MATERNAL DEATH SURVEILLANCE AND RESPONSE

Implementation Guidelines for Haiti

A working draft adapted from the World Health Organization Maternal Death Surveillance and Response Technical Guidance April 2016

Centers for Disease Control and Prevention
Eve Brecker
Endang Handzel, MD, MPH

TABLE OF CONTENTS

ACRONYMS

ANC	Antenatal Care
CHW	Community Health Worker
DC	Department Coordinator
DRC	Department Review Committee
FC	Facility Coordinator
FRC	Facility Review Committee
ICD-10	International Statistical Classification of Diseases & Related Health Problems-10
IDP	Internally Displaced Persons
KI	Key Informants
MDR	Maternal Death Review
MDSR	Maternal Death Surveillance and Response
MMR	Maternal Mortality Rate
MSPP	Ministry of Public Health and Population
M&E	Monitoring and Evaluation
NGO	Non-Governmental Organization
OB/GYN	Obstetrician/Gynecologist
PNC	Postnatal Care
TBA	Traditional Birth Assistant
UN	United Nations
VA	Verbal Autopsy
WHO	World Health Organization
WRA	Woman of Reproductive Age

ACKNOWLEDGEMENTS

The Maternal Death Surveillance and Response: Implementation Guidelines for Haiti was developed by staff of the Public Health Systems Strengthening and Recovery Team in the Centers for Disease Control and Prevention's Emergency Response and Recovery Branch.

We would like to express our sincere gratitude to Dr. Reynold Grand Pierre, Dr. Paul Adrien, and Dr. Jean Patrick Alfred for their invaluable leadership in the development of this resource. We would also like to extend our appreciation to the departmental health ministers for their unwavering support. Special thanks to the Medical Directors of the sites included for data collection, who graciously invited us into their facilities and the healthcare staff who welcomed us.

We would like to thank the Haiti Ministry of Health for coordinating and accommodating numerous trainings on the guidelines and for encouraging staff participation. We would also like to acknowledge the Jhpiego, USAID, and our H4 partners (WHO, UNFPA, UNICEF, World Bank) for their contribution and expertise.

A special appreciation goes out to the Ministry of Health staff who participated in our survey. Their honest and thoughtful answers which made this study a success.

A final thank you to Emory University for enabling our partnership with MPH candidate, Eve Brecker, who developed this resource in collaboration with - and under the adept guidance - of CDC Medical Epidemiologist, Endang Handzel, from the Emergency Recovery and Response Branch.

EXECUTIVE SUMMARY

Hundreds of women die annually in Haiti of preventable maternal health-related causes. The national maternal mortality rate is five times that of the United Nations' Sustainable Development Goal. Building a surveillance system that monitors these deaths in real time can help to identify the underlying factors that lead to maternal mortality, guide decision making processes, formulate recommendations and improve the health care system to avoid future deaths. Maternal Death Surveillance and Response is a model of this structured system. It is a system aimed at preventing maternal deaths and improving the quality of care through the dissemination and use of information for appropriate decision-making.

The primary goal of MDSR *is to eliminate preventable maternal mortality* by obtaining and strategically using information to guide public health actions and monitoring their impact.

The overall objectives of MDSR are to provide *information that effectively guides immediate as well as longer term actions* to reduce maternal mortality; and to count *every maternal death*, permitting an assessment of the true magnitude of maternal mortality and the impact of actions to reduce it.

Assessing the magnitude of maternal mortality compels policymakers and decision-makers to give the problem the attention and responses it deserves. Data collection must be linked to action. A commitment to respond, that is to act on findings, is a key prerequisite for success. As a starting point, all maternal deaths in health facilities should be identified, notified, reported, reviewed, and responded to with measures to prevent future deaths. Improving the measurement of maternal mortality by working to identify all maternal deaths in a given area is imperative; without measuring maternal mortality ratios, we will not know if our actions are truly effective in reducing maternal deaths.

INTRODUCTION

Maternal death is a preventable global health problem that affects both developed and developing countries alike. It is such a grave concern that the United Nations (UN) renewed its commitment to lowering national maternal mortality rates worldwide to 70 per 100,000 by 2030 (United Nations, 2015). Achieving this goal is particularly challenging though for developing nations which are oftentimes limited by inadequate transportation systems and medical resources. Both of these factors are necessary to provide appropriate access to services as well as quality care both in general and particularly in terms of antenatal and obstetric care. Haiti became particularly sensitive to these health access challenges after the 2010 earthquake which leveled a majority of the country's health infrastructure. Today, Haiti has the highest maternal mortality rate in the Western hemisphere – 350 per 100,000 live births – despite strong political commitment by the national government to reduce the number of maternal deaths (Seraphin et al., 2015).

Measuring maternal mortality is difficult in the absence of comprehensive vital registration systems. Developing evidence-based strategies to reduce maternal mortality requires an accurate assessment of mortality. An accurate assessment requires a surveillance mechanism that can count every maternal death and that can collect specific information on the causes of these deaths. Maternal Death Surveillance and Response (MDSR) provides essential information needed to motivate and guide actions to prevent future maternal deaths and improve how maternal mortality is measured. The implementation of MDSR in Haiti may support the government in achieving its UN goal by providing more comprehensive information on which to base national healthcare decisions.

Background

MDSR is a form of continuous surveillance linking the health information system and quality improvement processes from local to national levels. It includes the routine identification, notification, quantification, and determination of causes and avoidability of all maternal deaths, as well as the use of this information to respond with actions that will prevent future deaths. Elimination of preventable maternal mortality is the goal of MDSR.

The "R" focuses on the response – the action portion of surveillance. MDSR underlines the critical need to respond to every maternal death. Each death provides information that, if acted on, can prevent future deaths. MDSR emphasizes the link between information and response. In addition, the notification of every maternal death permits the measurement of maternal mortality ratios and the real-time monitoring of trends that provide countries with evidence about the effectiveness of interventions

Rationale

Providing information about avoidable factors that contribute to maternal death and using the information to guide action are critical to prevent similar deaths in the future. Without this information, maternal death in Haiti will not be reduced.

Establishing a framework to accurately measure the magnitude of maternal mortality allows evaluators to assess the effectiveness of interventions. It also provides accountability for results and compels decision-makers to give the problem the attention and responses it deserves.

GOALS AND OBJECTIVES

Goal: To eliminate preventable maternal mortality by collecting data on *every* maternal death and using the data to develop evidence driven actions to prevent future death, and monitor the impact of action.

Primary Objectives

1. To provide information that effectively guides action to eliminate preventable maternal mortality at health facilities and in the community.
2. To count *every maternal death*, permitting an assessment of the true magnitude of maternal mortality and the impact of actions taken to reduce it

Specific Objectives

1. To collect accurate data on every maternal death, including:
   - number – identify and report all maternal deaths;
   - causes of death and contributing factors, through review of all maternal deaths (from facility records, verbal autopsies, etc.)
2. To analyze and interpret data collected, including:
   - causes of death (medical) and contributing factors (quality of care, nonmedical factors)
   - avoidability of death, focusing on factors that can be fixed;
   - risk factors, groups at increased risk, and maps of maternal deaths;
   - trends in maternal mortality
   - demographic and socio-political contexts.
3. To use the data to make evidence-based recommendations for action to decrease maternal mortality. Recommendations may include:
   - community education and involvement;
   - timeliness of referrals;
   - access to and delivery of services;
   - quality of care;
   - training needs of health personnel/protocol;
   - regulations and policy.
4. To ensure actions take places in every level by monitoring the implementation of recommendations
5. To disseminate results and recommendations to health personnel, policy-makers and the general population.
6. To ensure follow-through of actions by monitoring the implementation of recommendations.
7. To inform programs on the effectiveness of interventions and their impact on maternal mortality.
8. To improve maternal mortality statistics and move towards complete civil registration and vital statistics records.

PRE-REQUISITES

Human Resources

The following roles are critical to the effective implementation of the MDSR guidelines. MSPP should train staff members (i.e. CHW and facility staff) in these roles on how their particular position contributes to a successful MDSR system and/or designate an MSPP staff member to fulfill any new roles (i.e. MDSR facility coordinator) that the MDSR system requires.

Community Roles.

Community Health Workers and Key Informants.
Role: Data collector; Identifies WRA deaths in the community, investigates deaths reported by community members, report community deaths to commune facility, and coordinate implementation of community level response plan.

Responsibilities:
- Maintain register of all WRA deaths
- Coordinate with local TBA and other community leader and review pregnancy surveillance data
- Collect information from home visits, community death register, and pregnancy surveillance data for WRA deaths
- Respond to house calls for verifying death of WRA
- Complete Form C-1
- Complete Form C-2 to identify all WRA deaths (regardless of pregnancy status) and submit to CHW supervisor for each death as soon as possible or within 48 hours of death occurrence
- Receive Form C-3 from CHW supervisor, follows up on assigned cases, and updates Form C-2
- Submit updated Form C-2 to CHW Supervisor

Community Health Worker Supervisor.
Role: Coordinates CHW/KI in each commune; identifies suspected maternal deaths in the community; manages initial investigation of suspected maternal deaths in the community, and coordinates and manages reporting from the community to the facility

Responsibilities:
- Review Form C-2
- Initiate Form C-3 for WRA deaths that are suspected maternal deaths and provide Form C-3 to CHW for completion
- Ensure Form C-2 is complete based on Form C-3
- Submit Forms C-2 to MDSR Facility Coordinator

Community review committee
- Example members: *assec/casse*, church leader, mayor, lead CHW
- *Only established once a commune's facility review committee is fully functioning*

Responsibilities:

- Determine if death was avoidable
- Provide recommendations for immediate local action
- Submit Form C-2 to MDSR Facility Coordinator

Facility Roles.

Facility Coordinator (FC).
Role: Data collector; must be supportive; able to coordinate focal points, assign work and set schedule of review committee meeting; have the authority to review data quality; able to review and triangulate or compile data from multiple sites; and have in-depth understanding of the data collection process and the tools that used to collect the data.

Responsibilities:
- Compiles Form C-2 from ward chiefs and Form C-2 from CHW supervisor
- Request ward chiefs complete Form I-2 for WRA deaths in the facility that have incomplete information
- Develop monthly list (Form I-5) of WRA for the department that require verbal autopsy and submit to department
- Submit completed Form I-2 to Facility Review Committee
- Lead facility review committee and head monthly committee meetings
- Set schedules, including dates and times of review committee meetings

Physician Coders.
Role: Confirm cause of death for WRA; Categorize WRA deaths as maternal deaths where applicable.

Responsibilities:
- Establish medical cause of death for all WRA
- Confirm whether WRA death is a maternal death
- Determine non-medical factors attributable to the death
- Complete death certificate

Verbal Autopsy Officer.
Role: Coordinates with family members of the deceased and other community members to understand the circumstances of the death and determine if it could have been avoided; works at the department level

Responsibilities:
- Receives Form I-5 from FC
- Conduct Verbal autopsy interview to the family member using form D-1
- Develop VA summary result using form D-2
- Send the form D-1 and D2 to FC

Facility Review Committee (FRC).

- Examples members: facility coordinator (designated by committee members), hospital CEO, clinicians (i.e. Obstetrician/Gynecologists, anesthetists, etc.), surveillance officer, senior midwife or nurse, medical director, head pharmacist, quality assurance officer, physician coder, a representative of the hospital administration and management
- A FRC should include 6 - 10 members; 12 at maximum depending on the health structure in place. Some facilities, for example, referral hospitals, offer comprehensive services and, in turn, should have more members.

Committee members should be selected from a variety backgrounds: they can include health professionals, administration and management personnel staff from peripheral health facilities referring patients and community member.

Responsibilities:

- Perform periodic reviews at least twice a month, or every time a suspect maternal death occurs.
- Review community deaths monthly from Form C-2
- Review all facility deaths (verbal autopsies, medical record reviews, death certificates) as soon as they occur (at least within 24 hours) from Form I-2, D-1, and D-2
- Assess quality of medical care
- Determine if death was avoidable
- Complete and submit Form I-4 to department level for further analysis
- Complete Form I-3 with ward chiefs and implement action plan at facility

Department Roles.

Department Review Committee (DRC).

- Example members: MSPP Surveillance Unit staff, MSPP Maternal and Child Health Unit staff, OB/GYN professional association

Responsibilities:

- Review community and facility deaths (monthly or quarterly)
- Conduct or supports verbal autopsies based on info sent from facilities on suspected, but unconfirmed maternal deaths or any confirmed WRA from community
- Compare VA data with information from (facility) medical record review
- De-identify, manage, and conduct data analyses
- Recommend preventive actions at department level
- Formulate, implement, and evaluate responses
- Send disaggregated data to national level for national reporting and analyses
- Draft annual report on department maternal mortality
- Submit data to national level for further analysis

National Roles.

National Coordinator.

Role: Implements a response plan, monitors implemented activities, and reports progress back to the national review committee.

Responsibilities:

- Identify roles and responsibilities of MSPP staff in agreed upon response plan
- Help improve communications necessary for actions to be taken at multiple levels
- Conduct regular, periodic all-stakeholder meetings

National Review Committee.
Example members: MSPP Family Planning Unit staff, MSPP Surveillance Unit staff, MSPP Monitoring & Evaluation Unit staff, OB/GYN association members

Responsibilities:
- Review department death data
- Aggregate and synthesizes data from department review committees
- Analyze department level data
- Interpret department level data
- Determine how interpreted data should be translated into policy change

Financial Resources

There are a number of monetary investments required to effectively implement MDSR at any and all administrative levels. Staff trainings, supplies, and compensation all of associated costs. It is important to understand the components of these factors to evaluate the extent and frequency to which they must be implemented in Haiti. Once determined, these components will serve as the basis for a national MDSR budget within MSPP.

Training.
Trainings for MSPP staff concerning MDSR should be initiated at the national level followed by trainings for department, then facility, then community level staff in that order.

National.
- MSPP staff are introduced to MDSR principles and technical guidance by partner agency.
- MSPP implements department staff training to convey importance of MDSR, supervisory best practices, how to minor zero reporting and identify areas that are 'silent'; and how to monitor the quality of the maternal mortality reporting (i.e. whether deaths reported as suspected or probably maternal are correctly classified).

Department.
- Department staff provide department-wide trainings to MDSR facility coordinators.
- Trainings for MDSR facility coordinators should include information on all WRA and maternal death registry and reporting forms.
- Trainings should explain the concept of a maternal death review and how to conduct one.
- MDSR facility coordinators should be taught how to analyze data
- This group should learn the exact protocol for submitting a summary form to their respective department contact.

Facility.

- MDSR Facility coordinators provide commune-based trainings to facility staff and CHW/KI.
- As the primary data collectors, trainings for this group should be, for the most part, practical.
- Training content should include: the purpose of the review process, the importance of obtaining the information without bias, and the need to respect confidentiality.
- Most of the training should focus on the actual data collection skills.
- Training should include practice exercises with an emphasis on completing forms legibly, reviewing forms for completeness and submitting the forms to the appropriate point person in a timely fashion.
- The training should also include epidemiological principles and practices, where appropriate, for those engaged in data analysis activities.

Supplies.

Consideration should be given to the cost of supplies needed for:

- all introductory trainings (see Training section above)
- all refresher trainings (annual), review committee meetings (all administrative levels)
- printing or copying costs for data collection instruments (forms, etc.)
- miscellaneous office supplies

Stipends.

There are two minimal, but remunerations that need to be considered to effectively compensate staff who implement MDSR activities:

- Wages for staff who take on MDSR activities IN ADDITION to their regular job i.e. the lead pediatrician of a facility who also serves as the MDSR facility coordinator. Such additional responsibilities will include more work and more hours worked deserving this individual additional pay.
- Transport for verbal autopsy officers should be covered. These department staff will have to travel, sometimes long distances, to reach the communities where a death requires a verbal autopsy. These MSPP staff should either be provided funding or reimbursed for their transportation costs to their destination.

SOCIO-CULTURAL CHALLENGES

The design and strategic planning of an MDSR system is not enough to ensure its successful implementation. There are many factors that can influence the comprehensiveness of a health surveillance system and the reporting habits of those who update the system. Most commonly, knowledge gaps or social and cultural influences can negatively impact reporting habits which then skew data and incorrectly characterize a country's maternal mortality challenges. These factors are considered below.

Misclassification

The definition of maternal mortality itself can affect how maternal deaths are reported. MDSR utilizes WHO's definition of maternal death, which states that a suspected maternal death is one that occurs either while pregnant or within 42 days of the end of a pregnancy (WHO, 2013). However, without proper training, it may be difficult for a health care provider to attribute death directly or indirectly to maternal causes. In these cases, the death might be misclassified and these data would not be recorded in MDSR (WHO et al., 2014). For example, lacking access to health care in Haiti means many women may not know they are pregnant in their first trimester. As such, the deaths of these women in the early stages of pregnancy are often underreported as maternal death cases because these pregnancies are unknown (WHO, 2004b).

Identification

A significant gap in health care access could imply that a large number of pregnancy complications and births occur outside of facilities. Similarly, a large number of deaths attributable to maternal causes may also occur outside of facilities and, therefore, outside of proper maternal mortality surveillance mechanisms (Huber, 2015). Maternal deaths that occur outside of hospitals and clinics are less likely to be captured by MDSR and would thus be excluded from national data collection. Only 36% of births in Haiti occur in a health facility which suggests a large number of maternal deaths could be missed if strong community reporting mechanisms are not in place (Huber, 2015). Further, the true MMR remains unknown in many developing countries because of lacking surveillance activities that exist for displaced girls and women living in camps (Moszinski, 2011). Internally displaced persons (IDP) often function outside the scope of traditional health infrastructure and can oftentimes be overlooked in surveillance activities which may skew national data. In 2011, there were 300,000 IDP women and girls in Haiti (Moszynski, 2011); a number that has fallen to 64,680 IDPs (men, women, and children) in 2015 (IOM, 2015). There is a high probability that many of their pregnancies and deaths are missed in maternal mortality reporting.

Political and Legal Concerns

Managerial ambivalence towards the enforcement of reporting practices or political resistance at the local or district level discourages community health workers and facility staff from abiding by recommended reporting guidelines (Mathai, 2015). Either of these scenarios may also indicate limited training opportunities on maternal death reporting for staff (Mathai, 2015). Fear of conviction for illegal medical procedures, malpractice, or neglect may also negatively influence staff reporting behaviors. For example, abortion is

illegal in Haiti under Article 262 of the penal code without exception (Haiti Penal Code, 1985).

Article 262 calls for the punishment of both the woman who sought the abortion and anyone who assists her (Haiti Penal Code, 1985). This restriction may be circumvented in accordance with the legal principle of “necessity” which can excuse criminal liability if an act is performed to save one’s own life or the life of another (Boland and Katzive, 2008). In theory, this may be applied to abortion if the woman’s life is endangered by the pregnancy. In practice, however, an abortion provider can only invoke this defense if they face criminal charges and it may be hard to prove “necessity” in court. Under such circumstances, deaths associated with complications from an abortion often go unreported or are not reported as maternal deaths to protect the health care provider from potential legal consequences (Walker et. al, 2004).

LEGAL CONSIDERATIONS

It is imperative to understand the legal framework that will support MDSR so that, in times of uncertainty, clear laws and policies can be referenced to determine next steps. As such, it is the duty of MSPP to identify areas of the Haiti Constitution, National Health Policy, and other amendments or acts that refer to MSPP's capacity to implement health surveillance activities on a national scale. Below are several key points that suggest strengths and weaknesses of legislative support for MDSR within Haiti's legal framework. MSPP officials and key MDSR decision makers should meet with representatives from the relevant policy unit to confirm updates or changes in the below criteria.

Legislative support for MDSR.

It is indicated in Section 2.8 "*Defi de gouvernance et de coordination*" that the National Sanitary Authority has limited surveillance capacity and that there is an absence of standardized protocols for responding to public health crises. This clearly demonstrates the need for a more comprehensive surveillance system; one that includes maternal mortality notification and reporting.

MSPP's National Health Policy explicitly states in section 3.4.2 that its primary objective is to support MSPP in monitoring the quality of the population's health. Specifically, section 3.5.3 explains that this should be done, in part, through monitoring, evaluating, and analyzing the health status of the population.

Section 4.2 additionally expresses that town halls and local government agencies have a responsibility to strengthen the national health system by (among other activities) contributing to efforts in the monitoring of morbidity and mortality that result from causes specific to that locality.

Legislative considerations for MDSR

Notification.
Notification of a maternal death should be a mandatory component of any public health surveillance system.

Official legislation.
A ministerial decree is usually needed to establish the MDSR system, including the national MDR committee and dissemination of results to government entities, civil society, professional organizations, NGOs, donors, etc.

Confidentiality.
Legal provisions related to confidentiality and medical liability should be in place. Otherwise, fear of lawsuits may lead to the abandonment of maternal death reviews. There also must be provisions in place to protect the identity of those recorded in de-identified death data to protect the deceased's and their family's anonymity as such data is shared between review committees and throughout MSPP.

Penalties.
For many individuals involved in the implementation of MDSR, MDSR activities will be responsibilities that are added to their potentially already overwhelming job description. There must be consideration given to ensuring that these staff are able to

effectively maintain their MDSR responsibilities through either an incentive or penalty system.

Integration into IDSR.
Implementation of MDSR will ideally involve close communication with current infectious disease surveillance efforts. As such, formal mechanisms must be established to outline the working relationship between those involved in MDSR and the MSPP unit that resides over infectious disease surveillance. It is imperative that these two entities work together without competition for staff and/or resources.

A note on abortion: Some maternal deaths may result from abortion. While the Haitian penal code explicitly prohibits abortion, it is important for maternal mortality surveillance measures to capture this data so that MSPP can effectively address such activity as a public health concern. MSPP must determine whether or not it is appropriate to record such data either as an indicator that measures the proportion of maternal death resulting from clandestine abortion or within the medical history of a WRA. Should this information be collected, a policy must be developed that protects the identity of a provider or individual involved in performing the abortion.

PREPARATION OF MDSR SYSTEM

Situational Analysis and Needs Assessment

Conducting a situational analysis is a type of research designed to collect information on the entire health system to plan for MDSR program implementation. A situational analysis and needs assessment will be conducted at each facility and includes a review of the community or communities that utilize the facility. A situational assessment and needs assessment will also be conducted for the 10 departments and at the national level.

The **situational analysis** is a comprehensive review of the current health system, including the community, and provides contextual information to ensure implementation is successful. The situational analysis specifically identifying gaps between the existing system and the desired system. By clearly identifying and defining needs, resources and training can be directed appropriately.

