

Chapter 8: Monitoring and Evaluation Program Design Steps

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Key Concepts

- 8.1 Considerations in M&E for Food Assistance Programs in an HIV Context
- 8.2 Key Elements of M&E for Food Assistance Programs in an HIV Context
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In This Chapter

This chapter brings together what has been learned to date about monitoring and evaluation (M&E) of food assistance programs in an HIV context and provides specific direction for monitoring and evaluating HIV-related activities such as PMTCT, ART, TB, OVC, and care and support programs that integrate food and nutrition.

The chapter identifies several significant issues that distinguish M&E for food assistance programs in areas of high HIV prevalence from M&E in a non-HIV context. These differences include the need for greater interaction with and reliance on health services, the variation among beneficiaries of integrated programs, and the issues presented by stigmatization of HIV-positive individuals and affected families. In highly affected areas, it also becomes increasingly important to monitor contextual issues influencing the relationship between food insecurity and HIV.

Next, the chapter describes the key elements of food assistance M&E systems. These include the information requirements for effectively monitoring and evaluating project activities and changes among beneficiaries and target populations, the identification of appropriate indicators and determination of program targets, as well as approaches to data collection and analysis.

The chapter then discusses some of the challenges that remain in adapting food assistance M&E systems to an HIV context. Among the more technically demanding challenges of M&E in highly affected areas are interpreting standard anthropometric measures, determining the validity of proxy indicators in differing contexts and adapting traditional sampling methods.

Despite the guidance this chapter provides on adapting M&E systems to account for the impacts of HIV, there are many potential areas for investigation that are beyond the capacity of a single program's M&E system. Many such questions and issues are better addressed through operations research. Where appropriate and feasible opportunities exist, programs may consider integrating an operations research component. However, in most cases, program M&E should remain focused on measuring and using information from program-specific indicators that staff can collect and analyze and should not be expected to address broader research questions.

Considerations in M&E for Food Assistance Programs in an HIV Context

Several key considerations make M&E of food assistance programs in an HIV context different from—and often more challenging than—in a non-HIV context. Some of the significant issues to consider include:

Differing objectives. The objectives of food-based interventions in an HIV context may be different from those in a non-HIV context; therefore indicators used to measure results require adaptation. For example, whereas the objective in non-HIV contexts may be to improve nutritional status of targeted vulnerable groups, for individuals who are chronically ill the objective may be simply to maintain nutritional status or slow its decline. Food may also be used for entirely different reasons than in traditional programs (e.g., to improve adherence to or mitigate side effects of ARVs, or increase use of PMTCT services). Relevant indicators appropriate for beneficiary groups being targeted should be developed and measured for these objectives (see **Chapter 5: Targeting**).

Attention to stigma. Stigma and discrimination should be considerations in M&E just as they are for targeting and other aspects of program planning. In many cases proxy indicators may be required (e.g., using chronic illness as an indicator because stigma may prevent people from identifying themselves as being HIV-positive). Also, beneficiaries who are afraid of being stigmatized may not properly register (e.g., give a false name or address) or not appear for regular follow-up, making it difficult to track progress. Program activities must include mechanisms for maintaining confidentiality when targeting PLHIV to guard people's privacy and reduce the possibility of discrimination or resentment among non-beneficiaries.

Variation among beneficiaries. While there is variation among beneficiaries in all food security programs, the variation may be much greater in HIV contexts. Individuals and households affected by HIV may face different and stiffer constraints to improved food security and may experience smaller improvements in food security from interventions than non-affected individuals and households do. Among HIV-infected individuals, there may be wide variation in outcomes depending on the stage of disease and their treatment status. These variations can have implications for the targets that a program sets and for data disaggregation and analysis.

Documentation of learning. To date, quantitative data demonstrating the outcomes and impacts of food assistance on PLHIV are weak or non-existent, though anecdotal evidence abounds. Both beneficiaries and clinical staff report that they observe positive impacts from food assistance, most often citing increased weight, strength, ability to work, increased food consumption and overall well-being.¹ Finding creative ways and reliable indicators to measure and document these improvements remains a challenge and an opportunity for learning. Where possible, opportunities to attach operations research to current programming should be identified and implemented to build the knowledge base about effective programming. However, such operations research efforts should not come at the expense of the programs' primary objective of effective implementation.

Greater interaction with and reliance on health services. Data collection, analysis and interpretation in an HIV context may require greater interaction with and reliance on health service providers than is usually the case for traditional food assistance programming. For example, clinical records may be a more prominent source of data than household-level surveys. Furthermore, since optimal programming may involve integrating food security and HIV interventions, M&E systems need to be planned carefully to collect necessary information on both food security and HIV outcomes, and to integrate data collection

systems to avoid duplicating efforts. Information sharing systems should provide program staff involved in clinical issues related to HIV with relevant food security information and should provide staff addressing food security issues with relevant HIV-related information.

Emphasis on capacity building. M&E of food assistance programming in an HIV context is still a relatively new area. Food assistance agency M&E staff, partners and health care providers may require significant training and capacity building on how to adapt and modify M&E systems to this context. As this area is evolving rapidly, capacity building in M&E should be considered an ongoing need and should be budgeted accordingly.

Attention to contextual issues. Tailoring program design to a particular setting in terms of local social, cultural, political, environmental or other factors is especially important in an HIV context. Given that vulnerability to the combined impact of food insecurity and HIV can be greatly influenced by issues such as migratory patterns, civil conflict and gender inequity, M&E systems in highly affected areas should pay specific attention to monitoring changes in context within the program area.

Key Definitions in M&E²

Inputs: Resources (e.g., staff, financial resources, space, equipment) utilized to accomplish the project's objectives

Processes: Specific activities (e.g., training, program design, planning) to which resources are allocated to pursue project objectives

Outputs: Products (e.g., number of trainees, immunized children, activities implemented) that result from the combination of inputs and processes

Outcomes: Beneficiary and population-level changes in knowledge, practices and attitudes (e.g., improved health practices, increased knowledge of nutrition) resulting from the intervention

Impacts: Long-term changes at the beneficiary and population level (e.g., improved food access, improved nutritional status, increased resiliency to shocks, reduced labor migration) resulting from changes in knowledge, practices and attitudes

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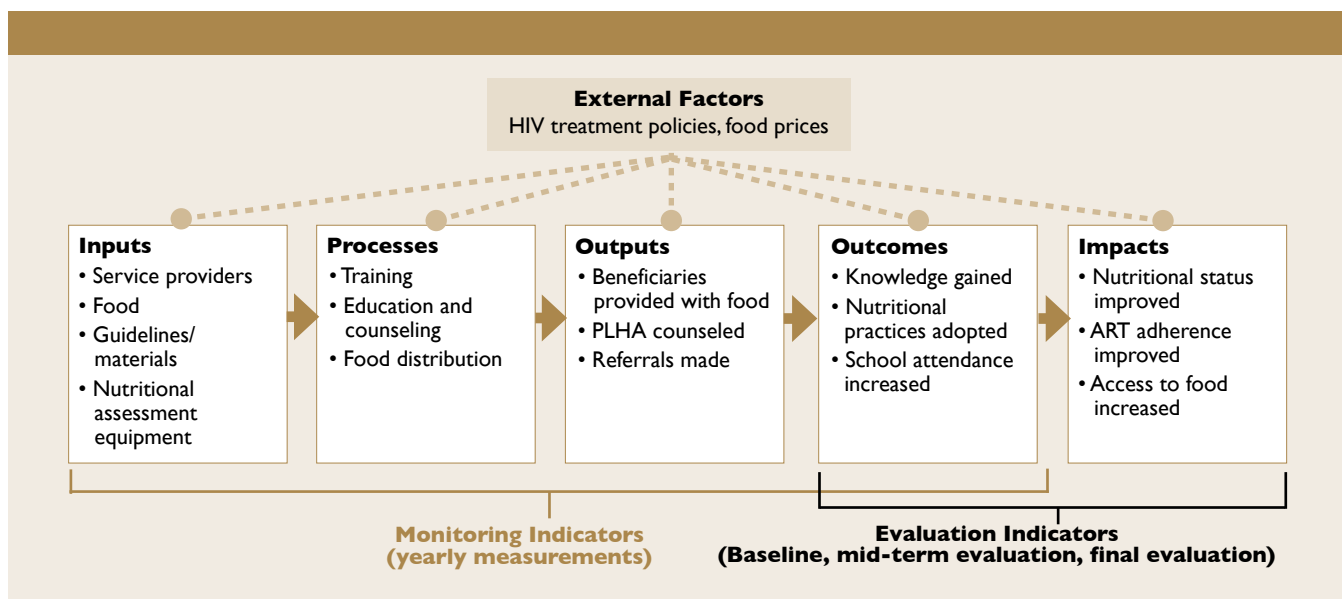
Key Concept

Key Elements of M&E for Food Assistance Programs in an HIV Context

While the core elements for designing an M&E system in an HIV context are the same as in a non-HIV context, there are specific issues and adjustments to consider to ensure that M&E systems are responsive to the information needs of the implementing organization and other stakeholders. This Key Concept discusses differences and adaptations to consider in an HIV context for the five main components of an M&E system:

1. Information needs
2. Indicators
3. Targets
4. Data collection and analysis
5. Uses of information

Figure I: M&E Framework for Food Aid–HIV Programs



Adapted from Bergeron et al. *Monitoring and Evaluation Framework for Title II Development-oriented Projects*. Technical Note 10. Washington, DC: FANTA Project, Academy for Educational Development, 2006.

Information Needs

There are two principal questions to ask about information needs: What are the purposes of collecting information? What information is needed to meet these purposes?

The primary purpose of collecting M&E information is typically to assess whether a program is achieving what it set out to do at the various stages of the program cycle, which are represented in the form of *inputs*, *processes*, *outputs*, *outcomes* and *impacts*. These stages are depicted in Figure I, which has been adapted to an HIV context. Information on a program's progress and achievements is used for program management, reporting, learning what interventions work best, and advocacy.

Information can be organized into two categories: information on the progress of program activities and information on changes among beneficiaries.

Information on Program Activity Progress

Information on the progress of program activities—generally drawn from input, process and output indicators—should address these questions:

- ▶ Is implementation occurring at the planned levels and pace (inputs, outputs)?
- ▶ What is the quality of food-assisted services (inputs, processes)?
- ▶ Are beneficiaries accessing services? At what level of participation (outputs)?

In an HIV context, information about program progress can be critical. For instance, it may be important to know how many women have been referred to food assistance programs through involvement in PMTCT activities. In an FFA program, implementers may want to find out how well the program design and ongoing management adheres to GIPA guidelines. For nutrition education and counseling services, managers may want to know how well counselors are assessing clients' diets, educating clients and creating plans to address

nutritional concerns. Programs that support gender mainstreaming may want to monitor performance in incorporating and addressing concerns of women and men in their activities and assess any differences in how each group's concerns are addressed. (See Figure 2 for examples of input, process and output indicators for nutrition education and counseling.)

Information About Changes Among Beneficiaries and the Target Population

Information about changes among beneficiaries and target populations—generally measured with outcome and impact indicators—should address these questions:

- ▶ Have beneficiaries' knowledge, practices and attitudes improved (outcomes)?
- ▶ Has the nutritional status improved among beneficiaries and the target population (impacts)?
- ▶ Has access to food increased among beneficiaries and the target population (impacts)?

For example, in a PMTCT program, managers may want to know if women are following guidance on exclusive breastfeeding or learn how women's health and nutritional status have changed since enrolling in the program. For an FFA program, managers may want to find out how a community garden developed to provide food for PLHIV and OVC has contributed to these groups' household dietary diversity. In a nutrition education and counseling program, managers may want to know whether PLHIV are eating more frequently, are knowledgeable about using nutrition practices to manage symptoms, and have improved their nutritional status.

Figure 2: Example of the Input-Impact Sequence for Nutrition Education and Counseling (NEC) for PLHIV

Inputs	Processes*	Outputs	Outcomes	Impacts
Trained service providers	Flow of clients to counselor or educator through referrals and other systems	Provision of NEC as part of HIV treatment and care services	Changes in PLHIV knowledge, dietary practices and related behaviors (for example, food purchase and preparation, water and sanitation, availing food supplementation, dietary response to symptoms, management of drug-food interactions)	Nutritional status (weight, nutrient deficiencies)
Educational and counseling materials		Receipt by PLHIV of NEC services, such as individualized nutrition counseling and weight monitoring		Daily functioning and physical activity
Adequate space for nutrition education and counseling	Quality of counseling: counselor behavior, assessment, provision of information, identification and planning of options for PLHIV	Receipt of follow-up nutrition counseling by PLHIV		Severity, frequency and duration of symptoms
Nutrition assessment equipment (e.g., scales), tools and documentation materials	Quality of group education			Response to treatment, severity of side effects, and adherence

*These indicators could also be considered outcome indicators where the project is measuring systemic change in the quality of the health care system as a prerequisite to change in knowledge and behavior among targeted beneficiaries.

