Results from the Medical Monitoring Project, 2010 and 2011. King County WA

Background

As of December 31, 2010, an estimated 803,771 persons were living with a diagnosis of human immunodeficiency virus (HIV) infection or acquired immunodeficiency syndrome (AIDS) in the United States and 7,007 were living in King County, WA[1]. HIV surveillance programs in the United States collect limited information about people who have received diagnoses of HIV infection and AIDS. Supplemental surveillance projects are needed to collect information about care-seeking behaviors, health-care use, and other behaviors among persons living with HIV. Data on the clinical and behavioral characteristics of persons receiving medical care for HIV infection are critical to help reduce HIV-related morbidity and mortality and for program planning to allocate services and resources, guide prevention planning, assess unmet medical and ancillary service needs, and help develop intervention programs and health policies at the local, state, and national levels.

Methods

The Medical Monitoring Project (MMP) is a supplemental surveillance system that collects annual cross-sectional samples of clinical and behavioral data on HIV-infected adults receiving care. The methods have been described in detail elsewhere[2]. MMP uses a three-stage sampling design to obtain annual cross-sectional probability samples of HIV-infected adults in care. In the first stage, states are selected to participate, then HIV care facilities in these states are sampled, and finally HIV infected adults in care at participating facilities are sampled. Face-to-face or telephone interviews are conducted to collect information on demographics, adherence to HIV medication regimens, and behavioral risk factors. The data are collected in 19 states and Puerto Rico. Medical record reviews are conducted to collect additional data on diagnosis of opportunistic illnesses, prescription of preventive therapies and antiretroviral medications, laboratory results, adverse events, and health services utilization. We report on two years of MMP interview data from the King County MMP project collected from August 2010 through April 2012.

Results

During the two most recent complete cycles of data collection, 377 persons living with HIV or AIDS (PLWHA) were interviewed for MMP in King County. Among the 377 participants, 90% were male, 10% were female (**Table 1**). Seventy-three percent of participants reported their sexual orientation as homosexual, 17% as heterosexual, and 8% as bisexual. Most participants were white (74%). The age groups with the greatest proportion of participants were 45-54 years (39%) and 35-44 years (31%). Most participants were born in the United States (85%).

The majority of participants (74%) had been diagnosed with HIV infection ≥ 5 years previously. Questions about most recent CD4 T-lymphocyte tests and viral load tests were not asked in the 2010 data collection cycle, so the following data are from 2011 only. The most recent CD4+ T-lymphocyte (CD4) count among 215 participants from 2011 who reported having a CD4 test during the past 12 months was <200 cells/mm^3 for 17 (8%) participants, 200–499 cells/mm^3 for 62 (29%), ≥500 cells/mm^3 for 107 (50%), and unknown for 29 (13%) participants (**Table 1**). Among the 215 2011 participants who reported having an HIV viral load test during the past 12 months, the most recent viral load was undetectable for 159 (74%) participants, detectable for 35 (16%), and the viral load was unknown for 21 (10%).

To assess the representativeness of participants in MMP, characteristics which are available both in MMP and the enhanced HIV AIDS Reporting System (eHARS) are compared in Table 1. Overall, MMP participants are similar to the larger population of PLWHA. However, a larger proportion of the MMP participants are white, born in the United States, and reported their most recent viral load was undetectable.

Approximately three-quarters of participants had more than a high school education (73%). A total of 11% of participants reported that they had been homeless at some time during the 12 months before the interview. Six percent of participants reported they had been in jail or prison in the previous 12 months (**Table 2**).

Of the 372 (99%) participants who reported having any type of health insurance or coverage during the

past 12 months, 45% reported having private health insurance or coverage through a health maintenance organization, 30% reported having Medicaid, and 23% reported having Medicare. Participants could select more than one type of medical insurance or coverage response. Thirteen percent of participants reported a gap in health insurance coverage in the last 12 months. Thirty-seven percent of participants reported that SSI or SSDI was their primary source of money or financial support during the past 12 months (**Table 2**).

Almost all the participants (95%) reported ever taking antiretroviral medications (ART) for HIV infection and among the 356 who had ever taken ART, 345 (97%) reported currently taking ART. Of those currently taking ART, almost one-third (29%) reported they never miss a dose of their medication. Of the 347 persons for whom the date of last visit for medical care was available, 319 (85%) reported that they had visited a health-care provider for HIV medical care within the past three months (**Table 2**).

A total of 13 (4%) participants reported having been admitted to a mental health facility during the past 12 months. In addition, 39 (10%) participants reported that they had been to an emergency department for HIV medical care, and 28 (7%) reported having been admitted to the hospital for an HIV-related illness during the past 12 months (Table 2).

Among the 377 participants, 198 (53%) reported being tested for an STD during the past 12 months; among those tested the most common STD diagnoses received were herpes (6%), syphilis (5%), gonorrhea (4%), and chlamydia (4%). A total of 26 (7%) reported receiving the HPV vaccine. Among males, 6% received the HPV vaccine and 16% of women had received the vaccine. Among all 377 participants, 316 (84%) reported that they had received a seasonal influenza vaccination during the past 12 months (**Table 2**).

Forty-one percent of participants reported using non-injection drugs in the last 12 months and 8% reported using injection drugs. Sixty percent of participants reported smoking at least 100 cigarettes in their lifetime and 42% of them reported that they currently smoke daily. Fifteen percent of participants had 5 or more drinks in one sitting in the last 30 days (**Table 2**).

Discussion

The results outlined above suggest that PLWHA in King County who are receiving medical care had many positive findings, including that most had seen their HIV provider recently, were taking antiretroviral therapy, had an undetectable viral load and had CD4 counts out of the severe immunosuppression range (> 200 cells/mm^3). Almost all had some form of health insurance coverage and had an annual influenza vaccine. On the other hand, even in this cohort of PLWHA relatively well engaged in health care, there were substantial comorbidities (mental illness and substance use) and socio-demographic issues (homelessness and incarceration) that may interfere with regular health care access.

A spin off project called Case Surveillance Based Sampling was started in November 2012. This project, which is not just limited to people who were in care for HIV, will hopefully elucidate some of the issues encountered by a representative sample of people living with HIV in King County.

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1. HIV/AIDS Epidemiology Unit, Public Health – Seattle & King County and the Infectious Disease Assessment Unit, Washington State Department of Health
2. McNaghten AD, Wolfe MI, Onorato I, et al. Improving the representativeness of behavioral and clinical surveillance for persons with HIV in the United States: the rationale for developing a population-based approach. PLoS One 2007; 2 (6): e550