



A guide and tools for  
maternal mortality programme assessment

**MODULE 4, Tool 9**

# **Maternal Death from Informants and Maternal Death Follow-on Review (MADE-IN / MADE-FOR)**

**Version 2.1**

## List of Acronyms and Abbreviations

ASKES	Health insurance plan in Indonesia to provide care for civil servants and their families
ASKES GAKIN	Health insurance plan in Indonesia provided by the government to poor communities with very low incomes so that they can obtain access to free health services.
CHW	community health worker
DHS	Demographic and Health Survey
Epi Info	epidemiology data entry and analysis software
InterVA-M	Interpretation of Verbal Autopsy material for Maternal/non-maternal deaths
MADE-IN	Maternal Death from Informants
MADE-FOR	Maternal Death Follow-On Review
MMR	maternal mortality ratio
MMRate	maternal mortality rate
PNS	Partner National Societies (relates to the Indonesian ASKES Health Insurance Plan)
SSS	Sampling at Service Sites (tool)
TBA	traditional birth attendant
WHO	World Health Organization
WRA	women of reproductive age

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## 4(9) INTRODUCTION

In many developing countries, vital registration systems are inadequate for obtaining accurate and reliable health-related data. In many cases, these systems are poorly maintained or unused by the local community. Where they do exist, the causes of deaths related to pregnancy, childbirth and the puerperium are often poorly recorded. In these circumstances, different approaches have been used to measure levels and causes of mortality. The problems with most of the commonly used methods are outlined in the World Health Organization (WHO) publication *Maternal Mortality in 2000* (WHO, 2004a). Large-scale surveys, in particular, are often used as an alternative way of gaining reliable data, and modules to measure rates of maternal mortality have often been added to other major health surveys such as the Demographic and Health Surveys (DHSs) (Stanton et al, 1997) or censuses (Stanton et al, 2001). These surveys, however, are not always an 'easy' solution: they usually only take place every five to ten years, are costly to implement, and do not permit useful estimates to be made at sub-national levels.

The difficulty in measuring maternal mortality, including problems associated with costs, validity and reliability of existing methods, has led Impact to develop methods that are cheaper, more reliable or easier to undertake in a developing country context. The [Sampling at Service Sites \(SSS\)](#) (tool 1 in this toolkit) has outlined one method for collecting data for measuring rates of maternal mortality in the community using a survey approach. This useful tool, however, does not examine the causes of maternal deaths. Furthermore, it is not suitable for obtaining very precise estimates or for highly intensive surveys (since it uses the 'sisterhood method'). Where maternal mortality ratios (MMRs) have fallen substantially below 500 per 100,000 live births, any method based on interviewing a population-based sample of households or women becomes increasingly expensive and inefficient. In order to develop strategies and interventions in maternal health that are evidence-based and targeted on local problems, it is also important to tell the 'story' of how women die in order to analyse the underlying factors that lead to deaths (WHO, 2004b).

The Maternal Death from Informants / Maternal Death Follow-On Review (MADE-IN / MADE-FOR) is an approach that allows the measurement of maternal mortality down to the community level, together with an analysis of the causes of maternal deaths. Where there are suitable networks of informants available, this tool is not only suitable for intensive surveys or even censuses, but can also be used in large surveys to give precise estimates. In addition, the tool is less costly than household surveys or SSS, especially in lower-fertility, lower-mortality contexts. It goes beyond simply counting deaths, it develops an understanding of why they happened and how they can be averted. Where large numbers of women die outside of health care facilities in the community, identifying the main causes of, and factors contributing to, deaths can be particularly difficult. Investigating these deaths, however, is very important since they shed light on the medical and non-medical factors and barriers to care that lead to women dying (Lewis and Berg, 2004). Action based on the results of community-based research can save lives not only through introducing or refocusing health education messages and improving community awareness and knowledge, but also by adopting changes in clinical practice and reconfiguring local services to make them more acceptable, accessible and available.

To date, MADE-IN / MADE-FOR has been conducted by Impact in two districts of Indonesia and the guidance contained in this tool is based on that study. The lessons learned from the experience are also discussed.

### 4(9).1 What is MADE-IN / MADE-FOR?

MADE-IN / MADE-FOR is a research tool that identifies pregnancy-related deaths in communities (rural or urban 'villages'). Thus, depending on the communities chosen for the study (which might be all villages in a district, or a national sample, or anything in between), it can be used as a basis for estimating the MMR and the maternal mortality rate (MMRate) at any level of sufficient size – from community to district up to national. It also provides information on the causes of mortality. Village-level informants identify deaths of women of reproductive age (WRA) (aged 15–49 years) in their communities (MADE-IN). Follow-up interviews are then conducted with family members of the dead women (MADE-FOR) to confirm if deaths are maternal or non-maternal and to explore the cause of and circumstances surrounding the death.

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The MADE-IN / MADE-FOR method has five key components designed to generate a reliable MMR and MMRate estimate, and to record the identification of cause of death:

1. **Pilot studies** to establish the most suitable network(s) of informants, whether in fact these exist consistently and sufficiently throughout the intended study area, and whether their knowledge of maternal deaths is sufficient to make MADE-IN / MADE-FOR possible. Pilot studies also establish suitable modes of operation for study activities.
2. **Listing of recent deaths by village informants (MADE-IN)**. Informants, who can include local leaders, community (voluntary) health workers (CHWs) and traditional birth attendants (TBAs) (but not paid health care providers), work to investigate deaths in their community and generate a list of recent deaths of WRA. These lists are then reviewed and verified at a 'listing meeting' in the community, to ensure that there is no duplication in deaths recorded, and to maximize the accuracy of details given.
3. **Follow-up interviews with relatives (MADE-FOR) and analysis of cause of death**. A structured questionnaire is conducted with someone who has detailed information on the death (usually a close relative). The interview is a brief verbal autopsy, suitable for processing by InterVA-M<sup>1</sup> software, which aims to investigate the circumstances and cause of death, as well as to collect data on socio-economic status, health-care-seeking behaviour and referral patterns at the time of death.
4. **Comparing data sources**. Data obtained through MADE-IN / MADE-FOR can also be compared with other sources of data on maternal mortality, if any exist. If more than one network of informants has been used in MADE-IN / MADE-FOR, it will be possible to compare these.
5. **Calculation of the MMR and MMRate**. Listings of confirmed maternal deaths used to calculate mortality levels. If more than one informant network has been used to identify deaths, 'capture-recapture' analysis can be used to estimate total maternal deaths, even if an appreciable proportion of deaths have not been captured by any network.

Since MADE-IN / MADE-FOR relies on the memory of community informants to record deaths, and that of family members to give details on the circumstances of the death, it is recommended that only deaths in the previous **two years** before the study are recorded. For the same reason, each informant should be responsible for collecting data in a small area that they can be expected to know really well (usually a sub-village level).

MADE-IN / MADE-FOR can be used in different ways depending on research needs. It can be conducted at different levels – local, regional, or national. It could be used in a census approach, recording all deaths in all villages within a given area; or in a survey approach at the national level, conducting MADE-IN / MADE-FOR in a cluster-sample of districts, and villages within districts.

## 4(9).2 Why use MADE-IN / MADE-FOR?

The method is a low-cost approach to recording and analysing maternal deaths at the community level. It reduces the financial and logistical overheads of carrying out a major survey by involving the community in identifying maternal deaths. This is not only very important for ensuring accurate data but also, and perhaps even more importantly, it raises community awareness of maternal health issues and acts as an advocacy tool. Furthermore, unlike some alternative methods (such as those using sisterhood methods), MADE-IN / MADE-FOR allows the recording of *all* maternal deaths in a defined area, enabling more precise estimates of maternal mortality in relatively small populations.

The method also includes important steps to verify reported information on mortality. Through a collective process, village informants discuss death listings together with other informants from the same area, and results are verified through follow-up visits. By involving several people in recording deaths, the accuracy of the information collected is improved.

In settings where a significant proportion of women die at home, the verbal autopsy component of the study also provides a way of identifying a medical cause of death, which otherwise would not be possible. The approach allows medical and non-medical factors to be explored in an analysis of events leading up to a maternal death,

<sup>1</sup> [http://www.maternal-mortality-measurement.org/MMMResource\\_Tool\\_VerbalAutopsy.html](http://www.maternal-mortality-measurement.org/MMMResource_Tool_VerbalAutopsy.html)

and thus provides a more comprehensive picture of the determinants of maternal mortality. An important principle of this approach is the use of a confidential, non-threatening environment in which to describe and analyse the factors leading to adverse maternal outcomes. Ensuring confidentiality leads to an openness in reporting which provides a more complete picture of the precise sequence of events.

Finally, although the method outlined in this toolkit is based on the retrospective analysis of data, it could also be applied prospectively through integration into routine recording and reporting systems – and Impact is currently planning an evaluation of such a system. It is likely that the method could also be used to collect information on other types of vital events, including births or infant and child deaths. Community informants could therefore become a permanent mechanism for monitoring and reporting on health outcomes in the local area.

### 4(9).3 Limitations of MADE-IN / MADE-FOR

Since MADE-IN / MADE-FOR relies on informants' memories and knowledge to record deaths in the community, the accuracy of the method depends on the length of time and size of area covered by informants. If there are no suitable networks of informants, the method cannot be used. The method also relies on the memory of the family in describing the circumstances of a death. If the recall period were to be extended beyond the recommended two years, it is likely the reliability of the data would be reduced. Limiting the period of recall to two years reduces the 'total exposure' (i.e. sample size), compared with sisterhood method-based approaches (where a five-year recall is often used). However, MADE-IN / MADE-FOR is still cheaper per unit of exposure. It is likely, as with all methods, that many deaths early in pregnancy, and sensitive deaths (e.g. in unmarried women, or following induced abortion) will be missed.

The verbal autopsy component also has its limitations. Medical causes obtained from this method are not perfect. Although the InterVA-M programme can be used to analyse the cause of death to obtain a reliable cause of death determination, it is possible that different assessors may arrive at different medical causes. Causes of death obtained from lay informers are not always in accord with those obtained from death certificates. Under-reporting is a particular concern for early pregnancy deaths and for deaths from indirect causes, while direct causes of maternal deaths may be over-reported.

### 4(9).4 Using MADE-IN / MADE-FOR

The process of carrying out a MADE-IN / MADE-FOR study involves five key steps. In most cases this method will need to be adapted to the particular national/socio-economic/cultural setting. Therefore it is recommended that all these steps be considered before commencing the study.

#### Step 1: Design and prepare for the study

##### *Identify study area and time period*

The study area may have been pre-selected by the larger research programme or national or district stakeholders. Impact conducted MADE-IN / MADE-FOR in Indonesia in two large districts: Serang and Pandeglang (population sizes approximately 1.8 million and 1.1 million respectively). Since the research method is resource-intensive, it is important to pay careful attention to the logistics of the survey, in order to keep efficiency high.

As noted above, the time period of the death listing is usually limited to two years before the current date, due to the need to rely on human memory. The team will need to establish an exact start and end date for the listing of maternal deaths – and these should be notable dates which people are likely to remember whether deaths were before, or after.

To enable comparisons of maternal mortality risks in geographic sub-groups (for instance, urban and rural) – which can be extremely useful – it will be necessary to conduct MADE-IN / MADE-FOR in a sufficiently large

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area, with a sufficiently long time period, so that there are (as a rough guide) at least 100 maternal deaths expected altogether (but preferably more than this).

### **Obtain permissions**

Seek permissions from the ethics committees of collaborating institutions, from the regional health administrations in the country, and from the participating hospitals and health centres.

### **Prepare and adapt study instruments**

MADE-IN / MADE-FOR requires many different research instruments, information sheets and forms. These documents, which are discussed in the sections below, will all need to be carefully prepared in advance, to enable the research to proceed smoothly. If generic Impact instruments such as the MADE-IN Death Listing Forms ([section 4\(9\).7](#)), or the MADE-FOR Questionnaire ([section 4\(9\).7 form 4](#)) are being used, these will need to be carefully reviewed and adapted to ensure their usability within the local context. For example, local terminology for health institutions or medical terms will need to be inserted.

### **Organize the research team**

Various different research staff and fieldworkers will be required to complete the study. The list presented here is based on the study team Impact used to complete the fieldwork for one large district of around 1.5 million people over a four-month period. Different circumstances and different timetables may require somewhat different balances of staff:

- **Study coordinator.** For each district, at least one study coordinator will be needed to oversee the research, including organization of research sites, obtaining study permissions, supervising data collection by fieldwork teams, and supervising logistics.
- **Finance and logistics officer.** Responsible for the budget, disbursement of funds, and research logistics.
- **Three fieldwork teams, each with four fieldworkers.** Each team should have a team leader to ensure tasks are completed, and to liaise with the logistics and finance officer; fieldwork teams are responsible for organizing preparatory meetings, listing meetings, confirmation visits and MADE-FOR interviews.
- **Field coordinator assistant.** To support the study coordinator and the finance and logistics officer, and to facilitate communication between different team members.
- **Research support staff.** One data manager, two data entry officers, and three drivers.

The fieldworkers recruited to do the main fieldwork may require up to a week's training. This includes development of skills for facilitating meetings, communication skills, training on data collection instruments, and the data collection process.

### **Plan data collection**

Data collection in a district with a population of around 1.5 million will usually take three to four months. Each step outlined below should follow on rapidly from the previous one. Once deaths have been identified using MADE-IN, the follow-up interviews using MADE-FOR should be conducted straight away. The study coordinator will need to plan the data collection carefully in the sub-districts or villages, using their different fieldwork teams.

## **Step 2: Conduct the MADE-IN informant survey**

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The aim of MADE-IN is to generate reliable listings of potential maternal deaths in a district within the past two years. By developing a list of all deaths of all WRA, the process leads to a preliminary listing of maternal deaths, as well as cases that require confirmation to be classified as maternal. The process to generate this list includes several key activities which are discussed in this section. Figure 4(9).1 also shows the process schematically.

