

Commentary

New approaches to effectively programming HIV/AIDS prevention resources

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In the above article, Grassly & Garnett propose the use of tools based on risk assessment techniques to explore the likely future course of the HIV epidemic in Asia and Eastern Europe. They argue that current approaches involving epidemiological modelling are less useful in emerging epidemics than in mature ones because the uncertainty in key model parameters can lead to huge variations in projections of future trends. As an alternative, the authors propose risk assessment approaches such as surveillance of high-risk behaviours, mapping the geographical distribution of high-risk behaviours, simple transmission models to identify the major sources of new infections, considerations of dose–response relationships to identify when key thresholds may be approached, and the use of dynamic models to indicate how research on the effectiveness of interventions in one location may be used to assess the likely effects in a different context.

These risk assessment approaches are actually not useful for quantitative forecasting, as the authors admit, since they are subject to many of the same limitations as other approaches when it comes to projecting into the future. These approaches can be very useful, however, in providing qualitative programme guidance, indicating where programmes should be focusing their efforts in order to reduce the chances of rapid expansion of the epidemic. The use of simple transmission models with surveillance data can show the source of most new infections: it might be injecting drug use in the Russian Federation, sex between men in Central America, commercial sex in South African mining communities, casual sex in Botswana, or sex

between spouses in Uganda. Once the key sources of new infections are understood, programmes can focus efforts in those areas (1). Mapping the geographical distribution of high-risk behaviours can indicate the epidemic “hot spots” where intensive prevention efforts can be most effective (2). The use of dynamic models of intervention effects can indicate whether prevention successes elsewhere (such as the 100% condom use policy in brothels in Bangkok or the syndromic management of sexually transmitted infections in Mwanza) are likely to be similarly effective in other settings or not (3). The use of these simple tools can help programmes to plan how to allocate their resources most effectively in order to contain the epidemic and reduce the risk of concentrated epidemics becoming generalized in the future.

Most countries developed five-year HIV/AIDS strategic plans in or around 2000 at the urging of UNAIDS and major donors. These plans represented an advance from the previous practice of medium-term workplans. However, very few of them took advantage of all the information available to them to strategically focus their efforts where they would do the most good. Another round of strategic plans will be developed soon in many countries. Greater use of techniques such as those described in this paper could help to ensure that the expanded resources now available are used wisely and result in greater success against the HIV/AIDS epidemic than has been seen so far. ■

Competing interests: none declared.

References

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Ref. No. 04-016790