

**KEY INFORMANT'S
MANUAL**

SAVVY

Sample Vital Registration with Verbal Autopsy



MEASURE Evaluation
U.S. Census Bureau

Key Informant's Manual

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Sample Vital Registration with Verbal Autopsy



U S C E N S U S B U R E A U
Helping You Make Informed Decisions

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Cover

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Table of Contents

	ACKNOWLEDGMENTS	ii
	LIST OF ACRONYMS	v
	SAVVY MANUAL SERIES	vi
1.	What is SAVVY?	1
	DEMOGRAPHIC SURVEILLANCE	3
	MORTALITY SURVEILLANCE WITH VERBAL AUTOPSY	4
	WHAT IS VERBAL AUTOPSY?	4
	ABOUT THIS MANUAL	5
2.	Roles and Responsibilities of the SAVVY Key Informant	7
	OVERVIEW	7
	RESPONSIBILITIES	7
	WHAT KEY INFORMANTS DO (CYCLES OF ACTIVITIES AND TASKS)	8
	CONFIDENTIALITY	9
	HONESTY	10
3.	Key Informant Materials	11
4.	Definitions and Rules	13
	WHICH DEATHS TO INCLUDE	13
	IDENTIFYING A RESPONDENT	13
	WHAT TO DO IF THERE IS NO HOUSEHOLD RESPONDENT	14
5.	How to Ensure Mortality Reporting in the Community	15
	HOW TO PROMOTE COMMUNITY PARTICIPATION	15
	RESPONDING TO OBJECTIONS TO THE SAVVY SYSTEM	16
	USE A POSITIVE APPROACH	16
6.	How to Visit Households of the Deceased	21
7.	How to Complete the Mortality Register	23
	INSTRUCTIONS	23

8.	How to Verify the Boundaries of the Assignment Area (AA)	27
9.	Supervisor Support for your Work	29
	SUPPORT DURING FIELDWORK	29
	QUALITY ASSURANCE	29
	MEETINGS WITH THE VERBAL AUTOPSY INTERVIEWER AND SUPERVISOR	29
	Glossary of Terms	31
	Appendices	37
	APPENDIX A:	
	KI MORTALITY REGISTER (SAMPLE PAGE)	39
	APPENDIX B:	
	ADDRESS LISTING BOOK (SAMPLE PAGE)	41
	APPENDIX C:	
	SAVVY SYSTEM INFORMATION LETTER	43
	APPENDIX D:	
	HISTORICAL CALENDAR OF EVENTS	45

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
HU	housing unit
ICD, ICD-10	<i>International Statistical Classification of Diseases and Related Health Problems</i> , second edition, 10th revision
ID	identification
KI	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 “**S**ample **V**ital registration with **V**erbal autops**Y**.” 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.