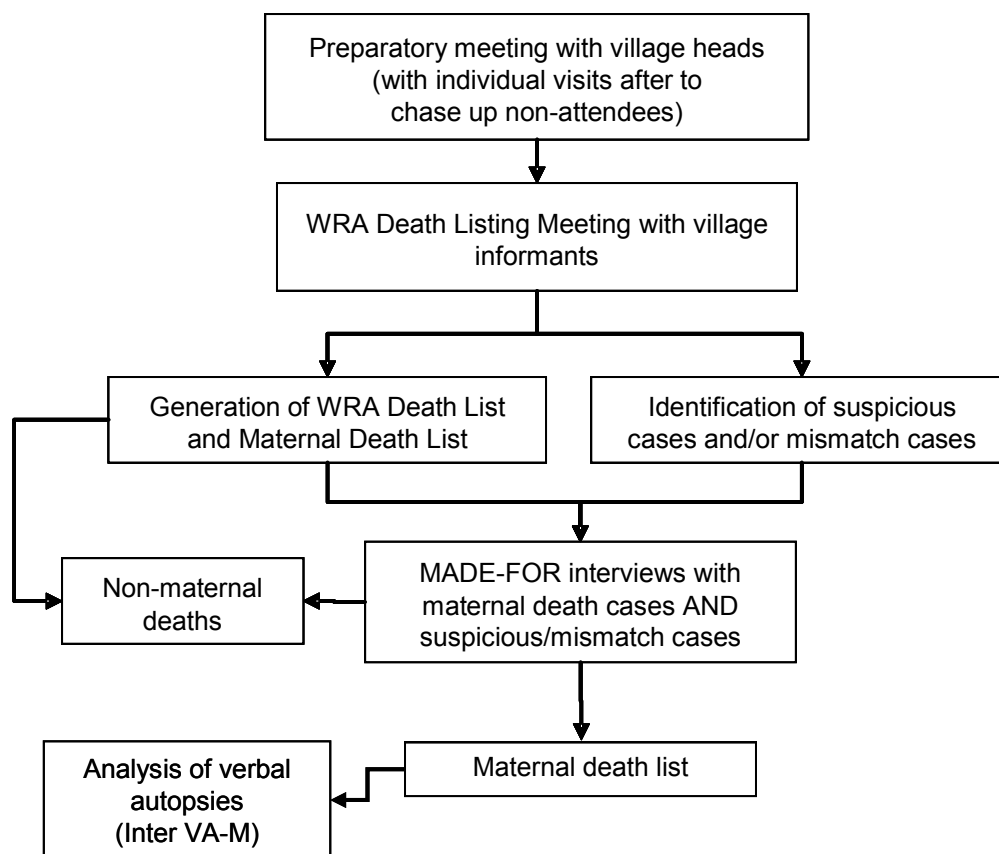


Figure 4(9).1: MADE-IN / MADE-FOR activities flow chart

### **MADE-IN pilot survey**

A pilot survey should be conducted for several reasons. Firstly, it can determine which key informants in the local communities give the most reliable information about WRA deaths. It can determine whether the informants exist consistently and sufficiently throughout the intended study area, and whether their knowledge of maternal deaths is sufficient to make MADE-IN / MADE-FOR possible. A pilot survey also establishes suitable modes of operation for ‘enrolling’ networks, efficiently arranging meetings, and determines in detail the steps required for the whole process. Finally, it can help to ensure that the informants use the survey forms correctly or to establish whether there are problems with the forms.

### **Identification of the village informants**

Possible informants to be considered include:

- Community health workers (CHWs) (voluntary, not in the formal health service);
- Neighbourhood or local development coordinators;
- Traditional birth attendants (TBAs);
- Religious workers or leaders;
- Other community leaders or sub-leaders.

It is advisable not to use trained health providers as informants, since the use of MADE-IN / MADE-FOR can often demonstrate poor routine health monitoring from the health facility and a conflict of interest may arise. Informants should be literate (or have access to someone who is, to help them fill in the form). For the tool to be



efficient, the informants should have coverage of approximately 100 households, and should be able to report vital information regarding these. The best choice of informant(s) can be evaluated through a pilot study.

**Tip:**

Impact's experience in Indonesia demonstrated that voluntary CHWs were sufficiently accurate and reliable informants in rural areas, and much cheaper and easier to use as informants than the major alternative – neighbourhood coordinators – since fewer were sufficient for a village, and they were used to coming to meetings at the sub-district health centre. In urban areas, however, Impact determined that CHWs alone were not likely to be sufficiently accurate and reliable informants, and so used neighbourhood coordinators as well. Informants in rural areas reported deaths in an area covering each health post, which meant that four to five informants were selected in each village area. In urban areas, both CHWs and neighbourhood coordinators were involved in (separate) listing meetings. The number of neighbourhood coordinators in a village varied from approximately 20 to 80.

**Preparatory meetings with village heads**

Before the study commences, a preparatory meeting should be held at the sub-district level. The participants of the meeting will be the head of the sub-district and all the village leaders in that area. The objectives of this meeting are:

1. To get permission from the village/sub-district leaders for all data collection activities, including both the information to be gathered by informants and also for the follow-up home visits to further investigate identified cases of death;
2. To agree on and determine the village informants to be involved;
3. To decide on a time and venue for the WRA Death Listing Meeting with village informants;
4. To decide on the mechanism for distribution of invitations and the Death Listing Forms to village informants.

The meetings should be planned by the fieldwork team leader responsible for that area, who will coordinate activities with the relevant community health centre. One of the data collectors should facilitate the meeting, and two should act as meeting secretaries (report writing, administrative issues). Meetings could be held either in the local health centre or the local administrative office at the sub-district level. The relevant forms will need to be prepared in advance to be distributed at the meeting. They should include:

- An informed consent form for the village head (to give consent for the study to be conducted in the village);
- An information package on the study for the village head (including background information on the study, study objectives, the methods to be used, the different research activities, and contact information);
- A form to register nominated village informants;
- Invitation letters with information package for village informants (including background to the study, study objectives, methods to be used, their role as informants, the date of the WRA Death Listing Meeting, and contact information);
- WRA Death Listing Forms (with instructions) ([section 4\(9\).7](#)).

In some instances, the village heads may not turn up at the meeting organized by the research team. In these cases, the research team should conduct individual visits to these leaders to go through the same agenda items (i.e. to explain the study, ask their permission, identify informants and distribute the correct forms).

**Distribution of WRA Death Listing Forms**

After the preparatory meeting, the village heads are responsible for distributing the invitation letters, information packages and WRA Death Listing Forms to the village informants who have been identified at the meeting. Informants are asked to complete these forms (samples of which are contained in [section 4\(9\).7](#)) with detailed

information about the death, including whether the woman died during pregnancy, delivery or within six weeks postpartum; date and place of death; and information about the woman who died, including age, name of husband, and address where the woman usually lived.

### **WRA Death Listing Meeting**

Village informants are invited to a WRA Death Listing Meeting, and asked to bring with them their completed WRA Death Listing Forms. In Indonesia, each informant brought the listings for their own area. However, since some informants do not turn up, it may be helpful to ask each informant to list all the deaths in their village, not only those in their own area. Ideally, not more than 30 to 35 informants should be invited to each meeting. The main objective of the meeting is to obtain a complete list of deaths of WRA by village, agreed by the different informants. During the meeting, informants discuss their death listings in groups with other informants from the same village. Informants therefore can complete their forms together, relying on a collective rather than individual memory. Usually, the meetings are conducted at the sub-district level, though more than one meeting may be required if there are too many informants. If two networks of informants are being used, separate listing meetings should be held for each network.

Specific items on the meeting agenda would normally include:

1. *Verifying the informants' understanding about the Death Listing Forms.*  
Facilitators explain the study to participants, and explain again how to complete the forms.
2. *Correction of information on forms, by the individual informants.*  
With help from facilitators, informants should correct their individual MADE-IN Village Informant Death Listing Form ([section 4\(9\).7, form 1](#)).
3. *Group discussion with other informants to confirm and correct information collected.*  
Informants should be seated in their village groups, and each group should be assisted by a facilitator (data collector from the research team). During the group work, the death listings are discussed amongst informants to ensure the correctness of information given, and to ensure that deaths have not been listed more than once.
4. *Compilation of WRA death information by village, based on the individual forms and agreed by all informants, including the pregnancy-related status of the deaths.*  
During their discussions, informants should complete the MADE-IN Village Summary Death Listing Form ([section 4\(9\).7, form 2](#)). This form is a summary of all the deaths in the village from the various informants responsible for that area. Group discussions may lead to further changes in the individual MADE-IN Village Informant Death Listing Forms ([section 4\(9\).7 form 1](#)). If there are changes, informants should strike through rows that do not meet the inclusion criteria, and make a note of the change with the date.
5. *Identification of households for confirmation and MADE-FOR visits.*  
Facilitators ask informants for assistance in finding the houses for confirmation visits and follow-up interviews. This includes details of the address, as well as permission to go directly to the house if no informant is in the village. Facilitators must explain the need for follow-up interviews, and ask for approval to visit and interview the dead woman's family. It is important to explain the need for one-to-one interviews with family members, and the need to ensure confidentiality (for example by asking others to leave, or by assuring that there are no observers during the interview process).

Each group facilitator is responsible for ensuring that the MADE-IN Village Summary Death Listing Form ([section 4\(9\).7, form 2](#)) is completed. They should also clearly mark on the form each case that is an eligible maternal death (for example with a letter 'M' next to the case ID), or which might be an eligible maternal death. A maternal death is defined as death occurring during pregnancy, delivery, or within 42 days of the end of pregnancy, irrespective of the duration of the pregnancy, from any cause. Instructions for filling out the summary form are contained at the end of the form. The research team should also keep a detailed register of each meeting, including details of the informants invited, the informants who attended, the number of forms distributed, the number left blank, the number returned, and the number of informants to chase up.

After the meeting, the research team may also need to chase up informants who did not attend the meeting. In some cases, informants may have sent their forms with other participants, but there may be queries over their entries. In other cases, there may be no form at all. This process is known as the 'mop-up' process, and involves conducting confirmation visits to the houses of informants. During these visits, the research team can collect and/or complete the MADE-IN Village Informant Death Listing Form and the MADE-IN Village Summary Death Listing Form with the informant. In Indonesia, usually at least one or two mop-up visits were required after each meeting.

**Tip:**

In Indonesia, two groups of informants were used, both neighbourhood coordinators and CHWs. Separate Death Listing meetings were organized for each group. After the meetings, this led to the identification of several 'mismatch' cases, where one group of informants had identified a death, but not the other. Using two groups of informants can therefore increase the reliability of results, especially if 'capture–recapture' analysis is used.

### **Identification of suspicious cases**

After Forms 1 and 2 have been completed, facilitators should also complete a MADE-IN Mismatch and Suspicious Death Cases Form ([section 4\(9\).7, form 3](#)). This form should register:

- Cases of deaths that have been reported by one informant, but not others;
- Cases where there was disagreement if the death was maternal;
- Cases where it is unclear if the death was maternal (for example, when cause of death is recorded as a direct obstetric cause, but is not noted as maternal; or in cases where cause of death is recorded as 'vaginal bleeding', but there is no confirmation that this occurred during pregnancy, delivery or within six weeks after pregnancy ending);
- Other cases considered as suspicious by the research team.

Where there are two networks of informants being used, it is important for the capture–recapture estimates that it is made clear whether a confirmation visit was indicated:

- By the results of the listing-information from the first network (ignoring the second);
- And/or by the results of the listing-information from the second network (ignoring the first);
- Or ONLY after bringing information from both networks together.

After mismatch or suspicious cases have been identified on form 3, a confirmation visit is required to confirm the death and/or cause of death. These visits should be combined with the MADE-FOR interviews with all other maternal deaths identified.

### **Step 3: Conduct the MADE-FOR follow-up interviews**

The aim of the Maternal Death Follow-on Review (MADE-FOR) is to gather socio-economic information about the woman who died, and information about the circumstances and causes of the death. In MADE-FOR, data collectors use a structured questionnaire ([section 4\(9\).7, form 4](#)) to interview the family members of women who have reportedly died from maternal causes, or other persons knowledgeable about her death.

Information sought includes:

- Confirmation that the death was maternal;
- Confirmation that the death matches the study criteria (i.e. within specified time period and in specified location);
- The circumstances of the woman's death to identify the cause of death;
- The woman's socio-economic status (including level of education and household wealth);

- The pattern of health service utilization during pregnancy, and on health service utilization and referral near the time of death.

The socio-economic and health service utilization information will be much more helpful if there is comparable information available about pregnant women who did not die. Sources of such information could be a specific companion survey, DHS, or other pre-existing surveys (which may include birth, socio-economic, and service utilization information). The questions used in the MADE-FOR should match closely those used in sources of information to be used for comparisons.

### **Ethical considerations**

When conducting the interviews, all interviewers must consider the ethical aspects of the research and the sensitivity of interviewing someone who has recently lost a family member or relative. This includes seeking the appropriate informed consent for the interview and any follow-up interviews, assuring confidentiality on the part of the research team, and maintaining sensitivity and neutrality during the interview process. The interview should NOT be conducted if the woman died less than two weeks before the interview process or on other days after a death when ceremonies are held. Researchers should ensure a delay that is appropriate for local customs. Interviews should also be conducted at a time that is convenient for the respondents. These issues are outlined at the beginning of the instructions for the MADE-FOR Questionnaire ([section 4\(9\).7, form 4](#)).

### **Participant and respondent selection**

MADE-FOR interviews are carried out for all deaths classified as maternal deaths during WRA Death Listing meetings or during the first part of the MADE-FOR interview, if it is a confirmation visit. If possible, interviews should start on the same day as the WRA Death Listing meeting, or at the latest one day after. Interviewers may ask for help from village informants or other local people to find the houses of the nominated respondents.

Ideally, respondents for MADE-FOR should be at least 17 years old and have:

- a. been with the woman when she died, or
- b. lived with the woman for three consecutive months before her death, or
- c. lived with the woman during her illness before death (if the woman was sick before death).

The preferred respondent is the husband (if the woman was married) or the mother (if the woman was unmarried). If the husband or mother fulfills all criteria, ask his/her agreement to be interviewed. If the husband and/or mother do not fulfill the criteria, ask if there is an individual who does meet the inclusion criteria listed above. If an ideal respondent is not available, the best available should be selected.

If a respondent refuses to be interviewed, interviewers should try to understand the reasons for the refusal. Interviewers may be able to address some of their concerns by fully explaining the objectives of the interview, and also by explaining that the study has the approval of the head of the village. Sometimes, the timing of the interview may be inconvenient, in which case the interviewer should return at a time that suits the respondent.

### **Conducting the interview**

The questionnaire is contained in [section 4\(9\).7 form 4](#), together with instructions for its completion at the end. The research team leader(s) will assign data collectors to conduct MADE-FOR interviews in specific villages. Interviewers must:

- Organize the logistical arrangements for their interviews;
- Maintain good relations with village officials and villagers;
- Conduct interviews with the best respondents to ensure high quality data is collected on the maternal death and its causes;
- Probe to gather clear information;
- Keep daily records concerning the problems, constraints and solutions;
- *Re-check* questionnaires and *cross-check* other interviewers' questionnaires (to identify missing or unclear information, etc.);
- Submit questionnaires to the team leader after re-check and cross-check.