Source: FANTA Project. *A Guide to Monitoring and Evaluating Nutrition Education and Counseling for People Living with HIV/AIDS*. Draft. Washington, DC: Academy for Educational Development, 2006.

Identifying Appropriate Indicators

Once the specific information needs have been established, the next step is to identify reliable and measurable indicators for the information needs at each stage of the program cycle (input, process, output, outcome and impact). It may not be possible to collect all the data desired because of limitations of time, resources and staff capacity available for M&E. In such cases programs should prioritize their information needs, carefully balancing the need for information on program progress (to ensure the program is well-managed with effective service provision) with the need for information on individual changes (to ensure the program is having the intended effect on beneficiaries). Programs should also include indicators at each stage of the program cycle so that gaps can be easily identified and implementation processes refined where necessary.

M&E of food assistance programs in an HIV context is still a nascent field, and there is not yet a consensus about standard indicators. Still, much has been learned and documented in recent years to help practitioners select indicators. A number of groups are conducting pilot exercises and operations research to test various indicators and contribute to our understanding of what works. When selecting indicators, programs should consider:

- ▶ What the program expects to achieve
- ▶ How these achievements—and the processes leading up to them—can be measured
- ▶ The expected uses of the information collected
- ▶ The likelihood that the food assistance program will cause changes in indicators
- ▶ The cost and feasibility of collecting the data needed
- ▶ The expertise required to collect, analyze and interpret data generated by indicators
- ▶ Program staff capacity to collect, analyze and interpret the information
- ▶ Information currently being collected and existing data collection systems that may incorporate additional indicators

Figure 3 provides examples of indicators for food assistance programs in HIV contexts that are drawn from various sources, including FANTA, WFP and C-SAFE. These indicators reflect a range of interventions and program information needs and are intended to illustrate the various types of indicators that can be used. Programs should select their own indicators based on their specific objectives, interventions, expected uses of information and feasibility constraints.

Types of Outcome and Impact Indicators

There are various types of impact and outcome indicators, and in selecting which ones to use, programs should consider what changes the program interventions are expected to bring about and what can be feasibly collected. While some indicators must be collected by health care professionals because they require specialized expertise, food security program staff still should understand the indicators. Outcome and impact indicators that can be used in food assistance programs in HIV contexts include:

Anthropometrics. Anthropometric indicators use physical measurements to assess a person's nutritional status. They include BMI, percentage weight change, mid-upper arm circumference (MUAC), weight-for-age (W/A), height-for-age (H/A), weight-for-height (W/H),

Figure 3: Example Indicators for Food Assistance Programs in HIV Contexts

Input	<ul style="list-style-type: none"> Number or percentage of program sites with functional weighing scales Number or percentage of program sites with at least one service provider trained in nutritional care and support of PLHIV Number of staff trained in nutritional care and support for PLHIV Number of metric tons resourced
Process	<ul style="list-style-type: none"> Percentage of food rations distributed on time Percentage of beneficiaries aware of ration entitlement Percentage of beneficiaries satisfied with food quality Number of sensitization sessions conducted to inform beneficiaries about the purpose of the program and the criteria for participation Percentage of nutrition counseling sessions that meet a fixed criterion for quality (e.g., a counseling quality checklist)
Output	<ul style="list-style-type: none"> Number of metric tons of food distributed through each distinct food support activity Number of OVC (or ART clients or other targeted group members) receiving food Number of chronically ill individuals receiving food Percentage of care and treatment sites providing nutrition counseling with food Percentage of planned beneficiaries who actually receive food assistance, disaggregated by sex and age group Number of HBC groups formed Number of households affected by chronic illness that are provided inputs and training in labor-saving agricultural production techniques or household gardens Number or percentage of PLHIV who received nutrition counseling in the past three months
Outcome	<ul style="list-style-type: none"> Percentage of PLHIV beneficiaries consuming food the recommended number of times per day on the previous day Percentage of PLHIV beneficiaries who know appropriate dietary responses to symptoms and medication side effects Percentage increase in enrollment in PMTCT or ART services Percentage of households affected by chronic illness that are using labor-saving agricultural production techniques or household gardens Percentage increase in school attendance by OVC
Impact	<ul style="list-style-type: none"> Percentage of adult PLHIV beneficiaries with BMI < 18.5 Percentage of new ART clients with BMI < 18.5 who have BMI > 18.5 after six months of treatment Average percentage weight change among adult beneficiaries over the past three months Prevalence of malnutrition (weight/age) among children under five years of age born to HIV-infected mothers who were enrolled in the PMTCT program Percentage of beneficiaries still on ART 12 months after initiating treatment Percentage of beneficiaries performing moderate to intense physical activity (activities to be defined locally) for a fixed period of time (e.g., 45 minutes) on the previous day Percentage change in average quality of life (QOL) scores among beneficiaries

Adapted from 1) FANTA Project. *A Guide to Monitoring and Evaluating Nutrition Education and Counseling for People Living with HIV/AIDS*. Draft. Washington, DC: Academy for Educational Development, 2006; 2) Egge, K., and Strasser, S. *Measuring the Impact of Targeted Food Assistance on HIV/AIDS-related Beneficiary Groups With a Specific Focus on TB, ART, CI and PMTCT Beneficiaries*. Johannesburg: C-SAFE Learning Spaces Initiative, 2005; 3) World Food Programme (WFP). *Proposal for Development of Monitoring and Evaluation Tools for HIV/AIDS Food-Assisted Programmes*. Draft. WFP, 2005.

skin fold thickness and others. Anthropometric indicators are widely used to measure the nutritional status of individuals or populations in HIV and non-HIV contexts.

Adherence/default. Treatment adherence or default rates are two sides of the same issue regarding people's participation in treatment services. Adherence measures patients' compliance in following prescribed dosages, while program default measures the percentage of patients who do not continue treatment. Programs usually choose the indicator that is easier to collect and most meaningful to them.

Program uptake. In programs such as PMTCT and TB-DOTS, enrollment before introduction of food assistance can be compared to enrollment after food assistance to see if the food assistance significantly influenced people to participate and receive counseling, treatment or other services.

Food access. Food access indicators measure individual or household access to food and include household dietary diversity, months of inadequate food provisioning, coping strategies, asset wealth, household food insecurity access scale, and others. Indicators and tools used to measure food access appear in Annex 1.

Illness/disease status. Illness indicators reflect the state of disease and opportunistic infections. Illness indicators include clinical symptoms and appearance, clinical events such as hospitalizations, and counts of CD4+ T-cells and viral load. Other indicators include scales such as the Karnofsky Scale, the Eastern Cooperative Oncology Group (ECOG)/ Zubrod Scale and the WHO HIV Stage Scale. The ECOG and WHO scales appear in Annexes 2 and 3.

Functioning. These indicators measure an individual's physical strength and ability to perform certain tasks. To measure a person's functional status, programs use hand grip strength, physical activity records, ability to perform daily activities, capacity to return to work, the extent of need for a caregiver, and Activities for Daily Living (ADL) questionnaires. A few organizations are experimenting with handgrip strength, using a mechanical handgrip dynamometer, as an easily administered measure of functioning. Used primarily with elderly populations, handgrip strength has been found to be positively correlated to BMI, MUAC and arm muscle area.³

Quality of life. Quality of life (QOL) is a multifaceted and subjective concept that considers the impact of impairments, function, perceptions and social opportunities. QOL measures can offer a rich assessment of the impact of food assistance programs, including physical, social and psychological status. There are a variety of tools for measuring QOL, including the Standard CDC Health-Related Quality of Life (HRQOL) 14-item Measure, the HRQOL-HIV scale and the MOS-HIV scale. The MOS-HIV scale appears in Annex 4.

There are specific factors in an HIV context that may affect indicators for coverage of services. For example, stigma could decrease coverage by preventing some beneficiaries from accessing services, while having a strong set of services could increase coverage by encouraging people to come forward.

Setting Targets

Targets are commitments made by implementing agencies about the level of inputs and activities to be implemented and about the extent and timing of a particular program's results. Typically, a target will be defined by a specific indicator value to be accomplished by a particular date in the future.⁴

The process of setting targets in the HIV context should carefully consider the operating environment and limitations. For example, in non-HIV contexts, programs may aim to increase a household's accumulation of productive assets. In an HIV context, the target may

be a specific number or percentage of households that have maintained productive assets. Similarly, where coping strategies are being monitored as a measure of food security, the target in a high HIV prevalence context may simply be to prevent a certain number or percentage of households from engaging in negative coping strategies in the short term.

In some contexts, it may be most appropriate to set targets for recovering assets or health conditions or maintaining them at normal, pre-shock levels (e.g., pre-drought, civil unrest, pre-HIV epidemic levels). Data from earlier DHS surveys (www.measureDHS.com) and UNICEF Multiple Indicator Cluster Surveys (MICS) (www.childinfo.org) may be good sources of information on what is “normal” in a specific country.

In an HIV context, indicators often focus on changes that may not be easy to describe in quantitative terms, for example, improvements in the quality and delivery of nutritional care services through HBC. Appropriate performance indicators for such programs may include new HBC functions that participating organizations can perform and a set of standards for each of these functions. In such cases, descriptive, or qualitative, targets may provide more depth and contextual information than quantitative data. Qualitative targets are difficult to aggregate, but it is possible to transform qualitative information into quantitative scales against which targets can be set.

Examples of Expressing Targets in Food-Assisted HIV Interventions⁵

Targets may express quantity (how much), quality (how good) or efficiency (least cost) to be achieved within a specific timeframe. Ways to express targets include:

- ▶ Absolute level of achievement, e.g., 1,000 chronically ill individuals trained in positive living by 2007
- ▶ Change in level of achievement, e.g., ART adherence rates increased by 10 percentage points between 2006 and 2007
- ▶ Change in relation to the scale of the problem, e.g., percentage of food-insecure ART patients receiving food support increased by 10 percentage points by 2007
- ▶ Change in cost-efficiency of service, e.g., cost of PMTCT services (per individual) reduced by five percent between 2006 and 2007
- ▶ Proportion reaching a certain level of quality, e.g., proportion of HIV care sites meeting minimum standards for quality nutritional care based on a standardized checklist
- ▶ Creation or provision of something new, e.g., anti-stigma campaign conducted throughout the district by the end of 2006

Setting appropriate targets for food assistance programs addressing HIV can be challenging because there is little long-term experience with these programs and because many other factors affect program outcomes. These sources can help in setting realistic program targets:

Baseline survey. If secondary data of sufficient quality are available, organizations may be able to use them to establish baselines. Otherwise, agencies may need to collect primary data to establish baseline values. For individual or household indicators, baselines should disaggregate data by relevant target groups (e.g., gender; chronically ill, households caring for orphans) to help set disaggregated targets.

Transforming the Qualitative to Quantitative⁶

To measure an intermediate result that emphasizes improvements in quality of maternal and child health services, USAID/Yemen devised a scale that transforms qualitative information about services into a rating system that can be used to set targets. Similar scales can be developed for food assistance and HIV services.

0 points = Service not offered

1 point = Offers routine antenatal care

1 point = Offers recognition and appropriate management of high-risk pregnancies

1 point = Offers routine deliveries

1 point = Offers appropriate management of complicated deliveries

1 point = Offers postpartum care

1 point = Offers neonatal care

Score: Total actual service delivery points

Illustrative target: Increase average score to 5 by Year 3

Beneficiary expectations of progress. It is important to solicit input from community members (including HIV-related service organizations and the PLHIV and HIV-affected households who will be assisted by the interventions) to understand their preferences, needs and expectations for project activities. This information will help set relevant and realistic targets. Information collection may involve formal interviews, rapid appraisals or informal conversations with relevant groups or their representatives.

Trends observed before program implementation. Underlying historical trends in selected indicators may help provide a fuller picture than baseline values alone. Determining patterns of change with respect to individual performance indicators (e.g., recent increases/decreases, spreading geographic trends) can inform the process of setting targets.

Expert judgments. It is also useful to solicit expert opinion on what is feasible regarding a particular indicator or within a given context. As always, experts who are familiar with HIV-related issues—such as those from HIV coordinating bodies within the government as well as those directing HBC, VCT, PMTCT and other services—should be included.

Accomplishments of comparable programs. This may be especially helpful in an HIV context because many organizations are piloting/experimenting with different approaches. Gauging other organizations' progress with programs with similar contexts, resources and other factors may provide an effective means of setting targets.

Data Collection and Analysis

Data collection and analysis in an HIV context require flexibility, time and resources to adapt existing tools and approaches and to develop new systems as needed. Some issues to consider in adapting data collection and analysis processes to HIV contexts are noted below.

Data Collection Approaches

Programs may need to adapt existing data collection approaches to the specific constraints of HIV contexts. For example, stigma or confidentiality issues may make it difficult or

Progress Is Not Always a Straight Line

While it is easy to establish annual targets by picking an acceptable final performance level and dividing expected progress evenly by the number of years, such linear thinking about progress is often inconsistent with the way development programs really work, especially in HIV contexts.