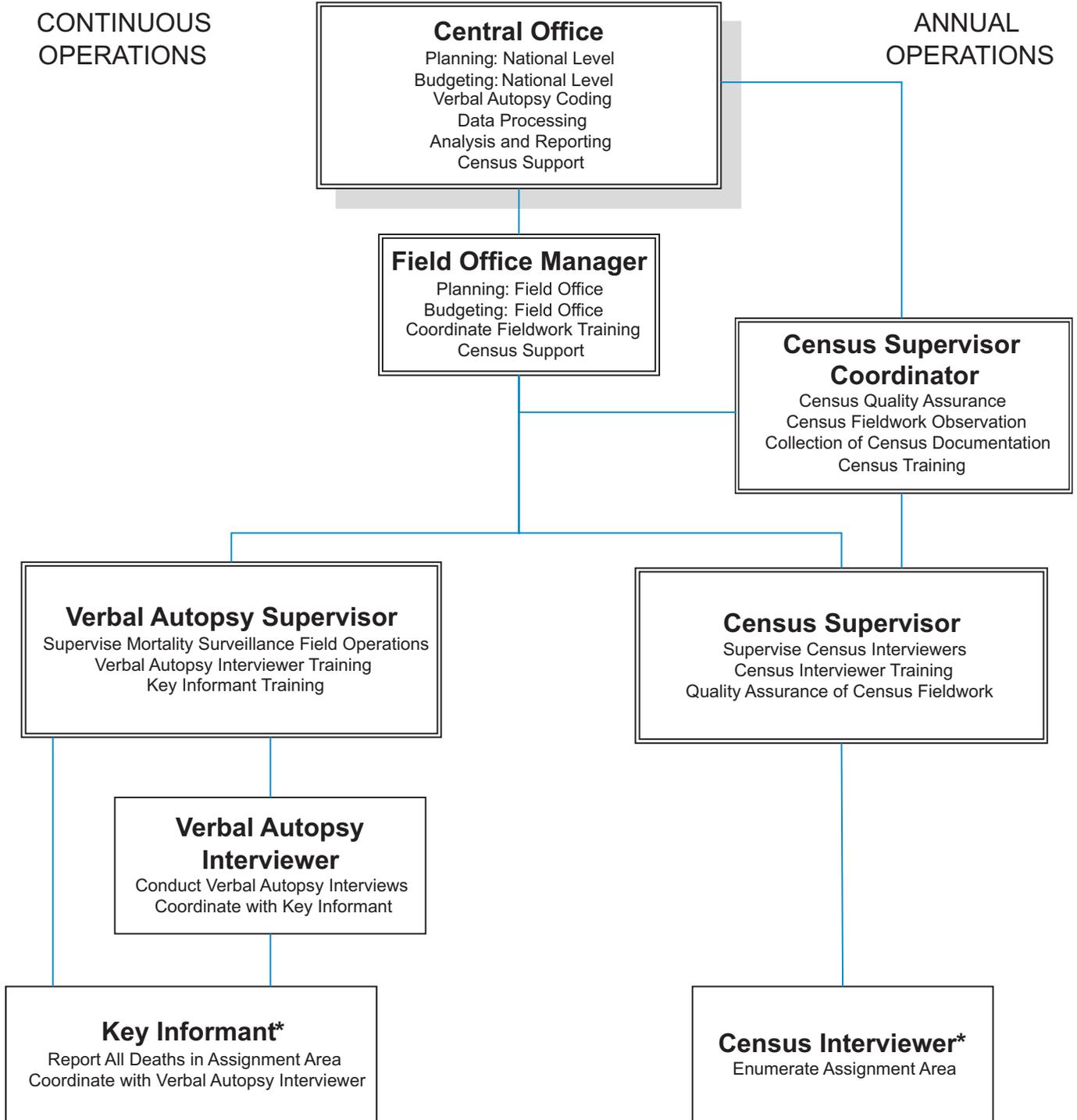
SAVVY can be implemented in many ways. It is not always necessary to implement SAVVY as a complete system. There are many circumstances in which various SAVVY methods might be effectively implemented. One option is to adapt specific modules and manuals in order to attain rapid cause-specific mortality 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.

Organizational Chart of the Full SAVVY System



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

- ✦ **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 2 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 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 socioeconomic 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 WITH VERBAL AUTOPSY

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.

WHAT IS VERBAL AUTOPSY?

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 four weeks);

post-neonatal child mortality (age four 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 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 shortcomings 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 four sides of A4 paper. These forms are available upon request.

This manual is intended to provide the KI with complete information on roles and responsibilities in the SAVVY system. The manual is to be used as a training and reference guide for your work as a reporter of deaths in your assignment areas. The manual contains guidelines for reporting deaths, and procedures to follow for setting up appointments for VA interviews with the bereaved families.

This manual also serves as a reference for all SAVVY officers who work with and support the KIs, including VAIs, supervisors, and district managers.

ABOUT THIS MANUAL

The information collected by 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.

Roles and Responsibilities of the SAVVY Key Informant

OVERVIEW

Key informants (KIs) are vital to the success of the SAVVY surveillance system.

