VERBAL AUTOPSY INTERVIEWER'S MANUAL

SAVWY

Sample Vital Registration with Verbal Autopsy



MEASURE Evaluation
U.S. Census Bureau

Verbal Autopsy Interviewer's Manual

SAVVY

Sample Vital Registration with Verbal Autopsy







USCENSUSBUREAU

Helping You Make Informed Decisions







This manual was made possible by support from the U.S. Agency for International Development (USAID) under the terms of Cooperative Agreement GPO-A-00-03-00003-00 and from the Office of the Global AIDS Coordinator (OGAC). The opinions expressed are those of the authors and do not necessarily reflect the views of USAID, OGAC, or the United States government.

August 2007 MS-07-26-VAI



ACKNOWLEDGEMENTS

This manual is one of a series of instructional guides for the Sample Vital Registration with Verbal Autopsy (SAVVY) system prepared by the MEASURE Evaluation project, based at the University of North Carolina at Chapel Hill, NC, USA, and the International Programs Center, Population Division, U.S. Census Bureau, Washington, DC, USA.

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The authors wish to express appreciation for review and comment by numerous colleagues, including Chalapati Rao of the University of Queensland School of Population Health, Kenji Shibuya of the World Health Organization, and Luong Y Nguyen of MEASURE Evaluation. Copy editing and layout were handled by Nash Herndon and Samhita Brown of MEASURE Evaluation.

Cover

The cover shows a wood carving by Colombian artist Juan de la Cruz Saavedra from a photograph by Alex Treml of Durham, NC, USA, and is reproduced with permission from Family Health International of Research Triangle Park, NC, USA.

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LIST OF ACRONYMS

AA assignment area

AIDS acquired immunodeficiency syndrome

ANC antenatal care

CSC census supervisor coordinator

CSPro Census and Survey Processing System (software)

DSS demographic surveillance system HIV human immunodeficiency virus

ICD, ICD-10 International Statistical Classification of Diseases

and Related Health Problems, second edition, 10th revision

ID identificationKI key informant

MCH maternal-child health

MSS mortality surveillance system

OJT on-the-job training
QA quality assurance
SA supervisory area

SAVVY Sample Vital Registration with Verbal Autopsy

SBS SAVVY budget spreadsheet

TB tuberculosis

TBA traditional birth attendant

TT tetanus toxoid

USAID U.S. Agency for International Development

VA verbal autopsy

VAI verbal autopsy interviewer
WHO World Health Organization

SAVVY MANUAL SERIES

This series of SAVVY mortality surveillance system manuals, guides, and other documents is available at the MEASURE Evaluation Web site at:

http://www.cpc.unc.edu/measure/leadership/savvy.html

Sample Vital Registration with Verbal Autopsy (SAVVY): An Overview

Central office manuals:

Data Processing Manager's Manual, including SAVVY Data System software

SAVVY Budget Manual, including SAVVY Budget Template software Verbal Autopsy Certifier and Coder's Manual

Field office manuals:

Field Office Manager's Manual
Census Interviewer's Manual
Census Supervisor Coordinator's Manual
Census Supervisor's Manual
Census Update Interviewer's Manual
Key Informant's Manual
Verbal Autopsy Interviewer's Manual
Verbal Autopsy Supervisor's Manual

Training guides and materials:

Census Interviewer Training Guide
Census Interviewer's Workbook
Census Supervisor Training Guide
Census Update Interviewer Training Guide
Census Update Interviewer's Workbook
Key Informant Training Guide
Verbal Autopsy Interviewer Training Guide
Verbal Autopsy Supervisor Training Guide

SAVVY methods for verbal autopsy (including forms, certification, and cause of death assignment and coding) have been developed in collaboration with the World Health Organization (WHO). The WHO publication *Verbal Autopsy Standards: Ascertaining and Attributing Cause of Death* is an essential resource for the application of SAVVY methods.

SAVVY stands for "SAmple Vital registration with Verbal autopsY." SAVVY is a library of best practice methods for improving the quality of vital statistics where high coverage of civil registration and/or good cause of death data are not available. SAVVY is not a substitute for universal civil registration. Its components can, however, fill short- to medium-term needs for critical information on births, deaths, and cause of death at the population level.

SAVVY can be implemented in many ways. It is not always necessary to implement SAVVY as a complete system. There are many circumstances in which various SAVVY methods might be effectively implemented. One option is to adapt specific modules and manuals in order to attain rapid cause-specific mortality estimates as part of a stand-alone data collection exercise, such as a survey. Another potential use of SAVVY methodologies is to augment existing facility-based or administrative data sources. SAVVY methods are integrated into the Health Metrics Network's vision of "stepping stones" to better vital events monitoring, and are entirely harmonized to the World Health Organization (WHO) International Classification of Diseases (ICD).

The remainder of this chapter will describe the structure of a complete SAVVY system, as part of a long-term strategy to attain universal vital registration and the proper medical certification of deaths. When implemented as a complete system, SAVVY can serve to provide nationally representative information about levels and causes of death, as well as generate many other socio-demographic indicators.

SAVVY includes resources to implement the following:

- Demographic surveillance system (DSS) DSS is a complete and continuous enumeration of births, deaths, and migration in a geographically defined population.
- Mortality surveillance system (MSS) MSS consists of the active reporting of deaths in a geographically defined population. Verbal autopsy (VA) interviews are used to determine

the probable causes of death.

- Death certification and ICD coding Death certification and ICD coding involves application of the tenth revision of ICD and WHO-approved procedures to certify deaths from verbal autopsy interviews and assign a probable cause of death.
- Nested surveys Nested surveys consist of focused sets of questions and are included in the census update rounds. Examples include surveys on poverty monitoring, reproductive health, health service coverage, and environmental and behavioral risk factors.

In establishing a full SAVVY system, the first step is to select and define representative sample areas. Then a complete baseline census is conducted of all households and residents in those areas. The census information on the residents of each sample area is updated annually.

Following the baseline census and continuously thereafter, a local key informant (KI) notifies a verbal autopsy interviewer (VAI) of all deaths occurring in the KI's assigned area. The VAI then conducts a verbal autopsy interview at the household where that death occurred. This information is used later to determine the most likely cause of death.

The SAVVY system field operational structure will depend on the sample selection, as well as the availability of local resources and logistical support. The diagram on page 5 provides a general outline of the field operations in a prototypical SAVVY system.

Most of the people who work to implement SAVVY are selected with community input and participation. Ensuring the success and sustainability of SAVVY, and the use of the information it generates, depends upon fostering participation and ownership from the community to the national levels.

DEMOGRAPHIC SURVEILLANCE

Demographic surveillance is designed to collect accurate demographic data for the SAVVY system. The initial step is to conduct a baseline census for the areas within the SAVVY system. During the census, information is collected on age, sex, marital status, and educational attainment for people living within the SAVVY area. Information is also collected about family structures and other socioe-conomic characteristics. Typically, interviewers who live within the

community collect the census data and the data are updated annually.

The data collected in the SAVVY censuses are used to calculate many indicators. The census data provide accurate population denominators for calculating rates (e.g., mortality rates). The census data also provide a sampling frame for supplementary surveys that are nested within the system.

Mortality surveillance is designed to produce accurate community-based information on the levels and causes of death. Mortality surveillance involves continuously and actively identifying all deaths that take place in sample areas soon after they happen. Verbal autopsy interviewers visit households where deaths have occurred and interview relatives or caregivers using the SAVVY VA forms. Once completed, these forms are used to determine probable causes of death.

The data collected by SAVVY mortality surveillance techniques are used to calculate many indicators. Among the most important are mortality by age, sex, and specific causes of death. This information can be used at many levels of the health system for planning, reporting, monitoring, evaluating, and priority setting.

The information collected through SAVVY is generally not available from any other source or on an annual basis. Complete coverage and participation by all communities and the individuals residing in sample areas is extremely important.

Verbal autopsy, or VA, is a questionnaire administered to caregivers or family members of deceased persons to elicit signs and symptoms and their durations, and other pertinent information about the decedent in the period before death. SAVVY uses international standards for verbal autopsy forms, death certification and ICD coding procedures developed in collaboration with WHO, the Health Metrics Network, and other stakeholders. Separate verbal autopsy forms are used for the following age groups:

- perinatal and neonatal mortality (death of a child under 4 weeks);
- post-neonatal child mortality (age 4 weeks to 14 years); and
- adult mortality (age 15 years and over).

All forms used to conduct these interviews include an open narrative section and a structured symptom duration checklist. There

MORTALITY
SURVEILLANCE WITH
VERBAL AUTOPSY

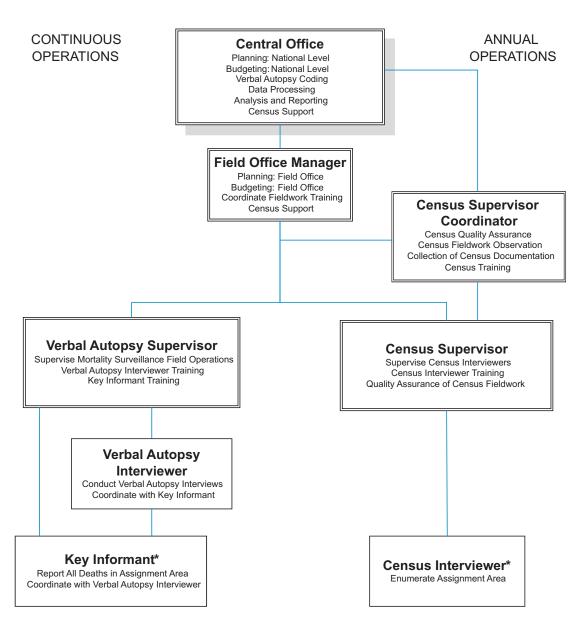
WHAT IS VERBAL AUTOPSY?

are also questions about the health and status of mothers (in the case of perinatal, neonatal, and child deaths), and questions that specifically relate to all women (15 years of age or older). Additional information is collected about previously diagnosed conditions, medications used, health services used, place of death, and behavioral and environmental risk factors. After the administration of the VA interview, a panel of physicians reviews the forms and assigns a probable cause of death using a method that conforms to international convention.

The purpose of VA is to describe the cause structure of mortality at the community or population level where no better alternative sources exist. VA is not intended to diagnose cause of death at the individual level. While VA has some serious limitations, the short-comings of the tool are known and quantifiable. These deficiencies, however, should not prevent countries requiring information on causes of death from benefiting from the use of VA when no practical alternative for obtaining these data exist.

The SAVVY Resource Kit has been completely harmonized with WHO recommended tools and procedures. It is understood that there will be a need to carry out a small degree of local adaptation to these materials in each country setting in which they are applied.

Certain applications of verbal autopsy may benefit from a shortened or condensed version of the standard WHO VA forms, for example to reduce the amount of paper required. An alternative layout, containing the same questions and content as the standard WHO VA forms, has been designed. Each of these forms fits onto 4 sides of A4 paper. These forms are available upon request.



^{*}If possible, these roles should be filled by a single individual.

ABOUT THIS MANUAL

This manual is intended to provide VAIs with a complete description of their roles and responsibilities. The manual is to be used as a training and reference guide during a VAI's course of work within their assignment areas. The manual provides guidelines for working with key informants (who report deaths that have occurred within assignment areas) and procedures to follow when conducting VA interviews with bereaved families.

This manual also serves as a reference for those who work with and supervise VAIs, including supervisors, field office managers, and physician VA reviewers/coders.

Roles and Responsibilities of the SAVVY Verbal Autopsy Interviewer

The primary role of a verbal autopsy interviewer (VAI) in the Sample Vital Registration with Verbal Autopsy (SAVVY) system is to visit the families and care-givers in order to conduct verbal autopsy interviews. As a VAI, you will be working closely with members of the community in your assigned area. In particular, you will work with a key informant who will report all deaths that occur in the area to you and help you to arrange interviews with bereaved families.

In the process of conducting verbal autopsy (VA) interviews, you will complete a VA form. As part of your work, you are responsible for informing the members of the community and the households you visit about the purpose of SAVVY and its activities, and the importance of registering births and deaths and notifying appropriate authorities when a death occurs.

In order to function effectively you will need to:

- support and encourage community participation in SAVVY activities;
- ensure that you understand the definition of a "resident" in the SAVVY system;
- help ensure that all deaths among residents are reported by the key informants;
- ensure that you understand which deaths are appropriate candidates for VA interview;
- conduct VA interviews for all deaths of residents (where permission is given);
- ensure that you have an adequate supply of materials and forms;
- assist in the training of key informants (KIs);
- keep an up-to-date log book of all deaths that have been reported to you and all VA interviews that have been conducted; and

OVERVIEW

report your progress and send your completed work to your supervisor.

OVERVIEW OF ACTIVITES AND TASKS

An overview of the tasks you will need to perform in your role as a VAI is listed below. These tasks are conducted at different time intervals. For more detailed information about how to conduct these tasks, refer to the appropriate chapters of this manual. After each SAVVY census and update round, you will:

- verify the location of the boundaries of your assigned areas, using the area map obtained from the SAVVY census; and
- review deaths reported in the census and compare with deaths reported by the KIs to ensure that all eligible deaths have been reported and a VA has been conducted.

Every three months you will:

consult community leaders to ensure that community relations with the KI are good, and address any concerns that may have arisen.

Each month you will:

- ensure that you have an adequate supply of forms and materials (to last at least three months) stored in a secure location at the district/cluster office;
- visit your assigned areas according to the agreed schedule and meet with your KI during these visits;
- visit the homes of bereaved families and conduct VA interviews with members of the bereaved families (or caretakers) on appointed dates and complete appropriate VA forms accurately;
- store completed VA forms in a locked drawer, box or cabinet; and
- report your progress and provide your completed VA forms to your supervisor.

During each field visit, you will need to:

- ensure that you have an adequate supply of forms and materials for the VA interviews you plan to conduct before you go to the field;
- obtain reports from the KIs of any deaths that have occurred in your assigned areas since your last visit;
- plan dates for visiting the bereaved families to conduct interviews; and
- conduct verbal autopsies that have been scheduled for that day.

It is ESSENTIAL that the information you obtain remains strictly CONFIDENTIAL. You are not permitted to discuss, gossip, or show your records or completed VA forms to anyone who is not an authorized officer in the SAVVY system. Make all entries on the VA forms yourself. On no account should you allow any unauthorized persons to fill in any part of a VA form. Do not leave your VA forms in an unsecured location where unauthorized persons may have access to them. The completed VA forms should all be stored in a locked container.

CONFIDENTIALITY

Your job will not always be easy. There will be times when respondents become upset by talking about their deceased family member and your progress is not going well, even though you want to do a good job and keep on schedule. However, you must not take any "shortcuts" in completing VA forms or submit falsified work to your supervisor under any circumstances. Fake data are of no value. Worse still, if you falsify data you also weaken accurate data collected by others.

HONESTY

Because the validity and accuracy of all VA forms is so important to producing correct information to plan health services, there are numerous quality assurance measures built into the SAVVY system. This means that your supervisor will be reviewing the forms you submit, accompanying you during some interviews, and re-visiting households in your assigned areas periodically to verify that the data collected are correct.

QUALITY ASSURANCE

Verbal Autopsy Interviewer Materials

You will be provided with the materials listed below in order to perform your duties. You are required to keep these materials with you at all times when you are working in the field. Also, to prevent loss, damage, or any unauthorized person from seeing information that is recorded on the VA forms, make sure that you secure them in an approved place when you are not working.

The following is a list of materials and job aids that a verbal autopsy interviewer (VAI) is required to have:

- VAI identification card (be sure to wear it where it can be seen);
- this manual, the Verbal Autopsy Interviewer's Manual;
- copies of VA forms (International Verbal Autopsy Form 1, International Verbal Autopsy Form 2, and International Verbal Autopsy Form 3, found in the Forms section of this manual);
- WA reporting log book (in Appendix A);
- residential status criteria card (in Appendix B), to help you assess whether a death should be included and counted in the SAVVY system;
- SAVVY system information letter, in Appendix C (the letter will be left with households to provide a summary overview of the SAVVY system and inform them why they have been interviewed);
- a calendar of local historical events, in Appendix D, and year-of-birth calculator, in Appendix E (the calendar of historical events is a list of locally-recognized events and their dates, used to help people determine a deceased person's approximate date of birth or age when his or her exact date of birth is unknown, while the year-of-birth calculator is a table that can be used to determine the exact year a person

was born if only the person's age is known);

- SAVVY field operations organizational chart, appearing in Chapter 1;
- pencils and erasers; and
- a bag for carrying forms and other materials

Check these materials when you receive them. Notify your supervisor immediately if anything is missing, defective, or printed illegibly.

Definitions and Rules

One of your most important duties is learning and applying Sample Vital Registration with Verbal Autopsy (SAVVY) terminology (for example the term "resident," a usual, permanent member of a household). You need to know which deaths require a verbal autopsy and whom you should interview. The definitions and rules in this chapter are fundamental to the operation of the SAVVY system and it is very important that you understand them.

You must be able to distinguish and define deaths that will be included for verbal autopsy interviews. The verbal autopsy (VA) system involves reporting and recording all deaths that occur in the SAVVY surveillance areas. It is therefore important to distinguish who should be included and who should be excluded from the system.

All deaths of usual residents within a SAVVY sample area must be reported and registered. It is therefore extremely important that you understand the definition of a usual resident in SAVVY surveillance. The general definition of a usual resident in the SAVVY census is someone who intended to stay for the foreseeable future.

This means that, before starting a VA interview, it is important to ascertain whether the deceased was:

- a resident in the household;
- visiting the household for a short period of time without the intention of staying for the foreseeable future; or
- a resident elsewhere (this happens if the deceased was not living with the relatives who are being interviewed, for example a deceased person who died in another town and whose body was brought to the relative's village for burial).

Note that the definition of "intention to stay" applies to terminally-ill individuals who had been residing elsewhere but move into an assignment area by returning to their home villages for care. These individuals, referred to as "home-coming sick," usually intend to

RULES ABOUT WHICH DEATHS TO INCLUDE

remain in their home village for as long as they live. If they die while maintaining usual residence within the sample area, they are considered to be a resident at the time of their death and a VA must be conducted for them. VAs are also conducted for stillbirths occurring after 28 weeks of pregnancy.

VAs are not conducted for non-residents. Non-residents include people who do not live in the sample area, even if they die in the area. Visitors to enumeration areas who do not intend to stay but who die during their visits are considered as non-residents. Also, people staying in group residences or institutions are not considered to be usual residents. These include military personnel at army barracks within the area, students in residence halls or dormitories, and prisoners in jails or prisons.

This concept is reviewed later in this manual, when the VA forms are presented. A list of important terms and definitions is included in the glossary at the end of this manual.

IDENTIFYING A VA RESPONDENT

A "respondent" is the principal person who will provide information about the deceased. You should try to identify the primary care giver (usually a family member) who was with the deceased in the period leading to death. This individual is most likely to know about the deceased person's signs and symptoms during the period just before death.

People often assume that the person who makes daily decisions for the household (called a "reference person" on SAVVY forms) or this person's spouse is the person who should be interviewed. This is not necessarily so. For example, a male reference person may not know the signs and symptoms of an illness suffered by a woman in the household. You should try to determine who was with the deceased and caring for the person in the period leading to death.

Generally, children should not be interviewed. It is not uncommon for a VA respondent to require assistance from other household or family member in answering the VA questions. This is entirely acceptable.

If an acceptable respondent (as defined previously) cannot be found, ask when you might be able to find a suitable respondent at home. Leave a message at the home indicating that you plan to return another time. Make note of this return date in your notebook.

You are required to make at least two callback attempts after the initial visit at every household where you failed to get an appropriate respondent. If after these three attempts you still have not been able to locate an acceptable respondent at the house, you should report this case to your supervisor.

WHAT TO DO IF THERE IS NO SUITABLE RESPONDENT

How to Promote Community Participation

Sample Vital Registration with Verbal Autopsy (SAVVY) is a community-based system and it is essential to have the support and participation of the local community. Without their co-operation the system cannot work. This section provides some guidance on how to encourage members of the local community to participate in the system.

Your relationship with the community will depend largely on how well you establish a relationship with the local key informants and with members of each household that you visit. In order to have the cooperation of the household and obtain complete and accurate data, you must first gain the trust and confidence of the people who live there. You can do this by making a good impression by conducting yourself in a professional, sensitive, and friendly manner. Your appearance is also important. You should dress appropriately for working with members of the community.

If you are knowledgeable about your responsibilities and the SAVVY system in general, and can answer questions that household respondents may ask, you will be able to gain their trust and confidence. In order to be able to answer these questions, you must understand, for example, what the SAVVY system is and why verbal autopsy interviews are conducted in the area, and how the information collected will benefit the participants.

It will also help to reassure participants that their responses will be held in strictest confidence and that no information that would reveal anything about their specific household or the identity of the deceased will ever be released by the government. Before leaving, do not forget to offer respondents a SAVVY leaflet or a newsletter, if available. Assuming there is at least one literate member of a household (which is not always the case), this will help the relatives of the deceased understand the SAVVY system and its activities.

Prior to the implementation of the system, the local government will conduct publicity activities in the sample areas to explain the purpose and importance of SAVVY. During the publicity campaigns, GAINING THE TRUST AND COOPERATION OF THE HOUSEHOLD

RESPONDING TO CONCERNS ABOUT THE SAVVY SYSTEM

the communities will be asked to participate in the selection of the SAVVY census interviewers, key informants, and VA interviewers. Therefore, after you introduce yourself and present your credentials, you should inquire whether or not the respondent has heard about SAVVY. If the person has not heard about it, ask if the respondent would like you to explain what the system is about and answer any questions. Your supervisor will provide you with a SAVVY System Information Letter, which you can give to respondents (see Appendix C for an example of a letter).

Most people will be cooperative. However, some people may be suspicious about why the government is collecting information about the deaths of their relatives. Others may be skeptical about how the information they provide could be important to their country, communities, or families.

When necessary, stress the confidentiality of responses. If a respondent hesitates to cooperate because of confidentiality concerns, you should provide appropriate assurances and a comprehensive explanation. For example, explain that no individual names will be used for any purpose and that all information will be written in a report for district and national use.

Always have a positive approach. Do not use such phrases as: "Are you too busy?" or "Would you spare 15 to 30 minutes?" Such questions invite refusal before you start. Instead, begin by restating sympathy or condolences for the death and say to the respondent: "I would like to ask you a few questions" or "I would like to talk with you for a few minutes." However, if a respondent insists that she or he does not wish to talk to you, do not argue. Instead, if there is no one else available in that household who can talk to you, ask the reluctant person for another day or time when she or he would be available to participate in the interview.

Answer any questions from the respondent frankly and to the best of your knowledge. Before agreeing to be interviewed, the respondent may ask questions about the survey and why the respondent should participate. Be direct and clear when you respond.

Here are a few sample objections that you might hear and potential responses.

Question: Why is the government conducting this system of death reporting?

Answer: The government is conducting this system in select areas of the country in order to monitor how many deaths are taking place, and what is causing these deaths out in the community. This is necessary because such information is not well captured by any other

source. This type of detailed information will help the government to plan better for the needs of the people in terms of healthcare services and other developmental programs, and help identify problems that policy-makers and program coordinators can work to resolve.

Being the beneficiaries of the SAVVY system, health care delivery in our communities will be improved. You and your family will benefit from the improved health care services that result from the information collected. For example, outbreaks of diseases and premature deaths due to preventable diseases can be detected and appropriate intervention measures will be implemented to prevent further loss of lives. Information from the system should allow local and national authorities to take steps to improve the health and well-being of you and your family members.

Question: Why is this area included?

Answer: This area was chosen randomly, according to a system developed by experts at the national level. When combined with information from the other chosen areas, the results will represent the different types of population groups and living conditions that exist in the entire country. The government can then make estimates about all deaths and causes of death by age and sex, and make generalizations for the country as a whole. Conducting verbal autopsy interviews on deaths that have occurred in these areas provide good information, and costs much less than covering the entire population of the country over time.

Question: Who will benefit from this program? Will I receive any monetary benefit?

Answer: The data that are collected from households will be used by the government and other organizations for planning, policy-making, development, social services, and healthcare services in the community. SAVVY should therefore help improve those services. The government is not able to pay you directly for your participation, but in time the community should receive better public and healthcare services as a result of improved planning.

Question: Is this really a good use of government money? Wouldn't it be better to use the money to buy drugs for the local dispensary?

Answer: Certainly more funds are needed for ALL aspects of the health system. The information we are asking you to provide, however, will help save lives and money. Health planners will have a much more accurate picture of the health problems facing your community, and so will know which drugs to buy and what new services might be necessary.

The death-reporting system is being conducted with the most cost-effective measures possible. Without this information, it is difficult for the government to plan and adopt appropriate policies that will benefit the citizens of this country. This should lead to an improvement in the health care delivered by the health system.

Question: Why do you need to ask so many questions and take up so much of my time?

Answer: Every effort has been made to minimize the duration of the interview and to reduce inconvenience. In the verbal autopsy interview, we need to ask questions that can be used by a doctor to make a decision about the most likely cause of your family member's death. Sometimes the cause of death may seem very obvious, but it is often necessary to ask many questions to give the doctor as much information as possible. We need to ask these questions to make sure we don't miss anything.

Question: How do I know that the information that I give will be kept confidential?

Answer: As a member of the SAVVY system, I have signed a pledge not to share any information that is collected, and all employees of the central office are required to store all information that is provided to them in strict confidence. Your information will be added to the information from all the other households and chosen areas.

POTENTIALLY PROBLEMATIC SITUATIONS During the course of your field work, it is very likely that you may encounter some situations (problems related to the respondent or the household) where you are not sure what to do. Below are some examples of such situations, and possible solutions to address the problem.

A RESPONDENT SAYS
THAT A VA HAS
ALREADY BEEN DONE

If a respondent says another interviewer already visited his/ her household to conduct a verbal autopsy (VA) interview, make sure that you have not gone outside your assigned area. If you have not, do the following:

If there is more than one verbal autopsy interviewer in your area, check with the other interviewers to make sure that no one has already conducted an interview. Even if there is more than one verbal autopsy interviewer in an area, each will be assigned a specific sub-area to avoid such instances of double counting.

Explain to the respondent that the SAVVY office does not have a form for a death that has occurred in the household, so you must conduct an interview.

If the person speaks another language and you do not speak that language, try to find someone else in the household to answer or interpret. If another interviewer on your team does speak the local language, it may be best for him/her to perform the interview. Notify your supervisor if you are unable to solve the problem within the household.

LANGUAGE PROBLEMS

The issue of a household that has moved to an address after the census and a death has occurred relates to the definition of a resident and which deaths are eligible for a verbal autopsy. If you are unsure how a "resident" is defined, please review this term in the Glossary of Terms. Make sure that the person who died was a resident and complete an appropriate VA form. This new household would not appear in the KI's mortality register and therefore you will not be able to write an assigned household number on the VA form. However, fill in correctly other information that can identify the household. Do NOT give a new household number to that household. The update will be done during the following census.

HOUSEHOLD MOVED
TO PRESENT ADDRESS
AFTER THE CENSUS
PERIOD AND A
DEATH HAS
OCCURRED IN THIS
PARTICULAR
HOUSEHOLD

This issue, when a visitor dies in a household, also relates to the definition of a resident and which deaths are eligible for a verbal autopsy. If you are unsure how a "resident" is defined, please review the Glossary of Terms. The SAVVY system is intended to count persons who are usual, permanent residents of households in the selected sample areas or recent in-migrants who have the intention to stay. If you found out that a reported death was someone who was visiting his or her friends or relatives in the sample area but did not have the intent to live there permanently, then the deceased should not be included in the VA system. You must explain to the respondent about this criterion for inclusion in or exclusion from the SAVVY system, that only residents are included in the system.

VISITOR PRESENT IN A
HOUSEHOLD
HAPPENS TO DIE

RESPONDENT IS
UNABLE TO GIVE
COMPLETE
INFORMATION
ABOUT A
HOUSEHOLD
MEMBER

If the respondent cannot give you complete information about the deceased:

- Complete as much accurate information as possible for that person on your current visit.
- Find out when someone more knowledgeable about that person will be home.
- Return to the residence for a callback visit at a time that will be most convenient for everyone involved.
- If you are unable to get complete information on the deceased child after the callback visit(s) to the household, tell your supervisor.

IF ALL POTENTIAL
RESPONDENTS
REFUSE TO BE
INTERVIEWED

If all potential respondents refuse to be interviewed regarding the death of a family member that has been reported to you, talk to them about the importance of the information collected and the objectives of the SAVVY system. Stress the confidentiality of VA information.

If the potential respondents still do not cooperate, try to get as many answers as possible about the death from other members or from neighbors. Stress the confidentiality of information to each person who answers questions.

If you cannot find an appropriate respondent after 3 visits to the household, you will note this on the VA form (this process is described later in this manual) and report this case to your supervisor as soon as possible. Your supervisor will return to the household to verify that no appropriate respondent is available.

How to Work with the Key Informants

The key informants (KIs) are essential to the running of the Sample Vital Registration with Verbal Autopsy (SAVVY) system. You will work closely with the KI. You will meet with each KI at least once a month to receive new reports of deaths that have taken place since the last visit and to plan appointments to visit bereaved households.

Before you visit a bereaved household, the KI will have paid a visit to the household in order to confirm that a death has occurred in the household and to express condolences. The KI will have collected basic socio-demographic information about the person who died (including the identification information of the deceased's household), and will have left a medical information envelope for the family to save all medical documentation pertaining to the illness of the deceased. The KI also will have arranged an appointment with the family of the deceased for a VA interview, and will take you to the household of the deceased on the date of your appointment.

You should meet with all KIs on a regular basis, following a fixed schedule (at least once a month). At each meeting, the KI will give you a report of deaths that have occurred in the area. At this meeting, you will fill out your VA reporting log book. With the key informant's help, you will prepare a schedule for visiting the bereaved families according to the appointment times arranged with families. The KI will go with you to these appointments and wait outside while you conduct the VA interview.

The key informant will also inform you about any households that have refused to be interviewed so that you are aware of the situation and can take appropriate action, such as visiting the household with the KI to encourage participation.

REVIEWING A
REPORTED DEATH
AND PLANNING A VA
INTERVIEW WITH THE
KEY INFORMANT

ENSURING THAT THE KEY INFORMANT IS AWARE OF AND HAD REPORTED ALL DEATHS

It is possible that the KI for an area might miss some deaths that have occurred in his or her area. Reasons for missing deaths can include "fatigue" with participation in the SAVVY system, losing the support of the local community (so that community members are unwilling to report deaths to the KI), or the desire of a family to hide the fact that a death has occurred.

Stillbirths and early neonatal deaths may not be regularly reported to the KI — especially if local customs would not necessitate a funeral. During visits to each KI's area of work, the VA interviewer should meet with other members of the community, especially local community leaders, to determine how the community perceives SAVVY and the local KI, and the manner in which the KI conducts his or her work. If there are rapport or reporting problems, these need to be discussed with the community representatives and the SAVVY supervisor, and need to be resolved.

After each SAVVY census, it will be possible to obtain a list of deaths that occurred to registered residents in each area since the previous census. The VA interviewer or VA supervisor will compare this list with his or her own list of deaths, as reported to him or her by the KI since the last census, to detect deaths that may have been missed by the active reporting system. Problems should be reported to the supervisor. Again, care should be taken to ensure all stillbirths and neonatal deaths are reported and followed up.

KEY POINTS

Key points to remember include the following:

- Wisit each KI at least once a month.
- Work closely with the KIs.
- Arrange visits with bereaved families to conduct VA interviews and complete the VA forms.
- Help ensure that all deaths of residents are reported by the key informants.
- Be prepared before you go to the field (e.g. make sure you have sufficient forms and materials).

Verbal Autopsy (VA) Forms

The verbal autopsy (VA) forms have been designed to collect information about the deceased from caregivers and family members. The information included on the form will be used by medical professionals to assign the probable cause of death.

Ideally, an interview should be conducted after a culturally appropriate mourning period has elapsed and within eight weeks of a death. Key aspects related to successful completion of VA interviews include the following:

- Be polite during the interview.
- Use the appropriate VA form when filling in the information about the deceased (the correct type of form to use during interview is determined by the age at death of the deceased, as explained in the next chapter of this manual).
- Ask all questions on the VA form (aside from the appropriate skips) regardless of your opinion as to their relevance.

VA forms are used to collect information on the history of the final episode of illness, as well as symptoms and signs preceding death. There are three different forms, each specific to an age group. The forms are found in the Forms section of this manual. They are:

- International Verbal Autopsy Questionnaire 1

 This form is for perinatal and neonatal deaths (deaths of children aged under 4 weeks).
- International Verbal Autopsy Questionnaire 2
 Form 2 is for postneonatal and child deaths to under 15 years (deaths of children aged 4 weeks to 14 years).
- International Verbal Autopsy Questionnaire 3
 This form is for adult deaths (deaths of adults aged 15 years and above).

TYPES OF VA FORMS

GENERAL STRUCTURE OF VA FORMS

The layout and question flow of all three forms is guided by two basic principles. First, all three forms follow the same general structure. Second, "skip patterns" (when an answer to a specific question results in bypassing or "skipping" other irrelevant questions) were employed to facilitate use by both medically and non-medically trained interviewers with differing levels of literacy.

The VA forms are divided into several sections. Some of the sections are common to all three types of VA forms and have the same general structure, while other sections are specific to certain forms. The general structure of all three forms includes:

- information about the date and location of the verbal autopsy interview (such as age, sex, and place of death);
- specific information about the field site, household, and information related to residency in the SAVVY assignment area;
- an informed consent statement, which the interviewer must sign to indicate that the respondent has agreed to be interviewed;
- information about the primary respondent;
- socio-demographic information about the deceased;
- short narrative history of events leading to death, and the cause of death according to the respondent;
- history of injuries/accidents;
- symptom duration checklist;
- health services used by the deceased during illness in the period before death, including whether a health worker informed the respondent of the cause of death;
- information that can be abstracted from a death certificate (if available); and
- summary of any medical evidence available at the household,

In addition to general socio-demographic questions, each form contains sections and questions that are specific to the circumstances of the death. Each VA form contains a series of questions involving symptoms and their duration. These questions are different for each form and are the essence of the VA tool. Because they differ from one form to the next, these are explained in detail later in this manual under the relevant chapters for each form. In this manual, the upper-case letter 'Q' indicates a question found in the symptom duration section of the forms.

