

I was asked to do three tasks following the London meeting on measuring maternal mortality in a census; 1) draft text that could be added to a manual to emphasize the meaning of the postpartum period; 2) estimate the costs (in proportional terms) of adding the maternal mortality questions to a census that already plans to ask questions regarding deaths in the household (as recommended by the UN Principles and Recommendations); 3) draft a tabulation plan which countries could use as a template or adapt for their supplemental publication on maternal mortality from the census. Below is what I have come up with so far. Your comments are most welcome.

1) Suggested insert to the manual on measuring maternal mortality in the census

Note: there is already a section called “training of field staff” in the Measure/Evaluation Project manual. The recommended questionnaire layout (see below) is also provided. I suggest adding the paragraph below to stress the importance of clearly defining the postpartum period.

Has any member of this household died in the last 12 months? If yes, record the following information about each deceased person:								
Name	Sex	Age at Death	If the Deceased was female aged 15-49, at time of death was she:					
			Pregnant?		Giving birth?		Within 2 months of the end of a pregnancy or childbirth?	
			Yes	No	Yes	No	Yes	No
			Yes	No	Yes	No	Yes	No
			Yes	No	Yes	No	Yes	No

INSERTION PAGE 9, SECTION: TRAINING OF FIELD STAFF

Census trainers and interviewers need to understand that the questions which seek to identify maternal deaths may occur from any cause during a woman’s pregnancy, her childbirth or the postpartum period, that is, two months following the end of her pregnancy or childbirth. Census trainers should emphasize to interviewers that the postpartum period may be two months following the birth of a child, as we often think of the postpartum period. However, it also includes the two months following a stillbirth or even a miscarriage or abortion. Interviewers need to understand that this question asks about deaths following pregnancy; whether those pregnancies last only a number of weeks or nine months, and whether or not they produce a live born child.

2) Cost of adding the maternal mortality questions:

After looking over a few census questionnaires, here are my assumptions:

1. An average census questionnaire has about 50 questions total, of which 30 get asked multiple times as they pertain to all or most members of the household (many are asked about all members 5, 8, 12 or 15 years and above).
2. I assume these 30 questions are being asked regarding 75% of household members.
3. I assume 4 members to a household.
4. So, each household gets asked 110 questions without the maternal mortality questions. Approximately 1% of households report an adult female death, and would therefore be asked three additional questions.
5. Adding the maternal mortality questions to a census which includes the household deaths would increase the total number of questions asked across the entire census by less than 0.03% - about a quarter of one percent.

I'm not sure how helpful this turned out to be.

3) Suggested tabulations for a separate maternal mortality publication

Below is the suggested layout for a supplemental publication to highlight maternal mortality data collected via the national population census. The suggestions below were formulated with the idea of a policy/advocacy document in mind, more so than a technical document.

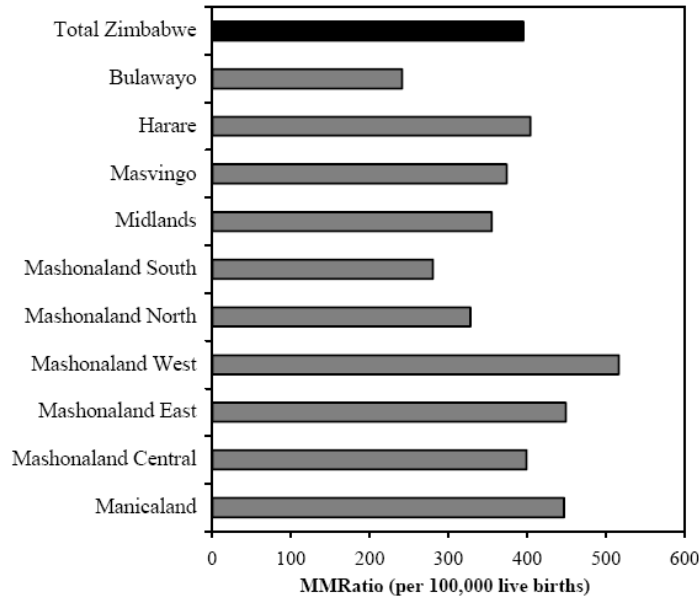
- 1) **Introduction:** description of past and current maternal health policies/Safe Motherhood programs
- 2) **Brief description of census methodology** and the adjustments which were required for births and adult deaths.
 - a. Some countries may choose to make this a technical publication, in which case, more detail could be provided, along with graphs showing the growth balance results. If this is intended to be a policy/advocacy document, the questions posed and the adjustments used could simply be stated with reference to the main census volume.
 - b. If adjustment factors were calculated for individual regions (as opposed to one national adjustment factor), these details should also be specified here.
- 3) **National level results**
 - a. See table 3.1 below, taken directly from the Measure/Evaluation Project manual. In this table, all 4 maternal mortality indicators are provided by age of woman. Data for any of these indicators could be presented graphically.
 - b. Lifetime risk is expressed per 1000 women. For advocacy purposes, one could take the reciprocal and state that one in 49

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- women would die of maternal causes (given current levels of fertility/mortality) over the course of her reproductive life span.
- c. Figure 3.1 from the manual presents the regional breakdown for maternal mortality ratios. Mapping would also be an effective means of presenting these data. Other suggestions include: pie or bar chart representing the n of maternal deaths by region.
 - d. Maternal mortality ratios or rates could be presented by a household wealth index (see Filmer and Pritchett, 2001. Demography).
 - e. It is not recommended that one present the breakdown of maternal deaths by time of death (pregnancy, childbirth or the postpartum period) even if three separate questions were asked. It is very difficult to anticipate how family members would classify a death around delivery (for example, late antepartum, intrapartum and immediate postpartum deaths).
 - f. Comparison of existing estimates of maternal mortality with census estimates.

Age Group	Number of Women	Number of Women s Deaths in the Last 12 Months	Number of Deaths due to Maternal Causes	Number of Live Births in the Last 12 Months by Maternal Age Group	MMRatio (per 100,000 live births)	MMRate (per 1,000 women)	Proportion of Deaths due to Maternal Causes	Lifetime Risk of Maternal Death (per 1,000 women)
15-19	632,510	1,555	215	51,532	417	0.34	0.14	1.7
20-24	523,060	2,265	342	113,965	300	0.65	0.15	3.3
25-29	376,495	2,379	308	77,393	398	0.82	0.13	4.1
30-34	326,299	2,073	214	58,693	365	0.66	0.10	3.3
35-39	259,555	1,873	189	37,559	503	0.73	0.10	3.6
40-44	189,509	1,496	93	15,224	611	0.49	0.06	2.5
45-49	143,441	1,354	58	4,520	1,283	0.40	0.04	2.0
Total	2,450,869	12,995	1,419	358,886	395	0.58	0.11	20.3

FIGURE 3.1: Maternal Mortality Ratio by Province, Zimbabwe, 1992 Census



4) Maternal health service use and maternal mortality:

In this chapter, census data could be presented alongside survey data or data from routine health information systems regarding use of antenatal care, use of a medically trained attendant at birth, institutional birth, cesarean birth rate and data on the availability of basic and comprehensive emergency obstetric care.

Examples: a scatter plot of regional maternal mortality ratios by medically trained attendant at birth; maps with color-coded regions indicating low, medium and high maternal mortality ratios, with % skilled attendance (or other process indicator) super-imposed on each region.

5) Repeat of Chapter 3 (national results) for each region

6) Conclusion/Discussion

Text to highlight regions or segments of the population which deserve increased programmatic attention. Specific recommendations to address the differentials presented in this report.