A complete list of questions is located in Appendix 1. Example information collected includes the following:

- laws, policies and systems to capture and report information on maternal death including civil and death registration processes and forms
- human resource capacity (e.g. number of community health workers, facility health professionals, facility data coordinator)
- quality of data collected on maternal health indictors
- strengths and weaknesses of current data collection tools, data management and record storage
- physical resources available (e.g. computers, tablets, cell phones, use of electronic health records, space to conduct committee meetings)
- knowledge, attitudes and practices of personnel within facility wards and within the community with regards to data collection and data reporting
- capacity and training opportunities
- civil society and government stakeholders working on the system
- existence and function of response and referral systems

In addition to the situational analysis, a one-year **needs assessment** should be conducted. Data collected will include information such as:

- # maternal deaths that occurred in the facility and community
- # maternal deaths by facility ward (e.g. OB/GYN, infectious disease, surgery)
- # maternal deaths reported to department level compared to # of maternal deaths identified through retrospective review

Training

Trainings for the situational analysis and retrospective data collection will be conducted prior to MDSR implementation. Trainings will include lectures and interactive sessions on the following topics:

- MDSR Overview and Importance
- MDSR Process

- MDSR Data Collection and Reporting Tools
- Community Data Collection
- Facility Data Collection
- MDSR Committee and Processes
- Verbal Autopsy
- Analysis
- Reporting
- Response
- Monitoring and Evaluation

Key MDSR Components

Identification.

Implementation of MDSR begins with the identification of all deaths of women of reproductive age (WRA), defined as women 15 to 49 years of age. The identification process should happen at the community and at the facility level.

At the community level, the identification process requires community health workers (CHW) and key informants (e.g. traditional birth attendants/matrons, community leaders, religious leaders, etc). to engage with community members and exchange information on possible WRA deaths. Key informants function in the role of a CHW when there is now CHW assigned to the community.

Some suspect maternal death cases will be obvious e.g. if the woman dies during childbirth or is physically appears pregnant when she passes away. Other cases may be less obvious e.g. if the woman dies from complications due to an abortion (spontaneous or induced), an ectopic pregnancy, or if she dies weeks after childbirth).

Maternal Death Review.

The main responsibility of the MDR Committees (at all administrative levels) is to organize the review process, disseminate the results and monitor the implementation of MDSR activities at their respective level and within their coverage area. The MDSR Coordinator (at all levels) is supported by the review committee members. All committee members should agree on the importance of adapting to new practices that strengthen MDSR efforts and of taking ownership over the maternal death review process. This is can significantly improve the quality of data collected and the consistency of overall review operations, including the transmission and use of data at the district level.

Review committee members must have the expertise to identify both the nonmedical and medical problems that contributed to the deaths. In addition, having the right mix of expertise in the MDR committee is critical when it is time to act on the review findings and help develop and implement the recommendations.

All the committee members need to be assured that the sole purpose of the MDR process is to save lives and not to assign blame. **“No name, no blame” is a key principle of MDR.** All commitee members must believe that MDR is a safe environment for discussing sensitive details surrounding their professional practices without fear of management sanctions or litigation.

The primary objectives of the MDR is to identify the medical cause of death, ***evaluate the clinical care received, and identify the nonmedical and avoidable factors.*** Looking beyond medical factors recognizes that maternal deaths and the actions required to prevent them are complex. For example:

- having access to clean water and sanitation practices in the household can prevent infection;
- providing the mother or household members health education may help prevent health complications;
- having quality care accessable in communities may reduce the need for hospitalization; and
- having a sound primary-care referral system can support appropriate and quality treatment in well-functioning and adequately equipped health facilities.

Essential interventions addressing the problems affecting women and children must take place at all levels: the family, the community, and the health-care system.

In performing a MDR, the following principles can help make the process effective and efficient:

1. holistic thinking – the problems leading to maternal death are frequently not all medical;
2. focused review – only on those events that may have directly contributed to the maternal death;
3. normative review – care received by the mother is compared with explicit standards based on accepted local practice and best medical evidence;
4. synthetic review – group problems into general categories (e.g. lack of transportation to the health care facility) while keeping enough information so that a specific preventive strategy can be developed

Causes of death and associated factors.

The causes and factors that MDR can help identity:

1. Medical causes of death
2. Medical factors contributing to the death
   - Quality of care issues
   - Remediable clinical actions, such as a need for guidelines, protocols, etc.
   - Health system failures, such as shortages of blood or other resources, or a lack of facilities or skilled staff
3. Nonmedical factors contributing to the death
   - Cultural attitudes and beliefs
   - Specific community-based factors such as transportation, communication, geographical, or financial barriers
4. Whether the death was avoidable or not (in some cases “maybe” may be appropriate)

Medical cause of death.

To examine trends and enable evaluations of the effectiveness of interventions across time and regions, obtaining cause-specific mortality data at various levels is critical. Thus, MDRs should determine the medical or pathophysiological cause of death as specifically as possible and categorize it as a direct obstetric, indirect obstetric, or

incidental (non-maternal) death. Whenever possible, causes of death should be coded in accordance with ICD-10 classification (Appendix 2). Precision in establishing the medical cause of death will depend on whether or not the woman was hospitalized.

The medical cause of death can usually be established from data recorded in medical records, including the patient record, admission and discharge data, case notes, details on treatment administered, procedures performed, autopsy results and, when available, copies of the medical death certificates retained in the facility. Interviews of hospital personnel involved in the woman's care may provide additional information that corroborates data recording in the hospital record. This is particularly important in situations where there are questions on quality of care.

Medical factors contributing to death

The first referral level of care should have the capacity to provide emergency obstetric care as defined by WHO. Having adequate capacity means that a facility has both the necessary resources and personnel with appropriate training. The investigation should include information about the medical management of the woman's condition so the committee can determine if the recommendations and treatment were appropriate and the quality of care was adequate.

The quality of prenatal care – such as screening for risk factors or underlying conditions and education about the danger signs of pregnancy complications – also should be assessed. Likewise postnatal care if the death was after delivery. For both hospital and community deaths, the quality-of-care evaluation should include care given by traditional birth attendants, nurses, midwifes, and physicians.

The investigation should determine whether a lack of resources or inadequate caregiver training contributed to the death. Many countries have written protocols or norms regarding the management of obstetric complications. A complete investigation includes an assessment of whether norms or care protocols were available, followed, and appropriate. Recommendations for changing or improving norms can be one result of maternal death surveillance and response

Reviewing the care that women received should also be done in conjunction with a review of the level of expected service provision for the facility. For facilities that provide basic emergency obstetric care and experience a maternal death, the quality of care around administration of parenteral antibiotics, oxytocic drugs, and anticonvulsants for pre-eclampsia and eclampsia; performance of manual removal of placenta; removal of retained products; assisted vaginal delivery; and neonatal resuscitation should be evaluated closely where applicable to the maternal death context. For facilities that provide comprehensive emergency obstetric care, the same functions should be evaluated along with those for transfusion and obstetric surgeries. Reviewing maternal death cases in the context of the standard of service provision may highlight additional services that need improvement

Nonmedical factors contributing to the death.

Interactions of several factors may contribute to maternal death, particularly among the most vulnerable women. Nonmedical factors are often more important in determining whether a woman lives or dies than the medical cause of death itself. As

previously mentioned, nonmedical factors leading to death may be examined along the Three Delays or Pathway to Survival models (see Table 1).

Most maternal deaths occur in the peripartum period and many are not associated with pre-existing risk factors. Thus, women's knowledge of pregnancy-related danger signs and the health-care system's ability to diagnose a problem and refer women to appropriate facilities in a timely fashion when emergencies arise are paramount. In what condition did a woman arrive at the hospital? Was the referral timely or too late? If too late, what contributed to the delay? How long after her arrival did the woman die? Many deaths occur shortly after arrival at hospitals that provide appropriate emergency obstetrical care. These deaths are often associated with a late referral, including delays in recognizing the problem, delays in making the decision to seek the appropriate level of care, and delays in reaching it.

Table 1: Examples of Delays in Care

First Delay	Second Delay	Third Delay
• Failure to recognize danger signs • Lack of money to pay for medical expenses/ transport • Fear of ill-treatment at health facility • Reluctance of the mother or the family to seek care because of cultural constraints • Lack of power – by woman or attending family member – to make decisions • Lack of encouragement from relatives and community members to seek care • Unavailability of someone else to take care of the children, the home, or livestock • Lack of accompaniment to health facility	• Distance from a woman's home to a care facility or provider • Lack of roads or poor condition of roads • Lack of emergency transportation, whether by land or water • Lack of awareness of existing services • Lack of community support	• Lack of health-care personnel • Gender insensitivity of health-care providers • Shortages of supplies such as emergency medicines or blood • Lack of equipment for EmOC • Lack of competence of health-care providers to deliver EmOC • Weak referral system (includes transportation and communication)

Determination of avoidability.

A maternal death is avoidable if it might have been avoided by a change in patient behavior, provider/ institutional practices, or healthcare system policies

Avoidability is a proactive concept and lessons learned from each confirmed maternal death should be applied to prevent future deaths from similar factors

The FRC should discuss in detail all cases thought to be avoidable or potentially avoidable by identifying the various factors that contributed to these deaths and issue appropriate recommendations. The following factors should be considered when assessing if a death was avoidable:

Community level

Patient/family factors – Did the woman and her family recognize that a problem existed, seek medical care – including antenatal care (ANC) and postnatal care (PNC) – and comply with any medical advice given?

TBA factors – Did the TBA manage the labour and delivery correctly, recognize that a problem existed, and refer the women appropriately and without delay?

Community linkages – Did the woman or her family have regular interactions with CHWs and TBAs?

Facility level

Focused ANC – Determine whether the woman received appropriate and timely ANC: how many visits did she make? What content was included (according to the country guidelines) in each visit? Was information on signs and symptoms of complications provided? What risk factors or medical problems were correctly identified and addressed?

Postnatal care – Determine whether the woman received PNC according to the country guidelines.

Hospital factors – Determine whether infrastructure development is adequate, essential obstetric functions were available at the first referral level, appropriate protocols/norms were in place, resources and supplies were adequate, and care was available regardless of the ability to pay.

Health-care provider factors – Determine whether staff members were available and adequately trained, if the treatment was timely and done correctly, and if providers were sensitive to the social and cultural values of the patient and her family.

Department level

Transportation factors – Assess if transfer to a facility was hindered by availability of transportation, adequacy of transportation, road conditions, ability to travel at night, or lack of funding.

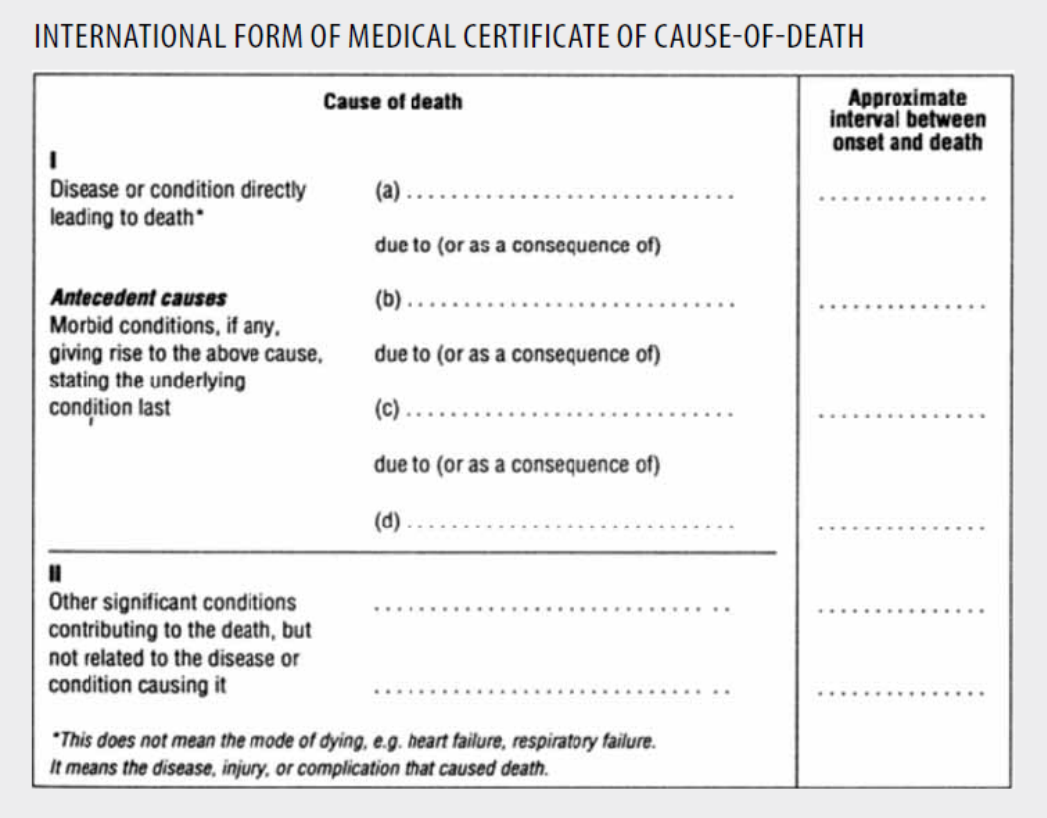
Communication factors – Assess effectiveness of communication at community and facility levels. For example, the availability of telephones, toll-free telephone numbers, mobile telephones for CHWs, tablets for data collection, computers for data storage, and computer training at facilities.

Gender-related issues – Assess the social and economic barriers related to the status of women, such as literacy level and gender-based beliefs and practices that may be a root cause of poor service utilization.

Reviewed deaths can be classified into three categories: 1) “Not avoidable,” 2) “Potentially avoidable,” or 3) “Undetermined.” For deaths that are potentially avoidable, a plan of action must be included for avoiding deaths in the future. This plan should detail actions to be taken in the antepartum, intrapartum, and postpartum settings. It should include actions for the community, for care sites – antenatal care, facility care, emergency care – and for providers. Actions may focus on the systems in place and be broader than specific occurrences or providers.

ICD-10 Coding.

For a death to be medically certified, a physician must complete a death certificate and determining the causes that led to the death. Only someone with medical training is qualified to serve in this role and to diagnose the precise cause of death. Mortality statistics are based on the single underlying cause of death; the disease or injury that initiated the sequence of events that led directly to death. Understanding this specific underlying cause of death is critical to the development of preventative public health interventions. Thus, it is extremely important that the underlying cause is determined and accurately recorded – as demonstrated in the form below:



INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE-OF-DEATH

Cause of death		Approximate interval between onset and death
I Disease or condition directly leading to death*	(a)	.....
	due to (or as a consequence of)	
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(b)	.....
	due to (or as a consequence of)	
	(c)	.....
	due to (or as a consequence of)	
	(d)	.....
II Other significant conditions contributing to the death, but not related to the disease or condition causing it	.....	.....
	.....	.....

*This does not mean the mode of dying, e.g. heart failure, respiratory failure. It means the disease, injury, or complication that caused death.

The figure above shows four factors that are likely to affect the quality of death certification and mortality data. Any complications with these factors will be revealed following a comprehensive assessment and should be addressed through a quality improvement program. The medical knowledge and skills of those responsible for certification critically affect the quality of cause-of-death data. Certifiers also need to understand the public health importance of accurate death certification and cause-of-death data. They additionally should receive appropriate technical training in certification. Finally, they should be aware of any legal and ethical considerations that may affect the quality of cause-of-death certification and be familiar with ways to address these issues.

The International Form of Medical Certificate of Cause of Death (see image above) is designed to effectively guide certifiers in diagnosing and recording the underlying cause of death and to promote the uniform application of ICD-compliant death certification in all settings (see form below). The use of this form should allow cause-of-death statistics to be comparable across time and place. Volume 2 of the ICD-10 provides guidance and standards for mortality certification and explains the rules and procedures for selecting

the underlying cause of death. It also outlines why the underlying cause of death – rather than the immediate cause of death – should be used to certify deaths and to produce statistics that are useful for public health planning and disease prevention.

BOX 13. Summary guidelines on completing cause of death certification

WHO recommends that the International Form of Medical Certificate of Cause of Death (see **Figure 6**) be used for certifying deaths. This "death certificate" provides a framework for the organization of clinical diagnoses used for public health purposes, and is divided into three sections:

1. **Part I** – including diseases or conditions directly leading to death, and antecedent causes.
2. **Part II** – other significant conditions.
3. A **column** to record the approximate interval between onset and death.

Important concepts in death certification

It is very important that all death certifiers understand the following concepts.

- ***Underlying cause of death and sequence of events leading to death*** – mortality statistics are based upon the underlying cause of death, which is the disease or injury that initiated the sequence of events that led directly to death. It is extremely important that the underlying cause of each death is correctly determined and accurately recorded.
- ***Contributory cause(s) of death*** – causes that may have contributed to the death but do not form part of the sequence are listed on the death certificate as contributing causes.
- ***Approximate interval between onset and death*** – the column on the right-hand side of **Parts I** and **II** is for recording the approximate time interval between the onset of the condition and the date of death. The time interval should be entered for all conditions reported on the death certificate, especially for the conditions reported in **Part I**. These intervals are usually established by a doctor on the basis of available information.

General guidelines for correct death certification

- Always use ***consecutive lines*** – never leave blank lines within the sequence of events.
- Each condition listed in **Part I** should cause the condition above it.
- If there is only one cause of death, it is entered at I(a).
- The entry must be ***legible*** –use ***black ink***.
- Do not make alterations or erasures – if an entry needs to be deleted, a single line should be drawn through it; do not use correction fluid.
- Verify the ***accuracy*** of identification data with the family of the deceased – including the correct spelling of the name of the deceased.
- Do not use abbreviations.
- Enter only ***one disease*** condition or event ***per line***.

Tools and resources

- **ICD-10 Volume 2**

  Chapter 4 of ICD-10 Volume 2 provides general guidance on ICD-compliant death certification and mortality-coding practices, and can be found at: http://www.who.int/classifications/icd/icdonlineversions/en/index.html

- **WHO ICD online training tool**

  WHO has developed this interactive and self-training online tool to improve understanding and enhance the use of the ICD-10. Specific paths for different users include a fast track for people such managers and an in-depth training path

for coders. The tool also offers a module on cause death certification to promote and support the use of approve death-certification practices by doctors. The tool can be found at: http://apps.who.int/classifications/apps/icd/icd10training/

- **Physicians' Handbook on Medical Certification of Death**

  This handbook provides guidance for physicians and medical students in the United States on how to complete death certificates. Although it covers the basic knowledge required for certification, it is mainly based on the death certification system used in the United States. Although its applicability to developing countries may be limited, the examples it contains may be useful for understanding the main principles of death certification and developing confidence in its importance. The handbook can be found at: http://www.cdc.gov/nchs/data/misc/hb_cod.pdf

MDSR FUNCTIONS

Recording and Reporting

Identification.

Community Level.

Process for CHW.

- Regularly assess all WRA deaths within their respective commune or territory.
- Engage actively engaging with community leaders and community members who may know of a potential maternal death.
- Record any WRA the death in Form C-2[1]
- Send Form C-2 to the CHW supervisor
- CHW supervisor screens and crosschecks the data.
- If the CHW supervisor finds there is missing information, the CHW supervisor will request that the CHW return to the family of the deceased to complete Form C-3.
- The CHW supervisor will then use the information from Form C-3 to complete Form C-2. The CHW supervisor will send Form C-2 to the FC.

Process for Key Informants.

- Seek out and collect data on all WRA deaths.
- Complete Form C-2 and routinely submit it to the FC at the closest facility to which they are assigned by MSPP.
- If the FC finds missing information in Form C-2, the facility will manage follow up on these cases via verbal autopsy request to the department.

This process of identification and recording should be routinely conducted using a "zero reporting" strategy where zero cases are reported when none have occurred (this maintains regular reporting practices).

Facility Level.

- FC instructs all ward chiefs (maternity, surgery, emergency, internal medicine, etc.) to complete Form I-1.[2]
- FC checks admission, discharge and death logs to ensure all WRA deaths are captured.
- FC compiles all community and facility forms to complete Form I-1 which is then submitted to the Facility Review Committee

[1] Form C-2 evaluates the family's knowledge concerning the deceased's pregnancy status at the time of death or within the year before death.

[2] Form I-1 records any WRA death that occurs in a ward during the reporting period

Notification.

A suspected maternal death at the community level is any death in which the WRA:
- Is pregnant at the time of death or;
- Died within 42 days of delivery

Community level

- CHW and KI notify the FC at their nearest assigned facility of any suspected maternal death by text or phone within 48 hours of the death or discovery of the death.

A suspected maternal death at the facility level is any death in which the WRA:
- was not pregnant within last year
- was pregnant at the time of death or;
- died during delivery / childbirth or;
- was not pregnant, but died within 42 days of delivery (maternal death) or;
- was not pregnant, but died between 43 days to 1 year of delivery (late maternal death) or;
- had a miscarriage or abortion within 2 months

Facility Level

- FC notifies the Department Coordinator (DC) of any suspected maternal death using the Maternal Death Notification Form–created by MSPP and not included in appendices—within 24 hours of the death occurrence.

Maternal death review

The maternal death review (MDR) is a **"qualitative, in-depth investigation of the causes of, and circumstances surrounding, maternal deaths which occur in health care facilities"**. MDR focuses on tracing the path of the women who died through the health care system and within the facility. The aim is to identify any avoidable or remediable factors which could be changed, in order to improve maternal care in the future. This information should, preferably, be supplemented by data from the community, but this may not always be possible.

The objective of the MDR is to collect information on all maternal deaths in order to gain as complete as possible a picture of the causes and circumstances associated with intra-hospital maternal deaths. A longer term objective is to examine all intra-hospital deaths in the country and monitor causes and circumstances at the national level. Audit results should contribute to assessing and shaping policies aimed at reducing maternal and neonatal mortality.

Community Review Committee

At the community level, review committee members will be selected by CHWs together with their supervisor. Each Community Review Committee (CRC) should include the community leader and/or other key informants that regularly engage in MDSR data collection activities. The CRC will meet every three months. When necessary, the CRC will invite members of the Facility Review Committee or Departmental Review Committee (DRC) to discuss strategic funding, planning and response decisions.

- Prior to each CRC meeting, a CHW should:
  - List all deaths of community members (references of community death register, vital registration office records, discuss with TBA, pregnancy surveillance data)
  - Visit households and complete Form C-1 and updates Form C-2

- Submit Form C-2 to CHW Supervisor

- Prior to each CRC meeting, a CHW Supervisor:
  - Review Form C-2 from CHW
  - If Form C-2 is incomplete, provide Form C-3 to CHW for deaths with incomplete information (i.e pregnancy history)
  - Complete Form C-2 using completed Form C-3 from CHW
  - Submit Form C-2 to MDSR FC

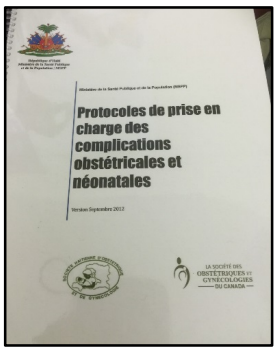
- At each CRC meeting, members will:
  - Review Form C-2
  - Discuss the non-medical factors contributing to each reported maternal death, including:
    - Cultural beliefs
    - Specific community-based factors such as transport, communication, geographical, or financial barriers
  - Review Form C-1 for more detailed information on each death, when necessary
  - Determine possible trends among all deaths noted in Form C-1
  - Discuss planning and response activities for the identified trends, specifically, how to improve notification and reporting practices for the CRC's catchment area.
  - Submit recommendations to FRC

- When VAs are necessary, the FRC and DRC will share the results of each VA back to the CRC. Together, all groups will then develop response plan based on the collective recommendations.