For example, a section on the condition of a deceased child's mother during and after pregnancy and events during birth is included only on the neonatal form (Form 1). A checklist of symptoms and their duration specific to women aged 15 years and older are included in the adult VA form (Form 3). Sections on simple risk factors are also found in the child form (Form 2: occupation, education and marital status), and in the adult form (Form 3: education, marital status, occupation, and alcohol/tobacco use).

Questions contained in the symptom duration checklist have been selected by a World Health Organization (WHO) expert VA group. In most cases, these questions provide sufficient and balanced information to arrive at the most likely cause of death, and exclude other possible diagnoses. Therefore, it is strongly recommended that no adaptations be made to the symptom duration checklist on the VA forms. However, the information collected in the socio-demographic and health-service use sections of the form may need to be adapted, depending on the needs of the implementing organizations. A detailed discussion of the questions on each form is presented in Chapters 9-11.

How to Conduct Verbal Autopsy Interviews

Conducting verbal autopsy (VA) interviews is your main task in the Sample Vital Registration with Verbal Autopsy (SAVVY) system. The art of interviewing develops with practice, but there are certain basic principles to follow in order to conduct a successful interview. It is important to follow the guidelines and procedures explained during your training and in this manual.

Before visiting the bereaved households on the appointed day, make sure that you have all your equipment with you as previously specified in this manual. These include a sufficient quantity of all the three types of VA forms; your VA reporting log book and job aids; pen, pencil, and eraser; and this manual and appendices for your reference.

CHECK YOUR
MATERIALS

When you visit households of bereaved families to conduct interviews, it is important to adhere to the following:

 \mathbb{X}

Greet the members of the household or family. Introduce yourself respectfully and convey your condolences about the death that occurred in the household. Then ask to speak with the reference person (the person making daily decisions for the household), that person's spouse, or another appropriate adult relative who can give you permission to conduct the VA, and who can either answer questions relating to the deceased or introduce you to the primary care-giver of the deceased. When it is not possible to interview a reliable respondent, arrange to visit the household on another day when an appropriate respondent will be available.

X

Once you have begun interviewing a respondent, try to build a rapport with her or him before you discuss the case of the deceased. For example, if culturally appropriate, you may ask the respondent what work she or he does, or

GENERAL
INSTRUCTIONS FOR
COMPLETING
VERBAL AUTOPSY
FORMS

inquire about the respondent's family. Then explain the purpose of your visit and try to answer any questions that the respondent may have about SAVVY. For example, this is how you might introduce yourself to a household where you are conducting a VA interview: My name is [mention your name]. I am a nurse in our district's health center, and a verbal autopsy interviewer with the SAVVY system. I have been informed by [mention the key informant's name] that a death has occurred in your household. I am very sorry to hear that a member of your household has passed away. Please accept my sympathies. For the purpose of improving health care provision in our district and country as a whole, we are collecting information on all recent deaths in this area. I would like to talk to you and ask you some questions about the history of events and any symptoms that [mention the deceased's name] had during illness before death.

- Use the correct VA form that corresponds to the age at death of the deceased. Ask the respondent the age at death or dates of birth and death in order to determine which type of form to use. Then proceed with interviewing the respondent, remembering to cover all sections in the form as described in the next section.
- Ask questions following the order in which they appear in the verbal autopsy form. If any question is not clear to the respondent, repeat it. Give time to the respondent to answer the questions. Remember that death is a sensitive issue and therefore you must pay attention to the respondent's emotions.
- If the text on the form is written in capital letters, it should be considered an instruction to the VA interviewer, but should not be read aloud to the respondent. On the other hand, if the text on the VA form is written in lower case, it should be read aloud to the respondent.
- You must fill in the VA form during the interview. VA forms should never be completed before or after an interview has taken place,

and should not be completed by anyone other than a trained VAI. With few exceptions, VA interviews should be completed in a single visit with the respondent.

Mistakes in filling in the VA forms do occur in the field. Whenever you make a mistake, do not erase the information you have entered. Instead, cross out the number or text that needs correction, but be certain that the original entry can still be read. Write the correct number or text above the crossed-out number or text. Write your initials and the date in the margin, next to the correction. Never write over the number or text for correcting. Corrections can be made by the designated verbal autopsy interviewer only.

Note that respondents may tend to give answers that they think will please the interviewer. It is therefore very important that you remain absolutely neutral towards the subject matter of interview. Do not show any surprise, approval or disapproval of the respondent's answer by the tone of your voice or facial expression.

The cover page (Section 1.1 and Section 1.2) is the same in all three VA forms, and is described in this chapter. These sections request information on the interviewer visits and household location, the residential status of the deceased, and include an informed consent script.

The questions and response categories in this section may need to be altered according to the data needs of the implementing organizations. For example, a country may not have 'provinces', but instead the subnational units may be called 'states' or 'districts'. In this case, the forms should be adapted.

ID/Control/Reference Number

The ID/Control/Reference Number is a preassigned reference number which should come from a control form or other data processing center, and is important because it serves to "link" the death to additional information about the community. Once the age and residential status of the deceased has been determined (in Section 1.2, described in this chapter), transcribe the ID/Control/Reference Number onto the appropriate VA form. If this reference number is not available, do not complete this box, but inform your supervisor.

COVER PAGE
(SECTION 1) OF ALL
INTERNATIONAL
VERBAL AUTOPSY
FORMS

SECTION 1.1 INTERVIEWER VISITS

After each visit to the household, you must record the date and result of the visit. Columns 2 and 3 are to be used to record the results of any callbacks that you make if you cannot identify an appropriate respondent on your first visit. An interviewer must make at least three different visits to try to obtain an interview with a household. Record your full name and the date in the space provided for each visit you make to the household of the deceased.

Result*

The result of each visit to the household of the deceased should be recorded in the appropriate box. You will make every attempt to contact and interview the household, but sometimes it may happen that you make three visits to the household (at different times) and are unable to conduct the interview.

The following are descriptions of the various result codes:

- Code 1 (Completed). Enter this code when you have completed the verbal autopsy interview.
- Code 2 (Not at home). This code is to be used in cases in which the dwelling is occupied, but no one is at home. Try to find out from a neighbor when a competent adult will be present and include this information in the visit record. If possible, write the date/time you plan to return.
- Code 3 (Postponed). If you contact a household, but for some reason, it is not convenient for them to be interviewed, then schedule a callback interview and enter code '3' as a result code for that visit. If possible, write the date/time you plan to return.
- Code 4 (Refused). The impression you make during your initial contacts with members of a household is very important. Be careful to introduce yourself and explain the purpose of the survey. Stress that the interview takes only a short amount of time and that the information will be confidential. If the individual with whom you first talk is unwilling to cooperate, ask to speak with another member of the household, such as the household head. Suggest that you can return at another time if it

would be more convenient. If the individual still refuses to cooperate, enter code '4' and report the problem to your supervisor.

- Code 5 (Partly completed). If a respondent begins an interview, but needs to stop the interview before it can be completed, enter code '5'. You should try to schedule a call back time to complete the interview write this date/time in the space provided.
- Code 6 (No appropriate respondent found). This code should be used if the household is occupied but an appropriate respondent is not available at that time. You should try to schedule a callback time to complete the interview when an appropriate respondent will be available. Write this date/time in the space provided.
- Code 7 (Other). There may be times that you cannot interview a household and the above categories do not describe the reason. An example might be if the household has been destroyed, evacuated, or cannot be located. Specify the reason that '7' has been coded. You should try to identify someone else who can be interviewed write the expected date/time in the space provided.

Final Visit

After you have paid your last visit to the household, you will fill in the boxes under FINAL VISIT. The date on which you completed the household interview is recorded in the DAY, MONTH, YEAR boxes. For example, the last day in October 2008 would be DAY 31, MONTH 10, YEAR 2008. Write your assigned interviewer number in the boxes labeled INT. NUMBER.

Record the result for the final visit in the RESULT box. Add up the number of visits you made for the household interview and enter the total in the box labeled TOTAL NUMBER OF VISITS.

The next boxes on the forms should be completed by your Supervisor, a Field Editor, an Office Editor, and data entry staff when they complete their review of the VA forms. Do not fill in these boxes.

Name and Address/Directions to Household

Include information about the place or location of the household,

so that you or your supervisor can locate the household at a later date. Write the house number and street address, or even the building owner's name. If possible, include descriptive information about the location of the household. For example, if the household is located in the same building as another household, briefly describe where to find the deceased's household, such as "Third floor." If there is no street number or address, describe the location of the household. This information is particularly important when a VA is conducted at a new household that was not included in the previous census, and hence is not in the address listing book and has no unique household number.

SECTION 1.2 ADDITIONAL DEMOGRAPHIC INFORMATION

Region/Province

Write the name of the region/province in the space provided.

Field Site

This variable is specific to the application of the international standard VA in a demographic surveillance system, or DSS. The name of the DSS site is written in the space provided. This information is not used in SAVVY.

Unique Household Number

This number uniquely identifies each household and should be filled in from the KI's mortality register. The unique household number is made up of a cluster number, AA number, building number, housing unit number, and household number — a total of 11 digits. For a particular household, you must transcribe the respective unique household number from the KI's mortality register to the VA form. Information in the KI's mortality register comes from the address listing book, and is updated after the completion of each census round.

If the death for which you are conducting a VA is that of a resident of a household that has no household number, then you WILL NOT assign a new household number for this household. This can happen when a household moved or was established after the last census round. A household number will be assigned during the next census.

If the VA interview takes place outside of the household of the deceased (at a relative's house, for example), be sure that the household number entered into the form refers to the household of the deceased.

Name of Reference Person

Write the full name of the reference person. The reference person is the person who makes decisions for the household on a daily basis and who is a permanent resident of the household (spends the night at least six months out of the year). It may be important to use three names, since people with similar first and last names may live within the same area.

Residential Status of the Deceased

In this section, we further elaborate on the difference between residents and non-residents. A person is considered to have been a "resident" of the SAVVY sample area if the household in which she or he is listed was that person's usual residence.

A person's usual residence is the place where that person lived and slept most of the time with the intent to spend the majority of her or his time (at least six months out of the year) at this location. This includes people who moved in less than six months before death with the intention of staying at least six months. It is not necessarily the same as the person's voting residence or legal residence. People who stay in the following types of group or institutional residences are normally excluded from the SAVVY sample area (hence these institutions are generally not enumerated at all):

- mprisons;
- school, college, or university dormitories;
- military, factory, or agricultural plantation housing or barracks, if workers do not reside there with spouses and family members; and
- mursing homes

Question: What about people temporarily away on vacation or a business trip at the time of the census?

Answer: They are counted as residents if the households in question are their usual residence; that is, the places where they live and sleep most of the time or at least six months out of the year.

Question: What if a person is a commuter or transportation worker who lives away part of the time while working?

Answer: This person is counted at the residence where he or she stays most of the time.

Question: What about children in joint custody?

Answer: They are counted at the residence where they live most of

the time. If time is equally divided, they are counted where they are staying on census day.

Question: What about people who have more than one residence (e.g. farmers or herders who shift sleeping quarters depending on the agricultural cycle or the season)?

Answer: They are counted at the residence where they live most of the time.

Question: What about university students living at the home of a parent or relative while attending university?

Answer: They are counted at their parental home.

Question: What about foster children?

Answer: They are counted where they are living on census day.

Question: What about roomers or boarders?

Answer: They are counted where they are living on census day.

Question: What about housemates or roommates?

Answer: They are counted where they are living on census day.

Question: What about primary or secondary students living in school dormitories?

Answer: They are counted at their parental home.

Question: What about citizens of foreign countries who have established a household or are part of an established household while working or studying?

Answer: They are counted at the household where they are residing (spending the majority of their time) while in-country.

Question: What about polygamous households in which a man has multiple wives in different households?

Answer: The man is counted in the household of his first wife.

The decision to include or exclude refugee camps is made on a country-by-country basis in accordance with government policies and preferences.

At this point (when residential status has been determined), you will have to determine if a VA should be administered, and complete the VA form accordingly. The following instructions provide guidance for determining if the VA should be completed.

A VA should always be performed if the person was a resident of the SAVVY area. However, if the person was not listed on the household registry you will need to use your reference materials (this manual, including Appendix B: Residential Status Criterion) to decide if the person who died should be included in the SAVVY system.

Not all deaths that occur in the SAVVY area should be included in the SAVVY system. A death may occur or a funeral ceremony may take place in the SAVVY area because:

- a previously healthy person who lived in the household and intended to live there for a fore-seeable length of time has died;
- a terminally-ill person who was living in another household and/or outside of the assignment area has returned "home" for terminal care and has died (the deceased is referred to as "home-coming sick");
- someone who died elsewhere was brought "home" to his or her (ancestral) place of origin for burial; or
- a passer-by or visitor to the area was involved in an accident or died suddenly in the area, and was buried there, rather than returned to his or her place of residence for burial.

The first two cases described above qualify as "residents" while the second two cases do not. A VA interview SHOULD be conducted for all deaths among residents, including home-coming sick. Neonatal and perinatal deaths recorded in form 1 were residents in the SAVVY area if the mother was a resident. A stillbirth for an infant who was at least 28 weeks gestational age is considered a resident if the mother was a resident in the sample area and the VA SHOULD be conducted.

If someone was living for an extended period outside the assignment area and his or her body is brought to a village in the SAVVY area for burial, this person is NOT considered to be resident, even if he or she had traditional rights in the area. Bear in mind, however, that it may be helpful to perform a VA form in such cases for community reasons. That is, it is important to be consistent with the message that reporting, counting, and following up all deaths is important. To be seen as being "selective" about which deaths receive a VA may create an appearance of inconsistency or create confusion or suspicion about the purpose of SAVVY.

RESIDENCY DECISION TREE

In the SAVVY system, no VA is conducted for unknown people who happen to die or are found dead in the area, nor is one conducted for visitors who came to see their relatives but who happen to die during their stay. Bodies brought home for burial and incidental deaths to visitors or other non-residents are excluded from the calculation of death rates and other analyses. As a verbal autopsy interviewer, you need to confirm whether each death qualifies for VA administration or not before proceeding with the interview.

The following sets of questions should allow you to determine the residential status of the deceased.

First Question:

Was the body of the deceased brought here for burial from outside of this assignment area?

IF YES, ask second:

Was the place of residence another SAVVY assignment area?

- 1. IF YES, the VAI should make arrangements with the key informant (KI) of the other area to interview those who were with the deceased and are able to respond to the questions on the VA.
- 2. IF NO, the deceased was a resident outside of the SAVVY assignment areas and either a VA is not required or, if one is completed, the VA form should be marked "2-Body brought home for burial."

IF NO to the original question, ask second:

If not brought for burial, was the deceased a visitor to the household or to the area?

- 1. IF YES to this second question, a VA should not be performed.
- 2. IF NO, ask a third question: Did the deceased return home for terminal care "recently?"
 - IF YES, the deceased was "home-coming sick," and the VA form should be marked "3-Home-coming sick" and a VA should be performed.
 - IF NO, the deceased was a normal resident and the VA form should be marked "1-Resident in the enumeration area" and a VA should be performed.

In the VA forms, you will indicate the correct residential status of the deceased by writing the correct code ('Resident in enumeration area-1', 'Body brought home for burial-2', or 'Home-coming sick-3') in the space provided.

If the deceased was not a resident in the SAVVY area, nor a body brought home for burial, nor a home-coming sick, then no response should be entered, and the VA should not be performed.

Sample Informed Consent Statement

Before continuing with the interview, the interviewer must read (verbatim) the informed consent statement (note that this statement will need to be adapted locally).

Hello. My name is [NAME] and I am working with [AGENCY]. We are collecting information on the causes of death in the community. We would very much appreciate your participation in this effort. We want to ask you about the circumstances leading to the death of the deceased. Whatever information you provide will be kept strictly confidential. No information identifying you or the deceased will ever be released to anyone outside of this information-collection activity. Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. You may also stop the interview completely at any time without any consequences at all. However, we hope that you will participate in this survey since the results will help the government improve services for people.

At this time, do you want to ask me anything about the purpose or content of this interview?

May I begin the interview now?

If the respondent agrees to be interviewed, circle '1' and the verbal autopsy interview can continue. If the respondent does not agree to be interviewed, circle '2' and end the interview.

Regardless of the respondent's answer, the VAI needs to sign and date that the informed consent statement has been read to the respondent.

The following three chapters describe how to complete each VA form, question by question.

Checklist Questions for VA Form 1: Death of a Child Aged under 4 Weeks

The international verbal autopsy form 1 should be used for all deaths (including stillbirths) occurring before 4 completed weeks (where the day of birth counts as day "zero"). It is used to collect information on the history of illness, events, signs, and symptoms preceding death of a child in this age group. This chapter provides instructions for filling in Form 1.

There are different types of sections on VA Form 1:

- Sections 2-3 contain questions about the respondent and socio-demographic information about the deceased;
- Section 4 is an open-ended section in which the respondent is asked to describe the sequence of events leading to death;
- Section 5 contains questions that relate to the mother's pregnancy history or before the child's birth (for example: Q504. "Did the pregnancy end earlier than expected?");
- Section 6 contains questions that relate to events during delivery (for example: Q601. "Where was the child born?");
- Section 7 contains questions that relate to symptoms and their onset after birth (for example: Q709: "Was there any sign of paralysis?");
- Section 8 contains questions that relate to a potentially catastrophic event that happened before death (for example: Q801. "Did the baby suffer from any injury or accident that led to her/his death?").
- Section 9 contains questions that relate to symptoms and signs of illness, and their duration (for example: Q913. "Did the baby have a fever?");
- Section 10 contains questions about the mother's

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health and contextual factors (for example: Q1005. "How is the mother's health now?");

- Section 11 contains questions about health service utilization; and
- Sections 12-13 ask the interviewer to abstract information from a death certificate or other health records (if available).

HOW TO COMPLETE VA FORM 1

Some questions might seem to be a little embarrassing or might not seem to you to be directly related to the death. However, it is important to follow the instructions given to you during training and in this manual in order to make the verbal autopsy certification and coding process work properly.

Important:

- You must ask every question as it appears in the verbal autopsy form without skipping a single question, unless specifically directed to do so in the form.
- You must do this even if the cause of death seems obvious to you.
- Some questions ask the number of days that a symptom or condition was present. If the respondent knows that the deceased had the symptom but does not know how soon after birth it appeared, circle the duration code for "DON'T KNOW." (If left blank, it will be assumed that you did not ask that particular question and your form will be returned to you for correction.)
- For deaths of a child under 4 weeks: the number of days after birth since the appearance or onset of that particular sign/symptom should be recorded regardless of the presence of that sign/symptom at the time of death, and irrespective of whether the sign/symptom appeared intermittently. For example, if an infant began to have fever 10 days after birth, but ceased having fever two days before death, the number of days after birth since onset of fever would be ten days. (Note that for children above 4 weeks and for adults, "duration"

is the approximate interval between onset of that particular symptom/sign and the cessation of that symptom/sign.)

- If the deceased had a sign or symptom, but it appeared on the day of birth, write '1' in the box for days.
- For questions where it is necessary to circle a response, only one response should be circled (unless the form instructs you otherwise).
- Certain questions ask for more detail about a sign/symptom than a simple yes/no or duration question. For these questions, the VAI should read the response categories located below the question (in lower case) to the respondent to be certain that the response is coded correctly.

Each of the VA forms has places where you can, under certain circumstances, skip questions. These are called "filter" questions. For example, Q504: "Did the pregnancy end earlier than expected?" is followed by one filter question, Q505: "How many weeks before the expected date of delivery?"

Note that, when a skip pattern is being applied, there is an arrow '—' located to the right of the response code. If one of the codes to the left of the arrow or bracket is used, the next question that should be asked is identified in the 'Skip' column on the far right of the form. To continue with the previous example, if in Q504 the respondent states that the pregnancy did not end earlier than expected, the VAI should circle '2', skip question 505, and ask question 506.

If there is no arrow located to the right of the appropriate response code, simply continue to the next question on the form.

Sometimes a respondent may not be able to remember all the details on the symptom duration checklist, especially if the mother of the child who died is not your respondent. Therefore, whenever necessary you should ask other family members who may have more detailed information regarding the symptoms and their durations or the treatments received. Collateral sources of information should be used to obtain as detailed and accurate information as possible on the illness prior to death, in order to assist in the assignment of cause of death. For example, if a child dies in the hours after birth, and the mother was too exhausted by labor to recall many details, ask other members of the household to assist her in providing more accurate

SECTION 2. BASIC INFORMATION ABOUT THE RESPONDENT

201: Record the time at start of interview

Record the time using 24-hour format.

202: Name of the respondent

Fill in the complete name of the respondent in the space provided.

203: What is your relationship to the deceased?

There are five options for this question. These options describe the relationship between the respondent and the deceased. In International Verbal Autopsy Form 1, the options for spouse and for child are not included because these are not logical choices for a deceased baby. You should ask the respondent, "What was your relationship to the deceased?" Circle the correct response among categories provided. For example, if the respondent is the mother of the deceased, then circle: '2' for mother.

204: Did you live with the deceased in the period leading to his/her death?

This yes-or-no question asks if the respondent lived at the same residence with the deceased during the events that led to death. You should ask the respondent: "Did you live with the deceased in the period leading to her/his death?" If the respondent lived with the deceased during his or her illness or before the death, the answer is 'yes', thus circle '1'. If the respondent did not live with the deceased, circle '2' for no.

SECTION 3. INFORMATION ON THE DECEASED AND DATE/PLACE OF DEATH

301: What was the name of the deceased?

Fill in the complete name of the deceased in the space provided. Ask for the three names of the deceased (if appropriate) and write them in the space provided in the VA form. It is important to make sure that you are given the names that the deceased used during medical treatment in case permission is sought to access the deceased's medical records. If the deceased used any alias names, it is advisable to write them in parenthesis. If a stillbirth or infant had not been given a name, write 'NO NAME'.

302: Was the deceased male or female?

Sex should be recorded carefully, especially for deaths occurring in the first few days of life. Since newborns in some cultures are not named, there is no possibility of cross checking sex with a name for unnamed children. Record the sex of the deceased by circling the appropriate number ('1' for a male child, '2' for a female child).

303: When was the deceased born?

Ask the respondent for the complete date of birth. Fill in the day, month and year in the boxes provided. A child's date of birth is usually written in a birth certificate, maternal-child health (MCH) card, and antenatal-care card (ANC), which you may ask to see for confirmation. If the birth has occurred recently, it is very likely that the parents of the child will have one of these documents available. For example, for a deceased child born on May 24, 2005 (using '05' for the month of May), write: '24, 05, 2005' in the date of birth boxes.

If it was a stillbirth (when a fetus dies before birth), the date of birth is the same as the date of the miscarriage when filling in Form 1. However, in order to distinguish from abortions (where VA is not conducted), the SAVVY system only includes stillbirths that occur after 28 weeks of pregnancy. If the respondent is unsure about the gestational age of the stillbirth, ask to see medical records or antenatal care cards (if available) to ascertain the gestational age.

In some cases the exact date of birth may not be known and records might not be available to help. In these cases, only fill in what is actually known about the date of birth. For example, if a child is known to have been born sometime in May 2002, but the exact date is unknown, record '98' in the boxes for DAY.

It is unlikely that the month or year of birth will not be known for a child known to have died before reaching one month of age.

304: How old was the deceased when s/he died?

In addition to the date of birth and date of death, from which age at death of the deceased can be calculated, this question is asked as a form of verification to the age of the deceased. Ask the age of the deceased at the time of death, and record the age (in days) in the boxes provided. Use the Historical Events calendar and the Year-of-Birth Calculator, if necessary. If the age in unknown, and cannot be estimated, record '98.' Interviewers should double check with the respondent if age at death mentioned is different from the difference between year of death and year of birth.

305: When did s/he die?

Ask the respondent for the complete date of death. Fill in the day,

month and year in the boxes provided. If the exact date of death is unknown, follow the instructions provided on the VA form.

It is unlikely that the month or year of death will not be known for a child known to have died before reaching one month of age.

306: Where did s/he die?

Ask the respondent where the deceased died, and circle the appropriate choice using one of the following categories:

- If the death occurred in a hospital, circle '1'.
- If the death occurred in a different type of health facility, circle '2'.
- If the person died at home, circle '3'.
- If the death occurred at any other location, such as on a roadway during an accident, away from home, or during transit between home and a health facility, circle '6' for other, and write the name of the location.
- If the location of death was unknown, circle '8'.

In some applications, it may be useful to record the name of the health facility at which death occurred.

SECTION 4. RESPONDENT'S ACCOUNT OF ILLNESS/EVENTS LEADING TO DEATH

The next section of the VA forms is an open-ended narrative of the events leading to, and causing, the death of the individual.

401: Could you tell me about the illness/events that led to her/his death?

In the space provided, write a history of illness or events leading to the death as narrated by the respondent. This is a "story" about what led to the death and is not a medical history. This might be a sequence of symptoms of disease and the deceased person's health in general prior to death or might be the events that caused the death. Local terms of common illnesses should be written as stated.

402: Cause of death 1 according to respondent

Ask the respondent what he or she thinks caused the death. Write exactly what the respondent says, even if it is an entirely non-medical explanation or a term in vernacular (local) language; do not try to interpret comments. If the respondent states that nothing was noticed, and that the death was sudden, record that observation as stated. Do

not probe further at this stage. The respondent may also state that death was caused by a supernatural or evil spirit.

For example, if the respondent says that the deceased was bewitched, even if you think it would be better to add or modify this reason, write: 'Bewitched' or 'Witchcraft'.

403: Cause of death 2 according to respondent

If the respondent mentions more than one cause of death, write any and all additional causes in the space provided, exactly as the respondent tells you.

SECTION 5. PREGNANCY HISTORY

In order to diagnose cause of death of a neonate, it is often important to know details about the mother's pregnancy history. Questions 501-509 ask about the mother's pregnancy history.

501

When you reach this section of the form, you must inform the respondent that you are going to ask her or him questions concerning the mother and the symptoms that were present before death. For consistency, a statement paragraph has been added for you to read to the respondent:

I would like to ask you some questions concerning the mother and symptoms that the deceased had/showed at birth and shortly after. Some of these questions may not appear to be directly related to the baby's death. Please bear with me and answer all the questions. They will help us to get a clear picture of all possible symptoms that the deceased had.

502: How many births, including stillbirths, did the mother have before this baby?

Ask "How many births (including stillbirths) did the mother have before this baby?" Write the total number of births (both live births and still births) in the response box.

503: How many months was the pregnancy when the baby was born?

Ask "How many months was the pregnancy when the baby was born?" Write the number of months in the response box.

504: Did the pregnancy end earlier than expected?

Ask if the pregnancy ended earlier than expected. Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

505: How many weeks before the expected date of delivery?

This is a filter question, to be asked only if the answer to the previous question was 'yes'. Ask the respondent the number of weeks the child was born before the expected date of delivery, and write the number of weeks in the response box. Note that Questions 503 and 505 are similar, but are asked in a different way depending on mother's understanding of the gestational age of the baby born.

506: During the pregnancy did the mother suffer from any of the following known illnesses ...

Ask the respondent if the mother of the child had any of the following illnesses during the pregnancy (read all illnesses to the respondent): high blood pressure, heart disease, diabetes, epilepsy or convulsion, or another specific medically-diagnosed illness. You must circle a response for each illness on the list, and write in any other specific illness that is mentioned in the space provided under "other [specify]."

507: During the last 3 months of pregnancy did the mother suffer from any of the following illnesses ...

Ask the respondent, "During the last 3 months of pregnancy, did the mother suffer from any of the following illnesses?" Read the list of illnesses to the respondent: "vaginal bleeding; smelly vaginal discharge; puffy face; headache; blurred vision; convulsion; febrile illness; severe abdominal pain that was not labor pain; pallor and shortness of breath (both present); and, other [specify]." You must circle a response for each illness on the list, and write in any other specific illness that is mentioned in the space provided under "other [specify]."

508: Was the child a single or multiple birth?

A "singleton" is when one child is born, and "twins" are two children born at the same time, even if one of the babies is born dead. "Triplets" are three children born at the same time, etc. Ask whether the child was a single or multiple birth, and circle the appropriate response. If 'singleton' or 'don't know', follow the skip pattern.

509: What was the birth order of the child that died?

This is a filter question, to be asked only if the answer to the previous question was that the child who died was a multiple birth. Ask the birth order of the child that died, and circle the appropriate response.

SECTION 6. DELIVERY HISTORY

Questions 601-616 ask about the mother's delivery history.

601: Where was the child born?

Ask where the child was born. Record the information by circling the appropriate response. If the child was not born at a hospital, other health facility, or the home, record the location where the child was born. For example, if the child was born on the road to a health facility, write "on the road to a health facility" under "6-other (specify)."

602: Who assisted with the delivery?

It is important to know whether a mother received assistance during delivery. Ask the respondent: "Who assisted with the delivery?" Record the correct response. For example, if the delivery was attended by a traditional birth attendant (TBA), record the information by circling '3' for traditional birth attendant.

603: When did the water break?

During the onset of labor pain a water-like fluid comes out of the vagina. Ask the mother/respondent when the "water broke," whether it happened before labor started or it occurred during labor. Circle the appropriate response. If the mother delivered without going into labor (e.g. cesarean section), circle '2' for "during labor".

604: How many hours after the water broke was the baby born? Ask "How many hours after the water broke was the baby born?" and circle the correct response.

605: Was the water foul-smelling?

Ask if the water was foul-smelling; that is, if the water had a bad smell when it broke. Circle the correct response.

606: Did the baby stop moving in the womb?

Mothers feel the movement of the baby inside their womb. In different cultures these movements are known and reported as "kicking," "playing," "walking," etc. If the baby had some problem then these movements may have stopped. Ask the mother or other respondent if the baby stopped moving inside the womb, and circle the correct response. If 'no' or 'don't know', follow the skip pattern.

607: When did the baby stop moving in the womb?

This is a filter question, to be asked only if the answer to the previous question was "1-yes." Ask "When did the baby stop moving in the womb?" Circle the appropriate response — either 'before labor started', 'during labor', or 'don't know'.

608: Did a birth attendant listen for fetal heart sounds during labor?

Ask, "Did a birth attendant listen for fetal heart sounds during labor?" and record the respondent's answer. If 'no' or 'don't know', follow the skip pattern.

609: Were fetal heart sounds present?

This is a filter question, to be asked only if the answer to the previous question was "1-yes." Ask if the birth attendant heard any fetal heart sounds during labor, and record the appropriate response.

610: Was there excess bleeding on the day labor started?

Ask the mother or other respondent if there was excess bleeding on the day labor started. Circle the correct response.

611: Did the mother have a fever on the day labor started?

Ask if the mother had fever on the day labor started. Circle the appropriate response.

612: How long did the labor pains last?

A prolonged labor is when the interval between onset of labor pain and delivery of baby is 12 hours or more. Labor pains are pains felt as the uterus contracts. The pain becomes progressively more severe, the duration longer, and the interval between them shorter. This question seeks to determine whether it was a prolonged labor or not. Ask the respondent "How long did the labor pains last?" Circle the appropriate response.

613: Was it a normal vaginal delivery?

Ask if the birth was a normal vaginal delivery, and record the appropriate response. If 'yes' or 'don't know', follow the skip pattern.

614: What type of delivery was it?

This is a filter question, to be asked only if the answer to the previous question was 'no'. Ask the respondent about the type of delivery, and read the response categories. Circle the appropriate response. If the respondent does not know the technical name of the procedure, ask him/her to describe the procedure, and use the following information to guide you to choose the appropriate response option.

In case of prolonged or difficult labor, a "forceps" or "vacuum delivery" may be performed. These types of delivery involve application of a metal cap on the head of the fetus as it emerges from the birth canal. The cap is then pulled down by the birth attendant to assist the mother's effort to "push down." There is a chance of injury to the fetus. Injuries with fatal outcomes are mostly on the head, and

manifest as swelling, blood clots, or sometimes even external, open injuries.

A surgical incision through the walls of the abdomen and uterus is sometimes performed to deliver a child. This mode of delivery is called "caesarean section" and in most cases it is performed because of complications that took place during labor.

Circle the appropriate response. If the type of delivery cannot be determined by the interviewer, circle '6' for 'other' and specify the terms the respondent used to describe the procedure.

615: Which part of the baby came first?

Ask which part of the baby came out of the womb first, and circle the appropriate response. If the respondent's answer does not match the coding options, circle '6' for 'other' and specify the response in the space provided.

616: Did the umbilical cord come out before the baby was born? Ask if the umbilical cord came out of the womb before the baby was born. Circle the appropriate response.

SECTION 7. CONDITION OF THE BABY SOON AFTER BIRTH

701: At birth what was the size of the baby?

The normal weight of a baby at birth is between 2.5 kg and 3.9 kg. A baby less than 2.5 kg is small and a baby of 4 kg or more is large. This question is asked to determine if the baby had low birth weight at birth. Ask the respondent, "At birth, what was the size of the baby?" Circle the appropriate response.

702: Was the baby premature?

This question is related to the duration of the pregnancy, which has a very important bearing on the maturity of the child and mortality. The duration is counted from the last menstrual period to the birth of the child. A premature child is a child who was delivered between 28 and 38 weeks of pregnancy. Full-term babies are born between 38 and 40 weeks after the last menstrual period. Therefore, a premature baby is a baby born before 38 weeks (or less than nine months) of pregnancy.

The difference between question 701 and questions 503-505 is that 503-505 relate to pregnancy history and question 702 relates to maturity of the baby. They appear similar but are different. The baby can be small or weigh less than 2.5 kg but was born at 38 or more weeks.

Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

703: How many months or weeks along was the pregnancy?

This is a filter question, to be asked only if the answer to the previous question was "yes." Record the number of months/weeks of pregnancy when the baby was born.

704: What was the birth weight of the baby?

The average weight of a baby at birth is between 2.5 kg and 3.9 kg. A baby less than 2.5 kg is small and a baby of 4.0 kg or more is large. This question is asked to determine if the baby had low birth weight at birth. Ask the respondent the child's weight at birth, and write this number in kilograms in the space provided.

