INVITED COMMENTARY

COACTION PUBLISHING

Making it happen, level 2

Fyson Kasenga (1) describes the detrimental effect HIV has had on public health in Malawi. This was recently highlighted particularly for maternal mortality (2). Malawi is one of the countries where the impact of the HIV epidemic is clearly visible on the maternal mortality rate (MMR) (Fig. 1). Only after the year 2000 it is possible to see some positive trend in the MMR in Malawi, supposedly due to extensive HIV testing and the provision of antiretroviral treatment.

Fyson Kasenga further describes the development of the programme for prevention of mother-to-child transmission (PMTCT) of HIV-1 at Malamulo Hospital, a private not-for-profit missionary hospital in Malawi. Several of the observations done in this setting are actually generalisable to other antenatal care (ANC) settings. The first observation is that PMTCT performs much better after a couple of years when nurses and midwives have learned how to correctly perform PMTCT in a good manner. The second observation is that after switching from voluntary counselling and testing (VCT) to routine counselling and testing (RCT), the programme soon becomes much more acceptable to the community and even to the health workers themselves. With the introduction of RCT, all the issues surrounding HIV have become less stigmatising within the health institution and health workers, generally, are able to treat HIV as an ordinary disease like tuberculosis without stigmatising the clients. A growing number of reports from a variety of countries are describing the same positive shift after moving to RCT in ANC. In Scandinavia, routine testing was introduced as soon as there were reliable tests, i.e. in Sweden as early as in 1987, more than 20 years ago!

The third observation is that in Malamulo, the government's initiative to provide free maternal care largely facilitated the task of carrying out PMTCT. It seems an inevitable conclusion that part of the effort to prevent HIV infections in low-income settings is to invest more resources in health care, particularly reproductive health care.

In December 2009, WHO launched new guidelines for PMTCT and for infant feeding in the context of HIV (3, 4). The new guidelines propose that all HIV-positive mothers should receive antiretroviral treatment or prophylaxis during pregnancy, delivery and breastfeeding. If the immune status of the mother is weakened (with a CD4 count below 350), then she should receive lifelong highly active antiretroviral treatment (HAART) for her own health. This treatment should be started immediately and this will also protect the child from HIV-infection. If the mother does not need HAART for her own health (CD4 count above 350), she should receive antiretroviral prophylaxis, which should be initiated as early as 14 weeks' gestation. A new guiding principle is that the prophylaxis should continue in some form until 1 week after all exposure to breast milk has ended. WHO are suggesting two alternatives, option A and B. Option A, antiretroviral prophylaxis, consists of: (a) daily zidovudine (AZT) during pregnancy, single dose nevirapine (NVP) at onset of labour, AZT+ lamivudine (3TC) during labour, delivery and for 7 days after delivery. In breastfeeding infants, maternal ARV prophylaxis should be coupled with daily administration of NVP to the infant from birth until 1 week after all exposure to breast milk has ended. Option B, antiretroviral prophylaxis, consists of three ARV drugs and there are several recommended regimens: AZT+ 3TC with either lopinavir (LPV/r) or abacavir (ABC) or efavirenz (EFV). The last alternative recommended drug combination is tenofovir (TDF), emtricitabine (FTC)+EFV. With option B, the infant only needs daily nevirapine for 6 weeks.

The new WHO guidelines for infant feeding states that, 'Mothers known to be HIV-infected (and whose infants are HIV uninfected or of unknown HIV status) should exclusively breastfeed their infants for the first 6 months of life, introducing appropriate complementary foods thereafter, and continue breastfeeding for the first 12 months of life'. This means that the health staff can now advice the mothers to breastfeed their infants as the daily nevirapine prophylaxis given to the baby will protect the infant from HIV infection.

These new WHO recommendations are based on recently published studies indicating that it is possible

