

# Food Assistance Programming In the Context of HIV



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Part I. HIV and Food Security:  
Conceptual and Institutional Framework

Part II. Program Design Steps

Part III. Sector-Specific Program  
Design Considerations



# Table of Contents

<b>Acknowledgments</b>	<b>i</b>
<b>List of Acronyms and Abbreviations</b>	<b>ii</b>
<b>Foreword</b>	<b>v</b>
<b>Introduction</b>	<b>vii</b>

## Part I. HIV and Food Security: Conceptual and Institutional Framework

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<b>Chapter 1. Conceptual Framework</b>	<b>I</b>
1.1 Basic Concepts: HIV, Food Security, Vulnerability and Livelihood Security	4
1.2 Understanding the Relationship Between HIV and Food Insecurity	13
1.3 Implications for Food Assistance Programming in Response to HIV	15
<b>Chapter 2. Policy and Program Environment</b>	<b>21</b>
2.1 International Food Security and HIV Goals	24
2.2 International Agencies' Response to Food Insecurity and HIV	25
2.3 Program Coordination Mechanisms	30
2.4 International and National Resource Coordination Mechanisms	34
2.5 Challenges in Coordinating Resources for an Integrated Response	35
Annex 1: UNAIDS Co-Sponsoring Organizations' Roles in the UN's Response to HIV	37
Annex 2: Additional Resources on Food Security and HIV Policy and Program Strategy	39

## Part II. Program Design Steps

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<b>Chapter 3. Vulnerability Assessments</b>	<b>43</b>
3.1 Conducting Food Security Vulnerability Assessments in the Context of HIV	46
3.2 Adapting Vulnerability Assessments in the Context of HIV	47
3.3 Steps for Conducting Vulnerability Assessments	54
3.4 Minimum Vulnerability Assessment Requirements to Design HIV Programs	64
3.5 Approaches and Tools for Vulnerability Assessments	65
Annex 1: Standard Format for a Vulnerability Assessment Report	69
<b>Chapter 4. Adaptive and Integrated Programming</b>	<b>73</b>
4.1 Program Characteristics	76
4.2 Food Security Program Design Considerations	77
4.3 HIV Program Design Considerations	79
4.4 Accounting for the Changing Needs of HIV-Affected Individuals and Households	81
4.5 Challenges and Considerations in Developing Integrated Programs	83
Annex 1: CRS HIV/AIDS Analysis Tool: Checklist for Adapting Food for Assets Programming to an HIV/AIDS Context	87

<b>Chapter 5. Targeting</b>	<b>89</b>
5.1 Targeting Food Assistance in Areas of High HIV Prevalence	92
5.2 Adapting Food Assistance Targeting Approaches and Tools	97
5.3 Promising Practices	102
Annex 1: WFP Zambia Targeting Tool: Food Security Screening Form	104
Annex 2: C-SAFE Zambia Targeting Tool: Household Food Security Appraisal Form	107
Annex 3: PCI Zambia Targeting Tools: Initial Home Visit, Monitoring Visit, and Reassessment Food Security Screening Forms	110
<b>Chapter 6. Ration Design</b>	<b>121</b>
6.1 Challenges and Considerations for Ration Design in an HIV Context	124
6.2 Key Steps for Ration Design in an HIV Context	125
6.3 Special Issues for Ration Design in an HIV Context	131
Annex 1: Additional Resources for Ration Design	132
<b>Chapter 7. Implementation Strategies</b>	<b>135</b>
7.1 Implementing Food Programs in an HIV Context	138
7.2 Community Mobilization and Participation	138
7.3 Existing Programming and Complementary Inputs	141
7.4 Developing Partnerships	143
7.5 Intersectoral Referral Mechanisms	145
7.6 Scaling Up Programming	147
7.7 Sustainability and Exit Strategies	149
Annex 1: WFP Capacity Analysis Match	156
<b>Chapter 8. Monitoring and Evaluation</b>	<b>159</b>
8.1 Considerations in M&E for Food Assistance Programs in an HIV Context	162
8.2 Key Elements of M&E for Food Assistance Programs in an HIV Context	163
8.3 Challenges of M&E for Food Assistance Programs in an HIV Context	174
Annex 1: Food Access Indicators	177
Annex 2: ECOG (Zubrod) Scale	178
Annex 3: WHO Disease Stages of HIV/AIDS	179
Annex 4: MOS-QOL Questionnaire for HIV-Infected Individuals	180
<b>Chapter 9. Operational Modalities</b>	<b>183</b>
9.1 Challenges and Considerations in Budgeting in an HIV Context	186
9.2 Addressing Budget Limitations and Challenges	189
9.3 Food Resource Supply Chain Management	191
9.4 Food Distribution Mechanisms and Operation	193
9.5 Adapting Food Distribution Methods	197
9.6 Workplace HIV Policy and Prevention Education for Food Assistance Support Staff	202

## Part III. Sector-Specific Program Design Considerations

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<b>Chapter 10. Health and Nutrition</b>	<b>209</b>
10.1 Food Aid-Funded Health and Nutrition Programming in a High HIV Prevalence Context	212
10.2 Integrating Food and Nutrition Interventions Into HIV Programming	216
10.3 Challenges and Considerations for Food and Nutrition Programming in the HIV Context	221
10.4 Critical Gaps in Knowledge	223
Annex 1: Additional Resources on Health and Nutrition	225
Annex 2: AMPATH Tool for Determining PLHIV Eligibility for Food	226
<b>Chapter 11. Education</b>	<b>231</b>
11.1 Rationale for Integrating HIV and Food-Assisted Education Programming	234
11.2 Responding to HIV in Pre-Primary and Primary School Settings	236
11.3 HIV and Non-Formal Education for Children and Youth	239
11.4 Integrating HIV Into Adult Education	241
11.5 HIV and Nutrition Education	242
Annex 1: Additional Resources on Food for Education and HIV	245
<b>Chapter 12. Livelihood Strategies and Social Protection</b>	<b>247</b>
12.1 Food-Assisted Livelihood Programs in the Context of HIV	250
12.2 Incorporating FFA Activities	254
12.3 Strengthening Safety Nets for OVC and Other High-Risk Groups	256
12.4 Designing Effective HIV-Related Social Protection Programs	260
Annex 1: Additional Resources on Livelihood Programming in the Context of HIV	263
<b>Chapter 13. Emergency Response</b>	<b>265</b>
13.1 Applying an HIV Lens to Emergency Food Assistance Programs	268
13.2 Programming Emergency Food Assistance in High HIV Prevalence Contexts	271
Annex 1: Additional Resources on Food Assistance and HIV in Emergency Settings	277

