

**FIELD OFFICE
MANAGER'S MANUAL**

SAVVY

Sample Vital Registration with Verbal Autopsy



MEASURE Evaluation

U.S. Census Bureau

Field Office Manager's Manual

SAVVY

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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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.

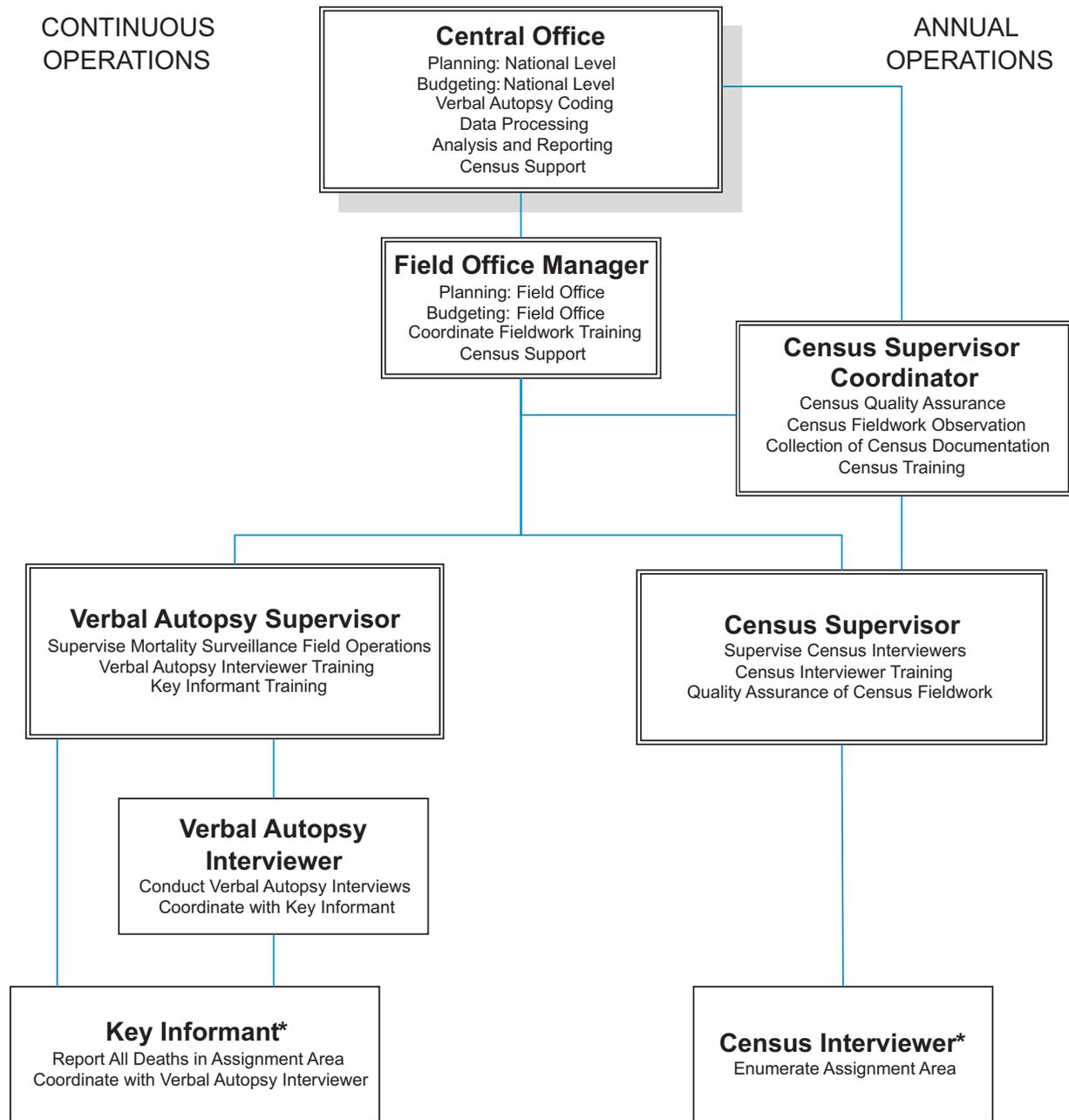
SAVVY can be implemented in many ways. It is not always necessary to implement SAVVY as a complete system. There are many circumstances in which various SAVVY methods might be effectively implemented. One option is to adapt specific modules and manuals in order to attain rapid cause-specific mortality 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 describes the roles and responsibilities of the field office manager — a senior district official who will be responsible for managing operations of the SAVVY system at the district/province level. This manual specifies the procedures to be used during the recruitment and training of various positions, and highlights the supervisory and administrative arrangements that need to be made and implemented before, during, and after data collection.

