

The Holy Grail: The Search for Undiagnosed Cases Is Paramount in Improving the Cascade of Care Among People Living With HIV

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ABSTRACT

Highly Active Antiretroviral Therapy (HAART) has transformed the nature of HIV/AIDS from an imminent death sentence to a chronic manageable condition. There is a growing interest in the potential impact of “treatment as prevention” – a notion that expanded coverage with HAART would substantially reduce morbidity and mortality from HIV, and secondarily HIV transmission at the population level. However, undiagnosed and undocumented HIV cases cannot benefit from HAART and are more likely to experience HIV-related morbidity and untimely mortality. Late diagnosis of HIV remains prevalent and represents missed opportunities for early linkage to and engagement in care. In the absence of a vaccine and cure for HIV, undiagnosed HIV cases represent the biggest challenge yet in the fight against HIV/AIDS. As such, identifying them should be a priority of HIV prevention programs.

KEY WORDS: HIV; Acquired Immunodeficiency Syndrome; undiagnosed HIV cases; early HIV detection; linkage to care; treatment and prevention

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Highly Active Antiretroviral Therapy (HAART) has transformed the nature of HIV/AIDS from an imminent death sentence to a chronic manageable condition.^{1,2} Although the research community has yet to celebrate a breakthrough in the development of a vaccine for HIV, considerable progress has been made since the introduction of HAART in 1996. There is sound evidence that HAART is effective in reducing HIV/AIDS-related morbidity and mortality among HIV-positive individuals receiving these therapies.^{3,4} The past few years have witnessed a growing interest in the potential impact of “treatment as prevention” – based on the notion that expanded coverage with HAART would substantially reduce HIV and AIDS-related morbidity and mortality and secondarily HIV transmission.⁵ The recent news that an HIV-infected infant treated with early HAART has achieved a “functional cure” – where the HIV viral load is suppressed to undetectable levels and the virus is no longer replicating⁶ – is an exciting development. Similarly, findings from a French cohort showed that very early treatment among HIV-infected adults could lead at least in some instances to a “functional cure”.⁷

However, it is estimated that in North America, somewhere around 20% of HIV-infected persons remain undiagnosed.^{8,9} This represents a huge challenge and a missed opportunity. Undiagnosed HIV cases cannot benefit from HAART and are more likely to experience HIV-related morbidity and untimely mortality. Furthermore, HIV-undiagnosed individuals unknowingly contribute disproportionately to onwards transmission, in part due to the higher prevalence of high-risk sexual behaviour compared to their HIV-diagnosed counterparts.¹⁰ As such, they pose a major threat to the control of the spread of HIV in terms of their continuing transmission of the disease to the community. Current surveillance estimates of people living with HIV/AIDS do not accurately reflect the number of all HIV-infected individuals, primarily because not all infected indi-

viduals have been tested. As a result, these undocumented and mostly asymptomatic individuals are unaware of their infection and thus they are not able to enter into care in a timely fashion; this leads to an excess risk for morbidity and mortality, and an inability to take adequate preventive measures, which in due course makes these individuals more likely to transmit the infection.¹⁰ Naturally, preventive strategies and programs targeting HIV-positive individuals fail to reach this critical group, with serious consequences. In the United States, 207,600 (18.1%) of the estimated 1.1 million individuals living with HIV in 2009 were believed to be unaware of their positive status.⁸ In Canada, an estimated 17,980 (25.2%) of the estimated 71,300 persons living with HIV as at the end of 2011 were unaware of their HIV infection.⁹ In the United Kingdom, the same was true for an estimated 22,600 (24%) of the estimated 96,000 people living with HIV as of 2011.¹¹

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Effective strategies to promote early detection of HIV are urgently required. Considering that barriers to testing exist at several levels – including at the individual, health care provider and institutional levels – strategies to improve testing should incorporate approaches where HIV testing is both provider- and non-provider-initiated. These include offering routine testing at the time of acute care admissions and emergency department visits, increased screening campaigns and the possible use of home test kits. Additionally, HIV screening at the point of care should be much more ubiquitous, including taking place at methadone clinics, STI clinics, pharmacies, and dentist offices. Indeed, a recent HIV screening and testing guide produced by the Public Health Agency of Canada recommends discussing and considering HIV testing as a part of periodic routine medical care.¹² In addition to these, active engagement of sex workers to encourage their clients to seek testing also needs to be promoted. A number of these initiatives are being undertaken in the province of British Columbia, Canada, which has recently expanded the STOP HIV/AIDS (“Seek and Treat for Optimal Prevention of HIV/AIDS”) pilot project to the rest of the province, as a means to further decrease HIV-related morbidity and mortality and, secondarily, new HIV infections.^{13,14} The STOP HIV/AIDS initiative represents a strategy to promote early HIV diagnosis to facilitate and support immediate and sustained involvement with HIV/AIDS health-related services among HIV-positive individuals in order to optimize their engagement with the cascade of care.^{15,16}

The expanding nature of the HIV pandemic presents extraordinary challenges for global health, human and international development, and economic growth. Efforts to curb the advance of the pandemic are fraught with challenges, including the absence of free and universal access to HAART worldwide, and the lack of a cure and a vaccine. While these challenges persist, we propose that undiagnosed HIV cases represent the biggest challenge yet in the fight against HIV/AIDS. Therefore, identifying them should be a priority and a critical focal point of HIV prevention programs. Timely diagnosis of HIV-infected individuals can provide opportunities for early linkage to and retention in care, as well as access to other preventive health care services. To successfully achieve the goals of HIV scale-up preventive efforts, strategies to promote increased HIV testing, early detection and engagement in care need to be increased and actively pursued. “The Holy Grail”, or early identification and linkage to care of undiagnosed cases, is therefore paramount in improving the cascade of care among people living with HIV. Until this is achieved, the prospect of a significant reduction in the continuing high rates of disease transmission of HIV remains uncertain.

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RÉSUMÉ

La thérapie antirétrovirale hautement active (TAHA) a transformé le VIH et le sida de sentences de mort imminente en états chroniques gérables. On s'intéresse de plus en plus à l'impact potentiel du « traitement à titre préventif » – la notion voulant qu'une couverture élargie de la TAHA réduise considérablement la morbidité et la mortalité dues au VIH, et de façon secondaire la transmission du VIH dans la population. Toutefois, les cas de VIH non diagnostiqués et non documentés ne peuvent pas tirer parti de la TAHA et sont plus susceptibles de souffrir de morbidité et de mortalité prématurée liées au VIH. Le diagnostic tardif du VIH est encore prévalent et représente des occasions manquées d'aiguiller les patients et de les faire participer aux soins dès le début de la maladie. En l'absence d'un vaccin et d'un remède contre le VIH, les cas de VIH non diagnostiqués représentent le plus grand défi à ce jour dans la lutte contre le VIH et le sida. Identifier ces cas devrait donc être une priorité des programmes de prévention du VIH.

MOTS CLÉS : VIH; syndrome d'immunodéficience acquise; cas de VIH non diagnostiqués; détection précoce du VIH; lien vers les soins; traitement et prévention