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# List of Acronyms and Abbreviations

ADL	activities for daily living
AFASS	acceptable, feasible, affordable, sustainable and safe
AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral
BMI	body mass index
BCC	behavior change communication
C-SAFE	Consortium for Southern Africa Food Security Emergency
CBO	community-based organization
CBCC	community-based child center
CBT	community-based targeting
CCA	Common Country Assessment
CCM	Country Coordinating Mechanism
CD4	helper T-cell of the human immune system
CDD	community-driven development
CHBC	community home-based care center
CHS	Community and Household Surveillance
CHW	community health worker
CIDA	Canadian International Development Agency
CRS	Catholic Relief Services
CS	Cooperating Sponsor
CSB	corn soy blend
CSI	coping strategies index
CMAM	community-based management of acute malnutrition
DA	Development Assistance
DAC	district AIDS committee
DFID	UK Department of International Development
DHS	Demographic and Health Surveys
EC	European Commission
ECHO	European Commission – Humanitarian Aid Department
ECOG	Eastern Cooperative Oncology Group
EDP	extended delivery point
EU	European Union
EUM	end-use monitoring
FANTA	Food and Nutrition Technical Assistance Project
FAO	United Nations Food and Agriculture Organization
FBO	faith-based organization
FCS	food consumption score
FDP	final distribution point
FFA	food for assets
FFE	food for education
FFP	USAID's Office of Food for Peace
FFT	food for training
FFW	food for work
FH	Food for the Hungry
FHI	Family Health International
FLA	field-level agreement

GFD	general food distribution
GIPA	greater involvement of people with HIV and AIDS
GMO	genetically modified organisms
GMP	growth monitoring and promotion
GTZ	German Society for Technical Cooperation
H/A	height-for-age
HAART	highly active antiretroviral therapy
HACI OVC	Hope for African Children Initiative, Mozambique
HBC	home-based care
HDDS	household dietary diversity score
HEPS	high energy protein supplement
HFIAS	household food insecurity access scale
HHS	US Department of Health and Human Services
HIV	human immunodeficiency virus
HRQOL	health-related quality of life
IASC	United Nations Interagency Standing Committee
IDP	internally displaced person
IMCI	Integrated Management of Childhood Illness
IEC	information, education and communication
IFPRI	International Food Policy Research Institute
ILO	United Nations International Labour Organization
IMCI	Integrated Management of Childhood Illness
LANFE	Lesotho Association of Non-Formal Education
LBW	low birth weight
LLPPA	local level participatory planning approach
M&E	monitoring and evaluation
MAP	multi-country HIV/AIDS program
MAHFP	months of adequate household food provisioning
MCH	maternal and child health
MCHN	maternal and child health and nutrition
MDG	Millennium Development Goal
MERET	Managing Environmental Resources to Enable Transitions
MICS	multiple indicator cluster surveys
MOE	Ministry of Education
MOU	Memorandum of Understanding
MUAC	mid-upper arm circumference
NAC	National AIDS Commission
NASCOP	National HIV/AIDS and STD Control Program, Kenya
NEC	nutrition education and counseling
NGO	non-governmental organization
O/GAC	Office of the U.S. Global AIDS Coordinator
ORS	oral rehydration solution
OVC	orphans and vulnerable children
PCI	Project Concern International
PDM	post-distribution monitoring
PEPFAR	United States President's Emergency Plan for AIDS Relief
PL	positive living
PLHIV	people living with HIV
PMTCT	preventing mother-to-child transmission
PRA	participatory rural appraisal
PRRO	protracted relief and recovery operation

PRSP	Poverty Reduction Strategy Paper
PSI	Population Services International
QOL	quality of life
RC	Relief Committees
RDA	recommended daily allowance
RH	reproductive health
RHM	rural health motivator
RUTF	ready-to-use therapeutic food
SCN	United Nations Standing Committee on Nutrition
SES	socioeconomic status
SFP	supplemental feeding program
SGBV	sexual and gender-based violence
STEPs	Scaling up HIV Interventions through Expanded Partnerships
STI	sexually transmitted infection
TASO	The AIDS Support Organization, Uganda
TB	tuberculosis
TB-DOTS	tuberculosis treatment (directly observed treatment, short-course)
TFP	therapeutic feeding program
THRs	take-home rations
Title II	United States Public Law 480 Title II development food aid program
TOT	training of trainers
TSA	The Salvation Army
UN	United Nations
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
USG	United States Government
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VAC	village AIDS committee
VAM	vulnerability analysis and mapping
VCT	voluntary counseling and testing
W/A	weight-for-age
WFP	United Nations World Food Programme
WFS	World Food Summit
W/H	weight-for-height
WHO	United Nations World Health Organization
WIC	USDA's Special Supplemental Nutrition Program for Women, Infants, and Children (US-based)
WSB	wheat soy blend
WV	World Vision

# Foreword

There is increased acknowledgment in the development community of the links between food insecurity and HIV, and the corresponding need to integrate food and nutritional support into a comprehensive response to the epidemic. In areas of high HIV prevalence,<sup>A</sup> many food assistance agencies have recognized the need to adjust conventional food assistance interventions to respond to vulnerabilities related to HIV's impact on individuals, households and communities.

