**Objective** To explore the accuracy of routinely collected prevention of mother-to-child transmission of HIV (PMTCT) coverage data in Kenya.

**Methods** In case studies at two government hospitals, the authors reviewed national reporting guidelines, interviewed nurses and undertook a retrospective analysis of routine hospital data from antenatal care, maternity and HIV services from January 2009 to June 2010. Each woman attending these services was given a unique study number to enable analysis of her recorded use of PMTCT services across different hospital visits. These data were compared with the hospitals' monthly PMTCT reports to the district.

**Results** Where a woman made more than one visit, PMTCT drug provision could be reported multiple times for the same woman, and women known to be HIV positive prior to pregnancy were omitted from the denominator of PMTCT coverage calculations. Practices for reporting data on maternal PMTCT prophylaxis provision varied in the two hospitals. According to the study data, using the hospital registers and accounting for multiple visits by the same woman, 642 women were known to have HIV and 412 (64%) were given maternal PMTCT prophylaxis. According to the monthly reports, 430 women were diagnosed as having HIV in pregnancy-related services and 538 (125%) were given maternal PMTCT prophylaxis.

**Conclusions** If replicated elsewhere, these reporting practices could lead to overestimation of national PMTCT coverage. Simple yet accurate routine data collection systems are needed to monitor PMTCT coverage accurately and to highlight where changes need to be made so as to ensure that infants are born HIV free.