705: Was anything applied to the umbilical cord stump after birth?

Usually, immediately after a baby is born, the umbilical cord is tied with a ligature or thread and divided by scissors. Sometimes, especially in babies born at home without medical supervision, the umbilical cord is cut by potentially septic means and various types of substances are applied on the umbilical stump. Ask, "Was anything applied to the umbilical cord stump after birth?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

706: What was it?

This is a filter question. If the answer to the previous question was "yes," ask the respondent what was applied to the cord after birth, and record his/her response in the space provided.

707: Were there any signs of injury or broken bones?

It is important to know if there were any bruises or signs of injury on the baby's body after birth. Signs of injury or bruises or broken bones indicate birth trauma from difficult delivery. There could be a collection of blood in the head (scalp) and under the skin surface anywhere in the body of a child or a broken limb. Ask if there were any signs of injury or broken bones, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

708: Where were the marks or signs of injury?

This is a filter question. If the answer to the previous question was "yes," ask and record the location of the injury marks on the baby's body.

709: Was there any sign of paralysis?

Paralysis is the loss of muscle tone and power in an area or part of the body, usually as a result of diseases or injuries involving the head and backbone/spine. Some mothers confuse paralysis and weakness as a result of illness. Make sure that there is no confusion. Ask, "Was there any sign of paralysis?" Record the appropriate response.

710: Did the baby have any malformation?

This question asks whether the baby showed abnormalities of any part of the body after birth. Specific examples may include a swelling or defect on the back, a small or large head, defect on upper and lower limbs, neck, face, mouth, and lips. Ask if there was any malformation, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

711: What kind of malformation did the baby have?

This is a filter question. If the answer to the previous question was "yes," ask and record the kind of malformation the baby had, by circling the appropriate response from the list indicated on the form. If '6-other malformation' is selected, the type of malformation must be specified in the space provided.

Questions 712 through 717 are very important and should be asked carefully, and the appropriate responses recorded. They are asked to determine whether the child was born alive or dead.

712: What was the color of the baby at birth?

A normal baby is usually born with pink color, but if there were problems in the baby or during birth that interfered with breathing and blood circulation the baby could be born blue or pale. In darkskinned babies, the color change can only be noticed in lips, palms, or soles of the feet. Ask the color of the baby at birth, and read the response categories. Circle the appropriate response.

713: Did the baby breathe after birth, even a little?

Ask, "Did the baby breathe after birth, even a little?" and record the appropriate response.

714: Was the baby given assistance to breathe?

Ask, "Was the baby given assistance to breathe?" and record the appropriate response. This may indicate the baby was born alive but had breathing difficulties that required assistance. There may be instances where the birth attendant may not be sure whether the baby was born alive or dead and therefore will attempt to assist the baby to breathe.

715: Did the baby ever cry after birth, even a little?

Most babies cry after birth. It indicates that the baby is breathing. The cry may be weak in some cases. Ask the respondent if the child ever cried immediately after birth, even a little. Record the appropriate response.

716: Did the baby ever move, even a little?

Ask the respondent, "Did the baby ever move, even a little?" Record the appropriate response.

717: Check 713, 715, and 716 for codes 'no':

If the responses to questions 713, 715, and 716 are all 'no', then put an 'x' in the appropriate box and ask 718. If the response to either 713, 715 or 716 was 'yes', then put an 'x' in the box on the right and skip to question 801.

718: If the baby did not cry, breathe or move, was it born dead?

If the respondent indicated that the baby did not cry, breathe, or move (that is, they answered "no" to 713, 715, and 716), ask if the baby was born dead. Circle the appropriate response. If the child was born dead, it will be considered a stillbirth, and the VAI should continue asking 719. If the baby was born alive, then skip to 801.

719: Was the baby macerated, that is, showed signs of decay?

This is a filter question, and is asked only if the baby was born dead. Ask, "Was the baby macerated, that is, showed signs of decay?" Signs of decay include softening of the muscle mass and decaying changes in the skin. Circle the appropriate response, and then proceed directly to 1001.

SECTION 8. HISTORY OF INJURIES/ACCIDENTS

The questions in this section should be asked of all children who were born alive, even if the respondent does not believe that an injury caused the child's death.

801: Did the baby suffer from any injury or accident that led to her/his death?

Ask the respondent if the baby suffered from any injury or accident that led to her/his death. Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

802: What kind of injury or accident did the baby suffer?

This is a filter question, and it is only asked if the answer to 801 was "yes." Ask the respondent what kind of injury/accident led to death, and circle only one response. If the respondent names a type

of injury/accident that is not listed, write this information in the space provided under "96-other."

803: Was the injury or accident intentionally inflicted by someone else?

This is a filter question, and it is only asked if the answer to 801 was "yes." Ask the respondent if the injury/accident that led to death was intentionally inflicted by someone else. Questions 802 and 803 are asked to differentiate between intentional and unintentional injuries.

804: Did the baby suffer from any animal/insect bite that led to her/his death?

Ask, "Did she or he suffer from any animal/insect bite that led to her/his death?" and circle the appropriate response. Do not include mosquito bites. If 'no' or 'don't know', follow the skip pattern.

805: What type of animal/insect?

This is a filter question, and it is only asked if the answer to 804 was "yes." Ask the respondent what kind of animal/insect bite led to death, and circle only one response. If the respondent names a type of animal/insect that is not listed, write this information in the space provided under "6-other".

SECTION 9. NEONATAL ILLNESS HISTORY

Questions 901-939 are only asked if the child was born alive, but died within the first 27 days (4 weeks) of life. Therefore, if the answer to 718 above was "yes," that is if the child was born dead, do not ask these questions. Instead, go to 1001.

901: Was the baby ever able to suckle or bottle-feed?

The baby may stop breastfeeding when it falls sick. In addition, breastfeeding is an important component of the child's nutrition. Ask, "Was the baby ever able to suckle or bottle-feed?" Circle the response given. If the answer is 'no' or 'don't know', follow the skip pattern.

902: How soon after birth did the baby suckle or bottle-feed?

This is a filter question, and is asked if the answer to 901 above was "yes." A baby generally starts sucking the breast soon after birth, but some babies start breast-feeding or bottle-feeding on the second or the third day. Ask how soon after birth the baby started breastfeeding or bottle-feeding, and record the duration in hours or days.

903: Did the baby stop suckling or bottle-feeding?

This is a filter question, and it is only asked if the answer to 901 was "yes." If the child was able to breast- or bottle-feed soon after birth, ask

whether the baby stopped breast- or bottle-feeding later on. Circle the response given. If 'no' or 'don't know', follow the skip pattern.

904: How many days after birth did the baby stop suckling or bottle-feeding?

This is a filter question, and it is only asked if the answer to the previous question (903) was "yes." If the child stopped breast- or bottle-feeding, ask how many days after birth the baby stopped suckling or bottle-feeding. Write the number of days in the response box.

905: Was the breastfeeding exclusive?

Exclusive breast-feeding means feeding the baby with the breast only, without supplementary feeding. Ask, "Was the breastfeeding exclusive?" and circle the appropriate response.

906: Did the baby have convulsions?

Convulsions cause a baby's body to shake rapidly and uncontrollably. During convulsions, the child's muscles contract and relax repeatedly. He or she may drool excessively or foam at the mouth. The VAI should demonstrate what convulsions look like. Ask the respondent if the baby had convulsions. Circle the correct response. If 'no' or 'don't know', follow the skip pattern.

907: How soon after birth did the convulsions start?

This is a filter question, and it is only asked if the answer to the previous question was "yes." If the child had convulsions, ask how many days after birth the convulsions started. Write the number of days after birth in the response box.

908: Did the baby become stiff and arched backwards?

Ask, "Did the baby become stiff and arched backwards?" Circle the response given.

909: Did the child have bulging of the fontanelle?

A bulging fontanelle manifests when the skin on the top, soft part of the head protrudes. This may be a sign of infection of the brain and its adjacent parts. In some cultures, there are local terms to describe this condition, and mothers often know these terms. Ask if the baby had bulging of the fontanelle, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

910: How many days after birth did the baby have the bulging? This is a filter question, and it is only asked if the answer to the previous question was "yes." If the child had a bulging fontanelle, ask

how many days after birth the bulging fontanelle started. Write the number of days after birth in the response box.

911: Did the baby become unresponsive or unconscious?

A state of unconsciousness is when someone experiences loss of senses (i.e. inability to see, hear, or be aware of surroundings). This question inquires whether the baby became unconscious and unresponsive to verbal commands or external stimuli (such as pinching, injections, etc.) during illness. Ask "Did the baby become unresponsive or unconscious?" Record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

912: How many days after birth did the baby become unresponsive or unconscious?

This is a filter question, and it is only asked if the answer to the previous question was "yes." Ask how many days after birth the baby became unresponsive or unconscious. Write the number of days after birth in the response box.

913: Did the baby have a fever?

It is important to know whether the baby had history of continuous or intermittent fever (coming on alternate days, and sometimes daily), with or without shivering. Ask if the baby had fever (hot body), and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

914: How many days after birth did the baby have a fever?

This is a filter question, and it is only asked if the answer to the previous question was "yes." Ask how many days after birth the baby had a fever. Write the number of days after birth in the response box.

915: Did the baby become cold to the touch?

Ask if the baby became cold to the touch, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

916: How many days after birth did the baby become cold to the touch?

This is a filter question, and it is only asked if the answer to the previous question was "yes." Ask how many days after birth the baby become cold to the touch. Write the number of days after birth in the response box.

917: Did the baby have a cough?

Ask if the baby had a cough, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

918: How many days after birth did the baby start to cough?

This is a filter question, and it is only asked if the answer to the previous question was "yes." Ask how many days after birth the baby started to cough. Write the number of days after birth in the response box.

919: Did the baby have fast breathing?

A baby generally takes about 50 breaths in a minute or about one per second. A mother often knows when her child is breathing fast. Ask if the baby had fast breathing, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

920: How many days after birth did the baby start breathing fast?

This is a filter question, and it is only asked if the answer to the previous question was "yes." Ask how many days after birth the baby started breathing fast. Write the number of days after birth in the response box.

921: Did the baby have difficulty breathing?

There are many ways in which a child with difficulty breathing presents: sometimes a respondent/mother may have noticed a continuous, high-pitched, hissing sound (wheezing) or the baby may visibly show that she or he is having difficulties in breathing in and out. Early signs of respiratory failure include altered depth and pattern of respirations, shortness of breath, nasal flaring, chest wall retractions, expiratory grunt, and wheezing, and/or prolonged expiration.

Ask if the baby had difficulty breathing, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

922: How many days after birth did the baby start having difficulty in breathing?

This is a filter question, and it is only asked if the answer to the previous question was "yes." Ask how many days after birth the baby started having difficulty in breathing. Write the number of days after birth in the response box.

923: Did the baby have chest indrawing?

This is a filter question, and it is only asked if the answer to 921 was "yes." Chest indrawing refers to when the area beneath the chest, around the upper part of the abdomen/stomach, is drawn in to assist breathing as the child breathes. This may also be a sign of chest infection. Ask if the baby had chest indrawing.

924: Did the baby have grunting? DEMONSTRATE.

This is a filter question, and it is only asked if the answer to 921 was "yes." Grunting is a sound produced by a child in a manner that shows or indicates "suffering or being ill." The grunting of sick children is like a sigh but is more regular, often with every breath. The child usually appears to be in some distress or to be ill. Grunting respirations in a baby with a fever or who appears to be sick is a very bad sign of immediate emergency and could represent a very serious respiratory infection. Grunting helps the child to get additional air into the lungs. Ask if the baby had grunting. Demonstrate grunting noises.

925: Did the baby have flaring of the nostrils?

This is a filter question, and it is only asked if the answer to 921 was "yes." Nasal flaring refers to enlargement of the opening of the nostrils during breathing. Nasal flaring is seen mostly in infants and younger children. Nasal flaring is often an indication that increased effort is required for breathing. Any condition that causes the infant to work harder to obtain enough air can cause nasal flaring. While many causes of nasal flaring are not serious, some can be life-threatening. In young infants, nasal flaring can be a very important sign of respiratory distress. Ask the mother or the respondent if the baby had flaring of the nostrils.

926: Did the baby have diarrhea?

It is normal in the first 2-3 days of life for the child to pass loose stools. Mothers usually know when a baby is having diarrhea. They may use a local term to describe it. Diarrhea is the frequent passage of loose or watery stools, with or without blood. Ask if the baby had diarrhea, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

927: How many days after birth did the baby have diarrhea?

This is a filter question, and it is only asked if the answer to the previous question was "yes." Ask how many days after birth the baby started having diarrhea. Write the number of days after birth in the response box.

928: When the diarrhea was most severe, how many times did the baby pass stools in a day?

This is a filter question, and it is only asked if the answer to 926 was "yes." Ask how many times in a day the baby passed stools when the diarrhea was severe. Write the number of times in the response box.

929: Was there blood in the stools?

This is a filter question, and it is only asked if the answer to 926

was "yes." Ask if there was blood in the baby's stools. Circle the appropriate response.

930: Did the baby have vomiting?

It is important to record whether the infant had vomiting. The VAI should distinguish vomiting from effortless regurgitation of milk (which is normal). Ask if the baby had vomiting, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

931: How many days after birth did vomiting start?

This is a filter question, and it is only asked if the answer to the previous question was "yes." Ask how many days after birth the baby started having vomiting. Write the number of days after birth in the response box.

932: When the vomiting was most severe, how many times did the baby vomit in a day?

This is a filter question, and it is only asked if the answer to 930 was "yes." Ask how many times in a day the baby vomited when the vomiting was severe. Write the number of times in the response box.

933: Did the baby have abdominal distension?

Ask if the baby had abdominal distension, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

934: How many days after birth did the baby have abdominal distension?

This is a filter question, and it is only asked if the answer to the previous question was "yes." Ask how many days after birth the baby started having abdominal distension. Write the number of days after birth in the response box.

935: Did the baby have redness or discharge from the umbilical cord stump?

Ask, "Did the baby have redness or discharge from the umbilical cord stump?" Circle the appropriate response.

936: Did the baby have a pustular skin rash?

A pustular skin rash is a skin manifestation in which tiny sac-like bumps appear, which contain pus and indicates that skin infection with bacteria. Ask, "Did the baby have a pustular skin rash?" Circle the appropriate response.

937: Did the baby have yellow palms or soles?

Ask, "Did the baby have yellow palms or soles?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

938: How many days after birth did the yellow palms or soles begin?

This is a filter question, and it is only asked if the answer to the previous question was "yes." Ask how many days after birth the baby started having yellow palms or soles. Write the number of days after birth in the response box.

939: For how many days did the baby have yellow palms and soles?

This is a filter question, and it is only asked if the answer to 937 was "yes." Ask how long the baby had yellow palms or soles. Write the number of days in the response box.

SECTION 10. MOTHER'S HEALTH AND CONTEXTUAL FACTORS

1001: What was the age of the mother at the time the baby died?

This question seeks to find out the age of the mother at the time the baby died. Ask, "What was the age of the mother at the time the baby died?" Write the number of completed years in the response box provided.

1002: Did the mother receive antenatal care?

Antenatal care is routine care for the health of a pregnant woman and her child. During antenatal care, a pregnant woman is seen by her physician, midwife, or other trained health provider at regular intervals during pregnancy to check that all is well with her and her baby. Ask the respondent if the mother had antenatal care during her pregnancy. Record the information by circling the appropriate response.

1003: Did the mother receive tetanus toxoid (TT) vaccine?

Usually tetanus toxoid (TT) injections are given to mothers during pregnancy to prevent tetanus. Ask if the mother received TT vaccine. Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

1004: How many doses?

This is a filter question, and it is only asked if the answer to 1003 was "yes." Usually two injections are given to prevent tetanus. Ask how many TT injections/doses the mother received, and write the number of doses in the space provided.

1005: How is the mother's health now?

Ask about the condition of the mother at the time you visit the household. If the mother of the child is your respondent, ask her whether she is healthy and fine or if she is feeling sick. If your respondent is not the mother of the deceased baby, ask: "How is the child's mother now?" Circle the response given by the respondent from among the response options: 'healthy-1'; 'ill-2'; 'not alive-3'; or 'don't know-8'.

SECTION 11. TREATMENT AND HEALTH SERVICE USE FOR THE FINAL ILLNESS

This is another section that is common to all the VA forms, found near the end of each form after the symptom duration checklist. However, the questions in this section are slightly different in each form. In this section, information is collected on the type of health services sought on behalf of the deceased during illness, and whether he or she received any treatment during those services. This section begins with the heading: "Treatment and health service use for the final illness."

1101: Did the baby receive any treatment for the illness that led to death?

The first question asked under this section seeks to know whether the deceased received any treatment for the illness that led to death. The response categories are 'yes - 1,' 'no - 2,' and 'don't know - 8.' This question is asked in all three types of VA forms. If the respondent says "yes," that the person received treatment for the illness that led to death (that is, '1' is circled), then additional (filter) questions need to be asked. If 'no' or 'don't know', follow the skip pattern to the next section.

1102: Can you please list the treatments the baby was given for the illness that led to death?

This is a filter question, only to be asked if the answer to 1101 was 'yes'. Ask the respondent to list, in chronological order, the treatments the individual was given for the disease that led to death. Ask if prescription or discharge forms are available; if so, the VAI should copy the information from such hospital documents into the space provided.

1103: Please tell me at which of the following places or facilities the baby received treatment during the illness that led to death.

This is a filter question, only to be asked if the answer to 1101 was 'yes'. This seeks to identify different places or facilities at which the deceased received treatment during the illness that led to his or her death. Different types of health facilities/services are listed on the

form. Read each of the options and ask the respondent to identify all the specific types of services used by the deceased in the period before death. Circle all places/facilities at which she or he received treatment during the illness that led to death. If the respondent's answer does not match the coding options, circle '1-yes' for item 8 and specify the response in the space provided.

1104: In the month before death, how many contacts with formal health services did the baby have?

This is a filter question, only to be asked if the answer to item 3, 4, 5, or 6 in question 1103 was 'yes'. This question asks the number of contacts with formal health services [in the previous question: government clinic (3), government hospital (4), private clinic (5), or private hospital (6)] the deceased had in a month prior to her or his death when she or he received treatment. Ask, "In the month before death, how many contacts with formal health services did she or he have?" Record the total number of visits made to these facilities in the space provided. For example, during the last week of life, if the deceased went to a government clinic twice, and then government hospital once, the VAI should enter "03" in the box.

1105: Did a health care worker tell you the cause of death?

This is a filter question, only to be asked if the answer to item 3, 4, 5, or 6 in question 1103 was 'yes'. This question is asked if the baby that died received treatment. Ask the respondent, "Did a health care worker tell you the cause of death?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

1106: What did the health care worker say?

This is a filter question, only to be asked if the answer to 1105 was 'yes'. Ask the respondent, "What did the health care worker say?" Write the cause of death mentioned by the respondent in the space provided.

The final two sections, common to all the three types of forms, require the VAI to record information from death certificates and/or any documents that may be available at the household relating to medical treatment or the cause of death.

SECTION 12. DATA ABSTRACTED FROM DEATH CERTIFICATE

1201: Do you have a death certificate for the baby?

Ask the respondent if there is a death certificate for the baby that died. If 'no' or 'don't know', follow the skip pattern.

1202: Can I see the death certificate?

This is a filter question, only to be asked if the answer to 1201 was 'yes'. If the household has a death certificate, ask if you can see it, in order to record information about the date and cause of death. Copy the day, month, and year of death from the death certificate.

If the respondent will not allow you to see the death certificate, continue to the next section.

1203

This is a filter question, only to be asked if the death certificate is available. Copy the day, month, and year of issue from the death certificate.

1204

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the FIRST line of the death certificate. There should always be a cause listed on the first line of the death certificate.

1205

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the SECOND line of the death certificate, if a cause is listed.

1206

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the THIRD line of the death certificate, if a cause is listed.

1207

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the FOURTH line of the death certificate, if a cause is listed.

SECTION 13. DATA ABSTRACTED FROM OTHER HEALTH RECORDS

The purpose of this section is to summarize any written evidence of health records that can be obtained from the respondent. This information will help in the process of assigning a probable cause of death. There are various types of supporting evidence including burial permits, MCH/ANC cards, in-patient or out-patient records, prescriptions, or hospital discharge forms. These are listed on the VA form, and you will need to ask about each one of these individually.

It is crucial that the verbal autopsy interviewer is familiar with these cards/forms and that they are available during the verbal

autopsy interviewers' training. During the training each form will be presented and the details explained fully. When you come across these forms during field work you might find medical/health records which are not very legible. It is essential that you should try to understand the words written on the records so that you are able to copy the information onto your verbal autopsy forms. Record as much information as possible on the verbal autopsy forms, but refrain from interpreting or recording information that is not reported.

For VA Form 1, it is important that the VAI request these health records for the baby, but also the health records of the mother during her pregnancy with the child that died. Often, information from the mother's health records is useful for determining the cause of the infant's death. Relevant information would include illnesses that occurred during pregnancy up until the death of the infant, and in the case of stillbirth, from beginning of pregnancy until the child is born.

1301: Other health records available

Ask the respondent if any other types of health records might be available. If 'no', follow the skip pattern to 1311.

1302:

For each type of health record listed below, ask if the respondent has the type of record. If so, summarize the details of the last two visits (if there were more than two, otherwise just the last visit) from each of the supporting documents on the form. Record the date of issue for each form.

Do not forget to record information about the mother, and any stillborn deceased child.

1303: Burial permit

If there is burial permit for the baby, copy the cause of death listed on the burial permit, and the date of issue. If you were shown a burial permit that says the causes of death were low birth weight and prematurity, for example, carefully copy these reasons for death onto the form, as well as the date on the permit.

1304: Postmortem results

If a post-mortem was done on the baby, copy the cause of death listed from the post-mortem, and the date of issue.

1305: MCH/ANC card

If there is a MCH or ANC card for the mother/child that died, summarize any information that may be listed on the card(s), and the date of issue. The ANC card contains information on progress and events

that occur during pregnancy and delivery. Some of the problems that may be recorded include high blood pressure and infections such as malaria, and delivery complications. The MCH card contains information on progress of the child's health (e.g. weight) and illnesses (especially infections).

1306: Hospital prescription

If there are any hospital prescriptions, write the name of each type of medication, the dosages, and the dates of issue.

1307: Treatment cards

If there are any treatment cards, write the name of each type of treatment, the dates or length of treatment, and the dates of issue.

1308: Hospital discharge

If there are any hospital discharge forms, summarize the reasons/diagnosis for hospitalization and treatment that was given and record the dates of hospitalization and of issue.

1309: Laboratory results

If there are any laboratory results documented, write the names of each laboratory test performed, the results, and the dates of issue. You may find terms that are not very familiar but it is important to make all efforts to copy the information as it appears on the laboratory result form.

1310: Other hospital documents

Ask the respondent if any other types of hospital or health records might be available. If so, specify the type and summarize the document.

1311: Record the time at the end of interview

Record the time using 24-hour format.

INTERVIEWER'S OBSERVATIONS

At the end of the interview, after leaving the household, please include any additional comments about the interview. You may make comments about the respondent you interviewed, about specific questions on the questionnaire, or about any other aspects of the interview. If anything about the interview was unusual or should be brought to the attention of the editor or supervisor, note it here.

If you were unable to complete the interview for any reason, or if certain answers required further explanation, this space should be used to document the reason the interview could not be completed. At the end of the interview, consider the following:

- Before leaving the household, check the VA form that you have completed to make sure you have done so accurately and completely.
- In particular, you should make sure that every question in the form has been asked (except where skip patterns were employed) and check your writing to ensure that others can read what you have written.
- Check your work systematically. First, make sure that information identifying the household has been entered. Then look at all sections for consistency and completion to ensure that all your entries agree item by item and that you have not written anything that is not required.
- If you find discrepancies, mistakes, or omissions, ask further questions and correct your form. It must be complete and accurate in all respects before you leave the household.
- When you are satisfied that everything is in order, thank the respondents and the family for their cooperation and willingness to be interviewed. You may again offer words of sympathy (if culturally appropriate) before you leave.
- When you have completed the day's work or all VA interviews in one particular segment, report to your supervisor with all your completed forms and logbooks. She or he will then check with you to verify that everything is in order and accurate before collecting the forms for further scrutiny and processing.
- If there is more than one VA interviewer in your area, you should arrange to meet to assess each other's work and make sure that VA interviews have been conducted for all reported deaths in your area. Once satisfied, report your work to the supervisor.

AT THE END OF THE INTERVIEW

Checklist Questions for VA Form 2: Death of a Child Aged 4 Weeks to 14 Years

The international verbal autopsy form 2 should be used for all deaths occurring from 4 weeks (post-neonatal) to 14 years of age (older children). Form 2 is appropriate for any child dying between 28 completed days and 14 completed years. For example, Form 2 is appropriate for a child who died at age 14 years, 364 days. Form 2 is used to collect information on the history of illness, events, signs, and symptoms preceding death of a child in this age group. This chapter provides instructions for filling in Form 2.

There are different types of sections on VA Form 2:

- Sections 2-3 contain questions about the respondent and socio-demographic information about the deceased;
- Section 4 is an open-ended section in which the respondent is asked to describe the sequence of events leading to death;
- Section 5 is a checklist of previously-diagnosed medical conditions (for example: Q504. "Did the child suffer from Asthma?");
- Section 6 contains questions that relate to a potentially catastrophic event that happened before death (for example: Q601. "Did s/he suffer from any injury or accident that led to her/his death?").
- Section 7 contains questions that relate to symptoms and signs of illness of infants who died before reaching their first birthday, and the duration of illness (for example: Q704. "Was the child growing normally?");
- Section 8 contains questions that relate to current health status of the mother, and symptoms and signs during the final illness of children who died, as well as the duration of illness (for example: Q817. "For how long did s/he have

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chest indrawing?");

- Section 9 contains questions about health service utilization; and
- Sections 10-11 ask the interviewer to abstract information from a death certificate or other health records (if available).

HOW TO COMPLETE VA FORM 2

Some questions might seem to be a little embarrassing or might not seem to you to be directly related to the death. However, it is important to follow the instructions given to you during training and in this manual in order to make the verbal autopsy certification and coding process work properly.

Important:

- You must ask every question as it appears in the verbal autopsy form without skipping a single question, unless specifically directed to do so in the form.
- You must do this even if the cause of death seems obvious to you.
- Some questions ask the number of days that a symptom or condition was present. If the respondent knows that the deceased had the symptom but does not know the duration, circle the duration code for "DON'T KNOW." (If left blank, it will be assumed that you did not ask that particular question and your form will be returned to you for correction.)
- For deaths of a child from 4 weeks to 14 years: the duration of each sign/symptom should be recorded as the time between the onset of a particular symptom/sign and the cessation of that symptom/sign. For example, if a 14-year old child began to have fever 10 days before death, but ceased having fever two days before death, the duration of fever during the period that led to death would be 8 days.
- If the deceased had a sign or symptom, but it appeared on the day of death, write "1" in the box for days.

- For questions where it is necessary to circle a response, only one response should be circled (unless the form instructs you otherwise).
- Certain questions ask for more detail about a sign/symptom than a simple yes/no or duration question. For these questions, the VAI should read the response categories located below the question (in lower case) to the respondent to be certain that the response is coded correctly.

Each of the VA forms has places where you can, under certain circumstances, skip questions. These are called "filter" questions. For example, Q702: "Was the child born prematurely?" is followed by one filter question, Q703: "How many months or weeks premature?"

Note that, when a skip pattern is being applied, there is an arrow '—' located to the right of the response code. If one of the codes to the left of the arrow or bracket is used, the next question that should be asked is identified in the 'Skip' column on the far right of the form. To continue with the previous example, if in Q702 the respondent states that the child was not born prematurely, the VAI should circle '2', skip question 703, and ask question 704.

If there is no arrow located to the right of the appropriate response code, simply continue to the next question on the form.

Sometimes a respondent may not be able to remember all the details on the symptom duration checklist, especially if the caregiver of the child who died is not your respondent. Therefore, whenever necessary you should ask other family members who may have more detailed information regarding the symptoms and their durations or the treatments received. Collateral sources of information should be used to obtain as detailed and accurate information as possible on the illness prior to death, in order to assist in the assignment of cause of death.

SECTION 2. BASIC INFORMATION ABOUT THE RESPONDENT

201: Record the time at start of the interview

Record the time using 24-hour format.

202: Name of the respondent

Fill in the complete name of the respondent in the space provided.

203: What is your relationship to the deceased?

There are six options for this question. These options describe the relationship between the respondent and the deceased. In International Verbal Autopsy Form 2, the option for "Child" is not listed because this is not a logical choice for a deceased child in the age range. You should ask the respondent, "What was your relationship to the deceased?" Circle the correct response among categories provided. For example, if the respondent is the mother of the deceased, then circle: "2" for mother.

204: Did you live with the deceased in the period leading to her/his death?

This yes-or-no question asks if the respondent lived at the same residence with the deceased during the events that led to death. You should ask the respondent: "Did you live with the deceased in the period leading to death?" If the respondent lived with the deceased during his or her illness or before the death, the answer is "yes", thus circle "1." If the respondent did not live with the deceased, circle "2" for no.

SECTION 3. INFORMATION ON THE DECEASED AND DATE/PLACE OF DEATH

301: What was the name of the deceased?

Fill in the complete name of the deceased in the space provided. Ask for the three names of the deceased (if appropriate) and write them in the space provided in the VA form. It is important to make sure that you are given the names that the deceased used during medical treatment in case permission is sought to access the deceased's medical records. If the deceased used any alias names, it is advisable to write them in parenthesis. If an infant had not been given a name, write "NO NAME."

302: Was the deceased male or female?

Sex should be recorded carefully. Record the sex of the deceased by circling the appropriate number ("1" for a male child, "2" for a female child).

303: When was the deceased born?

Ask the respondent for the complete date of birth. Fill in the day, month and year in the boxes provided.

A child's date of birth is usually written in a birth certificate, maternal-child health (MCH) card, and antenatal-care card (ANC), which you may ask to see for confirmation. If the birth has occurred

recently, it is very likely that the parents of the child will have one of these documents available. For example, for a deceased child born on May 24, 2005 (using "05" for the month of May), write: "24, 05, 2005" in the date of birth boxes.

In some cases the exact date of birth may not be known and records might not be available to help. In these cases, only fill in what is actually known about the date of birth. For example, if a child is known to have been born sometime in May 2002, but the exact date is unknown, record '98' in the boxes for DAY. If the month of birth is unknown, record '98' in the boxes for MONTH. If the year is unknown (which is unlikely) record '9998' in the boxes for YEAR.

304: How old was the deceased when s/he died?

In addition to the date of birth and date of death, from which age at death of the deceased can be calculated, this question is asked as a form of verification to the age at death of the deceased. This question is also used as a filter for Q604 and Q608 asked later in this questionnaire. Ask the age of the deceased at the time of death, and record the age (in years) in the boxes provided. If the child was less than one year old when s/he died, write '00' in the boxes. If the age in unknown, and cannot be estimated, record '98.' Interviewers should double check with the respondent if age at death mentioned is different from the difference between year of death and year of birth.

305: What was her/his occupation, that is, what kind of work did s/he mainly do?

Ask the respondent for the primary occupation of the deceased. If the child was a student, record 'student'.

Specific instructions on how to collect and code occupation information will need to be determined by local authorities.

306: What was the highest level of formal education the deceased attended?

Ask the respondent the highest level of formal education attended by the deceased, and circle the appropriate response.

Specific instructions on how to collect and code education information will be determined by local authorities.

307: What was her/his marital status?

Ask the respondent the marital status of the deceased, and circle the appropriate response.

Specific instructions on how to collect and code marital status information will be determined by local authorities.

308: When did s/he die?

Ask the respondent for the complete date of death. Fill in the day, month and year in the boxes provided. If the exact date of death is unknown, follow the instructions provided on the VA form.

309: Where did s/he die?

Ask the respondent where the deceased died, and circle the appropriate choice using one of the following categories:

- If the death occurred in a hospital, circle "1."
- If the death occurred in a different type of health facility, circle "2."
- If the person died at home, circle "3."
- If the death occurred at any other location, such as on a roadway during an accident, away from home, or during transit between home and a health facility, circle "6" for other, and write the name of the location.
- If the location of death was unknown, circle "8"

In some applications, it may be useful to record the name of the health facility at which death occurred.

SECTION 4. RESPONDENT'S ACCOUNT OF ILLNESS/EVENTS LEADING TO DEATH

The next section of the VA forms is an open-ended narrative of the events leading to, and causing, the death of the individual.

401: Could you tell me about the illness/events that led to her/his death?

In the space provided, write a history of illness or events leading to the death as narrated by the respondent. This is a "story" about what led to the death and is not a medical history. This might be a sequence of symptoms of disease and the deceased person's health in general prior to death or might be the events that caused the death. Local terms of common illnesses should be written as stated.

402: Cause of death 1 according to respondent

Ask the respondent what he or she thinks caused the death. Write exactly what the respondent says, even if it is an entirely non-medical explanation or a term in vernacular (local) language; do not try to interpret comments. If the respondent states that nothing was noticed, and that the death was sudden, record that observation as stated. Do

not probe further at this stage. The respondent may also state that death was caused by a supernatural or evil spirit.

For example, if the respondent says that the deceased was bewitched, even if you think it would be better to add or modify this reason, write: "Bewitched" or "Witchcraft."

403: Cause of death 2 according to respondent

If the respondent mentions more than one cause of death, write any and all additional causes in the space provided, exactly as the respondent tells you.

SECTION 5. HISTORY OF PREVIOUSLY KNOWN MEDI-CAL CONDITIONS

Questions on chronic medical conditions that the deceased might have had are asked in this section. These are medical conditions that could have been clinically diagnosed among older children and adults and are asked in order to get a better understanding of their contribution to ill health of the individual before his or her death. You should ask the respondent whether any of the conditions listed were diagnosed by a medical professional and circle the appropriate response.

Please note that this section only appears in Forms 2 and 3, because it is highly unlikely that a baby that dies in the first 4 weeks of life will have a history of chronic medical conditions.