Efforts to effectively respond to food insecurity and HIV are hindered by the lack of both documented, sector-based promising approaches and field-level evidence on appropriate food assistance interventions in the context of HIV. To address these challenges, the Food and Nutrition Technical Assistance (FANTA) Project, working with Technical Assistance to NGOs (TANGO) and funded by the United States Agency for International Development (USAID) and the World Food Programme (WFP), has developed this guide on Food Assistance Programming in the Context of HIV.

## Why Was the Guide Developed?

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The goal of the guide is to improve capacity to design and implement food assistance programs in the context of HIV by providing a set of tools, promising practices and key considerations that enhance the flexibility and appropriateness of program design and implementation modalities. The guide strives to answer these core questions:

1. How can food aid-supported food security programs modify their design and implementation to account for the constraints and needs faced by people living with HIV (PLHIV) and HIV-affected households and help achieve food security outcomes in a high-prevalence context?
2. How can HIV prevention, treatment, and care and support programs better utilize food and food-related resources to help achieve their HIV-related outcomes?
3. How can food security and HIV programs integrate their activities in areas of high food insecurity and high HIV prevalence to maximize complementarities and synergy without compromising the core objectives of either program?

## Who Is the Guide for?

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The principal audience for Food Assistance Programming in the Context of HIV includes WFP regional and country offices, WFP implementing partners, USAID regional and country Mission Offices of HIV and Food for Peace (FFP), as well as Title II Cooperating Sponsors (CSs), and other governmental and non-governmental organizations that use food assistance to save lives, provide nutrition care and support and enhance resilience and adaptive capacity among food-insecure households and those affected by HIV. The guide is written for program directors, program advisors and senior program managers who are directly involved in the analysis and formulation of food assistance strategies and country program activities at HQ and in regional and field offices.

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A The term "high prevalence" is used throughout this guide. It is analogous to the concept of a **generalized epidemic** of HIV. HIV is commonly understood to reach the status of a generalized epidemic where over five percent of high-risk groups and over one percent of pregnant women are HIV-positive.

Particularly in areas where food insecurity and HIV prevalence are high, the guide will help these decision makers respond to the challenges posed by the epidemic through design and implementation of food assistance strategies that are appropriate for managing the interactions among HIV, food security, livelihoods and nutrition.

## How Should the Guide Be Used?

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The guide is intended to help decision makers ask the right questions about the relevance, appropriateness, effectiveness and impact of food security programs in an HIV context, as well as help them integrate food and nutrition interventions into HIV programs. The guide addresses food security vulnerability assessments, targeting, activity design, program implementation and operational challenges associated with food assistance in the context of HIV.

The guide builds upon what has been learned through WFP and USAID Title II experience with food security and food assistance programs in areas affected by HIV. It discusses complex programmatic and operational strategies, and presents examples of sector-specific approaches that have shown positive results among the most vulnerable individuals, households and communities.

## How Is the Guide Organized?

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### **Part I. HIV and Food Security: Conceptual and Institutional Framework**

Part I describes the food security conceptual framework, which should be used as the basis for all food assistance interventions. Part I outlines currently known and accepted linkages between food security, livelihoods and HIV; explains food assistance's potential role in addressing related vulnerabilities; and discusses international and national food security and nutrition policies, goals and program resources and mechanisms relevant to food assistance and HIV programs.

### **Part II. Program Design Steps**

Part II provides guidance on the full range of conventional project design steps, with a focus on the specific implications of food assistance programming in HIV-affected areas and populations.

### **Part III. Sector-Specific Program Design Considerations**

Part III reviews the design and implementation of interventions for key sectoral categories, identifies tools and promising practices, and provides key considerations for addressing specific challenges in the context of HIV.

# Introduction

Since its onset, the HIV epidemic has magnified the already significant problems caused by poverty, food insecurity, gender inequality and weak governance in developing countries. During this same period, social services in the worst-affected countries have withered or become less affordable, incomes and formal employment levels have plunged, and wars and large-scale population migration have disrupted social stability. Meanwhile, life-threatening diseases other than HIV, such as tuberculosis and malaria, have been on the rise, directly affecting institutions' ability to provide quality health care. Meanwhile, amid these multiple threats to human security, HIV has contributed to the continued deterioration of living conditions, especially among the poor.<sup>1</sup>

The past two decades have revealed a complex, bi-directional relationship between food security and HIV. Illness and death resulting from the disease have an immediate impact on food security by limiting household income and food production. At the same time, food insecurity and poverty fuel the further spread of HIV when people are driven to adopt immediate survival strategies that make them more vulnerable to HIV infection. Food security is also compromised by HIV because of the specific nutritional requirements of those infected by the disease. Not only do people living with HIV (PLHIV) require greater energy intake from foods, they often experience difficulty in digesting it. Access to adequate nutrition is critical to the health of infected individuals, including those receiving antiretroviral therapy (ART). Finally, the combined impacts of food insecurity and HIV place further strain on already limited household resources as affected family members struggle to meet household food needs while paying for care, treatment and support of infected members.