In many cases, no real progress—in terms of measurable outcomes or impacts—may be evident during the start-up period or the early years, and most of the impacts occur in the final year or two. In a high

HIV prevalence context, programs may have to be extremely conservative in setting expectations about the planned increases in beneficiary outcomes. In some cases, progress may be indicated by a relatively flat line instead of an incline, demonstrating that the intervention prevented an imminent decline.

On the other hand, for input and output indicators (such as coverage), the greatest increase may occur during the early stages of a project and plateau after that.

unethical to visit households to collect data from HIV-affected beneficiaries. An alternative approach could be collecting data at health care sites or collaborating with health care or HBC providers to solicit input from PLHIV. Illness may also interfere with normal data collection processes by limiting beneficiaries' availability. Programs could collect information from other household members instead, if stigma and confidentiality issues allow. Rapid changes in individuals' health because of treatment and infections may also affect the timing of data collection needed to obtain representative information.

Interaction With Health Care Providers

One significant difference in data collection and analysis in an HIV context is that there may be a need for greater interaction with and reliance on health care providers and clinical records. This may be obvious in cases where food programmers and clinical staff coordinate closely because food contributes to treatment adherence or reduced transmission rates among PLHIV. However, other food programs can also benefit from using clinical records.

Many NGOs collect fairly extensive information about household coping strategies, assets, use of food assistance and vulnerability levels, yet few use the anthropometric, clinical and performance measures collected by health staff to help make program decisions.⁷ However, while health care providers can be a rich source of information, implementing agencies should take measures to protect the confidentiality of medical records, including restricting staff access to such information.

Information should also flow from food assistance programmers to health care staff and counselors because nutrition and household food security data may strengthen the delivery of health care services. **Chapter 5: Targeting** presents some complementary data collection tools for food assistance targeting adapted to an HIV context.

Resources for Measuring Illness, QOL and Functioning Indicators

There are several standardized indicators and data collection tools to measure illness, QOL and functioning, some of which have been adapted for use in an HIV context. In deciding whether to use these measures, the usefulness of the information should be weighed against the time and money needed for training, data collection, translation and analysis.

For example, because QOL indicators are subjective, substantial training is required to use them properly. Three tools used in HIV contexts to collect data on QOL, functioning and illness are included in Annexes 2–4: the ECOG Zubrod Scale (functioning), the WHO disease staging scale (illness) and MOS-QOL.

Incorporating Additional Indicators Into Existing Tools and Approaches

Given the time and resource constraints typically associated with M&E and food assistance programs, indicators and data collection processes should be integrated into existing M&E systems where possible, rather than creating entirely new systems. For example, additional questions could be added to end-use monitoring (EUM) or post-distribution monitoring (PDM) systems, if those tools are in use. While this may add several minutes to questionnaire implementation, it is generally less expensive than establishing a separate system for collecting the information.

Adapting Sampling and Disaggregation of Data

The sampling unit for many surveys in food assistance programs has been the household, with data typically disaggregated by the household wealth ranking and the sex of the household head, among other factors. For programs working in high HIV prevalence contexts, it may be useful to categorize households according to the effect HIV has on them, such as:

- ▶ HIV-affected households where a member is either ill or has died from AIDS-related diseases

Adapting End-Use Monitoring Tool to Changing Needs and Contexts⁸

End-use monitoring (EUM) is a tool that Title II CSs use to verify that commodities, processes and services provided during a food distribution meet expectations and are of the highest possible quality.

Used at food distribution sites as beneficiaries receive rations, the EUM questionnaire reflects the issues that program managers grapple with and is updated as needed. The data are analyzed directly after collection so program adjustments based on the new information can be made as quickly as possible.

Though not often used for this purpose, EUM can help provide insights on other programmatic issues. For example, in one country, EUM revealed that long distances to distribution sites forced beneficiaries to travel by night, exposing them to risks such as attacks and theft. In another location, EUM showed that “under-the-tree registrations” were excluding

the poorest of the poor, who felt they did not have adequate clothing for attending these meetings.

C-SAFE adapted EUM when C-SAFE members wanted to better understand how food rations were affecting the chronically ill and households hosting the chronically ill. Several questions on these issues were developed in focus groups by C-SAFE Malawi. The questions were pilot tested in the EUM tool in Zimbabwe, revised and then rolled out in a finalized EUM tool to the other C-SAFE countries, Lesotho and Zambia.

EUM was again adapted when C-SAFE Zimbabwe needed to monitor its recently expanded FFA program, school feeding, and general food distribution. In addition, C-SAFE Zambia added questions to its EUM tool to find out what community members knew and thought about the upcoming closing of the C-SAFE program and the program’s exit strategies.

- ▶ Households where members are not infected but have been affected by HIV (e.g., through the diversion of household resources to support an HIV-affected extended family member; the death of an extended family member who contributed resources to the household, or orphans joining the household)
- ▶ Households where members are unaffected by HIV either directly or through related households⁹

A recent UNICEF guide for M&E of OVC programs recommends that data comparing orphans with non-orphans be collected and disaggregated by age to account for differences in behaviors and opportunities for young orphans compared to older ones. The report provides guidance on estimating sample size for surveys measuring indicators for OVC and provides instructions on defining a sample frame and methodology.¹⁰

Using Information

As in other contexts, M&E information collected from food assistance and HIV programs has three primary uses:

1. To serve as a management tool for planning, implementing, and adjusting activities
2. To enable reporting and accountability to management and donors
3. To support advocacy and provide information about effectiveness of interventions to donors, host governments and other stakeholders

As food assistance programming in an HIV context is still relatively new, strong M&E systems are particularly relevant to provide evidence, document effective approaches and support learning in this area. M&E staff should document proven measurement techniques for use by the larger food assistance and HIV communities. In addition, food assistance programs can benefit by building on what is already being collected in HIV programs.

Tracking the progress and effectiveness of efforts to support food-insecure PLHIV and HIV-affected households and communities can help programmers adjust current programs and design future ones. Program staff should use the information to verify that their targeting criteria are correct and are being properly applied, as well as to do periodic reverification exercises and adjust the programs as needed. In particular, information from M&E systems can make program staff more sensitive to gender issues and ensure that program benefits are addressing these issues effectively. As in other program contexts, information flow systems should provide program managers and other staff with the critical information they need to make decisions and refine their activities.

Prioritizing the Use of Information

Different programs prioritize the uses of information differently. For example, at the Mildmay Centre in Uganda, the primary purpose of collecting data is to monitor patients' progress and to guide program and service provider decisions about their medical and nutritional care. In Zambia, CRS's SUCCESS and the

WV-led RAPIDS consortium programs collect data primarily to assess the impact of their interventions as part of a larger evaluation that aims to contribute to the evidence base about how food programs can address the needs of HIV-affected communities.¹¹

8.3

Key Concept

Challenges of M&E for Food Assistance Programs in an HIV Context

Monitoring and evaluation of food assistance programs in the context of HIV faces many of the same challenges as M&E in other types of programming—M&E efforts are often underbudgeted, often require greater technical skills or time availability than project staff have and are sometimes neglected or underemphasized in work plans and job descriptions. However, food-based programs in a high HIV prevalence context pose additional challenges to M&E, a number of which are listed below.

Anthropometrics. While anthropometric indicators have considerable value in assessing the impact of food assistance in various settings and circumstances, their usefulness may be more limited in an HIV context. In a non-HIV context, prevalence of wasting, underweight and stunting of children aged 0–5 is a good indicator of a population’s health and nutritional status. However, in an HIV context the nutritional status of children aged 0–5 may be less reflective of the entire population because HIV infection affects adults most directly.

On an individual level, anthropometric measurements can provide an incomplete picture of the nutritional status of PLHIV if used in isolation. For example, improvements that occurred due to food and nutrition support may be masked by other effects of the disease.

Unintended household use of food assistance. Households might not use food assistance in the way it is intended. For example, a household might share food intended for PLHIV, or it may trade or sell food to pay for household expenses. This can substantially dilute food assistance impacts on targeted individuals.

Causal attribution is generally not possible, even in non-HIV contexts. Attributing specific changes in outcomes to food assistance is extremely difficult even under less complicated conditions. In HIV contexts, indicators such as morbidity, mortality and even nutritional status are influenced by many program and non-program factors besides food assistance. Therefore, without a very rigorous evaluation design—which programs are not expected to employ—it is not possible to isolate how much of observed impact is due to food assistance. Donors generally acknowledge these limitations, and programs should still try to measure outcomes and impacts to the best of their ability, while examining and acknowledging any changes in assumptions regarding the operating environment.

Validity of proxies. The validity of some indicators may be context-specific and defy straightforward interpretation. For example, area of cultivated land is an indicator that is predicted to decrease with the loss of productive household labor. However, a study in Kenya showed that the correlation between family size and land cultivated required two additional indicators—gender of deceased household member and type of crop being cultivated. Specifically, the death of an adult male may reduce cash crop production, and increase production of low-labor root crops. Understanding these relationships will help guide the inclusion of specific questions—in this case, questions about gender and type of crop—into M&E tools for more accurate analysis and interpretation of data.¹⁴

Validity of traditional sampling units. Some of the assessment or sampling methods traditionally used in food assistance programming may not be valid in HIV-affected areas. In particular, the household may not be an appropriate basic sampling unit because of adult death, household dissolution and large numbers of beneficiary orphans on the street or in institutional care.¹⁵ In areas where most services are facility-based, clinics may not know which households their beneficiaries come from, making population-based sampling difficult. In addition, people who go to clinics may not be representative of the infected population, meaning that a programmer would not be able to generalize clinic-based samples to the

general population in the program's targeted area. Programs may need to adjust sampling methods to reflect the demographic situation and be transparent about a sample's limitations if the sampling frame is neither complete nor representative.

Dietary recall. Unreliable responses from caregivers and patients about food consumption and treatment adherence are a concern. In addition, dietary recall by a small number of participants may not accurately reflect actual dietary patterns across all participants.

Lack of proven assessment tools. There are few tried and true tools to measure some outcomes and impacts of food assistance in HIV contexts. These include tools for proven methods of assessing the impact of pre-existing malnutrition on disease progression and tools that can demonstrate causal attribution of food assistance provided to PLHIV.^{16, 17}

Staff skills. Inadequate training and experience in data collection, especially where tools have to be adapted for HIV contexts, can result in poor quality data. In addition, there is a lack of staff who can design, supervise and analyze evaluations with the complexity needed to measure food assistance outcomes and impacts on individuals and households in an HIV context.

Tool for Monitoring the Use of M&E Systems

In 2003, C-SAFE in Zimbabwe found that its M&E systems were increasingly complex and grew concerned that unnecessary data may be generated, resulting in waste and inefficiency. To monitor the utility of various M&E tools, project managers were asked to provide feedback on how they had used information

generated by the system. Their feedback was reported quarterly and discussed at M&E meetings in order to streamline systems. The M&E monitoring and feedback tool was later used in all three C-SAFE countries, Lesotho, Zambia and Zimbabwe.

Using Anthropometrics in an HIV Context

In a C-SAFE review of literature and field experiences on the impact of food assistance on PLHIV, the most common indicators found were BMI, MUAC and change in weight.¹² Other indicators used include head circumference, W/H, body circumferences, skin-fold measurements and biometric impedance analysis (BIA).

The review noted that even in ideal conditions where HIV-positive children receive well over the RDA of calories and protein, inferior growth may be seen, and HIV-positive adults with no enteric pathogens show diminished skin fold thickness and lower weight than HIV negative adults despite equal food intake. Furthermore, lipodystrophy may make MUAC unreliable for PLHIV who are on ART. This suggests that in HIV contexts, differences in anthropometry indicators do not necessarily imply differences in food intake.

Nutritional status and growth may be impaired because of malabsorption or metabolism that exceeds one's appetite or ability to consume. In such cases food assistance may be enhancing the food security of the family and even supporting the PLHIV's nutritional status, but the BMI or MUAC measurements may not reflect as large a positive change as expected.

Despite the need for caution in using BMI to assess nutritional status among HIV-positive individuals, C-SAFE Malawi field staff suggested BMI as a promising indicator for measuring the impact of food assistance on ART program participants. Staff did not feel collection of information on weight would pose additional burdens, as some of the ART drugs

prescribed are dosed according to weight and patients are weighed regularly at the clinics. In fact, national guidance in Malawi calls for BMI to be measured for ART patients to determine if they should be referred to food assistance programs (for BMI < 16, patients are referred to therapeutic feeding; for BMI 16-17, they are referred to a supplemental feeding program, though these referral options may not always reliably exist).¹³

While change of weight is a common and important measure of changes in nutritional status, participants in a recent FANTA review pointed out some of its limitations:

- ▶ Weight alone may not provide sufficient information about nutritional practices; for example, a person may gain weight but still not be eating a sufficiently nutritious diet.
- ▶ Weight change may not be comparable across a population because a given weight change can have different implications for people of different weights.
- ▶ Food and nutrition interventions may not be effective in helping a person with AIDS to gain weight once the disease is in an advanced stage. The intervention may be helping to manage symptoms or improve the individual's quality of life, and weight alone may be an inappropriate measure of the intervention's benefits.
- ▶ Weighing an adult in community or home-based settings can be difficult because of the logistics of accessing accurate and reliable scales.

