETAIN services.	Yes
Workforce Development Division of VDOL	Division within VDOL that planned to help integrate employment services into VT RETAIN. Housed employment counselors in Vermont's American Job Centers.	Yes
Haig Consulting, LLC	Subgrantee that managed the development center. Coordinated a sustainability planning group and operated a training and development program for employers, providers, and workers.	Yes
University of Pittsburgh	Subgrantee that managed the data coordinating center. Managed the evaluation data and reviewed program data to support continuous quality improvement.	Yes
OneCare Vermont	Vermont's sole accountable care organization, founded by the University of Vermont and Dartmouth-Hitchcock, facilitated recruitment of primary care practices.	Yes
HireAbility (Division of Vocational Rehabilitation)	Employment partner. Connected treatment enrollees to appropriate vocational rehabilitation services. Assisted in developing a mental health and substance use disorder recovery training and certification program for Vermont employers through InvestEAP. Helped develop behavioral health screening for treatment enrollees.	Yes

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.2. VT RETAIN recruitment and enrollment process

Element of recruitment process	Description
Referral sources	• People self-refer by completing a self-screener at a participating primary care practice or other sites throughout the state. • VT RETAIN encourages participating practices to integrate self-screening into patient visit registration, but each practice identifies the screening mode and workflow that best fits their practice. • Self-screeners are available in several formats including paper forms or electronic forms on tablets and kiosks. • The self-screener is 508-compliant and available in several languages.
Recruitment	• The recruitment staff calls patients who self-screen as potentially eligible to confirm eligibility, introduce the VT RETAIN program, and attempt to recruit them into the program. • When potential enrollees are not affiliated with participating primary care practices, program staff contact their primary care providers to encourage participation.
Enrollment	• The recruitment staff asks enrollees to sign a consent form. • The recruitment staff asks eligible people to complete part 1 of the RETAIN national evaluation baseline survey through an online portal, picking up and dropping off paper forms at their primary care practice or receiving paper forms in the mail. The eligible people can opt for the recruitment staff to help them navigate the completion of the forms over the telephone. • The recruitment staff asks the enrollee to complete the RETAIN national evaluation Baseline Participant Survey Part 2 and a functional assessment, with support from the recruitment staff. • If applicable, the recruitment staff collects the person's reasons for declining participation, and VT RETAIN uses this information for continuous quality improvement.
Randomization	• Enrollees' assignment into the treatment or control group aligns with the random assignment of their medical provider's practice as a treatment or control practice.
Initial engagement in the program	• The recruitment staff provides all enrollees with program resources, informs the enrollee about American Job Centers services, and assists the enrollee in opening a Vermont JobLink* account if they do not have one. • The recruitment staff provides an incentive payment of $50 to the enrollee upon completion of enrollment and intake forms (authorization form, RETAIN national evaluation baseline survey parts 1 and 2, coach intake, functional assessment). • The recruitment staff assigns the treatment enrollee to an RTW coordinator. • The RTW coordinator asks treatment enrollees to sign a healthcare-compliant authorization form to authorize the RTW coordinator to access their health records and communicate with their healthcare providers and RTW care team.
Discharge from program	• The recruitment staff provides a final $50 compensation after the treatment enrollee completes the final satisfaction survey. • Enrollment concludes when treatment enrollees achieve the goals documented in their RTW plan or have been enrolled for six months (whichever comes first).

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

RTW = return to work; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.3. Facilitators and barriers to recruitment and enrollment

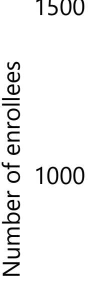
	Referral sources	Outreach strategies	Recruiting people from historically underserved communities	Eligibility criteria	Recruitment
Characteristics of VT RETAIN					
Some eligibility criteria were challenging for potential enrollees to understand without the help of recruitment staff.					B
Characteristics of individuals involved in VT RETAIN—program staff and medical providers					
The communication skills and persistence of recruitment staff in explaining RETAIN reportedly encouraged a high enrollment rate.					F
Time spent coordinating with federal partners limited their time to implement the program, particularly recruitment and enrollment.		B			B
Characteristics of organizations delivering VT RETAIN services					
Recruitment staff had access to information that resolved potential enrollees' questions about eligibility criteria.				F	F
Delays in funding approval at the federal and state levels delayed the addition of satellite recruiting as a referral source.	B				
Developing an employer initiatives workgroup helped coordinate partner outreach to employers to prompt them to refer employees.	F	F			
Program staff had access to resources such as 24/7 interpreter services and translated recruitment materials that supported recruiting people from communities that have been historically underserved.			F		F
Characteristics of the external environment					
The impact of COVID-19 on primary care practices delayed and inhibited implementation of self-screening in practices.	B				
Partnering with InvestEAP helped with employer outreach because of their respect and trust for the program.		F			
Implementing self-screening at organizations that reach historically underserved communities helped recruit people from those groups.			F		F
Characteristics of individuals involved in VT RETAIN—treatment enrollees					
Making initial contact with people who self-screened at primary care practices or satellite sites was a challenge to recruitment efforts.					B

