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A MATCHED-RECORDS STUDY OF AIDS DEATHS IN 1993: SSA ADMINISTRATIVE RECORDS AND DEATH CERTIFICATES

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Background

The Office of the Chief Actuary (OCACT) maintains a file of records for persons awarded disability benefits under either the title II program (Social Security) or the title XVI program (Supplemental Security Income) because of an impairment associated with HIV infection. The file is used to measure the current impact and to forecast the future impact of the HIV disease on these two programs which the Social Security Administration (SSA) administers, and to gauge the role played by SSA programs in meeting the income needs of the population disabled because of HIV.

The file contains information on dates of benefit entitlement and of death; State and county of residence; year of birth, sex, and race; and educational attainment, most recent occupation, and (for title II) career average earnings. Publication of analyses of data in the file has been limited to internal memoranda.

The SSA HIV population, limited as it is to persons with disabling conditions precluding substantial gainful employment which are expected to last at least one year or result in death, is much smaller and more disabled than the HIV population tracked in the Centers for Disease Control and Prevention surveillance system. However, a comparison of the SSA HIV population to a population of persons who died from HIV illness could be useful for assessing the coverage and quality of the SSA database, and the extent to which SSA program benefits reached persons before their death from HIV.

Death certificates for the 1993 National Mortality Followback Survey of the National Center for Health Statistics were recently successfully matched to Social Security Administration records, the match rate exceeding 98 percent. Although the sample consists in total of only 23 thousand deaths in 1993 at ages 15 and above, HIV was one of several causes of death which were oversampled, so that 2,704 certificates with HIV as the cause of death were included—representing some 37 thousand deaths attributed to

HIV illness in 1993. This subset of certificates was matched to the SSA HIV database and SSA program master files to address these questions:

1. For what percent of decedents in 1993 with HIV illness listed on the certificate as the cause of death is there a record in the SSA HIV database? Why are the others missed? What differences are there in the characteristics of those entitled to program benefits and those not entitled?
2. How complete is the death information in the SSA database? Generally we expect death information to be essentially complete for program beneficiaries.
3. How consistent is the information on person characteristics in the two databases? We expect high consistency with respect to demographic variables, but less with respect to socioeconomic variables.

Results

There is a record in the OCACT HIV database for about 70 percent of the 37 thousand adults dying from HIV illness in 1993. Death information in the OCACT HIV file is virtually complete for these persons.

For matched cases, agreement on demographic information was quite good. For example, the files were consistent with respect to both State of residence and race (black/other than black) 97 percent of the time.

Socioeconomic indicators are often missing on the benefit application record, on the death certificate, or on both; in fact, data on occupation is missing on at least one of a pair of matched records most of the time. With respect to educational attainment, which is present most of the time on both records of a matched pair, agreement is not very high: with educational attainment broadly categorized as (a) not a high school graduate, (b) high school graduate but no college, (c) one to three years of college, and (d) four or more years of college, agreement is just 64 percent.

As for the 30 percent of adults dying from HIV illness in 1993 for whom a matching record was not found in

our special database, for about one-third of these decedents there is, however, a record of award of program benefits in the program master files. In some of these master records—including a significant number of records of award of old-age, rather than disability, benefits—the type of impairment is not identified, but in most the impairment is identified as other than HIV. Different causes of disablement and death do not, of course, always indicate inconsistent coding, because some persons may die of an impairment other than the one responsible for their disablement.

Of the 21 percent of persons dying from HIV illness in 1993 who were not awarded program benefits before their death, 17 percent did not apply, presumably because of their inability to meet program eligibility criteria, and 4 percent applied and were denied. Title II benefits are available only to persons with substantial and current work experience, and title XVI eligibility is restricted to persons with family assets and income below certain thresholds. Additionally, both programs require that an applicant be unable to work, and title II further imposes a 5-month waiting period on the start of benefit payments from the time the applicant is unable to work. Furthermore, some noncitizens are ineligible for title XVI benefits, and both programs do not make payments to certain incarcerated persons.