Annex I: Food Access Indicators

Below are five indicators/indices that can be used to measure food access:

Months of Adequate Household Food Provisioning (MAHFP)

The MAHFP indicator is a measure of household food access that captures changes in the household's ability to access food by examining its food supply over the past year and assessing to what extent that level of supply was sufficient to meet household needs. Measuring MAHFP can capture the combined effects of a range of interventions and strategies, such as improved agricultural production, storage and interventions that increase the household's purchasing power. Guidance on using MAHFP can be found at www.fantaproject.org/downloads/pdfs/MAHFP_Jun07.pdf.

Household Dietary Diversity Score (HDDS)

HDDS is another indicator of household food access that assesses the number of different food groups consumed over a given reference period. Unlike the MAHFP, this indicator uses the diversity of the diet as a measure of household food consumption. One of these two indicators (MAHFP and HDDS) is required for all USAID FFP Multi-Year Assistance Programs (MYAP) that aim to improve food access. Guidance on using HDDS can be found at www.fantaproject.org/downloads/pdfs/HDDS_v2_Sep06.pdf.

Coping Strategies Index (CSI)

The CSI is a relatively simple and efficient indicator of household food security that correlates well with other more complex measures of food insecurity. Developed by CARE and field tested by WFP and CARE, the CSI has been used for early warning and food security monitoring in eight African countries and several Middle Eastern countries. It measures the frequency of use and the severity of a household's coping strategies for addressing shortfalls in food supply. Guidance on using CSI can be found at www.fao.org/crisisandhunger/root/pdf/cop_strat.pdf.

Household Food Insecurity Access Scale (HFIAS)

Developed by FANTA in collaboration with Cornell University and Tufts University, the HFIAS is a set of nine questions that distinguish food-insecure from food-secure households across different cultural contexts. These questions represent universal domains of the experience of insecure access to food that can be used to assign households and populations along a continuum of severity of food insecurity. Guidance on using HFIAS can be found at www.fantaproject.org/publications/hfias_intro.shtml.

Food Consumption Score (FCS)

The FCS represents a proxy for the diversity of the household diet and is calculated based on the household's reported diet over the three days before the survey. Each food type is allocated a score based on its nutrient density, and the maximum possible FCS score is 48. The higher the FCS score, the more nutritionally dense the diet is. The tool is described in *CHS Regional Analysis: Household Vulnerability and the Impact of Food Aid*,¹⁸ available at: www.reliefweb.int/library/documents/2005/csafesouafr-28feb.pdf.

Annex 2: ECOG (Zubrod) Scale

This scale can be used by doctors, clinical staff and M&E personnel to assess the progression of disease in individuals and its impact on their daily activity. It may also be helpful in determining appropriate care and treatment responses as well as potential options for food assistance (if needed).

ECOG Grade (PS)	Definition
0	Fully active, able to carry on all pre-disease activities with restriction (KS 90-100)
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature (KS 70-80)
2	Ambulatory and capable of all self-care but unable to carry out any work activities. Out of bed > 50% (KS 50-60)
3	Capable of only limited self-care, confined to bed or chair > 50% waking hours (KS 30-40)
4	Completely disabled, cannot carry on any self-care, totally confined to bed or chair (KS 10-20)

Source: Eastern Cooperative Oncology Group (ECOG). *ECOG Performance (Zubrod Scale)*. As published in *American Journal of Clinical Oncology*: Oken, M.M., Creech, R.H., Tormey, D.C., Horton, J., Davis, T.E., McFadden, E.T., and Carbone, P.P. "Toxicity And Response Criteria of The Eastern Cooperative Oncology Group," *American Journal of Clinical Oncology* 5 (1982):649-655.

Annex 3: WHO Disease Stages of HIV/AIDS

WHO Clinical Staging of HIV/AIDS for Adults and Adolescents with Confirmed HIV Infection	
Clinical Stage 1	<ul style="list-style-type: none"> ▶ Asymptomatic ▶ Persistent generalized lymphadenopathy
Clinical Stage 2	<ul style="list-style-type: none"> ▶ Unexplained moderate weight loss (<10% of presumed or measured body weight) ^a ▶ Recurrent respiratory tract infections (sinusitis, tonsillitis, otitis media and pharyngitis) ▶ Herpes zoster ▶ Angular cheilitis ▶ Recurrent oral ulceration ▶ Papular pruritic eruptions ▶ Seborrhoeic dermatitis ▶ Fungal nail infections
Clinical Stage 3	<ul style="list-style-type: none"> ▶ Unexplained ^b severe weight loss (>10% of presumed or measured body weight) ▶ Unexplained chronic diarrhea for longer than one month ▶ Unexplained persistent fever (above 37.6°C intermittent or constant, for longer than one month) ▶ Persistent oral candidiasis ▶ Oral hairy leukoplakia ▶ Pulmonary tuberculosis (current) ▶ Severe bacterial infections (e.g., pneumonia, empyema, pyomyositis, bone or joint infection, meningitis, bacteremia) ▶ Acute necrotizing ulcerative stomatitis, gingivitis or periodontitis ▶ Unexplained anaemia (<8.g/dl), neutropaenia (<0.5 x 10⁹ per liter) and/or chronic thrombocytopaenia (<50 x 10⁹ per liter)
Clinical Stage 4 ^c	<ul style="list-style-type: none"> ▶ HIV wasting syndrome ▶ Pneumocystis pneumonia ▶ Recurrent severe bacterial pneumonia ▶ Chronic herpes simplex infection (orolabial, genital or anorectal of more than one month's duration or visceral at any site) ▶ Oesophageal candidiasis (or candidiasis of trachea, bronchi or lungs) ▶ Extrapulmonary tuberculosis ▶ Kaposi's sarcoma ▶ Cytomegalovirus infection (retinitis or infection of other organs) ▶ Central nervous system toxoplasmosis ▶ HIV encephalopathy ▶ Extrapulmonary cryptococcosis including meningitis ▶ Disseminated non-tuberculous mycobacterial infection ▶ Progressive multifocal leukoencephalopathy ▶ Chronic cryptosporidiosis (with diarrhea) ▶ Chronic isosporiasis ▶ Disseminated mycosis (coccidiomycosis or histoplasmosis) ▶ Recurrent non-typhoidal Salmonella bacteremia ▶ Lymphoma (cerebral or B-cell non-Hodgkin) or other solid HIV-associated tumors ▶ Invasive cervical carcinoma ▶ Atypical disseminated leishmaniasis ▶ Symptomatic HIV-associated nephropathy or symptomatic HIV-associated cardiomyopathy

a - Assessment of body weight in pregnant woman needs to consider the expected weight gain of pregnancy.

b - Unexplained refers to where the condition is not explained by other causes.

c - Some additional specific conditions can also be included in regional classifications (such as reactivation of American trypanosomiasis [meningoencephalitis and/or myocarditis] in the WHO Region of the Americas and disseminated penicilliosis in Asia).

Source: World Health Organization (WHO). *WHO Case Definitions of HIV for Surveillance and Revised Clinical Staging and Immunological Classification of HIV-Related Disease in Adults and Children*. Geneva: WHO, August, 2006.

Annex 4: MOS-QOL Questionnaire for HIV-Infected Individuals

This survey is taken from Mast, T.C., Kigozi, G., Wabwire-mangen, F., et al. "Measuring Quality of Life Among HIV-Infected Women Using a Culturally Adapted Questionnaire in Rakai District, Uganda," *AIDS Care* 16 (1) (2004): 81-94.

Quality of Life								
Now, I would like to ask you a few questions about your health. [INTERVIEWER: Q1 - Q13 ARE PROMPTED]								
1.	In general, would you say your health is:	Excellent...1 Very good...2 Good...3 Fair...4 Poor...5					_ {Q1}	
2.	How much <i>bodily</i> pain have you generally had during the <i>past thirty days</i> ?	None...1 Very mild...2 Mild...3 Moderate...4 Severe...5 Very severe...6					_ {Q2}	
3.	During the <i>past thirty days</i> , how much did <i>pain</i> interfere with your normal work, including both work outside the home and housework?	Not at all...1 A little bit...2 Moderately...3 Quite a bit...4 Extremely...5					_ {Q3}	
4.	The following questions are about activities that a person might do during a typical day. Does your <i>health now limit you</i> in the following activities? If so, how much?	YES, limited a lot	YES, limited a little	NO, not limited at all				
4a.	The kinds or amounts of <i>vigorous</i> activities you can do like, digging, fetching water from a well, carrying a big bunch of matooke, splitting firewood.	1	2	3	_ {Q4A}			
4b.	The kinds or amounts of <i>moderate</i> activities you can do like washing clothes, moving a jerrican of water or moving a bundle of firewood from one place to another.	1	2	3	_ {Q4B}			
4c.	Walking up a hill, climbing stairs.	1	2	3	_ {Q4C}			
4d.	Bending, lifting light objects or kneeling.	1	2	3	_ {Q4D}			
4e.	Walking a distance, like the length of a football pitch, about 100 meters.	1	2	3	_ {Q4E}			
4f.	Eating, dressing, bathing or using the latrine.	1	2	3	_ {Q4F}			
5.	Does your health <i>keep you</i> from working at a job, doing work around the house or attending school?	Yes...1	No...2	_ {Q5}				
6.	Have you been unable to do <i>certain kinds or amounts</i> of work, housework or schoolwork, because of your health?	Yes...1	No...2	_ {Q6}				
For each of the following questions, please tell me the answer that comes closest to the way you have been feeling in the past thirty days.		All of the time 1	Most of the time 2	A good bit of the time 3	Some of the time 4	A little of the time 5	None of the time 6	
7.	How much of the time, during the past thirty days, has your <i>health limited your social activities</i> , like visiting your friends or family?	1	2	3	4	5	6	_ {Q7}
8.	How much of the time, during the past thirty days:							
8a.	Have you been a very nervous person?	1	2	3	4	5	6	_ {Q8A}
8b.	Have you felt calm and peaceful?	1	2	3	4	5	6	_ {Q8B}
8c.	Have you felt depressed?	1	2	3	4	5	6	_ {Q8C}
8d.	Have you been a happy person?	1	2	3	4	5	6	_ {Q8D}

8e.	Have you felt so depressed that nothing could cheer you up?	1	2	3	4	5	6	<input type="text"/> {Q8E}
9.	How often during the past thirty days:							
9a.	Did you feel full of life and energy?	1	2	3	4	5	6	<input type="text"/> {Q9A}
9b.	Did you feel totally without energy?	1	2	3	4	5	6	<input type="text"/> {Q9B}
9c.	Did you feel tired?	1	2	3	4	5	6	<input type="text"/> {Q9C}
9d.	Did you have enough energy to do the things you wanted to do?	1	2	3	4	5	6	<input type="text"/> {Q9D}
9e.	Did you feel weighed down by your health problems?	1	2	3	4	5	6	<input type="text"/> {Q9E}
9f.	Were you discouraged by your health problems?	1	2	3	4	5	6	<input type="text"/> {Q9F}
9g.	Did you feel despair over your health problems?	1	2	3	4	5	6	<input type="text"/> {Q9G}
9h.	Were you afraid because of your health?	1	2	3	4	5	6	<input type="text"/> {Q9H}
		All of the time 1	Most of the time 2	A good bit of the time 3	Some of the time 4	A little of the time 5	None of the time 6	
10.	How often during the past thirty days:							
10a.	Did you have difficulty reasoning and making decisions, for example, making plans or learning new things?	1	2	3	4	5	6	<input type="text"/> {Q10A}
10b.	Did you forget things that happened recently, for example, where you put things or when you had appointments?	1	2	3	4	5	6	<input type="text"/> {Q10B}
10c.	Did you have trouble keeping your attention on any activity for long?	1	2	3	4	5	6	<input type="text"/> {Q10C}
10d.	Did you have difficulty doing activities involving concentration and thinking?	1	2	3	4	5	6	<input type="text"/> {Q10D}
		Definitely true 1	Mostly true 2	Don't know 3	Mostly false 4	Definitely false 5		
11.	Please tell me the answer that comes closest to describing whether the following statement is true or false for you. The answers are: [INTERVIEWER: READ RESPONSES ABOVE]							
11a.	You are somewhat ill.	1	2	3	4	5		<input type="text"/> {Q11A}
11b.	You are as healthy as other people you know.	1	2	3	4	5		<input type="text"/> {Q11B}
11c.	Your health is excellent.	1	2	3	4	5		<input type="text"/> {Q11C}
11d.	You have been feeling bad recently.	1	2	3	4	5		<input type="text"/> {Q11D}
12.	How has the quality of your life been during the <i>past thirty days</i> ? That is, how have things been going for you?	Very well; could hardly be better...1 Pretty good...2 Good and bad parts about equal...3 Pretty bad...4 Very bad; could hardly be worse...5						<input type="text"/> {Q12}
13.	How would you rate your physical health and emotional condition now compared to <i>thirty days ago</i> ?	Much better...1 A little better...2 About the same...3 A little worse...4 Much worse...5						<input type="text"/> {Q13}

