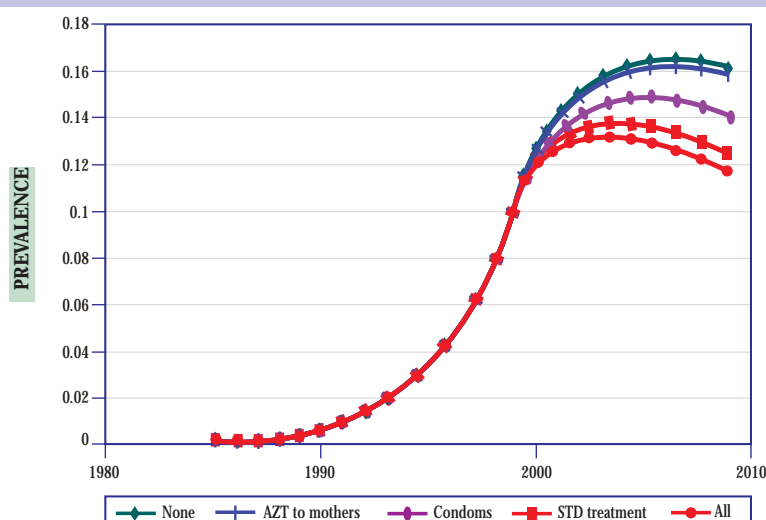


Interventions

In the face of such depressing figures it is easy to assume that nothing can be done. Although the ASSA600 model does not lend itself readily to investigating the effect of interventions and behavioural change on the course of the epidemic, Figure 21 gives an idea of the impact of three possible interventions (assumed to have been implemented in 1998) on the prevalence of HIV in the population. The first scenario assumes that

AZT is given to pregnant mothers with partial success resulting in a 25% decrease in mother to child transmissions. The second scenario assumes that the rate of sexual transmission is reduced by a quarter through the use of condoms. The third assumes that a national campaign manages to cure half of those with STDs. The impact of all three interventions together is also presented for comparison.

Figure 21: The projected prevalence of HIV with interventions



Two conclusions can be drawn from these figures. The first is that the impact of an intervention in mother to child transmission (MTC) on the overall prevalence is unlikely to be significant if the babies saved will ultimately go on to get infected. However, the aim of interventions is not specifically to reduce prevalence but rather incidence or deaths and thereby to reduce the suffering of the sick and dying. As this is above all true of reducing MTC transmission, impact on prevalence is not really an appropriate criterion for evaluating this intervention.

The second is that interventions can make a significant difference to the course of epidemic, although it will still exact a heavy toll. However, one must not lose sight of the fact that over 5 million people are currently infected and likely to die over the next 10 years.

Unfortunately the ASSA600 model was not designed to model the impact of antiretroviral therapies. Provided these drugs could be implemented successfully they could have a significant impact on the future prevalence levels.

Although we are still experiencing some difficulty in estimating the full extent of under-reporting of deaths recorded by the DHA, this report has shown the feasibility and usefulness of establishing a rapid mortality surveillance system using the DHA death data. It would be very useful if this system could be formalised and the data released by Stats SA to inform all researchers and policymakers as rapidly as possible.

These data provide a very useful check on the early ANC survey data which appear to have exaggerated the extent of the epidemic in the early years. Obviously any projections which do not allow for this bias are likely to overstate mortality for some years to come.

As there appears to be increasing evidence that some of the provinces are experiencing very different epidemics³⁷ from the national average, it is important to extend this research to the provincial level as soon as possible. Although, ideally, one should model the impact at a sub-

provincial level (as there is evidence to suggest that the spread within a province is anything but uniform) it would be an extremely difficult task and there is, at the moment, insufficient data to create useful models.

Other further work planned is:

- (i) investigate the quality of the cause of death information in the rapid data by comparison with other data sources
- (ii) improve the demographic model after detailed analysis of the antenatal data
- (iii) obtain alternative sources of information such as a sample of the death certificates to get a recent estimate of the cause of death
- (iv) develop the model to better model interventions and behavioural change
- (v) develop the model to allow for the socio-demographic and geographic heterogeneity in the population.