

BHIVA/Janssen IAS 2015 Bursary: Conference Report

Women & HIV: epidemiology, access to care and social determinants of health

Overview

This year's International AIDS Society Meeting in Vancouver was undoubtedly dominated by the reporting of the results of the START trial [1] and the subsequent 'Vancouver Consensus' stating that all people living with HIV should have access to antiretroviral therapy (ART) on diagnosis [2]. To a lesser extent, the conference also focused on prevention areas in the form of treatment as prevention and PrEP. As a result, there was less attention than in previous years on key populations such as adolescents, transgendered people, and women, with the exception of data on retention in care in global Option B+ programmes. There was a notable paucity of data on the health of HIV-positive women outside of the context of pregnancy, and the social determinants of health of women living with HIV. In the following report, I summarise key work that engages with these themes.

Epidemiology

Brophy *et al* [3] presented a descriptive overview of geographical origins among 3,877 HIV-positive mothers in Canada from 1990–2013, a setting where the epidemiological profile of HIV in pregnancy is similar to that in the UK. Just over 50% of women were born outside of Canada, of whom 70% were sub-Saharan African (predominantly eastern and central Africa), although historically there had also been a large number of women who had migrated from Haiti. Amongst foreign-born mothers, diagnosis during/after pregnancy has fallen from 84% in the pre-HAART era to 10.5% in 2008–2013. Over the same time period the proportion of women on ART at conception has increased from 2.5% to 40%. Of note, pregnancies in African-born women were 70% less likely to result in vertical transmission compared to those in Canadian-born women.

Sharifi *et al* [4] provided a fascinating insight into a hidden population: female commercial sex workers (CSWs) in the Republic of Iran. Reporting findings from a 2010 survey of 872 CSWs, there appeared to be an urgent need to address sexual health and HIV prevention among this vulnerable group. Just over 50% considered themselves to be at risk of HIV, whilst only 48% had ever tested for HIV before.

Access and retention in HIV care

The overwhelming majority of studies exploring retention in HIV care among women living with HIV were conducted with women enrolled in Option B+ programmes (universal and lifelong provision of ART for pregnant or breastfeeding HIV-positive women) in a variety of international settings. A systematic review of 6- and 12-month loss to follow-up (LTFU) in Option B+ programmes [5] revealed that LTFU can be substantial at 8–22% at 6 months, and 6–23% at 12 months post ART initiation. Prospective studies from both Malawi [6] and Haiti [7] found that women starting ART as part of Option B+ were at higher risk of disengaging from care compared to those starting ART for their own health. Women who are not aware of their partner's HIV status and those in serodiscordant relationships are less likely to take up PMTCT interventions and to be retained in care [8]. Results from a review of Option B+ in Cameroon showed that whilst uptake of ART was high at 99%, all 25 women who declined ART antenatally did so for religious reasons, highlighting the importance of engaging with the social dimensions of patients' lives [9]. Two presentations by the mothers2mothers team who have implemented mentor mother programmes in a number of African countries, demonstrate the effectiveness of peer mentor support in Uganda both in terms of engagement in care [10] and psychosocial wellbeing (measured across a number of domains including relationships with partner and healthcare providers, and internalised stigma) [11].

The only study to explore women's access to HIV treatment and engagement with care more broadly was a UN Women-commissioned global review [12] utilising participatory methodology (it was designed and implemented by women living with HIV). Initial literature review has identified significant gaps in evidence base pertaining to adolescent and non-pregnant women's access to HIV care. It also highlights that although more women than men initiate ART (largely as a result of antenatal ART), men are more likely to be retained in care. Focus group discussions, interviews and country case studies reveal barriers to HIV care for women at three levels:

1. Individual: gender based violence, stigma, side effects, inability to meet basic needs
2. Meso: gender roles and responsibilities, violations of confidentiality, abuses within healthcare, poor relationships with healthcare providers
3. Macro: punitive laws targeting people living with HIV, lack of infrastructure

Facilitators to engagement in care identified by women include peer-led treatment literacy and support groups, trusting relationships with healthcare providers, and deriving resilience and motivation through their roles as mothers, partners and caregivers.

Social determinants of health

A number of studies looked at structural factors underpinning disparities in outcomes, or structural interventions. Pettifor *et al* presented initial results from HPTN 068, the first randomised trial to assess the impact of conditional cash transfers (CCTs) on acquisition of HIV among young women aged 13–20 in South Africa [13]. On initial reading, the results appear disappointing in that there was no difference in HIV incidence between the two study arms. However, overall incidence was low at 1.8% and school attendance was shown to protect against HIV acquisition regardless of study arm. Furthermore, young women who received CCTs were less likely to report unprotected sex and intimate partner violence. A smaller randomised study in the Democratic Republic of Congo [14] looked at the impact of CCTs given to HIV-positive women during pregnancy and found that women who received the incremental payments were more likely to attend all scheduled visits, and less likely to be lost to follow-up at 6 weeks postpartum.