501

When you reach this section of the form, you must inform the respondent that you are going to ask her or him the symptoms that were present before death. For consistency, a statement paragraph has been added for you to read to the respondent:

I would like to ask you some questions concerning previously known medical conditions the deceased has; injuries and accidents that the deceased suffered; and signs and symptoms that the deceased had/showed when s/he was ill. Some of these questions may not appear to be directly related to his/her death. Please bear with me and answer all the questions. They will help us to get a clear picture of all possible symptoms that the deceased had.

Then ask the respondent, "Please tell me if the deceased suffered from any of the following illnesses," and circle the appropriate response.

502: Heart disease?

503: Diabetes?

504: Asthma?

505: Epilepsy?

506: Malnutrition?

507: Cancer?

If 'no' or 'don't know', follow the skip pattern.

508: Can you specify the type or site of cancer?

If known, write the primary site or type of the cancer (e.g. 'breast cancer' or 'malignant melanoma'). Remember, the cancer must have been diagnosed by a medical officer.

509: Tuberculosis?

510: HIV/AIDS?

511: Did s/he suffer from any other medically diagnosed illness? If 'no' or 'don't know', follow the skip pattern.

512: Can you specify the illness?

This is a filter question, and it is asked if the answer to 511 was "yes." Write the illness in the space provided.

SECTION 6. HISTORY OF INJURIES/ACCIDENTS

The questions in this section should be asked of all children, even if the respondent does not initially believe that an injury or accident caused the child's death.

601: Did s/he suffer from any injury or accident that led to her/his death?

Ask the respondent if the child suffered from any injury or accident that led to his/her death. Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

602: What kind of injury or accident did the deceased suffer?

This is a filter question, and it is only asked if the answer to 601 was "yes." Ask the respondent what kind of injury/accident led to death, and circle only one response. If the respondent names a type of injury/accident that is not listed, write this information in the space provided under "96-other."

603: Was the injury or accident intentionally inflicted by someone else?

This is a filter question, and it is only asked if the answer to 601 was "yes." Ask the respondent if the injury/accident that led to death was intentionally inflicted by someone else. Questions 602 and 603 are asked to differentiate between intentional and unintentional injuries.

604: Check questions 304 for age at death

If the age of the child who died (found in question 304) is 10 years or older, then put an 'x' in the appropriate box and ask 605.

If the age of the child who died is under 10 years, then put an 'x' in the box on the right and skip to question 606.

605: Do you think that s/he committed suicide?

Ask, "Do you think that s/he committed suicide" and circle the appropriate response. This question is not appropriate if the deceased was younger than age 10.

606: Did s/he suffer from any animal/insect bite that led to her/his death?

Ask, "Did s/he suffer from any animal/insect bite that led to her/his death?" and circle the appropriate response. Do not include mosquito bites. If 'no' or 'don't know', follow the skip pattern.

607: What type of animal/insect?

This is a filter question, and it is only asked if the answer to 606 was "yes." Ask the respondent what kind of animal/insect bite led to death, and circle only one response. If the respondent names a type of animal/insect that is not listed, write this information in the space provided under "6-other."

608: Check question 304 for age at death

If the age of the child who died (found in question 304) is less than one year, then put an 'x' in the appropriate box and go to the next section, Section 7.

If the child who died was one year or older, then put an 'x' in the box on the right and skip to question 801.

SECTION 7. SYMPTOMS AND SIGNS NOTED DURING THE FINAL ILLNESS OF INFANTS

The questions in Section 7 should only be asked if the deceased child was less than one year old.

701: Was the child small at birth?

This question asks about the size of the child at birth. A baby is usually weighed when it is born and an average baby weighs 2.5 kg to 3.9 kg. If the weight is less that 2.5 kg, the baby is considered small. For this question, the mother/respondent may have to give an opinion of the size of the baby, since she is unlikely to know the weight. Ask the mother/respondent: "Was the child small at birth?" Circle the appropriate response.

702: Was the child born prematurely?

This question is related to the duration of the pregnancy, which has a very important bearing on the maturity of the child and mortality. The duration is counted from the last menstrual period to the birth of the child. A premature child is a child who was delivered between 28 and 37 weeks of pregnancy. Full-term babies are born between 38 and 40 weeks after the last menstrual period. Therefore, a premature baby is a baby born before 38 weeks (or less than nine months) of pregnancy. Ask if the baby was premature, and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

703: How many months or weeks premature?

If the response to 702 is "yes," ask how many months or weeks of pregnancy and write the number in the appropriate duration space provided.

704: Was the child growing normally?

Ask if the child was growing normally, and circle the appropriate response.

705: Did the child have bulging of the fontanelle?

A bulging fontanelle manifests when the skin on the top, soft part of the head protrudes. This may be a sign of infection of the brain and its adjacent parts. In some cultures, there are local terms to describe this condition, and mothers often know these terms. Ask if the child had bulging of the fontanelle. If 'no' or 'don't know', follow the skip pattern.

706: For how many days before death did s/he have the bulging? If the response to 705 is "yes," that is, if the child had a bulging fontanelle, ask the duration that the child had bulging of the fontanelle. Write the number of days in the appropriate duration box.

SECTION 8. STATUS OF MOTHER AND SYMPTOMS NOTED DURING THE FINAL ILLNESS FOR ALL CHILDREN

The next set of questions should be asked for all children.

801: How is the mother's health now?

Ask about the condition of the mother at the time you visit the household. If the mother of the child is your respondent, ask her whether she is healthy and fine or if she is feeling sick. If your respondent is not the mother of the deceased child, ask: "How is the mother's health now?" Circle the response given by the respondent from among the response options.

802: For how long was the child ill before s/he died?

Ask the respondent, "For how long was the child ill before s/he died?" Record the duration in the space provided, in months or days.

803: Did s/he have a fever?

It is important to know whether the child had a history of high fever. The fever may be accompanied with vomiting, profuse sweating, weakness and paleness. Ask the mother or the respondent: "Did the child have fever?" If 'no' or 'don't know', follow the skip pattern.

804: For how long did s/he have a fever?

This is a filter question and is asked if the child had fever. Ask the respondent "For how long did s/he have afever?" and record the number of months/days in the space provided. (In some cases, a fever may appear to go away briefly but then returns. For example, if the mother says the child showed a fever for a week, but only on alternate days, "7" should be entered for "days" since this fever lasted for seven days.)

805: Was the fever severe?

This is a filter question and is asked if the child had fever. Ask the respondent whether the fever was severe. Circle the appropriate response.

806: Was the fever continuous or on and off?

This is a filter question and is asked if the child had fever. Ask the respondent whether the fever was continuous or on-and-off. Circle the appropriate response.

807: Did s/he have chills/rigor?

This is a filter question and is asked if the child had fever. Ask the respondent if the child had chills/rigor. Circle the appropriate response.

808: Did s/he have a cough?

It is important to know if the child had a cough, its duration and severity. Ask the mother/respondent: "Did s/he have a cough?" If 'no' or 'don't know', follow the skip pattern.

809: For how long did s/he have a cough?

This is a filter question. It is only asked if the child had a cough. Ask the mother/respondent the duration of a cough, in months or days.

810: Was the cough severe?

This is a filter question. It is only asked if the child had a cough. Ask the mother/respondent if the cough was severe. Circle the appropriate response.

811: Did the child vomit after he/she coughed?

This is a filter question. It is only asked if the child had a cough. Ask the mother/respondent if the child vomited after s/he coughed. Circle the appropriate response.

812: Did s/he have fast breathing?

A child generally takes about 50 breaths in a minute or about one per second. A mother often knows when her child is breathing fast. Ask if the child had fast breathing, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

813: For how long did s/he have fast breathing?

This is a filter question. It is only asked if the child had fast breathing. Ask "For how long did s/he have fast breathing?" Enter the duration in days in the appropriate box.

814: Did s/he have difficulty in breathing?

It is important to know if the child was breathing normally, if the child took rapid breaths, or if there was noise or sound while the child was breathing. Ask if the child had difficulty breathing, and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

815: For how long did s/he have difficulty in breathing?

This is a filter question, and it is only asked if the child had difficulty breathing. If the child had difficulty breathing, ask the duration of the condition in days.

816: Did s/he have chest indrawing?

This is a filter question, and it is only asked if the child had difficulty breathing. Chest indrawing refers to when the area beneath the chest, around the upper part of the abdomen/stomach, is drawn in

to assist breathing as the child breathes. This may also be a sign of chest infection. Ask if the baby had chest indrawing, and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

817: For how long did s/he have chest indrawing?

This is a filter question, and it is only asked if the child had chest indrawing. If so, ask the duration of the condition in days and write this information in the appropriate space.

818: Did s/he have noisy breathing (grunting or wheezing)? DEMONSTRATE.

Grunting is a sound produced by a child in a manner that shows or indicates "suffering or being ill." The grunting of sick children is like a sigh but is more regular, often with every breath. The child usually appears to be in some distress or to be ill. Grunting respirations in a baby with a fever or who appears to be sick is a very bad sign of immediate emergency and could represent a very serious respiratory infection. Grunting helps the child to get additional air in the lungs.

Demonstrate grunting or wheezing noises. Ask if the child had noisy breathing (grunting or wheezing), and circle the appropriate response.

819: Did s/he have flaring of the nostrils?

Nasal flaring refers to enlargement of the opening of the nostrils during breathing. Nasal flaring is seen mostly in infants and younger children. Nasal flaring is often an indication that increased effort is required for breathing. Any condition that causes the child to work harder to obtain enough air can cause nasal flaring. While many causes of nasal flaring are not serious, some can be life-threatening. Nasal flaring can be a very important sign of respiratory distress. Ask the mother or the respondent if the child had flaring of the nostrils, and circle the appropriate response.

820: Did s/he have diarrhea?

Diarrhea is the frequent passage of loose or watery stools, with or without blood. Mothers usually know when their child has diarrhea. They may use a local term to describe it. Ask the respondent, "Did s/he have diarrhea?" Record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

821: For how long did s/he have diarrhea?

This is a filter question, and it is only asked if the child had diarrhea. If "yes," ask the duration in days.

822: When the diarrhea was most severe, how many times did s/he pass stool in a day?

This is a filter question, and it is only asked if the child had diarrhea. Ask how many times the child passed stools in a day when diarrhea was severe. Record the number in the response box provided.

823: At any time during the final illness was there blood in the stool?

This is a filter question, and it is only asked if the child had diarrhea. Ask if the child had blood in the stool, and circle the appropriate response.

824: Did s/he vomit?

Ask the respondent, "Did s/he vomit?" and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

825: For how long did s/he vomit?

This is a filter question, and it is only asked if the child had vomiting. If "yes" to 824, ask the duration in days and record the response in appropriate space.

826: When the vomiting was most severe, how many times did s/he vomit in a day?

This is a filter question, and it is only asked if the child had vomiting. Ask, "When vomiting was severe, how many times did she or he vomit in a day?" Record the number in the appropriate space provided.

827: Did s/he have abdominal pain?

Indicate whether the child complained of pain in the abdomen. The abdomen is the part of the body below the rib cage and above the pelvic bones. Ask the respondent, "Did s/he have abdominal pain?" and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

828: For how long did s/he have abdominal pain?

This is a filter question, and it is only asked if the child had abdominal pain. If "yes," ask the duration in months or days and record the response in the appropriate space.

829: Was the abdominal pain severe?

This is a filter question, and it is only asked if the child had abdominal pain. Ask if the abdominal pain was severe, and record the appropriate response.

830: Did s/he have abdominal distension?

Abdominal distension is when the size of the abdomen increases. Ask the respondent, "Did s/he have abdominal distension?" and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

831: For how long did s/he have abdominal distension?

This is a filter question, and it is only asked if the child had abdominal distension. Ask the duration of the condition, in months or days. Record the response in the appropriate space.

832: Did the distension develop rapidly within days or gradually over months?

This is a filter question, and it is only asked if the child had abdominal distension. Ask the respondent if the distension started rapidly within days, or gradually over months. Circle the appropriate response in the options provided.

833: Was there a period of a day or longer during which s/he did not pass any stool?

This is a filter question, and it is only asked if the child had abdominal distension. Ask "Was there a period of a day or longer during which s/he did not pass any stool?" Record the appropriate response.

834: Did s/he have any mass in the abdomen?

The abdomen is the part of the body below the rib cage and above the pelvic bones. Abdominal mass is a localized swelling or enlargement in one area of the abdomen. It can be a sign of a swelling (e.g. an abscess, a tumor, or an enlarged organ — such as a liver, spleen, or kidney). Ask the respondent, "Did s/he have a mass in the abdomen?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

835: For how long did s/he have the mass in the abdomen?

This is a filter question, and it is only asked if the child had a mass in the abdomen. If "yes," ask the duration of the condition, in months or days. Record the appropriate response in the space provided.

836: Did s/he have headache?

Ask the respondent, "Did s/he have headache?" and record the appropriate response. The VAI may need to probe when asking this question, as small children might not have been able to communicate this symptom verbally. If 'no' or 'don't know', follow the skip pattern.

837: For how long did s/he have headache?

This is a filter question, and it is only asked if the child had headache. If yes, ask the duration in months or days. Record the response in the space provided.

838: Was the headache severe?

This is a filter question, and it is only asked if the child had headache. Ask if the headache was severe, and record the appropriate response.

839: Did s/he have a stiff or painful neck?

Ask the respondent, "Did s/he have a stiff or painful neck?" and record the information in the space(s) provided. If 'no' or 'don't know', follow the skip pattern.

840: For how long did s/he have a stiff or painful neck?

This is a filter question, and it is only asked if the child had a stiff or painful neck. If yes, ask the duration in days, and record the response in the appropriate space.

841: Did s/he become unconscious?

Ask the respondent, "Did s/he become unconscious?" A state of unconsciousness is when someone experiences loss of senses (i.e. inability to see, hear, or be aware of his/her surroundings.) Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

842: For how long was s/he unconscious?

This is a filter question, and it is only asked if the child became unconscious. If yes, ask the duration in days. Record the response in the appropriate space.

843: Did the unconsciousness start suddenly, quickly within a single day, or slowly over many days?

This is a filter question, and it is only asked if the child became unconscious. When a child becomes unconscious the child becomes oblivious/unaware of his surroundings and has a varying degree of loss of sensation. Ask how the unconsciousness started, and read the response options. Record the appropriate response.

844: Did s/he have convulsions?

Ask the respondent, "Did s/he have convulsions?" A convulsion is a violent shaking of the body or limbs caused by uncontrollable muscle contractions, which may or may not be accompanied by unconsciousness. The VAI may need to demonstrate a convulsion. If 'no' or 'don't know', follow the skip pattern.

845: For how long did s/he have convulsions?

This is a filter question, and it is only asked if the child had convulsions. If yes, ask the duration in months or days. Record the response in the appropriate space.

846: Did s/he have paralysis of the lower limbs?

Paralysis is the loss of muscle tone and power in an area or part of the body, usually as a result of diseases or injuries involving the head and backbone/spine. Some respondents may confuse paralysis with weakness as a result of illness. Make sure that there is no confusion. Ask the respondent, "Did s/he have paralysis of the lower limbs?" and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

847: How long did s/he have paralysis of the lower limbs?

This is a filter question, and it is only asked if the child had paralysis of lower limbs. If yes, ask the duration in months or days. Record the response in the appropriate space.

848: Did the paralysis of the lower limbs start suddenly, quickly within a single day, or slowly over many days?

This is a filter question, and it is only asked if the child had paralysis of lower limbs. Ask how the paralysis started, and read the response options: suddenly-1, fast (in a day)-2, slowly (many days)-3, or don't know-8. Circle the appropriate response.

849: Was there any change in the amount of urine s/he passed daily?

Ask the respondent "Was there any change in the amount of urine she or he passed daily?" Record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

850: For how long did s/he have the change in the amount of urine s/he passed daily?

This is a filter question, and it is only asked if the child had any change in the amount of urine she or he passed daily. If yes, ask the duration in months or days.

851: How much urine did s/he pass?

This is a filter question, and it is only asked if the child had a change in the amount of urine passed daily. Ask how much urine s/he passed (too much, too little or none). Circle the appropriate response.

852: During the illness that led to death, did s/he have any skin rash?

Ask, "During the illness that led to death, did s/he have any skin

rash?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

853: For how long did s/he have the skin rash?

This is a filter question, and it is only asked if the child had skin rash. If yes, ask the duration in days. Record the response in the appropriate space.

854: Was the rash located on:

This is a filter question, and it is only asked if the child had skin rash. Ask for the location of the rash — whether the rash was on the face, trunk, or arms and legs. Circle a response for each location: 1-yes, 2-no, or 8-don't know.

855: What did the rash look like?

This is a filter question, and it is only asked if the child had skin rash. Ask what the rash looked like, and code to the response categories. Circle only one appropriate response.

856: Did s/he have red eyes?

Ask if the child had red eyes, and record the appropriate response.

857: Did s/he have bleeding from the nose, mouth, or anus?

Ask if the child had bleeding from the nose, mouth, or anus. Record the appropriate response.

858: Did s/he have weight loss?

Ask, "Did s/he have weight loss?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

859: For how long before death did s/he have the weight loss?

This is a filter question, and it is only asked if the child experienced weight loss. If yes, ask the duration in months or days. Record the response in the appropriate space.

860: Did s/he look very thin and wasted?

This is a filter question, and it is only asked if the child had weight loss. Ask if the child looked very thin and wasted, and record the appropriate response.

861: Did s/he have mouth sores or white patches in the mouth or on the tongue?

Ask, "Did s/he have mouth sores or white patches in the mouth or on the tongue?" Record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

862: For how long did s/he have mouth sores or white patches in the mouth or on the tongue?

This is a filter question, and it is only asked if the child had mouth sores or white patches in the mouth or on the tongue. If yes, ask the duration in days. Record the response in the appropriate space.

863: Did s/he have any swelling?

Ask, "Did s/he have any swelling?" "Swelling" as used in these questions is a bulge or puffiness which is generalized in a stated location, and is different from a localized, well-defined lump (asked in question 866). Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

864: For how long did s/he have the swelling?

This is a filter question, and it is only asked if the child had swelling. If yes, ask the duration in months or days. Record the response in the appropriate space.

865: Was the swelling on:

This is a filter question, and it is only asked if the child had swelling. Ask where the swelling was on the body, and read each response category: face, joints, ankles, whole body, and any other place. Circle a response for each location: 1-yes, 2-no, or 8-don't know. If the respondent answers 'yes' to item 5 ("Any other place?"), specify the response in the space provided.

866: Did s/he have any lumps?

Ask, "Did s/he have any lumps?" A lump is a localized swelling with well-defined boundaries. Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

867: For how long did s/he have the lumps?

This is a filter question, and it is only asked if the child had lumps. If yes, ask the duration in months or days. Record the response in the appropriate space.

868: Were the lumps on:

This is a filter question, and it is only asked if the child had lumps. Ask where the lumps were on the body, and read each response category: neck, armpit, groin, and any other place. Circle a response for each location: 1-yes, 2-no, or 8-don't know. If the respondent answers 'yes' to item 4 ("Any other place?"), specify the response in the space provided.

869: Did s/he have yellow discoloration of the eyes?

Ask, "Did s/he have any yellow discoloration of the eye?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

870: For how long did s/he have the yellow discoloration of the eyes?

This is a filter question, and it is only asked if the child had any yellow discoloration of the eye. Ask the duration in months or days. Record the response in the appropriate space.

871: Did her/his hair color change to reddish or yellowish?

Ask, "Did her/his hair color change to reddish or yellowish?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

872: For how long did s/he have reddish/yellowish hair?

This is a filter question, and it is only asked if the child's hair changed to reddish/yellowish. If yes, ask the duration in months or days. Record the response in the appropriate space.

873: Did s/he look pale (thinning/lack of blood) or have pale palms, eyes, or nail beds?

Ask, "Did s/he look pale (thinning/lack of blood), or have pale palms, eyes, or nail beds?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

874: For how long did s/he look pale (thinning/lack of blood) or have pale palms, eyes, or nail beds?

This is a filter question, and it is only asked if the child looked pale, or had pale palms, eyes, or nail beds. If yes, ask the duration in days. Record the response in the appropriate space.

875: Did s/he have sunken eyes?

Ask, "Did s/he have sunken eyes?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

876: For how long did s/he have sunken eyes?

This is a filter question, and it is only asked if the child had sunken eyes. If yes, ask the duration in days. Record the response in the appropriate space.

SECTION 9. TREATMENT AND HEALTH SERVICE USE FOR THE FINAL ILLNESS

This is another section that is common to all the VA forms, found near the end of each form after the symptom duration checklist. However, the questions in this section are slightly different in each

form. In this section, information is collected on the type of health services sought on behalf of the deceased during illness, and whether he or she received any treatment during those services. This section begins with the heading: "Treatment and health service use for the final illness."

901: Was s/he vaccinated for measles?

Ask the respondent if the child was vaccinated for measles, and circle the appropriate response.

902: Did s/he receive any treatment for the illness that led to death?

This question seeks to know whether the deceased received any treatment for the illness that led to death, and is asked in all three types of VA forms. If the respondent says "yes," that the person received treatment for the illness that led to death (that is, 1 is circled), then additional (filter) questions need to be asked. If 'no' or 'don't know', follow the skip pattern.

903: Can you please list the drugs s/he was given for the illness that led to death?

This is a filter question, only to be asked if the answer to 902 was 'yes'. Ask the respondent to list, in chronological order, the treatments the individual was given for the illness that led to death. Ask if prescription or discharge forms are available; if so, the VAI should copy the information from such hospital documents into the space provided.

904: What type of treatment did s/he receive:

This is a filter question, only to be asked if the answer to 902 was 'yes'. This seeks to identify different treatments received during the illness that led to his or her death. Different types of treatments are listed on the form. Read each of the options and ask the respondent if the deceased received that treatment in the period before death. Circle all treatments received during the illness that led to death. If the respondent's answer does not match the coding options, circle '1-yes' for item 4 and specify the response in the space provided.

905: Please tell me at which of the following places or facilities s/he received treatment during the illness that led to death:

This is a filter question, only to be asked if the answer to 902 was 'yes'. This seeks to identify different places or facilities at which the deceased received treatment during the illness that led to his or her death. Different types of health facilities/services are listed on the form. Read each of the options and ask the respondent to identify all the specific types of services used by the deceased in the period

before death. Circle all places/facilities at which she or he received treatment during the illness that led to death. If the respondent's answer does not match the coding options, circle '1-yes' for item 8 and specify the response in the space provided.

906: In the month before death, how many contacts with formal health services did s/he have?

This is a filter question, only to be asked if the answer to item 3, 4, 5, or 6 in question 905 was 'yes'. This question asks the number of contacts with formal health services [in the previous question: government clinic (3), government hospital (4), private clinic (5), or private hospital (6)] the deceased had in a month prior to his or her death when she or he received treatment. Ask, "In the month before death, how many contacts with formal health services did she or he have?" Record the total number of visits made to these facilities in the space provided. For example, during the last week of life, if the deceased went to a government clinic twice, and then government hospital once, the VAI should enter "03" in the box.

907: Did a health care worker tell you the cause of death?

This is a filter question, only to be asked if the answer to item 3, 4, 5, or 6 in question to 905 was 'yes'. This question is asked if the child that died received treatment. Ask the respondent, "Did a health care worker tell you the cause of death?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

908: What did the health care worker say?

This is a filter question, only to be asked if the answer to 907 was 'yes'. Ask the respondent, "What did the health care worker say?" Write the cause of death mentioned by the respondent in the space provided.

909: Did s/he have any operation for the illness?

Ask the respondent, "Did s/he have any operation for the illness?" Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

910: How long before death did s/he have the operation?

This is a filter question, only to be asked if the answer to 909 was 'yes'. Record the number of days since the operation in the boxes for DAYS. Be sure that the operation was related to the illness that led to death, and was not a coincidental operation.

911: On what part of the body was the operation?

This is a filter question, only to be asked if the answer to 909 was

'yes'. Circle the appropriate response. If 'other-6', write the location of the operation in the space provided.

The final two sections, common to all the three types of forms, require the VAI to record information from death certificates and/or any documents that may be available at the household relating to medical treatment or the cause of death.

SECTION 10. DATA ABSTRACTED FROM DEATH CERTIFICATE

1001: Do you have a death certificate for the deceased?

Ask the respondent if there is a death certificate for the child that died. If 'no' or 'don't know', follow the skip pattern.

1002: Can I see the death certificate?

This is a filter question, only to be asked if the answer to 1001 was 'yes'. If the household has a death certificate, ask if you can see it, in order to record information about the date and cause of death. Copy the day, month, and year of death from the death certificate.

If the respondent will not allow you to see the death certificate, continue to the next section.

1003

This is a filter question, only to be asked if the death certificate is available. Copy the day, month, and year of issue from the death certificate.

1004

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the FIRST line of the death certificate. There should always be a cause listed on the first line of the death certificate.

1005

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the SECOND line of the death certificate, if a cause is listed.

1006

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the THIRD line of the death certificate, if a cause is listed.

1007

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the FOURTH line of the death certificate, if a cause is listed.

SECTION 11. DATA ABSTRACTED FROM OTHER HEALTH RECORDS

The purpose of this section is to summarize any written evidence of health records that can be obtained from the respondent. This information will help in the process of assigning a probable cause of death. There are various types of supporting evidence including burial permits, MCH/ANC cards, in-patient or out-patient records, prescriptions, or hospital discharge forms. These are listed on the VA form, and you will need to ask about each one of these individually.

It is crucial that the verbal autopsy interviewer is familiar with these cards/forms and that they are available during the verbal autopsy interviewers' training. During the training each form will be presented and the details explained fully. When you come across these forms during field work you might find medical/health records which are not very legible. It is essential that you should try to understand the words written on the records so that you are able to copy the information onto your verbal autopsy forms. Record as much information as possible on the verbal autopsy forms, but refrain from interpreting or recording information that is not reported.

1101: Other health records available

Ask the respondent if any other types of health records might be available. If 'no', follow the skip pattern to 1111.

1102:

For each type of health record listed below, ask if the respondent has the type of record. If so, summarize the details of the last two visits (if there were more than 2, otherwise just the last visit) from each of the supporting documents on the form. Record the date of issue for each form.

1103: Burial permit

If there is burial permit for the child, copy the cause of death listed on the burial permit, and the date of issue. If you were shown a burial permit that says the cause of death was a traffic accident, for example, carefully copy this reason for death onto the form, as well as the date on the permit.

1104: Post-mortem results

If a post-mortem was done on the child, copy the cause of death listed

from the post-mortem, and the date of issue.

1105: MCH/ANC card

If there is a MCH or ANC card for the mother/child that died, summarize any information that may be listed on the card(s), and the date of issue. The ANC card contains information on progress and events that occur during pregnancy and delivery. Some of the problems that may be recorded include high blood pressure and infections such as malaria, and delivery complications. The MCH card contains information on progress of the child's health (e.g. weight) and illnesses (especially infections).

1106: Hospital prescription

If there are any hospital prescriptions, write the name of each type of medication, the dosages, and the dates of issue.

1107: Treatment cards

If there are any treatment cards, write the name of each type of treatment, the dates or length of treatment, and the dates of issue.

1108: Hospital discharge

If there are any hospital discharge forms, summarize the reasons/diagnosis for hospitalization and treatment that was given and record the dates of hospitalization and of issue.

1109: Laboratory results

If there are any laboratory results documented, write the names of each laboratory test performed, the results, and the dates of issue. You may find terms that are not very familiar but it is important to make all efforts to copy the information as it appears on the laboratory result form.

1110: Other hospital documents

Ask the respondent if any other types of hospital or health records might be available. If so, specify the type and summarize the document.

1111: Record the time at the end of interview

Record the time using 24-hour format.

INTERVIEWER'S OBSERVATIONS

At the end of the interview, after leaving the household, please include any additional comments about the interview. You may make comments about the respondent you interviewed, about specific questions on the questionnaire, or about any other aspects of the interview. If anything about the interview was unusual or should be brought to the attention of the editor or supervisor, note it here.

If you were unable to complete the interview for any reason, or if certain answers required further explanation, this space should be used to document the reason the interview could not be completed.

AT THE END OF THE INTERVIEW

At the end of the interview, consider the following:

- Before leaving the household, check the VA form that you have completed to make sure you have done so accurately and completely.
- In particular, you should make sure that every question in the form has been asked (except where skip patterns were employed) and check your writing to ensure that others can read what you have written.
- Check your work systematically. First, make sure that information identifying the household has been entered. Then look at all sections for consistency and completion to ensure that all your entries agree item by item and that you have not written anything that is not required.
- If you find discrepancies, mistakes, or omissions, ask further questions and correct your form. It must be complete and accurate in all respects before you leave the household.
- When you are satisfied that everything is in order, thank the respondents and the family for their cooperation and willingness to be interviewed. You may again offer words of sympathy (if culturally appropriate) before you leave.
- When you have completed the day's work or all VA interviews in one particular segment, report to your supervisor with all your completed forms and logbooks. She or he will then check with you to verify that everything is in order and accurate before collecting the forms for further scrutiny and processing.
- If there is more than one VA interviewer in your area, you should arrange to meet to assess

each other's work and make sure that VA interviews have been conducted for all reported deaths in your area. Once satisfied, report your work to the supervisor.

Checklist Questions for VA Form 3: Death of a Person Aged 15 Years and Above

The international verbal autopsy form 3 should be used for deaths for all people 15 years of age or older. It is used to collect information on the history of illness, events, signs, and symptoms preceding death of an individual in this age group. This chapter provides instructions for filling in Form 3.

There are different types of sections on VA Form 3:

OVERVIEW

- Sections 2-3 contain questions about the respondent and socio-demographic information about the deceased;
- Section 4 is an open-ended section in which the respondent is asked to describe the sequence of events leading to death;
- Section 5 is a checklist of previously-diagnosed medical conditions (for example: Q504: "Did the deceased suffer from Asthma?");
- Section 6 contains questions that relate to a potentially catastrophic event that happened before death (for example: Q601: "Did s/he suffer from any injury or accident that led to her/his death?");
- Section 7 contains questions that relate to symptoms and signs of associated with illnesses specific to women (for example: Q703: "Did she have excessive vaginal bleeding during menstrual periods?");
- Section 8 contains questions that relate to symptoms and signs associated with pregnancy (for example: Q801: "Was she pregnant at the time of death?");
- Section 9 contains questions that relate to signs and symptoms noted during the final illness (for example: Q918. "Did s/he have chest pain?");

- Section 10 contains questions about health service utilization;
- Section 11 contains questions about risk factors that the deceased adult may have been exposed to during the period that led to death; and
- Sections 12-13 ask the interviewer to abstract information from a death certificate or other health records (if available).

HOW TO COMPLETE VA FORM 3

Important:

- You must ask every question as it appears in the verbal autopsy form without skipping a single question, unless specifically directed to do so in the form.
- You must do this even if the cause of death seems obvious to you.
- Some questions ask the number of days that a symptom or condition was present. If the respondent knows that the deceased had the symptom but does not know the duration, circle the duration code for "DON'T KNOW." (If left blank, it will be assumed that you did not ask that particular question and your form will be returned to you for correction.)
- For deaths of an adult: the duration of each sign/symptom should be recorded as the time between the onset of a particular symptom/sign and the cessation of that symptom/sign. For example, if a 32-year old man began to have fever 10 days before death, but ceased having fever two days before death, the duration of fever during the period that led to death would be 8 days.
- If the deceased had a sign or symptom, but it appeared on the day of death, write "1" in the box for days.
- For questions where it is necessary to circle a response, only one response should be circled (unless the form instructs you otherwise).

Certain questions ask for more detail about a sign/symptom than a simple yes/no or duration question. For these questions, the VAI should read the response categories located below the question (in lower case) to the respondent to be certain that the response is coded correctly.

Each of the VA forms has places where you can, under certain circumstances, skip questions. These are called "filter" questions. For example, Q928: "Did s/he have diarrhea?" is followed by four filter questions, starting with Q929: "For how long did s/he have diarrhea?"

Note that, when a skip pattern is being applied, there is an arrow '—' located to the right of the response code. If one of the codes to the left of the arrow or bracket is used, the next question that should be asked is identified in the "Skip" column on the far right of the form. To continue with the previous example, if in Q928 the respondent states that the deceased did not have diarrhea, the VAI should circle "2," skip questions 929-932, and ask question 933.

If there is no arrow located to the right of the appropriate response code, simply continue to the next question on the form.

Sometimes a respondent may not be able to remember all the details on the symptom duration checklist, especially if the caregiver of the person who died is not your respondent. Therefore, whenever necessary you should ask other family members who may have more detailed information regarding the symptoms and their durations or the treatments received. Collateral sources of information should be used to obtain as detailed and accurate information as possible on the illness prior to death, in order to assist in the assignment of cause of death.

SECTION 2. BASIC INFORMATION ABOUT RESPONDENT

201: Record the time at start of interview

Record the time using 24-hour format.

202: Name of the respondent

Fill in the complete name of the respondent in the space provided.

203: What is your relationship to the deceased?

There are seven options for this question. These options describe the relationship between the respondent and the deceased. You should

ask the respondent, "What was your relationship to the deceased?" Circle the correct response among categories provided. For example, if the respondent is the child of the deceased, then circle: "5" for child.

204: Did you live with the deceased in the period leading to her/his death?

This yes-or-no question asks if the respondent lived at the same residence with the deceased during the events that led to death. You should ask the respondent: "Did you live with the deceased in the period leading to death?" If the respondent lived with the deceased during his or her illness or before the death, the answer is "yes," thus circle "1." If the respondent did not live with the deceased, circle "2" for no.

SECTION 3. INFORMATION ON THE DECEASED AND DATE/PLACE OF DEATH

301: What was the name of the deceased?

Fill in the complete name of the deceased in the space provided. Ask for the three names of the deceased (if appropriate) and write them in the space provided in the VA form. It is important to make sure that you are given the names that the deceased used during medical treatment in case permission is sought to access the deceased's medical records. If the deceased used any alias names, it is advisable to write them in parenthesis.

302: Was the deceased male or female?

Sex should be recorded carefully. Record the sex of the deceased by circling the appropriate number ("1" for a male, "2" for a female).

303: When was the deceased born?