There is a separate manual for each position in the SAVVY system. These manuals are used during training and for reference during the course of data collection. In order to ensure that all

ABOUT THIS MANUAL

required tasks are completed on time, field office managers need to refer to these manuals regarding the operation of the demographic and mortality surveillance activities. Users of this manual should have a thorough familiarity with the manuals of the other positions.

Overview of Field Office Data Collection Systems

There are three phases of data collection in the SAVVY system: the baseline census, the verbal autopsy (VA) interview, and the census update rounds. The baseline census provides a complete listing and count of buildings and persons in the sample areas. The verbal autopsy captures detailed information about deceased members of households, using census identification information so that the verbal autopsy forms can be linked with the information collected on census questionnaires. The census update rounds provide updated listings and counts annually in all sample areas. The field office manager needs to be very familiar with the operational roles and procedures in the SAVVY system.

The baseline census comprises a complete count of buildings, housing units and households within the SAVVY sample areas. The baseline census is performed at the beginning of the implementation of any SAVVY system.

THE BASELINE CENSUS

The SAVVY sample areas are divided into supervisory areas and then further divided into assignment areas (AAs). Typically, there will be one census interviewer per SAVVY assignment area, since an AA is defined to be the amount of work that can be completed by one census interviewer during the interview period. A supervisory area is comprised of several assignment areas under the responsibility of a census supervisor. The exact ratio of census supervisors to census interviewers will depend on the geographic size of the areas and the population density in each area; typically, there will be one census supervisor per approximately 10 census interviewers. The field office oversees multiple supervisory areas, with the field office manager holding the ultimate responsibility for the timeliness and the accuracy of the data.

During the baseline census (and also the census update rounds) a census supervisor coordinator (CSC) is attached to the field office to assist in the technical aspects of managing the census. The CSC, census supervisors, and census interviewers are temporary positions that last until the census work is completed. The CSC and census supervisors will receive training by either the central office or the field office. The census supervisors will then train the census interviewers using standardized training guides to ensure consistency. If appropriate, it would be preferable to use key informants (KIs)

as census interviewers, in order to help ensure the continuity and sustainability of the SAVVY system.

The baseline census provides a complete enumeration of all households and persons living in households in the SAVVY sample areas. The census interviewer records a list of all structures, housing units, and households in an address listing book. The census interviewers also note the location of all buildings by placing a dot in the appropriate location on their assignment area map with the building number next to it. Next to the building number, the census interviewer will write the number of housing units in that building in parentheses. At the end of the interview period, the census interviewers will neatly copy their AA map notations onto a blank AA map. The census address listing book and neatly copied AA map will be given to the key informant.

The SAVVY baseline census interviewers will complete a questionnaire for each business, institution, vacant housing unit, and household in their assignment area. The questionnaire includes household identification and basic demographic characteristics of the household members. This information forms the basis of the master listing file, which tracks identification information down to the household level in all sample areas.

