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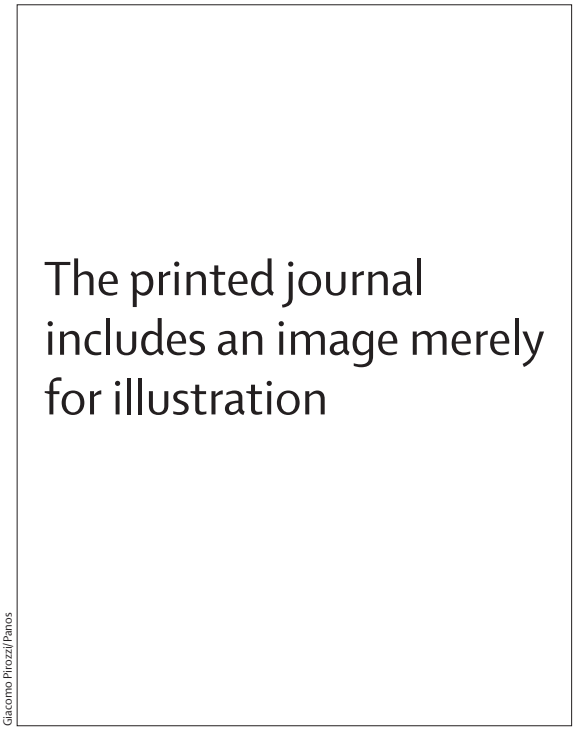
# HIV and maternal mortality: turning the tide

The two top causes of death in women of reproductive age globally are HIV/AIDS and complications related to pregnancy and childbearing, which account for 19% and 15% of all deaths in women aged 15–44 years, respectively.[1] The growing burden of HIV infection in young sexually active women and the maternal health problems that they face have been described as two intersecting epidemics.[2] In settings with a high HIV burden and high maternal mortality ratios, especially in sub-Saharan Africa, many HIV-infected pregnant women are confronted not only with the risk of death associated with advancing HIV disease, but also with an increased risk of pregnancy-related death.




Giacomo Pirozzi/Panos

The relative risk of pregnancy-related death in women infected with HIV compared with that in non-infected women ranges from just over double in one hospital-based study in South Africa to about 13 in a study of women having caesarean deliveries in the USA.[3–11] Although these studies varied in size and quality, usually including 100 or fewer maternal deaths, there is compelling evidence of increased risk of maternal death in women infected with HIV from nationwide confidential inquiries into facility-based deaths in pregnant women in South Africa.[11] These inquiries, which have been done since 1997, have shown a steady increase in the number of maternal deaths over time. Although part of the increase is attributable to improved reporting, there are also real increases in deaths associated with rising rates of HIV infection in pregnant women. Between 2005 and 2007, the facility-based maternal mortality ratio in South Africa was nearly ten times higher in women known to be HIV-positive than in women known to be HIV-negative (328/100 000 livebirths compared with 34/100 000 livebirths).[11]

Understanding the dimensions and pathways of the increased risk of death in pregnant women with HIV infection is constrained by incomplete and inaccurate data on numbers and causes of maternal deaths. Moreover, unanswered questions about the biological interactions between HIV infection and pregnancy

remain. Although it is generally assumed that deaths in HIV-infected pregnant women are largely due to advancing HIV disease and related comorbidities, such as tuberculosis and malaria, evidence from South Africa suggests that HIV infection might also increase the risk of maternal death by increasing the risk of dying from direct obstetric complications (associated with abortion, haemorrhage, and sepsis).[11] Compromised immune status and disease interactions provide an immediate biological explanation for the increased risk of maternal death in HIV-infected pregnant women.

Additionally, the risk might be increased due to contextual factors such as poor access to or inadequate quality of health care provided to women infected with HIV, who often face substantial stigma and discrimination from health-care workers and community members. These are particular concerns for adolescents with HIV. In South Africa, the confidential inquiries have identified failures of the health-care system, including substandard care, as main contributors to avoidable maternal deaths, and these problems seem to be exacerbated when the mother is infected with HIV. There are reports of substandard care leading to failures to provide appropriate treatment for those in need, and inadequate management of obstetric emergencies in HIV-infected pregnant women.[11] On the other hand, the recent scale-up of HIV services has, in some settings, resulted in wide-ranging improvements in health systems that might have contributed to improving maternal health in both HIV-infected and uninfected women.[12,13]

The realisation that HIV is holding back progress in reaching Millennium Development Goal 5 on maternal health, at least in sub-Saharan Africa,[14] has spurred welcome discussions about mechanisms to actively link the progress in fighting the AIDS epidemic with efforts to reduce maternal mortality.[15] This realisation is driving greater collaboration between maternal health and HIV constituencies, and an integrated approach to service delivery, so that women with HIV—and their children—benefit from improved HIV care and treatment and improved reproductive health services. A comprehensive approach to the prevention of mother-to-child transmission of HIV could lead to improved services for HIV-infected women, including family planning and early initiation of lifelong antiretroviral treatment for women in need. However, reducing maternal mortality in women with HIV will also require improvements in antenatal care and obstetric services, as well as specific attention to the management of conditions that are aggravated by the underlying HIV infection. The time has come to respond to the call to place maternal health within a continuum of care that integrates a comprehensive range of interventions, to make an impact on maternal, newborn, and child-health outcomes, including those related to HIV.[16]

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