Ask the respondent for the complete date of birth. Fill in the day, month and year in the boxes provided. In some cases the exact date of birth may not be known and records might not be available to help. In these cases, only fill in what is actually known about the date of birth. For example, if a child is known to have been born sometime in May 2002, but the exact date is unknown, record '98' in the boxes for DAY. If the month of birth is unknown, record '98' in the boxes for MONTH. If the year is unknown, record '9998' in the boxes for YEAR.

304: How old was the deceased when s/he died?

Ask the age of the deceased at the time of death, and record the age (in years) using all three boxes. If the person was 47 years old when s/he

died, write '047' in the boxes. Use the Historical Events Calendar and the Year-of-Birth Calculator, if necessary. If the age is unknown, and cannot be estimated (which is unlikely), record '998'.

305: What was her/his occupation, that is, what kind of work did s/he mainly do?

Ask the respondent for the primary occupation of the deceased. If the person was a student, record 'student'.

Specific instructions on how to collect and code occupation information will need to be determined by local authorities.

306: What was the highest level of formal education the deceased attended?

Ask the respondent the highest level of formal education attended by the deceased, and circle the appropriate response.

Specific instructions on how to collect and code education information will be determined by local authorities.

307: What was her/his marital status?

Ask the respondent the marital status of the deceased, and circle the appropriate response.

Specific instructions on how to collect and code marital status information will be determined by local authorities.

308: When did s/he die?

Ask the respondent for the complete date of death. Fill in the day, month and year in the boxes provided. If the exact date of death is unknown, follow the instructions provided on the VA form.

309: Where did s/he die?

Ask the respondent where the deceased died, and circle the appropriate choice using one of the following categories:

- If the death occurred in a hospital, circle "1."
- If the death occurred in a different type of health facility, circle "2."
- If the person died at home, circle "3.".
- If the death occurred at any other location, such as on a roadway during an accident, away from home, or during transit between home and a health facility, circle "6" for other, and write the name of the location.

If the location of death was unknown, circle "8.".

In some applications, it may be useful to record the name of the health facility at which death occurred.

SECTION 4. RESPONDENT'S ACCOUNT OF ILLNESS/EVENTS LEADING TO DEATH

The next section of the VA forms is an open-ended narrative of the events leading to, and causing, the death of the individual.

401: Could you tell me about the illness/events that led to his/her death?

In the space provided, write a history of illness or events leading to the death as narrated by the respondent. This is a "story" about what led to the death and is not a medical history. This might be a sequence of symptoms of disease and the deceased person's health in general prior to death or might be the events that caused the death. Local terms of common illnesses should be written as stated.

402: Cause of death 1 according to respondent

Ask the respondent what he or she thinks caused the death. Write exactly what the respondent says, even if it is an entirely non-medical explanation or a term in vernacular (local) language; do not try to interpret comments. If the respondent states that nothing was noticed, and that the death was sudden, record that observation as stated. Do not probe further at this stage. The respondent may also state that death was caused by a supernatural or evil spirit.

For example, if the respondent says that the deceased was bewitched, even if you think it would be better to add or modify this reason, write: "Bewitched" or "Witchcraft."

403: Cause of death 2 according to respondent

If the respondent mentions more than one cause of death, write any and all additional causes in the space provided, exactly as the respondent tells you.

SECTION 5. HISTORY OF PREVIOUSLY KNOWN MEDICAL CONDITIONS

Questions on chronic medical conditions that the deceased might have had are asked in this section. These are medical conditions that could have been clinically diagnosed among older children and adults and are asked in order to get a better understanding of their contribution to ill health of the individual before his or her death. You should ask the respondent whether any of the conditions listed were diagnosed by a medical professional and circle the appropriate response.

Please note that this section only appears in Forms 2 and 3, because it is highly unlikely that a baby that dies in the first 4 weeks of life will have a history of chronic medical conditions.

501

When you reach this section of the form, you must inform the respondent that you are going to ask her or him the symptoms that were present before death. For consistency, a statement paragraph has been added for you to read to the respondent:

I would like to ask you some questions concerning previously known medical conditions the deceased had; injuries and accidents that the deceased suffered; and signs and symptoms that the deceased had/showed when s/he was ill. Some of these questions may not appear to be directly related to his/her death. Please bear with me and answer all the questions. They will help us to get a clearer picture of all possible symptoms that the deceased had.

Then ask the respondent, "Please tell me if the deceased suffered from any of the following illnesses," and circle the appropriate response.

502: High blood pressure?

503: Diabetes?

504: Asthma?

505: Epilepsy?

506: Malnutrition?

507: Cancer?

If 'no' or 'don't know', follow the skip pattern.

508: Can you specify the type or site of cancer?

If known, write the primary site or type of the cancer (e.g. 'breast cancer' or 'malignant melanoma'). Remember, the cancer must have been diagnosed by a medical officer.

509: Tuberculosis?

510: HIV/AIDS?

511: Did s/he suffer from any other medically diagnosed illness? If 'no' or 'don't know', follow the skip pattern.

512: Can you specify the illness?

Write the illness in the space provided.

SECTION 6. HISTORY OF INJURIES/ACCIDENTS

The questions in this section should be asked of all adults, even if the respondent does not initially believe that an injury or accident caused the person's death.

601: Did s/he suffer from any injury or accident that led to her/his death?

Ask the respondent if the deceased suffered from any injury or accident that led to his/her death. Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

602: What kind of injury or accident did the deceased suffer?

This is a filter question, and it is only asked if the answer to 601 was "yes." Ask the respondent what kind of injury/accident that led to death, and circle only one response. If the respondent names a type of injury/accident that is not listed, write this information in the space provided under "96-other."

603: Was the injury or accident intentionally inflicted by someone else?

This is a filter question, and it is only asked if the answer to 601 was "yes." Ask the respondent if the injury/accident that led to death was intentionally inflicted by someone else. Questions 602 and 603 are asked to differentiate between intentional and unintentional injuries.

604: Do you think that s/he committed suicide?

Ask, "Do you think that s/he committed suicide" and circle the appropriate response.

605: Did s/he suffer from any animal/insect bite that led to his/her death?

Ask, "Did s/he suffer from any animal/insect bite that led to her/his death?" and circle the appropriate response. Do not include mosquito bites. If 'no' or 'don't know', follow the skip pattern.

606: What type of animal/insect?

This is a filter question, and it is only asked if the answer to 605 was "yes." Ask the respondent what kind of animal/insect bite led to death, and circle only one response. If the respondent names a type of animal/insect that is not listed, write this information in the space provided under "6-other."

607: Check question 302 for sex of the deceased

If the sex of the person who died (found in question 302) is female, then put an 'x' in the appropriate box and ask 701.

If the sex of the person who died is male, then put an 'x' in the box on the right and skip to question 901.

SECTION 7. SYMPTOMS AND SIGNS ASSOCIATED WITH ILLNESS OF WOMEN

The following questions should only be asked for females. If the deceased was male, skip this section and proceed to Section 9.

701: Did she have an ulcer or swelling in the breast?

A sore or ulcer on the skin of the breast that does not heal or a swelling in the breast is a significant sign of illness. Ask the respondent whether the woman had an ulcer or a swelling in the breast and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

702: For how long did she have an ulcer or swelling in the breast?

This is a filter question, and is asked if the woman had an ulcer or swelling in the breast. If "yes," ask for how long and record the duration in months or days in the appropriate space.

703: Did she have excessive vaginal bleeding during menstrual periods?

Menstrual bleeding is excessive when a woman bleeds more than seven days (one week), or uses more than six well-soaked sanitary pads per day. Ask the respondent: "Did she have excessive vaginal bleeding during her menstrual periods?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

704: For how long did she have the excessive vaginal bleeding during menstrual periods?

This is a filter question, and is asked if the woman had excessive vaginal bleeding during her menstrual periods. If "yes," ask for how long and record the duration in months or days in the appropriate space.

705: Did she have vaginal bleeding in between menstrual periods?

Ask the respondent: "Did she have vaginal bleeding in between menstrual periods?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

706: For how long did she have vaginal bleeding in between menstrual periods?

This is a filter question, and is asked if the woman had excessive menstrual bleeding in between menstrual periods. If "yes," ask for how long and record the duration in months or days in the appropriate space.

707: Did she have abnormal vaginal discharge?

The following changes may indicate an abnormal vaginal discharge: change in odor (especially an unpleasant odor) of the discharge; change in color or texture (especially greenish, grayish, or anything looking like pus); or change in color that is caused by vaginal bleeding or spotting that is not a menstrual period. Ask whether the woman had abnormal vaginal discharge and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

708: For how long did she have abnormal vaginal discharge?

This is a filter question, and is asked if the woman had abnormal vaginal discharge. If "yes," ask for how long and record the duration in months or days in the appropriate space.

SECTION 8. SYMPTOMS AND SIGNS ASSOCIATED WITH PREGNANCY

801: Was she pregnant at the time of death?

Ask whether the woman was pregnant at the time of death and record this information by circling the appropriate response. If 'no' or 'don't know', follow the skip pattern.

802: How long was she pregnant?

This is a filter question, and is asked if the woman was pregnant at the time of death. Ask, "How long was she pregnant?" Record the duration information in months or weeks in the appropriate spaces in the appropriate space.

803: How many pregnancies had she had, including this one?

This is a filter question, and is asked if the woman was pregnant at the time of death. Ask, "How many pregnancies had she had, including

this one?" Enter the total number of pregnancies she had in her entire life in the space provided.

804: During the last 3 months of pregnancy, did she suffer from any of the following illnesses:

This is a filter question and is asked if the woman was pregnant at the time of death. Ask the respondent, "During the last 3 months of pregnancy, did the mother suffer from any of the following illnesses?" Read each response option, which are: "vaginal bleeding-1"; "smelly vaginal discharge-2"; "puffy face-3"; "headache-4"; "blurred vision-5"; "convulsion-6"; "febrile illness-7"; "severe abdominal pain that was not labor pain-8; pallor and shortness of breath (both present)-9".

Circle a response for each location: 1-yes, 2-no, or 8-don't know. Ask if the deceased suffer from any other illness (item 10) and if the respondent answers 'yes', specify the response in the space provided.

805: Did she die during labor, but undelivered?

This is a filter question and is asked if the woman was pregnant at the time of death. Ask, "Did she die during labor, but undelivered?" Circle the appropriate response given by the respondent.

806: Did she give birth recently?

Ask whether the woman gave birth recently and record the response given. If 'no' or 'don't know', follow the skip pattern.

807: How many days after giving birth did she die?

This is a filter question. It is asked if the woman gave birth recently. Ask, "How many days after giving birth did she die?" Record the number of days in the appropriate space provided.

808: Was there excessive bleeding on the day labor started?

This is a filter question, and it is asked if the woman gave birth recently. Ask if she had excessive bleeding on the day labor started. Blood that "soaks a number of clothes or bandages" or "covers the floor" is a good way of knowing if there was too much bleeding. Circle the appropriate response given.

809: Was there excessive bleeding during labor before delivering the baby?

This is a filter question, and it is asked if the woman gave birth recently. Ask if she had excessive bleeding during labor but before delivering the baby. Blood that "soaks a number of clothes or bandages" or "covers the floor" is a good way of knowing if there was too much bleeding. Circle the appropriate response given.

810: Was there excessive bleeding after delivering the baby?

This is a filter question. It is asked if the woman gave birth recently. Ask if she had excessive bleeding after delivering the baby. Blood that "soaks a number of clothes or bandages" or "covers the floor" is a good way of knowing if there was too much bleeding. Circle the appropriate response given.

811: Did she have difficulty in delivering the placenta?

This question should be asked if the deceased woman had given birth recently. The placenta is the fleshy mass attached to the baby by the umbilical cord in the womb. The placenta normally comes out of the vagina within 30 minutes after the delivery of the baby. Ask whether the woman had difficulty delivering the placenta. Circle the response given.

812: Was she in labor for unusually long (more than 24 hours)?

This is a filter question, and it is asked if the woman delivered a baby recently. Ask, "Was she in labor for unusually long (more than 24 hours)?" Circle the appropriate response.

813: Was it a normal vaginal delivery?

This is a filter question, and it is asked if the woman gave birth recently. Ask, "Was it a normal vaginal delivery?" Circle the appropriate response. If 'yes' or 'don't know', follow the skip pattern.

814: What type of delivery was it?

This is a filter question. It is asked if the woman delivered a baby recently and it was NOT a normal vaginal delivery. Forceps delivery is the application of instruments in the birth canal to assist pulling the baby out, and vacuum delivery is done by creating a vacuum pressure on the scalp of the baby using cup-shaped equipment in the hospital. Surgical incision through the walls of the abdomen and uterus for delivery of offspring is called a cesarean section or cesarean delivery, and in most cases it is performed because of complications. Ask, "What type of delivery was it?" Circle the appropriate response to indicate whether it was a forceps/vacuum delivery, a caesarean section, or other type of delivery. If the respondent says it was "other-6" type of delivery, specify the type in the appropriate space provided.

815: Did she have foul smelling vaginal discharge?

This is a filter question, and it is asked if the woman gave birth recently. Ask, "Did she have foul-smelling vaginal discharge?" Circle the appropriate response.

816: Where did she give birth?

This is a filter question, and it is asked if the woman gave birth recently. Ask, "Where did she give birth?" Circle the appropriate response, whether at the hospital, other health facility, home, or other place. If "other-6" is selected as a place of birth, specify the type of location.

817: Who conducted the delivery?

This is a filter question, and it is asked if the woman gave birth recently. Ask, "Who conducted the delivery?" Code the respondent's answer to the correct response category by circling the appropriate response. If "other-6", specify who conducted the delivery.

818: Did she experience an abortion recently?

Ask whether the woman had an abortion recently before her death. An abortion could be induced by swallowing or injecting medicines, or could be induced by the introduction of a foreign object into the vagina, or could be spontaneous. Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

819: Did she die during the abortion?

This is a filter question, and it is asked if the woman had an abortion recently. Ask, "Did she die during the abortion?" Circle the appropriate response. If 'yes' or 'don't know', follow the skip pattern.

820: How many days before death did she have the abortion?

This is a filter question, and it is asked if the woman had an abortion recently, but did not die during the abortion. Ask, "How many days before death did she have the abortion?" Record the number of days in the space provided.

821: How many months pregnant was she when she had the abortion?

This is a filter question, and it is asked if the woman had an abortion recently. Ask, "How many months pregnant was she when she had the abortion?" Record the number of months pregnant in the space provided.

822: Did she have heavy bleeding after the abortion?

This is a filter question, and it is asked if the woman had an abortion recently. Ask, "Did she have heavy bleeding after the abortion?" Circle the appropriate response.

823: Did the abortion occur by itself, spontaneously?

This is a filter question, and it is asked if the woman had an abortion recently. Ask, "Did the abortion occur by itself, spontaneously?"

Circle the appropriate response. If 'yes' or 'don't know', follow the skip pattern.

824: Did she take medicine or treatment to induce?

This is a filter question, and it is asked if the woman had an abortion recently and it was NOT spontaneous. Ask, "Did she take medicine or treatment to induce?" Circle the appropriate response.

SECTION 9. SIGNS AND SYMPTOMS NOTED DURING THE FINAL ILLNESS

901: For how long was s/he ill before s/he died?

Ask, "For how long was s/he ill before s/he died?" Record the duration given in months and/or days in the appropriate space provided.

902: Did s/he have a fever?

It is important to know whether the person had a history of intermittent or continuous high fever (coming on alternate days, and sometimes daily), with or without shivering. Ask the respondent: "Did s/he have a fever?" and record the appropriate response. If 'no' or 'don't know', follow the skip pattern.

903: For how long did s/he have a fever?

This is a filter question and is asked if the person had fever. Ask the respondent "How many months or days did the fever last?" and record the number of months/days in the space provided.

904: Was the fever continuous or on and off?

This is a filter question and is asked if the person had fever. Ask the respondent whether the fever was continuous or on-and-off. Circle the response given.

905: Did s/he have fever only at night?

This is a filter question and is asked if the person had fever. Ask whether s/he had the fever only at night. Circle the response given.

906: Did s/he have chills/rigor?

This is a filter question and is asked if the person had fever. Ask whether s/he had chills or rigor. Circle the response given.

907: Did s/he have a cough?

It is important to know if the person had a cough, and the duration and severity of the cough. Ask the respondent: "Did s/he have a cough?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

908: For how long did s/he have a cough?

This is a filter question. It is only asked if the person had cough. If "yes," ask and record the duration in months or days, and circle the appropriate response.

909: Was the cough severe?

This is a filter question. It is only asked if the deceased had a cough prior to death. Ask the respondent about the severity of the cough. Circle the correct response given by the respondent.

910: Was the cough productive with sputum?

This is a filter question. It is asked if the deceased had a cough prior to death. Ask the respondent whether the cough was productive with sputum. Circle the correct response given.

911: Did s/he cough out blood?

This is a filter question. It is asked if the deceased had a cough prior to death. Ask, "Did s/he cough out blood?" Circle the correct response given.

912: Did s/he have night sweats?

This is a filter question. It is asked if the deceased had a cough prior to death. Ask, "Did s/he have night sweats?" Circle the correct response given.

913: Did s/he have breathlessness?

Ask, "Did s/he have breathlessness?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

914: For how long did s/he have breathlessness?

This is a filter question, and is asked if the answer to 913 was "yes." Ask and record the duration either in months or days in the space provided.

915: Was s/he unable to carry out daily routines due to breathlessness?

This is a filter question, and is asked if the answer to 913 was "yes." Ask, "was s/he unable to carry out daily routines due to breathlessness?" A daily routine includes doing things like washing up, light gardening or dusting. Circle the response given.

916: Was s/he breathless while lying flat?

This is a filter question, and is asked if the answer to 913 was "yes." Breathlessness while lying flat in bed is a condition that often interferes with sleep. Ask whether the person who died had breathlessness while lying flat. Circle the correct response given.

917: Did s/he have wheezing?

This is a filter question, and is asked if the answer to 913 was "yes." Wheezing is breathing with a whistling sound. Ask whether the person who died had wheezing. Circle the response given.

918: Did s/he have chest pain?

Chest pain has many possible causes. Ask the respondent whether the person complained of chest pain in the period leading to his or her death, and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

919: For how long did s/he have chest pain?

This is a filter question, and is asked if the person had chest pain. If "yes," ask for how long and record the duration in months or days in the space(s) provided.

920: Did chest pain start suddenly or gradually?

This is a follow-up question and is asked if the deceased reported having chest pains. Ask the respondent how the pain started, whether suddenly or gradually. Circle the appropriate response given.

921: When s/he had severe chest pain, how long did it last?

This is also a filter question, and is asked if the person who died had chest pains. Ask, "When s/he had severe chest pain, how long did it last?" Code and circle the correct response given.

922: Was the chest pain located below the breastbone (sternum)?

This is a filter question, and is asked if the person who died complained of chest pain. Ask, "Was the chest pain located below the breastbone (sternum)?" Circle the correct response given.

923: Was the chest pain located over the heart and did it spread to the left arm?

This is a filter question, and is asked if the person who died complained of chest pain. Ask, "Was the chest pain located over the heart and did it spread to the left arm?" Circle the response given.

924: Was the chest pain located over the ribs (sides)?

This is also a filter question, and is asked if the person who died complained of chest pain. Ask, "Was the chest pain located over the ribs (sides)?" Circle the response given.

925: Was the chest pain continuous or on and off?

This is a filter question, and is asked if the person who died had chest pain. This question will need to be adapted according to cultural perceptions and terminology used for chest pain. Ask whether the chest pain was continuous or on-and-off. Circle the response given.

926: Did the chest pain get worse while coughing?

This is a filter question, and is asked if the person who died had chest pain. Ask whether the pain got worse while coughing. Circle the response given.

927: Did s/he have palpitations?

This is also a filter question, and is asked if the person who died had chest pain. Ask whether the person who died had palpitations. Circle the response given.

A palpitation is awareness of the beating of the heart, whether it is too slow, too fast, irregular, or at its normal frequency. Those who experience palpitations may have the feeling that their heart stops beating for a moment, and then starts again with a "thump" or a "bang."

928: Did s/he have diarrhea?

Diarrhea is the frequent passage of loose or watery stools, with or without blood. There may be local terms to describe it. Ask the respondent whether the person had diarrhea, and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

929: For how long did s/he have diarrhea?

This is a filter question, and is asked if the person had diarrhea. If 'yes' ask for how long and record the duration in months or days in the space(s) provided.

930: Was the diarrhea continuous or on and off?

This is a filter question. It is asked only if the respondent said that the deceased had diarrhea during illness. Ask whether the diarrhea was continuous or on-and-off. Circle the response given.

931: At any time during the final illness was there blood in the stool?

This is a filter question. It is asked only if the respondent said that the deceased had diarrhea. Ask whether there was blood in the stool at any time during the final illness. Record the response given.

932: When the diarrhea was most severe, how many times did s/he pass stools in a day?

This is a filter question. It is asked only if the respondent said that the deceased had diarrhea. This question records the frequency of diarrhea. Ask the respondent the number of times per day the person passed stools when diarrhea was most severe. Record this number in the space provided.

933: Did s/he vomit?

It is important to record the deceased's history of vomiting in the period leading to death. Ask the respondent: "Did s/he vomit?", and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

934: For how long did s/he vomit?

This is a filter question, and is asked if the person vomited. If "yes," ask for how long and record the duration in months or days.

935: Did the vomit look like a coffee-colored fluid or bright red/blood red or some other?

This is a filter question, and is asked if the respondent said that the deceased vomited. Ask, "Did the vomit look like a coffee-colored fluid or bright red/blood red or some other?". For respondents who do not know what "coffee-colored" means, ask if the vomitus was brownish-black. Circle the response given. If the respondent's answer does not match the coding options, circle '6' for 'other' and specify the response in the space provided.

936: When the vomiting was most severe, how many times did s/he vomit in a day?

This is also a filter question, and is asked if the person who died was vomiting. Ask, "When the vomiting was severe, how many times did s/he vomit in a day?" Record the number of times per day in the space provided.

937: Check question 302 for sex of the deceased:

If the sex of the person who died (found in question 302) is female, then put an 'x' in the appropriate box and ask 938.

If the sex of the person who died is male, then put an 'x' in the box on the right and skip to question 939.

938: Check questions 801, 805, 819 to see if she died during pregnancy, labor, abortion, or postpartum:

If the answer to any of these questions was 'no', then put an 'x' in the appropriate box and ask 939.

If the answer to any of these questions was 'yes', then put an 'x' in the box on the right and skip to 948.

939: Did s/he have abdominal pain?

It is important to know whether the deceased complained of abdominal pain during his or her illness, and the severity of pain. The abdomen is part of the body below the rib cage and above the pelvic bones. Ask the respondent if the deceased had abdominal pain during illness before death, and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

940: For how long did s/he have abdominal pain?

This is a filter question, and is asked if the person had abdominal pain. If "yes," ask for how long and record the duration in months or days in the appropriate space.

941: Did s/he have abdominal distension?

Abdominal distension is when the size of the abdomen increases significantly. Ask whether the deceased had abdominal distension during his or her illness, and circle the appropriate response.

The VAI should be careful to make sure that there is no confusion between abdominal distension and abdominal mass (asked in question 945). Abdominal distension refers to generalized swelling of the abdomen, with no discrete or distinct swellings localized in one area of the abdomen. Presence of abdominal distension usually means the abdomen is filled with a liquid or gas. If 'no' or 'don't know', follow the skip pattern.

942: For how long did s/he have abdominal distension?

This is a filter question, and is asked if the person had abdominal distension. If "yes," ask for how long and record the duration in months or days in the appropriate space.

943: Did the distension develop rapidly within days or gradually over months?

This is a filter question. It is asked if the respondent said that the person had abdominal distension. Ask, "Did the distension develop rapidly within days or gradually over months?" Circle the response given.

944: Was there a period of a day or longer during which s/he did not pass any stool?

This is also a filter question, and is asked if the deceased had abdominal distension. Ask the respondent whether there was a period of a day or longer during which the deceased did not pass any stool. Circle the response given.

945: Did s/he have any mass in the abdomen?

Abdominal mass is a localized swelling or enlargement in one area of the abdomen. Ask the respondent if the deceased had any mass in the abdomen, and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

946: For how long did s/he have the mass in the abdomen?

This is a filter question, and is asked if the person had a mass in the abdomen. If "yes," ask for how long and record the duration in months or days in the appropriate space.

947: Where in the abdomen was the mass located?

This is a filter question, and is asked if the deceased had a mass in the abdomen. Ask the respondent about the location of the mass. Circle the correct response given among the following categories: "right upper abdomen-1; left upper abdomen-2; lower abdomen-3; all over abdomen-4; or don't know-8."

948: Did s/he have difficulty or pain while swallowing solids?

Difficulty when swallowing is the sensation that food is stuck in the throat or upper abdomen. This may be felt high in the neck or lower down, behind the breastbone (sternum). Ask the respondent, "Did s/he have difficulty or pain in swallowing solids?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

949: For how long did s/he have difficulty or pain while swallowing solids?

This is a filter question, and is asked if the person had difficulty or pain in swallowing solids. If "yes," ask for how long and record the duration in months or days in the appropriate space.

950: Did s/he have difficulty or pain while swallowing liquids?

Difficulty when swallowing is the sensation that food is stuck in the throat or upper abdomen. This may be felt high in the neck or lower down, behind the breastbone (sternum). Ask the respondent "Did s/he have difficulty or pain in swallowing liquids?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

951: For how long did s/he have difficulty or pain while swallowing liquids?

This is a filter question, and is asked if the person had difficulty or pain in swallowing liquids. If "yes," ask for how long and record the duration in months or days in the space provided.

952: Did s/he have headache?

Ask whether the person complained of a headache during illness before death and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

953: For how long did s/he have headache?

This is a filter question, and is asked if the person had headache. If "yes," ask for how long and record the duration in months or days in the space provided.

954: Was the headache severe?

This is a filter question, and is asked if the respondent had headache. Ask, "Was the headache severe?" Circle the appropriate response.

955: Did s/he have a stiff or painful neck?

Ask whether the person complained of a stiff or painful neck in the period before death and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

956: For how long did s/he have a stiff or painful neck?

This is a filter question, and is asked if the person had a stiff or painful neck. If "yes," ask for how long and record the duration in months or days.

957: Did s/he have mental confusion?

People sometimes become extremely confused during serious illnesses. Confusion means inability to think or reason or to act insensibly, disorientation in space and time, and mistaking one thing for another. Ask the respondent if the person became mentally confused during illness before s/he died and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

958: For how long did s/he have mental confusion?

This is a filter question, and is asked if the person had mental confusion. If "yes," ask for how long and record the duration in months or days in the appropriate space.

959: Did the mental confusion start suddenly, quickly within a single day, or slowly over many days?

This is a filter question, and is asked if the person had mental confusion. Ask the question, and record the appropriate response.

960: Did s/he become unconscious?

A state of unconsciousness is when someone experiences loss of senses (i.e., inability to see, hear, or be aware of his/her surroundings). Ask whether the deceased became unconscious in the period

leading to death, and circle the appropriate response. Be certain that the respondent understands the difference between "confusion" and "unconsciousness." If 'no' or 'don't know', follow the skip pattern.

961: For how long was s/he unconscious?

This is a filter question, and is asked if the person became unconscious. If "yes," ask for how long and record the duration in months or days in the appropriate space.

962: Did the unconsciousness start suddenly, quickly within a single day, or slowly over many days?

This is a filter question, and is asked if the respondent says that the deceased became unconscious. Ask, "Did the unconsciousness start suddenly, quickly within a single day, or slowly over many days?" Circle the response given.

963: Did s/he have convulsions?

A convulsion is a violent shaking of the body or limbs caused by uncontrollable muscle contractions, which may or may not be accompanied by unconsciousness. The VAI may need to demonstrate a convulsion. Ask whether the deceased had convulsions during illness in the period leading to death, and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

964: For how long did s/he have convulsions?

This is a filter question, and is asked if the person had convulsions. If "yes," ask for how long and record the duration in months or days.

965: Was s/he unable to open the mouth?

Ask, "Was s/he unable to open her mouth?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

966: For how long was s/he unable to open the mouth?

This is a filter question, and is asked if the person was unable to open his/her mouth. If "yes," ask for how long and record the duration in days in the appropriate space.

967: Did s/he have stiffness of the whole body?

It is important to know whether the person's entire body became stiff before death. Ask the respondent: "Did s/he have stiffness of the whole body?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

968: For how long did s/he have stiffness of the whole body?

This is a filter question, and is asked if the person had stiffness of the whole body. If "yes," ask for how long and record the duration in months or days in the appropriate space.

969: Did s/he have paralysis of one side of the body?

Paralysis is the loss of muscle tone and power in an area or part of the body, usually as a result of diseases or injuries involving the head and backbone/spine. Some respondents may confuse paralysis with weakness as a result of illness. Make sure that there is no confusion. Ask the respondent: "Did s/he have paralysis of one side of the body?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

970: For how long did s/he have paralysis of one side of the body?

This is a filter question, and is asked if the person had paralysis of one side of the body. If "yes," ask for how long and record the duration in months or days in the appropriate space.

971: Did the paralysis of one side of the body start suddenly, quickly within a single day, or slowly over many days?

This is a filter question and is asked if the person was paralyzed on one side of the body before her/his death. Ask the question, and circle the appropriate response given.

972: Did s/he have paralysis of the lower limbs?

Ask the respondent: "Did s/he have paralysis in the lower limbs?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

973: How long did s/he have paralysis of the lower limbs?

This is a filter question, and is asked if the person had paralysis in the lower limbs. If "yes," ask for how long and record the duration in months or days in the appropriate space.

974: Did the paralysis of the lower limbs start suddenly, quickly within a single day, or slowly over many days?

This is a filter question and is asked if the person was paralyzed in the lower limbs before her/his death. Ask the question and circle the appropriate response given.

975: Was there any change in color of urine?

Ask the respondent: "Was there any change in color of urine?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

976: For how long did s/he have the change in color of urine?

This is a filter question, and is asked if the person had a change in the color of his/her urine. If "yes," ask for how long and record the duration in months or days in the appropriate space.

977: During the final illness did s/he ever pass blood in the urine?

Passing blood in the urine could indicate a disorder in the urinary system (e.g. kidneys, bladder, etc.) Ask the respondent if the person ever passed blood in the urine during the final illness and circle the appropriate response.

978: For how long did s/he pass blood in the urine?

This is a filter question, and is asked if the person passed blood in the urine during the illness that led to death. If "yes," ask for how long and record the duration in months or days in the appropriate space.

979: Was there any change in the amount of urine s/he passed daily?

Ask, "Was there any change in the amount of urine s/he passed daily?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

980: For how long did s/he have the change in the amount of urine passed daily?

This is a filter question, and is asked if the person had a change in the amount of urine s/he passed daily. If "yes," ask for how long and record the duration in months or days in the space provided.

981: Did s/he pass too much urine, too little urine, or no urine at all?

This is a filter question and is asked if the respondent says that there was a change in the amount of urine passed daily. Ask the question, and circle one response given by the respondent ("too much," "too little," "no urine at all," or "don't know").

982: During the illness that led to death, did s/he have any skin rash?

Ask whether the person had any skin rash during the illness that led to death and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

983: For how long did s/he have the skin rash?

This is a filter question, and is asked if the person had any skin rash. If "yes," ask for how long and record the duration in days in the appropriate space provided.

984: Was the rash on:

This is a filter question. It is asked if the respondent says that the deceased had any skin rash. Ask for the location of the rash — whether the rash was on the face, trunk, arms and legs, or any other place. Circle a response for each location: "1-yes," "2-no," or "8-don't know." If a rash is reported in 'any other place', specify this location in the space provided.

985: What did the rash look like?

This is a filter question. It is asked if the respondent says that the deceased had any skin rash. Ask the question, and code and circle only one response.

986: Did s/he have red eyes?

Ask, "Did s/he have red eyes?" and circle the appropriate response.

987: Did s/he have bleeding from the nose, mouth, or anus?

This question helps to distinguish a generalized bleeding disorder, such as epidemic hemorrhagic fever. Ask, "Did s/he have bleeding from the nose, mouth or anus?" Circle the appropriate response.

988: Did s/he ever have shingles/herpes zoster?

Ask if the deceased ever had shingles/herpes zoster, and circle the appropriate response.

The symptoms start with several days to a week of burning pain and sensitive skin followed by small blisters on a red base, with new blisters continuing to form for 3-5 days. The blisters are usually on one side of the body and follow the nerves. The area involved then crusts over and heals in 3-4 weeks

989: Did s/he have weight loss?

Ask whether the person lost weight during illness and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

989.1: For how long did s/he have weight loss?

This is a filter question, and is asked if the person had any weight loss. If "yes," ask for how long and record the duration in months or days in the appropriate space.

989.2: Did s/he look very thin and wasted?

This is a filter question, and is asked if the deceased lost weight during illness. Ask, "Did s/he look very thin and wasted?" Circle the appropriate response.

990: Did s/he have mouth sores or white patches in the mouth or on the tongue?

Ask about presence of any of the following: mouth sores or white patches in the mouth or on the tongue. Circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

990.1: For how long did s/he have mouth sores or white patches in the mouth or on the tongue?

This is a filter question, and is asked if the person had any mouth sores or white patches in the mouth or on the tongue. If "yes," ask for how long and record the duration in days in the space provided.

991: Did s/he have any swelling?

Swelling refers to generalized swelling, not to one discrete or distinct mass localized in one area. Ask whether the person had any swelling and circle the appropriate response. If "no" or "don't know," follow the skip pattern.

991.1: For how long did s/he have the swelling?

This is a filter question, and is asked if the person had any swelling. If "yes," ask for how long and record the duration either in months or days in the space provided.

991.2: Was the swelling on:

This is a filter question, and is asked if the deceased had swelling. Ask for the location of the swelling — whether the swelling was on the face, joints, ankles, whole body, or any other place. Circle a response for each location: "1-yes," "2-no," or "8-don't know." If swelling is reported in "any other place," specify this location in the space provided.

992: Did s/he have any lumps?

Lumps are a localized swelling or enlargement in one area of the body. Ask whether the person had any lumps and circle the appropriate response. If "no" or "don't know," follow the skip pattern.