Title II disability beneficiaries first become eligible for Medicare in their 25th month of entitlement. This makes the decision to stop work to claim title II benefits a difficult one for persons with employer-provided health coverage.

The table below presents distributions of several characteristics of persons dying in 1993 from HIV illness, classified by whether they were awarded title II benefits, title XVI benefits only, or no program benefits. The effects of eligibility criteria on program benefit reciprocity is evident from the lower panels of the table. About 3,300 of the 7,600 nonrecipients worked in jobs covered by the Social Security program in 1993, the year of their death, and some more may have worked in non-covered jobs. Also, about 3,300 nonrecipients were not insured for title II disability benefits when 1993 began. Because few nonrecipients were both working in 1993 and not insured then for title II benefits, these two circumstances explain most of the program benefit nonreciprocity.

Persons of the highest socioeconomic status, in terms of education and occupation, were the most likely to be nonrecipients: compared to an overall nonreciprocity rate of 21 percent, the rate is 26 percent for college graduates and 25 percent for managers/professionals. This differential is primarily because persons of this status are more likely to continue working until near death, and partly because their levels of resources and income preclude eligibility for title XVI benefits.

Finally, we note that a significant number of persons with records in the OCACT HIV file—about 4 thousand—died in 1993 of a cause other than HIV illness according to the death certificate. In most of these cases, however, the certificate cause of death was similar in nature to HIV illness.

Selected Characteristics of Persons Dying of HIV Illness in 1993, by Program Benefit Reciprocity

(Based on records from the National Mortality Followback Survey matched to SSA administrative records)

		Title II or both titles	Title XVI only	No program benefits	Total
Total		20,720	8,376	7,595	36,691
<i>Sex and age</i>					
Female	15-24	70	70	50	190
	25-34	510	760	330	1,600
	35-44	510	990	420	1,920
	45-54	160	320	200	680
	55-64	60	50	20	130
	65 and over	40	20	40	100
	Total female	1,350	2,210	1,060	4,620
Male	15-24	120	160	90	370
	25-34	6,120	1,881	1,612	9,613
	35-44	8,714	2,798	2,555	14,067
	45-54	2,842	944	1,723	5,509
	55-64	1,145	335	525	2,005
	65 and over	429	49	29	507
	Total male	19,370	6,166	6,535	32,071
<i>Educational attainment</i>					
4 or more years of college		4,075	514	1,643	6,232
1 to 3 years of college		6,042	944	1,226	8,212
High school graduate—no college		6,954	3,221	2,521	12,696
Not a high school graduate		2,533	2,336	1,251	6,120
Unknown		1,116	1,361	954	3,431
<i>Usual occupation</i>					
Technical Sales/Administrative Support		4,634	836	996	6,466
Managerial/Professional Specialty		3,697	713	1,507	5,918
Service Occupations		3,035	1,261	794	5,090
Operator/Fabricator/Laborer		1,945	1,161	602	3,708
Precision Production/Craft/Repair		1,425	507	501	2,434
Farming/Forestry/Fishing		311	158	69	538
Military		282	0	88	370
Other		149	296	79	525
Unknown		5,242	3,442	2,957	11,641
<i>Last year employed in a job covered by the Social Security program</i>					
Before 1979		206	763	588	1,557
1979-1983		137	818	415	1,370
1984-1988		1,694	2,267	768	4,729
1989		1,456	777	394	2,627
1990		2,160	1,108	299	3,566
1991		4,522	939	598	6,059
1992		5,615	855	1,007	7,477
1993		4,930	509	3,299	8,738
Never worked in covered job		0	339	228	567
<i>Disability insured status at beginning of 1993</i>					
Insured		20,720	587 ¹	4,251	25,559
Not insured		0	7,789	3,343	11,132

¹ Persons who did not receive title II benefits despite being insured typically had not satisfied the 5-month waiting period requirement.

Note: Detail may not add to totals because of rounding.