The enormity of these impacts and the complexity of the bi-directional relationship between food security and HIV are highlighted by these statistics:

- ▶ Since the emergence of the virus, more than 60 million people worldwide have been infected and over 20 million have died.<sup>2</sup>
- ▶ The Joint United Nations Programme on HIV/AIDS (UNAIDS) estimates that as of 2005, there were between 33 million and 46 million individuals living with HIV and that the vast majority of those infected live in developing countries.<sup>3</sup>
- ▶ It has been estimated that each case of HIV directly affects about four other people, meaning the HIV epidemic is affecting millions of people beyond those who are infected.<sup>4</sup>
- ▶ As of 2003, 32 percent of the population of sub-Saharan Africa (206 million individuals) is undernourished, representing nearly one-quarter of all the undernourished people in the world.<sup>5</sup>
- ▶ Sub-Saharan Africa is home to 11 percent of the world's population but faces the burden of caring for nearly two-thirds of global HIV cases.
- ▶ Nearly 14 million Africans have already died as a direct result of the epidemic; by 2020 most of the 25 million people living with HIV will have died as well.<sup>6</sup>
- ▶ Current estimates by UNAIDS suggest that 5.7 million people are living with HIV in India and as many as one million individuals are infected in China.<sup>7</sup>
- ▶ Asia will overtake sub-Saharan Africa in absolute numbers of people infected with HIV before 2010 and will be the HIV epicenter by 2020.<sup>8</sup>

Still, it is important to note that this bi-directional relationship can be positive as well as negative. While it often accelerates a downward spiral into further poverty and deprivation for poor households, it may also present opportunities to help arrest and reverse this descent. For example, food assistance plays a vital role as a safety net for protecting productive assets of HIV-affected households and has helped increase adherence to ART among infected individuals.<sup>9-13</sup>

Primarily perceived as a public health crisis in the early stages of its evolution, the HIV epidemic is now widely acknowledged as having contributed to the deterioration of human, financial, social, political and cultural resources at the household, community, regional and national levels throughout much of Africa. For this reason, growing emphasis is being placed on developing multisectoral responses to food insecurity and HIV that incorporate both short- and long-term perspectives on increasing resiliency. This approach requires effective coordination of multiple interventions that provide for the immediate needs of HIV-infected individuals and affected households while ensuring that they have the skills and assets needed to achieve long-term food security. Specific steps in designing effective, multisector food assistance programs for implementation in high-prevalence settings are presented throughout this guide.

The challenges in designing effective food assistance programs in the context of HIV arise from the fact that the impacts of the disease are pervasive, systemic and dynamic.<sup>14, 15</sup>

## Endnotes

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# Chapter 1: Conceptual Framework

## HIV and Food Security: Conceptual and Institutional Framework

# Chapter 1: Conceptual Framework

## HIV and Food Security: Conceptual and Institutional Framework

### Key Concepts

- 1.1 Basic Concepts: HIV, Food Security, Vulnerability and Livelihood Security
- 1.2 Understanding the Relationship Between HIV and Food Insecurity
- 1.3 Implications for Food Assistance Programming in Response to HIV

## In This Chapter

This introductory chapter focuses first on the basic concepts underlying the human immunodeficiency virus (HIV), food security, vulnerability, and livelihoods. These concepts include definitions of food availability, food access and food utilization, which are critical to achieving food security. The chapter also discusses vulnerability, risk and resilience, which are critical to understanding the dynamic relationship between food insecurity and HIV. A major factor in the conceptual understanding of HIV is the disease's impact on livelihoods, which is in turn a key determinant of the level of food security that communities, households and individuals achieve.

The chapter then further explains the relationship between food insecurity and HIV, emphasizing the vicious cycle that often is created when HIV infection leads to deterioration of nutritional status and immune function among food-insecure individuals.

Chapter 1 concludes with a discussion of the implications of the relationship between food insecurity and HIV for the development of integrated food assistance and HIV programs, including a clarification of program objectives and targets.

# Basic Concepts: HIV, Food Security, Vulnerability and Livelihood Security

A number of basic definitions are important for a good conceptual understanding of the dynamic relationship between food security and HIV.

## HIV and AIDS<sup>A</sup>

HIV attacks the immune system. It is spread through sexual contact, direct inoculation with contaminated needles or blood transfusion. It can also be spread from mother to child during pregnancy, birth or breastfeeding. Left untreated, HIV compromises immune system function, leaving the infected person susceptible to a variety of opportunistic infections. Acquired immunodeficiency syndrome (AIDS) is an advanced stage of HIV, clinically defined by the presence of HIV infection and a low level of white blood cells or T-cells.<sup>1</sup>

## Food Security

Food security occurs when “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preference for an active and healthy life.”<sup>2,3,4</sup>