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A standard interview protocol should be used when visiting the family of the dead woman, including proper introductions and the use of the informed consent form on the MADE-FOR Questionnaire ([section 4\(9\).7, form 4](#)).

Some of the interviews will be confirmation visits, to confirm if a suspicious or mismatch case was a maternal death. In some of these cases, as well as some of the standard MADE-FOR interviews with cases that had previously been identified by informants as eligible maternal deaths, the death may not in fact be confirmed as maternal by the family. In other cases, the death may not fit the study criteria (i.e. date of death or location of death). In these situations, interviewers will ask only sections 1–3 of the questionnaire and then stop the interview. They will need to insert the correct 'result code' on the first page of the questionnaire after terminating the interview (see [section 4\(9\).7, form 4, instructions](#)). If a death is confirmed as maternal, and it meets the study criteria, then the interviewer proceeds with the rest of the questionnaire.

### **Data management and quality assurance**

At the end of all MADE-FOR activities in one sub-district, the team must ensure that the following documents have been completely and correctly filled out:

1. MADE-FOR forms for every maternal death case identified in the WRA Death Listing meetings and through confirmation visits;
2. Informed consent forms for every MADE-FOR visit (page 1 of the MADE-FOR questionnaire).

In addition, for all MADE-FOR forms:

- a. Each interviewer should check and edit their own form (all data, 100%);

and each form should be:

- b. checked and edited by another interviewer (all data, 100%);
- c. checked and edited by the data collector team leader (all data, 100%);
- d. checked and edited by the field coordinator or field coordinator assistant (all data, 100%).

To make further assurance of quality, re-interviews should be carried out by the field coordinator and field coordinator assistant with a random sample of 10% of the interviews conducted (but only in cases where the respondent has given permission for this).

During the data collection phase, initial analyses can be run, including:

- a. Checks of each variable for missing values;
- b. Checks on frequencies by interviewer (to try and identify odd distributions from interviewers who are collecting data incorrectly);
- c. Checks for invalid combinations of variable-values;
- d. Checks to assess that the distributions of ages, dates are reasonable.

## **Step 4: Data analysis**

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### **Match MADE-IN / MADE-FOR lists with results from other sources**

Once MADE-IN and MADE-FOR are completed and a complete list of deaths of WRA is obtained, including information on whether the death is maternal, this list can then, if resources are available, be matched and compared with information from other sources. Matching can identify and clarify weaknesses in other data sources, and can also identify other deaths and information missing from MADE-IN / MADE-FOR. Cases should be matched manually, although some software such as Excel can assist in the process, for example for sorting the cases by name and address. This step can be time-consuming and difficult, since there may be differences in names and other information. Matched cases are marked to avoid double counting.

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The MADE-IN / MADE-FOR list, and totals (without matching) can be compared with data from the health centre information system (maternal audit form, death listing, etc.), or from other possible data sources, such as hospital death registers or results from hospital-based studies (if available).

### **Generate final mortality listing**

If cases from the different data sources have been matched, the next step is to reconcile conflicting information from different sources. To estimate the MMR and MMRate for a certain area, the research team must then ensure that the death listings fulfill the eligibility criteria, including residence criteria (deaths counted are only from certain districts), time of death criteria, and pregnancy-related death criteria. For cases identified by more than one data source, information on these criteria can vary by data source. A consensus should be made among the researchers to define which data source might provide the most reliable information for certain criteria. For example, hospital data may be considered as the most reliable data source for the date of death variable, while MADE-FOR may be used as a gold standard for the woman's address. When all the different information has been matched and reconciled, the total number of maternal deaths in the area can be determined.

### **Using capture–recapture to estimate total maternal deaths**

Where two networks of informants have been used, it will be possible to use a capture–recapture estimate of the total number of deaths. This will (with some assumptions) include deaths missed by both networks. A capture–recapture analysis requires a record, for each confirmed maternal death, of which one or more networks of informants identified it as a potential maternal death. The analysis can only be conducted when information from each network of informants is taken separately.

### **Estimating maternal mortality ratio and rate**

The estimated total number of maternal deaths in the area, from MADE-IN / MADE-FOR only (e.g. via capture–recapture), or combined with data from other sources, can be used to estimate the maternal mortality ratio (MMR) and maternal mortality rate (MMRate).

MMR is the total number of maternal deaths per 100,000 live births. A reasonably good estimate of the number of live births in the corresponding area and period will also therefore be required. MMRate is the total number of maternal births divided by the number of WRA (aged 15–49). A reasonably good estimate of the total number of women of reproductive age, for the same area and period, will also be required.

If the number of maternal deaths identified by MADE-IN / MADE-FOR is large enough to provide sufficient precision in the estimates, it will almost always be of great value in estimating maternal mortality for geographical sub-areas – for instance urban/rural. This may demonstrate large differences in maternal mortality, which may act as a considerable stimulus to local and national policy-makers in prioritizing services for more needy areas.

### **Analysis of MADE-FOR interview data**

Data from the MADE-FOR survey can be analysed to provide information about the socio-demographic characteristics and health-care-seeking behaviour of the women who died. MADE-FOR can also provide valuable information on the cause of death. Cause of death analysis can be conducted using software called InterVA-M<sup>2</sup>. This software uses a computer model to classify and determine cause of death among women of reproductive age from verbal autopsies.

## **Step 5: Disseminate findings and recommendations**

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In the final step in the MADE-IN / MADE-FOR study, the findings are interpreted and disseminated using appropriate local dissemination mechanisms. These may include local and regional workshops, policy briefs, and other forms of publication. An important step in the interpretation is to compare the results with those from other studies in or near to the same area and to consider the reasons for any differences (e.g. changes over time,

<sup>2</sup> [http://www.maternal-mortality-measurement.org/MMMResource\\_Tool\\_VerbalAutopsy.html](http://www.maternal-mortality-measurement.org/MMMResource_Tool_VerbalAutopsy.html)

artifacts of methods, differences in the area or population covered). Efforts should be made to discuss the results with the village heads and with informants involved in the study.

Who the end users of the findings will be should be taken into account at the planning stages of dissemination. Interested parties should be considered and possibly involved in the planning process to ensure that an estimate of maternal mortality produced using MADE-IN / MADE-FOR will meet the overall objectives of the survey.

If MADE-IN / MADE-FOR is being conducted as part of a broader evaluation on the quality of maternal health care, the findings from this arm of the evaluation should be integrated with other study results.

More information on dissemination of results and integration of research findings is contained in Step 9 in [Module 3](#).

## 4(9).5 Budget implications of using MADE-IN / MADE-FOR

Table 4(9).1 summarizes the likely areas of expenditure for a MADE-IN / MADE-FOR study. The resources shown are based on a large study conducted in Indonesia in one district (population size around 1.5 million). Data were collected in 350 villages in 30 sub-districts.

MADE-IN / MADE-FOR could also be conducted on a smaller scale, for example in one sub-district.

**Table 4(9).1: MADE-IN / MADE-FOR resource implications for one Indonesian district**

	<i>Quantity</i>	<i>Time</i>
<b>Supplies</b>	Stationery (A3 paper, A4 paper, pencils, pens, folders, clipboards, bags, erasers, staplers)	Not applicable
	Printing (informed consent forms, information packages, meeting materials, death listing forms, summary forms, mismatch forms, interview guide, instruction manuals)	Not applicable
	InterVA-M, Epi Info software	
<b>Training</b>	Accommodation and refreshments for 6 days training course	Not applicable
<b>Personnel</b>	1 study coordinator	4 months (full-time)
	Finance and logistics officer	4 months (full-time)
	12 field workers (data collectors)	4 months (full-time)
	1 field coordinator assistant	4 months (full-time)
	1 data manager	4 months (full-time)
	2 data entry officers	4 months (full-time)
	3 drivers	4 months (full-time)
<b>Travel and communication</b>	Vehicle to travel to meetings and interview sites Travel reimbursement to village heads and village informants Phone calls, emails, postage	3 vehicles for 4 months
<b>Accommodation</b>	Base camps for field workers	
<b>Building operation and maintenance</b>	Shared premises with other researchers	Not applicable

## 4(9).6 Follow-up

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The time period covered by MADE-IN / MADE-FOR is limited to a maximum of two retrospective years. Therefore, to monitor maternal mortality continuously, local health authorities could conduct follow-up surveys every two years. However, it may be possible to conduct MADE-IN prospectively, and to institutionalize the method within an existing health information system. It is assumed that administering the MADE-IN method prospectively will give better validity since the recall bias factor can be avoided. Incorporating the MADE-IN method into the existing health information system would also significantly decrease the cost needed to collect the data (for example, by using health centre staff rather than paid data collectors, and by reducing travel costs). District health authorities may also be able to integrate MADE-FOR within existing maternal and perinatal mortality audits. To date, Impact has no experience in institutionalizing these particular methods, but it is important to emphasize that any institutionalization will require commitment to continue collecting high quality data.

## **4(9).7 MADE-IN / MADE-FOR data collection instruments**

This section contains sample MADE-IN / MADE-FOR research instruments:

- Form 1: MADE-IN Village Informant Death Listing Form (example from Indonesia), with instruction form;
- Form 2: MADE-IN Village Summary Death Listing Form;
- Form 3: MADE-IN Mismatch and Suspicious Death Cases – to be followed by confirmation visit;
- Form 4: MADE-FOR Questionnaire (example from Indonesia), with instruction form.

These sample forms were used in Impact evaluations and should be adapted to the specific context and evaluation question.



**Form 1. MADE-IN Village Informant Death Listing Form (example from Indonesia)**

Please read attached instructions for filling out form

List all women 15–49 years who died between \_\_\_\_\_ and now (insert a two-year period). Complete the listing details for ALL women who died aged 15–49 years, married or not married, who usually lived in your duty area (even if they died elsewhere while on a short-term visit), and of women who were temporarily staying in your duty area when they died (even if they are usually resident elsewhere). Complete the form for ALL causes of death. Please complete all columns for each death.

- a) Name of informant: \_\_\_\_\_ b) Position in village: \_\_\_\_\_
- c) Address of informant: \_\_\_\_\_ d) Kampung (small village) name: \_\_\_\_\_
- e) Village/town/urban area name: \_\_\_\_\_ f) Sub-district name: \_\_\_\_\_ g) District name: \_\_\_\_\_
- h) Signature of informant: \_\_\_\_\_ i) Date form completed: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ (DD/MM/YYYY)

Form 1. MADE-IN Village Informant Death Listing (example from Indonesia)												
No	1. Name of woman who died	2. Age at death	3. Complete address of the house where she usually lived (permanent address) Include name of household head	4. Complete address of the house where she was staying when she died (or, if she died in a facility, the address of the house where she was staying before being taken to the facility) (If same as question 3, write 'SAME') Include name of household head	5. Date of death	6. Place of death 1=own home 2=other's home 3=village clinic 4=health centre 5=hospital 6=on way to health facility 7=between health facilities 8=other, specify 9=don't know	7. If she died at hospital, name of hospital where she died (If the woman did not die at hospital, leave this column blank)	8. Cause of death (If the woman died of an illness, write the name of the illness)	9. Was she pregnant when she died? 0=no 1=yes 8=don't know	10. Did she die during childbirth? 0=no 1=yes 8=don't know	11. If 'no' to question 10, did she die within 6 weeks of pregnancy ending? (including miscarriage or abortion) 0=no; 1=yes 8=don't know	12. Was she married when she died? 0=no 1=yes 8=don't know
1	.....	.....	Head of household: ..... District: ..... Sub-district: ..... Village:..... Street/No.: .....	Head of household: ..... District: ..... Sub-district: ..... Village:..... Street/No.: .....	Day: ..... Month: ..... Year: .....							



Form 1. MADE-IN Village Informant Death Listing (example from Indonesia)												
No	1. Name of woman who died	2. Age at death	3. Complete address of the house where she usually lived (permanent address) Include name of household head	4. Complete address of the house where she was staying when she died (or, if she died in a facility, the address of the house where she was staying before being taken to the facility) (If same as question 3, write 'SAME') Include name of household head	5. Date of death	6. Place of death 1=own home 2=other's home 3=village clinic 4=health centre 5=hospital 6=on way to health facility 7=between health facilities 8=other, specify 9=don't know	7. If she died at hospital, name of hospital where she died (If the woman did not die at hospital, leave this column blank)	8. Cause of death (If the woman died of an illness, write the name of the illness)	9. Was she pregnant when she died? 0=no 1=yes 8=don't know	10. Did she die during childbirth? 0=no 1=yes 8=don't know	11. If 'no' to question 10, did she die within 6 weeks of pregnancy ending? (including miscarriage or abortion) 0=no; 1=yes 8=don't know	12. Was she married when she died? 0=no 1=yes 8=don't know
2	.....	.....	Head of household: ..... District: ..... Sub-district: ..... Village:..... Street/No.: .....	Head of household: ..... District: ..... Sub-district: ..... Village:..... Street/No.: .....	Day: ..... Month: ..... Year: .....							
3	.....	.....	Head of household: ..... District: ..... Sub-district: ..... Village:..... Street/No.: .....	Head of household: ..... District: ..... Sub-district: ..... Village:..... Street/No.: .....	Day: ..... Month: ..... Year: .....							

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### **Instructions for filling out MADE-IN Village Informant Death Listing Form**

This form is a listing of deaths of women who were aged 15–49 years old when they died, either married or not, and who died between 25 November 2003 and now (two year period). The list should include:

- a. Deaths of women who lived in your work area and died in your area;
- b. Deaths of women who usually lived in your work area but lived in another area at the time of death;
- c. Deaths of women who temporarily lived in your work area and died in your area, although usual residence was elsewhere.

The deaths listed on this form should include deaths from any cause. Please fill in all the columns in the form even if the information requested seems unrelated. For example, if a woman died of an accident, please write the information about whether she was pregnant when she died, or if she died within six weeks of the end of a pregnancy.

#### **Please pay attention to the following when completing the form:**

- When filling out the form, you may check with other people for information. For example: community health workers (CHWs) should ask other CHWs from the same village area. You may also ask your family members or your neighbours but **DO NOT ASK RELATIVES OF THE WOMAN WHO DIED**, as we do not want to cause any upset to them.
- It may be possible that no death occurred in your work area for women aged 15–49 between 25 November 2003 and now. If this is the situation in your area, complete the questions at the top of the form (a-i), then write NONE in the first line of the table.

