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Prevention of HIV among Older Adults: A Comprehensive Review

Ngugi Mwaura J.

School of Natural and Applied Sciences Kampala International University Uganda

ABSTRACT

HIV/AIDS has historically been associated with younger populations, but the growing number of older adults affected by the virus has prompted a shift in focus. This review examines the unique challenges faced by older adults in preventing and managing HIV, addressing their biological, social, and healthcare-related vulnerabilities. Factors such as the success of antiretroviral therapy (ART) in extending life expectancy, late diagnoses, and the lack of targeted prevention efforts contribute to the increasing prevalence of HIV among individuals over 50. The review explores the epidemiology of HIV in older adults, the risk factors specific to this demographic—including sexual health, low awareness, and social isolation—and the barriers to adequate healthcare access, such as stigma and inadequate provider awareness. Additionally, the review dispels common misconceptions about HIV in older adults, including stereotypes around sexual inactivity and age-related immunity. The need for age-specific prevention strategies, tailored healthcare interventions, and improved education on sexual health in older adults is highlighted. By identifying gaps in current HIV prevention programs and proposing comprehensive interventions, this review emphasizes the importance of addressing the HIV epidemic among older adults to ensure equitable healthcare outcomes.

Keywords: HIV/AIDS, older adults, antiretroviral therapy (ART), late diagnosis, sexual health, HIV prevention.

INTRODUCTION

HIV/AIDS has long been perceived as a disease predominantly affecting younger individuals, particularly because of the high rates of transmission associated with risky behaviors such as unprotected sex, substance abuse, and intravenous drug use. Younger adults, especially those aged between 15 and 35, have historically been the primary focus of prevention campaigns and interventions [1]. This has contributed to a stereotype that HIV/AIDS is largely a “young person’s disease. [2]” However, this perception is increasingly challenged by the growing number of older adults living with HIV. Several factors have contributed to this demographic shift, most notably the success of antiretroviral therapy (ART), which has extended the life expectancy of people living with HIV, allowing them to age with the virus [3].

In addition to the growing population of older adults aging with HIV, there is a significant number of new diagnoses in individuals over the age of 50. Late diagnoses are common in this group, as HIV/AIDS is often overlooked in older adults due to misconceptions that they are not at risk or that symptoms may be attributed to other age-related health conditions [4]. Furthermore, the stigma and ageism associated with sexual health in older adults contribute to lower rates of HIV testing and awareness in this population, complicating early diagnosis and timely treatment [5].

As older adults are increasingly impacted by HIV, they face distinct challenges that set them apart from their younger counterparts [6]. These challenges include biological factors, such as age-related immune system decline, which may exacerbate the progression of the virus and complicate treatment outcomes [7]. Social factors also play a significant role, as older adults may experience greater isolation, less access to comprehensive sexual health education, and fewer social services tailored to their needs [8]. Moreover, healthcare providers often lack the training and awareness to properly address the sexual health of older adults, further contributing to inadequate prevention efforts and care [9].

This review aims to examine the unique challenges of HIV prevention and management in older adults by comparing how they contract and manage the virus relative to younger adults [10]. It will also seek to dispel

persistent myths and misconceptions that surround HIV/AIDS in the elderly, including the mistaken belief that older adults are not sexually active or at risk of contracting the virus. Through this exploration, the review will underscore the importance of targeted prevention strategies and healthcare interventions designed to meet the specific needs of older individuals living with or at risk of HIV [11].

Epidemiology of HIV among Older Adults

HIV has traditionally been associated with younger populations, but a significant shift has occurred over recent decades, with an increasing number of cases being diagnosed among those aged 50 and older [12]. This demographic shift is seen worldwide, including in regions where HIV prevalence is highest, such as sub-Saharan Africa. The growing incidence and prevalence of HIV among older adults can be attributed to various factors, including advances in antiretroviral therapy (ART), which has extended the life expectancy of people living with HIV, and the lack of targeted prevention efforts for this age group [13]. While older adults are living longer with HIV, they face distinct challenges related to late diagnosis, low awareness, and inadequate prevention strategies tailored to their needs [14].