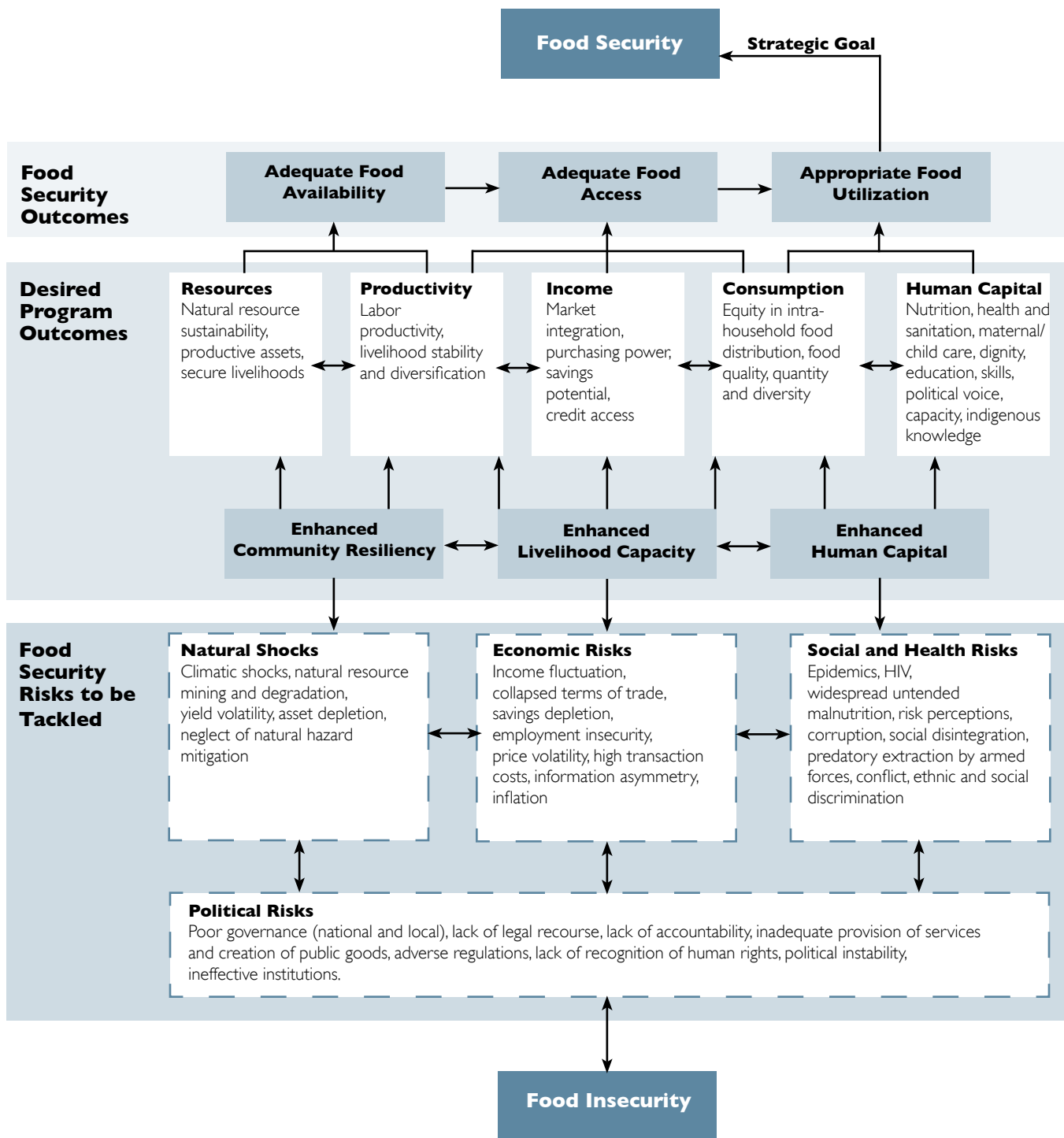
A food-secure household is one in which all household members are well-nourished.

This definition of food security is founded on three fundamental elements: adequate food **availability**, adequate **access** to food and appropriate food **utilization**. Figure 1 depicts critical linkages between food security outcomes, program outcomes and potential risks. The framework suggests a hierarchical relationship where food security results from adequate food availability and access, as well as proper food utilization.

- ▶ Food **availability** is derived from domestic agricultural output and net food imports at the national level. In the context of HIV, food availability tends to be impaired by production failures related to labor constraints, gender inequality in land tenure and loss of productive assets needed to sustain household food production.
- ▶ Food **access** refers to the household’s ability to get food in the marketplace or from other sources (transfers, gifts, etc.). Food **access** depends largely on household purchasing power, which varies in relation to market integration, price policies and temporal market conditions. In the context of HIV, affected households and infected individuals may be too ill or overburdened to earn money to buy food, and they may have limited access to community networks, markets and trade associations because of stigmatization.
- ▶ Food **utilization** is determined by food safety and quality, how much a person eats and how well a person converts food to energy, all of which affect proper biological use of food, nutritional status and growth. Adequate food utilization requires a diet providing sufficient energy and essential nutrients, potable water, adequate sanitation, access to health services and proper feeding practices and illness management. (See Figure 2 for a commonly used conceptual framework expanding the relationship among food

A Except in the case of proper nouns, this document has adopted the recommended terminology in the UNAIDS Editors’ Notes for Authors (August 2006). In place of HIV/AIDS, HIV is used to refer to the virus and its impacts and AIDS to the clinical diagnosis or cause of death. PLHIV is the preferred terminology rather than other variants PLHA or PLWHA.

Figure 1: An Expanded Conceptual Framework for Understanding Food Insecurity



Source: Webb and Rogers, *Addressing the "In" in Food Insecurity*, 2003.

access, utilization and nutrition.) In the context of HIV, food utilization among members of affected households is impaired by insecure access to a good quality diet, difficulties in accessing health services, lack of knowledge about appropriate child feeding and care practices and lack of time to provide proper child care, inability to breastfeed and lack of resources for appropriate replacement feeding, and discrimination against women in controlling resources. Food utilization is often further compromised among people living with HIV (PLHIV) due to higher energy requirements, increased susceptibility to food- and water-borne infections and the effects of opportunistic infections.

It is also important to distinguish between **chronic** and **transitory** food insecurity. Chronic food insecurity is a long-term or persistent inability to meet minimum food consumption requirements, while transitory food insecurity is a short-term or temporary food deficit.<sup>5</sup>

## Vulnerability to Food Insecurity

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Strategies to reduce food insecurity have been largely aimed at improving food availability, access and utilization among those who are already food-insecure, largely because of the obvious need to prioritize food assistance provided through emergency and relief interventions to those with the most immediate need. It may be a significant challenge to address the needs of households that are food-secure now but are using coping strategies that may compromise their food security later. Such scenarios point to factors that are often missing in analyses of food and livelihood security: **vulnerability** and **resilience**.

Hazards can be natural, as in the case of earthquakes and illness, or man-made, as in the case of unemployment, degradation, policy changes and war.

