

Maternal Mortality Stubborn in Cambodia: Institutional Quality, Poverty, and Traditional Practiceⁱ

September 17th, 2010

Bunnak Poch, Ph.D.
National Committee for Population and Development
and Western University, Kingdom of Cambodia

Patrick Heuveline, Ph.D.
California Center for Population Research
UCLA

Abstract

Improving maternal health is Cambodia's Fifth Millennium Development Goal. In 2000, Cambodia set as a goal for improvement in maternal health to lower maternal mortality ratio to 140 deaths per 100,000 live births by 2015 (down from 437 deaths per 100,000 live births in 1998). Despite the government's efforts over the past 10 years, maternal mortality in Cambodia has not improved. Maternal mortality ratios were still estimated as high as 472 deaths per 100,000 live births in 2005 and 461 deaths per 100,000 live births in 2008.

This stagnation is all the more vexing that access to health care services has increased markedly over time. Antenatal care, in particular, is becoming more common, with 81% of mothers having received antenatal care from trained health personnel at least once in 2008, up from 69% between 2000 and 2005, and 39% between 1995 and 2000. At delivery itself, the proportion of births attended by health personnel also increased from 32% in 2000 to 44% in 2005 and 60% in 2008. This increase reflects in part the growing proportion of births delivered in health care facilities. Even if births delivered at home still represented 61% of all births in 2008, the proportion is still down from 78% in 2005 and 89% in 2000. The staffing of health care facilities has also improved, and the number of facilities without a trained midwife has decreased from 229 health centers in 2004 to 79 health centers in 2008.

In the context of such improvements in health care services' staffing, access and utilization, the stubborn maternal mortality trend appears puzzling. The oft-cited difficulties in accurately measuring maternal mortality notwithstanding, the lackluster trend in Cambodia underscores that increasing overall service provision alone does not suffice to bring mortality gains. Barriers to *quality* health care accessibility, including persistent poverty and traditional practices, should also be examined.

The purpose of the study is to analyze the local variation in maternal mortality, health services quality and local characteristics, as measured in 2008 at the level of a "commune" (or *khum*, a sub-unit of a district, of which there are about 1,600 in Cambodia). Specifically, we examine whether better quality of health facilities, easier access to health facilities, higher level of health services utilization, lower level of poverty, and lesser

reliance on traditional practices of birth delivery contribute to lower level of maternal mortality in a commune. Two specific objectives are set for the study. The first is add maternal mortality ratios on a map of health facilities and village residential areas to illustrate visually links between mortality and access to health facilities. The other is to analyze the contribution of two competing sets of factors on mortality: institutional quality factors and socio-economic and cultural factors on mortality. Data on maternal mortality are taken from household records of deaths available in the 2008 Census. Measures of health institutional quality include types of services available, numbers of health services providers (separated for medical doctors, nurses, and trained midwives) per 10,000 covered residents, and the number of beds available. These data are taken from administrative records, which are available from 2004 to 2008. The measures of commune characteristics include, but are not limited to, the average distance from villages to the nearest health center, the level of health services utilization, the poverty rate, and the traditional practice of health care in the communes. Data on the commune characteristics are taken from the commune database available from 2002 to 2008, with the exception of the poverty rate which we take from the ID Poor data collected from 2007 to 2008. Other commune characteristics, such as literacy rate, level of urbanization, TFR, net migration rate, average household size, and the proportion of people involved in non-agricultural work, are also included as control variables.

The study is expected to provide a clearer picture of geographical differences in maternal mortality, as well as the weight between institutional factors, poverty, and health seeking behavior at the commune level. In addition, the study will indicate strategic areas in need of immediate interventions for improving maternal health in Cambodia.

ⁱ Prepared for the 2011 PAA meeting.