



Maternal Mortality in 1995:

Estimates developed by
WHO, UNICEF, UNFPA



World Health Organization, Geneva
RHR Reproductive Health and Research



United Nations Children's Fund



United Nations Population Fund

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Abbreviations

CEE/CIS	Central and Eastern Europe/Commonwealth of Independent States
DHS	Demographic and Health Surveys
EIP	WHO Cluster on Evidence and Information for Policy
FSE	Former Socialist Economies
GFR	General fertility rate
ICPD	International Conference on Population and Development
LASAME	Countries in Latin America and Caribbean, sub-Saharan Africa and the Middle East
MMR	Maternal mortality ratio
PMDf	Proportion maternal among deaths of women of reproductive age
RAMOS	Reproductive age mortality study
TFR	Total fertility rate
TRATT	Proportion of deliveries with a skilled health care worker
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

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Reduction of maternal mortality is one of the major goals of several recent international conferences. However, because measuring maternal mortality is difficult and complex, reliable estimates of the dimensions of the problem are not generally available and assessing progress towards the goal is difficult using this outcome indicator. In recent years, new ways of measuring maternal mortality have been developed, with the needs and constraints of developing countries in particular in mind. As a result, there is considerably more information available today than was the case even a few years ago. Nonetheless, the methods available differ considerably so that it is difficult to compare the data obtained from different sources. Moreover, problems of underreporting and misclassification of maternal deaths are endemic to all methods.

In order to strengthen the information base, WHO and UNICEF, with the participation of UNFPA, have developed an approach to estimating maternal mortality that seeks both to generate estimates for countries with no data and to correct available data for underreporting and misclassification. A dual strategy is used which involves adjusting available country data and developing a simple model to generate estimates for countries without reliable information. The approach was first used to develop estimates for 1990 maternal mortality, the baseline data stipulated in a series of internationally agreed goals and targets, including those of the World Summit for Children in 1990 and the International Conference on Population and Development in 1994. The results were published in 1996 and generated widespread interest and comment. A number of criticisms levelled at the approach have been taken into account in the current development of estimates for 1995.

On the basis of the present exercise, the estimated number of maternal deaths in 1995 for the world was 515,000 (Table 1). Of these deaths, over half (273,000) occurred in Africa, about 42% (217,000) occurred in Asia, about 4% (22,000) in Latin America and the Caribbean, and less than 1% (2,800) in the more developed regions of the world. In terms of the maternal mortality ratio (MMR), the world figure is estimated to be 400 per 100,000 live births. By region, the MMR was highest in Africa (1,000), followed by Asia (280), Oceania (260), Latin America and the Caribbean (190), Europe (28) and Northern America (11).

The country with the highest estimated number of maternal deaths is India (110,000), followed by Ethiopia (46,000), Nigeria (45,000), Indonesia (22,000), Bangladesh (20,000), Democratic Republic of Congo (20,000), China (13,000), Kenya (13,000), Sudan (13,000), United Republic of Tanzania (13,000), Pakistan (10,000) and Uganda (10,000). These 12 countries account for 65 per cent of all maternal deaths.

However, the number of maternal deaths is the product of the total number of births and obstetric risk per birth, described by the MMR. On a risk per birth basis, the list looks rather different. The countries with the highest MMRs are all in Africa; the top eleven, with MMRs of 1,300 or greater, are, in rank order, Rwanda, Sierra Leone, Burundi, Ethiopia, Somalia, Chad, Sudan, Burkina Faso, Equatorial Guinea, Angola and Kenya. In all, there are 22 countries in sub-Saharan Africa with MMRs of 1,000 or higher. Only one other country - Haiti - has a value in excess of 1,000.

Table 1: WHO/UNICEF/UNFPA estimates of maternal mortality by United Nations regions (1995)

UN region	Maternal mortality ratio (maternal deaths per 100,000 live births)	Number of maternal deaths	Lifetime risk of maternal death 1 in :
World total	400	515,000	75
More developed countries*	21	2,800	2,500
Less developed countries*	440	512,000	60
Least developed countries*	1,000	230,000	16
Africa	1,000	273,000	16
Eastern Africa	1,300	122,000	11
Middle Africa	1,000	39,000	13
Northern Africa	450	20,000	49
Southern Africa	360	4,500	65
Western Africa	1,100	87,000	13
Asia**	280	217,000	110
Eastern Asia	55	13,000	840
South-central Asia	410	158,000	55
South-eastern Asia	300	35,000	95
Western Asia	230	11,000	95
Europe	28	2,200	2,000
Eastern Europe	50	1,600	1,100
Northern Europe	12	140	3,900
Southern Europe	12	170	5,000
Western Europe	14	280	4,000
Latin America and the Caribbean	190	22,000	160
Caribbean	400	3,100	85
Central America	110	3,800	240
South America	200	15,000	150
Northern America	11	490	3,500
Oceania**	260	560	260

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