Facility Review Committee

The FC will assemble the FRC to hold a MDR every 2 weeks or every time a suspect maternal death occurs at the facility - whichever is the policy determined by MSPP during the initial development of the MDSR system.

Prior to FRC Meeting:



- All committee members should review the clinical standards that guide service provision within their specific facility.
  - The standards are available for most facilities through a variety of resources such as local or national guidelines issued by the MSPP (see right image), standards of conduct issued by professional organizations, and international guidelines such as "Managing complications in pregnancy and child birth: A guide for a midwives and doctors".
- FC ensures that all committee members (each ward chief) personally completed Form I-1 and does not delegate the task to other staff.

At FRC Meeting:
- Sign Non-disclosure agreement form

- All committee members are to sign a non-disclosure confidentiality agreement at the beginning of every MDR meeting (see Appendix 3)

- Discuss case summaries
- Determine events that may have led to the woman's death:
- Each ward is responsible for conducting pregnancy screenings of WRA deaths. **Any** death of a WRA should trigger a review of the deceased's medical record to identify evidence of a pregnancy at time of death or pregnancy within 42 days of death (column B, C, D, F on Form I-1). A more extensive review of the medical record should be carried out to confirm if the death was a suspected maternal death (due to or aggravated by pregnancy or its management), or if it was due to accidental or incidental causes. A finding of probable maternal death should trigger a more in-depth review.
- If Column B, C, D, F from Form I-1 is checked, a staff member in the ward where this death occured must fill out Form I-2 as a suspect maternal death for every woman identified.
- Prior to the MDR, the MDSR FC will share the complete WRA death list from Form I-1 and Form I-2 with FRC members to be reviewed during the MDR meeting. The FC will also request all general ward registers such as:
  - Hospital admission and discharge
  - Maternity ward
  - Operating Theatre
  - Intensive care unit
  - Internal Medicine
  - Women
  - Morgue

- Form I-2 aims to establish a complete record of each suspected maternal death. This form is the woman's comprehensive medical record.
- Ideally, the Form I-2 should be distributed prior to the MDR. Based on this form, the committee should be able to review and discuss each suspected maternal death case - including events that may have led to the woman's death - and clarify any details not included in the summary by reviewing Form I-2.
- Based on Form I-1, the FC and another committee member should be able to determine which WRA deaths needs further investigation.
- When a woman dies outside of a facility, the probable cause of death is determined by gathering information from a close caregiver about the signs and symptoms of the deceased's terminal illness through VA. The FC will fill out Form I-5 and submit it to the department level. The department is responsible for conducting the VA.
- The probable cause of death is usually based on a consensus among independent reviews of the VA data which is collected from local physicians interviewed during the VA process. This process follows a model analogous to clinical practice in which history, signs, and symptoms are used to construct a differential diagnosis.
- Clarify any details not included in summaries by consulting data forms
- Ensure one FRC member is assigned to serve as a note-taker and records main points of discussion
- Recommend actions (See response section below)

Department Review Committee

Every department will have a committee for maternal death review led by an MDSR Department Coordinator (DC). This DRC will review all the maternal death data provided from each facility in the Department. The DRC will meet every 3 months on a pre-fixed date.

- Prior to each DRC meeting, the DC will:
  - Process all I-5 forms received from each facility
  - Assign a VA Officer to each case in Form I-5
  - Ensure that the VA officer has completed Form D-1 for each assigned case
  - Ensure that the VA officer has entered summarized data in Form D-3
  - Submits Forms D-1 and D-2 back to the original facility.

- At each DRC meeting, members will:
  - Review all community and facility deaths submitted to the department via Form I-4 from the FRC.
  - Analyze de-identified data
  - Evaluate the timeline of notification and reporting activities in each facility to determine systemic gaps that may negatively affect data quality.
  - Provide recommendations for improving service provider accountability by completing Form D-3
  - Determine which measures require regular implementation to prevent maternal deaths of similar nature.
  - Allocate the health department's funds for the all suggested interventions.
  - Discuss progress of past and ongoing interventions / evaluate strengths and weakness of each.
  - Complete Form D-4 and submit to the National Review Committee

Response

Facility.

- Facility Review Committee (FRC) meets monthly to:
  - Discuss issues that are directly relevant to maternal deaths occurring in a facility such us: staffing levels, knowledge and skills, infrastructure and/or supply shortages.
  - Review and complete Form I-2 with the help of physician coders and with information from verbal autopsy (Form D-1 and Form D-2), when necessary
  - Complete Form I-4 for confirmed maternal deaths
    - FC develops the Committee Planning Worksheet (of Form I-4) for each maternal death that occurred at the facility within the reporting period
    - FRC uses previous forms and medical records to determine and review all levels of care that were received by the patient.
      - Q11 should be checked where applicable while open-ended responses are required for Q11a-d and Q12-15
    - Each case number is then entered into the Committee Recommendation Form (of Form I-4)

        - FRC reviews each Committee Planning Worksheet and determines what actions could have been taken to avert the maternal death
        - FRC then generates recommendations for response activities that may reduce the risk of maternal death from the recorded causes
        - FRC submits Form I-4 to the DRC
    - Complete Form I-3 for each ward at the facility
        - Each Ward Chief adds the case numbers of the deaths that occurred in his/her specific ward (RM, PATH, MORGUE, MED-AD, MED-INTL DEATH CERT, OP, SURGE, OTHER)
        - FRC then establishes a plan for how the ward could have better attended to the maternal death depending on cause of death and other circumstances surrounded the cause of death
        - FRC then meets with each Ward Chief to review completed Form I-3 and share with them the final response activities that the Ward should implement to avert similar maternal deaths
    - Review de-identified recommendations sent from the DRC and provide feedback on feasibility, confirm the greatest area(s) of weakness, and establish a final plan of action
        - FC should immediately notify facility staff, CHW and KI of obvious problems
    - Implement final plan of action as determined by DRC
    - Monitor progress of response activities and review in pre-determined time increments (monthly, quarterly, etc.) whether or not these activities are impacted the initial cause(s) of maternal death

Department.

- DRC meets every 3 months to:
    - Review Form I-5 from each facility and deploy a VA Officer to the community where the suspected WRA death occurred
    - Review Form I-4 for all community and facility deaths within the department
    - De-identify, manage, and conduct data analyses
    - Recommend preventive actions at department level
    - Prioritize evidence-based preventive actions (based on feasibility, costs, resources, health system capacity)
    - Establish a timeline for response activities
    - Decide how response activities will be monitored
- Dissemination of results
    - Submit Form D-4 and de-identified aggregated data to National MDSR Coordinator
    - Submit de-identified recommendations back to facilities and communities to determine feasibility, confirm the greatest area(s) of weakness, and establish a final plan of action
        - FC should immediately notify facility staff, CHW and KI of obvious problems
    - Draft quarterly department report (see Appendix 4) on maternal mortality based on aggregated data.
    - Review content carefully before publication to avoid breaches in confidentiality and misuse of information

        - Share quarterly department reports national MSPP monitoring and evaluation unit
- Implement and evaluate quarterly response activities at facilities and in communities
- Monitor progress of response activities and review in pre-determined time increments (monthly, quarterly, etc.) whether or not these activities are impacted the initial cause(s) of maternal death
- Use quarterly department report on maternal mortality to draft annual department maternal health plan within two months of the year end

National.

- National Review Committee meets quarterly to:
    - Review de-identified aggregated data and Form D-4 from each department to inform and develop an annual national maternal health report within one month of the year's end
    - Determine recommended course of action and necessary policy changes
    - Ensure legal safeguards are in place to prevent the use of review findings in litigation
- Dissemination of results
    - Present national maternal health report to the Minister of Public Health and Population
    - Present key findings from the national maternal health report to Parliament/President where and/or when changing or updating national policies, laws or guidelines is appropriate
- Implement and evaluate biennial response activities at the department level
- Monitor progress of response activities and review in pre-determined time increments (i.e. annually) whether or not these activities are impacted the cause(s) of maternal death respective of each department
- Draft national 2-year strategic maternal health plan
    - Determine changes in allocation of national MSPP funds towards maternal mortality response activities

MONITORING AND EVALUATION

Monitoring and evaluation of the MDSR system itself is necessary to ensure that the major steps in the system are functioning adequately and improving with time. This function is carried out at the national level. An MDSR M&E framework will identify areas and steps within the system where targets are not being reached and if overall maternal mortality is not decreasing. These activities should assess the acceptability, timeliness, data quality, and stability of the system as a whole as well as the efficiency of each step of the system. To properly engage in system-wide monitoring and evaluation activities, MSPP should:

- Create a form
- Determine the frequency of evaluating indicators and targets of the MDSR system.
- Determine the target values that best match their national maternal mortality goals and enter these target values into Form N-1.
- Consider each indictor and, using aggregated department data, determine the percentage of cases (deaths, institutions, or activities) that correspond with each indicator out of the total number of cases.
- Compare the indicator percentage to the given target.
- Compare the indicator percentage to results of the last evaluation
- Determine a course of action to correct the issue if the difference between the current and previous indicator percentage is larger than expected

REFERENCES

Boland, R., & Katzive, L. (2008). Developments in laws on induced abortion: 1998-2007. *International Family Planning Perspectives*, 110-120.

Haiti Penal Code, Article 262, 1985. Retrieved from: http://www.hsph.harvard.edu/population/abortion/Haiti.abo.htm

Huber, B. (2015). Haiti's push for safe motherhood. *Lancet, 386*(9994), 641-642. doi:10.1016/

International Organization for Migration [IOM]. (2015). Haiti – Camps. Retrieved from: http://haiti.iom.int/camps

Mathai, M., Dilip, T. R., Jawad, I., & Yoshida, S. (2015). Strengthening accountability to end preventable maternal deaths. *Int J Gynaecol Obstet, 131 Suppl 1*, S3-5. doi:10.1016/j.ijgo.2015.02.012

Moszynski, P. (2011). Haiti reconstruction is failing to reduce maternal mortality, report warns. *Bmj, 343*, d5626. doi:10.1136/bmj.d5626

Seraphin, M. N., Ngnie-Teta, I., Ayoya, M. A., Khan, M. R., Striley, C. W., Boldon, E., . . .Clermont, M. (2015). Determinants of institutional delivery among women of childbearing age in rural Haiti. *Matern Child Health J, 19*(6), 1400-1407. doi:10.1007/s10995-014-1646-1

United Nations - UN. (2015). Health – Sustainable Development Goals. Retrieved from: http://www.un.org/sustainabledevelopment/health/

Walker, D., Campero, L., Espinoza, H., Hernandez, B., Anaya, L., Reynoso, S., & Langer, A. (2004). Deaths from complications of unsafe abortion: misclassified second trimester deaths. *Reprod Health Matters, 12*(24 Suppl), 27-38.

World Health Organization. (2004b). *Beyond the Numbers.* Geneva, Switzerland: World Health Organization.

World Health Organization. (2013). *Maternal Death Surveillance and Response Technical Guidelines: Information for action to prevent maternal death*. Geneva, Switzerland: World Health Organization

WHO, UNICEF, UNFPA, and The World Bank. (2014). *Trends in maternal mortality: 1990 to 2013*. Geneva, Switzerland: World Health Organization. Retrieved on November 2, 2015 from: http://www.who.int/reproductivehealth/publications/monitoring/maternal-mortality-2013/en/

APPENDICES

Appendix 1: Forms for the Situation Analysis

Form 1: Description of the local area

Use this form to describe basic aspects of the coverage area.

Form 2: Maternal and Neonatal Health Data Collection in Local Area

Use this form to record important information on data collection for maternal and neonatal mortality.

Form 3: Health services in the local area

Use this form to record information about the health services network operating in the intervention area, especially with information on MNH provision. Specific information required includes the network of services, the health personnel working in the district area, and communication and referral systems between different levels.

Form 4: Inventory of institutions and organizations present in the local area

Use this form to identify the different social actors and stakeholders working in the intervention area. This information will also be very important when planning interventions.

Map of the Commune and Department

Throughout data collection for the Situation Analysis, it will be useful to prepare a map of the district which locates:

- The health service network
- Distances to the referral hospital in case of neonatal and obstetric emergencies
- Principal towns or villages with population estimates
- Geographical obstacles to accessing services (mountains, rivers, etc.)
- Populations with special needs such as indigenous groups, extreme poverty areas, excluded groups, ethnic groups, marginalized populations, linguistic groups, etc.

Name of Commune / Department: _____

Name of Facility Represented: _____

Persons completing the forms:

_____

_____

_____

Point of Contact: _____

Point of Contact phone: _____

Point of Contact e-mail: _____

Date: _____

FORM 1: Description of the Local Area

Sources used: _____

CHARACTERISTICS OF DISTRICT AND ITS POPULATION:	
Type and size of population (urban, rural):	
Total size of population	
Names of areas with high poverty	
Identify and locate populations with special needs, such as indigenous groups, high poverty levels, excluded, ethnic, marginalized, linguistic groups.	
TRANSPORT SYSTEMS	
Type(s) of transport used by inhabitants to travel to nearest health service	
Average cost to travel to nearest health service	
Time required via public transport to reach nearest health service (indicate range for different localities in the district and indicate if this differs by season)	
Time required on foot to reach nearest health service (indicate range for different localities in the district and indicate if this differs by season)	

FORM 2: Maternal and Neonatal Health Data Collection in Local Area

A. Maternal and Neonatal Data Collection in the Community

	Community Agents	
	Do community agents work in the commune to support health care delivery?	☐ Yes ☐ No ☐ Don't know
	What kind of community agents work in your commune? Check all that apply.	☐ Community Health Workers ☐ Matrons ☐ Key Informants ☐ Other (specify) _____ ☐ Don't know
	Do community agents report data to the health facility?	☐ Yes ☐ No ☐ Don't know
	How do community agents report data to the health facility?	☐ Paper forms ☐ Oral report ☐ Other (specify) _____ ☐ Don't know
	Do community agents collect data on maternal and child health?	☐ Yes ☐ No ☐ Don't know
	Do community agents collect data on women of reproductive age deaths?	☐ Yes ☐ No ☐ Don't know
	Do community agents collect data on maternal and neonatal deaths?	☐ Yes ☐ No ☐ Don't know
	What, if any, additional sources of maternal health data exist?	

Please provide any additional information about community agents and data collection in your area:

_____

_____

_____

_____

_____

B. Maternal and Neonatal Data Collection at the Facility

	Facility	
	Please list all the health wards in your facility.	
	How does your facility store data?	☐ Paper ☐ Electronic ☐ Paper and electronic ☐ Don't know
	Does your facility report data through any of the following systems?	Select all that apply ☐ HMIS/National Surveillance System ☐ IDP SS ☐ Cholera SS ☐ SOG/CLAP/SIP ☐ EMR ☐ PEPFAR/MSEI ☐ Other (Specify)_____ ☐ Other (Specify)_____
	Does your facility collect data on women of reproductive age deaths?	☐ Yes ☐ No ☐ Don't know
	Does your facility collect data on maternal and neonatal deaths?	☐ Yes ☐ No ☐ Don't know
	Is it a facility requirement to notify maternal and neonatal deaths?	☐ Yes ☐ No ☐ Don't know
	Does your facility notify anyone when a maternal or neonatal death occurs?	☐ Yes ☐ No ☐ Don't know
	Where and who does the facility notify when a maternal or neonatal death occurs?	Where: Name: Phone: Email:
	Data and Analysis	
	Is there a data coordinator at your facility?	☐ Yes ☐ No ☐ Don't know
	Who is the data coordinator at your facility?	Name: Phone:

		Email:
	Does your facility have someone who analyses and present data?	☐ Yes ☐ No ☐ Don't know
	Who analyses and presents data?	Name: Phone: Email:
	Are there computers at your health facilities?	☐ Yes ☐ No ☐ Don't know
	Does your facility use electronic health records?	☐ Yes ☐ No ☐ Don't know
	If your facility use electronic health records, please name and describe the system.	

Please provide any additional information about your facility data collection not previously covered.

_____

_____

_____

_____

_____

FORM 3: Health Services in the Local Area

Sources used: _____

A. Service Network

	Total number	Name/location
Dispensaries		
Health centres		
Hospitals		
Maternity Waiting Homes		
Private care facilities		

B. Health Personnel in the Department / Commune

	Total number	Area and location of work	Public or private?	Trained during the previous 3 years in: • Community health • Health education • Health counselling • Other topics Specify which topics were covered.
Traditional birth attendants				
Other traditional providers (e.g. shaman or medicine men)				
Promoters/ health educators				
Auxiliary nurses/ auxiliary midwives				
Nurses				
Midwives				
General medical practitioners				
OB/GYNs				
Neonatologists/ Paediatricians				
Anaesthesiologists				
Others:				

Are there sufficient health personnel to meet the MNH needs of the district? Are sufficient staffs available at all times?

Are there any population groups not covered? If yes, why?

C. Communication and Referrals

TOPICS	Description
What communications mechanisms exist between health services and the community (promoters, health talks, radio, etc.)?	
What communication and referral mechanisms between traditional birth attendants/community health workers and health services?	
Describe the referral mechanisms between health centres and the referral hospital.	
Do health services in the district which have a functioning ambulance? Is there budget for fuel to operate it, for the transportation of obstetric/neonatal emergencies to the next level of referral?	

FORM 4: Institutions and Organizations Present in the Local Area

Sources used: _____

A. Inventory of Institutions and Organizations

Institutions and Organizations (names)	Location	Director	Main Activities
1. NGOs that work on health issues:			
2. NGOs that work on education issues:			
3. NGOs that work on other related issues (including rights, social support, etc.) (specify):			
4. Community groups: (For example, health committees, women's groups, school parent groups, groups of mothers (mother clubs, work groups, etc.) groupings of neighbourhood councils, associations, or farmer associations)			

Institutions and Organizations (names)	Location	Director	Main Activities
5. Public institutions and local authorities (for example mayor's offices, police, social security, education)			
6. Religious institutions (for example churches, mosques):			
7. Private sector (large and small businesses who employ persons from the community, institutions, etc.)			
9. National and international organizations (including universities, international NGOs, donors)			

Appendix 2: Forms - Community 1 (C-1): Individual Death Record

Fiche d'enregistrement de décès
(Fèy pou anrejistre moun ki mouri)

Numéro : ___ ___ ___ ___
(Nimewo)

Date *(Dat)* **:** ___ ___ / ___ ___ / ___ ___ ___ ___ **Institution :** _____

A- Informations sur le Décès *(Enfòmasyon sou mò a)* :

Nom *(Siyati)* _____ **Prénom** *(Non)* _____

Date de Naissance : ___ ___ /___ ___ /___ ___ ___ ___ **Age:** _____ |_| Année(s) |_| Mois |_| Jour(s)
(Dat li fèt) (Laj)

Nationalité : *(Nasyonalite)* _____ **Sexe :** ☐ **Masculin** *(Gason)* ☐ **Féminin** *(Fanm)*
(Sèks)

Si féminin ***(Si se yonfanm)*** **:**

|_| Pas de grossesse dans les dernières années ***(Pa ansent padan ane ki sot pase yo)***

|_| Enceinte au moment du décès ***(Mouri tou ansent)***

|_| N'est pas enceinte mais enceinte dans les 42 jours avant le décès ***(Li pa ansent men li te ansent 42 jou avan li mouri)***

|_| N'est pas enceinte mais enceinte dans les 43 jours à un an avant le décès ***(Pa ansent men te ansent 43 jou,ennan avan l mouri)***

|_| Ne sait pas si elle est enceinte dans l'année écoulée ***(Pa konnen si li te asent nan ane ki pase yo)***

Ancien lieu de résidence *(Kote li te rete)***:**

Département (Depatman)	**Commune** (Komin)	**Section-Communale/Ville** (Seksyonkominal/Vil)	**Localité** (Lokalite)	**Quartier/Habitation** (Katye/Bitasyon)

Profession (s) *(Metye)* _____

Date du Décès : ___ ___ / ___ ___ / ___ ___ ___ ___ **Heure du décès :** ___ ___ : ___ ___ ☐ **AM** ☐ **PM**
(Dat li mouri) *(Le li mouri)*

Causes du décès : _____
(Sa ki lakoz li mouri)

B- Informations sur le lieu du décès *(Enfòmasyon sou kotemoun nan mouri a)* :

Lieu du décès : *(Kote li mouri)* ☐ **Institution** *(Esntitisyon)* ☐ **Extra Institution** *(Se pa enstitisyon)*

Si institution, précisez le nom *(Si se nan yon lopital oubyen yon sant sante, ekri non kote sa a)* **:**

_____

Si extra Institution : *(Si se pa enstitisyon)* ☐ **Domicile** *(Lakay li)* ☐ **Autre** *(Yon lòt kote)*

Si autre, précisez lieu et adresse de l'incident ***(Si se pa lakay li, di ki kote epi bay adrès la)*****:**

Nom (Kote a) _____

Adresse ***(Adrès)*****:**

Département (Depatman)	**Commune** (Komin)	**Section-Communale/Ville** (SeksyonKominal/Vil)	**Localité** (Lokalite)	**Quartier/Habitation** (Katye/Bitasyon

a) Si l'âge a été estimé, donner les événements justificatifs du choix de la date de naissance (au moins 2 raisons) :
(Si se ou ki jwenn laj moun nan poukont ou, bay kèk rezon ki montre poukisa se dat sa a ou chwazi li fèt (2 rezon pou pi piti))

_____

_____

_____

b) Si la personne a été hospitalisée puis renvoyée avant sa mort, donner le nom de l'institution et la date d'admission:
(Si moun nan te entène nan yon lopital epi yo te voye l ale anvan li mouri, bay non lopital la ak date li te kòmanse vini an)

Nom de l'institution : _____ **Date d'admission :** ___ ___/ ___ ___/ ___ ___ ___ ___
(Non lopital la) *(Dat li te kòmanse vini an)*

Informateur *(Moun ki bay ifòmasyon yo):*

Nom : _____ **Prénom :** _____ **Phone : (509)** __ __ __ __ - __ __ __ __ **Lien parenté avec le défunt :** _____
(Siyati) *(Non)* *(telefòn)* *(Sa li ye poumounkimouri a)*

Remplisseur *(Moun ki ekri nan fèy la) :*

Nom : _____ **Prénom :** _____ **Phone : (509)** __ __ __ __ - __ __ __ __ **et (509)** __ __ __ __ - __ __ __ __
(Siyati) *(Non)* *(telefòn)* *(ak)*

Community 2 (C-2): WRA Death Registry

NON AJAN SANTE_____ DEPATMAN ADS_____

NIMEWO TELEFÒN AJAN SANTE A_____ KOMIN ADS_____

MWA_____ ANE _____ LOKALITE ADS_____

SEMENN_____ NON SANT SANTE A_____

Nan semenn sa a, eske te gen fanm nan laj pou fè pitit ki mouri nan zòn paw? Wi____ Non_____ Si **WI**, mete enfòmasyon pou fanm sa yo.