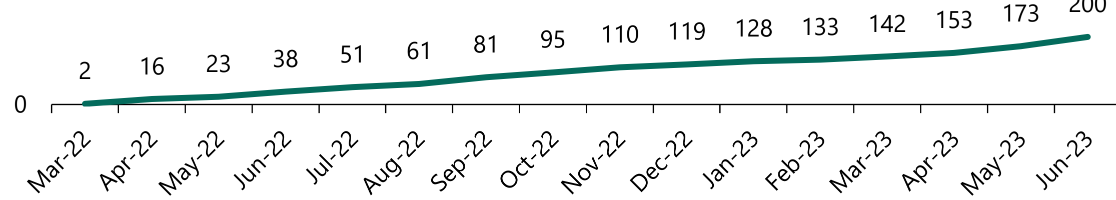
	Referral sources	Outreach strategies	Recruiting people from historically underserved communities	Eligibility criteria	Recruitment
VT RETAIN implementation strategies					
An equity-focused workgroup and the results of a needs assessment helped develop strategies to recruit people from communities that have been historically underserved.			F		F
Recruitment staff implemented self-screening at satellite sites to reach a larger population for self-screening.	F				F
Program staff reported that improving outreach materials helped recruit enrollees through satellite sites.		F			F
Recruitment staff improved response time and outreach to people who self-screened, which helped them make initial contact to those people.					F
Program staff reduced potential enrollees’ reluctance about the possibility of control group assignment by emphasizing the benefits of VT RETAIN regardless of random assignment.	B/F				

Note: F indicates a facilitator to implementation or service delivery, and B indicates a barrier.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.4. VT RETAIN cumulative enrollment through June 2023





Source: VT RETAIN enrollment data through June 30, 2023.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.5. VT RETAIN enrollment outcomes

Enrollment indicator	Outcome
Enrollment target	2,040
Number of treatment enrollees	112
Number of control enrollees	88
Percentage of total enrollment target met	10%

Source: VT RETAIN enrollment data through June 30, 2023.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.6. Demographic characteristics of VT RETAIN treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value of difference
Total number of enrollees	200	112	88		
Sex					**0.951**
Male	34.0	34.8	33.0	1.9	
Female	65.0	64.3	65.9	-1.6	
Chose not to specify	s	s	s	s	
Age					**0.709**
18–29	12.5	14.3	10.2	4.1	
30–39	23.0	22.3	23.9	-1.5	
40–44	14.0	12.5	15.9	-3.4	
45–49	11.5	12.5	10.2	2.3	
50–54	13.5	16.1	10.2	5.8	
55–59	13.0	10.7	15.9	-5.2	
60+	12.5	11.6	13.6	-2.0	
Mean (years)	45.0	44.6	45.6	-1.0	0.575
Race and ethnicity					**0.395**
Hispanic	3.5	5.4	s	s	
White, non-Hispanic	88.0	87.5	88.6	-1.1	
Black, non-Hispanic	s	s	s	s	
Asian, non-Hispanic	2.0	2.7	s	s	
More than one race	2.0	s	s	s	
Other race, non-Hispanic	s	s	s	s	
Missing	2.5	s	3.4	s	
Preferred language					**0.374**
English	99.5	99.1	100.0	-0.9	
Spanish	s	s	s	s	
Other	s	s	s	s	
Education					**0.000†††**
Less than a high school diploma	4.5	5.4	3.4	1.9	
High school diploma, GED, or certificate of completion	35.0	35.7	34.1	1.6	
Occupational certificate, license, or two-year college degree	21.5	10.7	35.2	-24.5	
Four-year college degree or post-graduate degree	39.0	48.2	27.3	20.9	

Source: VT RETAIN enrollment data through June 30, 2023.