As a key informant for the SAVVY system, you will represent SAVVY to members of the households in your assigned area, and you will be responsible for reporting all deaths occurring in your assigned area to the verbal autopsy interviewer (VAI). All reported deaths must be recorded in special book called the 'mortality register'. You will also arrange for the date on which the VA interview will be conducted. As a member of the SAVVY team, you will be required to explain the purpose of the SAVVY system to the members of the household, particularly the need to report all deaths that occur, and the importance of providing complete and accurate information.

As noted, SAVVY also aims to help people to become accustomed to reporting deaths, so that in the future, complete national vital registration will be possible. As a key informant you should encourage people to recognize their role in reporting deaths to you. To help you to encourage people in your area to report deaths, you will be provided with some tools or equipment that may be useful to families at the time of a funeral. These may include awnings or tarpaulins for funeral participants to sit under for shade, or picks and shovels that can be used for digging graves. Locally appropriate materials or equipment will be decided with community input. Note that these tools should not be hired out or used to generate income. They are community assets for which you are the keeper.

Being a key informant will make you an important person in your community. With this status comes responsibility and you must conduct yourself honorably and honestly, respect the feelings of bereaved families, and ensure that information provided to you is kept confidential.

RESPONSIBILITIES

- ✘ Know the boundaries of your assignment area (AA).
- ✘ Record the deaths of residents in your AA in the mortality register as they occur.
- ✘ Loan tools or equipment to bereaved families to assist in the burial or funeral, and be responsible for the safe-keeping and return of equipment once the burial or funeral is over.
- ✘ Make arrangements for the VAI to meet with bereaved families and take the VAI to the household of the deceased in order to conduct the verbal autopsy (VA) interview.
- ✘ Provide bereaved families with a medical information envelope to keep any medical documentation pertaining to the deceased.
- ✘ Meet monthly with the VA interviewer and report new deaths to him or her.
- ✘ Participate in the annual re-training for all KIs.

WHAT KEY INFORMANTS DO (CYCLES OF ACTIVITIES AND TASKS)

Below is an overview of the tasks you will need to perform in your role as a KI. 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.

Whenever a death occurs in your area:

- ✘ Visit the bereaved household.
- ✘ Determine the residential status of the deceased.
- ✘ Note the demographic details of the deceased in your register.
- ✘ Loan the bereaved family the tools or equipment provided to you to help them with the burial or funeral (even if they choose not to participate in the VA interview process).

- ✘ Provide bereaved families with a medical information envelope to keep any relevant medical documentation pertaining to the deceased.
- ✘ Make tentative arrangements for the VAI to visit the household to conduct a VA Interview.

After each census update round:

- ✘ Verify the location of the boundaries of your AA, using the assignment area map obtained from the SAVVY census supervisor.
- ✘ Work with the VAI to review deaths reported during the census, and compare these with the deaths you have recorded in the mortality register since the previous census to ensure that all eligible deaths have been reported and a verbal autopsy has been conducted.

Each month:

- ✘ Meet with your VAI to inform her or him of all deaths that have occurred in the past month. You will also schedule VAIs for those deaths. Although mortality levels will depend on local conditions, you should expect about one or two deaths per month, on average, to occur in your AA.
- ✘ Lastly, you will visit each household with the VAI on the arranged interview date, and wait patiently while the VAI conducts the verbal autopsy in private.

It is VERY IMPORTANT that the information you obtain remains strictly CONFIDENTIAL. You are not permitted to discuss it, gossip about it, or show your records to anyone who is not an authorized officer in the SAVVY system. Make all entries in your mortality register yourself. On no account should you allow any unauthorized persons to fill in any part of the mortality register. Do not leave your mortality register lying around where unauthorized persons may have access to it.

CONFIDENTIALITY

HONESTY

Your job will not always be easy. There may be times when you encounter resistance regarding family participation. However, you must record all information possible about the death that the family is willing to share with you. Partial data are better than nothing, so be sure to enter as much information as you can into your mortality register. There are numerous quality assurance measures built into SAVVY, including measures to validate and cross-check the completeness of the mortality register.