992.1: For how long did s/he have the lumps?

This is a filter question, and is asked if the person had any lumps. If "yes," ask for how long and record the duration in months or days in the space provided.

992.2: Were lumps on:

This is a filter question, and is asked if the deceased had lumps. Ask for the location of the lumps — whether the lumps were on the neck, armpit, groin, or any other place. Circle a response for each location:

"1-yes," "2-no," or "8-don't know." If lumps are reported in "any other place," specify this location in the space provided.

993: Did s/he have yellow discoloration of the eyes?

Ask whether the person had yellow discoloration of the eyes and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

993.1: For how long did s/he have yellow discoloration of the eyes?

This is a filter question, and is asked if the person had yellow discoloration of the eye. If "yes," ask for how long and record the duration in months or days in the appropriate space.

994: Did s/he look pale (thinning/lack of blood) or have pale palms, eyes, or nail beds?

Ask whether the person looked pale (thinning/lack of blood) or have pale palms, eyes, or nail beds in the period before death and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

994.1: For how long did s/he look pale or have pale palms, eyes, or nail beds?

This is a filter question, and is asked if the person looked pale or had pale palms, eyes, or nail beds in the period before death. If "yes," ask for how long and record the duration in days in the appropriate space.

995: Did s/he have an ulcer, abscess, or sore anywhere on the body?

Ask, "Did s/he have an ulcer, abscess, or sore anywhere on the body?" and circle the appropriate response. If 'no' or 'don't know', follow the skip pattern.

995.1: For how long did s/he have the ulcer, abscess, or sore?

This is a filter question, and is asked if the person had an ulcer, abscess, or sore anywhere on the body. If "yes," ask for how long and record the duration in days in the spaces provided.

995.2: What was the location of the ulcer, abscess, or sore?

This is a filter question, and is asked if the person who died had an ulcer, abscess, or sore. Ask, "What was the location of the ulcer, abscess, or sore?" Write the response given in the appropriate space provided.

10. TREATMENT AND HEALTH SERVICE USE FOR THE FINAL ILLNESS

This is another section that is common to all the VA forms, found near the end of each form after the symptom duration checklist. However, the questions in this section are slightly different in each form. In this section, information is collected on the type of health services sought on behalf of the deceased during illness, and whether he or she received any treatment during those services. This section begins with the heading: "Treatment and health service use for the final illness."

1001: Did s/he receive any treatment for the illness that led to death?

This question seeks to know whether the deceased received any treatment for the illness that led to death, and is asked in all three types of VA forms. If the respondent says "yes," that the person received treatment for the illness that led to death (that is, 1 is circled), then additional (filter) questions need to be asked. If 'no' or 'don't know', follow the skip pattern.

1002: Can you please list the drugs s/he was given for the illness that led to death?

This is a filter question, only to be asked if the answer to 1001 was "yes." Ask the respondent to list, in chronological order, the treatments the individual was given for the disease that led to death. Ask if prescription or discharge forms are available; if so, the VAI should copy the information from such hospital documents into the space provided.

1003: What type of treatment did s/he receive:

This is a filter question, only to be asked if the answer to 1001 was 'yes'. This seeks to identify different treatments received during the illness that led to his or her death. Different types of treatments are listed on the form. Read each of the options and ask the respondent if the deceased received that treatment in the period before death. Circle all treatments received during the illness that led to death. If the respondent's answer does not match the coding options, circle '1-yes' for item 4 and specify the response in the space provided.

1004: Please tell me at which of the following places/facilities s/he received treatment during the illness that led to death:

This is a filter question, only to be asked if the answer to 1001 was "yes." This seeks to identify different places or facilities at which the deceased received treatment during the illness that led to his or her death. Different types of health facilities/services are listed on the form. Read each of the options and ask the respondent to identify

all the specific types of services used by the deceased in the period before death. Circle all places/facilities at which she or he received treatment during the illness that led to death. If the respondent's answer does not match the coding options, circle "1-yes" for item 8 and specify the response in the space provided.

1005: In the month before death, how many contacts with formal health services did s/he have?

This is a filter question, only to be asked if the answer to item 3, 4, 5, or 6 in question 1004 was "yes." This question asks the number of contacts with formal health services [in the previous question: government clinic (3), government hospital (4), private clinic (5), or private hospital (6)] the deceased had in a month prior to his or her death when she or he received treatment. Ask, "In the month before death, how many contacts with formal health services did she or he have?" Record the total number of visits made to these facilities in the space provided. For example, during the last week of life, if the deceased went to a government clinic twice, and then government hospital once, the VAI should enter "03" in the box.

1006: Did a health care worker tell you the cause of death?

This is a filter question, only to be asked if the answer to item 3, 4, 5, or 6 in question to 1004 was "yes." This question is asked if the person that died received treatment. Ask the respondent, "Did a health care worker tell you the cause of death?" Circle the appropriate response. If "no" or "don't know," follow the skip pattern.

1007: What did the health care worker say?

This is a filter question, only to be asked if the answer to 1106 was "yes." Ask the respondent, "What did the health care worker say?" Write the cause of death mentioned by the respondent in the space provided.

1008: Did s/he have any operation for the illness?

Ask the respondent, "Did s/he have any operation for the illness?" Circle the appropriate response. If "no" or "don't know," follow the skip pattern.

1009: How long before death did s/he have the operation?

This is a filter question, only to be asked if the answer to 1008 was "yes." Record the number of days since the operation in the boxes for DAYS. Be sure that the operation was related to the illness that led to death, and was not a coincidental operation.

1010: On what part of the body was the operation?

This is a filter question, only to be asked if the answer to 1008 was "yes." Circle the appropriate response. If 'other-6', write the location of the operation in the space provided.

SECTION 11. RISK FACTORS

This section asks about risk factors that the deceased was exposed to, and is unique to VA Form 3.

1101: Did s/he drink alcohol?

Ask, "Did s/he drink alcohol?" Circle the appropriate response given. If "no" or "don't know," follow the skip pattern.

1102: How long had s/he been drinking?

This is a filter question and it is asked only if the answer to 1101 was "yes." Ask "How long had s/he been drinking?" Enter the number of years s/he had been drinking in the space provided.

1103: How often did s/he drink alcohol?

This is a filter question and it is asked if the deceased had been drinking alcohol. Ask, "How often did s/he drink alcohol?" Circle the appropriate response given.

1104: Did she stop drinking?

This is a filter question and it is asked if the deceased had been drinking alcohol. Ask, "Did s/he stop drinking?" Circle the appropriate response given. If "no" or "don't know," follow the skip pattern.

1105: How long before death did s/he stop drinking?

This is a filter question and it is asked only if the answer to 1104 is "1-yes." Ask, "How long before death did s/he stop drinking?" Enter the duration in the space provided for months.

1106: Did s/he smoke tobacco (cigarette, cigar, pipe etc.)?

Ask, "Did s/he smoke tobacco (cigarette, cigar, pipe, etc)?" Circle the appropriate response given. If "no" or "don't know," follow the skip pattern.

1107: How long had s/he been smoking?

This is a filter question and it is asked only if the answer to 1106 was "1-yes." Ask "How long had s/he been smoking?" Enter the number of years s/he had been smoking in the space provided.

1108: How often did s/he smoke?

This is a filter question and it is asked if the deceased had been smoking. Ask, "How often did s/he smoke?" Circle the appropriate response given. If 'frequently', 'once in a while', or 'don't know', follow the skip pattern.

1109: How many cigarettes did s/he smoke daily?

This is a filter question and it is asked if the answer to 1108 was "daily." Ask, "How many cigarettes did s/he smoke daily?" Write the number of cigarettes smoked per day in the space provided. If the respondent is unsure of the exact number, ask for an average number, and enter this information.

1110: Did s/he stop smoking before death?

This is a filter question and it is asked if the deceased had been smoking. Ask, "Did s/he stop smoking before death?" Circle the appropriate response given. If 'no' or 'don't know', follow the skip pattern.

1111: How long before death did s/he stop smoking?

This is a filter question and it is asked only if the answer to 1110 is "1-yes." Ask, "How long before death did s/he stop smoking?" Enter the duration in the space provided for months.

The final two sections, common to all the three types of forms, require the VAI to record information from death certificates and/or any documents that may be available at the household relating to medical treatment or the cause of death.

SECTION 12. DATA ABSTRACTED FROM DEATH CERTIFICATE

1201: Do you have a death certificate for the deceased?

Ask the respondent if there is a death certificate for the person that died. If 'no' or 'don't know', follow the skip pattern.

1202: Can I see the death certificate?

This is a filter question, only to be asked if the answer to 1201 was "yes." If the household has a death certificate, ask if you can see it, in order to record information about the date and cause of death. Copy the day, month, and year of death from the death certificate.

If the respondent will not allow you to see the death certificate, continue to the next section.

1203

This is a filter question, only to be asked if the death certificate is available. Copy the day, month, and year of issue from the death certificate.

1204

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the FIRST line of the death certificate. There should always be a cause listed on the first line of the death certificate.

1205

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the SECOND line of the death certificate, if a cause is listed.

1206

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the THIRD line of the death certificate, if a cause is listed.

1207

This is a filter question, only to be asked if the death certificate is available. Copy the cause of death from the FOURTH line of the death certificate, if a cause is listed.

SECTION 13. DATA ABSTRACTED FROM OTHER HEALTH RECORDS

The purpose of this section is to summarize any written evidence of health records that can be obtained from the respondent. This information will help in the process of assigning a probable cause of death. There are various types of supporting evidence including burial permits, MCH/ANC cards, in-patient or out-patient records, prescriptions, or hospital discharge forms. These are listed on the VA form, and you will need to ask about each one of these individually.

It is crucial that the verbal autopsy interviewer is familiar with these cards/forms and that they are available during the verbal autopsy interviewers' training. During the training each form will be presented and the details explained fully. When you come across these forms during field work you might find medical/health records which are not very legible. It is essential that you should try to understand the words written on the records so that you are able to copy the information onto your verbal autopsy forms. Record as much information as possible on the verbal autopsy forms, but refrain from interpreting or recording information that is not reported.

1301: Other health records available

Ask the respondent if any other types of health records might be available. If 'no', follow the skip pattern to 1311.

1302:

For each type of health record listed below, ask if the respondent has the type of record. If so, summarize the details of the last two visits (if there were more than two, otherwise just the last visit) from each of the supporting documents on the form. Record the date of issue for each form.

1303: Burial permit

If there is burial permit for the deceased, copy the cause of death listed on the burial permit, and the date of issue. If you were shown a burial permit that says the cause of death was a traffic accident, for example, carefully copy this reason for death onto the form, as well as the date on the permit.

1304: Post-mortem results

If a post-mortem was done on the person, copy the cause of death listed from the post-mortem, and the date of issue.

1305: MCH/ANC card

If there is a MCH or ANC card for the mother/child that died, summarize any information that may be listed on the card(s), and the date of issue. The ANC card contains information on progress and events that occur during pregnancy and delivery. Some of the problems that may be recorded include high blood pressure and infections such as malaria, and delivery complications. The MCH card contains information on progress of the child's health (e.g. weight) and illnesses (especially infections).

1306: Hospital prescription

If there are any hospital prescriptions, write the name of each type of medication, the dosages, and the dates of issue.

1307: Treatment cards

If there are any treatment cards, write the name of each type of treatment, the dates or length of treatment, and the dates of issue.

1308: Hospital discharge

If there are any hospital discharge forms, summarize the reasons/diagnosis for hospitalization and treatment that was given and record the dates of hospitalization and of issue.

1309: Laboratory results

If there are any laboratory results documented, write the names of each laboratory test performed, the results, and the dates of issue. You may find terms that are not very familiar but it is important to make all efforts to copy the information as it appears on the laboratory result form.

1310: Other hospital documents

Ask the respondent if any other types of hospital or health records might be available. If so, specify the type and summarize the document.

1311: Record the time at the end of the interview

Record the time using 24-hour format.

INTERVIEWER'S OBSERVATIONS

At the end of the interview, after leaving the household, please include any additional comments about the interview. You may make comments about the respondent you interviewed, about specific questions on the questionnaire, or about any other aspects of the interview. If anything about the interview was unusual or should be brought to the attention of the editor or supervisor, note it here.

If you were unable to complete the interview for any reason, or if certain answers required further explanation, this space should be used to document the reason the interview could not be completed. At the end of the interview, consider the following:

- Before leaving the household, check the VA form that you have completed to make sure you have done so accurately and completely.
- In particular, you should make sure that every question in the form has been asked (except where skip patterns were employed) and check your writing to ensure that others can read what you have written.
- Check your work systematically. First, make sure that information identifying the household has been entered. Then look at all sections for consistency and completion to ensure that all your entries agree item by item and that you have not written anything that is not required.
- If you find discrepancies, mistakes, or omissions, ask further questions and correct your form. It must be complete and accurate in all respects before you leave the household.
- When you are satisfied that everything is in order, thank the respondents and the family for their cooperation and willingness to be interviewed. You may again offer words of sympathy (if culturally appropriate) before you leave.
- When you have completed the day's work or all VA interviews in one particular segment, report to your supervisor with all your completed forms and logbooks. She or he will then check with you to verify that everything is in order and accurate before collecting the forms for further scrutiny and processing.
- If there is more than one VA interviewer in your area, you should arrange to meet to assess each other's work and make sure that VA interviews have been conducted for all reported deaths in your area. Once satisfied, report your work to the supervisor.

AT THE END OF THE INTERVIEW

How to Complete the VA Reporting Log Book

For monthly and annual monitoring of verbal autopsy data collection, it is mandatory that you keep a Verbal Autopsy (VA) reporting log book that shows the number of deaths reported, number of completed VA interviews, and the number of VA interviews pending. This information is useful during supervisory meetings and in the assessment of the progress of the VA work. More importantly, the information will become a record of your work and help identify any unusual situations, such as a low reported number of deaths per month. This is vital for investigation, and also for providing an assessment of pending work.

The VA reporting log book should be completed on the same day that a VA is conducted, after returning from fieldwork. Do not try to transcribe information into your reporting log book at the household where you have just finished conducting the VA interview. Completing this task in a respondent's home, even if it does not require household members to be present while you work, will make members of the household uneasy and curious, especially after taking a significant amount of time with them during interviews.

Your VA reporting log book will look like the example in Appendix A. To complete the form, follow these instructions:

- In column (1), write the date (dd/mm/yyyy) of your meeting with the key informant to visit the household of the deceased.
- In column (2), write the name of the key informant.
- In column (3), write the number of new deaths reported by the KI during this visit.
- In column (4), write the cumulative number of deaths reported. This number should be the sum of all the deaths entered in all the rows in column (3).
- In column (5), write the number of VAs conducted during the day's visit.

INSTRUCTIONS

- In column (6), write the cumulative number of VAs performed. This number should be the sum of all the VAs performed, entered in all the rows in column (5).
- For each visit, write the number of VAs pending in column (7); that is, the number of VAs that have not yet been performed at the end of the current visit, but need to be. This number can be calculated by subtracting column (6) from column (4). Column (7) will give you an idea of how successfully you are completing your workload.
- In column (8), write the date (dd/mm/yyyy) of the next scheduled VA appointment with the KI you worked with on that date. This will ensure that you and the KI both know which date to schedule and perform VAs next time.

Supervisor Review of Your Work

Your work will be monitored, reviewed, and evaluated on a day-to-day basis, and quality assurance activities will be organized and implemented in your assignment area by your SAVVY supervisor, with and without your knowledge. Quality of work will be evaluated and supervision of verbal autopsy (VA) data collection carried out at each of the following stages:

During your first few weeks, you will be accompanied regularly by your supervisor when you conduct VA interviews in the households where a death has occurred. After gaining experience, your supervisor will accompany you only when necessary. During the supervised interviews, your supervisor will be observing you while you conduct interviews. In the process he or she will grade your performance according to criteria in a special assessment form. After completion of each VA interview, he or she will discuss your performance with you and will help you rectify any errors observed during the interview.

ACCOMPANIED
SUPERVISION
DURING FIELDWORK

Quality assurance in the field will be performed by reinterviewing about 10 percent to 15 percent of the sample (if this is feasible, given the sensitive nature of the VA). Your supervisor will visit your assignment area and will randomly select households where you have already completed VA interviews, to verify the information you have recorded in the VA forms. You may or may not be informed of his or her visits to the fields for this verification exercise. In addition, there will be random, unannounced visits by the supervisor to your area to confirm your presence when he or she knows you are supposed to be there conducting interviews.

Be aware that your supervisor will be asking community members in your area about your conduct, and will inquire to make sure that no deaths have been missed in your area. In the course of your work, you should make sure that your key informant has reported all deaths in the area. It is your responsibility to do some investigative work to confirm this.

SUPERVISION IN THE SAMPLE AREAS

AFTER TURNING IN YOUR VA FORMS

When you turn in your completed VA forms to your supervisor, he or she will check each and every one of them thoroughly for quality, internal consistency, and completeness to ensure that the reporting is correct. In addition, your supervisor will be comparing the names on the completed VA forms turned in to the names on the key informant's mortality register in order to assess completeness and discrepancies in the records. Monitoring everyone's workload is an important aspect of VA data collection and processing.

Glossary of Terms

- Address The physical location of a building or living quarters.
 May be comprised of a building number and street name (e.g., 123 Anywhere Street). See "location description" in this glossary.
- Address listing book Used to record the addresses or location descriptions of all known buildings and living quarters in an assignment area. This book is prepared during each census round and is given to the key informant upon completion.
- **Assignment area (AA)** A geographic area established for data collection purposes. An assignment area usually represents the average workload for one census interviewer or one key informant.
- Assignment area map Shows the boundaries, features, and land-marks of an assignment area. This map is prepared during each census round and given to the key informant upon completion.
- **Assignment area number** Identifies a specific assignment area on SAVVY maps and forms.
- **Callback** A return visit to an address to complete the required information.
- Canvassing Systematically traveling all streets, roads, paths, etc., of each block in an assignment area to identify every place where people live or could live.
- **Census** An official, periodic count.
- Census interviewer Responsible for conducting baseline census interviews or update census interviews. He or she is attached to the SAVVY area and is knowledgeable about that assigned area. The census interviewer is also responsible for identifying the boundaries of the assignment area and canvassing the entire assignment area to determine the location of each building, housing unit, and household.
- **Confidentiality** A guarantee that the information respondents provide to a SAVVY employee and SAVVY office will not be revealed to others.

Duration — For all signs or symptoms that were not associated with a previously diagnosed condition, nor related to an injury, "duration" is defined as the period starting from the *appearance* of that particular sign or symptom to the cessation of that symptom, regardless of the presence of that sign or symptom at the time of death, and irrespective of whether the sign or symptom appeared intermittently. For example, if a woman began to have fever 10 days before death, but she ceased having fever two days before death, the duration of her fever would be eight days, even if she did not have fever for each and every one of those eight days.

Head of household — See "reference person" in this glossary.

- Household This is an arrangement in which one or more persons make common provisions for their own food or other essentials for living. These people may have a common budget, be related or unrelated, or a combination. There may be more than one household in a housing unit. In short, a household is defined as a group of people who "eat from the same pot."
- **Household number** This is a number assigned by a SAVVY census interviewer to each household within a housing unit. The household identification number must be unique within the housing unit.
- **Housing Unit** A housing unit is a separate and independent place of abode intended for habitation by a single household, or one not intended for habitation but occupied as living quarters by a household at the time of the census.
- **Key informant (KI)** A person who lives in the SAVVY assignment area and is responsible for reporting any deaths that occur in her or his assignment area to the verbal autopsy interviewer. The key informant is also responsible for arranging the date and time of the verbal autopsy interview with each bereaved family.
- Location description A description of the physical location of a living quarters that tells anyone unfamiliar with the assignment area how to find that living quarters, so the living quarters can be located by another SAVVY employee. This may be an address, if one is available.
- Reference person The person who makes decisions for the household on a daily basis and who is a permanent resident of the household (spends the night at least six months out of the year at the house) is the "reference person." If the household reports someone who spends the majority of his or her time away from home, then make that person's spouse the reference person. If

there is no spouse, then make the eldest family member the reference person, as long as he or she is at least 15 years of age or older. If there is no family member 15 years of age or older, then make the eldest nonfamily member the reference person as long as he or she is 15 years of age or older. If there is no permanent household member who is at least 15 years old, then make the eldest relative or resident the reference person.

Resident — See "usual residence" in this glossary.

Respondent — There are two types of respondents in the SAVVY system, the census respondent and verbal autopsy respondent.

Census respondent is the person supplying census information about a household and all of its members. The respondent should be a responsible family member of the household. Possible respondents are listed in order of preference:

- x reference person
- spouse of reference person
- eldest family member available, at least 15 years of age or older
- nonfamily member at least 15 years of age or older
- family member less than 15 years of age
- nonfamily member less than 15 years of age
- neighboring reference person or spouse of neighboring reference person

Verbal autopsy respondent is the adult being interviewed, who is typically a resident in the household. The respondent must be someone who is able to give reliable and accurate information regarding the members of the household. In the case of a death in the family, the respondent will be able to give information about the circumstances leading to the death. Ideally, the verbal autopsy respondent for the verbal autopsy interview would be the one who cared for the

deceased during the period of illness. Possible verbal autopsy respondents are listed in order of preference:

- main care-giver of the deceased in the period before death
- x reference person
- spouse of reference person
- parents, particularly if the deceased was a child
- eldest family member available, at least 15 years of age or older
- nonfamily member at least 15 years of age or older
- family member less than 15 years of age
- nonfamily member less than 15 years of age
- neighboring reference person or spouse of reference person

Sample area — The geographic area selected for the SAVVY system.

Stillbirth — A baby that shows no signs of life when born. Still-births may be due to injuries, illness, infections, or catastrophic events happening to the mother or to the child while in the womb or during birth. In order to distinguish from abortion or miscarriage (for which verbal autopsy is not conducted), the SAVVY verbal autopsy system only includes births that occur after 28 weeks of pregnancy.

Usual residence — The place where the person lives and sleeps most of the time. This place is not necessarily the same as a person's legal residence. Also, noncitizens are included if this is their usual residence. Following are some common examples of usual residences:

- For people temporarily away on vacation or a business trip, their usual residence is the place where they live and sleep most of the time.
- The usual residence for commuter workers living away part of the week while working is the residence where they stay most of the week.

- For children in joint custody, usual residence is where they live most of the time. If time is equally divided, they are counted where they are staying during the interview period.
- Usual residence for people who own more than one residence is the residence where they live most of the time.
- Usual residence for college students living away from home while attending college is where they are living at college, if they are in a household. College students living in dormitories are not counted in the SAVVY census.
- For college students living at their parental home while attending college, usual residence is their parental home.
- The usual residence for a live-in nanny or other live-in house worker is where that person lives most of the week.
- For foster children, usual residence is where they are living during the interview period.
- Usual residence for renters or boarders is where they are living during the interview period.
- Usual residence for housemates or roommates is where they are living during the interview period.
- For people in the military who are residing off-base in the country, their usual residence is the place where they live and sleep most of the time. Military people on-base are not counted in the SAVVY census unless they are in residential style housing.
- Usual residence for staff members living in hospitals, nursing homes, prisons, or other institutions is where they report that they live and sleep most of the time; otherwise it is the living quarters that they inhabit at the institution.
- For students living in school dormitories but who are not enrolled in college, the usual residence is their parental home.

Usual residence for citizens of foreign countries who have established a household or are part of an established household in the country while working or studying, including family members who are with them, is the household where they are residing (spending the majority of their time while in-country).

Verbal autopsy (VA) — Verbal autopsy is a process used to collect information (using a specially-designed form) from relatives or caregivers of a deceased person. The process involves interviewing relatives or caregivers of the deceased regarding their knowledge of the symptoms, signs, and circumstances leading to death. The information that is collected is used by medical personnel to assign a probable cause of death for each reported death.

Verbal autopsy form — This is a form used to collect information on the history of illness of the deceased and presence of signs and symptoms. The form is to be completed by the interviewer during verbal autopsy interviews. There are three types of verbal autopsy forms used by the SAVVY system:

- International Verbal Autopsy Questionnaire 1: Death of a Child Aged under 4 Weeks
- International Verbal Autopsy Questionnaire 2: Death of a Child Aged 4 Weeks to 14 Years
- International Verbal Autopsy Questionnaire 3: Death of a Person Aged 15 Years and Above

Verbal autopsy interviewer (VAI) — The verbal autopsy interviewer is the person responsible for conducting VA interviews with the bereaved family members in the household. He or she is attached to the SAVVY area and is knowledgeable about that assigned area. The verbal autopsy interviewer must be accepted by the community in which he or she works. Some requirements of the verbal autopsy interviewer include having attained the highest primary level of the national education system (at minimum) and the ability to speak the dialect of the area to which he or she is assigned.

The following pages provide the three verbal autopsy forms, appearing in the following order with these headings:

- International Verbal Autopsy Questionnaire 1: Death of a Child Aged under 4 weeks
- International Verbal Autopsy Questionnaire 2: Death of a Child Aged 4 weeks to 14 Years
- International Verbal Autopsy Questionnaire 3: Death of a Person Aged 15 Years and Above

These forms may be copied directly from the following pages. This manual is also posted at the following MEASURE Evaluation Web site, allowing the forms to be printed or downloaded as needed: https://www.cpc.unc.edu/measure/leadership/savvy.html.

INTERNATIONAL VERBAL AUTOPSY QUESTIONNAIRE 1 DEATH OF A CHILD AGED UNDER 4 WEEKS

ID/CONTROL/REFERENCE NUMBER			

SECTION 1.1 INTERVIEWER VISITS							
	1	2	3	FINAL VISIT			
DATE				DAY MONTH			
INTERVIEWER'S NAME				YEAR 2 0 INT. NUMBER			
RESULT*				RESULT			
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS			
1 COMPLETED 5 PARTLY COMPLETE	2 NOT AT HOI ED 6 NO APPROF	ME 3 POSTPON PRIATE RESPONDENT FO	NED 4 REFUS DUND 7 OTHER	ED : (SPECIFY)			
NAME SUPERVIS	N	FIELD EDITO		OFFICE KEYED BY EDITOR			
PLACE NAME ADDRESS/DIRECTIONS TO HOUSEHOLD							
	ONAL DEMOGRAPHIO AMPLE VITAL REGISTRA	CINFORMATION TION OR DEMOGRAPHIC	SURVEILLANCE SITE)				
UNIQUE HOUSEHOLD N	<u> </u>						
SAMPLE INFORMED CONSENT STATEMENT Hello. My name is and I am working with [AGENCY]. We are collecting information on the causes of death in the community. We would very much appreciate your participation in this effort. We want to ask you about the circumstances leading to the death of the deceased. Whatever information you provide will be kept strictly confidential. No information identifying you or the deceased will ever be released to anyone outside of this information-collection activity Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. You may also stop the interview completely at any time without any consequences at all. However, we hope that you will participate in this survey since the results will help the government improve services for people At this time, do you want to ask me anything about the purpose or content of this interview? May I begin the interview now?							
Signature of interviewe RESPONDENT AGREES		. 1 RESPONDENT D	Date: OES NOT AGREE TO BE I	NTERVIEWED 2→ END			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECT	TION 2. BASIC INFORMATION ABOUT RESPONDENT		
201	RECORD THE TIME AT START OF INTERVIEW	HOUR	
		MINUTES	
202	NAME OF THE RESPONDENT	(NAME)	
203	What is your relationship to the deceased?	FATHER 1 MOTHER 2 SIBLING 4 OTHER RELATIVE 6 (SPECIFY) NO RELATION 8	
204	Did you live with the deceased in the period leading to her/his death?	YES	
SECT	TION 3. INFORMATION ON THE DECEASED AND DATE/PLACE OF DE	ATH	•
301	What was the name of the deceased?	(NAME)	
302	Was the deceased male or female?	MALE	
303	When was the deceased born?	DAY	
	RECORD '98' IF DON'T KNOW DAY OR MONTH RECORD '9998' IF DON'T KNOW YEAR	MONTH	
		YEAR	
304	How old was the deceased when s/he died?	AGE IN DAYS	
305	When did s/he die?	DAY	
	RECORD '98' IF DON'T KNOW DAY OR MONTH RECORD '9998' IF DON'T KNOW YEAR	MONTH	
306	Where did s/he die?	HOSPITAL	
SECT	TION 4. RESPONDENT'S ACCOUNT OF ILLNESS/EVENTS LEADING TO	O DEATH	
401	Could you tell me about the illness/events that led to her his/deat	h?	
402	CAUSE OF DEATH 1 ACCORDING TO RESPONDENT		
403	CAUSE OF DEATH 2 ACCORDING TO RESPONDENT		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECT	ION 5. PREGNANCY HISTORY		
501	I would like to ask you some questions concerning the mother and symptoms that the deceased had/showed at birth and shortly after. Some of these questions may not appear to be directly related to the baby's death. Please bear with me and answer all the questions They will help us to get a clear picture of all possible symptoms that the deceased had.	s.	
502	How many births, including stillbirths, did the mother have before this baby?	NUMBER OF BIRTHS/ STILLBIRTHS 98	
503	How many months was the pregnancy when the baby was born?	MONTHS	
504	Did the pregnancy end earlier than expected?	YES 1 NO 2 DON'T KNOW 98	→ 506 → 506
505	How many weeks before the expected date of delivery?	WEEKS	
506	During the pregnancy did the mother suffer from any of the following known illnesses:	YES NO DK	
	1 High blood pressure?	HIGH BLOOD PRESSURE 1 2 8	
	2 Heart disease?	HEART DISEASE 1 2 8	
	3 Diabetes?	DIABETES 1 2 8	
	4 Epilepsy/convulsion?	EPILEPSY/CONVULSION 1 2 8	
	5 Did she suffer from any other medically diagnosed illness?	OTHER 1 2 8 (SPECIFY)	
507	During the last 3 months of pregnancy did the mother suffer from any of the following illnesses:	YES NO DK	
	01 Vaginal bleeding?	VAGINAL BLEEDING	
	02 Smelly vaginal discharge?	SMELLY VAGINAL DISCHARGE 1 2 8	
	03 Puffy face?	PUFFY FACE 1 2 8	
	04 Headache?	HEADACHE 1 2 8	
	05 Blurred vision?	BLURRED VISION 1 2 8	
	06 Convulsion?	CONVULSION 1 2 8	
	07 Febrile illness?	FEBRILE ILLNESS 1 2 8	
	08 Severe abdominal pain that was not labor pain?	SEVERE ABDOMINAL PAIN (NOT LABOR PAIN)	
	09 Pallor and shortness of breath (both present)?	PALLOR/SHORTNESS OF BREATH (BOTH)	
	10 Did she suffer from any other illness?	OTHER ILLNESS	
508	Was the child a single or multiple birth?	SINGLETON 1 TWIN 2 TRIPLET OR MORE 3 DON'T KNOW 98	→ 601 → 601
509	What was the birth order of the child that died?	FIRST	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECT	ION 6. DELIVERY HISTORY		
601	Where was the child born?	HOSPITAL	
602	Who assisted with the delivery?	DOCTOR	
603	When did the water break?	BEFORE LABOR STARTED 1 DURING LABOR 2 DON'T KNOW 8	
604	How many hours after the water broke was the baby born?	LESS THAN 24 HOURS 1 24 HOURS OR MORE 2 DON'T KNOW 8	
605	Was the water foul smelling?	YES	
606	Did the baby stop moving in the womb?	YES	—→ 608 —→ 608
607	When did the baby stop moving in the womb?	BEFORE LABOR STARTED 1 DURING LABOR 2 DON'T KNOW 8	
608	Did a birth attendant listen for fetal heart sounds during labor?	YES	—→ 610 —→ 610
609	Were fetal heart sounds present?	YES	
610	Was there excess bleeding on the day labor started?	YES	
611	Did the mother have a fever on the day labor started?	YES 1 NO 2 DON'T KNOW 8	
612	How long did the labor pains last?	LESS THAN 12 HOURS 1 12-23 HOURS 2 24 HOURS OR MORE 3 DON'T KNOW 8	
613	Was it a normal vaginal delivery?	YES	→ 615 → 615
614	What type of delivery was it?	FORCEPS/VACUUM	
615	Which part of the baby came first?	HEAD	
616	Did the umbilical cord come out before the baby was born?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
SECT	TION 7. CONDITION OF THE BABY SOON AFTER BIRTH	
701	At birth what was the size of the baby?	SMALLER THAN NORMAL 1 NORMAL 2 LARGER THAN NORMAL 3 DON'T KNOW 8
702	Was the baby premature?	YES
703	How many months or weeks along was the pregnancy? INDICATE PERIOD OF PREGNANCY	MONTHS
704	What was the birth weight of the baby?	KILOGRAMS
705	Was anything applied to the umbilical cord stump after birth?	YES
706	What was it?	(SPECIFY)
707	Were there any signs of injury or broken bones?	YES 1 NO 2 DON'T KNOW 8
708	Where were marks or signs of injury?	(SPECIFY)
709	Was there any sign of paralysis?	YES
710	Did the baby have any malformation?	YES
711	What kind of malformation did the baby have?	SWELLING/DEFECT ON THE BACK 1 VERY LARGE HEAD 2 VERY SMALL HEAD 3 DEFECT OF LIP AND/OR PALATE 4 OTHER MALFORMATION 6 ODN'T KNOW 8
712	What was the color of the baby at birth?	NORMAL 1 PALE 2 BLUE 3 DON'T KNOW 8
713	Did the baby breathe after birth, even a little?	YES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
714	Was the baby given assistance to breathe?	YES 1 NO 2 DON'T KNOW 8	
715	Did the baby ever cry after birth, even a little?	YES	
716	Did the baby ever move, even a little?	YES 1 NO 2 DON'T KNOW 8	
717	CHECK 713, 715, AND 716 FOR CODES 'NO':		
	ALL THREE CODES 'NO': OTHER: THE BABY DIDN'T BREATH, THE BABY DIDN'T CRY, THE BABY DIDN'T MOVE		→ 801
718	If the baby did not cry, breathe or move, was it born dead?	YES	→ 801 → 801
719	Was the baby macerated, that is, showed signs of decay?	YES	→ 1001 → 1001 → 1001
SECT	ION 8. HISTORY OF INJURIES/ACCIDENTS		
801	Did the baby suffer from any injury or accident that led to her/his death?	YES 1 NO 2 DON'T KNOW 8	→ 804 → 804
802	What kind of injury or accident did the baby suffer?	ROAD TRAFFIC ACCIDENT 01 FALL 02 DROWNING 03 POISONING 04 BURNS 05 VIOLENCE/ASSAULT 06 OTHER 96 COPECIFY 00 DON'T KNOW 98	
803	Was the injury or accident intentionally inflicted by someone else?	YES 1 NO 2 DON'T KNOW 8	
804	Did the baby suffer from any animal/insect bite that led to her/his death?	YES	→ 901 → 901
805	What type of animal/insect?	DOG 1 SNAKE 2 INSECT 3 OTHER 6 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
SEC	TION 9. NEONATAL ILLNESS HISTORY	
901	Was the baby ever able to suckle or bottle-feed?	YES
902	How soon after birth did the baby suckle or bottle-feed?	HOURS 1 DAYS 2 DON'T KNOW 9 9 8
903	Did the baby stop suckling or bottle-feeding?	YES
904	How many days after birth did the baby stop suckling or bottle-feeding?	DAYS
905	Was the breastfeeding exclusive?	YES 1 NO 2 DON'T KNOW 8
906	Did the baby have convulsions?	YES 1 NO 2 DON'T KNOW 8
907	How soon after birth did the convulsions start?	DAYS
908	Did the baby become stiff and arched backwards?	YES 1 NO 2 DON'T KNOW 8
909	Did the child have bulging of the fontanelle?	YES
910	How many days after birth did the baby have the bulging?	DAYS
911	Did the baby become unresponsive or unconscious?	YES 1 NO 2 DON'T KNOW 8
912	How many days after birth did the baby become unresponsive or unconscious?'	DAYS
913	Did the baby have a fever?	YES
914	How many days after birth did the baby have a fever?	DAYS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
915	Did the baby become cold to the touch?	YES 1 NO 2 DON'T KNOW 8	→ 917 → 917
916	How many days after birth did the baby become cold to the touch?	DAYS	
917	Did the baby have a cough?	YES	→ 919 → 919
918	How many days after birth did the baby start to cough?	DAYS	
919	Did the baby have fast breathing?	YES	→ 921 → 921
920	How many days after birth did the baby start breathing fast?	DAYS	
921	Did the baby have difficulty breathing?	YES	→ 926 → 926
922	How many days after birth did the baby start having difficulty in breathing?	DAYS	
923	Did the baby have chest indrawing?	YES	
924	Did the baby have grunting? DEMONSTRATE	YES 1 NO 2 DON'T KNOW 8	
925	Did the baby have flaring of the nostrils?	YES	
926	Did the baby have diarrhea?	YES	→ 930 → 930
927	How many days after birth did the baby have diarrhea?	DAYS	
928	When the diarrhea was most severe, how many times did the baby pass stools in a day?	NUMBER	
929	Was there blood in the stools?	YES	
930	Did the baby have vomiting?	YES	→ 933 → 933
931	How many days after birth did vomiting start?	DAYS	