During the interview period, the census supervisor will be in the field, reviewing the work of the interviewers, and providing technical assistance, quality assurance, and on-the-job training. The census supervisor will collect all forms from each census interviewer when the interviewer has completed his or her assignment area. The census supervisors will verify that there is a questionnaire present for each line of the address listing book, and that the map building numbers correspond to both the address listing book and the questionnaire building numbers, as well as reviewing each form. Once a census interviewer's work has passed all checks for accuracy and completeness, the census supervisor will bundle the questionnaires in the same order as the address listing book cover sheet, along with the cover sheet itself. These AA bundles will be sent to the field office manager's office for review by the census supervisor coordinator, and from there to the central office.

The census supervisor coordinators, working with the field office manager, are responsible for timeliness and quality assurance of data in any of their supervisory areas. A significant part of their work includes monitoring and guidance of the census supervisors in carrying out their jobs. The CSCs ensure that the census supervisors are performing their duties. When AA bundles are

returned to the field office, a CSC samples the bundles, checks for accuracy, and returns any problematic forms to the field for repair and verification.

Mortality surveillance is the active, continuous process of reporting deaths in the SAVVY sample areas. In order to collect ongoing information on mortality, there will be a person in each assignment area, the key informant, who tracks and records all deaths in his or her area. There will usually be one key informant per assignment area. Each assignment area will have only one verbal autopsy interviewer (VAI), although that interviewer will usually cover several assignment areas. The VAI will collect detailed information on the deceased using specialized verbal autopsy forms. These age-specific verbal autopsy forms ask about types and durations of symptoms, as well as other events leading up to the death.

The verbal autopsy supervisor is a permanent member of the field office whose job is to direct the work of the key informants and the verbal autopsy interviewers working within the supervisor's AAs. The verbal autopsy supervisor monitors, reviews, and evaluates the work of the verbal autopsy interviewers and organizes quality assurance activities in all assignment areas within his or her supervisory area. The verbal autopsy interviewer and the verbal autopsy supervisor share in the responsibility of monitoring and assisting the key informant, although ultimate responsibility for the KI's performance belongs to the VA supervisor. The verbal autopsy supervisor also provides the field office manager with the necessary administrative, logistical, and budget planning support for all SAVVY operations in the supervisory area.

The VA supervisors will receive all appropriate training from either the central office or the field office. The training comprises workshops given prior to the implementation of the SAVVY system in the district or province, and routine follow-up training in subsequent years. The VA supervisors will then train the verbal autopsy interviewers and key informants using standardized training guides to ensure consistency and content.

In order to keep track of the deaths in the sample area, and to record household information about them, the KI will need to have access to the information collected during the baseline and census update rounds. Once a census is complete, the census interviewer's address listing book and the neatly copied assignment area map are

THE VERBAL AUTOPSY INTERVIEWS

given to the key informant in the field. If there is more than one key informant per assignment area, then the address listing book will have to be shared since there will only be one address listing book per census interviewer.

The key informant keeps a journal-like logbook (the mortality register) of all reported deaths in his or her area. For each household in the AA where there is a death, the key informant will write the unique household identification information in the mortality register (i.e., cluster number, AA number, building number, housing unit number, household number, and name of reference person from the address listing book). The KI will also record the name, sex, age, and date of death of the deceased member of the household.

If a death occurs in a building, housing unit, or household that is not in the census address listing book because the household moved into the sample area after the census or latest update, the KI will only record demographic information about the deceased and the location of the household. The KI does not update or add any information to the census address listing book or the AA map. The KI should then schedule an appointment for a verbal autopsy interview by the VAI during his or her next visit with an appropriate respondent, preferably the caregiver of the deceased.

The VAI will typically visit each AA monthly. During the verbal autopsy interviewer's visit, the KI will take the VAI to the household of the deceased at an agreed-upon appointment time. At that time, the KI will wait outside the household while the VAI conducts the verbal autopsy interview with the appropriate respondent. An interview will be conducted for all deaths of assignment area residents, regardless of whether the household was in the previous SAVVY census or not. The verbal autopsy interviewer determines the residential status of the deceased and conducts a verbal autopsy interview, if necessary. At the end of the interview, the VAI will thank the respondent for his or her time and assistance, and the KI will take the VAI to other households in the AA in which a death has been reported since the last VAI visit. The VAI will turn in the VA forms to the VA supervisor during their monthly meetings, where the forms will be checked for accuracy and sent to the field office manager's office for review.