You will be provided with the materials listed below in order to help you perform your duties. Be sure that you secure these materials in a safe place in your house to prevent loss or damage, and to ensure that no unauthorized person is able to see information that is recorded in the mortality registers.

These materials are the following:

- ✘ *Key Informant's Manual* (this manual)
- ✘ map pouch, with area map
- ✘ key informant's mortality register (see Appendix A)
- ✘ address listing book from SAVVY census, to assign household numbers (see Appendix B)
- ✘ SAVVY system information letter (see Appendix C)
- ✘ calendar of local historical events (see Appendix D)
- ✘ medical information envelope (to be given to the bereaved family members)
- ✘ pencils/pens and erasers
- ✘ SAVVY ID badges
- ✘ bag for carrying fieldwork materials
- ✘ tools or equipment that can be borrowed by bereaved families.

Check these materials when you receive them. If anything is missing or defective, notify your supervisor immediately.

The **mortality register** is used to record all deaths in your area. You should record all the required information in the register, and make a note in your register for all deaths that you have reported to the VA interviewer. You should also note the date the VA interview was conducted for each reported death.

The **area map** and the **address listing book** are used to help you locate your assignment area and identify the appropriate household numbers to use when completing the mortality register.

The **SAVVY system information letter** should be left with households to provide a summary overview of the SAVVY system, and inform household members of the importance of notifying you (as the key informant) of deaths that occur within their households.

The **calendar of local historical events** is a list of locally known events, and their dates. The historical calendar of events list will assist you to assess the approximate age of the deceased if exact age is unknown.

You will record all deaths in your area. You will also need to record deaths among stillbirths and children who die very soon after birth. In some cultures, children who die this young are not given names and are not buried in the same way as older children or adults, but in the SAVVY system they must be recorded in the mortality register.

Because it can be difficult to correctly determine residency status, you should record all deaths, even if you do not think they are residents in your assignment area, and inform the verbal autopsy interviewer (VAI). The VAI will then determine the residential status of the deceased, and conduct a verbal autopsy if necessary.

The respondent is the principal person who will provide information about the deceased. You should aim to identify a person or persons who are knowledgeable about the person who has died and about the circumstances around the time of death. Ideally, this person should be someone who was with the deceased in the period leading to death, since such a person is most likely to know about the signs and symptoms.

People often assume that the person who makes daily decisions for the household (called the “reference person” on SAVVY forms) or that person’s spouse is the person who should be interviewed. This is not necessarily so, although permission to record the details of the death and schedule a verbal autopsy (VA) interview may need to be granted.

For example, a male reference person may not know the signs and symptoms of an illness suffered by a woman in the household (in which case a female relative/caregiver of the deceased might be the best respondent). Therefore, you should always try to determine who was with the deceased and cared for them in the period leading to death, and try to schedule a date when the VA interviewer can meet with that person.

You should not collect information or arrange VAIs with children, unless no reliable adult with adequate knowledge can be located.

WHICH DEATHS TO INCLUDE

IDENTIFYING A RESPONDENT

WHAT TO DO IF THERE IS NO HOUSEHOLD RESPONDENT

If an acceptable respondent (as defined above) cannot be found, you should collect as much information as possible for the mortality register. At the meeting with the VAI, you will work together to try to make appropriate arrangements. The VAI will try up to three times to meet with an appropriate respondent. If the VAI has not been able to meet with an appropriate respondent after three attempts, he or she will complete only the demographic information section of the verbal autopsy. You will then make a correspondent entry into the mortality register.