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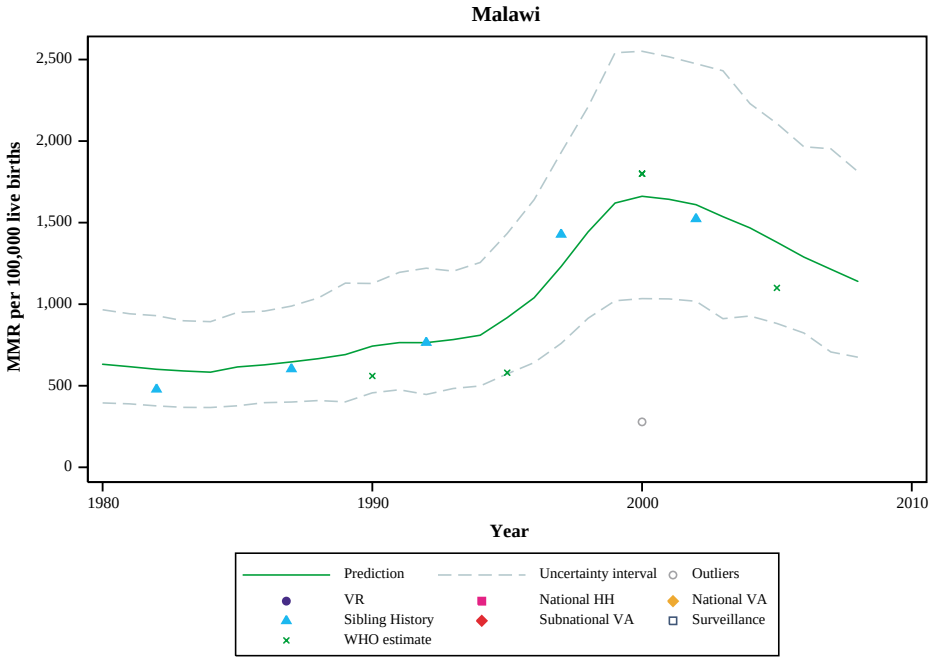

Fig. 1. Maternal mortality in Malawi from 1980 to date. From page 171 in the web appendix (1).

to prevent HIV infection during breastfeeding and that it is not necessary to avoid breastfeeding in order to protect the child. This is good news as we do not need to advise mothers to avoid breastfeeding. But it puts a high burden on the health system: the health system should now trace the HIV-positive mothers early in pregnancy, provide them with good advice and drugs throughout the pregnancy, the mothers need to give birth in a clinic in order to get the drugs needed and they need to be followed closely throughout the breastfeeding period. Is this at all feasible in places like Malamulo? I would tend to say 'no, not with the current resources'. Here again, reports from the real life, such as the paper by Fyson Kasenga, are important to inform us. It sends a strong message that the new guidelines need to be followed by more resources for ANC, delivery care and postnatal follow-up.

Another important message from the work by Fyson Kasenga – however, indirect – is that preventing HIV transmission from mother-to-child does not prevent the spread of HIV in the community. This can be illustrated by two photographs from a recent campaign in Uganda (Fig. 2a, b). The spread of HIV happens among adolescents and adults, and PMTCT does nothing to

Fig. 2. Two posters from Uganda: (a) November 2009 and (b) January 2010, highlighting the fact that HIV spreads in sexual networks.

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stop the spread of the disease. The situation is parallel to the recent oil leak in the Mexico Gulf: the leaking pipe is releasing millions of litres of crude oil, which ultimately destroys the shores and the wildlife around the Gulf. PMTCT is like trying to stop the oil reaching the shores, but not trying to prevent the leakage at the source. In a long-term perspective, it will be important to include reproductive health care, such as ANC and delivery care, in primary prevention efforts in order to avoid mothers being HIV-infected in the first place. This will again require more resources and it will require innovative methods to involve the male partners, as pointed out by Fyson Kasenga, and it will also require that we provide good advice to the HIV-negative mothers in the antenatal clinic. Commonly today the HIV-negative mothers are congratulated on their results, but we do not provide advise on how to remain HIV-negative. And how many years will we have to wait before we have enough midwives so that they are able to participate in the primary prevention of HIV, i.e. giving information in the primary and secondary schools in their area?

So, in order to make it happen at the next level, there is a need to mobilise funds for the health system and for primary prevention of HIV!

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References

1. Kasenga F. Making it happen: prevention of mother to child transmission of HIV in rural Malawi. Global Health Action 2010; 3: 1882. DOI: 10.3402/gha.v3i0.1882
2. Hogan MC, Foreman KJ, Naghavi M, Ahn SY, Wang M, Makela SM, et al. Maternal mortality for 181 countries, 1980–2008: a systematic analysis of progress towards Millennium Development Goal 5. Lancet 2010; 375: 1609–23.
3. WHO. Rapid advice: use of antiretroviral drugs for treating pregnant women and preventing HIV infection in infants 2009. Available from: http://www.who.int/hiv/pub/mtct/advice/en/index.html [cited 27 June 2010].
4. WHO. Rapid advice: infant feeding in the context of HIV 2009. Available from: http://www.who.int/hiv/pub/paediatric/advice/en/index.html [cited 27 June 2010].