In addition, the VAI will transcribe the previous month's deaths from the KI's mortality register onto a monthly VA reporting logbook form, so the VAI has a copy of the information for his or her records. This information will also be sent to the field office manager's office and central office with the verbal autopsy forms

as a completeness check. The KIs will keep their mortality register, census address listing book, and AA map in the field.

When the annual census update rounds are conducted, the key informants will turn in the old census address listing books and AA maps for new census update address listing books and AA maps. This ensures that the key informants are using the latest identification information possible. The old census address listing books and AA maps are transmitted to the field office manager and then to the central office.

Key informants are volunteers and verbal autopsy interviewers are typically part-time employees. Ideally, both will be retained for the duration of the SAVVY system, because the mortality surveillance component of the SAVVY system is a continuous operation.

The census update comprises a complete annual review of the SAVVY sample areas to ensure that the SAVVY system has accurate and complete information. Working from the address listing book and AA maps of the previous census round, the census interviewer will again perform a count of buildings, housing units and households within the SAVVY sample areas. The census interviewer will check the accuracy of the address listing book and AA maps, will add new structures and households and will delete demolished or uninhabitable housing units. The census interviewer will also interview each household in the assignment area. If the household was part of the previous census round, the interviewer will verify and update the existing census information. If it is a new household, the interviewer will add the household and its members to the SAVVY system using a change questionnaire.

A CSC is attached to the field office to assist in the technical aspects of managing the census update, serving the same functions as in the baseline census. For each annual census update round, census supervisors and census interviewers will need to be hired and trained temporarily for the census. It would be preferable if the previously employed CSC, supervisors, and interviewers were re-hired during the census update rounds, so that the system can benefit from their knowledge and experience.

During the census update, the census update interviewers for each assignment area will be given AA maps from the last census and two blank AA maps, pre-printed address listing books of all buildings, housing units, and households recorded during the last

THE CENSUS UPDATE ROUNDS

census, pre-printed census update questionnaires for each occupied household reported during the last census, and blank census change questionnaires to record deletions and additions to the address listing book.

The census update interviewers canvass their AA in address-listing-book order, updating the address listing book as needed. They will also make new notations from the previous census round. The census interviewer will check the information recorded for all household members from the previous census on the pre-printed census update questionnaires, deleting household members or adding new ones as needed to the pre-printed census update questionnaire. The census interviewer will add or delete buildings, housing units, or households to the address listing book and AA map, and will complete a census change questionnaire for these new or deleted structures or households. The census address listing book and a neatly copied AA map will be given to the key informant.

The census supervisor will collect all forms from the census update interviewers when they have completed their assignment areas. The census supervisors will check that there is a questionnaire present for each line of the address listing book and that the map building numbers correspond to the address listing book and questionnaire building numbers, and that the forms are accurate and legible. Once a census interviewer's work has passed all checks for accuracy and completeness, the census supervisor will bundle the questionnaires in address-listing-book order with the old AA map and address listing book cover sheet. These AA bundles will be transmitted to the field office manager for review by the census supervisor coordinator, and then sent to the central office.

The census supervisor coordinators, working with the field office manager, are responsible for timeliness and quality assurance of data in any of their supervisory areas. A significant part of their work includes monitoring and guidance of the census supervisors in carrying out their jobs. The CSC ensures that the census supervisors are performing their duties. When AA bundles are returned to the field office, the CSC samples them for accuracy and returns any problematic materials to the field for repair and verification.

Roles and Responsibilities of the SAVVY Field Office Manager

The role of the SAVVY field office manager is to ensure that all SAVVY activities are implemented on time, by the appropriate personnel, and with adequate supervisory support. SAVVY field office managers must make sure that they are kept informed of the progress of fieldwork activities and they must make sure that administrative arrangements are complete at all stages of the data collection and processing — before, during, and after fieldwork. The field office manager is the senior official representing SAVVY to the community and in local district/provincial meetings.