How to Ensure Mortality Reporting in the Community

You were selected as your area's key informant (KI) because you are respected in your local area and are likely to be informed about events, such as deaths, when they occur. One way to assure that you have ascertained all deaths in your assignment area (AA) is to establish a network of contacts with people who are likely to be aware of deaths in the community soon after these deaths occur. This network could include the local priest, village headman, undertaker or burial ground attendant, community health worker, police, etc. Visit these people regularly, and inquire about recent deaths in the community. Over time, this network will become more familiar with the SAVVY system, and will become an effective mechanism for identification of recent deaths.

People in your community will have been informed about the system, and you should encourage them to report deaths to you. The equipment to assist bereaved families (which is provided to you by your supervisor) should act as an incentive for them to report deaths to you.

Please note that in certain sensitive cases, such as deaths resulting from violence or suicide, special precautions may need to be taken before contacting the household of the deceased. It may be necessary to contact and offer equipment to the household indirectly, through the police or other community leaders.

It will also be important for you to be aware when a pregnancy in your area ends with either a stillbirth or the death of the infant shortly after birth. These events must also be followed up and recorded.

SAVVY is a community-based system and it is essential to have the cooperation and participation of the local community. Without their cooperation the system cannot work.

This section provides some guidance on how to help and encourage members of the local community to participate in the system. 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 and by conducting yourself in a professional but sympathetic manner.

**HOW TO PROMOTE
COMMUNITY
PARTICIPATION**

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 revealing 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.

Offer the equipment or tools that have been provided to you for the bereaved families to borrow in order to assist them with the burial or funeral. These tools are community assets that will encourage people in your area to report deaths to you.

RESPONDING TO OBJECTIONS TO THE SAVVY SYSTEM

Before implementing the SAVVY system, the government will conduct publicity activities in the sample areas to explain the purpose and importance of SAVVY. During the publicity campaigns, the communities will be asked to cooperate with the SAVVY census interviewers, key informants (KIs), and verbal autopsy interviewers (VAIs). After you introduce yourself and present your credentials to a respondent, 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.

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 con-

cerns, 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 a few 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 speak with you and, hopefully, consent to participating in a verbal autopsy (VA) interview.

Answer any questions from the respondent frankly and to the best of your knowledge. Before agreeing to provide information for the mortality register, the respondent may ask why he or she should participate. Be direct and clear when you respond.

The following 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 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 to help identify problems that policy-makers and program coordinators can work to resolve. As the beneficiaries of the SAVVY system, health care delivery in our communities will be improved.

USE A POSITIVE APPROACH

You and your family will benefit, in time, 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 can be implemented to prevent further loss of lives. Information from the SAVVY 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 interviews on deaths that have occurred in this area provides high-quality information, and costs much less than covering the entire population of the country.

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

Answer: The data that are collected from households will be used by the government and other organizations to inform and improve 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 for your participation, but in time your 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 will be better informed about 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, the government cannot 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 send someone else to my house 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.

How to Visit Households of the Deceased

When you pay your respects at the household where a death has recently occurred:

- ✦ Greet the people you find there as you would when making a personal condolence call, even if you are not well-acquainted with the family.
- ✦ Offer your sympathies, and ask to speak to an adult member of the family who is able to give you some information about the deceased. Remember to seek the person who is most likely to know about what happened in the period leading to death.
- ✦ Ask the respondent if, on behalf of the family, he or she will consent to answer questions for the verbal autopsy interviewer (VAI).
- ✦ If the family gives consent, verify the name of the deceased and ask the respondent to give the information on the categories in your mortality register, in the order they appear. In the register, write the name of the deceased, her or his age in years, her or his sex, the date of death, and so on.
- ✦ Arrange for a tentative date for conducting a verbal autopsy interview with the family member who will be the respondent, and write this date in the space provided in the mortality register.
- ✦ Ask the family members to keep all the medical documents and burial/death certificates of the deceased in the medical information envelope so that the VAI can see them when she or he visits the household.