	NON AK PRÈNOM FANM NAN LAJ POU FÈ PITIT KI MOURI A	LOKALITE	LAJ	DAT LI MOURI (JJ/MWA/ANE)	KI KOTE LI MOURI?					Pa ansent nan ane ki pase a	Mouri tou ansent	Li pa ansent men li te ansent 42 jou avan li mouri	Pa ansent men te ansent 43 jou jiska en an avan l mouri	Pa konnen si li ansent nan ane ki pase a	Enfòmasyon sou gwosès manke	NON MOUN KI BAY ENFÒMASYON SOU MÒ A	TIT MOUN NAN KI TE BAY OU ENFÒMASYON AN	NIMEWO TELEFÒN MOUN KI TE BAY ENFÒMASYON AN	SUIVI PA ADS			ENFÒMASYON NAN FÒM SA TCHEKE AK ENFÒMASYON SANT
					Lakay li	Kay Matwon	Nan wout pou ale	Sant Sante a (ekri non sant sante a)	Lòt (ekri lokasyon an)										Nesesè	Pa nesesè	Suivi konplè	
1																						
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						

Community 3: CHW Assignment Sheet - **KOMINOTE 3: DRA PLASMAN POU AJAN SANTE**

NON AJAN SANTE_____ **DAT SIPÈVIZÈ TE BAY FÒM AJAN SANTE A** _____
NIMEWO TELEFÒN ADS _____ **DAT ADS RENMÈT FÒM NAN MEN SIPÈVIZÈ A**_____

SEMENN_____
MWA_____
ANE_____

DEPATMAN ADS_____
KOMIN ADS_____
LOKALITE ADS_____

Non ak prènom fanm nan laj pou fè pititi ki mouri a	Laj	Direksyon, nimewo telefòn, ak enfòmasyon fanmi o lòt moun ki	Dat li mouri (JJ/Mwa/Ane)	Kote li mouri	Estati Gwosès						Kòd Rezilta
					A	B	C	D	E	F	

ESTATI GWOSÈS

A Pa ansent nan ane ki pase a
B Mouri tou ansent
C Li pa ansent men li te ansent 42 jou avan li mouri
D Pa ansent men li te ansent 43 jou jiska en an avan li mouri
E Pa konnen si li ansent nan ane ki pase a
F Enfòmasyon sou gwosès manke

KÒD REZILTA

A KONPLETE REJIS DE DESE
B PA KA VERIFYE MÒ A
C MÒ A TE VERIFYE, MEN PA KA JWENN FANMI LI
D FANMI PA VLE FOUNI ENFÒMASYON AN SOU MÒ

Institutional 1 (I-1): WRA Death Registry / CENTRE DE SANTE 1: REGISTRE DE DÉCÈS POUR LES FEMMES D'ÂGE PROCRÉATEUR MORT

Nom du D épartement_____					**Nom de la personne responsable_____**					
Nom du Centre de Santé_____					**Le numéro de téléphone_____**					

No	Nom de femme d é c é d é e	Localit é	Commune	â ge	Date du d é cè s (JJ/MM/ AA)	Remarque (nom de registre)	É tat de Grossesse (S é lectionnez une)					L'information es confirm é e avé c les données de la communauté
							Pas de grossess e durant l'annee ecoulee	Enceinte au moment du d é c è s	N'est pas enceinte, mais etait enceinte dans les 42 jours avant le d é cè s	N'est pas enceinte, mais etait encainte dans le 43 jours a un an avant le deces	Ne sait pas si elle etait enceinte durant l'annee ecolee	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

Institutional 2 (I-2): Clinical Case Summary

CENTRE DE SANTÉ 2: RÉSUMÉ JURISPRUDENTIEL CLINIQUE

DONNÉES ADMINISTRATIVES

Numéro de cas .....
Principale cause du décès (CIM-10) .....
Région où le décès a eu lieu .....
Cause finale du décès (CIM-10) .....
Hôpital où le décès a eu lieu .....
Autopsie .....
Date de réception Assesseur #1 .....
Cause ayant contribué (Antécédent) au décès #1 (CIM-10) .....
Date Retour Accesseur #1 .....
Cause ayant contribué (Antécédent) au décès #2 (CIM-10) .....
Assesseur #1 Signature
Cause ayant contribué (Antécédent) au décès #3 (CIM-10) .....
.....
Lieu du décès (catégorie) .....
Date de réception Assesseur #2 .....
Lieu du décès (spécifier) .....
Date de réception Assesseur #2 .....
.....
Assesseur #2 Signature
Décès évitable .....
.....

DONNÉES MATERNELLES

Date de naissance ..... Âge ..... Gravidité ..... Parité .....
État civil .....
Naissances vivantes .....
Ethnicité .....
Mort-nés .....
Religion .....
Avortements spontanés .....
Niveau d'étude .....
Avortements provoqués.....
Alphabétisation .....
Grossesses extra-utérines .....
Métier .....
Césariennes précédentes .....
Complications de la grossesse précédente .....
Contraception utilisée juste avant la grossesse .....
Quel type de contraception (notamment Pill, DMPA, IUD) .....

PROBLÈMES MÉDICAUX PRÉEXISTANTS

Hypertension .....
VIH positif .....
Diabète .....
Tuberculose .....
Anémie .....
Problème médical préexistant (autre)
Hépatite .....
.....
Problème cardiaque .....
.....

RENSEIGNEMENTS SUR LE DÉCÈS ET L'ADMISSION

Date d'admission .....
Heure d'admission .....
Date de l'accouchement .....
Heure de l'accouchement .....
Date du décès .....
Heure du décès .....
Jour du décès (Jour de la semaine – L, M, Me, J, V, S, D) .....
Le décès a-t-il eu lieu un jour férié? .....
Stade de la grossesse l'admission .....
État à l'admission .....

Autre état, préciser .....

Stade de la grossesse au décès .....

Stade de gestation au décès ou à l'accouchement (semaine) si le décès s'est produit après l'accouchement
.....

Jours depuis que la grossesse s'est terminée (par l'accouchement, une fausse couche ou grossesse extra utérine)
.....

Raisons de l'admission

.....
.....
.....
.....
.....
.....

Référence ..... Si la mère a été référée, d'où était ce ?.....

Si elle a été référée, temps écoulé entre l'identification d'un problème et le transfert au centre de santé 1 .....

Si elle a été référée d'un centre à un autre, temps du transfert planifié entre le centre 1 et le centre 2 .....

Remarques sur le processus de référence – notamment observations sur la communication, le transport utilisés et tous les problèmes notés:

.....
.....
.....
.....
.....
.....

SOINS PRÉNATALS

Soins prénatals reçus ..... Si oui, nombre de visites prénatales .....

Si oui, où a-t-elle reçu les soins? (faites une liste exhaustive) Clinique, centre de santé, hôpital sous-régional/régional, hôpital national de référence, établissement privé, autre:

.....
.....

Si oui, qui a donné les soins? (faites une liste exhaustive) Spécialiste, médecin conseil/généraliste, sage-femme ayant reçu une formation avancée, sage-femme, autre:

....
.....

FACTEURS DE RISQUES PRÉNATALS

Hypertension Placenta Praevia Césarienne précédente Multiple gestation Présentation anormale

Protéinurie Hospitalisation antepartum

Glycosurie Si hospitalisée, pourquoi?

Anémie .....

Infection des voies urinaires Autres facteurs de rique antepartum (préciser)

VIH positif .....

Paludisme .....

Grossesse indésirable Remarques sur les soins prénatals – faites une liste des médicaments

.....

.....

EXAMENS DE LABORATOIRE

Groupe sanguin and Rhésus

Hématocrite Hémoglobine VDRL

Chimie du sang RPR

..... HIV

..... Rubéole

Analyse d'urine

.....

.....

Autre

.....

.....

EXAMEN MÉDICAL À L'ADMISSION

EXAMEN PHYSIQUE GÉNÉRAL

.....

.....

.....

.....

.....

SIGNES VITAUX

Rythme cardiaque ..... Tension artérielle systolique ..... Fréquence Respiratoire ..... Toute anomalie .....

Température (Celsius) ..... Tension artérielle diastolique.....

Taille ..... Examen Systémique (toute anomalie constatée):

Poids ....

.....

EXAMEN ABDOMINAL

Hauteur utérine (cm) ..... Contradiction entre la hauteur utérine et l'âge gestationnel:

Présentation ....

Autres anomalies abdominales:

.....

.....

EXAMEN PELVIEN

Stade du travail si le travail a commencé .....

Toute anomalie pelvique observée .....

COMPLICATIONS DE L'ADMISSION ANTEPARTUM

PROM Avortement Placenta praevia Déclenchement du travail avant le terme

Pré-éclampsie

Éclampsie Décès foetal Pyélonéphrite Septicémie Paludisme

Autres complications d'admission antepartum:

.....

.....

Diagnostic différentiel à l'admission: _____

.....

.....

ACCOUCHEMENT, RETOUR DE COUCHE (PUERPERIUM) ET RENSEIGNEMENTS NÉONATALS

Le travail s'est-il déclenché? ..... Si le travail s'est déclenché, a-t-on utilisé un partogramme? .....

Si le travail s'est déclenché, combine de temps a-t-il duré?:

Stade du travail ..... Phase active ..... 2ème phase ..... 3ème phase .....

Longueur des membranes rompues..... Le placenta était-il complet? .....

ACCOUCHEMENT

Âge gestationnel estimé à l'accouchement .....

Hémorrhagie intrapartum ..... Infection intrapartum ..... Pré-éclampsie/éclampsie intrapartum .....

Dystocie d'obstacle .....

Remarques sur le travail et l'accouchement:

.....

.....

Y-a-t-il eu une gestion active de la 3ème phase du travail? ..... Le placenta est-il resté coincé? .....

Hémorrhagie postpartum ..... Infection postpartum ..... Pré-éclampsie/éclampsie intrapartum .....

Remarques sur le retour de couche (puerperium):

.....

.....

LE NOUVEAU-NÉ

Résultat ..... Poids à la naissance (grammes) ..... Score d'Apgar (1 min.) ..... Score d'Apgar (5 min.) .....

INTERVENTIONS (NOTER OUI/NON)

Début de grossesse

Évacuation	**Oui**	**Non**
Laparotomie	**Oui**	**Non**
Hystérotomie	**Oui**	**Non**
Transfusion	**Oui**	**Non**

Antepartum

Transfusion	**Oui**	**Non**
Version	**Oui**	**Non**
Travail provoqué	**Oui**	**Non**
Sulfate de magnésium	**Oui**	**Non**
Antibiotiques	**Oui**	**Non**

Intrapartum

Accouchement avec instrument	**Oui**	**Non**
Symphysiotomie	**Oui**	**Non**
Césarienne	**Oui**	**Non**
Hystérectomie	**Oui**	**Non**
Transfusion	**Oui**	**Non**
Sulfate de magnésium	**Oui**	**Non**
Antibiotiques	**Oui**	**Non**

Postpartum

Evacuation	**Oui**	**Non**
Laparotomie	**Oui**	**Non**
Hystérotomie	**Oui**	**Non**
Hystérectomie	**Oui**	**Non**
Sulfate de magnésium	**Oui**	**Non**

Antibiotiques	**Oui**	**Non**
Oxytocine	**Oui**	**Non**
Misoprostol	**Oui**	**Non**

Autre intervention

Anesthésie générale	**Oui**	**Non**
Péridurale	**Oui**	**Non**
Rachidienne	**Oui**	**Non**
Locale	**Oui**	**Non**
Ventilation de soins intensifs	**Oui**	**Non**
Surveillance invasive	**Oui**	**Non**

Autres interventions

.....

.....

.....

.....

CAUSE DU DÉCÈS

Principale cause du décès (CIM-10) .....

Dernière cause du décès (CIM-10) .....

Autopsie ..... Si l'autopsie a été effectuée, prière de joindre le rapport

Est-ce que la dernière cause du décès a été confirmée par le pathologiste? .....

Cause ayant contribué (Antécédent) au décès #1(CIM-10) .....

Cause ayant contribué (Antécédent) au décès #3(CIM-10) .....

Cause ayant contribué (Antécédent) au décès #3(CIM-10) .....

Résumé de cas (faire un bref résumé des événements entourant le décès):

.....

.....

.....

Obstacles aux soins et facteurs remédiables (Est-ce que l'un de ces facteurs étaient présent (Oui/Non)

Est-ce que les femmes et leur famille ont reconnu qu'il y avait un problème?	**Oui**	**Non**
Est-ce que le professionnel de santé a reconnu qu'il y avait un problème ?	**Oui**	**Non**
Y-avait-il du retard de la part des femmes recherchant des soins?	**Oui**	**Non**

S'il y a eu du retard, pourquoi? Inclure les problèmes personnels, familiaux, et communautaires, notamment les sociaux et financiers:

.....

.....

.....

Y-a-t-il eu du retard dans le transport jusqu'au lieu de soins ou entre deux centres de santé? **Oui** **Non**

S'il y a eu du retard, pourquoi? Inclure les problèmes de communication, d'accès, de transport jusqu'au centre et entre des centres:

.....

.....

.....

Was there a delay in receiving care at the facility? **Oui** **Non**

If delay why? Include lack or barriers at health facilities, lack of personnel or unskilled personnel, lack of equipment or supplies:

.....

.....

.....

.....

Y-avait-il un problème dans les soins médicaux reçus au centre? **Oui** **Non**

Si oui, est-ce que le problème était antérieur à l'accouchement? **Oui** **Non**

Si oui, est-ce que le problème s'est posé au moment de l'accouchement? **Oui** **Non**

Si oui, est-ce que le problème était postérieur à l'accouchement? **Oui** **Non**

Si oui, est-ce que le problème était lié à la réanimation? **Oui** **Non**

Si oui, est-ce que le problème était lié à l'anesthésie? **Oui** **Non**

Si oui, est-ce que le problème était lié à un manque de professionnalisme? **Oui** **Non**

Remarques sur les facteurs potentiellement évitables, les occasions manquées et les soins de qualité inférieure:

.....

.....

POINTS D'ACTION

Décès évitable **Oui** **Non**

Qu'avez-vous et votre centre tiré comme enseignement de ce cas ?

.....

.....

Comment ce que vous avez appris va-t-il changer votre pratique?

.....

.....

Quelles recommandations et quelles mesures prendrez-vous à l'avenir ?

.....

.....

.....

Institutional 3 (I-3): Planning worksheet

Institution 3. Planning Worksheet (Internal)			
1. Date:	**2. Reporting period:**		**3. Number of deaths:**
4. Ward	**5. Case Number:**	**6. Plan**	**7. Response**
RM			
PATH			
MORGUE			
MED-AD			
MED-INTL DEATH CERT			
OP			
SURGE			
OTHER			
7. Prepared by (name):		Signature:	
Date:			

Institutional 4 (I-4): Summary and Recommendation worksheet for Department

Institution 4. Summary Form - Facility to Department		
1. Date:	**2. Reporting period:**	**3. Number of deaths:**
4. Case number	**5. Cause of death:**	**6. Recommendations**
7. Prepared by (name):	Signature:	
Date:		

Institution 4. Recommendation Form - Facility to Department

1. Case Number:	2. Age:	3. Ethnicity:	4. Gravidity:	5. Parity:
6. Date of birth:	7. Date of death:	8. Pregnancy outcome:	9. Gestational age:	10. Birth weight:

11. Synopsis of events leading to death (check all that apply below):

Did she have a pre-existing condition?	Was the pregnancy planned?	Was she using birth control? If no, answer 11a below.	Did she receive appropriate and timely ANC?	Were complications treated?	Did she comply with medical advice? If no, answer 11b	Was labor monitored?	Was labor prolonged?	Was timely care received for complications?	Was a SBA present or did she deliver in facility?	Was a transfer needed before/after/during labor? If yes, answer 11c.	Was she resuscitated, if necessary?	Was she appropriately care for in post-natal period?	Was a transfer necessary after delivery? If yes, answer 11d.	If mother became ill, did she receive timely care?

11a. If not using birth control, please explain:

11b. If she did not comply with medical advice, please explain:

11c. If transfer was needed, specify when (before, during, or after labor) and explain:

11d. If a transfer was needed after delivery, please explain:

12. Principal medical cause of death:

13. Was the death avoidable?

14. What factors could have been changed to decrease the risk of death from occurring?

15. Recommendations to reduce deaths from similar causes or circumstances:

Institutional 5 (I-5): Assignment list for VA

Date Assigned _____ **Department** _____

Date Form Returned _____ **Facility Name** _____

Week _____ **Commune** _____

Month _____

Year _____

Agen Sante Name	Agen Sante contact and address	Name and Surname of the Deceased Woman	Age	The Address and Phone Number of the Family or Relatives or Informant of the Deceased Woman	Date of Death (dd/mm/yy)	Place of Death (Home/TBA/Facility Name)	Pregnancy Status					Result cod
							1	2	3	4	5	

PREGNANCY STATUS:

1. Not pregnant within the past year
2. Pregnant at the time of death
3. Not pregnant but pregnant within 42 days of death
4. Not pregnant but pregnant within 43 days to 1 year before death
5. Unknown if pregnant within the past year

RESULT CODE:

A. Completed VA

B. Care giver refuse to conduct VA

C. caregiver not found

Department 1 (D-1): Verbal Autopsy form

FÒM 5B: VÈBAL OTOPOUSI POU KE YO SISPÈK MOURI BÒ KOTE MANMAN

Ako ékléré pou moun kap repon kesyon otopsi verbal (fanmy oswa zanmi pwoch fanm ki gen 12-49 an ki mouri)

Bonjou. Mwen rélé _____ é map travay pou (nonOganizasyon an) ki patnè ak Ministè santé a. Nap chache konpran'n pwoblem sante fanm yo nan zon'n sa a.

Map mande'w pou edem konprann pou ki sa gen fanm ansent ki mouri, pou ki sa gen fanm ki mouri lè yo fenk f fin akouche. Mwen ta renmen konnen si yo tal ka doktè pandan yo te ansent e ki kalite trètman yo te resevwa, si yo te resevwa li. Nap mande tou pou di nou tout kay nan zon'n nan ki te gen lanmò youn fanm ki tap viv ladan'l ki mouri depi 1er janvye 2012.. Gouvènman an ak tout oganizasyon kap patisipe yo met tèt yo ansanm pou amelyore kalite sèvis sante nan zonn sa-a d. Infomasyon ke nap bay pral ede nou konprann difikilte fanm ki gen laj fè pitit yo rankontre lè yap chèche trètman pandan yo ansent, lè yo bezwen èd pou yo akouché o swa lè yap chèche lòt sèvis sante.

Map vizite'w jodi a paske yo di nou ke (NON YOUN FANM KI GEN 12-49 AN KI MOURI) mouri. Mwen la pou-m mande ou ki jan li mouri. Enfomasyon sa a pral ede gouvènman ak tout oganizasyon kap patisipe yo konprann pi byen ki jan yo kapab amelyore kalite sèvis sante yo bay ti bébé ki fèk fèt epi manman ki fèk sòt akouché.En nfomasyon sa a pral pèmèt nou konnen si amelyorasyon nan sèvis sante ki te prevwa pou zon'n nan a ap ede nou. Tout kesyon nap poze yo ap dire sòti 30 rive 45 minit. Nap kimbe tout kalité infomasyon nou founi e pèsonn pap konnen ki moun ki bay li e nou pap montre lòt moun li.

Fòk nou volontè pou nou reponn kesyon yo. Si mwen poze'w youn kesyon ou pa vle reponn, ou mèt di'm e map poze ou pwochen kesyon an. Oswa ou kapab kanpe kesyon yo nimpòt ki moman. Fòk ou konnin ke repons ou founi sou moun ki mouri an kapab bay infomasyon sou sante ou. Men nou espere ke wap patisipe nan etid sila a paske opinyon ou yo impòtan. Si ou decide patisipe nan etid la mwen pap di pèsonn ki sa ou te di nan etid la. Infomasyon ou founi an trè sekrè.

Kounye a èske'w vle poze'm kesyon sou infomasyon nap ranmase yo oswa ki sa 'm pral fè ak yo ? ?

Èske ou vle patisipe ?
Èske mwen kapab kòmanse poze ou kesyon kounye a ?

Non, Akò pou patisipe pa-t bay ( ) Siyati moun kap kesyon : _____

Wi, Akò pou patisipe te bay ( ): Siyati moun kap kesyon: _____

Wi, Akò pou patisipe te bay ( ): Siyati moun ki reponn : _____

Oswa anprent pous li

Dat: _____

Si ou gen kesyon ou ta renmen poze sou etid sila a, mande:
Non:
(Anketè prensipal)
Enstitisyon li
Telefon

Si nou gen kesyon sou dwa nou ou sou etik nou kòm sijè rechèch, mande:
Non
(Anketè prensipal)
Enstitisyon li
Telefon

PWOJÈ SIVEYANS MÒTALITE MATÈNÈL

KESYONÈ OTOPSI VERBAL (FANM 12-49 AN)

KESYONE SEKENSYÈL #.

KÒD GPS: (de Vilaj la)

DEGRE DESIMAL

LAT N S + -

LONG E 3

SEKSYON 1.1 VIZIT MOUN KAP POZE KESYON

	1	2	3	VIZIT FINAL
JOU				JOU
				MWA
				ANE 2 0 1
NON MOUN NAN KAP POZE KESYON	☐	☐	☐	# MOUN KAP POZE KESYONE
REZILTA*				REZILTA

SI NESESÈ, EKRI ISIT SI NOU BIZWEN SWIV SA KAP FÈT (egzanp :TELEFÒN, ADRÈS,

PWOCHÈN VIZIT: DAT				TOTAL VIZIT YO ☐
LÈ				

- KÒD RESILTA YO:

1 KONPLETE 2 PAT LAKAY LI 3 RANVOYE 4 REFIZE

SEKSYON 1.2 INFOMASYON DEMOGRAFIK ADISYONÈL (SILVOUPLE ITILISE BON EKRITI KI NAN LIS LA)

DEPATMAN

KOMIN

SANT SANTE

SEKTÈ

LOKALITE

NON MANM CL LA

Nimewo kay la

NON FANM NAN KI MOURI

NON CHÈF kay la

Pou nou konplete ak done

KI LANG NOU TE ITILIZE PLIS PANDAN NOU TAP POZE KESYON YO?