Endnotes

- 1 Egge, K., and Strasser, S. *Measuring the Impact of Targeted Food Assistance on HIV/AIDS-related Beneficiary Groups With a Specific Focus on TB, ART, CI and PMTCT Beneficiaries*. Johannesburg: C-SAFE Learning Spaces Initiative, 2005.
- 2 Bergeron, G., Deitchler, M., Bilinsky, P., and Swindale, A. *Monitoring and Evaluation Framework for Title II Development-Oriented Projects*. Technical Note 10. Washington, DC: FANTA Project, Academy for Educational Development, 2006.
- 3 Egge and Strasser, *Measuring the Impact*.
- 4 Ortiz, E.F., Kuyama, S., Munch, W., and Tang, G. *Implementation of Results-Based Management in the United Nations Organizations. Part I: Series on Managing for Results in the United Nations System*. Geneva: United Nations Joint Inspection Unit, 2004.
- 5 USAID. *Establishing Performance Targets*. Performance Monitoring and Evaluation TIPS No. 8. Washington, DC: USAID Center for Development Information and Evaluation, 1996.
- 6 Ibid.
- 7 Egge and Strasser, *Measuring the Impact*.
- 8 Owubah, C., Greenblott, K., and Zwier, J. *Top 10 C-SAFE Initiatives in Monitoring and Evaluation*. Johannesburg: C-SAFE Learning Spaces Initiative, 2005.
- 9 Adapted from White, J., and Robinson, E. *HIV/AIDS and Rural Livelihoods in Sub-Saharan Africa*. Policy Series 6. Chatham, UK: Natural Resources Institute, 2000.
- 10 United Nations Children's Fund (UNICEF). *Guide to Monitoring and Evaluation of the National Response for Children Orphaned and Made Vulnerable by HIV/AIDS*. New York: UNICEF, 2005.
- 11 FANTA Project. *A Guide to Monitoring and Evaluating Nutrition Education and Counseling for People Living with HIV/AIDS*. Draft. Washington, DC: Academy for Educational Development, 2006.
- 12 Egge and Strasser, *Measuring the Impact*.
- 13 Ibid.
- 14 Yamano, T., and Jayne, T.S. *Measuring the Impact of Working-Age Adult Mortality on Small-Scale Farm Households in Kenya*. *World Development* 32 (1) (2004): 91-119.
- 15 UNICEF, *Guide to Monitoring*.
- 16 Piwoz, E. *Nutrition and HIV/AIDS: Evidence, Gaps and Priority Actions*. Washington, DC: the SARA and FANTA Projects, Academy for Educational Development, 2004.
- 17 Egge and Strasser, *Measuring the Impact*.
- 18 TANGO International. *CHS Regional Analysis: Household Vulnerability and the Impact of Food Aid*. Johannesburg: Consortium for Southern Africa.

Chapter 9: Operational Modalities

Program Design Steps

Key Concepts

9.1 Challenges and Considerations in Budgeting in an HIV Context

9.2 Addressing Budget Limitations and Challenges

9.3 Food Resource Supply Chain Management

9.4 Food Distribution Mechanisms and Operation

9.5 Adapting Food Distribution Methods

9.6 Workplace HIV Policy and Prevention Education for Food Assistance Support Staff

In This Chapter

This chapter complements the technical information provided earlier in this guide with practical guidance for planning and managing food distribution systems for people living with or affected by HIV. The chapter first addresses challenges in budgeting that distinguish food assistance programs in the context in HIV from those in unaffected areas. It then provides a detailed discussion of HIV-related factors affecting program budgets, ranging from greater staff and logistics costs to the restrictions on food and non-food resources in HIV programs. Next, the chapter provides insight into how agencies can respond to budgeting challenges by coordinating funding streams and partnering with government and civil society stakeholders.

The chapter goes on to explore issues surrounding commodity pipeline management, including possible responses to pipeline breaks as well as the shelf life, procurement, storage and handling requirements for commodities provided to HIV-affected beneficiaries. The chapter then explains decisions to be made about food distribution, such as the location of distribution points, take-home versus on-site feeding and the involvement of HBC networks, health facilities and CBOs in distributing food to HIV-affected beneficiaries. The chapter discusses important considerations for adapting food distribution mechanisms in the HIV context, including the timing of ration distribution, ensuring accountability in the process of food distribution and considerations for food distribution in settings characterized by conflict and/or displacement. Finally, the chapter explains the importance of implementing appropriate workplace HIV policies and providing prevention education to all individuals involved in the transport and distribution of food assistance.

Food assistance program managers can find additional guidance on commodity procurement, storage, accounting and reporting in WFP's 2002 Food Distribution Guidelines and USAID's Office of Food for Peace (FFP) guidelines.

Primary Challenges in Budgeting in an HIV Context

The primary budgeting challenge facing UN organizations and NGOs implementing food security programs is a lack of funding to meet the food *and* non-food needs of all those that are either chronically or temporarily vulnerable to food insecurity. As is the case across all sectors, HIV further complicates efforts to overcome budget constraints to provide effective and sustainable programs. The primary challenges in the context of HIV include:

Funding for non-food activities. Securing funding for program activities other than food distribution often is difficult, particularly for countries or programs with limited potential for commodity monetization.¹

Program compartmentalization. HIV programs often are compartmentalized as health sector interventions, while nutrition or food insecurity interventions are often viewed as agricultural or humanitarian issues.

ART recipient demand for food assistance. Demand is increasing for food assistance to support treatment adherence for a rapidly growing number of ART recipients.

Lead times for commodities. Long lead times required to obtain food commodities are particularly challenging for HIV-targeted programs because of fluctuating demand for ART and infected individuals' specialized food needs.

Difficulty procuring specialized foods. Specialized foods required by HIV-infected individuals can be difficult to procure because of higher costs and limited access due to restrictions on genetically modified organisms (GMOs) and other import constraints.²

Need for cash reserves. It is difficult to maintain cash reserves needed to protect particularly vulnerable HIV beneficiaries from commodity pipeline breaks.

Higher costs. Operational and logistics costs associated with distributing food to HIV-affected beneficiaries over a wide area are higher.

Initial program costs. Food assistance programs associated with HIV often require substantial cash resources for vulnerability and needs assessments, program appraisals, technical reviews and capacity enhancement activities before the actual food assistance begins. This can create considerable difficulties when cash is tied to commodity tonnage.

Other Budgetary Considerations

Balancing Equity and Impact

Another important consideration involves the balance between equity and impact. While distributing limited resources to the maximum number of beneficiaries may promote equity in areas prone to widespread food insecurity, spreading resources too thinly may limit the impact of food assistance. This issue can become contentious when food resources are targeted specifically for food-insecure populations who are HIV-positive or are directly affected by the disease. Food assistance programs that are closely tied to national services delivery may be required to cover the entire country, which could increase costs. In addition, serving relatively few people spread across large areas could increase costs and

raise questions about the feasibility of doing so. Issues surrounding equity versus impact also arise in the event of humanitarian emergency. Many livelihood and safety net interventions in high prevalence areas focus on protecting and creating vulnerable households' productive assets. However, asset creation is often suspended during emergencies because of the need to spread resources over a much larger needy population.

Funding Cycles and Non-Food Resources

The non-food needs of integrated food assistance and HIV interventions can be greater than those of conventional food assistance programs because of the need for technically qualified staff and the challenges of assessing vulnerability to HIV and monitoring impact on individuals and/or households. Though few direct cost comparisons have been conducted, integrated programs tend to be "cash heavy," particularly during project start-up.³ Using HIV funding may be a viable option for food security interventions specifically targeting infected individuals and affected households. However, such arrangements are not viable for many of the other activities that food security program managers must implement.

Funding Restrictions

While there has been considerable financial investment in the fight against HIV, funding arrangements have at times placed significant restraints on food assistance programs' ability to cover the immediate costs of prevention and treatment as well as the longer-term development-oriented activities designed to improve food and livelihood security. Some donors set particular conditions that may interfere with appropriate response programming and budgeting. For example, certain funding sources may support nutrition supplementation for PLHIV but not for affected households, which means programs may be able to provide for an individual but not provide the necessary accompanying household food ration. In addition, funding agreements often lack specific guidance on allowable activities, particularly pertaining to medium- and long-term program objectives. Moreover, as discussed above, by limiting or disallowing expenditure on training, technical assistance, agriculture, tools and other capital equipment, donors may hinder effective multisectoral programming of food assistance in high-prevalence contexts.

The principal challenge in adequately budgeting for integrated food security and HIV programs is that food aid programs fund mostly food commodities and the cost of distribution, while effective interventions require a broad range of food and non-food interventions and partners.

HIV-Specific Cost Considerations

Logistics Costs

Several factors involved in HIV programming add to the logistical costs of traditional food assistance interventions:

- ▶ Vulnerability to HIV is determined by a complex array of factors, including mobility of populations.
- ▶ PLHIV and affected households are often widely dispersed, particularly in rural areas.
- ▶ Reaching the more geographically concentrated HIV-affected households in urban areas is costly given the need to develop household targeting strategies rather than geographical ones⁴ (see **Chapter 5: Targeting** for a more detailed discussion of targeting).

The logistics involved in reaching a relatively small group of beneficiaries can raise an individual program's overall costs for internal transport, shipping and handling of commodities. Different donors provide different amounts of funding for internal transportation, and a program may have to adjust its coverage if there are not adequate funds to move food commodities over a large geographic area.

The cost of storage space for both small and large tonnages of food will be the same because the secure warehouse space is likely to be larger than needed in either case.⁵ Additional logistics costs particular to HIV programs include the re-bagging of commodities into smaller containers so that beneficiaries, who are usually weak, can easily carry the food rations.⁶

Food assistance programs can reduce logistical costs by establishing central service provision and/or food distribution points such as community health centers or hospitals.⁷ Costs also can be decreased by establishing greater linkages with informal HBC networks supported by community associations, funeral associations, family networks, religious groups and others.

Staff Costs

HIV programs require more technically qualified staff than do traditional food assistance programs, which often leads to higher staff costs. HIV program staff must have the skills to:

- ▶ Work with a range of HIV-affected beneficiaries, including ART and TB patients, pregnant women and lactating mothers, children with HIV and OVC
- ▶ Understand beneficiary groups' needs and capacities; in particular, those working in food assistance and ART programs must have technical knowledge about the interaction between food, nutrition, HIV and ARV drugs
- ▶ Conduct individual in-depth client assessments and apply multiple targeting criteria to meet program eligibility criteria and overcome barriers related to stigma
- ▶ Conduct the more frequent monitoring these programs require, as vulnerable populations' conditions can change rapidly

It may be possible to cover the cost of specialized staff and expanded assessments and monitoring through the project. However, some donors provide funds only for food distribution, and it is difficult to secure complementary funding for staff costs. In addition, while there may be opportunities to obtain complementary funding for food security programming for HIV-affected populations, donors often limit their support to agricultural inputs and other non-food resources rather than cash.⁸

Integrated programming often means increasing services in response to need, which can further increase overall expenses. If food assistance agencies or their implementing partners lack the staff and technical capacity to increase their services, they may need to hire external consultants, provide training or expand their partnerships, each of which can further increase costs.^{9,10} Programs usually can get information about the costs of specific services from organizations with relevant experience. Since there are many ways to implement new services, organizations should also investigate the most cost-effective approaches.

Other Program Costs

Because of HIV's physical, economic, emotional and social impact on PLHIV, households and communities, effective interventions should be holistic and include both food and non-food assistance to support recovery and sustainable livelihoods (See **Chapter 12: Livelihood Strategies and Social Protection** for a discussion of specific activities that can help households restore assets). However, holistic interventions increase program costs. In addition, for some food assistance programs, the costs of food assistance determine a project's direct and indirect overhead costs, and non-food activities are often funded through such overhead. This will limit non-food activities by programs that distribute a small volume of food, as may be the case with programs that provide food to PLHIV or affected households.

Cost-Effectiveness

Given HIV's geographic scope and dynamic nature, it is difficult to determine the cost-effectiveness of food assistance programs in an HIV context. However, lessons from previous efforts can be applied. In general, implementing agencies can maximize programs' cost effectiveness by:

- ▶ Mainstreaming HIV food support with ongoing food security activities
- ▶ Directly involving CBOs and PLHIV in designing and implementing food-based activities
- ▶ Coordinating activities with other UN agencies and NGOs as possible
- ▶ Applying for complementary funding
- ▶ Establishing central food distribution sites to serve the most beneficiaries¹¹

9.2

Key Concept

Addressing Budget Limitations and Challenges

Some of the budget limitations and challenges discussed earlier can be addressed by having food assistance programs and HIV programs share resources such as staff, office space, infrastructure, warehousing and logistical capacity.

