Celebrating the decline in syphilis in pregnancy: a sobering reminder of what's left to do

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In 2015, Cuba became the first country to be validated by WHO for having achieved the elimination of mother-to-child transmission of HIV and syphilis.[1] In June, 2016, Thailand, Armenia, Belarus, and Moldova were also validated.[2] This is amazing news, which demonstrates that, given the political will, a policy for effective prenatal screening and treatment, and a commitment to implement that policy at every level of the health-care system, countries with limited resources can now have an HIV and syphilis free generation.

The paper by Saman Wijesooriya and colleagues in *The Lancet Global Health*[3] reports on progress towards the elimination of congenital syphilis between 2008 and 2012. The good news from this report is that maternal syphilis infections are estimated to have decreased by 38% and adverse pregnancy outcomes by 39% during this time. The reduction was greatest in Asia, with India alone accounting for 66% of the reduction in maternal infections and 64% of the reduction in adverse outcomes. The proportion of pregnant women not tested for syphilis in antenatal care declined in all regions except Africa (49·0%) and the Eastern Mediterranean region (18·6%).

However, the reality is that, despite this progress, nearly 1 million pregnant women had syphilis, and approximately 350 000 had a syphilis-induced adverse pregnancy outcome in 2012. The fact that 49% of pregnant women in the African region are still not being tested for syphilis is an additional cause for concern. Most syphilis-induced pregnancy outcomes were in women who attended antenatal care, suggesting that these poor outcomes could have been prevented. What are the reasons for this, and how can they be addressed?

Prenatal syphilis screening has long been recognised as one of the most cost-effective health interventions available,[4] yet access to screening was poor in many countries, and many women who tested positive were not treated because they did not return for their results. Adverse pregnancy outcomes due to syphilis can be prevented with a single dose of benzathine penicillin given before 28 weeks' gestation, making the treatment of maternal syphilis much cheaper and simpler than the prevention of mother-to-child transmission (PMTCT) of HIV.[5]

In 2004, at a time when PMTCT programmes for HIV were being introduced and scaled up in many countries, it seemed that syphilis had been forgotten,[6] despite being responsible for more than 500 000 perinatal deaths annually. At this time, rapid, point-of-care syphilis tests became available that fulfilled the ASSURED criteria—ie, affordable, sensitive, specific, user-friendly, robust and reliable, equipment-free, and deliverable to those in need.[7] These tests have been rolled out in many countries, greatly increasing access to screening and enabling treatment to be given immediately.[8] In 2007, WHO launched a global initiative for the elimination of mother-to-child transmission of syphilis,[9] and in 2008 WHO and global partners introduced surveillance of syphilis in pregnancy within the HIV Universal Access and Global AIDS Response Progress Reporting System. Countries were encouraged to report data on three core indicators on antenatal care attendees: syphilis testing, seroprevalence, and treatment coverage.

UNAIDS published data on the Global Plan towards the elimination of new HIV infections among children by 2015 in 21 countries where 90% of women with HIV lived.[10] Between 2009 and 2015, mother-to-child transmission rates of HIV were reduced by 86% in Uganda, 84% in South Africa, 84% in Burundi, 80% in Swaziland, 79% in Namibia, 75% in Mozambique, and 71% in Malawi. With the lack of progress in syphilis screening in Africa reported by Wijesooriya and colleagues, we are once more faced with the tragic reality that many of these babies may have avoided HIV but died from syphilis.[6] How can we address the huge disparity between PMTCT programmes for HIV and syphilis?

We need to tackle this from several fronts. First, political commitment. Lack of political commitment results in lack of funding and human resources for prenatal syphilis screening programmes. Although PMTCT programmes for HIV are well established in most countries, syphilis screening programmes suffer from neglect and underfunding. According to *The Lancet*'s Stillbirth Series,[11] syphilis is among the top causes of preventable stillbirths, adding weight to the investment

case for congenital syphilis elimination as part of the response to end preventable stillbirths by 2030.

Second, we have technological solutions that make it possible to combine screening for HIV and syphilis within existing PMTCT programmes for HIV. It is now possible to test for both HIV and syphilis from a single drop of blood and have the result in 15–20 min. These tests are commercially available, and one is prequalified by WHO.[12] Leveraging funds and well established infrastructure set up for HIV PMTCT programmes to eliminate congenital syphilis is possible if these technological solutions are widely adopted.

Finally, the lessons learnt from countries that have achieved elimination should be widely shared.

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