Incidence and Prevalence

The prevalence of HIV among older adults has risen steadily in recent years, driven by three primary factors: increased life expectancy, late diagnosis, and insufficient prevention programs.

Increased Life Expectancy: The introduction of ART in the mid-1990s revolutionized HIV treatment, transforming the infection from a near-certain death sentence to a manageable chronic condition. ART suppresses viral replication, allowing people living with HIV to live longer, healthier lives [15]. As a result, the number of older adults living with HIV has increased. This trend is particularly evident in countries with high HIV burdens, such as those in sub-Saharan Africa, where people on ART are aging with the virus. In the U.S., Europe, and other developed regions, older adults represent a growing proportion of the total population of people living with HIV. By 2030, it is estimated that up to 70% of people living with HIV will be over the age of 50.

Late Diagnosis: One of the key drivers of the rising HIV burden in older adults is late diagnosis. HIV may go undetected for years in older adults, as symptoms of the virus are often mistaken for common age-related conditions like fatigue, weight loss, or cognitive decline [16]. Furthermore, healthcare providers may not routinely consider HIV testing in older patients due to misconceptions that they are not sexually active or at risk for the virus. Studies show that older adults are more likely to receive an HIV diagnosis at a later stage of the disease, when immune function is already severely compromised. Late diagnosis not only affects treatment outcomes but also contributes to ongoing transmission, as individuals may unknowingly spread the virus.

Low Awareness and Prevention Programs: Public health campaigns aimed at preventing HIV transmission have historically focused on younger populations, particularly those considered to be at higher risk due to behaviors like unprotected sex, drug use, and multiple sexual partners [17]. As a result, older adults often receive less information about HIV prevention, and their risk factors are underappreciated. This low awareness leaves older adults more vulnerable to HIV transmission, particularly as they may believe they are not at risk or may feel embarrassed to discuss sexual health with healthcare providers. Furthermore, older women face increased vulnerability to HIV infection due to biological factors such as thinning vaginal tissue, which may make transmission more likely during sexual intercourse [18].

Geographic Distribution

The geographic distribution of HIV among older adults mirrors that of the younger population, with the highest burden concentrated in sub-Saharan Africa, which accounts for nearly 70% of global HIV cases. However, while the overall incidence of HIV has decreased in many regions due to widespread prevention and treatment programs, the number of older adults living with HIV is growing [19]. This trend is partly due to the aging population in high-burden areas and the success of ART in extending the lifespan of individuals who contracted HIV at younger ages. In sub-Saharan Africa, where life expectancy has increased due to ART, older adults are living longer with the virus. However, they are often neglected in HIV prevention, testing, and treatment programs, which remain primarily focused on younger people.

In high-income countries, the proportion of new HIV diagnoses in older adults is also increasing. In the United States, for example, people aged 50 and older accounted for approximately 16% of new HIV diagnoses in 2019. In the European Union, nearly one in five new diagnoses occurs in individuals over the age of 50. This demographic shift highlights the need for age-specific interventions in regions with both high and low HIV prevalence [20].

Risk Factors and Vulnerabilities

Older adults are susceptible to HIV for many of the same reasons as younger individuals but face unique risk factors that increase their vulnerability:

Sexual Health in Older Age: Contrary to common stereotypes, many older adults remain sexually active, and some may engage in risky behaviors, such as unprotected sex. Post-menopausal women may be at higher risk due to physiological changes that increase susceptibility to HIV transmission, including thinning of the vaginal lining and decreased lubrication.

Lack of Education and Awareness: Older adults may not have received adequate sexual health education earlier in life, especially during their youth when HIV/AIDS awareness was less prevalent [21]. Additionally, older individuals may not feel comfortable discussing sexual health with healthcare providers, further contributing to low awareness and prevention efforts in this age group.