#### **How to fill out the cover page:**

- |                          |   |
|--------------------------|---|
| a. Name of informant:    | write your full name in printed letters   |
| b. Village position:     | write your title and work area – for example ‘CHW, neighbourhood unit 02’                                   |
| c. Informant address:    | write the street and number where you live  |
| d. Name of kampung:      | write the name of the kampung (small village) where you live  |
| e. Name of village:      | write the name of the village where you live  |
| f. Name of district:     | write the name of the district where you live   |
| g. Name of sub-district: | write the name of the sub-district where you live   |
| h. Informant signature:  | sign the form   |
| i. Date form completed:  | write the date you completed the form as day/month/year – for example, write 04/01/2006 for 4 January 2006. |

#### **How to fill out the death listing form:**

##### **No. 1. Name of the dead woman:**

Write the full name of the dead woman. Note: record only women who died aged 15–49 years. Use printed letters.

##### **No. 2. Age at death:**

Write the age of the woman when she died. If you are not sure about her exact age when she died, write the best estimate of the age (as close as possible to the actual age).

##### **No. 3. Complete address of the place where the woman usually lived (permanent address):**

First, write the full name of the head of the household where the woman used to live. Then, write the complete address of the house where the woman used to live. The address should include the name of district, sub-district, village, kampung (small village), street and number. The place where the woman usually lived refers to the place where the woman lived for the three last months of her life. Please pay attention to the fact that the

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woman might have usually lived in your area and died elsewhere, or might have usually lived outside your area but died in your area.

**No. 4. Complete address of the house where the woman lived when she died (or if the woman died in a health facility, the complete address of the house where the woman lived before she was taken to the health facility where she died):**

If the place where she died is the same as no. 3, then write 'SAME'. Otherwise, write the full name of the head of the household where the woman was living when she died. Then write the complete address of the house where the woman was living when she died. The address should include the name of district, sub-district, village, kampung (small village), street and number. The address could be in your area or outside your area. The address could be the same as the address of the house where the woman usually lived.

**No. 5. Date of death:**

Write the day, month and year when the woman died. If you do not know the day or month of the woman's death, write 88 (for day) and 88 (for month). For example if you know the year when the woman died was 2004 but do not know the day or month she died, write 88-88-2004.

**No. 6. Place where the woman died:**

Write the appropriate code for the place where the woman died:

- 1=at home: if the woman died in the place where she usually lived
- 2=at another's house: if the woman died in another's house, not the house where she usually lived (for example: in her parents' house, a family member's house, the traditional birth attendant (TBA)'s house, the midwife's house, etc)
- 3=village clinic: if the woman died in the village clinic
- 4=health centre: if the woman died in the health centre
- 5=hospital: if the woman died in hospital
- 6=between home/facility: if the woman died on the way to the health facility/clinic/health centre/hospital
- 7=between facilities: if the woman died on the way from a health facility to another health facility
- 8=other, specify: if the woman died in another place (not in the answer options, for example on the street)
- 9=don't know: if you do not know for sure where the woman died

**No. 7. Name of the hospital where the woman died, if she died in hospital:**

If the woman died in hospital, write the name of the hospital where she died.

**No. 8. Cause of the death:**

Write the cause of the woman's death, according to what you know.

**No. 9. Was the woman pregnant when she died:**

Write if the woman was pregnant when she died. Write 1 for 'yes' if the woman died when she was pregnant. Write 0 for 'no', if the woman was clearly not pregnant when she died; write 8 for 'don't know' if you do not know whether or not the woman was pregnant when she died.

**No. 10. Did the woman die during childbirth:**

Write if the woman died during childbirth (labour/delivery). Write 1 for 'yes' if the woman died during childbirth. Write 0 for 'no' if the woman was clearly not in labour/delivery when she died. Write 8 for 'don't know' if you do not know for sure whether or not the woman died in labour/delivery.

**No. 11. Did the woman die within six weeks of the end of pregnancy (including miscarriage or abortion):**

Write if the woman died within six weeks of the end of the pregnancy (this includes six weeks after childbirth, or six weeks after a miscarriage or abortion). Write 1 for 'yes' if the woman died within six weeks of childbirth, miscarriage, or abortion. Write 0 for 'no' if the woman did not die within six weeks of the end of childbirth, miscarriage, or abortion. Write 8 for 'don't know' if you do not know whether or not the woman died within six weeks of the end of childbirth, or miscarriage, or abortion.

**No. 12. Was the woman married when she died:**

Write 1 for 'yes' if the woman was married at the time she died. Write 0 for 'no' if the woman was not married at the time she died. Write 8 for 'don't know' if you do not know whether or not the woman was married when she died.

**Form 2. MADE-IN Village Summary Death Listing Form**

(To be filled in at the WRA Death Listing meeting)

After the deaths have been discussed by informants in village groups, each group should make a final list of deaths of women aged 15–49 years who died in their village between 25 November 2003 and now (two year period). Include any NEW cases that have been discovered during the meeting, and delete any duplicate cases. After the meeting, facilitators should also add or edit cases identified through ‘mop-up visits’.

District name		District code										Date form completed (DD/MM/YYYY)	__ / __ / ____
Sub-district name		Sub-district code										Informant: 1. CHW; 2. RT	
Village name		Village code											
Interviewer name		Interviewer code											

Form 2. MADE-IN Village Summary Death Listing Form													
CASE-ID	1. Name of woman who died	2. Age at death	3. Complete address of the house where she usually lived (permanent address) Include name of household head	4. Complete address of the house where she was staying when she died (or, if she died in a facility, the address of the house where she was staying before being taken to the facility) (If same as question 3, write 'SAME') Include name of household head	5. Date of death	6. Place of death 1=own home 2=other's home 3=village clinic 4=health centre 5=hospital 6=on way to health facility 7=between health facilities 8=other, specify 9=don't know	7. If she died at hospital, name of hospital where she died (If the woman did not die at hospital, leave this column blank)	8. Cause of death (If the woman died of an illness, write the name of the illness)	9. Was she pregnant when she died? 0=no 1=yes 8=don't know	10. Did she die during childbirth? 0=no 1=yes 8=don't know	11. If 'no' to question 10, did she die within 6 weeks of pregnancy ending? (including miscarriage or abortion) 0=no; 1=yes 8=don't know	12. Was she married when she died? 0=no 1=yes 8=don't know	13. Was the death newly reported at the meeting? 0=no 1=yes

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Form 2. MADE-IN Village Summary Death Listing Form													
CASE-ID	1. Name of woman who died	2. Age at death	3. Complete address of the house where she usually lived (permanent address) Include name of household head	4. Complete address of the house where she was staying when she died (or, if she died in a facility, the address of the house where she was staying before being taken to the facility) (If same as question 3, write 'SAME') Include name of household head	5. Date of death	6. Place of death 1=own home 2=other's home 3=village clinic 4=health centre 5=hospital 6=on way to health facility 7=between health facilities 8=other, specify 9=don't know	7. If she died at hospital, name of hospital where she died (If the woman did not die at hospital, leave this column blank)	8. Cause of death (If the woman died of an illness, write the name of the illness)	9. Was she pregnant when she died? 0=no 1=yes 8=don't know	10. Did she die during childbirth? 0=no 1=yes 8=don't know	11. If 'no' to question 10, did she die within 6 weeks of pregnancy ending? (including miscarriage or abortion) 0=no; 1=yes 8=don't know	12. Was she married when she died? 0=no 1=yes 8=don't know	13. Was the death newly reported at the meeting? 0=no 1=yes
.....	.....	.....	Head of household: ..... District: ..... Sub-district: ..... Village:..... Kampung: ..... Household unit:..... Neighbourhood unit:....	Head of household: ..... District: ..... Sub-district: ..... Village:..... Kampung: ..... Household unit:..... Neighbourhood unit:....	Day: ..... Month: ..... Year: .....	.....	.....	.....	.....	.....	.....	.....	.....

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## **Instructions for filling out the MADE-IN Village Summary Death Listing Form**

### **Cover sheet**

The cover sheet of the summary form should be filled in by data collectors, using a pencil.

1. Case ID: DDDNKK  
 D = village cluster code (see coding manual<sup>3</sup>)  
 N = network code (see summary form)  
 K = case sequence number (unique for every village). Every case in each village should be given a number from 1 to n (n = the total number of deaths in all the villages).
2. District, sub-district, and village name and code: See coding manual.
3. Name and code of interviewer: Write name and code of the interviewer who facilitated the informant group during the WRA Death Listing meeting.
4. Date form filled out: Write the date when the form was filled in by the informants (that is, the date of the WRA Death Listing meeting with the respective informant group).
5. Informant: Write code for the informant who filled in the form (see below).

### **Filling in the summary form**

One informant from each village should be selected as group reporter. The group reporter should fill out the summary form, writing the information that is the consensus of the group.

1. Ask the group reporter to fill out the form using pen (provided by the data collector).
2. If the group reporter wants to change an answer, the wrong answer should be crossed out and the correct answer written alongside. If he/she wants to use a pencil (saying that it is easier than using a pen) and wants to change the answer, the answer should be erased cleanly and the correct answer written clearly.
3. Ask him/her to write answers clearly on the provided dots.
4. If there is no death case in the village, ask the reporter to write NILL in column number 1.
5. If a woman did not die in hospital, ask the reporter to make a horizontal line in column 7.
6. If the day or month of death is not known, ask the reporter to write 88 for the unknown day and/or month. The data collection team must confirm whether an 8 in the day/month column means day/month or 'don't know', and revise as necessary.

### **Marking maternal deaths on the summary form**

After the summary form is completed by the group and checked by the data collector (including all necessary confirmation), mark maternal death cases as follows.

If there is a maternal death (i.e. code 1, or YES, has been written in any column 9–11), draw a **red circle** around the case ID number and write M in the circle mark.

### **Making changes or adding additional information to form 1 and summary form 2**

#### *Changes/additions by informants*

Any changes or additional information added to the summary form at the listing meeting must be made by the informants, even if these changes/additions follow a confirmation discussion with the data collector. When changing answers, follow the rules for changing answers (see above). If an informant wants to write additional

<sup>3</sup> A coding manual should be developed for the study. No detailed information on coding is given in this toolkit.



notes, the notes can be written directly on the form using the same pen or pencil used to fill in the form. If changes are made or additional information written with a different pen or pencil (i.e. with different ink colour), the data collector must confirm the information with the informant who filled in the form.

Clarification notes by the data collector must be written on 'post it' notes and these notes must then be stapled to the top left side of the summary form. Information that should be written on the 'post it' notes includes:

1. The name of the person who made the changes/additional notes to the form.
2. Date of the changes/additional information.
3. At what session the changes were made.
4. Reason for the changes/additional notes.

#### *Changes/additions by data collectors*

In unusual situations, when a change or additional note is made by the data collector, the following rules apply:

1. Cross out the wrong answer using red pen in such a way that the original answer of the informant can still be read. Never erase anything filled out by the informant.
2. Write the correct answer or additional note using a red pen.
3. Write a note (using a red pen) on a 'post it' note. The note must include the name of the data collector who made the change/additional note, the date, the session, and the reason for the change/additional note.
4. Staple the 'post it' notes to the top left side of the summary form.

**Form 3. MADE-IN Mismatch and Suspicious Death Cases**

(to be followed by confirmation visit during the MADE-FOR phase)

District name		District code												Date form completed (DD/MM/YYYY)	__ / __ / ____
Sub-district name		Sub-district code													
Village name		Village code													

Form 3. MADE-IN Mismatch and Suspicious Death Cases						
No.	1. Name of woman who died	2. Name of household head	3. Address of the house where she usually lived (permanent address)	4. Address of the house where she was staying when she died	5. Source of information (Name of informant who gave the information)	6. Reason for confirmation visit 1=report by CHW only 2=report by neighbourhood coordinator only 3=initial informant report as maternal but final report as non-maternal after listing meeting debate 4=information about vaginal bleeding 5=information about direct obstetric cause 6=report by household unit leader of maternal death 7=other (specify)
.....	.....	.....	Sub-district: .....	Sub-district: .....	.....	.....
			Village:.....	Village:.....		
			Kampung (small village):.....	Kampung (small village):.....		
			Street/No.: .....	Street/No.: .....		



Form 3. MADE-IN Mismatch and Suspicious Death Cases						
No.	1. Name of woman who died	2. Name of household head	3. Address of the house where she usually lived (permanent address)	4. Address of the house where she was staying when she died	5. Source of information (Name of informant who gave the information)	6. Reason for confirmation visit 1=report by CHW only 2=report by neighbourhood coordinator only 3=initial informant report as maternal but final report as non-maternal after listing meeting debate 4=information about vaginal bleeding 5=information about direct obstetric cause 6=report by household unit leader of maternal death 7=other (specify)
.....	.....	.....	Sub-district: ..... Village:..... Kampung (small village):..... Street/No.: .....	Sub-district: ..... Village:..... Kampung (small village):..... Street/No.: .....	.....	.....
.....	.....	.....	Sub-district: ..... Village:..... Kampung (small village):..... Street/No.: .....	Sub-district: ..... Village:..... Kampung (small village):..... Street/No.: .....	.....	.....

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#### **Form 4. MADE-FOR Questionnaire: example from Indonesia**

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This instrument contains the MADE-FOR questionnaire, followed by instructions on its use for the data collectors.

Data collectors must follow strict ethical guidelines when completing this questionnaire:

##### ***Informed consent***

- Before conducting the interview, the interviewer must explain clearly and thoroughly the objectives and the benefit of the interview and ask agreement of the respondent to be interviewed (see the first page of the MADE-FOR questionnaire below).
- The respondent must be informed about his/her rights to reject the interview or to stop the interview at any time.
- The interviewer must also ask for agreement from the respondent for a follow-up visit.

##### ***Confidentiality***

- The interviewer must keep confidential the information gathered from the respondent, in accordance with standard research ethics.
- The interviewer must make every effort to conduct the interview in a one-to-one fashion. The interviewer must explain politely to other people at the interview site (including those who direct the interviewer to the respondent's house) that the interview must be conducted alone in order to give the respondent the chance to answer questions freely. The interviewer must then politely ask others to leave.
- The interviewer must tell the respondent that the information will be kept confidential, both from other family members and from the community.

##### ***Interview process***

- The interviewer must be sensitive and friendly in asking the questions, and must be always be aware of the respondent.
- The interviewer must not try to force the respondent to answer questions.
- The interviewer must not show disagreement towards the respondent's answers.
- The interviewer must keep a neutral attitude to the information from the respondent.