The implementation of the SAVVY system in each field site requires coordination of activities and adequate training of all personnel involved, in both the field and the central office. Census field operations are carried out by the census interviewers and are managed by the census supervisors and a census supervisor coordinator (CSC). (The CSC may be from the central office or the field office, depending on local capacity.) Mortality surveillance field operations are carried out by a team that includes the key informants (KIs) and the verbal autopsy interviewers (VAIs), and managed by the verbal autopsy (VA) supervisor.

Most of the day-to-day supervision, however, will be conducted by the census supervisor coordinator, census supervisors, and VA supervisors. SAVVY field office managers should meet with CSCs and VA supervisors regularly to ensure that surveillance activities proceed smoothly and to discuss any problems that may have been encountered.

The main responsibilities of the field office manager are to:

- ✘ be accountable for all administrative, logistical, and financial aspects of the system in the field site;
- ✘ ensure that SAVVY funds are utilized appropriately and transparently;
- ✘ deal appropriately with problems in community relations on the part of the SAVVY supervisors or any other fieldwork staff;
- ✘ oversee the recruitment and training of qualified personnel;

WHAT SAVVY FIELD OFFICE MANAGERS DO (CYCLE OF ACTIVITIES/TASKS)

- ✘ be certain that all training and interview materials from the central office are distributed in a timely and appropriate manner;
- ✘ ensure that the supervisors complete the relevant control forms upon receipt of fieldwork materials;
- ✘ make sure that the completed census and VA forms are sent to the SAVVY central office on time;
- ✘ meet regularly with the VA supervisor to discuss all SAVVY activities, including reporting on progress of verbal autopsy data collection; and
- ✘ make sure that the SAVVY field office is located in a secure building where confidentiality can be maintained.

Below is an overview of the tasks the SAVVY field office manager needs to perform. For more detailed information about how to conduct these tasks, refer to the relevant chapters of this manual.

Each year, the field office manager will:

- ✘ budget for the coming year's surveillance activities in collaboration with the SAVVY central office and other district authorities (e.g., district planning officer);
- ✘ assist in hiring data collectors;
- ✘ assist in planning training and re-training workshops for data collectors; and
- ✘ assist in the preparations and launch of census data collection, and ensure that complete, accurate forms are returned to the central office.

Once a quarter, the field office manager will accompany the VA supervisor to the field to visit local leaders and members of the field team.

Each month, the field office manager will:

- ✘ meet with the VA supervisor to review the progress of the VA data collection; and
- ✘ ensure that the VA supervisor has sent all completed forms to the central office for data processing.

During each field visit, the field office manager will meet with local leaders to hear if they have concerns about the operation of the system.

It is very important that the information obtained by SAVVY remains strictly confidential. No one who has access to SAVVY data should discuss this information, gossip about it, or show these records to anyone who is not part of the SAVVY system. On no account should any unauthorized persons be permitted to fill in any part of any SAVVY forms. Do not leave any forms lying around where unauthorized persons may have access to them.

Your job as the field office manager will not always be easy. There may be times when your progress is not going well, even though you want to do a good job and keep on schedule. However, you must be diligent in ensuring that no falsified data are submitted under any circumstances. Falsified data are of no value and weaken accurate data collected by others. Because the validity and accuracy of all data collected is so important in producing correct information to plan health services, there are numerous quality assurance measures built into the SAVVY system.

CONFIDENTIALITY

FALSIFICATION OF DATA

How to Budget for SAVVY Activities

The exact mechanism for budgeting will depend on local political and administrative procedures. In countries that have undertaken decentralization, budgeting will take place at the field office level. Budgeting of field office activities usually takes place on an annual fiscal cycle. SAVVY activities should be included as part of this annual process so that activities are fully integrated into the district/province operations. In other countries, SAVVY activities may be planned and budgeted for centrally or at a regional or zonal level. If this is the case, the field office manager will play a key role informing the central level about the needs of his or her district/province.

