SISTERHOOD METHOD (INDIRECT)

The original (indirect) sisterhood method was developed in the late 1980s as an efficient means of measuring maternal mortality through population-based surveys, generating a variety of indicators: the proportion of maternal deaths among female deaths (PMDF), the maternal mortality ratio (MMR), the maternal mortality rate (MMRate), the lifetime risk of maternal death (LTR), and the adult female death rate.

Adult respondents are asked four questions about the survival of all their adult sisters born to the same mother (see below). The method reduces the need for large sample sizes because there may be more than one respondent per household, more than one sister per respondent, and because the time period of death is not restricted.

Identification of death:

- adult respondent reports deaths of his/her adult sisters retrospectively to interviewer by responding to questions 1-3 of the 4 questions

Ascertainment of maternal/pregnancy related status:

- adult responds to the 4th (pregnancy-related) question

It is not possible to obtain sub-causes of maternal death, as respondent may not know the signs and symptoms that preceded the death.

Advantages:

- when used on a probability sample it provides data that represent the population can be used with relatively small sample sizes
- the four questions can be easily added to multipurpose questionnaires/surveys
- it is particularly efficient in high fertility settings where respondents have large numbers of siblings
- it can be used at national and sub-national levels
- data processing and calculation of estimates is comparatively simple
Limitations:

- it gives retrospective estimates (usually for 10-12 years before the survey - a longer reference period than with the direct sisterhood method)
- it assumes no major trends in fertility; it is less appropriate in settings with substantial migration
- it is difficult to get additional information about deaths (causes, risk factors, timing, etc as sibling may not have such details)
- it generally has large confidence intervals (as a function of reduced sample size)
- like other survey-based methods, there are no established demographic techniques to permit evaluation and adjustment, if necessary

Measurement requirements:

- questions are used to derive proportions of adult sisters dying during pregnancy, childbirth or puerperium
- standard adjustment factors convert these proportions into LTR
- LTR can be converted to MMR and MMRate given assumptions about the Total Fertility Rate (TFR)
- the TFR is needed.

Sisterhood questions

Four questions are asked in addition to the age of the respondent:

1. How many sisters have you ever had, born to the same mother, who ever reached the age 15 (or who were ever married) including those who are now dead?
2. How many of these sisters reaching age 15 are alive now?
3. How many of these sisters are dead?
4. How many of these dead sisters died during pregnancy or during childbirth, or during the six weeks after the end of the pregnancy?

Guidelines

Scientific articles