Agencies can create opportunities to share resources among multiple partners operating in various sectors by mainstreaming HIV into ongoing food security programs (see **Chapter 7: Implementation Strategies**, Key Concept 7.4 on developing partnerships). In other cases, partners involved in HIV activities may be able to share greater responsibility for supporting OVC, PMTCT and medical interventions combined with food security programs. An organization that has separately funded food assistance and HIV projects can essentially share resources and have a multi-sectoral impact by working with the same beneficiary population, if program activities are jointly planned and managed well.

Two Approaches to Addressing Budget Constraints in Uganda

ACDI/VOCA and TASO

ACDI/VOCA and TASO have developed a partnership to provide food assistance to individuals and households affected by HIV. ACDI/VOCA provides food assistance to address the nutritional needs of PLHIV, while TASO distributes food to beneficiaries and provides complementary HIV-related services. By providing nutritional support to PLHIV (particularly women) attending the food distribution center, ACDI/VOCA reaches its intended beneficiaries and simultaneously provides an incentive for beneficiaries to use PMTCT and other HIV services. Likewise, by providing prevention education, HIV awareness, PMTCT services, and care and support services for infected individuals, TASO works toward its core objectives as an HIV service organization.

WFP Uganda

WFP Uganda uses its field offices to provide food support to different activities such as supplementary and therapeutic feeding, maternal and child health and nutrition (MCHN) and FFA programs being implemented in the same area. Field offices use the same logistics staff and partner whenever possible to deliver and monitor services. In some cases, partners supporting HIV activities also provide support to other vulnerable groups, along with medical treatment of opportunistic infections and food security programming. Such collaborations have not been assessed to determine overall cost-effectiveness but have proven effective.

Partnering With Government Stakeholders

For operational purposes, government resource streams for food security programs are often allocated through ministerial budgets for Ministries of Agriculture and for HIV through budgets for Ministries of Health and Population. The National AIDS Commission (NAC) is often the coordinating and implementing arm, while individual ministries take responsibility for monitoring the use of resources. Government contributions often include office space, food storage/distribution facilities, food handling and distribution staff and in some cases commodity distribution.

When pursuing funding for integrated food assistance and HIV programs, organizations should:

- ▶ Identify possible funding sources at the district and national levels
- ▶ Establish synergy between various funding streams and district planning processes to maximize the complementarity of district-level resources from government funding sources and donors
- ▶ Determine the amount of funding provided by various funding streams and how it will be used
- ▶ Discuss potential resource gaps with the district planning team and other donors funding food security and/or HIV programs directly to the district or through the central government
- ▶ Establish cooperative agreements for complementary funds from government ministries and/or other donors (there should be a consensus on when and how funds will be disbursed and used, as well as on reporting requirements)

Managing the Commodity Pipeline

Continuity and reliability are critical for many food assistance programs. Not only do ruptures in the pipeline affect the nutritional well-being of the target beneficiaries, but they may also harm the credibility of the service provider; affect the benefits obtained from other associated services (such as treatment, education, psycho-social support and income generation) and interrupt fragile community mobilization processes that form the basis of the program. In addition, where food support is a catalyst for target groups' participation in clinical or food security programs, the absence of the food component may demoralize them, possibly affecting future involvement.

Ideally, activities should not be initiated with a resource guarantee of just a few months. However, for practical reasons a steady food supply often cannot be guaranteed over an extended period. Particularly where commodities are provided, donor planning cycles might not accommodate a steady supply during the life of the program. As a result, programs may need to store large quantities of food over prolonged periods to ensure adequate and reliable food supplies for all intended beneficiaries.

A reliable pipeline often depends on the program's ability to combine international, regional and local purchases and/or in-kind donations. However, certain commodities may not be easily purchased in the program area, or programs supported by single donors may not be able to make local purchases with donor funds.

Program managers have a number of options for dealing with pipeline shortages. Shortages involving only one food or a few commodities may be addressed by temporarily increasing other ration components by following standard guidelines for commodity substitution. However, substitutions might not be appropriate if specific commodities are required to meet specific nutritional needs or have a definite role in meeting particular gaps in the household food ration.

Agencies that distribute food assistance through multiple programming channels may be able to borrow and repay commodities internally to meet the most urgent needs. In select instances, as was the case in southern Africa during implementation of C-SAFE, organizations distributing food assistance may be able to temporarily turn to a second pipeline in the event of severe shortages. Food assistance agencies may borrow and/or lend food resources from other cooperating partners in the event of food pipeline breaks. For instance, WFP Malawi accessed Global Fund resources to purchase substitute rations during breaks in the CSB pipeline. WFP and FFPTitle II CSs borrowed from one another to cover shortages in countries with more than one pipeline.¹²

Regardless of the amount of planning and preparation at the program level, pipeline breaks do occur. In such instances, programs often have to make difficult decisions about the number of beneficiaries, the ration size and/or the ration composition. In other situations, programs may have to make hard choices about prioritizing activities. While it may be difficult to agree on how to prioritize resources when pipeline breaks occur, decisions should be based on information from accurate vulnerability assessments, include direct consultations with all relevant stakeholders and be consistent with the specific program objectives.

Substituting Rations in HIV Programs During Pipeline Breaks¹³

Breaks or shortfalls in standard commodities such as cereal and oil, as well as high-energy protein supplements (HEPS) are not uncommon for WFP Zambia. WFP Zambia's first response to pending pipeline shortages is to convene planning meetings between Programming, Logistics and Vulnerability Analysis and Mapping (VAM) Units to map out an "adaptive operational strategy" for managing available resources. The process involves framing possible scenarios based on a combination of a reduction in rations among various program areas (HIV-ART, OVC, FFA). The final decision is made by the Country Office, with an eye toward limiting the negative impacts of resource scarcity while maintaining key relationships among implementing partners.

A number of specific factors are considered in evaluating adaptive strategies. Assessment of these factors depends entirely on adequate M&E and commodity management systems. They include:

- ▶ Specific accounting of available stocks, including those in the pipeline, commodities due to arrive and resources that must be borrowed or repaid, both internally and externally
- ▶ Specific objectives of individual programs (is food intended to improve access or nutrition, or is it used as an incentive?)
- ▶ Determination of where the greatest positive impact of food assistance will be achieved or which response will minimize harm to beneficiaries and partners
- ▶ Determination of how resource prioritization will affect access to complementary resources and other support services

WFP Zambia made these decisions during a recent break in the pipeline for HEPS:

HIV: OVC Emergency Feeding Support

Substituted 100 g of HEPS and 10 g of oil per day per child with 100 g of bulgar wheat and 35 g of pulses per child per day. Take-home ration (THR) also changed from 59 kg cereal to 25 kg cereal and 10 kg pulses

HIV: ART Support

Reduced THR from 36 kg cereal and 4.5 kg pulses to 25 kg cereal and 6 kg pulses

Commodity Shelf Life, Procurement, Storage and Handling

Because of the compromised health status of many beneficiaries in HIV programs, commodity safety is particularly critical for food assistance programs in an HIV context. Products should be inspected upon procurement and at later stages during storage if there is any suspicion that the commodities are deteriorating.

Processed foods, such as milled cereals and fortified blended foods, tend to have a relatively short shelf life, particularly if purchased locally, and may be susceptible to spoilage (rancidity, contamination or infestation), especially if stored in large quantities under unhygienic conditions. Similarly, whole grain cereals and products such as groundnuts can be contaminated by aflatoxin, which may be present in locally-stored produce. In addition, salmonella contamination—a major cause of diarrhea—can occur in foods handled and/or stored in unhygienic ways.

Shelf life can be extended during cereal processing through lowering the extraction rate of the cereal flour/meal (the percentage of the original grain preserved in the flour/meal). The lower the extraction rate, the longer the shelf life. However, it should be noted that lower extraction rates are also normally associated with lower nutritional value. Another option for increasing shelf life is reducing the length of the supply chain by processing close to beneficiaries, for example through the use of local cereal mills.

Programs also should consider storage capacity and conditions among implementing partners, community-based facilities and households. Often the conditions in place at the primary stages of the supply chain (when controlled by large organizations) cannot be maintained at the secondary and tertiary stages when the food commodities are being integrated in community and institutional support programs. Furthermore, after distribution to households, commodities should be kept safe for the period of consumption. This highlights the importance of storage and handling conditions in households.

Although processed foods may be recommended in HIV-related food assistance programs, the ultimate decision on their use (and thus their procurement) should include careful consideration of whether food safety can be maintained along the entire supply chain (including transport, storage and handling).

9.4 Key Concept Food Distribution Mechanisms and Operation

Many of the conventional approaches to food distribution should be adapted in the context of HIV because of the constraints the disease places on distribution systems. The principal constraints include:^{14,15}

- ▶ Effects of stigma on food assistance
- ▶ Beneficiaries' challenges in accessing designated food distribution centers
- ▶ Challenges in delivering the appropriate quantity and quality of food assistance at reasonable cost
- ▶ Working with new partners—particularly HBC systems, PLHIV networks and CBOs—that are less familiar with food assistance operations

The distribution of food to PLHIV or affected households is complicated because potential beneficiaries may be young (OVC), old (elderly caregivers) or in an advanced stage of illness, all of whom may be too weak to transport food from the distribution centers to their homes. Furthermore, many of those infected and/or caring for PLHIV are women, for whom long distance distributions may become an insurmountable burden and exclude them from receiving food. Decisions on the number and location of final distribution points (FDPs) therefore should take into account beneficiaries' limitations and accessibility constraints. Table 1 on page 194 compares the advantages of having fewer or more distribution centers.

In general there is a tradeoff between the need to bring food assistance close to beneficiaries and the cost and difficulties in doing so. These factors should be considered in selecting the locations of food distribution points:

- ▶ Proximity to communities and homes of PLHIV and HIV-affected households
- ▶ Food delivery trucks' access to the sites
- ▶ Availability of sufficient space to accommodate beneficiaries and the caregivers/guardians or porters accompanying the beneficiaries

Table 1: Distribution Centers: Pros and Cons of Few Versus Many

	Advantages	Disadvantages
Few Distribution Centers	<ul style="list-style-type: none"> ▶ Fewer staff ▶ Less infrastructure (distribution structures) ▶ Less transport required for distribution ▶ Lower distribution costs as percent of program budget 	<ul style="list-style-type: none"> ▶ Longer journey to the households ▶ Potential cost of transport for the beneficiaries relative to the “value” of the food ▶ Difficult access for weaker groups, e.g., PLHIV, pregnant and nursing women ▶ Potential crowding ▶ Potential to barter part of the ration to pay porters ▶ Long waiting period ▶ Potential exposure to stigma due to high visibility of activity
Many Distribution Centers	<ul style="list-style-type: none"> ▶ Easier access by PLHIV, children and elderly caregivers ▶ Easier access by women caregivers ▶ Shorter journeys home ▶ Beneficiaries can easily see the distribution taking place; self policing facilitated ▶ Special arrangements for home-based caregivers easily made 	<ul style="list-style-type: none"> ▶ More staff required ▶ More transport needed ▶ High transport costs ▶ Accessibility problems for transport to some centers ▶ Longer travel time for transporters ▶ Higher overall program costs

Options may include strategically placing distribution sites in centralized areas for optimal accessibility. For example, this may mean establishing FDPs on the road to a marketplace and distributing food on market days to attract people where and when they are more likely to be traveling anyway. Centralized distribution points such as these are generally more efficient, but programs must take concerns about stigma into account when conducting distributions in highly public places (see **Chapter 5: Targeting** for a more detailed discussion about avoiding stigma).

Methods of Food Distribution

Food assistance programs use various food distribution methods, including food distribution through HBC systems, facility-based distribution and community-based distribution. Each method uses a different food delivery system, mix of services, staff and coverage.

Food Distribution Through HBC Systems

A number of NGOs use HBC systems to distribute food and provide other nutrition care and support services to PLHIV and their households. The success of HBC food distribution system depends on several things, including:

- ▶ Strength of the HBC networks
- ▶ Volunteers' capabilities
- ▶ Good supervision and oversight

Potential steps involved in using HBC volunteers to distribute food include:

- ▶ Preparing a distribution plan based on HBC service coverage and the population of PLHIV in the targeted community

- ▶ Having the HBC group divide the commodities among the HBC volunteers based on the number of households and the approved ration
- ▶ Having each HBC volunteer supervise the distribution process to individuals and households in his/her HBC operational area
- ▶ Having each HBC volunteer assess the household's living environment, storage conditions for food and other non-food needs of the household

There are advantages and disadvantages of food distribution through HBC groups, as illustrated in Table 2.¹⁶ Accordingly, distribution should be monitored to ensure that registered PLHIV and their households receive their rations and are not neglected or exploited by volunteers.