- ✘ If the family refuses to take part, despite your efforts to persuade them, you must record the information collected so far and note in your register that the family refuses to take part in the interview. You must inform your VAI and your supervisor about this particular household for further follow-up.
- ✘ Do not attempt to collect any information related to the cause of death. This will be done by the VAI.
- ✘ Ask if the family would like to borrow the tools or equipment you have been given to help them with the burial or funeral. Make it clear that, as members of the community, they are entitled to use these materials even if they choose not to participate in a verbal autopsy interview.
- ✘ Before leaving the household, check your register to make sure that you have complete entries for all necessary categories, and that they are completed accurately.
- ✘ When you are satisfied that everything is in order, thank the respondent and the household members for their cooperation, and assure them that you will bring the VAI to interview them on the arranged day.

Please note that in certain sensitive cases, such as deaths resulting from violence or suicide, special precautions may need to be taken before contacting the household of the deceased.

How to Complete the Mortality Register

The mortality register is a journal-like log of all reported deaths and the status of the verbal autopsy (VA) interview. For each death that occurs in your assignment area, you will write the identification information in your mortality register. The information will be obtained by asking an adult member of the household, as described. During your visit to the bereaved household, you will ask the respondent to give you some basic information about the deceased. Follow the instructions below to complete a register entry.

The pages of the mortality register have the following columns (see also Appendix A in this manual):

(1) Household number	(2) Name of deceased	(3) Age	(4) Sex	(5) Date of death (dd/mm/yyyy)	(6) Reference person	(7) Location ID #1 (house #, address...)	(8) Location ID #2 (description of location...)	(9) Date that death was reported to KI (dd/mm/yyyy)	(10) Date of VA appointment (dd/mm/yyyy)	(11) Status/Date of VA interview (dd/mm/yyyy)

In **column (1)**, write the household number, as indicated in the address listing book for existing households. If the household is new, then leave this space blank. You will update the information when you receive an updated address listing book (see Appendix B) and instructions, which will be generated after the completion of the next census round. In an example, appearing on the next page, the household number is “10020041701.”

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

In **column (2)**, write the full name of the deceased. It is advised to write three names, since in some cultures first and last names may be similar to those of other persons in an area. If the deceased was a baby or a stillbirth that was not named, write “NO NAME.” In the example on the next page, the name “John David Smith” has been entered.

INSTRUCTIONS

(1) Household number	10020041701
(2) Name of deceased	John David Smith
(3) Age	65
(4) Sex	Male
(5) Date of death (dd/mm/yyyy)	21/05/2005
(6) Reference person	George William Smith
(7) Location ID #1 (house #, address...)	206 Franklin Street
(8) Location ID #2 (description of location...)	North of the church
(9) Date that death was reported to KI (dd/mm/yyyy)	15/06/2005
(10) Date of VA appointment (dd/mm/yyyy)	01/07/2005
(11) Status/Date of VA interview (dd/mm/yyyy)	Completed/01/07/2005

In **column (3)**, write the age of the deceased as told by the respondent, or estimated from the calendar of historical events. For infants under 1 year of age, write “0.” The age given in the example is 65 years of age.

In **column (4)**, write the sex of the deceased (male or female). “Male” has been entered in the example.

In **column (5)** write the date of death (dd/mm/yyyy). The example at left indicates the date of death was May 21, 2005.

In **column (6)**, write the name of the reference person in that household. 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 in the household). Again, it is advised to write three names. “George William Smith” has been written into the example.

Columns (7) and (8) contain important information regarding the geographic location of the household of the deceased:

In **column (7)**, include information about the location of the household, so that you or your supervisor can locate the household at a later date. For example, you may write the street address, or the house number, or even the building owner’s name. In the example, the household is located at “206 Franklin Street.”

In **column (8)**, include 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 (for example, “Third floor”). If there is no street number or address, describe the location of the household. In the example, “North of the church” has been written.

In **column (9)**, write the date (dd/mm/yyyy) that the death was reported to you. The example indicates the death was reported on June 15, 2005.

In **column (10)**, write the date (dd/mm/yyyy) that you have arranged with the household respondent for the VA interviewer to visit the household and conduct the VA interview. In the example, a visit has been scheduled for July 1, 2005 (“01/07/2005”).