Two North American studies explored the impact of macro-level structural factors on virological suppression and ART interruptions in women. An analysis of data from 1,481 women enrolled in the US-based WIHS cohort [15] revealed an association between lower income and lack of health insurance, and having a detectable viral load (defined as >200 copies/mL). Goldenberg *et al* presented an innovative analysis examining the impact of spatial 'risk environment' on ART interruption among female CSWs living with HIV in Vancouver [16]. Using GIS mapping the authors found a correlation between spatial threats (including policing, legal restrictions, community harassment and client perpetrated violence), and ART interruption (defined as no ART being dispensed for ≥ 2 days in a 6-month period).

Stigma is widely acknowledged as an important factor in HIV testing and engagement in care. Treves-Kagan *et al* explored the relationship between (i) anticipated individual-level stigma and (ii) community-level stigma on HIV testing in men and women in rural South Africa [17]. There were clear differences by gender; men were more likely to report individual stigma and were less likely to test for HIV. Individual anticipated stigma was

associated with testing behaviour in men but not women. However, for women reductions in community-level stigma led to increased likelihood of HIV testing. Modelling predicted that a 5% reduction in community-level stigma could result in a 15% increase in HIV testing among women in this population.

Finally, the Canadian HIV Women's Sexual and Reproductive Health Cohort Study (CHIWOS) provided some important data on the role of coercive sex in HIV acquisition [18]. Among 1,070 participants, coercive sex was identified as the second commonest route of HIV acquisition (17%) after consensual sex (57%). For women identifying coercive sex as their mode of HIV acquisition, 38% reported that the assault occurred during war. This study highlights that coercive sex is under-recognised as an HIV risk factor, and not reporting this separately as a mode of acquisition may have important implications in terms of provision of support and advocacy.

Conclusions

In conclusion, this wasn't a vintage year for research that specifically addressed HIV in women. The conference would have benefited from a session devoted to HIV & women (outside of PMTCT).

Data emerging from evaluations of Option B+ are of concern in that they show significant levels of LTFU (certainly within the first 6 months after initiation of ART). This may have implications in view of the roll-out of ART at all CD4 cell counts. The work of mothers2mothers and the participatory research for the forthcoming UN Women review of access to HIV care among women should be recognised as important contributions to our broader understanding of the multidimensional support required by women living with HIV. This is underlined by data on the impact of insurance, income and spatial environment on women's ability to engage with HIV care. Finally, in view of the importance globally of gender-based violence and stigma, there was a notable lack of studies addressing these key issues. It is sobering to note that almost 1-in-5 women in the CHIWOS cohort reported that they had acquired HIV through coercive sex (many in conflict), highlighting the ongoing link between gender-based violence, geopolitics and HIV risk.

References

1. Lundgren JD et al. *Initiation of Antiretroviral Therapy in Early Asymptomatic HIV Infection*. NEJM. July 20, 2015.
2. The Vancouver Consensus <http://vancouverconsensus.org/> (accessed 07 August 2015)
3. Geographic origin trends among HIV+ mothers and children in Canada and impact on vertical HIV transmission rates. 8th International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session WEPDC0101.
4. Testing for HIV among female sex workers in Iran; findings of the first national bio-behavioural survey in 2010. 8th International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session TUPEC558.
5. Six- and 12-month loss to follow-up among early implementation of Option B+: a systematic review. 8th International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session WEPED859.
6. Post prevention of mother-to-child-transmission: 30-months outcomes in the Malawian "Option B+ programme." 8th International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session MOAC0201.
7. Attrition from antiretroviral treatment services among pregnant and non-pregnant patients following adoption of Option B+ in Haiti. 8th International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session TUAD0204.
8. Examining the relationship between pediatric PMTCT outcomes and knowledge of partner status. 8th International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session TUPDD0103.
9. Evaluation of early experience implementing Option B+ in the northwest and southwest regions of Cameroon 2013-2014. 8th International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session TUAD0205.
10. Retaining mother-baby-pairs in care and treatment: the mothers2mothers Mentor Mother Model. International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session TUAD0201.
11. Investigating the influence of peer mentor mother approach on the psychosocial well-being of HIV-positive pregnant women and new mothers accessing prevention of mother to child transmission of HIV services. International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session MOPED691.

12. Key barriers to women's access to HIV treatment: making 'Fast-Track' a reality. http://www.unwomen.org/~media/headquarters/attachments/sections/news/stories/2015/web_athena_ias%20treatment%20access-4pp.pdf (accessed 07 August 2015).
13. HPTN 068 conditional cash transfer to prevent HIV infection among young women in South Africa: results of a randomized controlled trial. International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session TUAC0106LB.
14. Effectiveness of conditional cash transfers to increase retention in care and adherence to PMTCT services: a randomized controlled trial. International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session TUAD0202.
15. Health insurance, ADAP and HIV viral load among women in the Women's Interagency HIV study, 2006-2009. International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session WEPEC613.
16. Impacts of the spatial 'risk environment' on ART interruptions among sex workers living with HIV/AIDS: implications for ART programmes and policy reforms. International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session WEPEB365.
17. Gender differences in HIV testing behaviors by community-level and individual-level stigma in rural South Africa. International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session TUPDD0101.
18. Coercive sex as a mode of HIV acquisition among a cohort of women with HIV in Canada: an under-recognized public health concern. International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention. Vancouver, July 19-22, 2015. Session MOPEB194.