Health Facility-Based Food Distribution for PLHIV

In many cases, food distribution is conducted in locations such as health facilities that present an opportunity to combine food distribution with other services for PLHIV. Food distribution is the last activity, normally conducted after the beneficiary completes the required consultations with health staff. Table 3 shows the advantages and disadvantages of distribution through health facilities.

Table 2: Distribution Through HBC Systems: Pros and Cons

Advantages	Disadvantages
<ul style="list-style-type: none"> ▶ Less agency staff involved ▶ Can reduce the burden of individual targeting ▶ Ration cards may not be required as volunteers know the HIV infected individuals and household sizes (ration cards may still be used to ensure transparency/accountability) ▶ Allows for easy follow-up, close monitoring of beneficiaries by HBC volunteers ▶ Rations can be distributed by HBC volunteers from the HBC community storage point ▶ Potential for complementarity with other support services offered by HBC networks ▶ HBC volunteers are familiar to beneficiaries, creating an enabling environment for trust, confidence building and wider community sensitization 	<ul style="list-style-type: none"> ▶ HBC volunteer services may be overburdened ▶ HBC volunteers may have limited skills beyond food handling (HIV care and support) ▶ Livelihood insecurity among HBC volunteers may lead to misuse or diversion of resources ▶ Increasing workload often results in demand for incentives from HBC volunteers ▶ Mobility constraints by HBC volunteers ▶ Limited capacity for monitoring and reporting ▶ Use of HBC volunteers from the community may increase the risk of stigmatization or breach of confidentiality ▶ Priority on food assistance may result in de-emphasis of other HBC services

Table 3: Distribution Through Health Facilities: Pros and Cons

Advantages	Disadvantages
<ul style="list-style-type: none"> ▶ Food distribution can be linked with triage, nursing care, nutrition monitoring, counseling and HIV awareness; linkage to conditionality (e.g., clinic/program attendance) is more direct ▶ A number of HIV-positive individuals can be easily reached ▶ Fewer sites are designated as FDPs, reducing transportation costs 	<ul style="list-style-type: none"> ▶ May overburden health facility staff ▶ Health facility staff traditionally do not have experience with food distribution ▶ Needs adequate infrastructure and space to store and distribute food ▶ Needs registration and substantial administration ▶ Receiving food at health facilities rather than at community distribution sites may increase stigmatization of beneficiaries

Table 4: Community-Level Distribution: Pros and Cons

Advantages	Disadvantages
<ul style="list-style-type: none"> ▶ Relies on NGO/CBOs field staff and community-level food distribution committees ▶ Shares responsibility of food distribution with beneficiaries ▶ Requires a small number of field staff ▶ Monitoring and reporting are easily done ▶ Distribution is transparent, with community watchdogs (village HIV committee, local leaders) monitoring the process 	<ul style="list-style-type: none"> ▶ Accessibility to the food distribution points may be a problem for some beneficiaries ▶ More administratively intensive and costly for implementing partner ▶ May be more sharing of ration cards if food is handed out by outsiders ▶ Exposure may lead to stigma ▶ Potential diversion of food to local influential people

Community-Level Food Distribution Systems by Local NGOs or CBOs

Local food distribution committees usually help NGOs and WFP organize community-level food distributions. The food distribution committee is responsible for organization, information sharing, planning the distribution process and reporting. The committee establishes communication between the food assistance agency or implementing partner, PLHIV and the community institutions monitoring food distributions. In areas affected by both food insecurity and HIV, food distribution committees should establish links and collaborate directly with community-level HIV committees. Table 4 shows the pros and cons of community-level distribution.

Take-Home Rations Versus On-Site Feeding

Programs distributing food assistance to HIV-positive beneficiaries will need to decide whether to provide take-home rations (THRs) or to conduct on-site feeding for individuals. Typically, on-site feeding is provided when an individual is in an advanced stage of illness or a household lacks safe and sanitary conditions, both of which can limit an individual's ability to adequately prepare meals in the home. On-site feeding is typically conducted under the supervision of trained health professionals in clinics and/or HIV treatment facilities. Table 5 lists the advantages and disadvantages of THRs and on-site feeding.

Table 5: THR Versus On-Site Feeding

	Advantages	Disadvantages
On-Site Feeding	<ul style="list-style-type: none"> ▶ Rations eaten under supervision ▶ Ill or anorexic participants can get help with eating ▶ Feeding problems can be identified and addressed ▶ Ensures that food ration is consumed by target population ▶ Opportunity to provide information to the caregiver ▶ Provides a social atmosphere for those who otherwise might have to eat alone ▶ For OVC receiving on-site school feeding along with the rest of the student body, there may be less stigma than being singled out for a THR based on their status 	<ul style="list-style-type: none"> ▶ Recipients may be given less food at home (substitution) ▶ Participants and sometimes caregivers must travel to feeding center daily ▶ Resource-intensive, requiring equipment, fuel, a feeding facility and well-trained staff
THR	<ul style="list-style-type: none"> ▶ Large numbers of recipients can be reached ▶ Fewer resources required to administer the program ▶ Fewer costs for preparation and distribution ▶ Participants or caregiver spends less time and effort attending feeding site ▶ Less exposure to other beneficiaries/ community (and possible related stigma) 	<ul style="list-style-type: none"> ▶ No guarantee that recipient consumes the food ration because it may be shared with other family members, sold or traded ▶ Less time for BCC ▶ Exposure of condition to family members (for example in PMTCT)

9.5

Key Concept

Adapting Food Distribution Methods

Timing of Ration Delivery/Distribution

The frequency of ration delivery/distribution should be based on PLHIV's consumption needs and should take into account the accessibility constraints between the extended delivery points (EDPs), the main warehouses where food is stored in-country and the designated FDPs. Food distribution organized in short, more frequent intervals permits agencies to distribute smaller quantities of food—which are easier for PLHIV or OVC to carry home—but also is likely to increase costs.

The timing (e.g., day of the week, time of day) of food distributions should consider clients' attendance at associated activities and daily household routines, particularly related to the target beneficiary, the caregiver and/or the head of household.

Certain food assistance programs may distribute food through facilities with daily hours, such as an ART clinic's storage facility. This type of service delivery requires dedicated staff capacity, on-site facilities and associated resources.

Efficiency and Accountability for Distributed Rations

The amount of food distributed to beneficiaries will differ based on whether rations are for an individual or a family. Efficiency and transparency of food distribution can be ensured by displaying a simple chart indicating the amount of food allotted for each category of beneficiary at food distribution points.

Customizing Family Rations for Efficient Distribution

The Associazione Volontari per il Servizio Internazionale (Association of Volunteers in International Service, or AVSI) program in Uganda repackages food received from WFP into three family-sized rations to simplify the distribution process:

- ▶ One- to four-member households are entitled to three daily rations

- ▶ Five- to seven-member families are entitled to six daily rations
- ▶ Households of eight or more members are entitled to nine daily rations

During distribution, beneficiaries are grouped by family size and food entitlement group, which also speeds the distribution process.

Close supervision and corrective action are critical to ensuring proper rations are distributed. For example, particularly when bagging facilities are not available, food often is distributed by weighing each commodity during distribution or using equipment such as buckets and bowls calibrated before starting food distribution for each commodity. This is important, especially for cereals, because measuring cups with the same volume will give different weights depending on the weight and density of the food being scooped, which can lead to significant inequity in food distribution.

To facilitate transparency of entitlement and the efficiency of food distribution, some programs adjust the ration size to accommodate whole packaging units. For example, each household receives 50 kg of cereals, based on a standard household size of five persons (333 grams per person per day). However, this may not provide all households with the same contribution to their household food consumption, nor will it meet the exact nutritional requirements for household members. This approach may be appropriate when the food ration is not expected to cover an exact nutritional requirement but instead provides an income transfer and/or contributes to household food security.

“Alternative Collectors” for HIV-Infected Beneficiaries

As noted earlier in this guide, when the target beneficiary may not be able to get to distribution sites because of weakness, illness or stigma, it may be appropriate to identify another household member or a friend who can pick up rations on her/his behalf. This person can be registered as an “alternative collector” for food rations. When alternative collectors are used, post-distribution monitoring must be able to detect instances of waste/fraud and link to effective means of enforcement.

Food Distribution in Areas Affected by Conflict and/or Displacement

Refugees and other displaced populations living in camps often rely heavily on external assistance for nutritional, health and other basic needs. They also face particular risks related to food security and HIV. For example, refugees sometimes are unfamiliar with the food provided, or food resources are misused or inappropriately distributed by camp residents, humanitarian aid workers or combatants. In addition, in camp settings, inappropriate management of food assistance has also been linked to the sexual exploitation of women and children, which can further the spread of HIV.

Refugees' multifaceted needs call for integrated, tailored interventions. However, research has found a general lack of coordination among cooperating partner agencies operating in settings involving refugee and displaced populations and little consideration given to how integrated food assistance and HIV programs can be designed and implemented.¹⁷

To improve programming in such settings, UNHCR and WFP developed guidance on the integration of HIV activities with food and nutrition support for refugees.¹⁸ Within refugee settings, UNHCR and WFP identify general food distributions (GFD), supplementary (SFP) and therapeutic (TFP) feeding programs as key points where the community and individual beneficiaries can receive information on preventing and mitigating HIV.

In established settlements, feeding committee representatives should regularly consult with refugee community leaders and food beneficiaries to conduct pre-distribution sensitization, distribution supervision and post-distribution monitoring. These forums provide opportunities to promote community engagement and action around HIV prevention. Discussions and participatory activities at food distribution sites can also address issues related to the food distribution, such as access to food assistance by vulnerable groups (including households headed by the chronically ill), the role of food in managing illness, as well as safe storage and palatable preparation of commodities in the ration.

In areas highly affected by HIV, UNHCR and WFP further recommend that refugee communities establish multisectoral and participatory HIV committees to facilitate dialogue and coordination of decisions regarding HIV-affected refugee households. Through HIV committees' involvement in providing food assistance, food distribution leaders can learn

Integrating Food Distribution and HIV Awareness in a Refugee Settlement¹⁹

At Uganda's Kyangwali Refugee Settlement, the food management committee, as part of its involvement in a GFD led by Aktion Afrika Hilfe, wanted to incorporate HIV sensitization into its distribution-related activities. The committee felt there were extensive opportunities for it to participate in the settlement-wide HIV prevention effort through its community contact before, during and after distributions. The committee also requested training on the linkages between

nutrition and HIV, and asked to be brought into the process as partners.

The committee proposed that its members participate in HIV sensitization dramas (led by community counseling aides) and HBC visits, thinking that food management committee members who were involved in HIV outreach would be better equipped to help target the GFD to vulnerable households affected by chronic illness (a group that is often difficult to reach).

how to lead HIV discussions and training in their communities. They may also conduct appropriate HIV prevention education activities at distribution sites in collaboration with health and social welfare services offered by partner organizations.

For a more detailed discussion of food assistance in emergency situations, see **Chapter 13: Emergency Response**.

Prevention Education at Food Distribution Sites

Food distribution sites offer excellent opportunities for disseminating HIV education and awareness messages because these venues provide a “captive audience” and often attract both beneficiaries and non-beneficiaries.

Some educational activities that may be conducted at distribution sites include:

- ▶ Training family and community caregivers in preparing nutritious recipes suitable for those with AIDS-related illnesses, using food assistance commodities and locally available foods
- ▶ Delivering messages on positive living (PL) and treatment literacy
- ▶ Providing information on transmission and prevention of HIV
- ▶ Conducting stigma reduction training and activities
- ▶ Raising awareness on gender issues and HIV
- ▶ Adapting and providing training material on home gardening and medicinal crops for PLHIV
- ▶ Marking events such as World AIDS Day, World Food Day, International Women’s Day
- ▶ Supporting community-led dramas, songs and rallies on HIV awareness, prevention and gender issues

Health Tables Give Advice on Health Issues at Food Distribution Sites

CARE Zambia obtained ECHO funding to initiate ‘health tables’ at distribution sites to communicate important health messages to the community. Pamphlets were distributed and discussions were held on a variety of health issues, e.g., HIV, PMTCT, PL, exclusive breastfeeding, condom use, dangerous

cultural practices, safe water and nutrition. Non-beneficiaries also frequented the health tables on distribution days, asking questions and seeking practical advice for health concerns. Health table staff also offered free condoms to both beneficiaries and non-beneficiaries.

Delivering HIV Messages at Food Distributions

In Zimbabwe, World Vision (WV) and Population Services International (PSI) formed a partnership to bring PSI sensitization activities to FDPs. PSI and WV agreed on key messages that included STI prevention

and treatment, HIV transmission and prevention, VCT and PMTCT. These messages were relayed to beneficiaries through short dramas and discussions.