##### ***Time of interview***

- The interviewer must postpone the interview if the death occurred less than 40 days before the interview, in accordance with the local custom.
- The interviewer must discuss the most appropriate time for the interview with the respondent.

##### ***Thanks***

- The interviewer must thank respondent for participating when the interview is finished.
- The interviewer may provide a token of appreciation for the respondent (if deemed appropriate in the local context, which can be established and tested in the pilot survey). The token should not be so large as to provide an appreciable incentive to people, so as to induce them to want to be interviewed.

Case ID:

**Form 4. MADE-FOR QUESTIONNAIRE**  
for head of household or other person knowledgeable about the death

1. District name	District code	<input type="text"/>
2. Sub-district name	Sub-district code	<input type="text"/>
3. Village name	Village code	<input type="text"/>
4. Neighbourhood unit / Household unit		<input type="text"/> / <input type="text"/>

THE RESPONDENT IS THE HEAD OF HOUSEHOLD OR THE MOST KNOWLEDGEABLE MEMBER OF THE HOUSEHOLD ABOUT THE WOMAN AGED 15–49 YEARS WHO DIED

**RESPONDENT INFORMED CONSENT:**  
SEEK RESPONDENT’S AGREEMENT TO PARTICIPATE BY READING THE STATEMENT BELOW.

My name is \_\_\_\_\_. I am from the Centre for Family Welfare, University of Indonesia. I would like to interview you about your wife/daughter/sister [full name of dead woman] \_\_\_\_\_. We received information from a \_\_\_\_\_ [insert title of informant] in a village meeting that [name of the late woman] had died in the past few years. The purpose of this interview is to find out the circumstances of death of your wife/daughter/sister. Your answers are very important to us and will help to find better ways to deliver health services to other women in Indonesia to prevent them from dying during pregnancy and in childbirth. The information you give us will be treated in the strictest confidence and we would like the interview to be conducted in private with you. Participation in this interview is entirely voluntary. You are free not to take part at all or to stop the interview at any time. The interview will last approximately 30 minutes. Here is an information sheet about this activity [read sheet if respondent cannot read]. Do you have any questions about the interview?  
Are you willing to be interviewed? May I begin the interview?

Full name of respondent \_\_\_\_\_

- Agree to be interviewed
- Do not agree

If the informant is not willing to be interviewed, thank him/her and end the interview.

Do you agree that other teams from the Centre for Family Welfare re-visit you? (circle the appropriate response):

- Agree to be re-visited
- Do not agree

Type of visit:  1. MADE-FOR    2. CONFIRMATION VISIT    3. CONFIRMATION VISIT and MADE-FOR

	1	2	FINAL VISIT
Date of visit	<input type="text"/>	<input type="text"/>	<input type="text"/>
Interviewer code	<input type="text"/>	<input type="text"/>	<input type="text"/>
Result	<input type="text"/>	<input type="text"/>	<input type="text"/>
1. Completed	5. Completed, ineligible age and death date	10. Not done, no informant	
2. Partly completed, then refused	6. Completed, ineligible other (specify) _____	11. Not done, other (specify) _____	
3. Completed, ineligible age	7. Not done, refused	12. Not done, duplicate case	
4. Completed, ineligible death date	8. Not done, family moved	<input type="text"/>	
	9. Not done, house not found	13. Not done, postponed	
	Re-check	Cross-check	Team leader
Name			Data entry I
Date	<input type="text"/>	<input type="text"/>	<input type="text"/>
Signature			Data entry II

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Case ID:

Time start: \_\_\_\_ : \_\_\_\_

SECTION 0: CASE IDENTIFICATION		
0.1	Case name	_____
0.2	Case ID from CHW COMPILED FORM	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
0.3	Case ID from Household unit head COMPILED FORM	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
0.4	Case ID	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
SECTION 1: RESPONDENT IDENTIFICATION		
1.1	Name of respondent	_____
1.2	Sex of respondent    1. Male            2. Female	<input type="checkbox"/>
1.3	Were you with [NAME OF DECEASED] close to the time of her death? 0=no    1=yes	<input type="checkbox"/>
1.4	Relationship of respondent to deceased 1. Husband            4. Sibling            7. Neighbour 2. Parent              5. Sibling in law    8. Child 3. Parent in law      6. Other relative    9. Other, specify	<input type="checkbox"/> _____
SECTION 2: INFORMATION ABOUT CASE		
2.1	Complete address of the house where the dead woman usually lived (permanent address). (Include name of head of household.)	
	a) Head of household	_____
	b) District name	_____
	c) Sub-district name	_____
	d) Village name	_____
	e) Household unit / Neighbourhood unit	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>
2.2	Is the address where the dead woman usually lived the same as the address where she was staying when she died? 0=no    1=yes    8=don't know	<input type="checkbox"/>
<b>IF the answer of Q2.2 is YES then skip to 2.5 and MAKE A DIAGONAL LINE IN Q2.3-Q2.4</b>		
2.3	How long had [NAME] stayed at the other address before she died?	<input type="text"/> <input type="text"/> <input type="text"/> days
2.4	Complete address of the house where she was staying when she died (or, if she died in a facility, the address of the house where she was staying before being taken to hospital/health centre)	
	a) Head of household	_____
	b) District name	_____
	c) Sub-district name	_____
	d) Village name	_____
	e) Household unit / Neighbourhood unit	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>
2.5	How old was [NAME] when she died?	<input type="text"/> <input type="text"/> Years
2.6	Date of death (day/month/year)	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> <input type="text"/>
2.7	Cause of death _____	Code <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

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Case ID:

SECTION 3: INVESTIGATION OF CAUSE OF DEATH		No = 0; Yes = 1 NA = 7; Don't know= 8
3.1	Was she pregnant when she died? (either before labour OR during delivery OR during delivery by operation)?	<input type="text"/>
3.2	Did she die during childbirth?	<input type="text"/>
3.3	3.3a. If answers 'No' to question 3.2, did she die within six weeks after delivery?	<input type="text"/>
	3.3b What was the date of delivery? Day/month/year <i>PROBE BY REFERRING TO IMPORTANT RELIGIOUS CELEBRATION DATES IF THE RESPONDENT DOESN'T REMEMBER THE DAY BUT REMEMBERS THE MONTH OF DELIVERY</i> 88 / 88 / 8888=don't know	<input type="text"/> / <input type="text"/> / <input type="text"/>
3.4	3.4a Did [NAME] die within six weeks after a miscarriage or abortion (induced)?	<input type="text"/>
	3.4b What was the date of the miscarriage or abortion? Day/month/year <i>PROBE BY REFERRING TO IMPORTANT RELIGIOUS DATES OR NATIONAL HOLIDAYS IF THE RESPONDENT DOESN'T REMEMBER THE DAY BUT REMEMBERS THE MONTH</i> 88 / 88 / 8888=don't know	<input type="text"/> / <input type="text"/> / <input type="text"/>
If any answer to Q3.1-Q3.4a is YES, go to section 3: If Q3.1=1 → section 3.C; if Q3.2 or Q3.3a=1 → section 3.A; if Q3.4a=1 → section 3.B		

**END THE INTERVIEW HERE IF:**

- **THE WOMAN WAS < 15 OR > 49 YEARS OLD (see Q 2.5)**
- **OR IF DEATH OCCURRED MORE THAN SIX WEEKS AFTER END OF PREGNANCY/DELIVERY (see Q3.3b/Q3.4b),**
- **OR IF DEATH OCCURRED BEFORE 25 NOVEMBER 2003 (see Q2.6)**
- **OR IF QUESTIONS 3.1, 3.2, 3.3a, and 3.4a ARE ALL 'NO'**

**Ask the respondent if there is anything else he/she would like to tell you about the death. Record below, write the time the interview ends, and detach the remaining pages of the questionnaire.**

Other information about the death:

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Consent to be re-visited (circle the appropriate response):  
 1. Agree to be re-visited;      2. Do not agree

Time end: \_\_\_ : \_\_\_

Case ID:

SECTION 3.A: DIED DURING CHILDBIRTH OR WITHIN SIX WEEKS OF CHILDBIRTH		No = 0; Yes = 1 Don't know = 8
3.5	Was labour prolonged more than 24 hours?	<input type="checkbox"/>
3.6	Was the baby's position abnormal? (For example upside down or horizontal.)	<input type="checkbox"/>
3.7	Was the baby too big for delivery?	<input type="checkbox"/>
3.8	Did an unusual part of the baby such as arms or legs come out first?	<input type="checkbox"/>
3.9	Did [NAME] die in labour undelivered?	<input type="checkbox"/> If 1 go to Q 3.14
3.10	Did the placenta remain inside?	<input type="checkbox"/>
3.11	Was the baby delivered alive?	<input type="checkbox"/>
3.12	Did you receive any information from a health officer saying that [NAME] had delay in reduction of the size of the womb?	<input type="checkbox"/>
3.13	Did you receive any information from a health officer saying that the womb came out after delivery?	<input type="checkbox"/>
3.14	Was delivery by Caesarean section?	<input type="checkbox"/>
3.15	Was delivery assisted using an instrument to pull/suck the baby out?	<input type="checkbox"/> Go to section 3.B
SECTION 3.B: DIED DURING CHILDBIRTH, WITHIN SIX WEEKS OF CHILDBIRTH, OR WITHIN SIX WEEKS OF ABORTION (SPONTANEOUS OR INDUCED)		No = 0; Yes = 1 Don't know = 8
3.16	Did [NAME] die within 24 hours of pregnancy ending?	<input type="checkbox"/>
3.17	Did [NAME] have excessive bleeding around the time of pregnancy ending?	<input type="checkbox"/> Go to section 3.C
SECTION 3.C: ALL CASES		No = 0; Yes = 1 Don't know = 8
3.18	Was [NAME] married when she died?	<input type="checkbox"/>
3.19	How many months pregnant was [NAME] when the pregnancy ended? (Includes pregnancy ending by woman's death, by abortion, ending in undelivered labour, or ending with delivery.)	<input type="text"/> <input type="text"/> months
3.20	Was the pregnancy unwanted?	<input type="checkbox"/>
3.21	Was there any attempt to end the pregnancy?	<input type="checkbox"/>
3.22	Was this her first pregnancy?	<input type="checkbox"/> If 1 go to Q 3.26
3.23	How many previous pregnancies did she have?	<input type="text"/> <input type="text"/>
3.24	How many previous deliveries did she have?	<input type="text"/> <input type="text"/>

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Case ID:

SECTION 3.C: ALL CASES (continued)		No = 0; Yes = 1 Don't know = 8
3.25	Did [NAME] have a previous delivery by Caesarean section?	<input type="checkbox"/>
3.26	Was the most recent pregnancy a multiple pregnancy?	<input type="checkbox"/>
3.27	Was [NAME's] blood pressure raised during her most recent pregnancy?	<input type="checkbox"/>
3.28	Did [NAME] ever have convulsions/fits?	<input type="checkbox"/> If 0 or 8 go to Q3.31
3.29	Did [NAME] have convulsions/fits only during her most recent pregnancy?	<input type="checkbox"/>
3.30	Had [NAME] ever had a problem called epilepsy?	<input type="checkbox"/>
3.31	Did [NAME] have excessive bleeding from the vagina at the time she died?	<input type="checkbox"/>
3.32	Did [NAME] have excessive bleeding in first three months of her most recent pregnancy?	<input type="checkbox"/>
3.33	Did [NAME] have any swelling of any part of her body during her most recent pregnancy?	<input type="checkbox"/> If 0 or 8 go to Q3.37
3.34	Did [NAME] have swelling of her feet and ankles?	<input type="checkbox"/>
3.35	Did [NAME] have swelling of her face?	<input type="checkbox"/>
3.36	Did [NAME] have general swelling of her body?	<input type="checkbox"/>
3.37	Did [NAME] have blurred vision?	<input type="checkbox"/>
3.38	Did [NAME] have very strong and sudden abdominal pain in the three days before she died (not labour pain)?	<input type="checkbox"/>
3.39	Did [NAME] have foul smelling vaginal discharge?	<input type="checkbox"/>
3.40	Did [NAME] require/get antibiotics by infusion (by a needle in her veins) or injection (by a shot in her arm or leg)?	<input type="checkbox"/>
3.41	Did [NAME] go into a coma that lasted one day or more in the few days before death?	<input type="checkbox"/>
3.42	Was she very pale/did she have anaemia (low blood count)?	<input type="checkbox"/>
3.43	Did [NAME] require/get blood transfusion?	<input type="checkbox"/>
3.44	Did [NAME] require/get iron injections?	<input type="checkbox"/>
3.45	Had [NAME] had any operation in the month before death?	<input type="checkbox"/>
3.46	Had [NAME] had an operation to remove her womb in the six weeks before death?	<input type="checkbox"/>
3.47	Was [NAME] breathless carrying out normal activities?	<input type="checkbox"/>
3.48	Did [NAME] have weight loss?	<input type="checkbox"/>

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Case ID:

3.49	Was [NAME] so sick before she died that she had to stay in bed for most of the day?	<input type="checkbox"/>
3.50	Did [NAME] collapse suddenly?	<input type="checkbox"/>
3.51	Did [NAME] have a fever before she died?	<input type="checkbox"/> If 0 or 8 go to Q3.56
3.52	Did [NAME] have a fever that started at any time in the three days before death?	<input type="checkbox"/>
3.53	Did [NAME] have a fever that came and went for a week or more before death?	<input type="checkbox"/>
3.54	Did [NAME] have a fever with shivering?	<input type="checkbox"/>
3.55	Did [NAME] have fever that lasted for more than three weeks?	<input type="checkbox"/>
3.56	Had [NAME] been sweating a lot at night?	<input type="checkbox"/>
3.57	Did [NAME] have swollen glands/lumps in her neck, groin, or under her arms?	<input type="checkbox"/>
3.58	Did [NAME] have a stiff neck?	<input type="checkbox"/>
3.59	Did [NAME] have a cough?	<input type="checkbox"/> If 0 or 8 go to Q3.62
3.60	Had [NAME] been coughing for more than three weeks?	<input type="checkbox"/>
3.61	Was [NAME] coughing up blood?	<input type="checkbox"/>
3.62	Did [NAME] have any yellowness of her skin or eyes?	<input type="checkbox"/>
3.63	Did [NAME] have any open or infected wounds?	<input type="checkbox"/>
3.64	Was there information from a health officer that [NAME] had	
	a) Tuberculosis?	<input type="checkbox"/>
	b) HIV/AIDS?	<input type="checkbox"/>
	c) Malaria?	<input type="checkbox"/>
	d) Liver disease?	<input type="checkbox"/>
	e) Cancer?	<input type="checkbox"/>
	f) Heart disease?	<input type="checkbox"/>
3.65	Had [NAME] had any recent injury from accident or violence?	<input type="checkbox"/>
3.66	Did [NAME] take her own life?	<input type="checkbox"/>
3.67	Did [NAME] die during the wet season?	<input type="checkbox"/>