Comorbidities and Compromised Immune Systems: As individuals age, they are more likely to have comorbid conditions, such as cardiovascular disease, diabetes, or chronic respiratory conditions, which can complicate the management of HIV [22]. Moreover, aging itself results in a natural decline in immune function, making older adults more susceptible to infections and potentially accelerating the progression of HIV to AIDS.

Social Isolation: Older adults are more likely to experience social isolation, which can increase their risk of engaging in risky behaviors and reduce their access to prevention and support services. Loneliness and stigma related to aging and HIV may also deter them from seeking help, exacerbating the risk of late diagnosis and untreated infections.

Challenges in Addressing HIV among Older Adults

There are several challenges associated with addressing HIV in older adults:

Healthcare Provider Awareness: Many healthcare providers may not consider HIV as a diagnosis for older adults, contributing to delayed testing and diagnosis [23]. A lack of training on the specific sexual health needs of aging populations can further hinder timely intervention.

Stigma and Discrimination: HIV-related stigma is compounded by ageism, leading to increased barriers for older adults in accessing prevention, testing, and treatment services. Older adults may face discrimination both within their communities and in healthcare settings, discouraging them from seeking care [24].

Tailored Interventions: Prevention campaigns and health programs rarely target older adults, and few age-specific interventions exist to address their unique needs. Tailored education programs, routine HIV screening for older adults, and healthcare initiatives that address both aging and HIV are crucial to reducing the growing incidence of the disease in this population [25].

How Older Adults Contract HIV

The pathways through which older adults contract HIV differ somewhat from those of younger populations. Understanding these differences is crucial for designing effective prevention strategies.

Sexual Transmission Sexual activity remains the primary mode of HIV transmission among older adults, as it is for younger adults [26]. However, the perception that older adults are sexually inactive is false, and safe sex practices are often neglected in this age group. Factors contributing to HIV transmission through sexual contact in older adults include:

Decreased Condom Use: Older adults may be less likely to use condoms, either due to postmenopausal lack of pregnancy concerns or misconceptions that HIV transmission is not a risk in later years.

Physical Changes: Age-related physiological changes, such as vaginal dryness and thinning, can increase susceptibility to HIV during sexual intercourse.

Multiple Partnerships: Some older adults, especially those who have lost long-term partners, may engage in new sexual relationships without adequate knowledge about safe sex practices.

Injection Drug Use Though less common than in younger adults, injection drug use still plays a role in HIV transmission among older adults [27]. Those who engage in injection drug use are at risk of contracting HIV through the sharing of contaminated needles.

Blood Transfusions Although rare due to stringent screening procedures, HIV transmission through blood transfusions may still occur in some healthcare settings, particularly in regions with inadequate blood screening protocols.

Healthcare-Associated Transmission In certain settings, especially in low-resource areas, older adults may contract HIV through unsafe medical practices, including the reuse of needles or inadequate sterilization of medical equipment.

Myths and Misconceptions about HIV in Older Adults

Several myths surrounding HIV and aging hinder effective prevention, diagnosis, and treatment of HIV in older adults. Addressing these misconceptions is crucial for improving awareness and prevention strategies.

Myth: Older Adults Are Not Sexually Active One of the most pervasive myths is that older adults are not sexually active, which leads to the assumption that they are not at risk for sexually transmitted infections (STIs), including HIV [23]. In reality, many older adults remain sexually active, but sexual health education and conversations with healthcare providers about safe sex practices are often neglected.

Myth: HIV Is a “Young Person’s Disease” HIV is often viewed as a disease that primarily affects young adults. This misconception contributes to delays in testing and diagnosis for older individuals, who may not perceive themselves as being at risk, and may not be routinely screened by healthcare providers.

