Indicating inequities: Reproductive risk in 2007

Nada Chaya* and Sarah E. Haddock**

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Every year, more than a half million women – typically poor, uneducated, and living in rural areas or urban slums – die during pregnancy and childbirth worldwide. Risks associated with childbearing vary tremendously globally and locally within countries, reflecting differences in access to and use of health services, social and cultural practices affecting access to healthcare, and socio-economic levels. What is the combined effect of these factors on reproductive health in various countries? This comparative study gauges the current levels of reproductive risk that countries face based on variables for which data is available. The aim of this analysis is to provide a snapshot of where countries currently stand on a range of indicators and to render the group of indicators into one measure that is useful for policymakers.

Methodology

The study classifies 130 countries, representing 96 percent of the world population, with a population size of one million or more into five quintiles from highest to lowest reproductive risk based on a Reproductive Risk Index (RRI). The RRI is constructed of nine indicators of access to reproductive health services and outcomes for which comparable national data are available from international datasets.

The study follows a conceptual framework developed in consultation with experts in the field of population and reproductive health. It takes a life-cycle approach to reproductive health and emphasizes that every step of reproduction should be both healthy and voluntary. The reproductive process is thus divided into four stages: Sex, Pregnancy, Birth and Survival. The first three stages are then assessed on how Safe and Voluntary they are.

The indicators are selected based on their applicability to the model. The choice of indicators was partly determined by the availability of comparative data for most countries in the world on ICPD+5 goals and Millennium Development Goals (MDGs).

The indicators are HIV/AIDS prevalence among adults, adolescent fertility, percent girls married before age 18, antenatal care coverage, percent of family planning demand met (based on contraceptive prevalence and unmet need for family planning), births attended by skilled health personnel, grounds on which abortion is permitted, maternal mortality ratio (MMR) and infant mortality rate (IMR). Each of the indicators is scored on a 100-

point scale. Scores are then averaged to yield an overall country score which is the Reproductive Risk Index on which countries are ranked.

Findings

In measuring current reproductive risk, we found that countries in the first quintile – highest reproductive risk – share the same risk factors. Likewise, countries falling in the last quintile – lowest reproductive risk – share the same risk factors as the first quintile but in the opposite direction. Countries at highest reproductive risk have low-incomes. In contrast, the world's wealthiest countries are at lowest risk. However, risk factors varied more widely among countries in the other three quintiles.

Three similar country-level reproductive risk assessments we conducted in 1995, 2001 and 2004 [1,2,3] show a similar clustering of countries, especially for high and low reproductive risk categories. The 2004 and 2007 assessments of reproductive risk differ from the two previous ones in that they include measures of gender equality. The 2004 paper also assessed country progress made in the decade since ICPD.

Countries at highest reproductive risk have very low incomes and are mostly in sub-Saharan Africa. Haiti, Yemen and Laos – the poorest countries in their respective regions – are in this quintile. Early fertility, together with limited skilled care during pregnancy and childbirth, contribute to extremely high levels of maternal mortality. East, West and Middle Africa have particularly low rates of skilled attendance at delivery. Levels of contraceptive uptake are extremelely low in this quintile and there is high unmet need for family planning. At about 40 percent, Yemen, Rwanda, Laos, Haiti have the highest unmet need for contraception in the world. Very early marriage is commong. HIV/AIDs prevalence and infant mortality is generally high.

Where available, disaggregated data show that the lack of health and social services disproportionately affect the poor placing them at higher reproductive risk. Ethiopia, for example, has significant regional and urban-rural disparities in access to services and in health outcomes. A substantial portion of the population lives in remote areas that are too far from a road, let alone a health facility.

By contrast, all countries in the lowest reproductive risk category have high incomes: Cuba, China and Singapore are the only countries in the developing world. Access to reproductive health services and health outcomes are generally very good in these countries. Motherhood is safe; skilled care at childbirth is universal and the risk of death from pregnancy or during delivery is extremely low. Contraceptive use is high. Early marriage and infant mortality are rare. Adolescent fertility and HIV prevalence are low.

Conclusions

The study highlights the wide discrepancy in reproductive risk between high and low income countries and documents the tremendous gaps in reproductive health outcomes and access to services between rich and poor countries.

Among the recommendations is the need to focus on the distribution of services because poverty, poor reproductive health and poor access to services are concentrated among certain population groups and geographical areas. A short-term goal is to reduce inequity of service delivery within the context of available infrastructure and weak systems. A long-term goal includes a system-wide approach to improving roads, other transportation and communcation systems as well as health system altogether.

The national level statistics we used, while they elucidate the differentials between poor and rich countries, they mask socio-economic differentials in reproductive health within countries. Differentials (age, gender, income or place of residence) in reproductive risk are moderated by situational factors and therefore interventions, to be effective, need to driven by the local epidemiology and risk factors behind poor reproductive health. This points to the need for better identification of differentials in reproductive health and social services and outcomes among various groups, prioritization of investments by risk factors, and provision of services accordingly.

* Senior Research Associate, Population Action International, 1300 19th Street, NW, Second Floor, Washington, DC 20036, USA.

** Research Assistant, Population Action International, 1300 19th Street, NW, Second Floor, Washington, DC 20036, USA.

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