FRANSE 1

KREYOL AYISYEN 2

ESPANYOL 3

ANGLE 4

LÒT _____ 5

Akò eklere pou kesyon otopsi verbal yo (pou desandan fanm yo ki gen 12-49 an)

Bonjou. Mwen rele _____ ,ma-p travay pou (non oganizasyon an n) ki patnè ak Ministè sante a. Nap fè youn etid nan distrik sila a kap poze kesyon sou pwoblèm sante fanm yo.

Map mande ou patisipe nan etid sila a paske map eseye konprann pou ki sa gen fanm ansent ki mouri et pou ki sa gen fanm ki mouri tou swit apre yo fin akouche. Mwen ta renmen konnen si yo tal ka doktè pandan yo te ansent e ki kalite trètman yo te resevwa, si yo te resevwa li. Nap mande tout fwaye nan distrik sila a ki te anonse lanmò youn fanm ki mamb fwaye a depi 1er janvye 2012, pou yo patisipe nan etid sila a. Gouvènman an ak tout oganisasyon kap patisipe yo ap amelyore aksè nan swen sante e founiti sèvis sante nan tout distrik sila a e nan twa lòt. Infomasyon ke nap bay pral ede nou konprann difikilte fanm ki gen laj fè pitit yo rankontre lè yap chèche trètman pandan yo ansent, lè yo bizwen èd pou yo akouché o swa lè yap chèche lòt sèvis sante.

Map vizite ou jodi a paske yo di nou ke (NON YOUN FANM KI GEN 12-49 AN KI MOURI) mouri. Mwen la pou mwen mande ou ki jan li mouri. Infomasyon sa a pral ede gouvènman ak tout organizasyon kap patisipe yo konprann pi byen ki jan yo kapab amelyore sèvis sante yo bay ti bebe ki fèk fèt e manman ki fèk sòt akouché. E infomasyon sa a pral pèmèt nou konnen si amelyorasyon nan sèvis sante ki te prevwa pou distrik nou a ap ede nou. Tout kesyon nap poze yo ap dire sòti 30 rive 45 minit. Nap kimbe tout kalite infomasyon nou founi e pèsons pap konnen ki moun ki bay li e nou pap montre lòt moun li.

Fòk nou volontè pou nou reponn kesyon yo. Alò si mwen poze ou youn kesyon ou pa vle reponn, ou mèt di mwen e map poze ou pwochen kesyon an. Oubyen ou kapab estope kesyon yo a nimpòt ki moman. Fòk ou konnen ke repons ou founi sou moun ki mouri an kapab bay infomasyon sou sante ou. Men nou espere ke wap patisipe nan etid sila a paske opinyon ou yo impotan. Si ou decide patisipe nan etid la mwen pap di pèsonn ki sa ou te di nan etid la. Infomasyon ou founi a trè sekrè.

Kounye a èske ou vlé poze mwen kesyon sou infomasyon nap sanble oubyen sou etid la ?

Èske ou vle patisipe ?
Èske mwen kapab kòmanse poze ou kesyon kounye a ?
Non, Akò pou patisipe pat bay ( ) Siyati moun kap kesyone :

_____

Wi, Akò pou patisipe te bay ( ): Siyati moun kap kesyone:

_____

Wi, Akò pou patisipe te bay ( ): Siyati moun ki reponn: _____

Oswa anprent pous li

Dat_____

Si ou gen kesyon ou ta renmen pozé sou étid sila-a, mandé:
Non:
(Anketè prensipal)
Enstitisyon li
Telefòn

Si nou gen kesyon sou dwa nou ou sou étik nou kòm sijè rechèch, mandé:
Non
(Anketè prensipal)
Enstitisyon li
Telefòn

SIYATI R E S P O N S A B OV (Otopsi verbal) A:

KÒD R E S P O N S A B OV A:

_____

SEKSYON 2. INFOMASYON BAZIK SOU MOUN KAP REPONN KEYSON YO

NO.	KESYON E TRIYAJ YO	KATEGORI KODAJ YO	KITE
201	EKRI KI LÈ OU TE KÒMANSE POZE KESYON YO **(an 24 è)**	LÈ ..... [ ][ ] **AK** MINIT ..... [ ][ ]	
202	NON MOUN KI MOURI A	_____ (NON MOUN KI MOURI A)	
202A	KI JAN OU RELE?	_____ (NON MOUN PI IMPÒTAN KI TE REPONN)	
203	Ki relasyon ou genyen ak moun ki mouri a?	PAPA ..... 1 MANMAN ..... 2 MARI ..... 3 SÈ/FRÈ ..... 4 PITIT ..... 5 LÒT PARAN _____ 6 (PRESIZE) YO PA FANMI ..... 8 REFIZE 9	
204	Èske ou te viv ak moun mouri a kèk tan anvan li mouri?	WI ..... 1 NON ..... 2 PA KONNEN ..... 8 REFIZE 9	
205	Enfomasyon sou kote moun ki mouri a te rete	ILi tap viv nan kominote a .....1 Yo te pote ko a pou anteman. .....2 LI te vinn viv pendan malady a 3	
206	Depi kombyen tan moun mouri a tap viv nan lokalite sa a? **ENSKRI '98' SI LI PA KONNEN JOU OSWA MWA A** **ENSKRI '9998' SI LI PA KONNEN ANE A**	MWA ..... 1 [ ][ ] **OUBYEN** ANE ..... 2 [ ][ ] TOUJOU / DEPI NESANS ..... 777 PA KONNEN ..... 998 REFIZE 999	

SEKSYON 3. INFOMASYON SOU MOUN MOURI A E DAT/KOTE LI MOURI

302	Ki jou, mwa ak ane (NON) fèt? **ENSKRI '98' SI LI PA KONNEN JOU OSWA MWA A** **ENSKRI '9998' SI LI PA KONNEN ANE A**	JOU ..... [ ][ ] MWA ..... [ ][ ] ANE ..... [ ][ ][ ][ ]	
303	Ki jou, mwa ak ane (NON) mouri? **ENSKRI '98' SI LI PA KONNEN JOU OSWA MWA A** **VERIFYE SI ANE A SETE 2013 (ANE SA A) OUBYEN 2012 (ANE PASE) DOSYE '9998' SI LI PA KONNEN ANE A**	JOU ..... [ ][ ] MWA ..... [ ][ ] ANE ..... [ ][ ][ ][ ]	
304	Ki laj li te genyen lè li mouri? **ENSKRI LAJ LA AN ANE KOMPLÈT** **KOMPARE E KORIJE 302, 303 E/OUBYEN 304 SI GEN CONTRADISYON.**	LAJ AN ANE ..... [ ][ ]	
304A	**VERIFYE 304:** LAJ LI LÈ LI MOURI 12 - 49 → 1 LAJ LI LÈ LI MOURI <12 OSWA 50 E PLIS → 2		**FEN**

NO.	KESYON E TRIYAJ YO	KATEGORI KODAJ YO	KITE
305	Ki travay li te konn fè pou li viv, sètadi ki aktivite prensipal li te genyen? **(SILVOUPLE CHWAZI YOUN TRAVAY NAN LIS LA)**	_____ _____ ☐☐☐	
306	Nan ki pi wo nivo e ane (nivo/grad) edicasyon fòmel moun mouri a te rive ? **(ANTOURE YOUN KOD NAN NIVO E YOUN KOD [ANE] NAN DEZYÈM KOLÒN NAN)**	Nivo / ANE nan nivo ANYEN ..... 0 Lekol matenèl Lekol PRIMÈ ..... 1 1 Lekol SEGONDÈ ..... 2 2 Lekol pwofesyonel TÈSYÈ 3 3 4 5 6 7	
307	Ki eta civil li te genyen?	PA JANM MARYE ..... 1 MARYE/PLASE ..... 2 VÈV ..... 3 DIVÒSE/SEPARE ..... 4 PA KONNEN ..... 8 REFIZE 9	
309	Ki Kote li mouri?	LAKAY LI ..... 01 → 309C Nan ZÒN KOTE TRAVAY ye a/LAKAY LI ..... 02 → 309C **SEKTÈ PIBLIK** LOPITALleta ..... 03 SANT SANTE piblik ..... 04 LÒT SEKTÈ PIBLIK 05 _____ (PRESIZE) **SEKTÈ PRIVE MEDIKAL** LOPITAL/KLINIK PRIVE. ..... 08 LÒT SEKTÈ PRIVE MEDIKAL _____ 09 (PRESIZE) LÒT _____ 96 PA KONNEN ..... 98 → 309C REFIZE 99	
309B	Ki jan yo rele sant sante kote li mouri?	NON _____	
309C	ÈskE li tal nan yon lòt sant sante kote li te resevwa swen ak trètman anvan li mouri?	WI ..... 1 NON ..... 2 PA KONNEN ..... 8 REFIZE ..... 9 → 401	
309D	Ki jan yo rele sant sante kote li te resevwa swen ? **(EGZAMINE LIS YO BAY LA)** **MANDE: "Èske gen lòt sant sante?"**	NON _____ NON _____ NON _____	

SEKSYON 4. ISTWA BLESI/AKSIDAN

NO.	KESYON AK TRIYAJ YO	KATEGORI KODAJ YO	KITE
401	Èske li mouri pou tèt li te blese oswa aksidante? Eske se yon aksidan ki te lakoz lanmò li ou byen li soufri avan li mouri	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 404
402	Ki kalite blesi oswa aksidan moun mouri a te genyen?	AKSIDAN SIKILASYON ..... 01 TONBE ..... 02 NWAYE ..... 03 PWAZONNEN ..... 04 BOULE ..... 05 VIOLANS/AGRESYON ..... 06 LÒT _____ 96 (PRESIZE) PA KONNEN 98	
403	Éske youn lòt moun fè ekspre blese li ou fè li fè aksidan?	WI ..... 1 NON ..... 2 PA KONNEN 8	
404	Éske ou kwe li touye tèt li?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 501
405	Èske li mouri pou tèt youn animal/insèk te mòde li?	WI ..... 1 NON ..... 2 PA KONNEN 8	501
406	Ki kalite animal/insèk?	CHEN ..... 1 SÈPAN ..... 2 ..... 3 INSÈK ..... 4 LÒT 6 (PRESIZE) PA KONNEN 8	

SEKSYON 5. SA MOUN KAP REPONN NAN DI SOU MALADI/EVÈNMAN KI RIVE ANVAN LANMÒ A

501

Instructions to the interviewer – Allow the respondent to tell you about the illness in his or her own words. Do not prompt except for asking whether there was anything else after the respondent finishes. Keep prompting until the respondent says there was nothing else. While recording underline any unfamiliar terms.

Enstriksyon pou moun kap poze keksyon: Pemèt moun ki konsene a bay enfomasyon sou maladi a nan pwop mo pal. Pa kanp'l , ankouraje'l di tout sa'l konen sou malady a jiskaske'l fini.

PROBE FOR:

Recognition in the home *(first signs or symptoms recognized, other signs or symptoms, when did they realise it was severe, who recognized the first and severe symptoms) Nan kay la : ki premye siyn ak sintom ki fè nou rekonèt sitiyasyon an grav epi pran desizyon al lopital? Ki moun ki rekonèt sintom yo grav avan? .*

Timing *(how long it took from first symptoms to realizing it was severe) Tan : konbyen tan sa pran, premye sintom yo komanse ak le nou wè li grav?*

Actions taken in home and outside the home *(how long after first sign or symptom, what actions, what treatment, who made the decision, reason for this action, if not going outside for care—why?) konbyen tan apre premye sintom nan nou te pran yon desizyon, ki sa li te ye, poukisa ou pat al cheche swen tou swit nan sant lan?*

Provider behavior *(advice given, treatment given, referral, referral experience, timing of referral, reasons for not going or delaying referral) Le nou te rive nan sant la, ki jan akey la te ye? Ki tretman yo te baw ? konbyen tan apre yo te refere w ?*

ASK:

Could you tell me about the illness events that led to her death? Rakonte ki jan moun nan mouri ?

Do you feel the death could have been avoided somehow? Please explain

Ou panse te gen yon bagay ki te ka fèt pou evite lamo sa a ? Dim tout sa ou panse_____

KONTINYE NAN PWOCHÈN PAJ LA

NO.	KESYON AK TRIYAJ YO	KATEGORI KODAJ YO	KITE

PROLONJMAN SEKSYON 5. SA MOUN KAP REPONN NAN DI SOU MALADI/EVÈNMAN KI RIVE ANVAN LANMÒ A

502	Ki sa ou panse te premye kòz lanmò a? **OSWA** "Avèk sa nou sòt pale a, èske ou ka di ke _____ se premye kòz lanmò a? POU MOUN KAP REPONN KESYON YO SE PREMYE KÒZ LANMÒ A	
503	An plis premye kòz sa a, éske ou panse gen lòt dezyèm kòz lanmò a? **OSWA** "Avèk sa nou sòt pale a, èske ou ka di ke _____ se dezyèm kòz lanmò a?	

SEKYON 6. ISTWA MEDIKAL

NO.	KESYON AK TRIYAJ YO	KATEGORI KODAJ YO	KITE
600	Mwen ta renmen pozé kek kesyon sou maladi ke dokte te dyagnostike anvan moun nan mouri; blesi ak aksidan ke li te genyen; ak siy ak sentòm ke moun mouri a te genyen lè li te malad, Gen de kesyon ki ka parèt san lyen direk ak lanmò a. Silvouple pran pasyans avèk mwen e reponn tout kesyon yo. Yo pral ede nou wè pi byen tout sentòm moun mouri a te genyen.		
601	Silvouple di mwen si moun kap bay swen yote fè moun nan ki mouri a konnen ke li te gen youn nan maladi sa yo: A. Ipertansyon? B. maladi kè? C. Zik? D. Opresyon? E. Malkadi? F. Malnitrisyon? G. Tibèkiloz? H. Maladi Mantal (ansam ak depresyon)? I. Epatit oswa lòt maladi fwa? J. Pwoblèm pilmonè? K. Kadyak oswa pwoblèm kè? L. Malarya? M. VIH/SIDA? N. Kansè? **SI N. KANSÈ SE "Wi", MANDE POU PRESIZE KI KALITE OSWA KI KOTE**:	**(ANTOURE YOUN REPONS POU CHAK LIY)** WI NON PA KONNEN 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8 _____	
601A	Èske li te konn fe tes pou VIH/SIDA?	WI ..... 1 NON ..... 2 PA KONNEN ..... 8 REFIZE 9	→ 602
601B	Èske ou te konnen ki estad VIH li te genyen (lè yo fè dènye tès la)?	WI ..... 1 NON ..... 2 PA KONNEN ..... 8 REFIZE 9	→ 602
601C	Èske ou te konnen rezilta tes li, te VIH pozitif oswa VIH negatif?	VIH + (POZITIF) ..... 1 VIH - (NEGATIF) ..... 2 PA KONNEN ..... 8 REFIZE 9	→ 602
601D	Depi ki lè yo te dyagnostike li VIH pozitif? **(SI SE DEPI MWENS KE 1 ANE – INSKRI KOMBYEN MWA** **SI SE DEPI PLIS KE 12 MWA – INSKRI KOMBYEN ANE)**	GEN ..... 1 [ ][ ] MWA **OSWA** GEN .....2 [ ][ ] MWA PA KONNEN 9 9 8	
601E	Èske li tap pran medikaman (ARVs, Septrin) pou VIH la?	WI ..... 1 NON ..... 2 PA KONNEN ..... 8 REFIZE 9	→ 602
601X	Ki medikaman li tap pran pou VIH la? Èske li tap pran ARVs oswa Septrin pou VIH la?	ARVs 1 SEPTRIN 2 ARV ANSANM AK SEPTRIN 3 PA KONNEN ..... 8 REFIZE 9	→ 602 → 602
601F	Depi kombyen tan li tap pran **ARVs** pou VIH la? **(SI SE DEPI MWENS KE 1 ANE – INSKRI KOMBYEN MWA** **SI SE DEPI PLIS KE 12 MWA – INSKRI KOMBYEN ANE)**	GEN .....1 [ ][ ] MWA **OSWA** GEN ..... 2 [ ][ ] MWA PA KONNEN 9 9 8	

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
602	En plis eta medikal sa yo (e maladi yo) ke ou mansyone, èske li te gen lòt maladi kite dyagnostike?	WI . . . . . 1 NON . . . . . 2 PA KONNEN . . . . . 8 REFIZE 9	→ 603
602A	Èske ou kapab presize maladi sa a?	MALADI _____	
603	Èske li tap pran youn nan medikaman sa yo kèk mwa anvan li mouri? A. Fè B. Vitamin C. Antibyotik D. Analjesik E. Medikaman pou malarya F. Medikaman pou VIH/SIDA G. Medikaman pou tibèkiloz	WI NON PK RF 1 2 8 9 1 2 8 9 Presize: 1 2 8 9 _____ 1 2 8 9 _____ 1 2 8 9 _____ 1 2 8 9 _____ 1 2 8 9 _____	

SEKSYON 7. SENTÒM AK SIY KI RELYE AK MALADI FANM

"Kounye a, mwen vle poze ou kèk kesyon patikilye sou eta oswa maladi fanm yo."

701	Èske tete li te anfle oswa li te genyen yon maling nan?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 703 → 703
702A	Depi ki lè li te gen maling sa a oswa anflamasyon sa nan tete?	JOU . . . . . 1 **OSWA** MWA . . . . . 2 PA KONNEN 9 9 8	
702B	Èske li tap bay pitit li tete?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	
703	Èske li kon senyen anpil pandan règ yo?	PAT GEN RÈG . . . . . 0 WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 707 → 705 → 705
704	Konbyen jou san konn dire sou li **pandan** règ yo?	JOU . . . . . 1 **OSWA** MWA . . . . . 2 PA KONNEN 9 9 8	
705	Èske li te kon bay san san li pa gen reg yo tou senyen ant règ yo?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 707 → 707
706	Konbyen jou sa konn?	JOU . . . . . 1 **OSWA** MWA . . . . . 2 PA KONNEN 9 9 8	
707	Èske li te gen ekoulman nan bouboune (vajen) ki l anòmal?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 801 → 801
708	Depi kombyen tan li te gen ekoulman sa a	JOU . . . . . 1 **OSWA** MWA . . . . . 2 PA KONNEN 9 9 8	

SECTION 8: SENTÒM AK SIY RELYE AK GWOSÈS

NO.	KESYON AK TRIYAJ YO	KATEGORI KODAJ YO	KITE
801	Èske li te ansent lè li mouri oswa eske li te ansent 2 mwa anvan li mouri?	WI ..... 1 NON ..... 2 PA KONNEN 8	
802	Èske li mouri pandan oswa apre youn fòs kouch oswa youn avòtman	WI ..... 1 NON ..... 2 PA KONNEN 8	
803A	Kombyen bebe vivan li te akouche?	BEBE VIVAN ..... ☐☐ PA KONNEN 9 8	**IF '0',** → 803D → 803D
803B	Kombyen nan bebe vivan sa yo te mouri?	BEBE VIVAN KI MOURI ..... ☐☐ PA KONNEN 9 8	**IF '0',** → 803D → 803D
803C	Kombyen nan bebe ki te mouri yo te mouri nan premye mwa yo tap viv?	MOURI NAN 1ER MWA A ..... ☐☐ PA KONNEN 9 8	
803D	Èske li janm gen youn pitit ki te fèt tou mouri, apre 7 mwa gwosès?	WI ..... 1 NON ..... 2 PA KONNEN 8	 → 803F → 803F
803E	Kombyen nan gwosès sa yo te bay ti bebe ki fèt tou mouri?	BEBE KI FÈT MOURI ..... ☐☐ PA KONNEN 9 8	
803F	Did she everhave a delivery of twins Li konn fè pitit marasa ?	WI ..... 1 NON ..... 2 PA KONNEN 8	 → 803H → 803H
803G	How many times did shegive birth to twins? Konbyen fwa li akouche marasa ? **NOTE : IF THE WOMEN HAD ONE SET OF TWINS (TWO BABIES), COUNT THAT AS ONE SET DELIVERY**	NUMBER OF SETS OF TWINS DELIVERED ☐☐ PA KONNEN 9 8	
803H	Gen de fwa fanm yo pèdi gwosès yo paske yo fè fòs kouch oswa avòtman. Èske li te janm pèdi youn gwossès oubyen fè youn avòtman anvan li rive genyen 7 mwa gwossès? **NÒT: SI FANM YO TE GEN YOUN GWOSÈS ANDEYÒ MATRIS LA, KONSIDERE LI TANKOU YOUN AVÒTMAN.**	WI ..... 1 NON ..... 2 PA KONNEN 8	 → 804 → 804
803I	Kombyen nan gwosès sa yo te fini nan fòs kouch oswa avòtman?	FÒS KOUCH/AVÒTMAN ..... ☐☐ PA KONNEN 9 8	
804	**AJOUTE KOMBYEN BEBE VIVAN, BEBE KI FÈT TOU MOURI, AVÒTMAN KI TE DEKLARE NAN 803A, 803E, E 803G. MANDE:** 'Èske total gwosès a tèm [NON] te genyen nan vi li se __ __ ?	ENSKRI TOTAL # GWOSÈS KI PA KONPLETE ☐☐ PA KONNEN 9 8	
805	**EGZAMINE Q801 AK Q802. SI REPONS KESYON SA YO SE 'WI', KONTINYE NAN Q806. OTREMAN, DI MOUN KAP REPONN NAN MÈSI E FINI KESYONMAN A.**	**SI WI** .... 1 **SI NON/PK** 2	806 **FEN**

AT: Akouchèz tradisyonèl

PROLONJMAN SEKSYON 8. SWEN ANVAN PITIT FÈT

806	Èske li te resevwa swen anvan pitit la fèt (prenatall), pandan dènye gwosès li?	WI ..... 1 NON ..... 2 → 814 PA KONNEN ..... 8 → 814	
807	Kote li resevwa swen prenatal	LAKAY LI ..... 01 → 811 ZÒN KOTE *AT* A TRAVAY/LAKAY LI. ..... 02 → 811 **SEKTÈ PIBLIK** LOPITAL piblik ..... 03 SANT SANTE piblikG ..... 04 LÒT SEKTÈ PIBLIK _____ 07 (PRESIZE) **SEKTÈ PRIVE MEDIKAL** LOPITAL/KLINIK PRIVE ..... 08 LÒT SEKTÈ PRIVE MEDIKAL 09 (PRESIZE) LÒT 96 PA KONNEN ..... 98 REFIZE 99	
808	Ki jan yo rele kote li resevwa swen anvan pitit la fèt? Ki non sant li resevwa swen prenatal ?	_____	
809	Ki kalite moun te bal anpil nan swen yo anvan pitit la fèt?	JINEKOLOG-OBSTETRISYEN ..... 1 DOKTÈ ..... 2 INFIMYÈ ..... 3 FANMSAJ ..... 4 AKOUCHÈZ TRADISYONÈL ..... 5 PARAN ..... 6 LÒT _____ 7 (PRESIZE) DON'T KNOW 8	
810	Konbyen mwa gwosès li a te genyen lè li fè premye vizit anvan pitit la fèt?	SEMÈN ..... 1 **OSWA** MWA ..... 2 [ ][ ] PA KONNEN 9 9 8	
811	Èske li chèche swen avan pitit la fèt paske li te gen pwoblèm medikal oubyen paske li te vle swen pou gwosès li?	LI TE GEN PWOBLEM MEDIKAL. ..... 1 TE VLE SWEN POU GWOSÈS LI ..... 2 PA KONNEN 8	
813	Konbyen vizit li fè pandan dènye gwosès li? **SI MOUN KAP REPONN KESYON YO PA KONNEN, FÒ NOU MANDE SI LI TE FÈ O MWEN 4 VIZIT.**	VIZIT ..... [ ][ ] O MWEN 4 7 7 PA KONNEN 9 8	
814	Èske li te ansent lè li mouri? Sètadi, eske bebe a te toujou andedan vant li lè li mouri?	WI ..... 1 NON ..... 2 → 817A PA KONNEN ..... 8 → 817A	
815	Depi konbyen tan li te ansent?	SEMÈN ..... 1 **OSWA** MWA ..... 2 [ ][ ] PA KONNEN 9 9 8	

