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Cracking the code: getting men tested in rural Africa

The emphasis on women in the African AIDS epidemic has left men behind [1]. Although HIV disproportionately affects women in this context [2], they are more likely than men to come into contact with the healthcare system because of child bearing and rearing, and thus more likely to receive early HIV diagnosis and treatment, improving their treatment outcomes. In Malawi, the Option B+ treatment policy has made dramatic gains for pregnant and breastfeeding women and their infants. Men do not have the same contact with and encouragement from the healthcare system; they get into care later and are disproportionately represented among AIDS deaths [3]. The ambitious UNAIDS 90–90–90 targets will not be met without concerted efforts to engage men [4].

Our organization, Global AIDS Interfaith Alliance, provides HIV testing, referral for treatment, and adherence programs through mobile health clinics deployed to remote areas of Southern Malawi [5], where 14.5% of the adult population is HIV positive [6]. A clinical officer, nurse, nurse aide, and a follow-up nurse coordinator responsible for improving linkage to and retention in care staff the four-wheel drive vehicles. Staff travel to remote rural sites designated by the District Health Office and provide HIV and other basic health services, free of charge.

We noticed a wide sex disparity in our HIV testing data; in 2013, only 23% of those coming to our clinics for testing were men. We began to investigate how to address this gap. As a first strategy, staff worked through religious organizations. Two clinic staff contacted their pastors and asked them to preach about the importance of HIV testing and encourage men to attend male-focused HIV testing events on a specific weekend day. Because we suspected that some congregants might be uncomfortable being tested by a fellow church member, staff other than the two clinicians who had approached their pastors conducted the testing day. Results of this first approach were promising; between the two churches, 65 men (and eight of their wives) were tested.

We conducted a formative evaluation of barriers to male testing. The qualitative study interviewed 30 randomly selected village men and found that they did not feel that messages about HIV testing had been targeted to men. Excessive distance to testing locations, inconvenient hours of operation, fear of stigma, and concerns that test results would not be kept confidential were cited as barriers to testing.

To address these concerns, we used community sensitization meetings in places where men gathered to publicize dates when we would be holding male-targeted testing. We held some on Saturday, when working men could more easily attend. We conducted events at convenient locations where men congregated, including a village football pitch and workplaces such as tea plantations and a construction site. We sought out 'the places where men hide', such as markets where they gather to eat and socialize, and encouraged them to take advantage of the testing opportunity. In one village, we learned of a men's empowerment group working to change cultural values around masculinity and offered testing for the members.

Although our testing days were targeted at men, we found that women also came, often seeking couples testing and counseling. Since starting the program in 2014, we have held 28 events and tested 1058 people (61% of them men, more than twice the proportion of men tested at the clinics prior to initiation of the program). Four percent of those tested through the program were HIV positive, possibly suggesting that we are reaching lower risk individuals who otherwise may not go for testing.

Program data collected on participants' primary reason for coming for testing found 'convenience of location' selected by 75%, showing that easy access is a critical driver. When asked who convinced them to be tested, the majority of participants (69%) reported 'Global AIDS Interfaith Alliance staff', with 'myself' and 'religious leader' (both 9%), coming in a distant second and third, suggesting the power of community sensitization provided by our staff.

Our experience demonstrates that men (and couples) can be effectively targeted for HIV testing. Of key importance are community engagement and programmatic flexibility. Implementers need to ensure comprehensive community sensitization, earn the trust of opinion leaders, provide compassionate, sensitive, and confidential care to clients, and promote community ownership of programs. Programmatic flexibility means seizing opportunities for testing as they come, understanding where men gather, and skillfully approaching and educating men on the advantages of knowing their HIV status and the benefits of engaging in care if found HIV positive.

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Conflicts of interest

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Simplified estimates of HIV incidence and transmission rates for the USA 2008–2012

In July 2010, President Obama released the US National HIV/AIDS Strategy (NHAS) [1]. One key focus was reducing the number of HIV infections. Benchmarks were set for reducing annual HIV incidence by 25% and reducing the transmission rate by 30% before the end of 2015 [1]. Recently, the White House released an updated NHAS, maintaining the four overarching strategy goals of the NHAS 2015 but establishing new quantitative indicators for 2020 [2].

Although the original strategy focused on HIV incidence as a primary indicator, the updated NHAS has abandoned HIV incidence in favor of new HIV diagnoses, reasoning that HIV incidence was too untimely, resource intensive, and inconsistent (due to changing test technologies) to reliably measure progress [2,3]. Indeed, the most recent US HIV incidence estimates from Centers for Disease Control and Prevention (CDC) are for the year 2010 [4]. The updated NHAS also dropped the transmission rate indicator as its calculation requires HIV incidence data.

We believe this to be an unfortunate development as the number of new HIV diagnoses annually is not a good proxy for annual HIV incidence. Incidence and diagnoses are the same only if there is near perfect serostatus knowledge and near immediate diagnosis after infection; unfortunately this is not the case in the USA. Further, that transmission rate monitoring was also dropped only makes it more difficult to adequately monitor progress towards reducing HIV infections, because transmission rates convey how quickly the virus is spreading through the population.

We offer a simple approach, based in basic epidemiology, to provide HIV incidence and transmission rate estimates derived from published CDC data [5,6]. Using the most recent CDC epidemiologic data, we determined annual HIV incidence via the formula:

Current year HIV incidence = [(current year HIV prevalence − previous year HIV prevalence) + current year all-cause mortality among persons living with HIV (PLWH)].

From the annual HIV incidence estimates, we were able to estimate HIV transmission rates (defined as the mean annual HIV transmissions to HIV seronegative individuals by 100 PLWH). Transmission rates were calculated as [(current year HIV incidence estimate/current year HIV prevalence) × 100].

Table 1 displays our input parameters and results. Available prevalence and death information from CDC allows incidence and transmission rate estimates for 2008 through 2012. We estimate that there were 40 698 new HIV infections in the USA in 2008; 38 066 in 2009; 37 253 in 2010; 36 458 in 2011; and 35 958 in 2012. The HIV transmission rate estimates seemingly declined from 2008 (3.56) to 2012 (2.95).

The above analysis provides the first US HIV incidence estimates for the years 2011 and 2012. Our incidence estimates for 2008–2010 differ somewhat with published CDC incidence estimates, which were based on the serologic testing algorithm for recent HIV