The SAVVY field office activities need to fit in with the larger set of activities in the district/province. Consequently, precise details of budget items cannot be provided in this manual. The SAVVY budget spreadsheet, prepared in collaboration with the SAVVY central office, can guide the SAVVY field office manager about the quantities of personnel and equipment required, and how to cost them.

How to Be Accountable for SAVVY Activities

The SAVVY field office manager is ultimately responsible for SAVVY activities in his or her area. Much of the actual day-to-day implementation of activities is carried out by others, but the SAVVY field office manager needs to be fully informed about progress and how well the activities are being performed.

SAVVY is a community-based system operating within local systems. The integration with local systems is very important. The SAVVY field office manager represents the system at meetings of relevant local government agencies to ensure that officials are aware of SAVVY activities and that these activities are included and are budgeted for in local annual plans. The performance of this function will depend on local administrative and government systems, and will vary from country to country. The SAVVY field office manager also provides feedback to local officials, in the form of formal and informal reports, for use in social service monitoring and planning.

The SAVVY field office manager also ensures that SAVVY activities conform to all pertinent national laws and regulations, as well as local statutes. The principal laws and regulations will be those that relate to the following:

- ✘ use and reporting of finances
- ✘ hiring, remunerating, and disciplining staff
- ✘ transport and safety

As well as knowing the details of this manual, the SAVVY field office manager must be familiar with roles, responsibilities, and tasks of the other members in the SAVVY team. To facilitate this, the SAVVY field office manager receives training, and will also have a complete set of manuals for reference.

Mortality surveillance supervision — The verbal autopsy (VA) supervisor is primarily responsible for the operation of the mortality surveillance system. The SAVVY field office manager must meet regularly with the VA supervisor to monitor the progress of the system. This should include meeting at least once a month with the VA supervisor to review the progress of VA data collection and

REPRESENTING SAVVY TO LOCAL OFFICIALS

LAWS AND REGULATIONS

SUPERVISION OF THE FIELD TEAM

ensuring that the VA supervisor has sent all completed forms to the central office for coding.

The VA supervisor will be in regular contact with the key informants (KIs) and the VA interviewers (VAIs). It is important, however, that the SAVVY field office manager also visits the mortality surveillance field teams once a quarter to discuss progress and problems with them directly. This is also an opportunity for the field office manager to meet with community leaders.

Census supervision — The census supervisors, with the assistance of the census supervisor coordinator (CSC), will be responsible for the daily operation of the census rounds. When a SAVVY supervisory area has been completely enumerated, the SAVVY census supervisors will send all their materials in AA bundles to the field office manager or directly to the CSC. The census supervisor coordinator should rapidly check the address listing book summary forms for each AA against preliminary population estimates to spot any gross discrepancies. The census supervisor coordinator should also check the number of materials received against the interview material distribution form to ensure that each census interviewer has returned his or her materials for the AA.

The census supervisor coordinator should then conduct a random sample check of questionnaires from each AA, using the address listing book to select questionnaires systematically from an AA bundle for review, such as pulling every tenth questionnaire. If problems are found relating to consistency of data or completeness of the questionnaires, then the SAVVY census supervisor should be contacted to explain and resolve the problem. If necessary, the SAVVY census supervisor may have to return to the field to correct errors in an AA where there are a significant number of problems. The field office manager must ensure that the census supervisor coordinator has sent all completed forms to the central office for data entry.

Ensuring the quality of the SAVVY data in the future — When all the supervisory areas for a district/province have been returned and have passed their checks for completeness and accuracy, the VA supervisor and census supervisor coordinator should report the results of the quality assurance checks to the field office manager. It is important that the field office manager is well-informed about the quality of the verbal autopsy and census data coming in from each AA in the district or province. If certain interviewers or supervisors performed very well or very poorly, the field office manager will need to be aware of this, and respond accordingly.