s = Suppressed estimate representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.7. Illness or injury characteristics of VT RETAIN treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value of difference
Total number of enrollees	200	112	88		
Primary diagnosis based on ICD-10 codes [a]					**0.528**
Musculoskeletal, back	14.5	13.4	15.9	-2.5	
Musculoskeletal, non-back [a]	30.5	28.6	33.0	-4.4	
Mental health	17.0	20.5	12.5	8.0	
Long COVID	3.5	2.7	4.5	-1.9	
Other	30.5	29.5	31.8	-2.4	
Missing	4.0	5.4	s	s	
New condition	32.6	31.8	33.7	-1.9	0.776
Injury or illness as a result of accident	34.2	37.4	30.2	7.2	0.300
Work-related injury or illness	31.6	32.7	30.2	2.5	0.715
Injury or illness as part of a workers' compensation claim	9.3	9.3	9.3	0.0	0.992
Time between injury or illness and enrollment					**0.595**
4 weeks or less	10.5	11.6	9.1	2.5	
5 to 12 weeks	23.0	24.1	21.6	2.5	
13 to 24 weeks	24.5	20.5	29.5	-9.0	
More than 24 weeks	38.5	39.3	37.5	1.8	
Missing	3.5	4.5	s	s	
Time between injury or illness and enrollment (days) [b]	523	472	587	-115	0.539

Source: VT RETAIN enrollment data through June 30, 2023.

Note: Classification of the ICD-10 codes into five primary diagnosis categories is described in Chapter II.

[a] Musculoskeletal, non-back includes conditions that affect the joints, bones, muscles, or multiple body areas or systems.

[b] A small percentage of enrollees enrolled before the date of injury. These enrollees were not included when calculating the average time between illness or injury and enrollment.

s = Suppressed estimate representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

ICD = International Classification of Diseases; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.8. Employment status and characteristics of VT RETAIN treatment and control enrollees at enrollment (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value of difference
Total number of enrollees	200	112	88		
Recent work history					
Employment status					0.949
Not employed	23.0	22.3	23.9	-1.5	
Self-employed	12.0	12.5	11.4	1.1	
Employed	65.0	65.2	64.8	0.4	
Time since last worked at enrollment					0.323
Working at enrollment	34.0	32.1	36.4	-4.2	
Last worked less than one week before	20.5	17.0	25.0	-8.0	
Last worked one to four weeks before	12.5	16.1	8.0	8.1	
Last worked one to three months before	14.5	15.2	13.6	1.5	
Last worked more than three months before	18.5	19.6	17.0	2.6	
Hours per week usually worked before injury or illness	39.0	39.4	38.5	1.0	0.494
Tenure at most recent job					0.501
Less than six months	24.0	23.2	25.0	-1.8	
Six months to one year	15.0	15.2	14.8	0.4	
One to two years	14.0	17.9	9.1	8.8	
Two to five years	15.5	14.3	17.0	-2.8	
More than five years	31.5	29.5	34.1	-4.6	
Occupational classification of pre-injury or illness job					0.145
Management, professional, or related [a]	36.5	38.4	34.1	4.3	
Service [b]	29.5	27.7	31.8	-4.1	
Sales and office [c]	10.5	8.0	13.6	-5.6	
Natural resources, construction, or maintenance [d]	9.5	13.4	4.5	8.8	
Production, transportation, or material moving	10.5	8.0	13.6	-5.6	
Missing	3.5	4.5	s	s	
Economic well-being					
Worked at a job that paid at least $1,000 per month in the past year	78.5	82.1	73.9	8.3	0.159
Receipt of income other than earnings:					
SSDI or SSI	s	s	s	s	
Veterans' benefits	s	s	s	s	
Workers' compensation	4.0	6.3	s	s	
Employer-provided or other private disability insurance	4.0	4.5	3.4	1.1	0.707
Other public programs	5.5	4.5	6.8	-2.4	0.471
Applied for or received SSDI or SSI in the past three years	3.5	4.5	s	s	

Source: VT RETAIN enrollment data through June 30, 2023.

[a] The occupational classification of management, professional, or related occupation includes the following job functions: management, business, and financial operations; computer and mathematical; architecture and engineering; life, physical, and social science; community and social service; legal; educational instruction and library; arts; design; entertainment, sports, and media occupations; healthcare practitioners; and technical.

[b] The occupational classification of service includes the following job functions: healthcare support; protective services; food preparation and serving related; building and grounds cleaning and maintenance; and personal care and service.

[c] The occupational classification of sales and office includes the following job functions: sales and related; office and administrative support.

[d] The occupational classification of natural resources, construction, or maintenance includes the following job functions: farming, forestry, and fishing; construction and extraction; installation, maintenance, and repair.

s = Suppressed estimate representing fewer than 3 observations.

*/**/*** Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a two-tailed *t*-test.

†/††/††† Difference is significantly different from zero (*p*-value is less than .10/.05/.01) using a chi-square test.

SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.9. Facilitators and barriers to implementation and service delivery

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives	Coordinating RTW services	Communicating among parties involved in enrollee return to work	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
Characteristics of VT RETAIN							
RTW coordinators' coaching of treatment enrollees helped enrollees to communicate directly with medical providers and employers.				F			
Characteristics of individuals involved in VT RETAIN—program staff and medical providers							
Project staff had limited capacity to deliver medical provider trainings, and providers had limited time to complete them.	B						
RTW coordinators' connections to their communities and diverse professional backgrounds helped them support each other and serve enrollees.			F				
RTW coordinators' ability to establish rapport and build trust helped them get enrollees' permission to communicate with employer and providers.				F			
Medical providers had limited availability to review and respond to RTW plans.				B			

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives	Coordinating RTW services	Communicating among parties involved in enrollee return to work	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
RTW coordinators' flexibility with enrollees' preferences for how often to communicate and through which modes enabled them to have regular contact with enrollees and monitor their progress.					F		
Characteristics of organizations delivering VT RETAIN services							
Challenges coordinating among program partners slowed efforts to develop medical provider trainings.	B						
VT RETAIN did not have access to funding to train more providers in rehabilitation team assessments and community functional restoration.	B						B
RTW coordinators' access to learning opportunities, educational resources, and support from experts helped them meet enrollees' needs.			F				
Limited partner staff availability delayed launch of employer trainings and engagement.							B
Understaffing at the data coordinating center inhibited improvements to the information system used to monitor treatment enrollee progress.					B		

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives	Coordinating RTW services	Communicating among parties involved in enrollee return to work	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
Characteristics of the external environment							
Vermont's robust and interconnected system of social services enabled RTW coordinators to address enrollee's needs.			F				
Vermont's tight labor market may have facilitated enrollees' ability to find jobs and encouraged employers to focus on retention.						F	
The COVID-19 pandemic improved work opportunities for some VT RETAIN enrollees.						F	
Characteristics of individuals involved in VT RETAIN—treatment enrollees							
Lack of enrollee responsiveness to RTW coordinator outreach was a barrier to RTW coordination service delivery for some enrollees.			B				
Program staff reported that a culture of help- rejecting behaviors in Vermont made some enrollees less engaged in RETAIN.			B			B	B
Enrollees' behavioral health conditions and unmet need for related medical care were barriers to staying at or returning to work.			B				B
VT RETAIN implementation strategies							
A sustainability planning group coordinated plans for sustaining components of VT RETAIN.			F				

	Medical provider services		RTW coordination services			Other RTW services	
	Medical provider training	Medical provider incentives	Coordinating RTW services	Communicating among parties involved in enrollee return to work	Monitoring treatment enrollee progress	Supporting workplace-based interventions	Retraining or rehabilitating enrollees
The results of a needs assessment helped VT RETAIN identify gaps in services and resources.	F		F			F	F

Note: F indicates a facilitator to implementation or service delivery, and B indicates a barrier.

RTW = return to work; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.10. VT RETAIN costs

- Total costs incurred by your program: $446,310.26
- Breakdown of the above total costs by:
  - Personnel or labor costs
    - Wages: $218,970.52
    - Fringe benefits: $129,146.36
  - Direct costs of providing services to enrollees and providers
    - Incentive payments (number of enrollees x incentive per enrollee): $8,400.00
    - Payments on behalf of enrollees receiving services (e.g., contractor payments): $0.00
    - Incentive payments to providers (number of providers x incentive per provider): $0.00
  - Indirect costs (e.g., administrative costs and overhead costs): $89,793.38
- Average cost of providing services per treatment enrollee: $6,198 (including direct and indirect costs)[a]
- Economic costs that do not appear in the budget:
  - Volunteer hours: 0
  - Value of donated goods: $0.00
  - Leveraged resources: $0.00 ◢

Source: Forms completed by VT RETAIN program staff.

Note: Costs for the period from May 17, 2021, to March 31, 2023.

[a] The average cost of providing services per treatment enrollee was calculated as the total costs incurred by the VT RETAIN program from May 17, 2021, through March 31, 2023, divided by the number of treatment enrollees as of March 31, 2023. Total costs incurred by the program include personnel or labor costs, direct costs of providing services to treatment enrollees and providers, and indirect costs.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Mathematica Inc.

Princeton, NJ • Ann Arbor, MI • Cambridge, MA
Chicago, IL • Oakland, CA • Seattle, WA
Woodlawn, MD • Washington, DC

mathematica.org website

EDI Global, a Mathematica Company

Operating in Tanzania, Uganda, Kenya, Mozambique, and the United Kingdom

Mathematica, Progress Together, and the "spotlight M" logo are registered trademarks of Mathematica Inc.