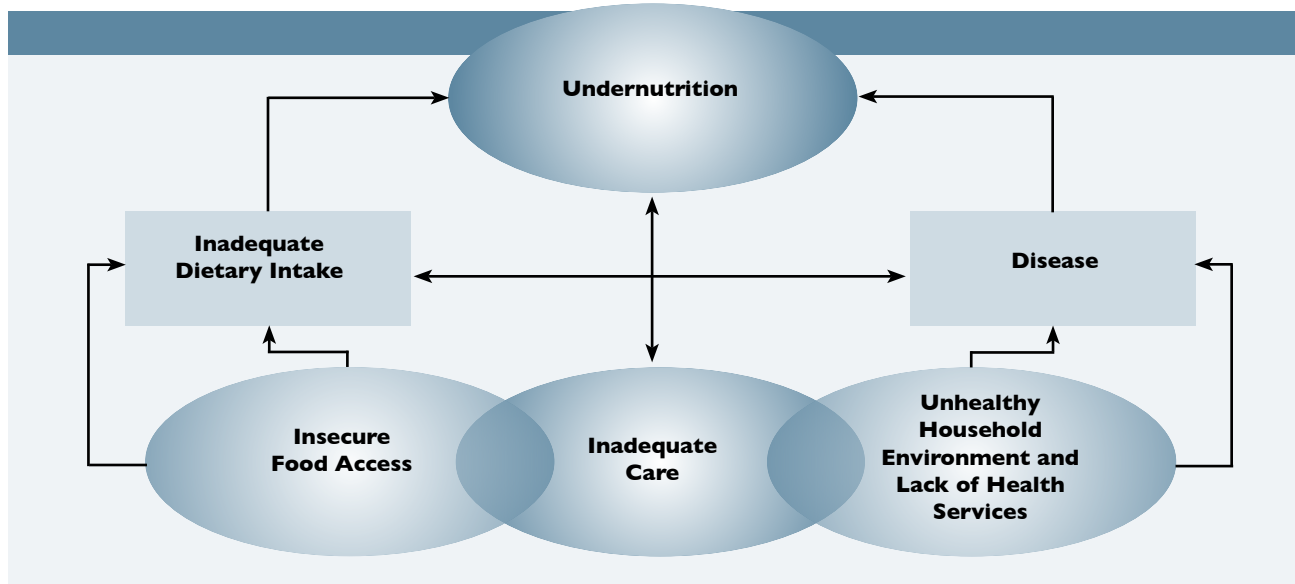
Vulnerability can be defined as the exposure and sensitivity to livelihood shocks, a concept that begins with the notion of **risk**.<sup>6</sup> Individuals, households, communities and even nations face multiple hazards from different sources. Risks are the combination of the probability or frequency of occurrence of a defined hazard and the magnitude of the consequences.<sup>7</sup> Hazards often cannot be prevented, and if they materialize, can generate a shock that hurts individuals, households and communities in both predictable and unpredictable ways.<sup>8</sup>

The degree of vulnerability depends on the nature of the risk and a household's **resilience**, or "ability to bounce back or recover after adversity or hard times, to be capable of building positively on these adversities."<sup>9</sup> A household's resilience often is related to:

- ▶ The magnitude of the shock that a household or community can absorb and remain viable
- ▶ How well a household or community can self-organize after the exposure to the hazard to maintain an acceptable level of functioning and structure
- ▶ How well a household or community can learn from these difficult circumstances and adapt
- ▶ The household's characteristics, notably its assets and livelihood strategies

Vulnerability can be lessened by 1) reducing exposure to risks of shocks that affect many people (e.g., frequent droughts) or shocks that affect individuals or households (e.g., the death of the household head) and/or 2) increasing the ability to manage shocks.<sup>10</sup> However, chronically food-insecure households often are not resilient to shocks and are continuously vulnerable. While food security interventions often seek to build resilience in food-insecure communities, this is even more challenging in the context of HIV because of the disease's progressive nature. In the context of HIV, food assistance programming should strive to

**Figure 2: Availability, Access and Utilization—The Relationship Between Inadequate Food Access at the Household Level and Undernutrition**



Adapted from UNICEF, *Strategy for Improved Nutrition of Children and Women in Developing Countries*, 1990.

enhance the resilience of affected communities, households and individuals. The information throughout this guide can give food assistance program managers ideas on how to enhance community and household resilience.

The conceptual framework presented in Figure 1 adds the dimension of vulnerability and risk to the three elements of food security. This framework shows the risks that constrain or threaten food availability, access and utilization. The basic food security framework is presented in the upper part of the diagram, with the desired food security outcomes leading to the goal of improved food security. The major risks that must be tackled to achieve food security and their links to the desired program and food security outcomes are at the bottom of the framework.<sup>11</sup>

HIV-induced food security shocks differ from other shocks and cannot be addressed the same way droughts and other natural disasters can. HIV significantly undermines a household's ability to provide for basic needs because HIV-infected adults may be unable to work, reducing food production and/or earnings. Healthy family members, particularly women, are often forced to stop working to care for sick relatives, further reducing income for food and other basic needs. The households may have trouble paying costs associated with health care and nutritional support. They also may be severely restricted in participating in community activities. Children may be withdrawn from school because families cannot afford school fees because of the need for the children to care for ill relatives. This affects the opportunities for future generations.<sup>12</sup>

The framework in Figure 1 has a strong link to livelihood frameworks that many development agencies use (see the Livelihood Security section and Figure 3 later in this chapter). The impact of HIV on all aspects of people's livelihoods calls for integrated approaches to address the epidemic.

## Vulnerability to HIV

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In the past, the public health understanding of HIV has been dominated by the notion of individual risk—a confluence of cognitive, attitudinal and behavioral factors that operate at the individual level.<sup>13</sup> Efforts to control the transmission of HIV focused on individual behavioral change. More recently there has been a shift from this approach to an awareness of how broader contextual factors converge to shape the complex environment in which individual behavior takes place. It is now recognized that socio-cultural, economic and political realities fundamentally shape individual risk, significantly limiting individual choices and options for risk reduction. Public health officials now recognize that broadening the scope of HIV interventions requires new collaboration across multiple sectors and disciplines.

In southern Africa overall, the marginal probability of dying from disease and AIDS-related causes rises steeply from age 15, peaking at 30 to 34 for females, and 50 to 54 for males.<sup>14</sup>

### Urban Versus Rural Vulnerability to HIV

At its onset, the HIV epidemic was generally understood to be a predominantly urban concern. It was also initially observed that the disease affected more men than women and was more common among those with relatively high incomes. However, there is growing concern over HIV's rural impacts due to dynamic patterns of migration and trade, the movement of refugees and other rural-urban linkages.