**Now I would like to ask you some questions about [NAME]'s socio-economic condition.**

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Case ID:

**SECTION 4. LEVEL OF EDUCATION**

4.1	Had [NAME] ever attended school?	0. No → (go to Q4.4) 1. Yes 8. Don't know → (go to Q4.4)	<input type="checkbox"/>
4.2	What was the highest level of school [NAME] attended?	1. Primary 2. Junior High 3. Senior High 4. Academy 5. University 6. Other, specify _____ 7. NA 8. Don't know	<input type="checkbox"/>
4.3	What was the highest class [NAME] completed at that level?	Class __ __ 88. Don't know	<input type="text"/> <input type="text"/>
4.4	Had [NAME's] husband ever attended school?	0. No 1. Yes 8. Don't know	<input type="checkbox"/>
4.5	What was the highest level of school [NAME's] husband finished?	1. Primary 2. Junior High 3. Senior High 4. Academy 5. University 6. Other, specify _____ 7. NA 8. Don't know	<input type="checkbox"/>
4.6	What was the highest class [NAME's] husband completed at that level?	Class __ __ 88. Don't know	<input type="text"/> <input type="text"/>

**SECTION 5. HOUSEHOLD OWNERSHIP AND ASSETS**

5.1	What is the ownership status of the house that [NAME] usually lived in?	1. Own house 2. Rented 3. Provided by employer of household member 4. Parent/parent in law house 5. Relative's house 6. Other, specify _____ 8. Don't know	<input type="checkbox"/>
<b>Which of the following best describes the construction materials of [NAME's] house?</b>			
5.2	Floor	1. Natural floor (earth/sand/mud) 2. Wood 3. Bamboo 4. Brick/concrete/cement 5. Ceramic 6. Tile 7. Other, specify _____ 8. Don't know	<input type="checkbox"/>
5.3	Wall	1. Bamboo 2. Wood 3. Brick/concrete 4. Semi-permanent 5. Other, specify _____ 8. Don't know	<input type="checkbox"/>

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5.4	Roof	<ol style="list-style-type: none"> <li>1. Thatch/leaves or similar</li> <li>2. Wood/bamboo</li> <li>3. Tile</li> <li>4. Concrete</li> <li>5. Asbestos/zinc</li> <li>6. Other, specify _____</li> <li>8. Don't know</li> </ol>	<input type="checkbox"/>
5.5	What type of toilet was used by the [NAME's] household?	<ol style="list-style-type: none"> <li>1. Private with septic tank</li> <li>2. Private without septic tank</li> <li>3. Shared public</li> <li>4. Pit</li> <li>5. No toilet (bush, beach, rivers, stream, creek)</li> <li>6. Other, specify _____</li> <li>8. Don't know</li> </ol>	<input type="checkbox"/>
5.6	What was the <u>main</u> source of drinking water for members of [NAME's] household?	<ol style="list-style-type: none"> <li>1. Tap/government water supply</li> <li>2. Open well</li> <li>3. Covered well borehole</li> <li>4. Surface water</li> <li>5. Mountain water</li> <li>6. Other, specify _____</li> <li>8. Don't know</li> </ol>	<input type="checkbox"/>
5.7	What type of fuel did [NAME's] household mainly use for cooking?	<ol style="list-style-type: none"> <li>1. Electricity</li> <li>2. Liquid petroleum gas (LPG)/natural gas</li> <li>3. Kerosene</li> <li>4. Coal/lignite</li> <li>5. Charcoal</li> <li>6. Firewood/straw</li> <li>7. Other, specify _____</li> <li>8. Don't know</li> </ol>	<input type="checkbox"/>
5.8	Did [NAME's] household have any of the following?	A) Electricity	<input type="checkbox"/>
		B) Radio	<input type="checkbox"/>
		C) Television	<input type="checkbox"/>
		0. No 1. Yes 8. Don't know	
		D) Video tape	<input type="checkbox"/>
		E) Video deck/VCD/DVD	<input type="checkbox"/>
		F) Telephone/cellphone	<input type="checkbox"/>
5.9	Did [NAME's] household own any of the following?	G) Refrigerator	<input type="checkbox"/>
		A) Bicycle	<input type="checkbox"/>
		0. No 1. Yes 8. Don't know	
		B) Row boat	<input type="checkbox"/>
		C) Motor bike	<input type="checkbox"/>
		D) Motor boat	<input type="checkbox"/>
		E) Car or truck	<input type="checkbox"/>

Case ID:

5.10	Was [NAME] covered by any of the following schemes for her health expenditure?	0. No 1. Yes 8. Don't know	A) ASKES private/other private insurance	<input type="checkbox"/>
			B) ASKES PNS	<input type="checkbox"/>
			C) ASKES GAKIN	<input type="checkbox"/>
			D) Jamsostek	<input type="checkbox"/>
			E) Other, specify _____	<input type="checkbox"/>

**SECTION 6. HEALTH CARE BEFORE DEATH DURING MOST RECENT PREGNANCY/DELIVERY (BOTH DELIVERED ALIVE OR STILLBIRTH)**

*Now I would like to ask you some questions about health care during [NAME's] most recent pregnancy*

6.1	Did [NAME] see any of the following for antenatal care for this most recent pregnancy? <i>(Probe for all providers and write down all providers met)</i>  Go to Q6.4 if <u>ONLY</u> TBA <i>Attention: if TBA told family she worked for private midwife or hospital, record just as TBA</i>	0. No 1. Yes 8. Don't know	A) TBA	<input type="checkbox"/>
			B) Nurse/midwife (professional)	<input type="checkbox"/>
			C) Doctor/OB/GYN	<input type="checkbox"/>
			D) Did not see anyone → Go to Q6.4	<input type="checkbox"/>
			E) Other, specify _____	<input type="checkbox"/>
6.2	Where did [NAME] go for antenatal care for this most recent pregnancy?  Any other place?  <i>(Probe for all places and write down all places visited)</i>	0. No 1. Yes 8. Don't know	A) Own home	<input type="checkbox"/>
			B) Relative's home	<input type="checkbox"/>
			C) Bidan's home	<input type="checkbox"/>
			D) Posvandu	<input type="checkbox"/>
			E) Polindes	<input type="checkbox"/>
			F) Community health centre	<input type="checkbox"/>
			G) Clinic _____	<input type="checkbox"/>
			H) Hospital _____	<input type="checkbox"/>
			I) Other, specify _____	<input type="checkbox"/>
6.3	How many months pregnant was [NAME] when she had her last antenatal care visit?	___ months 88. Don't know	<input type="checkbox"/>	
6.4	Was she advised to deliver her baby in a health facility?	0. No → Go to Q6.6 1. Yes 8. Don't know → Go to Q6.6	<input type="checkbox"/>	

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Case ID:

6.5	Why was she advised to deliver in a health facility?	1. Bad previous delivery 2. Sick in this pregnancy 3. Considered as having high risk by health provider 4. Other, specify _____ 7. NA 8. Don't know	<input type="checkbox"/>
<b>Go straight to section 7 if woman died during pregnancy (q3.1 is yes)</b>			
6.6	Where did [NAME] start to deliver?	1. Own home 2. Relative's home 3. <i>Bidan's</i> home 4. Polindes 5. Community health centre 6. Private clinic 7. Pandeglang hospital 8. Serang hospital 9. Kencana hospital 10. Budi Asih hospital 11. Other hospital _____ 12. Other place _____ 13. Did not deliver 77. NA 88. Don't know	<input type="text"/> <input type="text"/>  Community health centre code <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
6.7	Where did the delivery end?	1. Own home 2. Relative's home 3. <i>Bidan's</i> home 4. Polindes 5. Community health centre 6. Private clinic 7. Pandeglang hospital 8. Serang hospital 9. Kencana hospital 10. Budi Asih hospital 11. Other hospital _____ 12. Other place _____ 13. Did not deliver 77. NA 88. Don't know	<input type="text"/> <input type="text"/>  Community health centre code <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>Fill in Q6.8 ONLY if Q6.4 is 1 AND if the woman did NOT delivery in health facility. (If Q.6.6 and Q.6.7 are either 4 – 11) go to Q.6.9)</b>			
6.8	Why did she not deliver in a health facility?	1. Money not available 2. Transportation not available 3. Distance to health facility too far 4. Family didn't agree to take her 5. Other reason, specify _____ 7. NA 8. Don't know	<input type="checkbox"/>
6.9	Who assisted her during the delivery of her baby?	A) TBA	<input type="checkbox"/>
	Anyone else?	B) Nurse/midwife	<input type="checkbox"/>
	<i>Probe for all type of persons and record all persons assisting</i>	C) Doctor/OB/GYN	<input type="checkbox"/>
	If Nurse/midwife is NO, go to Q7.1	D) Other, specify _____	<input type="checkbox"/>

MADE-IN / MADE-FOR MADE-IN / MADE-FOR MADE-IN / MADE-FOR MADE-IN / MADE-FOR MADE-IN / MADE-FOR

Case ID:

6.10	If a nurse/midwife assisted her, what type of nurse/midwife?	1. <i>Bidan di Desa</i> 2. Nurse/midwife at the community health centre 3. Private nurse/midwife 4. Nurse/midwife at the hospital 5. Nurse/midwife (unspecified) 7. NA 8. Don't know	<input type="text"/>
6.11	Name of the nurse/midwife who assisted	_____	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>SECTION 7. REFERRAL</b>			
<i>Now I would like to ask you some questions about the care that [NAME] received in the week before her death</i>			
7.1	How many days was [NAME] sick before she died?		<input type="text"/> <input type="text"/> <input type="text"/>
7.2	Did she seek care during the time she was sick before she died?	0. No 1. Yes → Go to Q7.4 8. Don't know	<input type="text"/>
7.3	Why did she not seek care?	01. Money available 02. Transportation not available 03. Distance to health facility too far 04. Family did not agree to take her 05. Other reason, specify _____ 07. NA 88. Don't know	<input type="text"/> <input type="text"/>
7.4	Did she receive care during the time she was sick before she died?	0. No → Go to Q7.9 1. Yes 8. Don't know → Go to Q7.9	<input type="text"/>
7.5	Where did she first receive care?	01. Own home 02. TBA's home 03. <i>Bidan's</i> home 04. Polindes 05. Private clinic 06. Community health centre 07. Hospital 08. Other, specify _____ 88. Don't know	<input type="text"/> <input type="text"/>
7.6	From whom did she first receive care?  If NOT nurse/midwife, go to Q7.8	1. TBA 2. Nurse/midwife 3. Doctor/OB/GYN 4. Other, specify _____ 8. Don't know	<input type="text"/>
7.7	If she received care from a nurse/midwife, what kind of nurse/midwife?	1. <i>Bidan di Desa</i> 2. Nurse/midwife at the health centre 3. Private nurse/midwife 4. Nurse/midwife at the hospital 5. Nurse/midwife (unspecified) 6. NA 8. Don't know	<input type="text"/>

Case ID:

7.8	She was sent (referred) to	A) Nurse/midwife's house	<input type="checkbox"/>
		B) Village clinic	<input type="checkbox"/>
		C) Private clinic	<input type="checkbox"/>
		D) Community health centre	<input type="checkbox"/>
		E) Hospital	<input type="checkbox"/>
		F) Other, specify _____	<input type="checkbox"/>
7.9	Where did she die?	0. No 1. Yes 8. Don't know 01. At own home 02. At other's home 03. Village clinic 04. Community health centre 05. Hospital, specify _____ 06. En route from home to facility 07. Between facilities 09. Other, specify _____ 88. Don't know	<input type="checkbox"/>

**8. Is there anything else you would like to tell me about [NAME's] death?**

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After all relevant questions have been asked, end the interview and THANK the respondent.

Then ask if she/he would mind if another researcher from Impact came to ask questions later (maybe related to the death, maybe not)?

**Consent to be re-visited (circle the appropriate response):**

1. Agree to be re-visited
2. Do not agree to be re-visited

**Time End** : \_\_\_\_ : \_\_\_\_



## **Instructions for MADE-FOR interviews and questionnaire completion**

**NOTE: This questionnaire should be adapted to the local context before use. This includes inserting local (and understandable) names for medical conditions, health care providers and health services.**

The MADE-FOR questionnaire consists of two parts, the *informed consent* page and the research questions.

### **A. Informed consent page**

*This page consists of a section for respondent's agreement to be interviewed and to be re-visited, a section summarizing visit information, and a section for questionnaire checks.*

After meeting the person eligible for the interview, introduce yourself, state the objectives of the interview, and ask the respondent's consent to be interviewed. To ensure a standard approach to informed consent, read aloud the explanation paragraph written on the first page of the MADE-FOR questionnaire.

<b>District</b>	Write the name of the district where the respondent lives. Write code from coding manual.
<b>Sub-district</b>	Write the name of the sub-district where the respondent lives. Write code from coding manual.
<b>Village/city</b>	Write the name of the village/city area where the respondent lives. Write code from coding manual.
<b>Household unit</b>	Write the number of the household unit (for example: write 01 for unit number 1)
<b>Neighbourhood unit</b>	Write the number of the neighbourhood unit (sub-village) (for example: write 05 for unit number 5)

**Full name of respondent:** write respondent's full name.

If respondent agrees to be interviewed, circle 1 (agrees to be interviewed). If the respondent refuses, circle 2 (does not agree to be interviewed).

If the respondent agrees to be interviewed, ask whether he/she agrees for re-visit by the Centre for Family Welfare team, either the current team or another team for other activities. If respondent agrees to a re-visit, circle 1 (agrees for re-visit). If the respondent refuses, circle 2 (does not agree for re-visit).

### **Type of visit:**

1. Write 1 if the visit is for a maternal death (MADE-FOR visit).
2. Write 2 if the visit is a confirmation visit for a mismatch or suspicious case.
3. Write 3 if the visit began as a confirmation visit for a mismatch or a suspicious case then was found to be an eligible maternal death during the interview.

