health divide has followed suit: between 1981 and 1991 the standardised mortality ratio decreased in the most affluent areas and increased in the most deprived.

London has a large and expanding ethnic population, on whom unemployment falls disproportionately, and the accompanying poverty is associated with poor health. Similar problems have been faced elsewhere: Glasgow has responded by targeting education and training initiatives at its most deprived communities as part of a package of economic regeneration. Air quality is another pressing issue for London. Most of the pollution comes from motor vehicles, but car use in London is increasing despite mounting evidence of the dangers to health.[10] By contrast, the mayor of Rome describes his priorities as "traffic, traffic, and traffic" and has taken action to restrict cars, improve public transport, monitor air quality, and convert motor vehicles to make them environmentally friendly.

These are just two examples of the value of integrating health and social policy. The Healthy Cities project coordinated by World Health Organisation's European office has established an international network of cities dedicated to improving health—from Liverpool in the United Kingdom to Amadora in Portugal and Kuressaare in Estonia.[11] Their approach has been to develop partnerships and joint local strategies between all the municipal offices and other organisations that contribute to health to meet challenges such as poverty, inequalities, unemployment, and homelessness and also to encourage public participation in planning and taking action.[12]

The democratic accountability of the GLA may promote meaningful community involvement in decisions that affect people's health. The authority will hold annual "state of London" debates and a twice yearly "people's question time." Ultimately, if the public shows enough interest in health related issues this will put them near the top of the mayor's agenda. Hopefully this will mean that the mayor works constructively with the NHS to improve health, rather than simply criticising health services; health professionals in the capital are unlikely to welcome further external scrutiny.

The GLA will need to ensure that it has access to public health advice, either from the new NHS London regional health authority or, as the King's Fund report suggests, from its own public health team. The BMA is also considering lobbying for a chief medical officer for London. But however the public health advice is provided, the capital needs a strong civic leader who is prepared to make an explicit commitment to improving health by incorporating health considerations into all of his or her policies. The mayor must not underestimate the importance of social determinants on health[15]: the mayor and the assembly have the potential to be a greater influence on London's health than any of its 34 major hospitals.

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Short course antiretroviral regimens to reduce maternal transmission of HIV

May be effective but shouldn't be allowed to strangle research that might help Africans

In the Bangkok perinatal HIV study oral zidovudine given during late pregnancy and labour to non-breast feeding women reduced the rate of mother to child transmission of HIV by 51% (95% confidence interval 15 to 71%).[1] The investigators concluded that this intervention may help prevent HIV infection in children in developing countries, and the policy director for the treatment action group said, "If we can get this incredible health benefit for 80 bucks a pop, then we can really make a difference around the world."[2] Are these conclusions and expectations justified?

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After the landmark ACTG076 trial, which showed that a complex and expensive antiretroviral regimen reduced mother to child transmission by 67%,[3] the Thai results are clearly an important step forward. The short Thai regimen is cheaper and less complex, and hence likely to be attractive to countries unable to afford the 076 regimen. Paradoxically, the reaction to the results of this trial may pose a threat to the health of Africa's poorest women and their children. Within days of the release of the Thai data investigators studying other regimens closed recruitment to the placebo

arms of their trials, and at a recent meeting of HIVNET investigators in Baltimore it became clear that the National Institutes for Health is unlikely to fund further placebo controlled trials of interventions aimed at reducing maternal transmission, largely because of the furore surrounding the short course trials.[4] Some might argue that this hasty setting of a standard of care, based on a point estimate of effect which has wide confidence intervals and generated from one trial, is not fully justified.

In the United States widespread implementation of the 076 protocol has reduced maternal transmission and the incidence of paediatric AIDS.[5] Antiretroviral drugs are unlikely to ever achieve this to a similar extent in Africa. Most of Africa's women have little choice but to breast feed, yet breast feeding is responsible for around one third of cases of maternal transmission.[6] The nutritional, immunological, and birth spacing benefits of breast feeding deserve preservation if possible. If short course antiretrovirals were available in Africa now some children would be saved from HIV. But many would remain at risk of acquiring HIV from the breast milk of their infected mothers. Formula feeding might stigmatise HIV infected women. The results of the Thai trial therefore only partially address the needs of African women.

Even in relatively resource rich South Africa, and allowing for a cut in the price of zidovudine, implementation of a short course regimen would consume a substantial proportion of a district's health budget.[7] This intervention still costs far more than most African countries spend per head on health, and where will we find the extra nurses, counsellors, laboratory technicians, and functioning health systems required to implement it effectively?[7] The rapid implementation of a costly, vertical programme might also draw financial and human resources away from other programmes.

And what of Africa's women—perhaps the majority—who have no hope of ever receiving antiretrovirals? Women living in remote rural areas, urban slums, or war zones; those who will not or cannot access prenatal care; those who deliver outside a health setting; and those who deliver prematurely. These women urgently need a simple non-drug intervention that reduces transmission. The research agenda is therefore still wide open.

Non-drug interventions for maternal transmission are required, and potential strategies do exist. Vaginal lavage with chlorhexidine reduced HIV transmission among women with prolonged membrane rupture.[8] Might a higher concentration of chlorhexidine, or a different product, produce an effect in normal labour? Low vitamin A levels are strongly associated with maternal transmission[9]; might supplementation reduce HIV transmission? Even if these interventions produce only modest effects (10-20% reduction) this would be important because they are likely to be cheap and easy to implement anywhere. Widespread application of an intervention with a relatively low risk reduction is of greater public health benefit than the limited application of a highly effective intervention.

Though an equivalency study design may be appropriate for future trials of alternative drug regimens, there is a real danger that placebo controlled trials of non-drug interventions will be deemed unethical. Yet without a placebo arm, the necessary studies may never be done. The 18.6% transmission rate in the control arm of the Thai study is surprisingly low. Why? Has selection bias been excluded? Is there a temporal trend towards lower rates of maternal transmission as HIV epidemics mature? Only by having a placebo for comparison can the efficacy of an intervention be truly judged. The equivalency design is inappropriate if the effect in the treatment arm (such as lavage) is expected to be substantially weaker than that in the control arm (antiretroviral drug).

Also, does it make sense to insist that the control arm of a trial should consist of an intervention that is not, and is never likely to be, the standard of clinical care in the country where the study is done? What sense is there in insisting on such a control arm in a study clinic when a few kilometres up the road women continue to receive no intervention at all? Is this not merely ethical imperialism?

The Centers for Disease Control and UNAIDS, among others, strongly resisted the strident calls for the trials of short course antiretroviral drugs to be stopped.[4] The arguments made in support of the trials then remain true. For a few African women short course antiretrovirals plus formula feeding can and should be delivered now. For the majority this is not realistic. Placebo controlled trials to develop simple, cheap, and effective interventions to reduce HIV transmission from mother to child should not only be allowed; they should be encouraged in settings in which antiretroviral drugs and formula feeding cannot safely be delivered.

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