Recent experience suggests that the epidemic likely has a disproportionate impact on rural agricultural communities given the generally fragile state of smallholder farming and the difficulties rural households face when they lose productive laborers. The burden of the epidemic also affects rural areas when HIV-affected urban adults send children back to their villages of origin or return themselves when they become seriously ill. In many such cases, the costs of long-term care and support for the extended family are increasingly borne by rural communities.<sup>15</sup>

Urban areas in countries highly affected by HIV maintain relatively higher rates of prevalence than rural areas, by most estimates.<sup>19</sup>

The differences in urban and rural livelihood strategies also have important implications for households vulnerable to food insecurity and HIV. In urban wage-based economies, poor households often borrow from informal sources or draw down savings to cope with a shock to livelihoods. When these fail, they may use riskier ways to generate income. Men may turn to migrant labor or long-distance transportation work, while women may engage in transactional sex to provide for the household.<sup>16, 17, 18</sup> In rural areas, households often try to meet growing expenses for food, HIV treatment or funerals by selling their assets, encouraging members to migrate to urban areas to find work or relying on child labor, often at the expense of school. In both urban and rural settings, household vulnerability to HIV is increased, setting up a dynamic in which responses to immediate needs compromise the prospect of long-term food and livelihood security.

### Gender Issues

To understand the challenges of addressing food insecurity in the context of HIV, it is critical to note that women, especially young women, are more susceptible to acquiring HIV than men for several reasons:

- ▶ Immature genital tracts and high rates of asymptomatic untreated sexually transmitted infections (STIs) make young women more susceptible to acquiring HIV.

- ▶ Women are more likely to receive blood transfusions than men because of higher rates of anemia and complications during childbirth.
- ▶ Women may resort to transactional sex to provide for their families during acute food shortages.
- ▶ During civil unrest and violent conflict, women and girls could be sexually exploited by soldiers and/or militants.
- ▶ Many cultural practices allow men to have multiple sexual partners and make it difficult for a woman to insist on safe sexual practices, including asking a man to wear a condom.

Women often suffer heightened impacts of HIV and food insecurity due to specific nutritional issues:

- ▶ Women who are pregnant or breastfeeding have increased nutritional needs, which often go unmet in food-insecure environments and can be even more challenging to address in the context of HIV.<sup>21, 22</sup>
- ▶ Malnutrition increases the viral load in the blood stream which increases the possibility of HIV-positive pregnant women passing the virus on to their infants.<sup>23, 24</sup>
- ▶ In agricultural communities, the death of a household adult male often leaves women without the labor and knowledge needed to maintain the family livelihood.<sup>25</sup> Many such communities bar women from owning land, livestock and other assets, putting widows in jeopardy of losing critical resources they helped develop and maintain.

The fact that women now form the majority of those living with HIV has an enormous social and economic impact on affected households and communities, particularly in low- and middle-income countries. Within such environments, women and girls perform the lion's share of socially valued work, raising and nurturing children, performing domestic labor and caring for the sick. Women are also generally more knowledgeable and adept at gathering famine foods and nurturing social networks that may provide vital support in periods of acute food insecurity. When a woman dies, much of the burden typically shifts to younger and older women who step in to foster the children.<sup>28</sup>

For heterosexual men, cultural beliefs and practices related to masculinity can influence their vulnerability to HIV.<sup>29</sup> Societies where men are encouraged to have multiple sex partners to demonstrate their manhood could be more vulnerable to rapid transmission. For this reason it is important to take local values, customs and people's knowledge into account when designing interventions.

On average, women are infected with the virus six to 10 years younger than men. A recent Zambian study showed that more than 60 percent of the prime-age deaths observed in a nationally representative rural sample between 2001 and 2004 were among women.<sup>20</sup>

In South Africa, almost three-quarters of HIV-affected households were female-headed, one survey has found. A significant proportion of these women were battling HIV-related illnesses themselves. In Manicaland, Zimbabwe, when a woman died from AIDS, households dissolved in two out of three cases.<sup>26, 27</sup>