SAVVY Recruitment and Training

6

The exact mechanisms for recruiting and training, and terms of employment, will depend on local conditions. This section provides some guidance on the type of people who have been found to be appropriate in other settings for recruitment, and an overview of the training that SAVVY personnel will need before assuming their roles.

Selection — The SAVVY field office manager is responsible for managing and coordinating all activities of the SAVVY field site. If the site is a district or province, then the district or provincial medical officer or other senior professional would be an ideal candidate for this position, and could add this responsibility to other government duties. In addition to professional training, the field office manager should have experience in administrative, management, and financial matters. The field office manager should be in a position of authority and be empowered to take action if those responsible for other roles in the SAVVY system in the field office manager's area are not performing well.

Training — Before the start of SAVVY operations, the SAVVY field office manager should be fully trained about the SAVVY system and its activities. This training may take a variety of forms. The training focuses on building capacity needed for handling of finances, administrative needs, and managerial requirements of the SAVVY operations.

During the implementation of the SAVVY system, a SAVVY field office manager continues to attend workshops, seminars, and meetings organized on a periodic basis. Such gatherings provide an opportunity for SAVVY field office managers from different SAVVY field sites to discuss and share information regarding SAVVY activities within their areas; at the same time they can learn from one another (and from facilitators) the skills and techniques necessary to manage the SAVVY system successfully in their areas.

Selection — The SAVVY census supervisor coordinator (CSC) is responsible for managing and coordinating all activities of the SAVVY census round and the annual updates. An experienced supervisor from the national statistical office would be an ideal candidate for this position. In addition to professional training, the

SAVVY FIELD OFFICE
MANAGER

CENSUS SUPERVISOR
COORDINATOR

CSC should have experience in administrative, management, and financial matters. The CSC should be in a position of authority and be empowered to take action if those responsible for other roles in the SAVVY system in the field office manager's area are not performing well.

Training — Before the start of SAVVY operations, the SAVVY CSC should be fully trained about the SAVVY system and its activities. This training may take a variety of forms, but should include the same training that census interviewers and census supervisors must take. The training focuses on building capacity needed for handling of finances, administrative needs, and managerial requirements of the SAVVY operations.

During the implementation of SAVVY, a SAVVY CSC continues to attend workshops, seminars, and meetings organized on a periodic basis. Such gatherings provide an opportunity for SAVVY CSCs from different SAVVY field sites to discuss and share information regarding SAVVY activities within their areas; at the same time they can learn from one another (and from facilitators) the skills and techniques necessary to manage the SAVVY system successfully in their areas.

CENSUS SUPERVISOR

Selection — The SAVVY census supervisor is responsible for monitoring activities, timeliness, and quality of data in a SAVVY supervisory area. The ideal candidate will be from the vicinity of the assignment areas (AAs) and be quite knowledgeable about the AAs, have good community relations, and have extensive interviewing experience. Other criteria include good organization and communications skills. Supervisors will need to be hired before interviewers. SAVVY supervisors will be hired by the central office or the field office. Typically, the field office has a better knowledge than the central office of the people available and how any local language or dialect requirements might affect the selection process, so it is often optimal to have the field office prepare a list of supervisor and interviewer candidates. This position will likely be part-time.

Training — The SAVVY census supervisor should be fully versed about the SAVVY system and its activities. This includes detailed familiarity of the census interviewer training as well as census supervisor training, using the *Census Supervisor's Manual*. A supervisor's training is provided by the field office or the central office and focuses on the tasks and responsibilities of the census supervisor.

For detailed information on the training of the supervisors, refer to the *Census Supervisor's Manual*.

Selection — SAVVY census interviewers are responsible for enumerating the baseline census and the census update. It is ideal if a census interviewer also acts as a key informant for the SAVVY system. It is important that the candidate have good community relations, be quite knowledgeable about the area, and be able to learn to use the address listing book, assignment area map, and proper interviewing techniques. This position will be periodic and not permanent, full-time.