AT: Akouchèz tradisyonèl

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
816	Konbyen ti bebe li te gen nan vant li? (youn, de, twa.....)	BEBE ..... [ ][ ] PA KONNEN 9 8	
817A	Èske li mouri pandan li te ansent oubyen pandan travay la (eske bebe a te toujou andedan vant li)? **(NÒT: SI BEBE A TE DEYÒ – TRAVAY LA TE FINI)**	WI, pandan li te ansent ..... 1 → 819 WI, pandan li te gen tranche ..... 2 NON ..... 3 → 822 PA KONNEN ..... 8 → 822	
817B	Kilè (jou oswa nwit) travay la kòmanse? **LI CHWA 1-7**	Gran maten (apre soley leve) ..... 1 Ta nan maten ..... 2 Bonè nan apremidi ..... 3 Ta nan apremidi ..... 4 Bonè nan aswè ..... 5 Aswè jis minwi ..... 6 Minwi jis douvanjou ..... 7 PA KONNEN 8	
817C	Konbyen tan apre travay la kòmanse eske li te resevwa asistans nan travay la ak akouchman an? **SI REPONS LA SE AN JOU: APRE KONBYEN LÈ**	LÈ ..... [ ][ ] 98 PA KONNEN 99 PAT RESEVWA ASISTANS	
817D	Ki moun ki te asiste [NON] pandan travay la?	PESÒN TE ASISTE LI – MANMAN AN POU KONT LI .. 0 DOKTÈ ..... 1 RESPONSAB KLINIK / OKSILYÈ MEDIKAL .... 2 INFIMYÈ ..... 3 FANMSAJ ..... 4 AKOUCHÈZ TRADISYONÈL ..... 5 PARAN ..... 6 LÒT _____ 7 (PRESIZE) PA KONNEN 8	
818B	Konbyen lè oswa jou li pase nan travay anvan li mouri?	LÈ ..... 1 [ ][ ] **OSWA** JOU ..... 2 [ ][ ] PA KONNEN 9 9 8	
818C	Ki pati nan kò ti bebe a te parèt an premye?	OKENN BÒ PA SÒTI ..... 0 TÈT ..... 1 DÈYÈ ..... 2 PYE ..... 3 BRA ..... 4 CÒD ..... 5 LÒT _____ 6 (PRESIZE) PA KONNEN ..... 8 PA KA APLIKE 9	
819	**SI LI MOURI PANDAN TRAVAY LA, MANDE:** Èske li te gen kriz anvan travay la, pandan travay la, oswa toulede, anvan epi pandan travay la? **SI LI MOURI PANDAN LI ANSENT MÈ PA PENDAN TRAVAY LA, MANDE:** Èske li te gen konvilsyon pandan li te ansent?	ANVAN TRAVAY LA / PANDAN LI TE ANSENT .... 1 PANDAN TRAVAY LA ..... 2 ANVAN E APRE TRAVAY LA ..... 3 OKENN KONVILSYON ..... 4 PA KONNEN 8	
820	**SI LI MOURI PANDAN TRAVAY LA:** Èske li te gen ekoulman vaginal lèd ki santi, anvan travay la, pandan travay la, oswa toulede? **SI LI MOURI PANDAN LI ANSENT MÈ PA PANDAN TRAVAY LA, MANDE:** Èske li te gen ekoulman vaginal lèd ki santi pandan li te ansent ?	ANVAN TRAVAY LA / PANDAN LI TE ANSENT .... 1 PANDAN TRAVAY LA ..... 2 ANVAN E APRE TRAVAY LA ..... 3 OKENN EKOULMAN ..... 4 PA KONNEN 8	
821	**SI LI MOURI PANDAN TRAVAY LA:** Èske li te gen lafyèv anvan travay la, pandan travay la, oswa toulede? **SI LI MOURI PANDAN LI ANSENT MÈ PA PANDAN TRAVAY LA, MANDE:** Èske li te gen lafyèv pandan li te ansent?	ANVAN TRAVAY LA / PANDAN LI TE ANSENT .... 1 PANDAN TRAVAY LA ..... 2 ANVAN E APRE TRAVAY LA ..... 3 OKENN LAFYÈV ..... 4 PA KONNEN 8	

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
821A	**SI LI MOURI PANDAN TRAVAY LA:** "Èske li te senyen anvan travay la, pandan travay la, oswa, toulede, avan epi pandan travay la?" **SI LI MOURI PANDAN LI ANSENT MÈ PA PANDAN TRAVAY LA, MANDE:** "Èske li senyen pandan li te ansent?"	ANVAN TRAVAY LA / PANDAN LI TE ANSENT .... 1 PANDAN TRAVAY LA ..... 2 ANVAN E APRE TRAVAY LA ..... 3 OKENN SENYEN ..... 4 PA KONNEN 8	→ 845
821B	Èske li te gen doulè avèk san an ?	WI ..... 1 NON ..... 2 PA KONNEN 8	845
822	Èske li akouche nan dènye 2 mwa anvan li mouri? **(JIS ANVAN LI MOURI TOU)**	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 836 → 836
823	Li mouri konbyen lè, jou oswa semèn apre pitit la fèt? **SI SE MWENS KE 1 LÈ, INSKRI "00" POU LÈ A**	LÈ ..... **1** **OSWA** JOU ..... **2** **OSWA** SEMÈN ..... **3** PA KONNEN 9 9 8	
824	Konbyen mwa gwosès li te genyen lè li akouche? **(NÒT: SI SE 7 MWA OSWA MWENS – ALE NAN Q839)**	MWA ..... PA KONNEN 9 8	**SI <= 7 MWA** **ALE NAN 836**
825	Èske li te senyen twòp pandan gwosès la, pandan akouchman an, oswa jiskaske li mouri? **(SILVOUPLE EGZAMINE TOUT CHWA REPONS E FÈ YOUN SELEKSYON KONVNAB)**	WI, PANDAN GWOSÈS LA ..... 1 WI, PANDAN AKOUCHMAN AN ..... 2 WI, JISKASKE LI MOURI ..... 3 NON ..... 4 PA KONNEN 8	
826	Èske li te gen konvilsyon anvan oswa apre li akouche ti bebe a? **(SILVOUPLE EGZAMINE TOUT CHWA REPONS E FÈ YOUN SELEKSYON KONVNAB)**	NON ..... 1 ANVAN AKOUCHMAN AN ..... 2 PANDAN AKOUCHMAN AN ..... 3 APRE AKOUCHMAN AN ..... 4 ANVAN TANKOU APRE AKOUCHMAN AN 5 PA KONNEN 8	
827	Èske li te gen lefyèv anvan oswa apre li akouche ti bebe a? **(SILVOUPLE EGZAMINE TOUT CHWA REPONS E FÈ YOUN SELEKSYON KONVNAB)**	NON ..... 1 ANVAN AKOUCHMAN AN ..... 2 PANDAN AKOUCHMAN AN ..... 3 APRE AKOUCHMAN AN ..... 4 ANVAN TANKOU APRE AKOUCHMAN AN 5 PA KONNEN 8	
828	Èske li te gen ekoulman lèd ki santi apre li akouche ti bebe a?	WI ..... 1 NON ..... 2 PA KONNEN 8	

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
829A	Èske li pèdi lezo??	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 830
829B	Konbyen tan lè pase ant moman li pèdi lezo e moman li akouche?	WI ..... 1 NON ..... 2 PA KONNEN 8	
830	Konbyen lè oswa jou li pase nan travay la anvan li akouche?	LÈ ..... 1 **OSWA** JOU ..... 2 PA KONNEN 9 9 8	
831	Ki pati nan kò ti bebe a te parèt an premye? **ANTOURE "6" E PRESIZE "C/S" SI TI BEBE A FÈT AK SEZARYÈN E ANTOURE "2" NAN Q836**	TÈT ..... 1 DÈYÈ ..... 2 PYE ..... 3 BRA ..... 4 KÒD ..... 5 LÒT _____ ..... 6 PA KONNEN 8	
832	Ki kalite akouchman li te ye?	AKOUCHMAN NÒMAL PA VAJEN ..... 0 FÒSÈP/VANTOUZ ..... 1 SEZARYÈN ..... 2 AKOUCHMAN PA SYÈJ ..... 3 LÒT _____ 6 (PRESIZE) PA KONNEN 8	
833A	Konbyen bebe li te genyen nan gwosès sa a? (youn, de, twa.....)	BEBE ..... PA KONNEN 98	
833B	Apre akouchman bebe a, eske plasenta a te sòti pou kont li oswa yo te retire li, oswa li te rete andedan?	PLASENTA A SÒTI POU KONT LI ..... 1 YO RETIRE PLASENTA A ..... 2 PLASENTA A RETE NAN ITERIS LA ..... 3 PA KONNEN 8	
833C	Plasenta a te sòti konbyen tan apre akouchman bebe a?	MINIT ..... 1 **OSWA** LÈ ..... 2 PA KONNEN 9 9 8	
834	Kote li akouche?	LAKAY LI ..... 01 ZÒN KOTE *AT* A TRAVAY/LAKAY ..... 02 **SEKTÈ PIBLIK** LOPITAL GOUVÈNMAN ..... 03 SANT SANTE GOUVÈNMAN ..... 04 LÒT SEKTÈ PIBLIK _____ 07 (PRESIZE) **SEKTÈ MEDIKAL PRIVE** LOPITAL/KLINIK PRIVE ..... 08 LÒT SEKTÈ MEDIKAL PRIVE _____ 09 (PRESIZE) LÒT _____ 96 (PRESIZE) PA KONNEN ..... 98 REFIZE 99	

NO.	KESYON AK FILTRAJ	KATEGORI KODAJ	KITE
835A	Ki moun ki asiste li nan akouchman an?	PÈSONN PAT la – MAMAN AN POU KONT LI . . 0 DOKTÈ . . . . . 1 RESkONSAB KLINIK / OKSILY . . . . 2 INFIMYÈ . . . . . 3 FANMSAJ . . . . . 4 AKOUCHÈZ TRADISYONÈL . . . . . 5 PARAN . . . . . 6 LÒT _____ 7 (PRERSIZE) PA KONNEN 8	
835B	Èske bebe te fèt vivan oswa tou mouri?	Yon tibebe ki fet vivan e ki ap viv . . . . . 0 Yon tibebe ki fet vivan . . . . . 1 Yon TIBEBE mwn pa konnen. . . . . 2 Marasa, TOUDE VIVAN . . . . . 3 Marasa, tou de fèt tou mouri. . . . . 4 Marasa,yon vivan, yon mouri. . . . . 5 Marasa, yon vivan, mwen pa konnen pou lot la 6	→ 845 → 845 → 845 → 845 → 845
835C	Èske bebe a (bebe yo) te gen pwoblèm sante apre li fèt? **SI WI, PRESIZE:** _____	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	
835D	Èske bebe a vivan? / Èske bebe yo vivan?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	845
835E	Konbyen tan apre akouchman èske bebe a mouri? **SI MWENS KE 1 LÈ, INSKRI "00" NAN LÈ** **IF TWINS AND BOTH DIED, RECORD THE EARLIEST DEATH (SOONEST AFTER BIRTH)** **IF LESS THAN 1 HOUR, RECORD "00" IN HOURS**	LÈ . . . . . 1 **OSWA** JOU . . . . . 2 **OSWA** SEMÈN . . . . . 3 **OSWA** MWA . . . . . 4 PA KONNEN 9 9 8	→ 845
836	Èske li te fè youn fòs kouch oswa youn avòtman pa gen lontan? **(Nòt: SI Q824 "7 MWA OSWA MWENS" - ANTOURE WI & KONTINYE)**	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 845 → 845
837	Èske li mouri pandan youn fòs kouch/avòtman?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 839 → 839
838	Konbyen jou avan lanmò li eske li te fè youn fòs kouch/avòtman?	JOU . . . . . PA KONNEN 9 8	
839	Depi konbyen tan eske li te ansent lè li fè fòs kouch/avòtman a?	MWA . . . . . PAS KONNEN 9 8	
840	Èske li te senyen anpil apre fòs kouch/avòtman a?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	
841	Èske li te gen lafyèv apre fòs kouch/avòtman a?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	
842	Èske li te gen ekoulman vajinal lèd ki santi apre fòs kouch/avòtman a?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	

NO.	KESYON AK FILTRAJ	KATEGORI KODAJ	KITE
843	Èske fòs kouch/avòtman a te rive pou kont li, espontaneman?	WI ..... 1 NON ..... 2 PA KONNEN 8	845 845
844	`Èske li te eseye jete pitit la la?	WI ..... 1 NON ..... 2 PA KONNEN 8	
845	Èske yo te opere li imedyatman apre akouchman oswa apre avòtman?	WI ..... 1 NON ..... 2 PA KONNEN 8	
846	Pandan dènye 3 mwa gwosès la, èske li te gen youn nan maladi sa yo: **SI YO TE REPONN DEJA PA POZE KESYON AN ANKÒ MEN SILVOUPLE ANTOURE REPONS KONVNAB YO** 01 Senyen vajinal? 02 Ekoulman vajinal ki gen move lodè /santi? 03 Dwèt, figi e pye ki anfle? 04 Tèt fè mal? 05 Vizyon flou pa we kle ? 06 kriz ? 07 Maladi ki bay lafyèv? 08 vant fe mal t ki pat doulè travay la? 09 li te paret blanch epi souf kout (toulède)? 10 Kase lezo anvan dat la? 11 Èske li te gen lòt maladi?		

Maladi	No	Avan			Apre	PK
SENYEN VAJINAL	0	1	2	3	4	8
EKOULMAN VAJINAL LÈD KI SANT	0	1	2	3	4	8
FIGI ANFLE	0	1	2	3	4	8
TÈT FÈ MAL	0	1	2	3	4	8
VIZYON FLOU	0	1	2	3	4	8
KONVILSYON	0	1	2	3	4	8
MALADI KI BAY LAFYÈV	0	1	2	3	4	8
SEVÈ DOULÈ NAN VANT (PA DOULÈ TRAVAY LA)	0	1	2	3	4	8
PAL/SOUF KOUPE (TOULÈDE	0	1	2	3	4	8
KASE LEZO ANVAN DAT LA	0	1	2	3	4	8
Èske li te gen lòt maladi?	0	1	2	3	4	8

SEKSYON 9. SIY AK SENTÒM KE NOU WÈ PANDAN DÈNIE MALADI A

NO.	KESYONS AK TRIYAJ	KATEGORI KODAJ	KITE
	LI: "Kounye a mwen pral poze kèk kesyon sou siy ak sentòm ke [NON] te genyen pandan li te malad oswa pandan li te gen pwoblèm sante ki okazyone lanmò li andedan 3 mwa anvan li mouri. Enpe nan kesyon yo kapab parèt san lyen direk ak lanmò li. Silvouple pran pasyans avèk mwen e reponn tout kesyon yo. Yo pral ede nou wè pi byen tout sentòm moun mouri a te genyen. "		
901A	Èske li te malad anvan li mouri?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 902
901B	Depi konbyen tan li te malad anvan li mouri? **SI MWENS KE 1 LÈ, INSKRI "00" NAN LÈ**	LÈ ..... 1 **OSWA** JOU ..... 2 **OSWA** MWA ..... 3 PA KONNEN 9 9 8	
902	Èske li te gen lafyèv?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 907
903	Pandan konbyen tan li te gen lafyèv?	JOU ..... 1 **OSWA** SEMÈN ..... 2 **OSWA** MWA ..... 3 PA KONNEN 9 9 8	
904	Èske lafyèv la pa janm rete?	PA JANM RETE ..... 1 LI VINI, LI RETE ..... 2 PA KONNEN 8	
905	Èske li te gen lafyèv sèlman nan nwit?	WI ..... 1 NON ..... 2 PA KONNEN 8	
906	Èske li te frèt/rèd?	WI ..... 1 NON ..... 2 PA KONNEN 8	
907	Èske li te touse?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 913 → 913
908	Depi konbyen tan li te touse?	JOU ..... 1 **OSWA** SEMÈN ..... 2 **OSWA** MWA ..... 3 PA KONNEN 9 9 8	
909	Èske tous la te sevè fò anpil sou li?	WI ..... 1 NON ..... 2 PA KONNEN 8	
910	Èske tous la te fè li krache?	WI ..... 1 NON ..... 2 PA KONNEN 8	
911	Èske li te touse san?	WI ..... 1 NON ..... 2 PA KONNEN 8	
912	Èske li te swe anpil lannwit ?	WI ..... 1 NON ..... 2 PA KONNEN 8	

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
913	Èske li te gen pwoblèm pou li respire?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 918 → 918
914	Depi konbyen tan li te gen pwoblèm pou li respire? **SI MWENS KE 1 LÈ, INSKRI "00" NAN LÈ**	LÈ ..... 1 **OSWA** JOU ..... 2 **OSWA** SEMÈN ..... 3 **OSWA** MWA ..... 4 PA KONNEN 9 9 8	
915	Èske li pat kapab fè tout aktivite li kon fè chak jou san li genyen pwoblèm pou li respire?	WI ..... 1 NON ..... 2 PA KONNEN 8	
916	Èske souf li konn koupe lè li lonje kò li plat?	WI ..... 1 NON ..... 2 PA KONNEN 8	
917	Èske li te respire difisilman?	WI ..... 1 NON ..... 2 PA KONNEN 8	
918	Èske li te gen doulè nan pwatrin?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 928 → 928
919	Depi konbyen tan li te gen doulè nan pwatrin?	LÈ ..... 1 **OSWA** JOU ..... 2 **OSWA** SEMÈN ..... 3 **OSWA** MWA ..... 4 PA KONNEN 9 9 8	
920	Èske doulè nan pwatrin nan te kòmanse soudènman oswa gradyèlman?	SOUDÈNMAN ..... 1 GRADYÈLMAN ..... 2 PA KONNEN 8	
921	Lè li te gen doulè fò anpil nan pwatrin, konbyen tan li te dire?	MWENS KE TRANT MINIT ..... 1 PATI TRANT MINIT RIVE 24 LÈ ..... 2 PLIS PASE 24 LÈ ..... 3 PA KONNEN 8	
922	Èske doulè a te anba kè'l Selman ?	WI ..... 1 NON ..... 2 PA KONNEN 8	
923	Èske doulè te anba kè'l epi li gaye nan tout bò bra goch li	WI ..... 1 NON ..... 2 PA KONNEN 8	
924	Èske doulè nan pwatrin nan te localize sou kòt yo (sou kote yo)?	WI ..... 1 NON ..... 2 PA KONNEN 8	
925	Èske li te santi doulè a de tanzantan oswa li vini san rete ,?	SAN RETE ..... 1 LI VINI, LI RETE ..... 2 PA KONNEN 8	
926	Èske doulè nan pwatrin nan te vin pi fò ak tous la?	WI ..... 1 NON ..... 2 PA KONNEN 8	
927	Èske kè li tap bat fò?	WI ..... 1 NON ..... 2 PA KONNEN 8	

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
928	Èske li te gen dyare?	WI ..... 1 NON ..... 2 PA KONNEN 8	→933
929	Depi konbyen tan li te gen dyare?	JOU ..... 1 **OSWA** SEMÈN ..... 2 **OSWA** MWA ..... 3 PA KONNEN 998	
930	Èske dyare a te vini san rete oswa li vini, li rete?	SAN RETE ..... 1 LI VI, LI RETE ..... 2 PA KONNEN 8	
931	Èske te gen san nan poupou pandan denye maladi a?	WI ..... 1 NON ..... 2 PA KONNEN 8	
932	Lè dyare a te pi sevè, konbyen fwa pa jou li te fè poupou?	KONBYEN FWA ..... PA KONNEN 98	
933	Èske li te vomi?	WI ..... 1 NON ..... 2 PA KONNEN 8	→937
934	Konbyen tan li pase ap vomi?	JOU ..... 1 **OSWA** SEMÈN ..... 2 **OSWA** MWA ..... 3 PA KONNEN 998	
935	Èske vomi a te sanble youn likid koulè kafe oswa rouj klere/rouj san oswa lòt?	LIKID LA TE GEN KOULÈ KAFE ..... 1 ROUJ KLERE/ROUJ SAN ..... 2 LÒT _____ .....6 (PRESIZE) PA KONNEN 8	
936	Lè vomi a te pi sevè, konbyen fwa pa jou li te vomi?	KONBYEN FWA ..... PA KONNEN 98	
937	**EGZAMINE KESYON 814 AK 817 POU OU WÈ SI LI MOURI PANDAN LI TE ANSENT OSWA PANDAN TRAVAY LA** NON 1 ↓ WI 2 →		→947
938	Èske li te gen doulè nan vant??	WI ..... 1 NON ..... 2 PA KONNEN 8	→940
939	Depi konbyen tan li te gen doulè nan vant?	JOU ..... 1 **OSWA** MWA ..... 2 PA KONNEN 998	
940	Èske li te santi vant li te balonnen , li te gwo?	WI ..... 1 NON ..... 2 PA KONNEN 8	→944