Please note the following:

- No confirmation visit is required for non-maternal cases with date of death written as 88 / 88 / 2003 (informants did not know if death occurred before or after 25 November 2003), unless interviewer forgot to confirm the case during the WRA Death Listing meeting.
- If a confirmation visit is conducted for two mismatch cases who in fact are the same person, fill in two cover pages for the MADE-FOR questionnaires. Use one form to complete all the research questions. On the other form, fill in only page 1, write result code 12 and write the duplicate case ID number.
- Before conducting a confirmation visit or MADE-FOR visit, check the date of death on the summary form. If the woman died  $\leq 40$  days before the interview date, do not visit the household. Instead, fill out page 1 of the questionnaire, write result code 11, and write the reason. If the summary form date of

death is > 40 days before, but during the interview, the date of death is reported to have been ≤ 40 days before, ask respondent's willingness to continue the interview. Conduct interview carefully, considering that the family is still in a grieving stage and busy with death ceremonial matters.

	1	2	FINAL VISIT	
Date of visit	___/___/___	___/___/___	___/___/___	
Interviewer code	□□	□□	□□	
Result	□□	□□	□□	
14. Completed	18. Completed, ineligible age and death date	23. Not done, no informant		
15. Partly completed, then refused	19. Completed, ineligible other (specify) _____	24. Not done, other (specify) _____		
16. Completed, ineligible age		25. Not done, duplicate case		
17. Completed, ineligible death date	20. Not done, refused			
	21. Not done, family moved			
	22. Not done, house not found			
		26. Not done, postponed		
	Re-check	Cross-check	Team leader	Data entry I
Name				
Date	___/___/___	___/___/___	___/___/___	___/___/___
Signature				

**Date of the visit:** Day/month/year of the visit to the family house (example: write 06/03/2006 for 6 March 2006). If a second or third visit was needed, write date in column 2 for second visit and date in FINAL VISIT column for the third visit.

**Interviewer code:** Write code in accordance with the codes assigned by the data management team. The code is unique for each interviewer, fixed and used for the entire length of the survey.

**Result code:** Write the code of the visit result in the provided box. Refer to the visit result codes below the answer box. When more than one visit was made, write the visit result code in the appropriate column for each visit.

- 01. Completed. The interview is finished with the questionnaire completely and properly filled out.
- 02. Partly completed, then refused. The interview was partly finished and then the respondent refused to continue. Ask the reason why, and ask for the possibility for interview at a different time.
- 03. Completed, age is not eligible. When asking the questions on the first three pages, it is determined that age at death was not between 15–49. The interview was then stopped after question 3.4.
- 04. Completed, death date is not eligible. When asking the questions on the first three pages, it is determined that the woman died before 25 November 2003. The interview was then stopped after question 3.4.
- 05. Completed, age and death date not eligible. When asking the questions on the first three pages, it is determined that age at death was not between 15–49 and that the woman died before 25 November 2003. The interview was then stopped after question 3.4.
- 06. Completed, not eligible for other reason. When asking the questions on the first three pages, it is determined that the case is not eligible for reasons other than age and death date. Example: usual place of residence and residence at time of death are not in the village, or other information.
- 07. Not done, respondent refused. The interview cannot be conducted due to the refusal of the respondent to be interviewed.
- 08. Not done, family moved. The interview cannot be conducted because the family of the case moved to another village and another suitable respondent cannot be found. If the family moved to another place in the same village, visit the family at the new house and conduct the interview.

09. Not done, house cannot be found. The interview cannot be conducted because the house cannot be found. Before deciding that the interview cannot be conducted, first try to find the house by asking the village informant who listed the case.
10. Not done, respondent cannot be found. The interview cannot be conducted because the respondent cannot be found and another eligible respondent is not found. **Three visits must be made to try to find the respondent.**
11. Not done, other reason. The interview cannot be conducted for other than provided reasons. Write the reason.
12. Not done, duplicate case. The interview is not conducted because another visit has already been made for the same case. Confirm with the other interviewer who made the visit.
13. Not done, postponed. The respondent does not have the time to be interviewed and promises to be interviewed at other time

**Name:**

**Re-check column**

Interviewer name, written after interviewer has finished checking the completed questionnaire. Written by the interviewer who conducted the interview

**Cross-check column**

Name of interviewer who performed the cross-check, when the cross-check is finished. Written by the interviewer who performed the cross-check.

**Team leader column**

Name of the team leader who performed the cross-check, when the cross-check is finished. Written by the team leader.

**Data I entry column**

Name of the first data entry person who entered the data. Written by the first data entry person.

**Data II entry column**

Name of the second data entry person who entered the data. Written by the second data entry person.

**Date:**

Write the day/month/year of the interview, and the dates when re-check, cross-check, first data entry, and double entry were conducted (example: write 06/03/2006 for 6 March 2006).

**Signature:**

Signature of the person who conducted the interview, re-check, cross-check, data entry and double entry.

**B. Questions about the dead woman, her socio-economic status, and pattern of health service utilization during pregnancy and near the time of death.**

**PART 0: CASE IDENTIFICATION**

**Time start:**

Write the time the interview started, in 24 hour HH:MM format (example: 10:20 for 20 minutes past 10am).

- 0.1 : **Case name:**  
Write the complete name of the dead woman.
- 0.2 : **Case ID from CHW compiled form: DDDSKK**  
D : village cluster code (see coding manual) → 3 digits  
S : informant network code → 1 digit  
K : unique case number → 2 digits
- 0.3 : **Case ID from Household unit head compiled form: DDDSKK**  
D : village cluster code (see coding manual) → 3 digits  
S : informant network code → 1 digit  
K : unique case number → 2 digits
- 0.4 : **Case ID: DDDSKK**  
D : village cluster code (see coding manual) → 3 digits  
S : informant network code → 1 digit,  
if reported by both CHW and Household unit head, use '3'  
K : unique case number → 2 digits

**PART 1: RESPONDENT IDENTIFICATION**

- 1.1 : **Name of respondent**  
Write complete name of the respondent
- 1.2 : **Sex of respondent**  
Clear – do not need to ask the respondent
- 1.3 : **Were you with (NAME) close to the time of her death?**  
Choose YES if the respondent was with the dead woman, or with the dead woman as death approached; a yes answer does not require that the respondent was with the woman exactly at the moment of death.
- 1.4 : **Relationship of respondent to the dead woman**  
Choose the code based on the relationship of the respondent with the dead woman. Sibling means brother or sister of the dead woman. If the answer is not included in the answer options, choose code 9 and write the respondent's answer.

**PART 2: INFORMATION ABOUT THE CASE**

**To gather general information about the dead woman**

- 2.1 : **Complete address of the house where the dead woman usually lived (permanent address)**  
The address is permanent if the dead woman lived there for at least three consecutive months. Write the name of the household head where the dead woman lived. If the woman was married, write the husband's name. If she was not married, write the father's name. Write the address of district, sub-district, village/city area, street and number.
- 2.2 : **Is the address where the dead woman usually lived the same as the address where she was staying when she died?**  
Choose YES if the house where the dead woman lived was the same as the house she was living in when she died (or the house she was living in before she was taken to a health facility, if she died in or on the way to health facility).
- 2.3 : **How long had [NAME] stayed at the other address before she died?**  
If the answer to question 2.2 is NO, write how long the dead woman lived in the house where she was staying when she died (or the house she was staying in before she was taken to a health facility, if she died in or on the way to health facility).

- 2.4 : **Complete address of the house where she was staying when she died**  
Write the complete address of the house where the dead woman was staying when she died (or the last address of the house where the dead woman was staying before she was taken to a health facility (if she died in or on the way to the health facility)). Write the name of the household head at this address. If the dead woman was married, and the household head at this house was the husband, write the husband's name. If she was not married, and the household head at this address was the father, write the father's name. Write the district, sub district, village/city area names, and sub-village and neighbourhood numbers.
- 2.5 : **How old was [NAME] when she died?**  
If the respondent does not remember the age of the dead woman, probe for the year of birth, age difference with family members (brother or sister) whose ages are known, age difference with husband, or connect the birth year with a specific historical occasion.
- 2.6 : **Date of death**  
If the respondent does not remember the date of death, probe with religious dates, national holidays or other specific occasions (such as end of fasting month celebration).
- 2.7 : **Cause of death**  
Write name of the sickness or incident causing the death. Probe if necessary.

### PART 3: INVESTIGATION OF CAUSE OF DEATH

#### To gather information about the causes of death.

- 3.1 : **Was she pregnant when she died?**  
It is necessary to differentiate between women who died when pregnant (with the baby still in the womb, and before the delivery process has started), and women who died during delivery (after contractions start and before delivery of placenta, or during Caesarean section).
- 3.2 : **Did she die during childbirth?**  
The purpose of the question is to determine if the woman died in the process of delivery, without considering the *outcome* of the delivery (that is, without considering whether the delivery ended with a baby born and the placenta delivered, a baby born and the placenta not delivered, or a baby not born). The delivery process starts from the onset of contractions during labour.
- 3.3a : **Did she die within six weeks of delivery?**  
This six week period after delivery starts after the placenta is delivered.
- 3.3b : **Date of delivery (day/month/year)**  
Clear
- 3.4a : **Did she die within six weeks of abortion (either miscarriage or induced abortion)?**  
Abortion is delivery at less than 20 weeks of pregnancy.
- 3.4b : **Date of abortion (day/month/year)**  
Clear.

#### PART 3.A:

#### Fill out only if death occurred AT THE TIME OF DELIVERY OR WITHIN SIX WEEKS OF DELIVERY

- 3.5 : **Was labour prolonged more than 24 hours?**  
Time is counted from onset of contractions to delivery of the placenta.
- 3.6 : **Was the baby's position abnormal?**  
If the woman died before the baby was born, probe to see if the health officer or traditional midwife said that the position of the baby was not normal.
- 3.7 : **Was the baby too big for delivery?**  
The body of the baby was too big and made the delivery difficult. If the woman died before the baby was born, probe to see if the health officer or traditional midwife said that the baby was too big.
- 3.8 : **Did an unusual part of the baby, such as arms or legs, come out first?**  
Did these parts come out before the head? The head comes out first in a normal delivery.
- 3.9 : **Did [NAME] die in labour undelivered?**  
Undelivered means that the baby was still in the womb or the baby's body was not fully out of the womb when she died.
- 3.10 : **Did the placenta remain inside?**  
Either all or part of the placenta was still in the womb when she died.

- 3.11 : **Was the baby delivered alive?**  
Was the baby alive when born (even if died after delivery)? Usually a live baby will cry when born.
- 3.12 : **Was there any information from a health officer saying that there was a delay in decrease of womb size?**  
Ask if the respondent got this information from doctor, midwife, or other health officer.
- 3.13 : **Was there any information from a health officer saying that the womb came out after delivery?**  
Ask if the respondent got this information from doctor, midwife, or other health officer.
- 3.14 : **Was the delivery by Caesarean operation?**  
This is an abdominal operation by a doctor to get the baby out of the body.
- 3.15 : **Was the delivery helped with devices to pull the baby out of the womb?**  
Probe by asking whether the delivery was difficult, requiring the assistant to use a device to pull the baby out of the womb. Examples of device are forceps or ventouse.

**PART 3.B:**

**Fill out for women who DIED AT THE TIME OF DELIVERY, OR WITHIN SIX WEEKS OF DELIVERY OR WITHIN SIX WEEKS OF ABORTION (either spontaneous or induced abortion)**

- 3.16 : **Did [NAME] die within 24 hours of pregnancy ending?**  
Choose YES if the woman died within 24 hours after delivery or abortion. Time is counted from the delivery of the placenta to the death time.
- 3.17 : **Did [NAME] have excessive bleeding around the time of pregnancy ending?**  
This means bleeding from the birth canal at the time or after delivery or abortion. 'Excessive' is defined according to the respondent's perception of the amount of bleeding.

**PART 3.C: Fill out for ALL CASES**

- 3.18 : **Was [NAME] married when she died?**  
Marital status at time of death. This question needs to be asked even though the interviewer may have information from others that she was married or unmarried.
- 3.19 : **How many months pregnant was she when she died or when the pregnancy ended?**  
If the woman died in pregnancy, ask the length of pregnancy at the time of death. If she died within six weeks of delivery, ask the length of pregnancy at the time of delivery. If she died within six weeks of abortion, ask the length of pregnancy at the time of abortion.
- 3.20 : **Was the pregnancy unwanted?**  
Probe to see if at the time of the pregnancy the woman did not want a child.
- 3.21 : **Was there any attempt to end the pregnancy?**  
Efforts to end pregnancy might be swallowing herb or pill, intentionally doing heavy activity to abort the baby or being massaged by a traditional midwife to get the foetus out before the proper delivery time.
- 3.22 : **Was this her first pregnancy?**  
This means first pregnancy, irrespective of the *outcome* of previous pregnancies. A previous pregnancy could mean another pregnancy that ended with a baby born alive, a baby born dead, a baby that died in the womb, or an abortion/miscarriage. If she had a pregnancy that ended with any of these outcomes, mark 0.
- 3.23 : **How many previous pregnancies did she have?**  
The number of pregnancies before this pregnancy. After getting this information from the respondent, probe to make sure the respondent counted all previous pregnancies, including those that ended with a baby born alive, a baby born dead, and miscarriage/abortion.
- 3.24 : **How many previous deliveries did she have?**  
From the total previous pregnancies, count the number of deliveries, including the number of deliveries with a baby born alive, and with a baby born dead.
- 3.25 : **Did she have a previous delivery by Caesarean section?**  
Before this pregnancy, did she have a Caesarean section operation to deliver the baby? The Caesarean section is an abdominal operation by a doctor to take the baby out of the body.