Training — The census interviewer is trained at a centrally located site by the census supervisors in the area. If required, on-the-job-training should also be available.

For detailed information on the training of the interviewers, refer to the *Census Interviewer's Manual* or the *Census Update Interviewer's Manual*.

Selection — The SAVVY VA supervisor should be a person who is respected by other health professionals and by communities. These individuals will need to communicate effectively with the local authorities and the community. This will usually mean recruiting an employee in a fairly senior position in the local health system for this position. He or she must possess good administrative and communication skills, and be both thorough and innovative, particularly when confronted with challenges. A member of the health management team (or local equivalent) would be an ideal person to select for this position. Since the VA supervisors will also be responsible for the training of VAIs and KIs, it is also important that they be skilled trainers. In addition, it is desirable for a VA supervisor to have data management skills or survey experience. VA supervisors will probably be selected at the district/province level. The actual process for selecting candidates for this role will depend on local norms and regulations. This position will likely be part-time.

Training — Being senior technical supervisors of the SAVVY system in each area, the VA supervisors receive all appropriate training needed for mortality surveillance field work and office activities. The training is in the form of short courses, seminars, and workshops given prior to the implementation of the SAVVY

CENSUS INTERVIEWER

VERBAL AUTOPSY SUPERVISOR

system in the district/province, and a follow-up training during the implementation. The training focuses on field supervision of VA interviewers, data management and monitoring skills, planning, and management of finances.

VERBAL AUTOPSY INTERVIEWER

Selection — The process of selection and training of highly qualified VAIs is tailored to meet the data quality requirements of the SAVVY system and the need to establish and maintain community rapport. There is a range of opinion about whether medical training should be a preferred qualification for VAIs or whether educated but non-medically trained persons are more suitable. Local experience will determine the optimal solution. The VAIs should be selected with a reasonable degree of community consultation to ensure the acceptability of those individuals to members of the community. This position is part-time.

Training — Formal training for new VAIs and annual retraining ensure that standard practices are used and proper procedures are followed. The training sessions for new VAIs take about four days and include theory, practice (in class), and fieldwork experience (in which actual VA interviews are conducted in the field, under the close supervision of trainers). Longer periods of training involve accompanying experienced VAIs from other SAVVY sites or from research demographic surveillance sites (if present in a country) as they carry out their routine verbal autopsies. This can provide an excellent opportunity for new VAIs to see the whole cycle of VA work.

For detailed information on the training of the verbal autopsy interviewers, refer to the *Verbal Autopsy Interviewer's Manual*.

KEY INFORMANT

Selection — In most cases, KIs are recruited locally and are selected with significant input by community members. Generally, the VA supervisor asks community leaders in the assignment areas, with input from other community members, to recommend people who meet the criteria for this position, as specified in the *Key Informant's Manual*. KIs must be literate, diligent, and have a reputation for showing concern for all ethnic, religious, or political groups in the community. KIs may also be expected to perform the function of census interviewers during baseline and update rounds. This position is part-time.

Training — Once selected, KIs attend a training session that includes both classroom and fieldwork exercises. For new KIs, the two-day training program covers the necessary methods, materials, and responsibilities that a KI needs to be familiar with and to perform his or her duties. In addition, KIs undergo an annual refresher course (a one-day training).

At the KI training sessions, emphasis is placed on the importance of collecting reliable information, ensuring that the boundaries of the assignment area are known, methods for approaching a household where a death has occurred, and procedures during visits to the bereaved families. During the course of the training, KIs are given tools that enable them to perform their responsibilities (such as a manual, mortality register, or other job aids) and are also assigned geographic areas for which they will be responsible for reporting all deaths. They are also given tools or equipment that may be borrowed by bereaved families to assist with the burial or funeral. The type of tools or equipment depends on local conditions and norms for burial and funerals.

Detailed information on the recruitment and training of KIs is contained in the *Key Informant's Manual*.

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.

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