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
941	Depi konbyen tan vant li te defòme?	JOU ..... 1 **OSWA** MWA ..... 2 PA KONNEN 9 9 8	
942	Èske defòmasyon sa a te devlopeyon sel kou pendan kèk jou oswa gradyèlman pandan kèk mwa?	RAPIDMAN ANDEDAN PLIZYÈ JOU ..... 1 GRADYÈLMAN PANDAN PLIZYÈ MW ..... 2 PA KONNEN 8	
943	Èske li te gen de moman, youn jou oswa plis tan li pat fè poupou ditou ?	WI ..... 1 NON ..... 2 PA KONNEN 8	
944	Èske li te gen youn boul nan vant li?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 947 → 947
945	Depi konbyen tan li te gen boul la nan vant li?	JOU ..... 1 **OSWA** MWA ..... 2 PA KONNEN 9 9 8	
946	Ki kote nan vant li èske boul la te ye?	AN LÈ DWAT VANT LA ..... 1 AN LÈ GÒCH VANT LA ..... 2 AN BA VANT LA ..... 3 SOU TOUT VANT LA ..... 4 PA KONNEN 8	
947	Èske li te gen lapèn oswa doulè lè lap vale bagay solid?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 949 → 949
948	Depi konbyen tan li te gen lapèn oswa doulè lè lap vale bagay solid?	JOU ..... 1 **OSWA** SEMÈN ..... 2 **OSWA** MWA ..... 3 PA KONNEN 9 9 8	
949	Èske li te gen lapèn oswa doulè lè lap vale bagay likid?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 951 → 951
950	Depi konbyen tan li te gen lapèn oswa doulè lè lap vale bagay likid?	JOU ..... 1 **OSWA** SEMÈN ..... 2 **OSWA** MWA ..... 3 PA KONNEN 9 9 8	
951	Èske li te gen tèt fè mal?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 954 → 954

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
952	Depi konbyen tan li te gen tèt fè mal?	JOU . . . . . 1 **OSWA** SEMÈN . . . . . 2 **OSWA** MWA . . . . . 3 PA KONNEN 9 9 8	
953	Èske tèt fè mal la te sevè?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	
954	Èske kou li te di e te fèl mal?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 956 → 956
955	Depi konbyen tan kou li te rèd e tap fèl mal?	JOU . . . . . PA KONNEN 98	
956	Èske tèt li te chage?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 959 → 959
957	Depi konbyen tan tèt li te chage?	JOU . . . . . 1 **OSWA** SEMÈN . . . . . 2 **OSWA** MWA . . . . . 3 PA KONNEN 9 9 8	
958	Èske tèt chage a te kòmanse soudènman, rapidman andedan youn sèl jou oswa dousman pandan anpil jou?	SOUDÈNMAN . . . . . 1 ANDEDAN YOUN JOU (RAPID) . . . . . 2 DOUSMAN (ANPIL JOU) . . . . . 3 PA KONNEN 8	
959	Èske li te endispoze?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 962 → 962
960	Pandan konbyen tan li te pèdi konesans ?	JOU . . . . . 1 **OSWA** SEMÈN . . . . . 2 **OSWA** MWA . . . . . 3 PA KONNEN 9 9 8	
961	Èske li kòmanse pèdi konesans soudènman yon sèl fwa oswa pandan plisye jou	SOUDÈNMAN . . . . . 1 ANDEDAN YOUN JOU (RAPID) . . . . . 2 DOUSMAN (ANPIL JOU) . . . . . 3 PA KONNEN 8	
962	Èske li te gen kriz ?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 964 → 964
963	Pandan konbyen jou li te gen kriz la?	JOU . . . . . 1 **OSWA** SEMÈN . . . . . 2 **OSWA** MWA . . . . . 3 PA KONNEN 9 9 8	
964	Èske li pat kapab ouvri bouch li?	WI, LI PAT KAPAB OUVRI LI . . . . . 1 NON LI TE KAPAB OUVRI BOUCH LI. . . . . 2 PA KONNEN 8	→ 966 → 966

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
965	Konbyen tan li fè san li pat kapab ouvri bouch li?	JOU ..... [ ][ ] PA KONNEN 98	
966	Èske tout kò li te rèd?	WI ..... 1 NON ..... 2 → 968 PA KONNEN ..... 8 → 968	
967	Konbyen tan li fè ak tout kò li rèd?	JOU ..... [ ][ ] PA KONNEN 98	
968	Èske youn bò nan kò li te paralize?	JWI ..... 1 NON ..... 2 → 971 PA KONNEN ..... 8 → 971	
969	Konbyen tan li fè ak youn bò nan kò li paralize?	JOU ..... 1 [ ][ ] **OSWA** SEMÈN ..... 2 [ ][ ] **OSWA** MWA ..... 3 [ ][ ] PA KONNEN 9 9 8	
970	Èske paralizi sou youn bò nan kò a te kòmanse soudènman, rapidman andedan youn sèl jou oswa dousman andedan anpil jou?	SOUDÈNMAN ..... 1 ANDEDAN YOUN JOU (RAPID) ..... 2 DOUSMAN (ANPIL JOU) ..... 3 PA KONNEN 8	
971	Èske manb inferyè li te paralize?	WI ..... 1 NON ..... 2 → 974 PA KONNEN ..... 8 → 974	
972	Depi konbyen tan manb inferyè li te paralize?	JOU ..... 1 [ ][ ] **OSWA** SEMÈN ..... 2 [ ][ ] **OSWA** MWA ..... 3 [ ][ ] PA KONNEN 9 9 8	
973	Èske paralizi manb inferyè li te kòmanse soudènman, rapidman andedan youn sèl jou oswa dousman andedan anpil jou?	SOUDÈNMAN ..... 1 ANDEDAN YOUN JOU (RAPID) ..... 2 DOUSMAN (ANPIL JOU) ..... 3 PA KONNEN 8	
974	Èske pise li te change koulè?	WI ..... 1 NON ..... 2 → 976 PA KONNEN ..... 8 → 976	
975	Depi konbyen tan pise li te change koulè?	JOU ..... 1 [ ][ ] **OSWA** SEMÈN ..... 2 [ ][ ] **OSWA** MWA ..... 3 [ ][ ] PA KONNEN 9 9 8	
976	Pandan dènye maladi a èske li te jgen san nan pise li?	WI ..... 1 NON ..... 2 → 978 PA KONNEN ..... 8 → 978	
977	Depi konbyen tan li te gen san nan pise?	JOU ..... 1 [ ][ ] **OSWA** SEMÈN ..... 2 [ ][ ] **OSWA** MWA ..... 3 [ ][ ] PA KONNEN 9 9 8	

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
978	Èske te gen changman nan kantite pise li te fè chak jou?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 981 → 981
979	Depi konbyen tan te gen changman nan kantite pise li te fè chak jou?	JOU . . . . . 1 **OSWA** SEMÈN . . . . . 2 **OSWA** MWA . . . . . 3 PA KONNEN 9 9 8	
980	Èske li te pise twòp, twò piti oswa li pat pise mèm?	TWÒP . . . . . 1 TRÒ PITI . . . . . 2 OKENN PISE . . . . . 3 PA KONNEN 8	
981	Pandan maladi ki fèl mouri a, èske li te gen gratèl?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 985 → 985
982	Konbyen tan li pase ak gratèl la?	JOU . . . . . PA KONNEN 98	
983	Kote gratèl la te ye?:: 1 Su figi li? 2 Su pwatrin li? 3 Su bra ak pye li? 4 Lôt kote?	**Yes No DK** FIGI . . . . . **1 2 8** PWATRIN . . . . . **1 2 8** BRA AK PYE . . . . . **1 2 8** LÒT KOTE _____ **1 2 8** (PRESIZE)	
984	Ki sa gratèl la te sanble?	GRATÈL LAWOUJOL . . . . . 1 GRATÈL AK LIKID KLÈ . . . . . 2 GRATÈL AK PI . . . . . 3 PA KONNEN 8	
985	Èske je li te rouj?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	
986	Èske li te senyen nan: 1 Nen? 2 Bouch? 3 Twou dèyè? 4 lòt kote?	**WI Non PK** NEN . . . . . **1 2 8** BOUCH . . . . . **1 2 8** TWOU DÈYÈ . . . . . **1 2 8** LÒT KOTE _____ **1 2 8** (PRESIZE)	
987	Èske li janm gen zona/herpes zoster?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	
988A	Èske li pèdi pwa?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 989A → 989A
988B	Konbyen tan li pase ap pèdi pwa?	JOU . . . . . 1 **OSWA** SEMÈN . . . . . 2 **OSWA** MWA . . . . . 3 PA KONNEN 9 9 8	
988C	Èske li te gen lè fen epi fèb?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
989A	Èske li te gen maleng oswa tach blan nan bouch li oubyen sou lang li?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 990A → 990A
989B	Depi konbyen tan li te gen maleng oswa tach blan nan bouch li oubyen sou lang li?	JOU . . . . . [ ][ ] PA KONNEN 98	
990A	Èske li te gen kote ki gonfle?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 991A → 991A
990B	Depi konbyen tan li te gen kote ki gonfle?	JOU . . . . . 1 **OSWA** SEMÈN . . . . . 2 **OR**SWA MWA . . . . . 3 PA KONNEN 998	[ ][ ] [ ][ ] [ ][ ]
990C	Èske li te gonfle nan: 1 Figi li? 2 Atikilasyon li yo? 3 Cheviy li yo? 4 Tout kò li? 5 Lòt kote?	**Yes No DK** FIGI. . . . . **1 2 8** ATIKILASYON. . . . . **1 2 8** CHEVIY. . . . . **1 2 8** TOUT KÒ LI. . . . . **1 2 8** LÒT KOTE _____ **1 2 8** (PRESIZE)	
991A	Èske li te gen gwosè?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ → 992A 992A
991B	Depi ki lè li te gen gwosè yo?	JOU . . . . . 1 **OSWA** SEMÈN . . . . . 2 **OSWA** MWA . . . . . 3 PA KONNEN 998	[ ][ ] [ ][ ] [ ][ ]
991C	Èske anflamasyon a te: 1 Nan kou li? 2 Anba bra li? 3 Sou lenn li? 4 Lòt kote?	**Yes No DK** KOU . . . . . **1 2 8** ANBA BRA . . . . . **1 2 8** LENN . . . . . **1 2 8** LÒT KOTE _____ **1 2 8** (PRESIZE)	
992A	Èske je li te jòn?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 993A → 993A
992B	Depi konbyen tan je li te jòn?	JOU . . . . . 1 **OSWA** SEMÈN . . . . . 2 **OSWA** MWA . . . . . 3 PA KONNEN 998	[ ][ ] [ ][ ] [ ][ ]
993A	Èske li te gen lè pal (kap mègri/ki manke san) oubyen plat men li, je li oswa baz zong li te pal?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 994A → 994A

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
993B	Depi konbyan tan li te parèt pal oubyen plat men li, je li oswa baz zong li te pal?	JOU ..... 1 **OSWA** SEMÈN ..... 2 **OSWA** MWA ..... 3 PA KONNEN 9 9 8	
994A	Èske li te gen youn ilsè, youn absè oswa youn maleng sou kò li?	WI ..... 1 NON ..... 2 → 1001 PA KONNEN ..... 8 → 1001	
994B	Depi konbyen tan li te gen youn ilsè, youn absè oswa youn maleng?	JOU ..... 1 **OSWA** SEMÈN ..... 2 **OSWA** MWA ..... 3 PA KONNEN 9 9 8	
994C	Ki kote, absè a oswa maleng la te ye? **ANTOURE TOUT SA KI KONVNAB**	KOU ..... A ANBA BRA ..... B LENN ..... C FIGI .. .. D ATIKILASYON ..... E CHEVIY .... F PATI SEKS LA .. .. G TOUT KÒ LI ... . H LÒT KOTE _____ X (PRESIZE) PA KONNEN ..... Y	

SEKSYON 10. TRÈTMAN AK SÈVIS SANTE ITILIZE POU DÈNYE MALADI A

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
1000	At the place where she received care, were any medical tests or monitoring performed, such as…..? **READ EACH RESPONSE OPTION CIRCLE THE CORRECT RESPONSE**	**YES NO DK** BLOOD TESTS. . . . . 1 2 8 URINE TESTS. . . . . 1 2 8 XRAY . . . . . 1 2 8 ULTRASOUND. . . . . 1 2 8 OTHER _____ 1 2 8	
1001	Èske li te resevwa trètman pou maladi a oswa pou pwoblèm sante ki te lakòz lanmò a?	WI . . . . . 1 NON . . . . . 2 → 1008 PA KONNEN . . . . . 8 → 1008	
1002A	Èske ou konnen ki medikaman yo te ba li pou maladi ki te lakòz lanmò a? Èske ou ka bay lis yo? **EEGZAMINE DIFERAN KLAS MEDIKAMAN YO, KOPYE NAN PRESKRIPSYON/NÒT DECHAJ SI YO DISPONIB**	_____ _____ _____	
1002B	Did she receive any of the following medications? **READ EACH RESPONSE OPTION CIRCLE THE CORRECT RESPONSE**	YES NO DK ANTIBIOTICS . . . . . 1 2 8 PAIN MEDICATIONS. . . . . 1 2 8 MEDICINE TO STOP BLEEDING. . . . . 1 2 8 HOME REMEDY/HERBS. . . . . 1 2 8 OTHER _____. 1 2 8	
1003	Ki lòt trètman li te resevwa: 1 Sèl reidratasyon oral (SRO) e/oswa trètman likid nan venn (goutagout)? 2 Transfizyon san? 3 Trètman/mange nan youn tib ki pase nan nen li? 4. Oxygen 5 Lòt trètman?	**YES NO DK** TRÈT MAN ORS/DRIP . . . . . 1 2 8 TRANSFIZYON SAN . . . . . 1 2 8 NAN NEN . . . . . 1 2 8 Oxigen . . . . . 1 2 8 LÒT _____ 1 2 8 (PRESIZE)	
1004	Silvouple di mwen nan kilès nan kote/sant sa yo li te resevwa trètman pandan li te gen maladi ki te lakòz lanmò li? 1 Lakay? 2 Swayen tradisyonèl? 3 Sant sante gouvènman? 4 Lopital gouvènman? 5 Klinik prive? 6 Lopital prive? 7 Fanmasi, kote ki vann renmèd, magazen? 8 Nenpòt ki lòt kote oubyen sant?	**YES NO DK** LAKAY . . . . . 1 2 8 SWAYEN TRADISYONÈL . . . . . 1 2 8 SANT SANTE GOUVÈNMAN . . . 1 2 8 LOPITAL GOUVÈNMAN . . . . . 1 2 8 KLINIK PRIVE . . . . . 1 2 8 LOPITAL PRIVE . . . . . 1 2 8 FANMASI, KOTE KI VANN RENMÈD, MAGAZEN . . . . . 1 2 8 LÒT _____ 1 2 8 (PRESIZE)	
1005	Nan mwa anvan li mouri a, konbyen kontak li te genyen ak sèvis sante fòmèl yo?	KONBYEN KONTAK . . . . . ☐☐ PA KONNEN 9 8	
1006	Èske youn travayè nan swen sante te di ou oswa te di nimpòt ki moun lakòz lanmò a?	WI . . . . . 1 NON . . . . . 2 PA KONNEN . . . . . 8 → 1008	
1007	Kisa travayè nan swen sante a te di?	_____ _____ _____	

1008	Èske yo te opere li pou tèt maladi a?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 1101 → 1101
1009	Konbyen tan anvan li mouri èske yo te opere li?	JOU ..... 1 **OSWA** SEMÈN ..... 2 PA KONNEN 9 9 8	
1010	Nan ki pati nan kò li yo te opere li?	VANT ..... 1 PWATRIN ..... 2 TÈT ..... 3 LÒT _____ 6 (PRESIZE) PA KONNEN 8	
	ALE NAN SEKSYON 11: AKSÈ NAN SWEN		

SEKSYON 11: AKSÈ NAN SWEN

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
	LI: "Kounye a mwen vle pozew kesyon sou tout pwoblèm [NON FANM NAN KI MOURI] te genyen, ki ka te lakòz reta nan **chèche e/oswa resevwa swen sante** pou maladi, pwoblèm sante oswa blesi **ki provoke lanmò li**".		
1101	Èske ke ou konnen si youn moun te okouran li te bezwen asistans medical anvan li mouri? **Si akouchaman te complike : Seyen, fyèv, tranbleman nan tout ko'l IF A LABOR COMPLICATION (EG. BLEEDING, FEVER, CONVULSIONS…) IS MENTIONED ANSWER "YES"**	WI ..... 1 NON ..... 2 NO, SHE WAS ALREADY DEAD OR DIED SUDDENLY/ NO AWARENESS OF PROBLEM ..... 3 NO, SHE WAS BELIEVED TO BE IN LABOR ..... 4 DON'T KNOW 8	→ 1103 → 1201 → 1104 → 1103
1102	Konbyen tan anvan li mouri èske yo te rekonèt maladi li, pwoblèm sante li oswa blesi li, injury or labor complication **SI MWENS KE 1 LÈ, INSKRI "00" POU LÈ A**	LÈ **OSWA** ..... 1 [ ][ ] JOU **OSWA** ..... 2 [ ][ ] SEMÈN **OSWA** ..... 3 [ ][ ] MWA ..... 4 [ ][ ] PA KONNEN 998	
1103	Èske youn moun te kwè ke pwoblèm sante li (oswa blesi li) te youn menas pou vi li, te serye anpil, enpe serye, pat serye? Was the illness, injury or complication life-threatening, very serious, a little serious,not serious?	KI MENASE LA VI A ..... 1 SERYE ANPIL ..... 2 ENPE SERYE ..... 3 PAT SERYE ..... 4 PA KONNEN 8	
1104	Èske li mèm (oubyen youn lòt moun pou li) te chèche swen sante anvan li mouri?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 1106
1105	Pou ki rezon li mèm (oubyen youn lòt moun pou li) **PA chèche swen sante anvan li mouri?** **ANTOURE "LÈT" KI KONVNAB POU CHAK REZON KI BAY POU EKSPLIKE POUKISA YO PA CHÈCHE SWEN SANTE ANVAN LI MOURI**		

	ANTOURE REPONS YO		ANTOURE REPONS YO
A LI MOURI SOUDÈNMAN	A	**L** PAT GEN TRANSPÒ	L
B LI PAT WÈ KE LI TE TÈLMAN MALAD/BLESE	B	**M** TRANSPÒ TE TWÒ CHÈ/PAT GEN LAJAN	M
C FANMI LI PAT WÈ KE LI TE TÈLMAN MALAD/BLESE	C	**N** TRANSPÒ PAT VLE MENNEN LI NAN SANT LA	N
D LI PANSE LI PAT BEZWEN SWEN SANTE	D	**O** PAT GEN LAJAN POU PEYE SWEN SANTE	O
E LI PANSE SETE YOUN PWOBLÈM NORMAL/TEMPORÈ	E	**P** SWEN SANTE YO TE TWÒ LWEN OUBYEN INAKSESIB	P
F YO PAT KA DESIDE KOTE POU YO ALE	F	**Q** SÈVIS SWEN SANTE YO PAT DISPONIB	Q
G LI TE MINWI/BONÈ NAN MATEN	G	**R** PWOBLÈM AK EKIP SANT SANTE A	R
H LI PAT GEN PÈSONN POU OKIPE PITIT LI YO	H	**S** LI REFIZE CHÈCHE SWEN SANTE	S
I LI PAT GEN PÈSONN POU ALE AVÈK LI	I	**T** MANB FANMI A AMPECHE LI CHÈCHE SWEN	T
J LI PAT GEN KONFYANS LI TAP JWEN SWEN KONVNAB	J	**U** LI PAT KAPAB KOMINIKE POU MANDE ASISTANS	U
K LI TE PÈ YO TAP KAPAB DEKOUVRI KE LI TE PROVOKE YOUN AVÒTMAN	K	**V** LÒT _____ (PRESIZE)	V

→ 1201

ALE NAN 1201

SEKSYON 11: AKSÈ NAN SWEN

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
1106	Ki moun enpòtan te ede li deside pou li chèche swen sante anvan li mouri?	LIMÈM . . . . . 0 MARI/PATNÈ . . . . . 1 MANMAN LI . . . . . 2 SÈ LI . . . . . 3 LÒT PARAN _____ .4 (PRESIZE) VWAZEN/ZANMI . . . . . 5 MANB VHT . . . . . 6 LÒT _____ 7 (PRESIZE) PA KONNEN 8	
1107	Konbyen tan pase ant moman **li santi li malad oswa li blese [oubyen travay la kòmanse, si li te ansent]** e moman yo deside chèche swen sante?	LÈ . . . . . 1 ☐☐ **OSWA** JOU . . . . . .2 ☐☐ **OSWA** SEMÈN . . . . . 3 ☐☐ PA KONNEN 998	
1108	Apre **yo pran desizyon** chéche swen sante pou tèt pwoblèm sante ki lakòz lanmò a, èske li te rive nan sant swen sante a?	WI . . . . . 1 → 1111 NON . . . . . 2 PA KONNEN . . . . . 8 → 1201	
1109	Why did she not receive care…….? Ppukisa li pat recevwa swen?	SHE DIED ON HER WAY TO GET HEALTH CARE. Fanm nan mouri sou wout padan'l pran swen . . . . . 1 SHE DIED WHILE WAITING FOR HOME OR AMBULANCE CARE TO REACH HER. . . Lakay li padan lap tan anbilans vin chache'l 2 SHE DIED WHILE WAITING TO RECEIVE HEALTH CARE AT FACILITY . Li mouri nan sant la padan lap tan swen. . . 3	→ 1201
1110	**IF SHE DIED ON HER WAY TO GET HEALTH CARE, ASK "**How long had she been on her way to get health care when she died?" **IF SHE DIED WHILE WAITING FOR HOME OR AMBULANCE CARE TO REACH HER, ASK "**How long had she been waiting For home or ambulance care to reach her when she died?" ***SEE BELOW FILTER*** **ELSE IF SHE DIED WHILE WAITING TO RECEIVE HEALTH CARE AT FACILITY, ASK "**How long had she been waiting to receive health care at facility when she died?"	MINIT . . . . . 1 ☐☐ **OSWA** LÈ . . . . . 2 ☐☐ Oswa JOU .....3 ☐☐ PA KONNEN 998	
	IF SHE DIED WHILE WAITING FOR HOME OR AMBULANCE CARE TO REACH HER GO TO 1201, ELSE CONTINUE		