_	NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	932	When the vomiting was most severe, how many times did the baby vomit in a day?	NUMBER OF TIMES A DAY	
-	933	Did the baby have abdominal distension?	YES 1 NO 2 DON'T KNOW 8	→ 935 → 935
	934	How many days after birth did the baby have abdominal distension?	DAYS	
	935	Did the baby have redness or discharge from the umbilical cord stump?	YES 1 NO 2 DON'T KNOW 8	
_	936	Did the baby have a pustular skin rash?	YES 1 NO 2 DON'T KNOW 8	
_	937	Did the baby have yellow palms or soles?	YES 1 NO 2 DON'T KNOW 8	→ 1001 → 1001
	938	How many days after birth did the yellow palms or soles begin?	DAYS	
-	939	For how many days did the baby have yellow palms or soles?	DAYS	
-	SECT	ION 10. MOTHER'S HEALTH AND CONTEXTUAL FACTORS		
-	1001	What was the age of the mother at the time the baby died?	YEARS	
-	1002	Did the mother receive antenatal care?	YES 1 NO 2 DON'T KNOW 8	
	1003	Did the mother receive tetanus toxoid (TT) vaccine?	YES 1 NO 2 DON'T KNOW 8	→ 1005 → 1005
_	1004	How many doses?	NUMBER OF DOSES DON'T KNOW 9 8	
-	1005	How is the mother's health now?	HEALTHY 1 ILL 2 NOT ALIVE 3 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECTION	ON 11 TREATMENT AND HEALTH SERVICE USE FOR THE FINAL ILLNESS		
1101	Did the baby receive any treatment for the illness that led to death?	YES 1 NO 2 DON'T KNOW 8	→ 1201 → 1201
1102	Can you please list the treatments the baby was given for the illness that led to death?		
	COPY FROM PRESCRIPTION/DISCHARGE NOTES IF AVAILABLE		
1103	Please tell me at which of the following places or facilities the baby received treatment during the illness that led to death:	YES NO DK	
	1 Home?	HOME 1 2 8	
	2 Traditional healer?	TRADITIONAL HEALER 1 2 8	
	3 Government clinic?	GOVERNMENT CLINIC	
	4 Government hospital?	GOVERNMENT HOSPITAL 1 2 8	
	5 Private clinic?	PRIVATE CLINIC 1 2 8	
	6 Private hospital?	PRIVATE HOSPITAL 1 2 8	
	7 Pharmacy, drug seller, store?	PHARMACY, DRUG SELLER, STORE 1 2 8	
	8 Any other place or facility?	OTHER 1 2 8	
		(SPECIFY)	
1104	In the month before death, how many contacts with formal health services did the baby have?	NUMBER OF CONTACTS	
	nealth services and the baby have:	DON'T KNOW	
1105	Did a health care worker tell you the cause of death?	YES	
1100	Did a ficular care worker car you are cause of country	NO	→ 1201 → 1201
1106	What did the health care worker say?		
SECTION	DN 12 DATA ABSTRACTED FROM DEATH CERTIFICATE		I
1201	Do you have a death certifcate for the baby?	YES	→ 1301 → 1301
1202	Can I see the death certificate?	DAY MONTH YEAR	
	COPY DAY, MONTH AND YEAR OF DEATH		
	FROM THE DEATH CERTIFICATE.		
1203	COPY DAY, MONTH AND YEAR OF ISSUE OF DEATH CERTIFICATE.	DAY MONTH YEAR	
1201	DECORD THE CALLES OF DEATH FROM THE FIRST (TOD) LINE OF	THE DEATH CERTIFICATE.	
1204	RECORD THE CAUSE OF DEATH FROM THE FIRST (TOP) LINE OF	THE DEATH CERTIFICATE.	
1205	RECORD THE CAUSE OF DEATH FROM THE SECOND LINE OF TH	E DEATH CERTIFICATE (IF ANY):	
1200	PECODD THE CALISE OF DEATH EDOM THE THIRD LINE OF THE	DEATH CERTIFICATE (IF ANIV).	
1206	RECORD THE CAUSE OF DEATH FROM THE THIRD LINE OF THE I	DEATH OLIVIII IOATE (IF AINT).	
1207	RECORD THE CAUSE OF DEATH FROM THE FOURTH LINE OF TH	E DEATH CERTIFICATE (IF ANY):	

SECTION 13. DATA ABSTRACTED FROM OTHER HEALTH RECORDS					
1301	OTHER HEALTH RECORDS AVAILABLE	YES .	1		
		NO	2	→ 1311	
1302	FOR EACH TYPE OF HEALTH RECORD SUMI (IF MORE THAN 2) AND RECORD DATE OF IS (RECORD INFORMATION ABOUT MOTHER A	SUE.			
1303	BURIAL PERMIT (CAUSE OF DEATH)				
1304	POST MORTEM RESULTS (CAUSE OF DEATH	H)			
1305	MCH/ANC CARD (RELEVANT INFORMATION)				
1306	HOSPITAL PRESCRIPTION (RELEVANT INFO	RMATION)		_	
1307	TREATMENT CARDS (RELEVANT INFORMAT	ION)			
1308	HOSPITAL DISCHARGE (RELEVANT INFORM	ATION)			
1309	LABORATORY RESULTS (RELEVANT INFORM	MATION)			
1310	OTHER HOSPITAL DOCUMENTS SPE	CIFY:		_	
1311	RECORD THE TIME AT THE END OF INTERVI	EW	HOURS		
			MINUTES		

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ON SPECIFIC QUESTIONS:		
ANY OTHER COMMENTS:		
	SUPERVISOR'S OBSERVATIONS	
NAME OF THE SUPERVISOR:	DATE:	

INTERNATIONAL VERBAL AUTOPSY QUESTIONNAIRE 2 DEATH OF A CHILD AGED 4 WEEKS TO 14 YEARS

ID/CONTROL/REFERENCE NUMBER				I

SECTION 1.1 INTERV	IEWER VISITS			
	1	2	3	FINAL VISIT
DATE				MONTH VEAR 2 0
INTERVIEWER'S NAME				YEAR Z U
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
1 COMPLETED 5 PARTLY COMPLETE	2 NOT AT HOI ED 6 NO APPROF	ME 3 POSTPON PRIATE RESPONDENT FC	NED 4 REFUS DUND 7 OTHER	SED (SPECIFY)
NAME SUPERVIS	N	ATE		OFFICE KEYED BY EDITOR
	TO HOUSEHOLD	INFORMATION ITION OR DEMOGRAPHIC	SUBVEILLANCE SITE)	
REGION/PROVINCE	UMBERPERSON	RI UI	EGION/PROVINCE ELD SITE NIQ HHLD NUMBER ESIDENT IN ENUMERATION OF THE PROPERTY	DN AREA
your participation in this deceased. Whatever int or the deceased will eve Participation in this surv questions. You may als hope that you will partic	mation on the causes of a effort. We want to ask y formation you provide with the released to anyone you stop the interview complete in this survey since at to ask me anything about 15 months.	ann death in the community. you about the circumstar ill be kept strictly confide e outside of this informati can choose not to answ epletely at any time witho e the results will help the out the purpose or conte	nces leading to the death ntial. No information ider on-collection activity. er any individual question ut any consequences at government improve se	opreciate of the ntifying you n or all of the all. However, we
RESPONDENT AGREES	TO BE INTERVIEWED	. 1 RESPONDENT DO	OES NOT AGREE TO BE I	INTERVIEWED 2→ END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
SECT	ION 2. BASIC INFORMATION ABOUT RESPONDENT	
201	RECORD THE TIME AT THE START OF THE INTERVIEW	HOUR
		MINUTES
202	NAME OF THE RESPONDENT	(NAME)
203	What is your relationship to the deceased?	FATHER MOTHER SPOUSE SIBLING OTHER RELATIVE (SPECIFY) NO RELATION
204	Did you live with the deceased in the period leading to her/his death?	YES
SECT	ION 3. INFORMATION ON THE DECEASED AND DATE/PLACE OF DEAT	тн
301	What was the name of the deceased?	(NAME)
302	Was the deceased male or female?	MALE
303	When was the deceased born?	DAY
	RECORD '98' IF DON'T KNOW DAY OR MONTH RECORD '9998' IF DON'T KNOW YEAR	MONTH
		YEAR
304	How old was the deceased when s/he died?	AGE IN YEARS
305	What was her/his occupation, that is, what kind of work did s/he mainly do?	
306	What was the highest level of formal education the deceased attended?	NONE PRIMARY SECONDARY DON'T KNOW
307	What was her/his marital status?	NEVER MARRIED MARRIED/LIVING WITH A PARTNER WIDOWED DIVORCED SEPARATED DON'T KNOW
308	When did s/he die?	DAY
	RECORD '98' IF DON'T KNOW DAY OR MONTH RECORD '9998' IF DON'T KNOW YEAR	MONTH YEAR
309	Where did s/he die?	HOSPITAL OTHER HEALTH FACILITY HOME OTHER (SPECIFY)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECT	ION 4. RESPONDENT'S ACCOUNT OF ILLNESS/EVENTS LEADING TO DE	АТН	
401	Could you tell me about the illness/events that led to her his/death?		-
			- - -
			-
402	CAUSE OF DEATH 1 ACCORDING TO RESPONDENT		-
403	CAUSE OF DEATH 2 ACCORDING TO RESPONDENT		_
SECT	ION 5. HISTORY OF PREVIOUSLY KNOWN MEDICAL CONDITIONS		
501	I would like to ask you some questions concerning previously known medical conditions the deceased had; injuries and accidents that the deceased suffered; and signs and symptoms that the deceased had/showed when s/he was ill. Some of these questions may not appear to be directly related to his/her death. Please bear with me and answer all the questions. They will help us to get a clear picture of all possible symptoms that the deceased had.		
	Please tell me if the deceased suffer from any of the following illnesses:		
502	Heart disease?	NO	1 2 3
503	Diabetes?	NO	1 2 3
504	Asthma?	NO	1 2 3 3
505	Epilepsy?	NO	1 2 3
506	Malnutrition?	NO	1 2 3
507	Cancer?	NO	1 2
508	Can you specify the type or site of cancer?	TYPE/SITE	- -
509	Tuberculosis?	NO	1 2 3 3
510	HIV/AIDS?	NO	1 2 3
511	Did s/he suffer from any other medically diagnosed illness?	NO	1 2
512	Can you specify the illness?	ILLNESS	-

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECT	ION 6 HISTORY OF INJURIES/ACCIDENTS		
601	Did s/he suffer from any injury or accident that led to her/his death?	YES 1 NO 2 DON'T KNOW 8	→604 →604
602	What kind of injury or accident did the deceased suffer?	ROAD TRAFFIC ACCIDENT 01 FALL 02 DROWNING 03 POISONING 04 BURNS 05 VIOLENCE/ASSAULT 06 OTHER 96 (SPECIFY)	
603	Was the injury or accident intentionally inflicted by someone else?	YES 1 NO 2 DON'T KNOW 8	
604	CHECK QUESTION 304 FOR AGE AT DEATH: 10 YEARS OR OLDER 10 YEARS	1	606
605	Do you think that s/he committed suicide?	YES 1 NO 2 DON'T KNOW 8	
606	Did s/he suffer from any animal/insect bite that led to her/his death?	YES 1 NO 2 DON'T KNOW 8	→608 →608
607	What type of animal/insect?	DOG 1 SNAKE 2 INSECT 3 OTHER 6 DON'T KNOW 8	
608	CHECK QUESTION 304 FOR AGE AT DEATH: UNDER ONE YEAR OR OLDER	1	801
SECT	ION 7. SYMPTOMS AND SIGNS NOTED DURING THE FINAL ILLNESS OF INF	FANTS	<u> </u>
701	Was the child small at birth?	YES 1 NO 2 DON'T KNOW 8	
702	Was the child born prematurely?	YES 1 NO 2 DON'T KNOW 8	→704 →704
703	How many months or weeks premature? INDICATE PERIOD OF PREGNANCY	WEEKS 1 MONTHS 2 DON'T KNOW 9 9 8	
704	Was the child growing normally?	YES 1 NO 2 DON'T KNOW 8	
705	Did the child have bulging of the fontanelle?	YES 1 NO 2 DON'T KNOW 8	→801 →801
706	For how many days before death did s/he have the bulging?	DAYS	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECTI	ON 8. STATUS OF MOTHER AND SYMPTOMS NOTED DURING THE FINAL ILLNESS F	OR ALL CHILDREN	
801	How is the mother's health now?	HEALTHY 1 ILL 2 NOT ALIVE 3 DON'T KNOW 8	
802	For how long was the child ill before s/he died?	DAYS 1 1 MONTHS 2 2	
803	Did s/he have a fever?	YES	→ 808 → 808
804	For how long did s/he have a fever?	DAYS 1	
805	Was the fever severe?	YES	
806	Was the fever continuous or on and off?	CONTINUOUS 1 ON AND OFF 2 DON'T KNOW 8	
807	Did s/he have chills/rigor?	YES 1 NO 2 DON'T KNOW 8	
808	Did s/he have a cough?	YES	→ 812 → 812
809	For how long did s/he have a cough?	DAYS	
810	Was the cough severe?	YES 1 NO 2 DON'T KNOW 8	
811	Did the child vomit after he/she coughed?	YES	
812	Did s/he have fast breathing?	YES 1 NO 2 DON'T KNOW 8	→ 818 → 818
813	For how long did s/he have fast breathing?	DAYS	
814	Did s/he have difficulty in breathing?	YES	→ 820 → 820

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
815	For how long did s/he have difficulty in breathing?	DAYS	
816	Did s/he have chest indrawing?	YES	→ 818 → 818
817	For how long did s/he have chest indrawing?	DAYS	
818	Did s/he have noisy breathing (grunting or wheezing)? DEMONSTRATE	YES	
819	Did s/he have flaring of the nostrils?	YES	
820	Did s/he have diarrhea?	YES	→ 824 → 824
821	For how long did s/he have diarrhea?	DAYS	
822	When the diarrhea was most severe, how many times did s/he pass stool in a day?	NUMBER	
823	At any time during the final illness was there blood in the stool?	YES	
824	Did s/he vomit?	YES 1 NO 2 DON'T KNOW 8	→ 827 → 827
825	For how long did s/he vomit?	DAYS	
826	When the vomiting was most severe, how many times did s/he vomit in a day?	DAYS	
827	Did s/he have abdominal pain?	YES	→ 830 → 830

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
828	For how long did s/he have abdominal pain?	DAYS 1 1 MONTHS 2 9 9 8	
829	Was the abdominal pain severe?	YES	
830	Did s/he have abdominal distension?	YES	→ 834 → 834
831	For how long did s/he have abdominal distension?	DAYS	
832	Did the distension develop rapidly within days or gradually over months?	RAPIDLY WITHIN DAYS 1 GRADUALLY OVER MONTHS 2 DON'T KNOW 8	
833	Was there a period of a day or longer during which s/he did not pass any stool?	YES	
834	Did s/he have any mass in the abdomen?	YES	→ 836 → 836
835	For how long did s/he have the mass in the abdomen?	DAYS 1 1 MONTHS 2 9 9 8	
836	Did s/he have headache?	YES	→ 839 → 839
837	For how long did s/he have headache?	DAYS 1	
838	Was the headache severe?	YES	
839	Did s/he have a stiff or painful neck?	YES 1 NO 2 DON'T KNOW 8	→ 841 → 841
840	For how long did s/he have a stiff or painful neck?	DAYS	
841	Did s/he become unconscious?	YES	→ 844 → 844

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
842	For how long was s/he unconscious?	DAYS	
843	Did the unconsciousness start suddenly, quickly within a single day, or slowly over many days?	SUDDENLY 1 FAST (IN A DAY) 2 SLOWLY (MANY DAYS) 3 DON'T KNOW 8	
844	Did s/he have convulsions?	YES	→ 846 → 846
845	For how long did s/he have convulsions?	DAYS 1 1 MONTHS 2 DON'T KNOW 9 9 8	
846	Did s/he have paralysis of the lower limbs?	YES	→ 849 → 849
847	How long did s/he have paralysis of the lower limbs?	DAYS 1 1	
848	Did the paralysis of the lower limbs start suddenly, quickly within a single day, or slowly over many days?	SUDDENLY 1 FAST (IN A DAY) 2 SLOWLY (MANY DAYS) 3 DON'T KNOW 8	
849	Was there any change in the amount of urine s/he passed daily?	YES	→ 852 → 852
850	For how long did s/he have the change in the amount of urine s/he passed daily?	DAYS	
851	How much urine did s/he pass?	TOO MUCH 1 TOO LITTLE 2 NO URINE AT ALL 3 DON'T KNOW 8	
852	During the illness that led to death, did s/he have any skin rash?	YES	—→ 856 —→ 856
853	For how long did s/he have the skin rash?	DAYS	
854	Was the rash located on: 1 The face? 2 The trunk? 3 On the arms and legs?	YES NO DK FACE 1 2 8 TRUNK 1 2 8 ARMS AND LEGS 1 2 8	
855	What did the rash look like?	MEASLES RASH 1 RASH WITH CLEAR FLUID 2 RASH WITH PUS 3 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
856	Did s/he have red eyes?	YES	
857	Did s/he have bleeding from the nose, mouth, or anus?	YES	
858	Did s/he have weight loss?	YES	→ 861 → 861
859	For how long before death did s/he have the weight loss?	DAYS 1 1 MONTHS 2 2	
860	Did s/he look very thin and wasted?	YES	
861	Did s/he have mouth sores or white patches in the mouth or on the tongue?	YES	→ 863 → 863
862	For how long did s/he have mouth sores or white patches in the mouth or on the tongue?	DAYS	
863	Did s/he have any swelling?	YES	→ 866 → 866
864	For how long did s/he have the swelling?	DAYS 1 1	
865	Was the swelling on: 1 The face? 2 The joints? 3 The ankles? 4 The whole body? 5 Any other place?	YES NO DK FACE 1 2 8 JOINTS 1 2 8 ANKLES 1 2 8 WHOLE BODY 1 2 8 OTHER PLACE 1 2 8 SPECIFY: 4 2 8	
866	Did s/he have any lumps?	YES	→ 869 → 869
867	For how long did s/he have the lumps?	DAYS	
868	Were the lumps on: 1 The neck? 2 The armpit? 3 The groin? 4 Any other place?	YES NO DK NECK 1 2 8 ARMPIT 1 2 8 GROIN 1 2 8 OTHER PLACE 1 2 8 SPECIFY: 4 4 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKI
869	Did s/he have yellow discoloration of the eyes?	YES 1 NO 2 DON'T KNOW 8	→ 8°
870	For how long did s/he have the yellow discoloration of the eyes?	DAYS 1	
		MONTHS	
871	Did her/his hair color change to reddish or yellowish?	YES 1 NO 2 DON'T KNOW 8	→ 8 → 8
872	For how long did s/he have reddish/yellowish hair?	DAYS 1	
		MONTHS	
873	Did s/he look pale (thinning/lack of blood) or have pale palms, eyes or nail beds?	YES	→8 →8
874	For how long did s/he look pale (thinning/lack of blood) or have pale palms, eyes, or nail beds?	DAYS	
		DON'T KNOW 9 8	
875	Did s/he have sunken eyes?	YES 1 NO 2 DON'T KNOW 8	→ 9 → 9
876	For how long did s/he have sunken eyes?	DAYS	
		DON'T KNOW	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECTION	ON 9. TREATMENT AND HEALTH SERVICE USE FOR THE FINAL ILLNESS		
901	Was s/he vaccinated for measles?	YES 1 NO 2 DON'T KNOW 8	
902	Did s/he receive any treatment for the illness that led to death?	YES 1 NO 2 DON'T KNOW 8	→ 909 → 909
903	Can you please list the drugs s/he was given for the ilness that led to death?		
	COPY FROM PRESCRIPTION/DISCHARGE NOTES IF AVAILABLE		
904	What type of treatment did s/he receive:	YES NO DK	
	1 Oral rehydration salts and/or intravenous fluids (drip) treatment?	ORS/DRIP TREATMENT 1 2 8	
	2 Blood transfusion?	BLOOD TRANSFUSION	
	3 Treatment/food through a tube passed through the nose?	THROUGH THE NOSE 1 2 8	
	4 Any other treatment?	OTHER 1, 2 8	
		(SPECIFY)	
905	Please tell me at which of the following places/facilities s/he received treatment during the illness that led to death:	YES NO DK	
	1 Home?	HOME 1 2 8	
	2 Traditional healer?	TRADITIONAL HEALER 1 2 8	
	3 Government clinic?	GOVERNMENT CLINIC	
	· ·	GOVERNMENT HOSPITAL 1 2 8	
	5 Private clinic?	PRIVATE CLINIC 1 2 8	
	6 Private hospital?	PRIVATE HOSPITAL 1 2 8	
	7 Pharmacy, drug seller, store?	PHARMACY/DRUG SELLER/STORE 1 2 8	
	8 Any other place or facility?	OTHER 1 2 8	
		(SPECIFY)	
906	In the month before death, how many contacts with formal health services did s/he have?	NUMBER OF CONTACTS	
	Health Services did 3/He Have:	DON'T KNOW 9 8	
907	Did a health care worker tell you the cause of death?	YES	→ 909
		DON'T KNOW 8	→ 909
908	What did the health care worker say?		
202	Did allo have any an applied for the W	1	-
909	Did s/he have any operation for the illness?	YES	→ 1001
		DON'T KNOW	→ 1001
910	How long before death did s/he have the operation?		
		DAYS	
		DON'T KNOW	
911	On what part of the body was the operation?	ABDOMEN 1	
		CHEST 2 HEAD 3	
		HEAD	
		(SPECIFY)	
		DON'T KNOW 8	1

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP		
SECTIO	ON 10. DATA ABSTRACTED FROM DEATH CERTIFICATE				
1001	Do you have a death certifcate for the deceased?	YES	→1101 →1101		
1002	Can I see the death certificate? COPY DAY, MONTH AND YEAR OF DEATH FROM THE DEATH CERTIFICATE.	DAY MONTH YEAR			
1003	COPY DAY, MONTH AND YEAR OF ISSUE OF DEATH CERTIFICATE.	DAY MONTH YEAR]		
1004	RECORD THE CAUSE OF DEATH FROM THE FIRST (TOP) LINE OF THE DEATH CERTIFICATE:				
1005	RECORD THE CAUSE OF DEATH FROM THE SECOND LINE OF THE DEATH CERTIFICATE (IF ANY):				
1006	RECORD THE CAUSE OF DEATH FROM THE THIRD LINE OF THE DEATH CERTIFICATE (IF ANY):				
1007	RECORD THE CAUSE OF DEATH FROM THE FOURTH LIN	E OF THE DEATH CERTIFICATE (IF ANY):			

SECTI	SECTION 11. DATA ABSTRACTED FROM OTHER HEALTH RECORDS						
1101	OTHER HEALTH RECORDS AVAILABLE		1	→ 1111			
1102	FOR EACH TYPE OF HEALTH RECORD SUMMARIZE DETAILS FOR LAST 2 VISITS (IF MORE THAN 2) AND RECORD DATE OF ISSUE						
1103	BURIAL PERMIT (CAUSE OF DEATH)						
1104	POST MORTEM RESULTS (CAUSE OF DEATH)						
1105	MCH/ANC CARD (RELEVANT INFORMATION))					
1106	HOSPITAL PRESCRIPTION (RELEVANT INFO	ORMATION)	_				
1107	TREATMENT CARDS (RELEVANT INFORMAT	TION)					
1108	HOSPITAL DISCHARGE (RELEVANT INFORM	IATION)					
1109	LABORATORY RESULTS (RELEVANT INFOR	MATION)					
1110	OTHER HOSPITAL DOCUMENTS SPE	ECIFY:					
1111	RECORD THE TIME AT THE END OF INTERV	TIEW	HOURS				

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ON SPECIFIC QUESTIONS:		
ANY OTHER COMMENTS:		
	SUPERVISOR'S OBSERVATIONS	
NAME OF THE SUPERVISOR:	DATE:	

INTERNATIONAL VERBAL AUTOPSY QUESTIONNAIRE 3 DEATH OF A PERSON AGED 15 YEARS AND ABOVE

D/CONTROL/REFERENCE NUMBER			

SECTION 1.1 INTERV	/IEWER VISITS			
	1	2	3	FINAL VISIT
DATE				DAY MONTH
INTERVIEWER'S NAME				YEAR 2 0 INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
1 COMPLETED 5 PARTLY COMPLE	2 NOT AT F	IOME 3 POSTP OPRIATE RESPONDENT	ONED 4 REFUS FOUND 7 OTHER	ED : (SPECIFY)
NAME SUPERVIS	N	ATE	DR	OFFICE KEYED BY EDITOR
PLACE NAMEADDRESS/DIRECTIONS				
	ONAL DEMOGRAPHIO	C INFORMATION TION OR DEMOGRAPHIC	SURVEILLANCE SITE)	
	UMBERPERSON	FI UI	ODY BROUGHT HOME FO	DN AREA
your participation in this deceased. Whatever in or the deceased will even	mation on the causes of s effort. We want to ask formation you provide w er be released to anyon	at death in the community you about the circumstarill be kept strictly confide outside of this informa	nd I am working with [AC /. We would very much a ances leading to the dea ential. No information ide	GENCY]. appreciate th of the entifying you
questions. You may als hope that you will partic	so stop the interview cor cipate in this survey sind	npletely at any time with se the results will help th	out any consequences a e government improve s	at all. However, w∈
May I begin the intervie	, ,	pout the purpose or cont	ent of this litterview?	
Signature of interviewe			Date:	
RESPONDENT AGREES	TO BE INTERVIEWED	. 1 RESPONDENT D	OES NOT AGREE TO BE I	NTERVIEWED 2→ END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
SEC1	TION 2. BASIC INFORMATION ABOUT RESPONDENT	
201	RECORD THE TIME AT START OF INTERVIEW	HOUR
		MINUTES
202	NAME OF THE RESPONDENT	(NAME)
203	What is your relationship to the deceased?	FATHER MOTHER SPOUSE SIBLING CHILD OTHER RELATIVE (SPECIFY) NO RELATION
204	Did you live with the deceased in the period leading to her/his death?	YES
SEC1	I TION 3. INFORMATION ON THE DECEASED AND DATE/PLACE OF DEATH	1
301	What was the name of the deceased?	(NAME)
302	Was the deceased male or female?	MALE
303	When was the deceased born?	DAY
	RECORD '98' IF DON'T KNOW DAY OR MONTH RECORD '9998' IF DON'T KNOW YEAR	MONTH
		YEAR
304	How old was the deceased when s/he died?	AGE IN YEARS
305	What was her/his occupation, that is, what kind of work did s/he mainly do?	
306	What was the highest level of formal education the deceased attended?	NONE PRIMARY SECONDARY HIGHER DON'T KNOW
307	What was her/his marital status?	NEVER MARRIED MARRIED/LIVING WITH A PARTNER WIDOWED DIVORCED SEPARATED DON'T KNOW
308	When did s/he die?	DAY
	RECORD '98' IF DON'T KNOW DAY OR MONTH RECORD '9998' IF DON'T KNOW YEAR	MONTH YEAR
309	Where did s/he die?	HOSPITAL OTHER HEALTH FACILITY HOME OTHER (SPECIFY) DON'T KNOW

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECT	ION 4. RESPONDENT'S ACCOUNT OF ILLNESS/EVENTS LEADING TO DE	АТН	
401	Could you tell me about the illness/events that led to her/his death?		
402	CAUSE OF DEATH 1 ACCORDING TO RESPONDENT		
403	CAUSE OF DEATH 2 ACCORDING TO RESPONDENT		
SECT	TION 5. HISTORY OF PREVIOUSLY KNOWN MEDICAL CONDITIONS		<u> </u>
501	I would like to ask you some questions concerning previously known medical conditions the deceased had; injuries and accidents that the deceased suffered; and signs and symptoms that the deceased had/showed when s/he was ill. Some of these questions may not appear to be directly related to his/her death. Please bear with me and answer all the questions. They will help us to get a clear picture of all possible symptoms that the deceased had. Please tell me if the deceased suffer from any of the following illnesses:		
502	High blood pressure?	YES 1 NO 2 DON'T KNOW 8	
503	Diabetes?	YES 1 NO 2 DONT KNOW 8	
504	Asthma?	YES	
505	Epilepsy?	YES	
506	Malnutrition?	YES	
507	Cancer?	YES	→ 509 → 509
508	Can you specify the type or site of cancer?	TYPE/SITE	
509	Tuberculosis?	YES	
510	HIV/AIDS?	YES	
511	Did s/he suffer from any other medically diagnosed illness?	YES 1 NO 2 DON'T KNOW 8	→ 601 → 601
512	Can you specify the illness?	ILLNESS	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECT	TION 6 HISTORY OF INJURIES/ACCIDENTS		
601	Did s/he suffer from any injury or accident that led to her/his death?	YES 1 NO 2 DON'T KNOW 8	→ 604 → 604
602	What kind of injury or accident did the deceased suffer?	ROAD TRAFFIC ACCIDENT	
		FALL 02	
		DROWNING	
		POISONING	
		BURNS 05	
		VIOLENCE/ASSAULT	
		OTHER 96 (SPECIFY)	
		DON'T KNOW	
603	Was the injury or accident intentionally inflicted by someone else?	YES 1 NO 2 DON'T KNOW 8	
604	Do you think that s/he committed suicide?	YES 1 NO 2 DON'T KNOW 8	
605	Did s/he suffer from any animal/insect bite that led to her/his death?	YES 1 NO 2 DON'T KNOW 8	→ 607 → 607
606	What type of animal/insect?	DOG	
		DON'T KNOW 8	
607	CHECK QUESTION 302 FOR SEX OF THE DECEASED:		
	FEMALE MALE C	¬	901

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECTION	ON 7. SYMPTOMS AND SIGNS ASSOCIATED WITH ILLNESS OF WOMEN		
701	Did she have an ulcer or swelling in the breast?	YES 1 NO 2 DON'T KNOW 8	→ 703 → 703
702	For how long did she have an ulcer or swelling in the breast?	DAYS 1	
703	Did she have excessive vaginal bleeding during menstrual periods?	YES 1 NO 2 DON'T KNOW 8	→ 705 → 705
704	For how long did s/he have the excessive vaginal bleeding during menstrual periods?	DAYS 1	
705	Did she have vaginal bleeding in between menstrual periods?	YES 1 NO 2 DONT KNOW 8	→ 707 → 707
706	For how long did she have vaginal bleeding in between menstrual periods?	DAYS 1	
707	Did she have abnormal vaginal discharge?	YES 1 NO 2 DON'T KNOW 8	→ 801 → 801
708	For how long did she have abnormal vaginal discharge?	DAYS 1	
SECTION	ON 8. SYMPTOMS AND SIGNS ASSOCIATED WITH PREGNANCY		
801	Was she pregnant at the time of death?	YES	→ 806 → 806
802	How long was she pregnant?	WEEKS	
803	How many pregnancies had she had, including this one?	PREGNANCIES 9 8	
804	During the last 3 months of pregnancy, did she suffer from any of the following illnesses: 1 Vaginal bleeding? 2 Smelly vaginal discharge? 3 Puffy face? 4 Headache? 5 Blurred vision? 6 Convulsion? 7 Febrile illness? 8 Severe abdominal pain that was not labor pain? 9 Pallor and shortness of breath (both present)? 10 Did she suffer from any other illness?	VES NO DK VAGINAL BLEEDING 1 2 8 SMELLY VAGINAL DISCHARGE 1 2 8 PUFFY FACE 1 2 8 HEADACHE 1 2 8 BLURRED VISION 1 2 8 CONVULSION 1 2 8 FEBRILE ILLNESS 1 2 8 SEVERE ABDOMINAL PAIN (NOT LABOR PAIN) 1 2 8 PALLOR/SHORTNESS OF BREATH (BOTH) 1 2 8 OTHER ILLNESS 1 2 8 SPECIFY: 4 4 8	