- 3.26 : **Was she pregnant with twins?**  
This includes a pregnancy with either or both babies born alive or dead, or only one born alive. If she died while she was pregnant, probe to see if a doctor or midwife or other health officer said that she was pregnant with twins.
- 3.27 : **Did she have high blood pressure during her pregnancy?**  
This must be based on the woman having a blood pressure check, and a record of high blood pressure. This does not mean a history of hypertension before the pregnancy or during a previous pregnancy.
- 3.28 : **Did she ever have convulsions?**  
This includes convulsions at any time including when she was NOT pregnant.
- 3.29 : **Did she have convulsions only during pregnancy?**  
This question is to see if the convulsions in the past happened only in pregnancy/delivery/straight after delivery.
- 3.30 : **Did she ever have a problem called epilepsy?**  
This question is about a history of convulsions called epilepsy.
- 3.31 : **Did she have excessive vaginal bleeding at the time of death?**  
The term 'excessive' depends on the respondent's perception.
- 3.32 : **Did she have excessive vaginal bleeding during the first three months of this pregnancy?**  
The term 'excessive' depends on the respondent's perception. This is not intended to ask about excessive bleeding at the first three months of the previous pregnancy.
- 3.33 : **Did she have swelling in any part of her body during this pregnancy?**  
Without considering which part of the body.
- 3.34 : **Did she have swelling of legs and feet?**  
To gather information about swelling specifically of legs and feet.
- 3.35 : **Did she have swelling of her face?**  
To gather information about swelling specifically of the face.
- 3.36 : **Did she have general swelling of her body?**  
To gather information about swelling of her body.
- 3.37 : **Did she have blurred vision?**  
To gather information about the existence of unclear eye sight.
- 3.38 : **Did she have sudden and excessive abdominal pain within three days of death (not the pain of labour at the time of delivery)?**  
Excessive and sudden stomach pain which started within three days of death. Differentiate from the pain which starts the process of delivery and the pain of delivery.
- 3.39 : **Did she have foul smelling vaginal discharge?**  
The vaginal liquid smelled bad.
- 3.40 : **Did she need/get antibiotic infusion (by a needle in the blood vessel) or injection (by injection in the arm or leg)**  
If the respondent's answer is YES (for example if she received infusion or injection), probe to see if the liquid was antibiotic (to kill bacteria). Choose YES if at least one condition is met (either needed or got antibiotic injection/infusion).
- 3.41 : **Was she in a coma/unconscious for one or more days during the few days before her death?**  
YES means she had a coma for one day or more.
- 3.42 : **Was she very pale/did she have anaemia (low blood count)?**  
To gather information about the history of anaemia, ask about signs of anaemia, such as paleness. Other signs of anaemia?
- 3.43 : **Did the dead woman need/get a blood transfusion?**  
Without considering the cause and whether the transfusion was given or not. Answer YES if at least one condition was met (either needed or got blood transfusion). The information about the need for a blood transfusion can be known by the respondent directly from a health officer or through the story of the dead woman.
- 3.44 : **Did the dead woman need/get an iron injection?**  
If she received iron (for anaemia), probe to see if the iron was given by injection or by tablet. Answer YES if at least one condition was met (either needed or got). The information about the need for iron injection can be known by the respondent directly from a health officer or through the story of the dead woman.

- 3.45 : **Did she have any operation in the month before death?**  
There is no need to discuss the type and location of the surgery. The purpose of this question is to find out if there was a risk of infection or surgical complication.
- 3.46 : **Did she have her womb removed in the six weeks before death?**  
The purpose of this question is to find out if the woman might have been pregnant in the six week period before death.
- 3.47 : **Did she have difficulty breathing with normal activity?**  
Normal activity means her usual daily activity.
- 3.48 : **Had she been losing weight?**  
To gather information about noticeable weight loss.
- 3.49 : **Was she so sick before she died that she had to stay in bed for most of the day?**  
Probe to find out if she needed help (being lifted or held) to get out of bed or walk, for example to get to the bathroom.
- 3.50 : **Did she collapse suddenly?**  
Was she suddenly unconscious?
- 3.51 : **Did she have fever before her death?**  
Any kind of fever, for any length of time.
- 3.52 : **Did she have fever which started within three days before death?**  
The fever could start one, two or three days before death. Without considering the length of the fever.
- 3.53 : **Did she have fever which came and went for a week or more before death?**  
This means fever which comes and then goes away and then comes again. YES answer is only given if the fever came and went for at least one week.
- 3.54 : **Did she have fever with shivering?**  
YES if the fever was accompanied by shivering, without considering the length of the fever and the shivering.
- 3.55 : **Did she have fever which lasted for more than three weeks?**  
YES if she had fever for more than three weeks before she died.
- 3.56 : **Did she sweat a lot at night?**  
This means more sweating at night than a healthy person.
- 3.57 : **Did she have swollen glands/lumps in her neck, groin, or under her arms?**  
If glands are swollen, the body part over the gland is swollen. Groin means the top of the leg.
- 3.58 : **Did she have a stiff neck?**  
Probe by asking if she had difficulty in turning her neck or head.
- 3.59 : **Did she have a cough?**  
This question is required for the next two questions.
- 3.60 : **Did she cough for more than three weeks?**  
Cough persisted for more than three weeks in the period before death.
- 3.61 : **Did she have a bloody cough?**  
When she coughed, the sputum had blood in it.
- 3.62 : **Did she have yellow skin or eyes?**  
The purpose of this question is to get information about a history of jaundice before death by asking the signs of yellowish skin or eyes.
- 3.63 : **Did she have an open or infected wound?**  
The purpose of this question is to find out if there was a source of a serious infection. Probe by asking the phrase 'bad wound'.
- 3.64 : **Was there information that she had a history of the following:**  
Was there information from a health officer that she was sick from any of the following diseases:
- a) Tuberculosis
  - b) HIV/AIDS
  - c) Malaria
  - d) Liver disease
  - e) Cancer
  - f) Heart attack



The information might be known by the respondent directly from a health officer or through other people. Confirm that the information was from a health officer.

- 3.65 : **Did she have an injury from an accident or violence?**  
The purpose of this question is to find out possible causes of death.
- 3.66 : **Did she take her own life?**  
The purpose of this question is to find out if the woman attempted suicide. Choose YES if the dead woman tried to kill herself (not only intention) before death, even if the dead woman survived from her effort to commit suicide. Be very careful when asking this question.
- 3.67 : **Did she die during the rainy season?**  
The answer to this question can be based on the respondent's memory of whether it was the rainy season at the time of the death. You do not need to probe to get the month of death, since seasonal change can happen at different months in different places.

#### PART 4: LEVEL OF EDUCATION

To gather information about the level of education of the dead woman and her husband.

- 4.1 : **Did she ever attend school?**  
Did she attend any level at all, whether she finished or not.
- 4.2 : **What was the highest level of school she attended?**  
This means the highest level attended (she need not necessarily have finished that level). For example, a woman who finished junior high school but did not attend senior high school. This means the highest level of school she attended was junior high school.
- Choose codes based on the following options :
1. Primary school
  2. Junior high school
  3. Senior high school
  4. Academy (1 year diploma – 3 year diploma)
  5. University (bachelor)
  6. Other if not included in those options. Write the answer.
  7. NA
  8. Don't know
- 4.3 : **What was the highest class she completed at that level?**  
What was the highest level (class/year) she finished? For example: if a woman attended the third class/year of junior high school but did not finish the class/year, her highest class completed would be the second class/year of junior high school.
- 4.4 : **Did her husband ever attend school?**  
See explanation 4.1 and apply to the husband. Fill code 77 if the woman was not married.
- 4.5 : **What was the highest level of school he attended?**  
See explanation 4.2 and apply to the husband.
- 4.6 : **What was the highest class he completed at that level?**  
See description 4.3 and apply to the husband.

#### PART 5. HOUSEHOLD OWNERSHIP AND ASSETS

The questions about household ownership and assets are about the woman's household *at the time she died (the household where she usually lived)*. The purpose of these questions is to find out the social and economic status of the dead woman's household at the time she died. Household assets refers to things that were owned by the household then.

- 5.1 : **What was the ownership status of the house where she usually lived?**  
 Choose the answer from the following options :
1. Own house: self-owned, not family's/parent's house
  2. Rented house: rented or leased house by a regular payment
  3. Provided by employer of household member: not personally owned by woman's household, but the household did not need to pay (free)
  4. Lives with parents: lives in home with parents
  5. Parent's/parent-in-law's house: house was lent by parent/parent-in-law, although the parent/parent-in-law did not live in the respective house
  6. Relative's house: House belonged to family members other than parents
  7. Other, not above, write answer. Example: lived in house owned by other people
- Questions 5.2 – 5.4 are to find out the type of building materials of the house where the dead woman usually lived, before she died (not the materials of the house now).
- 5.2 : **Floor:** Write the code for the material of MOST of the floor.  
 1=natural floor (soil/sand/mud)  
 2=wood  
 3=bamboo  
 4=brick/cement  
 5=ceramic  
 6=cement/without brick  
 7=other, not included in the options, write the answer.
- 5.3 : **Wall:** Write the code for the material of MOST of the wall.  
 1=bamboo  
 2=wood  
 3=brick/cement  
 4=semi-permanent  
 5=other, not included in the above options, write the answer.
- 5.4 : **Roof:** Write the code for the material for MOST of the roof.  
 1=straw  
 2=wood/bamboo  
 3=tile  
 4=cement  
 5=asbestos/zinc  
 6=other, not included in the above options, write the answer.
- 5.5 : **Toilet (water closet) (WC) used by the woman's household** for daily use.  
 1=private with septic tank (used only by the household with closed septic tank)  
 2=private without septic tank (used only by the household, however the outflow is not a closed tank. Example: traditional WC/pond/fish pond)  
 3=public facility (used by more than one household – provided by the government)  
 4=pit (hole) (household did not have WC, dug hole)  
 5=no WC (household used open places such as bushes, beach, river as WC)  
 6=other, not included in the above options, write the answer.
- 5.6 : **MAIN drinking water source** for the household.  
 1=Tap water  
 2=Open well: household took water from open well  
 3=Closed well: household took water from a well covered by roof  
 4=Surface water: household took water from the earth surface such as river  
 5=Mountain water: household took water flowing from mountains  
 6=Other: not included in the above options, write the answer.
- 5.7 : **MAIN cooking fuel** for daily cooking by the family. Options clear.

- 5.8 : **Did household have the following:** Electricity and electric items. Ask all of the following, one by one.
- A) Electricity
  - B) Radio
  - C) Television
  - D) Video tape such as Betamax, VHS
  - E) Video deck is video using small cassette/VCD/DVD
  - F) Telephone, including home phone or mobile phone
  - G) Refrigerator
- 5.9 : **Did household have any of the following:** for transportation, ask one by one.
- A) Bicycle (do not include children's bicycle)
  - B) Sail boat or row boat
  - C) Motor cycle
  - D) Motor boat
  - E) Car/truck
- 5.10 : **Did woman have health insurance**  
Write the code for the **institution which covered the health care fee:**
- A) Private health insurance
  - B) Civil servant health insurance
  - C) Poor family health care insurance
  - D) Labour health insurance
  - E) Other, not in above options, write the answer.

#### **PART 6: HEALTH CARE DURING PREGNANCY AND LAST DELIVERY BEFORE DEATH**

- 6.1 : **During the last pregnancy, did the woman get antenatal care (pregnancy check up) from the following persons?**  
Write the answer code for each person (ask one by one).
- A) Traditional midwife
  - B) Nurse/midwife
  - C) Doctor/Obstetrician/Gynaecologist
  - D) Did not see anyone
  - E) Other, not above, write the answer.
- 6.2 : **Where did she go for antenatal care (pregnancy check up)?**  
Write code 1 for YES, 0 for NO, or 7 for NA for each of the following places. Ask one by one.
- A) Own house
  - B) Family's house
  - C) Nurse/midwife's house
  - D) MCH clinic
  - E) Village clinic
  - F) Community health centre
  - G) Clinic, write the name of the clinic
  - H) Hospital, write the name of the hospital
  - I) Other, not included in the above options, write the answer.
- 6.3 : **How many months pregnant was she when she had her last antenatal visit?**  
How many months was the pregnancy at the last pregnancy check up? This means the months of pregnancy at the last pregnancy check up before death. If the answer is 1 month and 3 weeks write 1 month; if 2 months and 1 week write 2 months.
- 6.4 : **Was she told she should deliver at a health facility?**  
Was there advice from a health officer that she should give birth at a health facility (a community health centre, a clinic, or a hospital)?
- 6.5 : **Why was this advised?**  
What was the reason the health officer suggested she give birth at a health facility? High risk means a condition which might have endangered the pregnancy and delivery.
- 6.6 : **Where did she start to deliver?**  
Where was she at the start of the delivery process (when contractions started)?

- 6.7 : **Where did the delivery end?**  
Where was the place where the delivery ended? Where was she when the placenta was delivered, or the place she died, if she died during delivery?
- 6.8 : **Why did she not deliver at a health facility?**  
If she was advised to deliver at a health facility but gave birth somewhere else, ask the reason.
- 6.9 : **Who assisted with the delivery?**  
Who helped from the time she started to push the baby out to the time the placenta came out. Ask all questions one by one.
- 6.10 **If a nurse/midwife assisted, what kind of nurse/midwife was she?**  
1=village midwife: midwife having responsibility for and living in village  
2=community health centre midwife: midwife assigned to serve at a community health centre  
3=private midwife: midwife who has a private care service  
4=hospital midwife: midwife who works at hospital  
5=unspecified midwife: if the respondent does not know the type of the midwife
- 6.11 **Name of the nurse/midwife**  
Clear

## PART 7. REFERRAL

To gather information about health services use and referral before death.

- 7.1 : **How many days was she sick before she died?**  
If the dead woman was sick only several hours before death, write 00.
- 7.2 : **Did she seek care during the time she was sick before she died?**  
This means did she try to get treatment or help from others before she died?
- 7.3 : **If 'no' to 7.2, Why did she not seek care?**  
Ask the main reason the dead woman/family did not try to get treatment or help. Probe.
- 7.4 : **Did she receive treatment when she was sick before death?**  
The treatment could have been from any person, not just a health officer.
- 7.5 : **Where did she get first get care?**  
Probe to find the place of the treatment. If the answer is not included in the options, choose code 5 and write the answer.
- 7.6 : **From whom did she first get care?**  
Ask from whom the dead woman first had treatment.
- 7.7 : **If she received care from a nurse/midwife, what kind of nurse/midwife?**  
See explanation for question 6.10.
- 7.8 : **She was sent (referred) to ... ?**  
Probe for the referral process for all options. Example: she could have been first referred from a traditional midwife to a midwife. The midwife (if she could not help) could then have referred her directly to hospital. In this case you would write code 1 for options 1 and 6.
- 7.9 : **Place of death**  
Write code from the following options:  
1=at own house: she died at the house where she usually lived  
2=at other person's house: she died at another person's house such as family's/parent's house, midwife's house, traditional midwife's house, not the house where she usually lived  
3= village clinic  
4= community health centre  
5=hospital  
6=between home and health facility: she died on the way from home to health facility (clinic/community health centre/hospital)  
7=between health facilities: she died on the way from one health facility to another health facility (for example, while being referred)  
8=other not included in the options, write the answer  
9=don't know.

**8. Is there anything else you would like to tell me about her death?**

The purpose of this question is to allow the respondent to talk briefly about things not mentioned in the questionnaire.

After all questions are asked, end the interview and thank the respondent.

Finally, ask again for permission for another visit by the team from the Centre for Family Welfare (University of Indonesia) which may or may not be a visit about the dead woman. The purpose of the question is to find out if the respondent has changed his/her mind about a re-visit after being interviewed. Circle the answer.

Write the time the interview ended in 24-hour HH:MM format.

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