

Abstract:

Background: We report the main findings of the WHO Multicountry Survey on Maternal and Newborn Health (WHOMCS), which aimed to assess the burden of complications related to pregnancy, the coverage of key maternal health interventions, and use of the maternal severity index (MSI) in a global network of health facilities. **Methods:** In our cross-sectional study, we included women attending health facilities in Africa, Asia, Latin America, and the Middle East that dealt with at least 1000 childbirths per year and had the capacity to provide caesarean section. We obtained data from analysis of hospital records for all women giving birth and all women who had a severe maternal outcome (SMO; ie, maternal death or maternal near miss). We regarded coverage of key maternal health interventions as the proportion of the target population who received an indicated intervention (eg, the proportion of women with eclampsia who received magnesium sulphate). We used areas under the receiver operator characteristic curves (AUROC) with 95% CI to externally validate a previously reported MSI as an indicator of severity. We assessed the overall performance of care (ie, the ability to produce a positive effect on health outcomes) through standardised mortality ratios. **Results:** From May 1, 2010, to Dec 31, 2011, we included 314 623 women attending 357 health facilities in 29 countries (2538 had a maternal near miss and 486 maternal deaths occurred). The mean period of data collection in each health facility was 89 days (SD 21). 23 015 (7•3%) women had potentially life-threatening disorders and 3024 (1•0%) developed an SMO. 808 (26•7%) women with an SMO had post-partum haemorrhage and 784 (25•9%) had preeclampsia or eclampsia. Cardiovascular, respiratory, and coagulation dysfunctions were the most frequent organ dysfunctions in women who had an SMO. Reported mortality in countries with a high or very high maternal mortality ratio was two-to-three-times higher than that expected for the assessed severity despite a high coverage of essential interventions. The MSI had good accuracy for maternal death prediction in women with markers of organ dysfunction (AUROC 0•826 [95% CI 0•802–0•851]). **Interpretation:** High coverage of essential interventions did not imply reduced maternal mortality in the health-care facilities we studied. If substantial reductions in maternal mortality are to be achieved, universal coverage of lifesaving interventions need to be matched with comprehensive emergency care and overall improvements in the quality of maternal health care. The MSI could be used to assess the performance of health facilities providing care to women with complications related to pregnancy. **Funding:** UNDP–UNFPA–UNICEF–WHO–World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP); WHO; USAID; Ministry of Health, Labour and Welfare of Japan; Gynuity Health Projects.