805	QUESTIONS AND FILTERS	CODING CATEGORIES	S
	Did she die during labor, but undelivered?	YES	
		DON'T KNOW 8	
806	Did she give birth recently?	YES 1	
		NO 2 DON'T KNOW 8	\Rightarrow
		BONTRINOW	
807	How many days after giving birth did she die?	DAYS	
		DON'T KNOW 9 8	
808	Was there excessive bleeding on the day labor started?	YES 1	
000	That there exceeding the the day label started.	NO 2	
		DON'T KNOW 8	
809	Was there excessive bleeding during labor before delivering	YES 1	
009	the baby?	NO 2	
	,	DON'T KNOW 8	
040	Man there averaging blooding often delivering the baby?		
810	Was there excessive bleeding after delivering the baby?	YES	
		DON'T KNOW	
			-
811	Did she have difficulty in delivering the placenta?	YES 1	
		NO 2 DON'T KNOW 8	
		DON'T MINOW	
812	Was she in labor for unusually long (more than 24 hours)?	YES 1	
		NO 2	
		DON'T KNOW 8	
813	Was it a normal vaginal delivery?	YES 1	
		NO 2	
		DON'T KNOW 8	—
814	What type of delivery was it?	FORCEPS/VACUUM	
014	What type of donvery was it.	CAESAREAN SECTION	
		OTHER6	
		(SPECIFY)	
		DON'T KNOW 8	
815	Did she have foul smelling vaginal discharge?	YES 1	
		NO 2	
		DON'T KNOW 8	
816	Where did she give birth?	HOSPITAL 1	
0.0	Titlere did dite give bitati.	OTHER HEALTH FACILITY	
		HOME 3	
		OTHER 6	
		(SPECIFY) DON'T KNOW 8	
		DON I KNOW	
817	Who conducted the delivery?	DOCTOR 1	
817	Who conducted the delivery?	NURSE/MIDWIFE 2	
817	Who conducted the delivery?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3	
817	Who conducted the delivery?	NURSE/MIDWIFE 2	
817	Who conducted the delivery?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6	
817	Who conducted the delivery?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY)	
817	Who conducted the delivery?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6	
817	Who conducted the delivery? Did she experience an abortion recently?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DON'T KNOW 8 YES 1	
		NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DON'T KNOW 8 YES 1 NO 2	
		NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DON'T KNOW 8 YES 1	
		NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DON'T KNOW 8 YES 1 NO 2	\vdash
818	Did she experience an abortion recently?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DON'T KNOW 8 YES 1 NO 2 DON'T KNOW 8 YES 1 NO 2 NO 2 NO 2 NO 2	
818	Did she experience an abortion recently?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8	
818	Did she experience an abortion recently? Did she die during the abortion?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8	
818	Did she experience an abortion recently?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DON'T KNOW 8 YES 1 NO 2 DON'T KNOW 8 YES 1 NO 2 NO 2 NO 2 NO 2	
818	Did she experience an abortion recently? Did she die during the abortion?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8	
818	Did she experience an abortion recently? Did she die during the abortion?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8	
818	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion? How many months pregnant was she when she had	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8	
818 819 820	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 DONT KNOW 8 DAYS 1 DONT KNOW 9 BONT KNOW 9	
818 819 820	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion? How many months pregnant was she when she had	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 DONT KNOW 8 DAYS 1 DONT KNOW 9 BONT KNOW 9	
818 819 820	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion? How many months pregnant was she when she had the abortion?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 DAYS 1 DONT KNOW 9 MONTHS 9 DONT KNOW 9 BONT KNOW 9	
818 819 820	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion? How many months pregnant was she when she had	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 DAYS Image: Contraction of the contraction of th	
818 819 820	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion? How many months pregnant was she when she had the abortion?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 DAYS I DONT KNOW 9 MONTHS I DONT KNOW 9 BONT KNOW 9 BONT KNOW 9	
818 819 820 821	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion? How many months pregnant was she when she had the abortion? Did she have heavy bleeding after the abortion?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 DAYS	
818 819 820	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion? How many months pregnant was she when she had the abortion?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 DAYS Image: Color of the	
818 819 820 821	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion? How many months pregnant was she when she had the abortion? Did she have heavy bleeding after the abortion?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 DAYS Image: Color of the	
818 819 820 821	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion? How many months pregnant was she when she had the abortion? Did she have heavy bleeding after the abortion? Did the abortion occur by itself, spontaneously?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 DAYS Image: Color of the	
818 819 820 821	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion? How many months pregnant was she when she had the abortion? Did she have heavy bleeding after the abortion?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 DAYS Image: Color of the	
818 819 820 821 822	Did she experience an abortion recently? Did she die during the abortion? How many days before death did she have the abortion? How many months pregnant was she when she had the abortion? Did she have heavy bleeding after the abortion? Did the abortion occur by itself, spontaneously?	NURSE/MIDWIFE 2 TRADITIONAL BIRTH ATTENDANT 3 RELATIVE 4 MOTHER BY HERSELF 5 OTHER 6 (SPECIFY) DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8 DAYS I DONT KNOW 9 MONTHS I VES 1 NO 2 DONT KNOW 8 YES 1 NO 2 DONT KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECTI	ON 9. SIGNS AND SYMPTOMS NOTED DURING THE FINAL ILLNESS		
901	For how long was s/he ill before s/he died?	DAYS	
		MONTHS 2 DON'T KNOW 9 9 8	
902	Did s/he have a fever?	YES 1 NO 2 DON'T KNOW 8	→ 907 → 907
903	For how long did s/he have a fever?	DAYS	
		MONTHS 2 DON'T KNOW 9 8	
904	Was the fever continuous or on and off?	CONTINUOUS 1 ON AND OFF 2 DON'T KNOW 8	
905	Did s/he have fever only at night?	YES 1 NO 2 DON'T KNOW 8	
906	Did s/he have chills/rigor?	YES 1 NO 2 DON'T KNOW 8	
907	Did s/he have a cough?	YES 1 NO 2 DON'T KNOW 8	→ 913 → 913
908	For how long did s/he have a cough?	DAYS	
909	Was the cough severe?	YES	
910	Was the cough productive with sputum?	YES	
911	Did s/he cough out blood?	YES 1 NO 2 DON'T KNOW 8	
912	Did s/he have night sweats?	YES 1 NO 2 DON'T KNOW 8	
913	Did s/he have breathlessness?	YES 1 NO 2 DON'T KNOW 8	→ 918 → 918
914	For how long did s/he have breathlessness?	DAYS	
915	Was s/he unable to carry out daily routines due to breathlessness?	YES	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
916	Was s/he breathless while lying flat?	YES	
917	Did s/he have wheezing?	YES	
918	Did s/he have chest pain?	YES 1 NO 2 DON'T KNOW 8	→ 928 → 928
919	For how long did s/he have chest pain?	DAYS	
		DON'T KNOW	
920	Did chest pain start suddenly or gradually?	SUDDENLY 1 GRADUALLY 2 DON'T KNOW 8	
921	When s/he had severe chest pain, how long did it last?	LESS THAN HALF AN HOUR 1 HALF AN HOUR TO 24 HOURS 2 LONGER THAN 24 HOURS 3 DON'T KNOW 8	
922	Was the chest pain located below the breastbone (sternum)?	YES	
923	Was the chest pain located over the heart and did it spread to the left arm?	YES	
924	Was the chest pain located over the ribs (sides)?	YES	
925	Was the chest pain continuous or on and off?	CONTINUOUS 1 ON AND OFF 2 DON'T KNOW 8	
926	Did the chest pain get worse while coughing?	YES	
927	Did s/he have palpitations?	YES	
928	Did s/he have diarrhea?	YES	→ 933 → 933
929	For how long did s/he have diarrhea?	DAYS	
		DON'T KNOW	
930	Was the diarrhea continuous or on and off?	CONTINUOUS 1 ON AND OFF 2 DON'T KNOW 8	
931	At any time during the final illness was there blood in the stool?	YES 1 NO 2 DON'T KNOW 8	
932	When the diarrhea was most severe, how many times did s/he pass stools in a day?	NUMBER	
		DON'T KNOW 9 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
933	Did s/he vomit?	YES 1 NO 2 DON'T KNOW 8	→ 937 → 937
934	For how long did s/he vomit?	DAYS	
935	Did the vomit look like a coffee-colored fluid or bright red/blood red or some other?	COFFEE-COLORED FLUID	
936	When the vomiting was most severe, how many times did s/he vomit in a day?	NUMBER DON'T KNOW 9 8	
937	CHECK QUESTION 302 FOR SEX OF THE DECEASED: FEMALE MALE MALE	•	939
938	CHECK QUESTIONS 801, 805, 819 TO SEE IF SHE DIED DURIN PREGNANCY, LABOR, ABORTION OR POSTPARTUM: NO YES YES	G →	948
939	Did s/he have abdominal pain?	YES 1 NO 2 DON'T KNOW 8	—→ 941 —→ 941
940	For how long did s/he have abdominal pain?	DAYS 1	
941	Did s/he have abdominal distension?	YES 1 NO 2 DON'T KNOW 8	→ 945 → 945
942	For how long did s/he have abdominal distension?	DAYS	
943	Did the distension develop rapidly within days or gradually over months?	RAPIDLY WITHIN DAYS 1 GRADUALLY OVER MONTHS 2 DON'T KNOW 8	
944	Was there a period of a day or longer during which s/he did not pass any stool?	YES	
945	Did s/he have any mass in the abdomen?	YES	→ 948 → 948
946	For how long did s/he have the mass in the abdomen?	DAYS 1 1 MONTHS 2 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
947	Where in the abdomen was the mass located?	RIGHT UPPER ABDOMEN 1 LEFT UPPER ABDOMEN 2 LOWER ABDOMEN 3 ALL OVER ABDOMEN 4 DON'T KNOW 8	
948	Did s/he have difficulty or pain while swallowing solids?	YES 1 NO 2 DON'T KNOW 8	→ 950 → 950
949	For how long did s/he have difficulty or pain while swallowing solids?	DAYS	
950	Did s/he have difficulty or pain while swallowing liquids?	DON'T KNOW 9 9 8 YES 1 NO 2 DON'T KNOW 8	→ 952 → 952
951	For how long did s/he have difficulty or pain while swallowing liquids?	DAYS	
952	Did s/he have headache?	YES 1 NO 2 DON'T KNOW 8	→ 955 → 955
953	For how long did s/he the have headache?	DAYS 1 1	
954	Was the headache severe?	YES 1 NO 2 DON'T KNOW 8	
955	Did s/he have a stiff or painful neck?	YES	→ 957 → 957
956	For how long did s/he have a stiff or painful neck?	DAYS	
957	Did s/he have mental confusion?	YES	→ 960 → 960
958	For how long did s/he have mental confusion?	DAYS 1 1	
959	Did the mental confusion start suddenly, quickly within a single day, or slowly over many days?	SUDDENLY 1 WITHIN A DAY (FAST) 2 SLOWLY (MANY DAYS) 3 DON'T KNOW 8	
960	Did s/he become unconscious?	YES	→ 963 → 963
961	For how long was s/he unconscious?	DAYS 1 1	
962	Did the unconsciousness start suddenly, quickly within a single day, or slowly over many days?	SUDDENLY 1 WITHIN A DAY (FAST) 2 SLOWLY (MANY DAYS) 3 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
963	Did s/he have convulsions?	YES 1 NO 2 DON'T KNOW 8	→ 965 → 965
964	For how long did s/he have convulsions?	DAYS	
965	Was s/he unable to open the mouth?	YES	→ 967 → 967
966	For how long was s/he unable to open the mouth?	DAYS	
967	Did s/he have stiffness of the whole body?	YES	→ 969 → 969
968	For how long did s/he have stiffness of the whole body?	DAYS	
969	Did s/he have paralysis of one side of the body?	YES 1 NO 2 DON'T KNOW 8	→ 972 → 972
970	For how long did s/he have paralysis of one side of the body?	DAYS 1	
971	Did the paralysis of one side of the body start suddenly, quickly within a single day, or slowly over many days?	SUDDENLY 1 WITHIN A DAY (FAST) 2 SLOWLY (MANY DAYS) 3 DON'T KNOW 8	
972	Did s/he have paralysis of the lower limbs?	YES 1 NO 2 DON'T KNOW 8	→ 975 → 975
973	How long did s/he have paralysis of the lower limbs?	DAYS 1	
974	Did the paralysis of the lower limbs start suddenly, quickly within a single day, or slowly over many days?	SUDDENLY 1 WITHIN A DAY (FAST) 2 SLOWLY (MANY DAYS) 3 DON'T KNOW 8	
975	Was there any change in color of urine?	YES 1 NO 2 DON'T KNOW 8	→ 977 → 977
976	For how long did s/he have the change in color of urine?	DAYS	
977	During the final illness did s/he ever pass blood in the urine?	YES	→ 979 → 979
978	For how long did s/he pass blood in the urine?	DAYS	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
979	Was there any change in the amount of urine s/he passed daily?	YES 1	
		NO	→ 982
		DON'T KNOW	→ 982
980	For how long did s/he have the change in the amount of urine passed daily?	L DAVO	
	passeu daily !	DAYS 1	
		MONTHS 2	
		DON'T KNOW	
981	Did s/he pass too much urine, too little urine, or no urine at all?	TOO MUCH	
		TOO LITTLE	
		NO URINE AT ALL 3 DON'T KNOW 8	
982	During the illness that led to death, did s/he have any skin rash?	YES 1	
002	During the infloor that for to death, and office have any distriction.	NO	→ 986
		DON'T KNOW	→ 986
983	For how long did s/he have the skin rash?		
		DAYS	
		DON'T KNOW	
984	Was the rash on:	YES NO DK	
	1 The face?	FACE 1 2 8	
	2 The trunk?	TRUNK	
	3 The arms and legs?	ARMS AND LEGS	
	4 Any other place?	OTHER PLACE	
	The state of the s	SPECIFY:	
005	What did the sech lead like?	MEANIFO DANI	
985	What did the rash look like?	MEASLES RASH 1 RASH WITH CLEAR FLUID 2	
		RASH WITH PUS	
		DON'T KNOW	
986	Did s/he have red eyes?	YES 1	
		NO 2 DON'T KNOW 8	
987	Did s/he have bleeding from the nose, mouth, or anus?	VEC	
967	Did site have bleeding from the flose, floddin, or ands?	YES	
		DON'T KNOW 8	
988	Did s/he ever have shingles/herpes zoster?	YES 1	
		NO	
			<u> </u>
989	Did s/he have weight loss?	YES	→ 990
		DON'T KNOW	→ 990 → 990
989.1	For how long did s/he have weight loss?		
	· · · · · · · · · · · · · · · · · · ·	DAYS 1	
		MONTHS	
		DON'T KNOW	
000.0	Did a/ha lack york this and wests 42		
989.2	Did s/he look very thin and wasted?	YES	
		DON'T KNOW	
990	Did s/he have mouth sores or white patches	YES 1	
	in the mouth or on the tongue?	NO	→ 991 → 001
		DON'T KNOW	—→ 991 ———
990.1	For how long did s/he have mouth sores or white patches in the mouth or on the tongue?	DAYS	
	in the modul of on the longue:		
		DON'T KNOW 9 8	
991	Did s/he have any swelling?	YES 1	
		NO 2 DON'T KNOW 8	→ 992 → 992
		0	. 552

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
991.1	For how long did s/he have the swelling?		
		DAYS 1	
		MONTHS	
		DON'T KNOW 9 9 8	
991.2	Was the swelling on:	YES NO DK	
	1 The face?	FACE 1 2 8	
	2 The joints?	JOINTS 1 2 8	
	3 The ankles?	ANKLES 1 2 8	
	4 The whole body?	WHOLE BODY 1 2 8	
	5 Any other place?	OTHER PLACE	
992	Did s/he have any lumps?	YES 1	
		NO	→ 993 → 993
000.4	For how long did a/ha hove the limens?	0	- 333
992.1	For how long did s/he have the lumps?	DAYS 1	
		MONTHS 2	
		DON'T KNOW	
992.2	Were the lumps on:	YES NO DK	
	1 The neck?	NECK 1 2 8	
	2 The armpit?	ARMPIT 1 2 8	
	3 The groin?	GROIN 1 2 8	
	4 Any other place?	OTHER PLACE	
		SPECIFY:	
993	Did s/he have yellow discoloration of the eyes?	YES 1	. 004
		NO	→ 994 → 994
993.1	For how long did s/he have yellow discoloration of the eyes?		
		DAYS 1	
		MONTHS 2	
		DON'T KNOW 9 9 8	
994	Did s/he look pale (thinning/lack of blood) or have pale palms,	YES 1	
	eyes or nail beds?	NO	→ 995 → 995
994.1	For how long did s/he look pale or have pale palms,		
	eyes or nail beds?	DAYS	
		DON'T KNOW 9 8	
995	Did s/he have an ulcer, abscess, or sore anywhere on the body?	YES	→ 1001
		DON'T KNOW 8	→ 1001
995.1	For how long did s/he have the ulcer, abscess, or sore?	DAYS	
		DAYS	
995.2	What was the location of the ulcer, abscess, or sore?		
		(SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
SECTIO	ON 10. TREATMENT AND HEALTH SERVICE USE FOR THE FINAL ILLNE	ss	
1001	Did s/he receive any treatment for the illness that led to death?	YES 1 NO 2 DON'T KNOW 8	→ 1008 → 1008
1002	Can you please list the drugs s/he was given for the illness that led to death?		
	COPY FROM PRESCRIPTION/DISCHARGE NOTES IF AVAILABLE		
1003	What type of treatment did s/he receive:	YES NO DK	
	1 Oral rehydration salts and/or intravenous fluids (drip) treatment?	ORS/DRIP TREATMENT	
	2 Blood transfusion?	BLOOD TRANSFUSION	
	3 Treatment/food through a tube passed through the nose?	THROUGH THE NOSE	
	4 Any other treatment?	OTHER1 2 8 (SPECIFY)	
1004	Please tell me at which of the following places/facilities s/he received treatment during the illness that led to death:	YES NO DK	
	1 Home?	HOME 1 2 8	
	2 Traditional healer?	TRADITIONAL HEALER 1 2 8	
	3 Government clinic?	GOVERNMENT CLINIC 1 2 8	
	4 Government hospital?	GOVERNMENT HOSPITAL 1 2 8	
	5 Private clinic?	PRIVATE CLINIC 1 2 8	
	6 Private hospital?	PRIVATE HOSPITAL 1 2 8	
	7 Pharmacy, drug seller, store?	PHARMACY, DRUG SELLER, STORE 1 2 8	
	8 Any other placer or facility?	OTHER1 2 8 (SPECIFY)	
1005	In the month before death, how many contacts with formal health services did s/he have?	NUMBER OF CONTACTS	
		DON'T KNOW 9 8	
1006	Did a health care worker tell you the cause of death?	YES	→ 1008 → 1008
1007	What did the health care worker say?		- 1000
1008	Did s/he have any operation for the illness?	YES	
		NO	→ 1101 → 1101
1009	How long before death did s/he have the operation?	DAYS	
		DON'T KNOW 9 8	
1010	On what part of the body was the operation?	ABDOMEN 1	
		CHEST	
		OTHER 6	
		(SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
SECTI	ON 11. RISK FACTORS	
1101	Did s/he drink alcohol?	YES 1 NO 2 DONT KNOW 8
1102	How long had s/he been drinking?	YEARS
	RECORD '00' IF LESS THAN ONE YEAR	DON'T KNOW
1103	How often did s/he drink alcohol?	DAILY 1 FREQUENTLY (WEEKLY) 2 ONCE IN A WHILE 3 DON'T KNOW 8
1104	Did she stop drinking?	YES 1 NO 2 DONT KNOW 8
1105	How long before death did s/he stop drinking?	MONTHS
	RECORD '00' IF LESS THAN ONE MONTH	DON'T KNOW 9 8
1106	Did s/he smoke tobacco (cigarette, cigar, pipe etc.)?	YES
1107	How long had s/he been smoking?	YEARS
	RECORD '00' IF LESS THAN ONE YEAR	DON'T KNOW 9 8
1108	How often did s/he smoke?	DAILY 1 FREQUENTLY (WEEKLY) 2 ONCE IN A WHILE 3 DON'T KNOW 8
1109	How many cigarettes did s/he smoke daily?	NUMBER OF CIGARETTES 9 8
1110	Did s/he stop smoking before death?	YES 1 NO 2 DONT KNOW 8
1111	How long before death did s/he stop smoking?	MONTHS
	RECORD '00' IF LESS THAN ONE MONTH	DON'T KNOW

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES SKIF
1201	Do you have a death certifcate for the deceased?	YES
1202	Can I see the death certificate? COPY DAY, MONTH AND YEAR OF DEATH FROM THE DEATH CERTIFICATE.	DAY MONTH YEAR
1203	COPY DAY, MONTH AND YEAR OF ISSUE OF DEATH CERTIFICATE.	DAY MONTH YEAR
1204	RECORD THE CAUSE OF DEATH FROM THE FIRST (TOP)	LINE OF THE DEATH CERTIFICATE:
1205	RECORD THE CAUSE OF DEATH FROM THE SECOND LIN	NE OF THE DEATH CERTIFICATE (IF ANY):
1206	RECORD THE CAUSE OF DEATH FROM THE THIRD LINE	OF THE DEATH CERTIFICATE (IF ANY):
1207	RECORD THE CAUSE OF DEATH FROM THE FOURTH LIN	IE OF THE DEATH CERTIFICATE (IF ANY):

SECTION	N 13. DATA ABSTRACTED FROM OTHER HEAL	TH RECOR	RDS	
1301	OTHER HEALTH RECORDS AVAILABLE			→ 1311
1302	FOR EACH TYPE OF HEALTH RECORD SUM (IF MORE THAN 2) AND RECORD DATE OF IS		TAILS FOR LAST 2 VISITS	
1303	BURIAL PERMIT (CAUSE OF DEATH)			
1304	POST MORTEM RESULTS (CAUSE OF DEAT)	H)		
1305	MCH/ANC CARD (RELEVANT INFORMATION)			
1306	HOSPITAL PRESCRIPTION (RELEVANT INFO	PRMATION)		
1307	TREATMENT CARDS (RELEVANT INFORMAT	TION)		
1308	HOSPITAL DISCHARGE (RELEVANT INFORM	IATION)		
1309	LABORATORY RESULTS (RELEVANT INFOR	MATION)		
1310	OTHER HOSPITAL DOCUMENTS SPE	ECIFY:		
1311	RECORD THE TIME AT THE END OF INTERV	IEW	HOURS	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

SUPERVISOR'S OBSERVATIONS			
ANY OTHER COMMENTS: SUPERVISOR'S OBSERVATIONS			
ANY OTHER COMMENTS: SUPERVISOR'S OBSERVATIONS			
ANY OTHER COMMENTS: SUPERVISOR'S OBSERVATIONS			
ANY OTHER COMMENTS: SUPERVISOR'S OBSERVATIONS			
ANY OTHER COMMENTS: SUPERVISOR'S OBSERVATIONS			
ANY OTHER COMMENTS: SUPERVISOR'S OBSERVATIONS			
ANY OTHER COMMENTS: SUPERVISOR'S OBSERVATIONS	COMMENTS ON SPECIFIC QUESTIONS:		
SUPERVISOR'S OBSERVATIONS			
	ANY OTHER COMMENTS:		
		SUPERVISOR'S OBSERVATIONS	
NAME OF THE SUPERVISOR: DATE:			
NAME OF THE SUPERVISOR: DATE:			
NAME OF THE SUPERVISOR: DATE:			
NAME OF THE SUPERVISOR: DATE:			
NAME OF THE SUPERVISOR: DATE:			
NAME OF THE SUPERVISOR: DATE:			
NAME OF THE SUPERVISOR: DATE:			
NAME OF THE SUPERVISOR: DATE:			
	NAME OF THE SUPERVISOR:	DATE:	

Appendices

The following documents are included in the appendices:

- Appendix A: VA Reporting Log Book
- Appendix B: Residential Status Criteria
- Appendix C: SAVVY System Information Booklet/Letter
- Appendix D: Historical Calendar of Events
- Appendix E: Year-of-Birth Calculator

APPENDIX A: VA REPORTING LOG BOOK

(8) Date of next VA appointment (dd/mm/yyyy)					
(7) # VAs pending					
(6) Cumulative # VAs conducted					
(5) # VAs conducted this visit					
(4) Cumulative # deaths reported					
(3) # new deaths reported this visit					
(2) KI name					
(1) Date of visit with key informant (dd/mm/yyyy)					

APPENDIX B: RESIDENTIAL STATUS CRITERION

SITUATION	IS THIS PERSON A
A deceased person was	RESIDENT?
1. A person who lived in this household but was temporarily absent on a visit, business trip, vacation, in connection with a job (e.g., bus driver, traveling salesperson, boat operator).	1. YES
2. Living in this household on weekends only. Working most of the week in another place and maintaining a place to live there.	2. NO, resident at household where they spend the majority of their time.
3. Living in this household but was in the hospital. (Includes babies who may have not yet been brought home.)	3. YES, unless in a long-term care facility for the foreseeable future.
4. A member of the Armed Forces:	4.
a. Living within the Enumeration Area in a community outside the camp.	a. YES
b. Living within the Enumeration Area on a military instillation in a family-style residence.	b. YES
c. Living within the Enumeration Area on a military installation in barracks-style housing.	c. NO
5. A college student who lived in a dormitory - attending a boarding school/college.	5. NO
6. A college student who lived in permanent housing (off-campus) near the college for the majority of the year.	6. YES
7. A student attending day school.	7. YES
8. A person under formally authorized supervised care or custody, in special places such as:	8.
a. Correctional institutions, such as prisons, local jails or workhouses, federal detention centers, and halfway houses.	a. NO
b. Nursing, convalescent, and rest homes for the aged and dependent.	b. NO
c. Juvenile institutions, such as schools for orphans.	c. NO
d. Homes, schools, hospitals, or wards for physically handicapped, mentally ill, or elderly patients.	d. NO
9. A person in camp dorms for temporary workers (such as migrant, logging, or construction workers) for most of the year, without lodging for families.	9. NO
10. A person in housing for temporary workers (such as migrant, logging, or construction workers) for most of the year, with separate housing units for families.	10. YES
11. A person who has been a resident outside the SAVVY area and had fallen seriously ill with long-term conditions (like AIDS and TB), but did return home in SAVVY areas for terminal care (home-coming sick).	11. YES
12. A stillbirth of gestational age at 28 weeks or more.	12. YES

APPENDIX C: SAVVY SYSTEM INFORMATION BOOKLET/LETTER

SAVVY stands for **SA**mple **V**ital registration with **V**erbal autops**Y**.

SAVVY is a System to determine the causes of death in a nationally representative selection of sample areas to provide more detailed information on causes of death or mortality in the country.

This is accomplished by first conducting a complete census of all persons and buildings in each selected sample area, called the SAVVY Census. Once this is accomplished, a key informant located in each sample area will notify a verbal autopsy interviewer of any and all deaths that occur in the sample area. This verbal autopsy interviewer will then conduct a verbal autopsy at the households where a death has occurred and this information will help determine the exact cause of death.

The census data on the population and buildings in each sample area will be carried out annually to collect information on socio-demographic characteristics of the population. Deaths will be reported prospectively as they occur in the SAVVY area to ensure that we have complete information from which we can determine mortality rates and causes of mortality within these sample areas and for the country as a whole.

The information you provide for the SAVVY System will form the basis of national calculations on mortality rates by specific causes of death, age, and sex.

This information will help planners target programs to address the leading causes of death in the country.

The information that will be collected with the SAVVY System is not available from any other source. Therefore complete coverage and participation by all individuals residing in the sample areas is extremely important.

Signed:

Very Important Government Official

APPENDIX D: HISTORICAL CALENDAR OF EVENTS

(A country-specific calendar should be used. The example given here is for Tanzania)

EVENT	DATE
Maji Maji War in Tanganyika	1905-1907
Start of World War I	June 1914
End of World War I	November 1918
Tanganyika African Association (TAA) is formed	1929
Germany invades Poland — start of World War II	September, 1939
Japan attacks Pearl Harbor — United States enters World War II	December 7, 1941
Hiroshima and Nagasaki in Japan hit by American atomic bombs	August 6-9, 1945
Japan officially surrendered — end of World War II	September 2, 1945
Chinese Communist Chairman Mao Tse-Tung declares his country the People's Republic of China	October 1, 1949
TANU Party was formed from TAA (in Tanganyika)	1954
Soviet Union's Yuri Gagarin becomes first person to orbit Earth	April 12, 1961
Independence of Tanganyika	December 9, 1961
Independence of Zanzibar	December 19, 1963
Zanzibar Revolution Day	January 12, 1964
Union Day (Tanganyika and Zanzibar)	April 26, 1964
Proclamation of United Republic of Tanzania	October 29, 1964
The Arusha Declaration — On the Policy of Self Reliance in Tanzania	February 5, 1967
Neil Armstrong became the first human to set foot on the moon	July 20, 1969
CCM Party in Tanzania formed (TANU and ASP parties merged)	February 5, 1977
The death of Mwalimu Nyerere (first president of Tanzania)	October 14, 1999

APPENDIX E: YEAR-OF-BIRTH CALCULATOR

	2. LAST BIRTHDAY WAS IN THE YEAR:				
1. REPORTED AGE					
(in Completed Years)	2004	2005	2006	2007	
1	2003	2004	2005	2006	
2	2002	2003	2004	2005	
3	2001	2002	2003	2004	
4	2000	2001	2002	2003	
5	1999	2000	2001	2002	
6 7	1998 1997	1999 1998	2000 1999	2001 2000	
8	1997	1997	1998	1999	
9	1995	1996	1997	1998	
10	1994	1995	1996	1997	
11	1993	1994	1995	1996	
12	1992	1993	1994	1995	
13	1991	1992	1993	1994	
14	1990	1991	1992	1993	
15	1989	1990	1991	1992	
16	1988	1989	1990	1991	
17	1987	1988	1989	1990	
18	1986	1987	1988	1989	
19	1985	1986	1987	1988	
20	1984	1985	1986	1987	
21	1983	1984	1985	1986	
22	1982	1983	1984	1985	
23	1981	1982	1983	1984	
24	1980	1981	1982	1983	
25	1979	1980	1981	1982	
26	1978	1979	1980	1981	
27	1977	1978	1979	1980	
28	1976	1977	1978	1979	
29	1975	1976	1977	1978	
30	1974	1975	1976	1977	
31	1973	1974	1975	1976	
32	1972	1973	1974	1975	
33	1971	1972	1973	1974	
34	1970	1971	1972	1973	
35	1969	1970	1971	1972	
36 37	1968	1969	1970	1971 1970	
38	1967 1966	1968 1967	1969 1968	1970	
38	1965	1967	1968	1969	
40	1963	1965	1967	1966	
41	1963	1963	1965	1966	
42	1962	1963	1964	1965	
43	1961	1962	1963	1964	
44	1960	1961	1962	1963	
45	1959	1960	1961	1962	
46	1958	1959	1960	1961	
47	1957	1958	1959	1960	
48	1956	1957	1958	1959	
49	1955	1956	1957	1958	
50	1954	1955	1956	1957	

	2. LAST	BIRTHDAY	WAS IN TH	E YEAR:
1. REPORTED AGE				
(in Completed Years)	2004	2005	2006	2007
51	1953	1954	1955	1956
52	1952	1953	1954	1955
53	1951	1952	1953	1954
54	1950	1951	1952	1953
55	1949	1950	1951	1952
56	1948	1949	1950	1951
57	1947	1948	1949	1950
58	1946	1947	1948	1949
59	1945	1946	1947	1948
60	1944	1945	1946	1947
61	1943	1944	1945	1946
62	1942	1943	1944	1945
63 64	1941 1940	1942 1941	1943 1942	1944 1943
65	1940	1941	1942	1943
66	1938	1939	1941	1942
67	1937	1938	1939	1940
68	1936	1937	1938	1939
69	1935	1936	1937	1938
70	1934	1935	1936	1937
71	1933	1934	1935	1936
72	1932	1933	1934	1935
73	1931	1932	1933	1934
74	1930	1931	1932	1933
75	1929	1930	1931	1932
76	1928	1929	1930	1931
77	1927	1928	1929	1930
78	1926	1927	1928	1929
79	1925	1926	1927	1928
80	1924	1925	1926	1927
81	1923	1924	1925	1926
82 83	1922	1923	1924	1925
84	1921 1920	1922 1921	1923 1922	1924 1923
85	1919	1921	1921	1923
86	1918	1919	1920	1921
87	1917	1918	1919	1920
88	1916	1917	1918	1919
89	1915	1916	1917	1918
90	1914	1915	1916	1917
91	1913	1914	1915	1916
92	1912	1913	1914	1915
93	1911	1912	1913	1914
94	1910	1911	1912	1913
95	1909	1910	1911	1912
96	1908	1909	1910	1911
97	1907	1908	1909	1910
98	1906	1907	1908	1909
99	1905	1906	1907	1908
100	1904	1905	1906	1907

MEASURE Evaluation Carolina Population Center University of North Carolina at Chapel Hill CB 8120, 123 W. Franklin St. Chapel Hill, NC 27516 USA www.cpc.unc.edu/measure

International Programs Center Population Division U.S. Census Bureau Washington, DC 20233 www.census.gov

MS-07-26-VAI