Key Considerations for Food Distribution in the Context of HIV

Experience gained and lessons learned from a range of food assistance and HIV interventions has revealed a number of critical considerations and guiding principles for adapting operational modalities for food assistance among affected communities. They include:

Coordination with district and community stakeholders. Improve coordination by establishing cooperating agreements with HBC groups, community health workers (CHWs) and PLHIV networks, as well as district level health and agriculture administrative structures. Such agreements can help improve the planning, delivery, receipt, distribution, documentation and reporting of food assistance.

Training. Ensure that food distribution agents receive adequate training in food handling, storage and distribution procedures, as well as in commodities and packaging appropriate for PLHIV. Staff support and training should include implementation of an HIV workplace policy and program (see Key Concept 9.6 in this chapter).

Avoidance of stigmatization. Ensure that the food distribution timing, frequency and location are amenable to beneficiaries and do not expose them to stigma. This can be done by involving beneficiaries, local leaders and HBC networks in distribution planning.

Linkages to complementary programming. Structure the distribution to provide linkages among complementary programming activities, such as information sharing, nutrition education and HIV awareness building.

Attendance at conditional services. Organize food distributions to stress the importance of and facilitate attendance at other services on which food assistance may be conditional, such as clinical care and treatment activities and/or community-based OVC support programs.

9.6

Key Concept

Workplace HIV Policy and Prevention Education for Food Assistance Support Staff

Given the context in which most food assistance and HIV programs operate, agencies must implement appropriate and effective workplace policies to prevent the spread of the disease and support infected employees. While development of workplace HIV policies may require an initial investment of personnel, time and funding, the process ultimately results in increased organizational effectiveness by contributing to a healthy and responsible workforce.

An HIV policy—and an inclusive process of developing and implementing it—can provide a foundation for a workplace environment that values trust, learning, understanding and freedom from stigma and discrimination. With so many affected by the epidemic, a well-thought-out policy can provide all staff with the information and support they need to work and live in this environment. A good policy should benefit both employer and employee, boosting morale and productivity, and reducing the impacts of known threats (such as sickness and death) through early intervention. An HIV policy, when properly implemented, can enhance programming, as staff feel more confident and better placed to identify programming needs and opportunities.²⁰

In addition, food assistance agencies also can help mainstream HIV awareness by providing comprehensive prevention education for all personnel who handle and distribute food assistance. Implementing appropriate workplace policies and providing HIV prevention education are essential for ensuring that personnel responsible for implementing food assistance and HIV programs consistently follow the principle of “do no harm” in their communities.

Typically, workplace HIV policy and programs focus on limiting the incidence of new infections among staff and the community and on managing the impact of existing infections on the organization, staff and community. To achieve these objectives, agencies normally set goals in two key areas: changing behavior/increasing the use of preventive measures and improving care and support of persons affected by HIV and other infectious diseases. These objectives are often based on an appraisal of particular circumstances, including areas of operations, level of risks, available resources and partners that can help develop and implement workplace HIV programs and action plans. Such interventions involve:

- ▶ Developing a workplace HIV policy
- ▶ Determining the agency’s HIV-related risks and opportunities for prevention
- ▶ Identifying a “focal point” at the organization and building partnerships and stakeholder groups
- ▶ Raising organization and implementing partner awareness of HIV, including providing appropriate HIV prevention education to all food assistance intervention staff

Develop a Workplace HIV Policy

Developing a workplace policy is a critical step in informing employees of their rights and responsibilities, articulating management’s commitment and clarifying expectations from both sides. Key elements of such a policy generally include a statement on the agency’s commitment to address HIV, a respect for confidentiality of HIV status and the establishment of non-discriminatory practices regarding PLHIV. The policy also helps agencies integrate HIV in their programming more effectively.

Code of Practice for HIV Workplace Policy

The ILO's Code of Practice for HIV offers guidance for developing a workplace HIV policy. The full document is available at www.ilo.org/public/english/protection/trav/aids/code/languages/hiv_a4_e.pdf, but here are some key points:

Recognition of HIV as a workplace and program operation issue. HIV is a workplace issue, not only because it affects staff, but also because the workplace and program operations can play a vital role in limiting the epidemic's spread and impact.

Non-discrimination. There should be no discrimination against or stigmatization of workers on the basis of real or perceived HIV status.

Gender equality. More equal gender relations and the empowerment of women are vital to preventing the spread of HIV and enabling women to cope with HIV.

Healthy work environment. The work environment should be healthy and safe, and adapted to the state of health and capabilities of workers.

Screening for purposes of employment. HIV screening should not be required of job applicants or persons in employment.

Confidentiality. Access to personal data relating to workers' HIV status should be bound by rules of confidentiality consistent with an agency's human resources policy.

Care and support. Solidarity, care and support should guide the responses to HIV in the workplace.

Continuing employment relationship. HIV infection is not a cause for termination of employment. Persons with HIV-related illnesses should be able to work for as long as medically fit in appropriate conditions.

Social dialogue. A successful HIV policy and program requires cooperation, trust and dialogue between employers, workers, government and implementing partners such as transportation, warehousing and food distribution staff.

Prevention. Employees and their interactions with the community provide an opportunity to promote prevention efforts through information and education and support for changes in attitudes and behavior.

Determine the Risks and Opportunities for Prevention

Many food assistance agencies realize that HIV can pose serious health risks to their staff, as well as financial and logistical challenges to their operations. The spread of HIV can also be a very real outcome arising from food assistance agency interaction with communities.

It is important to determine the agency's and employees' level of exposure and understanding with respect to the spread of HIV, both internally and in the broader community. Many food assistance staff still lack correct, relevant and up-to-date information—or confidence in their information—about HIV, opportunistic infections, treatment and risk of transmission. When working in a context that is influenced by HIV, educating staff is a responsibility of all food assistance agencies, irrespective of whether they are providing HIV-related services.

Identify a Focal Point for the Organization and Build Partnerships

Appointing a staff person or committee to serve as focal point for handling all organization HIV-related activities brings accountability and focus to the process. These individuals should have authority over activities and be given direct line of communication with senior management. In some cases, a committee may be needed to enhance coordination and ownership of the program.

Partnership with other stakeholders in food assistance operations may be helpful to design and implement focused programs, leverage resources, learn from the experience of others and ensure independence and confidentiality of employees' condition and care. The focal points can represent the agency in multi-stakeholder forums with implementing partners, transporters and community representatives.

Raise Organization and Implementing Partner Awareness of HIV

A number of food assistance agencies have implemented awareness programs involving IEC activities that offer facts about HIV transmission, promote preventive measures and seek to de-stigmatize the disease. Awareness activities should inform employees and partners about risks and educate them how to minimize their exposure.

In addition, food assistance staff occasionally have said they feel ill-equipped to address HIV-related issues raised by the community in relation to food programming.²¹ Especially where food insecurity and high HIV prevalence intersect, staff may find that the need for assistance outstrips their ability to provide it.

Training can help address these issues. In particular, regular training aimed at staff from all sectors and in both development and relief contexts is essential to ensure that food programming benefits from cross-sectoral exchange and learning about HIV. Trainings, technical briefings and new-employee programs should provide technical updates, facilitate internal networking and information-sharing between NGO staff, provide insight into capacities and expertise, and facilitate external networking and information-sharing to connect NGO managers with relevant government strategies and other stakeholders' work.

Staff Training in the Prevention of Sexual Exploitation and Abuse

In Zimbabwe, UNFPA—in collaboration with WFP—trained 379 relief committees at 79 food distribution points in 2004 to provide counseling to communities on HIV/AIDS prevention, sexual exploitation and abuse.

Relief committees have shared the information with the rest of their communities during food distributions with the help of their Cooperating Partners.

Key Considerations for Designing Prevention Education for Food Assistance Support Staff

Several high-risk groups, including dock workers, transporters, military food escorts and merchants, are closely associated with the delivery of food assistance in areas of high HIV prevalence. As a result, the community may consider the workers to be agency employees, leaving the agencies with a social responsibility to address the issue.

However, these groups are hard to reach through standard health delivery services and not commonly targeted for HIV education interventions (and therefore have relatively little knowledge about HIV issues). Program managers should explore implementing HIV education activities for these groups to ensure that their efforts to assist affected populations are also helping to prevent the disease, with these considerations in mind:

Prevention education needs. Target group prevention education needs will differ according to level of awareness, work-related exposure to local populations and other factors. In the case of truckers, dock workers and military personnel, most agree that HIV education and access to condoms are both critical components of an HIV workplace policy.

Management buy-in. Managers can play a critical role in removing barriers to employees' participation in training at all levels. This is relevant to any setting that targets employees. For instance, a key reason truckers and dock workers did not attend training when it was offered by WFP in its transport corridor initiative was that they did not want to miss out on a whole day's salary.

Institutionalizing processes and services. Whenever possible, ensure that training and sensitization of workers is supported by relevant policies, procedures and guidelines. These can cover a number of issues such as organizing condom distribution or leave provisions for dealing with discrimination. Ensure, also that these are consistent with the organization's pre-existing structures and mechanisms, as well as with any relevant local and national statutes.

Adequate resourcing. Success in BCC programming depends heavily on providing follow-up training and services, and monitoring the progress of those targeted for behavior change. This requires intentional planning and resource allocation.

Sustainable tools and approaches. Use low-cost creative tools and approaches (peer educators, HIV technical working groups, buy-in from business and industry) to ensure sustainability and replicability.

Consultation with stakeholders and partners. Undertake a consultative approach with all stakeholders and partners to ensure that initiatives are appropriately focused.

Additional information on providing prevention education to transport workers is available from *Getting Started: WFP Support to HIV/AIDS Training for Transport and Contract Workers* (2006) available at www.wfp.org/food_aid/doc/HIV_Training_Transporters.pdf.

Highly mobile populations generally experience greater vulnerability to HIV infection. A 2002 study found an HIV prevalence rate of 56 percent in truck drivers and sex workers along the main highway from Durban north to Zimbabwe and concluded that "truck drivers may have facilitated the spread of HIV infection throughout southern Africa."²²

Public-Private Partnerships Seek to Curb HIV's Spread in Transport Sector

In southern Africa, TNT, the global express mail company, WFP and Ikaheng, a South African company that manages 12 roadside Wellness Centers for truckers formed a partnership to expand the Wellness Center network.

Wellness Centers provide truckers with HIV education, counseling, condoms, treatment for STIs, primary healthcare and referrals to HIV testing and treatment. Based on the model established by South Africa's National Bargaining Council for the Road Freight Industry and the Road Freight Association, Wellness Centers are housed in low-cost, portable containers

situated in places where truckers congregate, such as the border post and WFP warehouse, and are open at hours convenient for the drivers. The centers are staffed with a clinician and an outreach worker; they also use peer educators who speak to drivers in the truck park.

Working with other international agencies, local government and business associations, the partners opened their first two Wellness Centers in Malawi in 2005 and one in Swaziland in 2007. The partners plan to open 10 to 12 others in sub-Saharan Africa by 2010.

Endnotes

- 1 John Service, Catholic Relief Services (CRS)—Zambia, C-SAFE, personal communication, July 12, 2006.
- 2 Linda Lovick, CRS Zambia, personal communication, March 2006.
- 3 Francesca Erdelmann, World Food Programme (WFP)—Mozambique, personal communication, April 5, 2006.
- 4 Purnima Kashyap, WFP—Uganda, personal communication, July 20, 2006.
- 5 Purnima Kashyap, personal communication.
- 6 Purnima Kashyap, personal communication.
- 7 John Service, personal communication.
- 8 John Service, personal communication.
- 9 Purnima Kashyap, personal communication.
- 10 John Service, personal communication.
- 11 John Service, personal communication.
- 12 TANGO International. *Food Aid Programming in the Era of HIV/AIDS—Regional Consultative Meeting. Synthesis Report*. Report of the FANTA/WFP Regional Consultative Meeting in Johannesburg, South Africa, April 3–5, 2006. Tucson: TANGO, 2006.
- 13 Francis Mbilima, WFP—Zambia, personal communication, February 7, 2007.
- 14 Francesca Erdelmann, personal communication.
- 15 Francis Mbilima, personal communication.
- 16 Francis Mbilima, personal communication.
- 17 United Nations High Commissioner for Refugees (UNHCR) and World Food Programme (WFP). *Integration of HIV/AIDS Activities with Food and Nutrition Support in Refugee Settings: Specific Programme Strategies*. Geneva: UNHCR, 2004.
- 18 Ibid.
- 19 Ibid.
- 20 C-SAFE. “Why Develop a Policy?” available at http://www.c-safe.org/learningcentre/hiv_staff-policy.htm (accessed October 2006).
- 21 C-SAFE. *C-SAFE HIV/AIDS Newsletter*. Johannesburg: C-SAFE, 2005.
- 22 Ramjee, G., and Gouws, E. “Prevalence of HIV among Truck Drivers Visiting Sex Workers in Kwa Zulu-Natal, South Africa,” *Sexually Transmitted Diseases* 29(1) (2002): 44–49.