Myth: Older Adults Know How to Protect Themselves Another misconception is that older adults have adequate knowledge of HIV prevention methods. In fact, many older adults are unaware of current prevention strategies, such as pre-exposure prophylaxis (PrEP) or the importance of consistent condom use, particularly after long-term partnerships end [10].

Myth: HIV Symptoms Are Part of Aging Symptoms of HIV, such as fatigue, weight loss, and cognitive decline, can be misattributed to the normal aging process. As a result, healthcare providers may overlook the possibility of HIV in older patients, further contributing to late diagnoses.

Unique Challenges for HIV Prevention in Older Adults

Older adults face distinct challenges in both preventing and managing HIV, some of which differ significantly from those faced by younger populations. These include both biological and societal factors that influence the risk of transmission and complicate care.

Physiological Vulnerabilities As people age, their immune system naturally weakens, making them more susceptible to infections. Age-related changes in the genital tract, such as decreased lubrication in women, can lead to microtears during intercourse, which increase the risk of HIV transmission [7]. Older adults may also experience other comorbidities that complicate HIV prevention and treatment.

Lack of HIV Testing and Screening HIV testing rates among older adults are significantly lower than in younger populations. This is partially due to healthcare providers failing to offer routine HIV testing to older patients, either because of stereotypes that older adults are not sexually active or due to a lack of awareness about the rising rates of HIV in this demographic [19]. Consequently, many older adults are diagnosed late, when the disease has progressed to more advanced stages.

Limited Access to Prevention Tools Prevention tools, such as condoms and PrEP, are underutilized by older adults. Limited discussions about sexual health between older adults and healthcare providers further contribute to this issue. PrEP, a medication that reduces the risk of contracting HIV, is often not prescribed or discussed with older adults, despite its effectiveness in preventing HIV.

Stigma and Discrimination Stigma surrounding both HIV and aging presents a significant barrier to prevention. Older adults may be reluctant to discuss their sexual behaviors or seek information about HIV prevention due to fear of judgment or embarrassment. In addition, ageism in healthcare settings can result in inadequate sexual health counseling or assumptions that older patients are not at risk for HIV.

Interventions and Strategies for HIV Prevention Among Older Adults

Efforts to reduce HIV transmission in older adults should focus on targeted interventions that address the unique challenges faced by this population. Prevention strategies must be inclusive, accessible, and tailored to meet the needs of older adults.

Education and Awareness Campaigns Public health campaigns must include older adults in their messaging about HIV prevention. This involves creating materials that are age-appropriate and directly address the myths surrounding HIV in older populations. Healthcare providers should also be trained to discuss sexual health openly with older patients, promoting HIV testing and prevention methods such as condom use and PrEP.

Routine HIV Testing Routine HIV testing for older adults should be integrated into standard healthcare practice. By normalizing HIV testing as part of regular medical check-ups, healthcare providers can help identify cases earlier and reduce the stigma associated with testing.

Incorporating HIV Prevention into Geriatric Care Geriatric care models should incorporate HIV prevention as part of a comprehensive approach to health and wellness. This includes addressing the sexual health needs of older adults, providing education on safe sex practices, and offering access to prevention tools like condoms and PrEP.

Addressing Stigma in Healthcare Settings Reducing stigma in healthcare settings is essential for improving HIV prevention and care for older adults. Healthcare professionals must be trained to recognize and address the specific needs of older patients regarding sexual health, and ageist attitudes must be challenged to ensure that older adults receive appropriate care and attention.

CONCLUSION

HIV prevention among older adults is a growing public health concern, yet it is often overlooked in favor of younger populations. Older adults are at risk for HIV through sexual transmission, drug use, and other pathways, but myths and misconceptions about aging and sexual activity can hinder effective prevention efforts. To address this gap, education and awareness campaigns, routine HIV testing, and targeted prevention strategies must be developed to meet the unique needs of older adults. By doing so, the burden of HIV in this population can be reduced, leading to improved health outcomes and quality of life for older individuals.

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