The necessary information for **column (11)** will be obtained from the VAI during your meetings with him or her. Write the status of the verbal autopsy interview (e.g. “Complete” or “Incomplete”) and a date (dd/mm/yyyy) on which the VAI was conducted. You will have to confirm the dates by asking the VAI

when the interview was completed. The example on the previous page shows a “completed” VA interview that took place on July 1, 2005.

Note: Information obtained from columns 6-8 will help in identifying a new household that is not registered on the census. Either the household moved into the area from elsewhere (after the census was conducted) or a new house has been built in the area after the last census round. Such households will not have a household number assigned at the time you visit.

How to Verify the Boundaries of the Assignment Area (AA)

At the end of your key informant (KI) training, your supervisor will help you to identify the boundaries of your specific assignment area (AA), using your map. This map is created by the census interviewer for your area.

When you begin work, you should first verify the boundaries of your AA using your map and information provided by your supervisor. Walk the boundaries of your AA to familiarize yourself with buildings and households that are inside your AA and those that are nearby but outside the boundaries of your AA. You should only report deaths from the households inside your AA, although you should also offer condolences to families who live just outside the AA, and explain why the details of the death of their household or family member cannot be included in the SAVVY system.

In some situations, the boundaries of your AA might be hard to determine. Try to make sure that you have permanent landmarks so that you can easily recognize the boundary. If you have any questions about the boundaries of your AA or whether deaths or persons from a particular building or household should be counted in the AA, ask your supervisor. If the sample area in which you work has more than one KI, you should meet with that person and the verbal autopsy interviewer (VAI) to be sure you know how the area is to be divided into your respective AAs.

Supervisor Support for your Work

As mentioned earlier, poor quality data weaken the system, including the good data collected by others. In order to assist you to do the best job you can do, your work will be monitored, reviewed, and evaluated frequently, and quality assurance checks will be implemented in your assignment area by your SAVVY supervisor. For example, a sample of entries you have made into your mortality register will be re-confirmed during supervision visits.

During your first few weeks on the job, you will be accompanied by your supervisor when you visit the households where a death has occurred to get basic information about the household and the deceased. After you have gained confidence in your work, your supervisor will accompany you only when necessary. During these supervised visits, your supervisor will observe you while you ask members of the family for information to write in your mortality register. After each visit, the supervisor will discuss your performance with you and she or he will also make any appropriate suggestions to improve your work.

Quality assurance in the field will also be performed by re-confirming your entries in the mortality register. On occasion, your supervisor may visit your area without your knowledge and will randomly select a few households that you have visited to verify the information you have reported in your register.

When you meet with your verbal autopsy interviewer and supervisor, they will check all entries in your register for completeness, in order to ensure that the reporting is correct. In addition, your supervisor will compare your mortality register with the records of a verbal autopsy interviewer to assess completeness and search for discrepancies in the records. Such comparisons are particularly important in the monitoring of progress and in identifying difficult workloads.

SUPPORT DURING FIELDWORK

QUALITY ASSURANCE

MEETINGS WITH THE VERBAL AUTOPSY INTERVIEWER AND SUPERVISOR

Glossary of Terms

Address — An address is the physical location of a building or living quarters and may be comprised of a building number and street name (e.g., 123 Anywhere Street). See “location description” in this glossary.

Address listing book — This is a 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) — This is 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 — A map that shows the boundaries, features, and landmarks of an assignment area is an “assignment area map.” This map is prepared during each census round and given to the key informant upon completion.

Assignment area number — This number identifies a specific assignment area on SAVVY maps and forms.

Callback — A “callback” is a return visit to an address to complete the required information.

Canvassing — This refers to 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 — A “census” is an official, periodic count.

Census interviewer — This is a person responsible for conducting baseline census interviews or census update 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 — “Confidentiality” is 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) — This is 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 — This is 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:

- ✘ 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
- ✘ local knowledgeable informant

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
- ✘ 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 — This is the geographic area selected for the SAVVY system.