	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
1111	Kote li te chèche epi/oswa li te resevwa swen sante pou dènye fwa?	SWAYEN TRADISYONÈL . . . . . 01 SANT SANTE . . . . . 02 KLINIK GOUVÈNMAN . . . . . 03 LOPITAL GOUVÈNMAN . . . . . 04 SANT PRIVE . . . . . 05 SANT RELIGYE . . . . . 06 FANMASI, KOTE YO VANN RENMÈD . . . . . 07 LÒT _____ 08 PA KONNEN 88	
1112	Èske li te gen pwoblèm rive kote li te resevwa swen ak trètman?	WI . . . . . 1 NON . . . . . 2 → 1114 PA KONNEN . . . . . 8 → 1114	
1113	Ki prensipal rezon ki fè ke li te gen pwoblèm rive kote a?	PAT GEN TRANSPÒ . . . . . 1 ROUT YO MOVE OSWA PA GENYENN MÊM . . . . . 2 KOTE A LWEN . . . . . 3 TRANSPÒ A TEWÒ CHÈ . . . . . 4 PA GEN KOMINIKASYON POU TRANSPÒ . . . . . 5 LÒT 7 PA KONNEN 8	
1114	Ki transpò li mèm ak fanmi li te itilize pou yo ale **[NON KOTE A]**?	LI MACHE . . . . . 0 YO POTE LI . . . . . 1 KABWET/CHWAL/BOURIK . . . . . 2 BUS PIBLIK/MINIBUS. . . . . 3 TAXI/MACHIN LWE . . . . . 4 MACHIN/KAMYON (KI PAL) . . . . . 5 AMBILANS . . . . . 6 MOTOSIKLET E-RANGERS. . . . . 7 LÒT 8 PA KONNEN 9	
1115	O total konbyen tan transpò li te pran pou li rive kote yo bay swen sante?.	MINIT . . . . . 1 **OSWA** LÈ . . . . . 2 **OSWA** JOU . . . . . 3 PA KONNEN 998	
1116	Was she alive or dead when she reached the facility?	ALIVE . . . . . 1 ALREADY DIED . . . . . 2 → 1201 DON'T KNOW . . . . . 8 → 1201	
1117	What was her condition when she arrived at that place? **READ EACH RESPONSE OPTION CIRCLE THE CORRECT RESPONSE**	YES NO UNCONSIOUS . . . . . 1 2 BLEEDING . . . . . 1 2 LETHARGIC. . . . . 1 2 IRREGULAR PULSE. . . . . 1 2 DIFFICULTY BREATHING . . . . . 1 2 VERY PALE. . . . . 1 2 FEVERISH . . . . . 1 2 IN PAIN. . . . . 1 2 CONVULSIONS. . . . . 1 2 OTHER_____ 1 2 DON'T KNOW 998	

1118	Did she have difficulties receiving treatment at any place she sought health care before she died?	WI . . . . . 1 NON . . . . . 2 PA KONNEN 8	→ 1120

	ESYON AK TRIYAJ	KATEGORI KODAJ	KITE
1119	Ki difikilte li te genyen lè li tap chèche swen sante? **ANTOURE "1" POU CHAK DIFIKILTE LI TE GENYEN LÈ LI TAP CHÈCHE SWEN SANTE**	WI NON RETA POU YO WÈ LI . . . . . 1 2 EKIP KI PA KALIFYE . . . . . 1 2 MANK EKIPMAN. . . . . 1 2 MANK FOUNITI . . . . . 1 2 YO TRETE LI MAL . . . . . 1 2 YO REFIZE TRETE LI . . . . . 1 2 PAT GEN ELECTRISITE . . . . . 1 2 YO VOYE LI OUN LÒT KOTE . . . . . 1 2 LÒT 1 2 (PRESIZE) PA KONNEN . . . . . 1 2 LI MOURI SAN SWEN 1 2	
1120	Konbyen tan pase ant moman li rive nan sant la e moman li resevwa trètman an?	MINIT . . . . . 1 ☐☐ **OSWA** LÈ . . . . . 2 ☐☐ **OSWA** LI RESEVWA OKENN SWEN . . . . . 777 PA KONNEN 998	
1121	Konbyen tan li pase la (total) anvan lale oswa anvan li mouri?	LÈ . . . . . 1 ☐☐ **OSWA** JOU . . . . . 2 ☐☐ **OSWA** SEMÈN . . . . . 3 ☐☐ PA KONNEN 998	
1122	Èske li mourilòt bò a oubyen li te ale anvan li mouri?	LALE ANVAN LI MOURI . . . . . 1 LI MOURI LÒT BÒ A . . . . . 2 1201 PA KONNEN 8 1201	
1123	Poukisa lale? **INSKRI PRENSIPAL REZON POUKISA LALE**	LI TE TRANSFERE . . . . . 1 YO REFERE LI . . . . . 2 TRAVAYÈ SANTE A DECHAJE LI . . . . . 3 YO KITE LI POU KONT LI . . . . . 4 FANMI LI MENNEN LI LAKAY. . . . . 5 LÒT 7 (PRESIZE) PA KONNEN 8	
1124	Where was she referred or transferred to?	HOSPITAL. . . . . 1 HEALTH CENTER. . . . . 2 PRIVATE CLINIC . . . . . 3 DRUG SHOP. . . . . 4 TRADITIONAL HEALER . . . . . 5 OTHER_____ 6 (SPECIFY) DON'T KNOW. 8	

1125	What was the reason for referral?	LACK OF EQUIPMENT. . . . . 1 FOR BETTER CARE . . . . . 2 LACK OF BLOOD . . . . . 3 LACK OF DRUGS . . . . . 4 LACK OF OXYGEN. . . . . 5 OTHER_____ 6 (SPECIFY) DON'T KNOW. 8	
1126	Did the woman reach the place where she was referred/transferred?	YES . . . . . 1 NO . . . . . 2 → 1128 DON'T KNOW . . . . . 8 → 1128	
1127	What means of transport were used to get the women to the place of referral/transfer?	YES NO DK PRIVATE CAR . . . . . 1 2 8 BICYCLE. . . . . 1 2 8 MOTORCYCLE. . . . . 1 2 8 TAXI. . . . . 1 2 8 ON FOOT. . . . . 1 2 8 OTHER _____ . . . . . 1 2 8 (SPECIFY) DON'T KNOW. 998	
1128	Why did the woman not reach the place of referral/transfer	SHE DIED BEFORE REACHING. . . . . 1 FAMILY THOUGHT IT WAS NOT NECESSARY. . . . . 2 FAMILY HOPED/WAITED FOR IMPROVEMENT. . . . . 3 LACK OF MONEY. . . . . 4 LACK OF TRANSPORT. . . . . 5 OTHER_____ 6 (SPECIFY) DON'T KNOW. 8	
	ALE NAN SEKSYON 12: FAKTÈ RISK		

SEKSYON 12. FAKTÈ RISK

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
1201	Èske li te bwè alkòl?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 1206 → 1206
1202	Depi konbyen tan li te bwè alkòl? **INSKRI '00' SI SE MWENS KE YOUN LANE**	LANE ..... ☐☐ PA KONNEN 9 8	
1203	Ki jan li te konn bwè alkòl?	CHAK JOU ..... 1 SOUVAN (CHAK SEMÈN) ..... 2 TANZANTAN ..... 3 PA KONNEN 8	
1204	Èske li te sispan bwè alkol?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 1206 → 1206
1205	Konbyen tan anvan li mouri èske li te sispan bwè? **INSKRI '00' SI SE MWENS KE YOUN MWA**	MWA ..... ☐☐ PA KONNEN 9 8	
1206	Èske li te fimen tabak (sigarèt, cigar, pip, etc.)?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 1212A → 1212A
1207	Depi konbyen tan li te konn fimen? **INSKRI '00' SI SE MWENS KE YOUN LANE**	LANE ..... ☐☐ PA KONNEN 9 8	
1208	Ki jan li te konn fimen?	CHAK JOU ..... 1 SOUVAN (CHAK SEMÈN) ..... 2 TANZANTAN ..... 3 PA KONNEN 8	→ 1212A → 1212A → 1212A
1209	Konbyen fwa li te fimen chak jou?	KONBYEN FWA ..... ☐☐ PA KONNEN 9 8	
1210	Èske li te sispan fimen anvan li mouri?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 1212A → 1212A
1211	Konbyen tan anvan li mouri èske li te sispan fimen? **INSKRI '00' SI SE MWENS KE YOUN MWA**	MWA ..... ☐☐ PA KONNEN 9 8	
1212A	**EGZAMINE Q804 AK Q814.** **ÈSKE LI TE JANM ANSENT?**	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 1213 → 1213
1212C	Èske ou konnen si_____te itilize fèy peyi pandan gwosès li oswa jiskaske li mouri?	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 1212E → 1212E
1212D	Kilè li kòmanse itilize fèy peyi yo premye fwa a? (pou tèt dènye gwosès sa a)	Pandan gwosès la men anvan travay la. ..... 1 Lè travay la kòmanse ..... 2 Apre akouchman an ..... 3 PA KONNEN 8	
1212E	Pandan gwosès la èske li te pran o mwen 2 doz Fansidar pou prevni (IPT) malarya ?	WI ..... 1 NON ..... 2 PA KONNEN 8	
1213	Èske fanm ki mouri a te dòmi souvan anba youn moustikè pandan twa mwa anvan li mouri	WI ..... 1 NON ..... 2 PA KONNEN 8	→ 1301 → 1301
1214	Èske moustikè a te trete pou prevni malarya (ITNs)?	WI ..... 1 NON ..... 2 PA KONNEN 8	

SEKSYON 13. DONE KI SÒT NAN SÈTIFIKA LANMÒ

NO.	KESYON AK TRIYAJ	KATEGORI KODAJ	KITE
1301	Èske ou gen youn sètifika lanmò pou moun ki mouri a?	WI ..... 1 NON ..... 2 PA KONNEN 8	1401
1302	Èske mwen ka wè sètifika lanmò a? **KOPYE JOU, MWA AK LANE LANMÒ A NAN SÈTIFIKA LANMÒ.**	**JOU** **MWA** **ANE** ☐☐ ☐☐ ☐☐☐☐	
1303	**KOPYE JOU, MWA AK LANE YO TE DELIVRE SÈTIFIKA LANMÒ A.**	**JOU** **MWA** **ANE** ☐☐ ☐☐ ☐☐☐☐	
1304	INSKRI REZON LANMÒ A KI EKRI NAN PREMYE LIY SÈTIFIKA LANMÒ A: _____		
1305	INSKRI REZON LANMÒ A KI EKRI NAN DEZYÈM LIY SÈTIFIKA LANMÒ A (SI GENYEN) _____		
1306	INSKRI REZON LANMÒ A KI EKRI NAN TWAZYÈM LIY SÈTIFIKA LANMÒ A (SI GENYEN) _____		
1307	INSKRI REZON LANMÒ A KI EKRI NAN KATRYÈM LIY SÈTIFIKA LANMÒ A (SI GENYEN) _____		

SEKSION 14. DONE KI SÒTI NAN LÒT DOSYE MEDIKAL			
1401	LÒT DOSYE MEDIKAL KI DISPONIB	WI ..... 1 NON 2	1411
1402	POU CHAK KALITE DOSYE MEDIKAL, REZIME DETAY YO POU DÈNYE 2 VIZIT YO (SI YO PLIS KE 2) EPI INSKRI DAT YO TE DELIVRE LI.		
1403	SÈTIFIKA LANMÒ _____		
1404	REZILTA POST MORTEM (REZON LANMÒ A) _____		
1405	KAT MCH/ANC E PASPÒ MANMAN AN (INFÒMASYON IMPÒTAN) _____		
1406	HOSPITAL PRESCRIPTION / MEDICINE PACKAGES OR BOTTLES (INFÒMASYON IMPÒTAN) _____		
1407	KAT TRÈTMAN (INFÒMASYON IMPÒTAN) _____		
1408	LOPITAL KITE LI SÒTI (INFÒMASYON IMPÒTAN) _____		
1409	REZILTA LABORATWA (INFÒMASYON IMPÒTAN) _____		
1410	LÒT DOKIMAN LOPITAL PRESIZE: _____		
1411	INSKRI LÈ A APRE OU FINN POZE TOUT KESYON YO	LÈ ..... MINIT	

SILCOUPLE, MOUN KAP POZE KESYON YO- DI MOUN KAP REPONN KESYON YO MÈSI:

"Mèsi pou tèt ou te patisipe nan aktivite sa a. Infòmasyon sa a pral ede nou planifye sèvis sante nan kominote sila a".

OBSÈVASYON MIOUN KAP POZE KESYON YO

RANPLI LÈ TOUT KESYON YO FINN POZE

FÈ REMAK SOU KESYON PATIKILYE:

LÒT REMAK:

REMAK RÈSPONSAB LA

NON EDITÈ TEREN A / RÈSPONSAB 1: _____ DAT: _____

NON EDITÈ BIWO A RÈSPONSAB 2: _____ DAT: _____

NON KOMI / PÈSONÈL KAP INSKRI DONE YO: _____ DAT: _____

Department 2 (D-2): Verbal Autopsy Summary Sheet

Coder's initials: _____ VA Serial No:_____

Age	Sex	Summary of symptoms	Underlying cause of death	Time Interval between onset and death	Contributory factors or co morbidities	Time Interval between onset and death	Immediate Final Cause of death	Time Interval between onset and death

Comments:

……..……

……..……

	Cause of death	**Approximate interval between onset and death**
I Disease or condition directly leading to death*	(a) Cerebro-vascular accident due to (or as a consequence of)	……unknown…
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(b) Myocardial infarction due to (or as a consequence of)	……unknown…
	(c) Diabetes mellitus due to (or as a consequence of)	……unknown…
	(d)……	……..
II Other significant conditions contributing to the death, but not related to the disease or condition causing it	……NIL……. ……..	…….. ……..
** This does not mean the mode of dying e.g. heart failure, respiratory failure. It means the disease, injury, or complication that caused death.*		

Department 4 (D-4). Summary Form - Department to National		
1. Date:	**2. Reporting period:**	**3. Number of deaths:**
4. Facility	**5. Main causes of death:**	**6. Recommendations**
7. Prepared by (name):		Signature:
Date:		

1. Facility:			Number of confirmed maternal deaths:						# of deaths from direct causes:					
									# of deaths from indirect causes:					

11. Synopsis of events leading to death (check all that apply below):

# with pre-existing condition	# of pregnancies planned	# using birth control (see 11a)	# received appropriate and timely ANC	# whose complications were treated	# that compled with medical advice? (See 11b)	# whose labor was monitored	# whose labor was prolonged	# that received timely care for complications	# that had SBA present or delivered in a facility	# transferred before/after/during labor? (See 11c)	# that were resuscitated, if necessary	# appropriately care for in post-natal period	# that needed a transfer after delivery (see 11d)	# that received received timely care after becoming ill

11a. Reasons women were not using birth control:

11b. Reasons that women with complications did not comply with medical advice:

11c. Reasons that a transfer was needed during pregnancy or delivery:

11d. Reasons transfer was needed after delivery:

12. Main causes of death:

13. # of deaths considered to be avoidable

14. What factors could have been changed to decrease the overall risk of death?

15. Recommendations to reduce deaths from similar causes or circumstances:

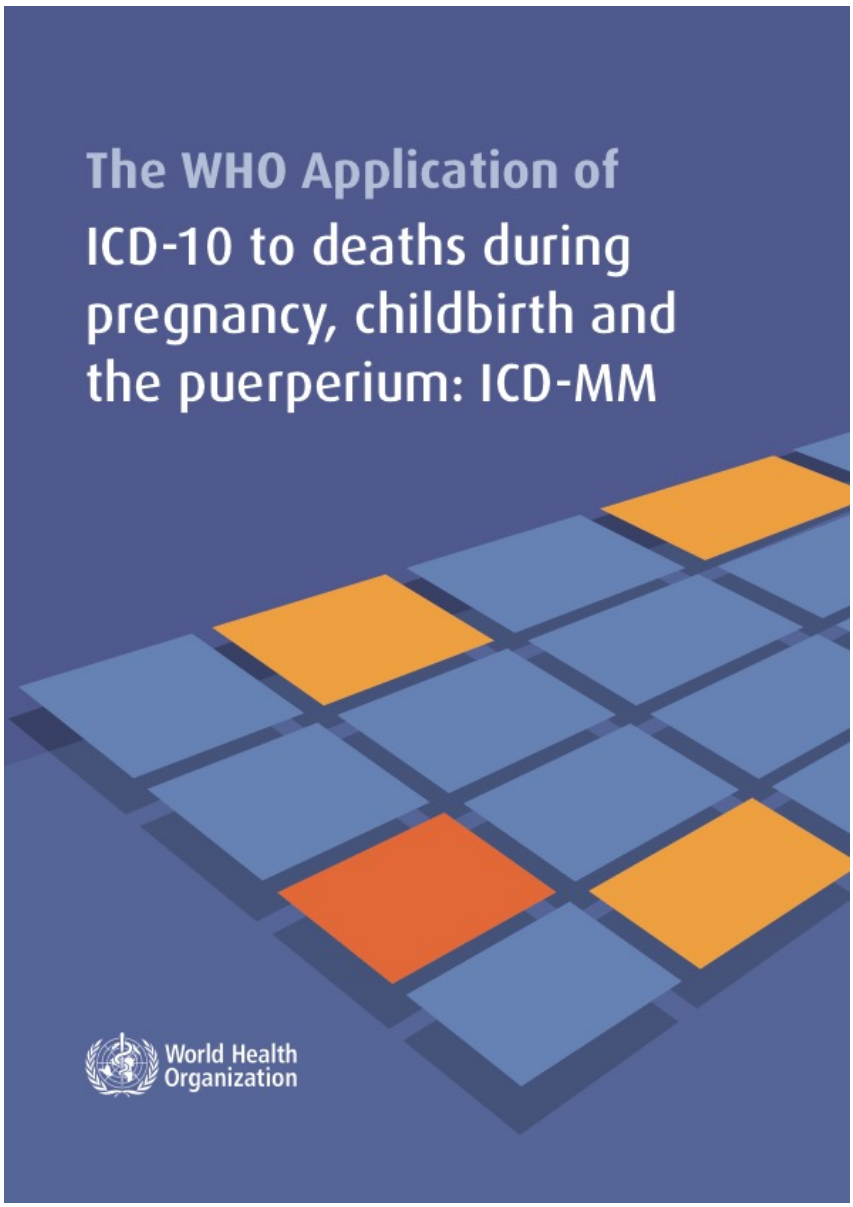
Department 4 (D-4): Monitoring and Evaluation

	PHASED IMPLEMENTATION				
COMPONENT	Situation Analysis	Year 1	Year 2	Year 3	Proposed Final Targets
IDENTIFICATION AND NOTIFICATION					
Guidelines to enhance detection					Yes
– Guidelines define information channels and flow					Yes
Facility:					
All maternal deaths are notified					Yes
% within 24 hours					>90%
Community:					
All maternal deaths are notified					Yes
% within 24 hours					>90%
% of communities with “zero reporting monthly”					100%
Electronic devices are used to get faster and more complete notification from communities					Yes
Review					
Health facility					
% of hospitals with a review committee					100%
% of health facility maternal deaths reviewed					100%
% reviews that include recommendations					100%
Community					
% of verbal autopsies conducted for suspected maternal deaths					>90%
% of notified maternal deaths that are reviewed by district					>90%
DATA QUALITY					
Guidelines on Cause of Death (COD) exist					Yes
– Guidelines use ICD10 coding					Yes
Completeness of data collection					Yes
Cross check data from facility and community on same maternal death					5% of deaths cross-checked
Sample of WRA deaths checked to ensure they are correctly identified as not maternal					1% of deaths
ANALYSIS					
Analysis plan developed					Yes
Calculate hospital maternal mortality ratio (usually for high volume deliveries)					Yes
Calculate hospital case fatality rates (may be done at facility level or district level)					Yes
Analysis provides data for action for all stakeholders					Yes
RESPONSE					
Plan for response developed					Yes
Facility					
% of committee recommendations that are implemented					>80%
– quality of care recommendations					>80%
– other recommendations					>80%
REPORTS					
National Committee produces annual report					Yes
– Annual report available publically					Yes
REVIEW OF THE SYSTEM					
The maternal death surveillance and response system is reviewed annually in terms of completeness of surveillance and quality of careaquality of the response, including					Yes
QUALITY OF CARE					
Quality of care assessments are conducted in a sample of maternity facilities on a					Yes
– Indicators are used to measure quality of care					Yes

National 1 (N-1): Monitoring and Evaluation

	PHASED IMPLEMENTATION				
COMPONENT	Situation Analysis	Year 1	Year 2	Year 3	Proposed Final Targets
OVERALL SYSTEM INDICATORS					
MDSR policy in place					Yes
Maternal death is a notifiable event (24 hours) / national policy requires notification					Yes
MDSR guidelines, standards developed or updated, and implemented					Yes
Financial resources available					Yes
National maternal mortality report published annually					Yes
Designated lead person responsible for MDSR identified at all levels					Yes
National maternal death review committee meets regularly					Yes
– multi-disciplinary representation					Yes
% of districts with maternal death review committees					100%
% of districts with someone responsible for MDSR					100%
IDENTIFICATION AND NOTIFICATION					
Guidelines to enhance detection					Yes
– Guidelines define information channels and flow					Yes
District					
% of expected maternal deaths that are notified					>90%
Electronic devices are used to get faster and more complete notification from communities					Yes
Review					
District					
District maternal mortality review committee exists					Yes
– and meets regularly to review facility and community deaths					At least quarterly
– % of reviews that included community participation and feedback					100%
Electronic devices are used to get faster and more complete notification from communities					Yes
DATA QUALITY					
Guidelines on Cause of Death (COD) exist					Yes
– Guidelines use ICD10 coding					Yes
ANALYSIS					
Analysis plan developed					Yes
Analysis can produce district maternal mortality ratios					Yes
Analysis provides data for action for all stakeholders					Yes
RESPONSE					
Plan for response developed					Yes
District					
% of committee recommendations that are Implemented					>80%
REPORTS					
National Committee produces annual report					Yes
– Annual report available publically					Yes
District committee produces annual report					Yes
– Discusses with key stakeholders including communities					Yes
REVIEW OF THE SYSTEM					
The maternal death surveillance and response system is reviewed annually in terms of completeness of surveillance and quality of careaquality of the response, including					Yes

Appendix 2: ICD - 10 Maternal Death Codes (double-click image to open PDF)



Appendix 3: Suggested Text for Review Committee Non-Disclosure Agreement

We, the members of the [INSERT COMMUNITY/FACILITY/DEPARTMENT NAME] review committee, agree to maintain anonymity and confidentiality for all the cases discussed at this meeting, held on (DATE).

We pledge not to talk to anyone outside this meeting about details of the events analyzed here, and will not disclose the names of any individuals involved, including family members or health care providers.

Signature*:

_____ _____

[INSERT NAME] Date

Signature:

_____ _____

[INSERT NAME] Date

Signature:

_____ _____

[INSERT NAME] Date

*Add more signature lines as needed

Appendix 4: Suggested TOC for annual/quarterly MDSR report (WHO, 2013 [Box 8.1])

1. Background of area covered by review
2. Characteristics of women of reproductive age in area
3. Characteristics of births in area (number, live or stillborn (fresh vs. macerated), birth weight, gestational age)
4. Maternal deaths by area of residence, mother's age, place of death (home or facility), ethnicity (MMR for each if possible)
5. Proportion of maternal deaths by medical cause of death
6. Case fatality rate (for facility deaths)
7. Contributing factors (quality of care, nonmedical) and their frequencies
8. Avoidability of maternal deaths
9. Recommendations for preventing future deaths
10. Review of recommendations from previous year and lessons learned (including implementation challenges)

Figure 1: MDSR Activity Guide / Reporting Flow Chart