Stillbirth — A “stillbirth” is a baby that shows no signs of life when born. Stillbirths 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 — Usual residence is 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 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.

Appendices



The following documents are included in the appendices:

- ✘ Appendix A: KI Mortality Register
(Sample Page)
- ✘ Appendix B: Address Listing Book
(Sample Page)
- ✘ Appendix C: SAVVY System
Information Letter
- ✘ Appendix D: Historical Calendar of
Events

**APPENDIX B:
ADDRESS LISTING BOOK (SAMPLE PAGE)**

BASELINE ADDRESS LISTING BOOK										
Line # (1)	Building number (2)	Housing unit number (3)	Household number (4)	Name of Reference Person (First, middle and last name) If vacant housing unit, then write "VACANT"; instead of reference person's name. Name of the establishment or institution (5)	Street name, road, or number (If this unit has no number, describe the location) (6)	Number of questionnaires completed (7)	Interview completed			Number of Persons enumerated (11)
							Visit 1 (8)	Visit 2 (9)	Visit 3 (10)	
01										
02										
03										
04										
05										
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
TOTAL BUILDINGS, HOUSING UNITS AND HOUSEHOLDS LISTED						TOTAL PERSONS COUNTED:				

This is an example of an information letter to be distributed to households. Phrases in italics and square brackets should be revised to follow local circumstances.

Dear [*general community member name, such as “resident of Old Town neighborhood,”*]

The ability of government to improve social services, including health services, depends upon having accurate information about conditions in the community and within households. Therefore, we will be starting some new activities for collecting information from your community and household. In particular, we want to make sure that we record all the births and deaths that may happen here. Should a death occur, we also want to try to understand what caused that person’s death.

The activities we will be starting are called [*local name for the SAVVY system*], and your participation in this work will be very important to its success, and to the improvement of health services.

Allow me to explain what will take place. First, someone from [*name of sponsoring statistics office or health ministry*] will visit all the houses in this area to get basic information about how many people live here, what their ages and occupations are, and some general information about housing and living conditions. This information will be updated approximately once per year. Each year, before we update the household information, we will also provide you with a short report on local health conditions based upon the previous 12 months of data.

Next, we will ask you and your neighbors to help us identify a community member who will receive reports of all births and deaths in this location. This person should be a respected, responsible, and sympathetic individual who does not frequently travel away from the community. Because it is expected that she or he will be providing this service permanently, this person should also be someone that people will feel comfortable notifying in the sad event of a death. In order to express our gratitude for your participation, we will make arrangements for some small assistance to be provided to families who must hold a funeral.

Finally, we will ask your participation in selecting [*appropriate type of health worker, such as “a nurse” or “a clinical officer”*] from [*name of the local clinic or HIV/AIDS service organization*] who will come by from time to time to speak with the family members of people in the community who have died. This individual has the very important job of helping to figure out the leading causes of death in the community.

Please accept our sincere thanks for your participation in this important work.

[*Signed by appropriate local 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 invaded Poland — Start of World War II.	September 1939
Japan attacks Pearl Harbor by surprise — United States enters World War II.	December 7, 1941
Japan officially surrendered — End of World War II.	September 1945
TANU Party was formed from TAA (in Tanganyika)	1954
Independence of Tanganyika	December 9, 1961
Independence of Zanzibar	December 19, 1963
Union Day (Tanganyika and Zanzibar)	April 26, 1964
The Arusha Declaration — <i>On the Policy of Self Reliance in Tanzania</i>	February 5, 1967
Neil Armstrong became the first human to set foot on the moon	July 20, 1969
The birth of CCM Party in Tanzania (TANU and ASP Parties merged)	February 5, 1977
President Mwalimu Nyerere resigns	1985
The death of Mwalimu Nyerere (first president of Tanzania)	October 14, 1999

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

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