## Coping Strategies in the Context of HIV

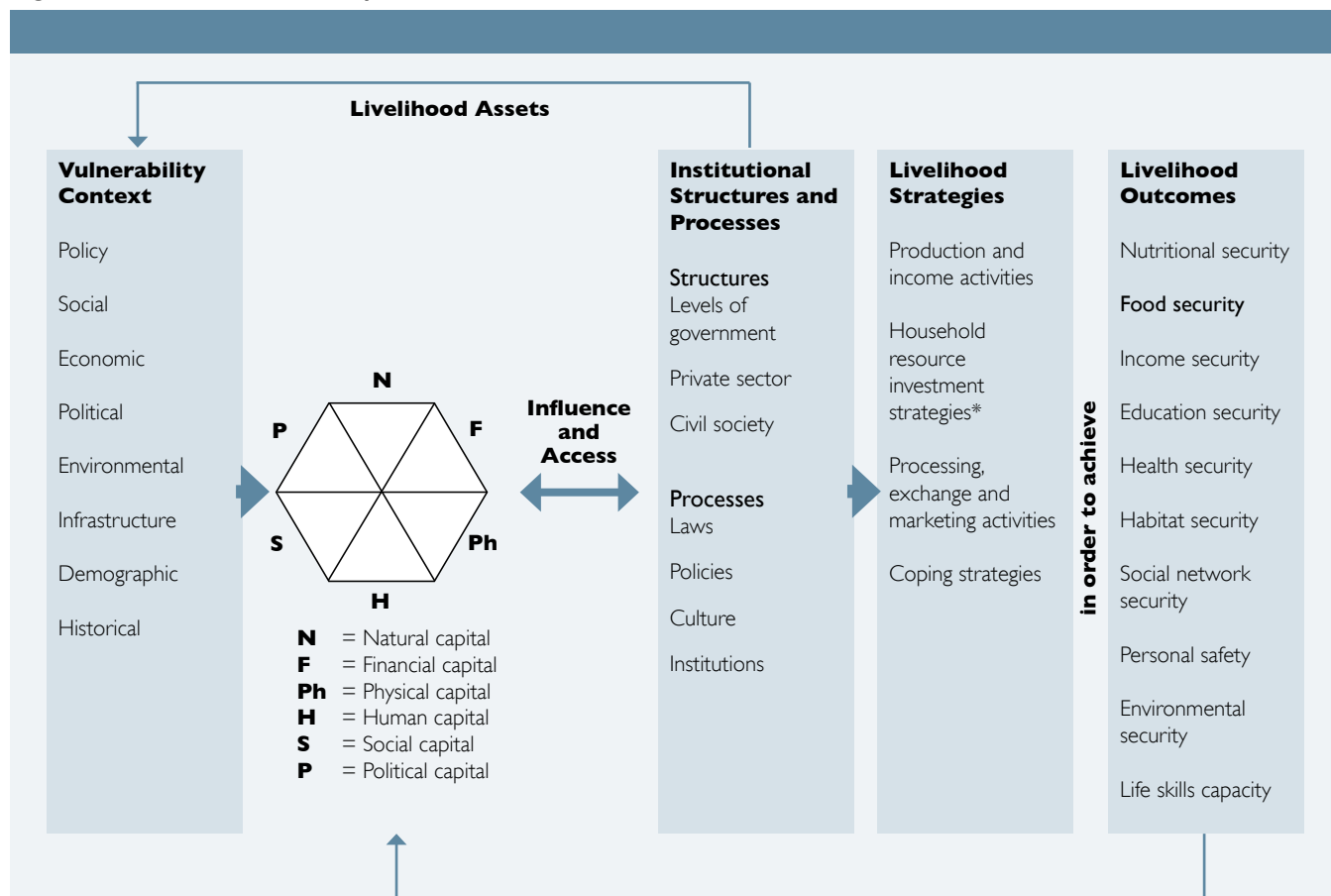
Persistent hunger, the responsibility of caring for chronically ill family members and the death of productive heads of household can lead poor families to adopt irreversible coping strategies that permanently alter resiliency to future shocks. Coping strategies with particularly negative consequences include eating less or substituting less-nutritious foods, selling assets, using savings and investments to pay for basic needs and medical care, and withdrawing children from school. While such strategies may help families avoid dissolution and meet immediate needs, they threaten the human, financial and social capital that affected households will need to maintain food security over the long term.<sup>30, 31, 32</sup>

Seasonal and permanent labor migration is another common coping strategy HIV-affected households use. While this strategy often helps to diversify livelihood strategies and diffuses the shock of the disease over a wider geographical area, it also can undermine the health status, and food and livelihood security of individuals and households. Families left behind face greater responsibility for caring for chronically ill household members and lower crop yields as available workers leave home. Meanwhile, as HIV continues to expand at the societal level, there are fewer employment options for migrant laborers. Many are driven into relatively high-risk income-earning strategies (transport, petty trading, commercial sex, etc.), further increasing vulnerability to HIV infection.

## Livelihood Security

Household livelihood security has been defined as “adequate and sustainable access to income and resources to meet basic needs (including adequate access to food, potable water, health facilities, educational opportunities, housing and time for community participation and social integration).” A sustainable livelihood is one that can help a household cope with, recover from and adapt to stress and shocks; maintain or enhance its capabilities and assets; and provide sustainable livelihood opportunities for the next generation.<sup>33, 34</sup>

Figure 3: Livelihood Security Framework



\* Decisions regarding use of tangible and intangible household assets (consumption needs, health needs, education, shelter)

Adapted from DFID Sustainable Livelihoods Framework (1999) and CARE Household Livelihood Security Framework (2002).

A full understanding of livelihoods requires a thorough comprehension of:

- ▶ The context in which the households and communities are living (economic, social, political, environmental, cultural)
- ▶ The tangible and intangible assets to which households have access (natural, financial, physical, human, social, political)
- ▶ The institutional structures and processes that influence livelihood opportunities within the community (government, civil society, private sector)
- ▶ The various livelihood strategies that people pursue to make a living or to cope with shocks, and the livelihood outcomes that are achieved by households and communities

Food security is one of several outcomes that households are trying to achieve (see Figure 3).

## HIV Impacts on Assets <sup>35, 36</sup>

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HIV has multiple impacts on livelihood security, increasing vulnerability, and through impacts on assets, institutions and livelihood strategies.<sup>37, 38</sup>

**Human capital.** HIV decreases household productivity due to sickness and AIDS-related opportunistic infections; infected individuals eventually will die while still in their productive years. Productivity is further diminished as healthy individuals care for the sick and attend funerals. Children are forced to leave school early, thus achieving lower levels of education. In addition, there is less sharing of indigenous knowledge between generations because of the premature deaths of adult workers.

**Financial capital.** Medical costs and funerals are a major financial burden, while the inability to work reduces household income. Affected households are often forced to sell assets or borrow. Thus, these households risk facing difficulties in getting loans from banks. The poor usually rely on informal lenders—often at very high interest rates—or on group-based microfinance initiatives. However, both of these types of services tend to be vulnerable to aggregate shocks, such as in the late stage of the HIV epidemic. Even at the early stages of the epidemic, an affected family is less able to avoid default and is less attractive to group-based lending schemes.

**Natural and physical capital.** Land is often sold to pay medical and funeral expenses. Land inheritance customs and laws can make widows in certain patrilineal systems more vulnerable and at risk of losing their land rights. Families with surviving members who cannot cultivate their land might also be at risk of losing their land rights. Affected households often adopt less labor-intensive ways to farm and may also be forced to sell productive assets and livestock, which further reduces agricultural productivity. Access to water and energy sources (such as wood to be used or sold as fuel) also becomes more difficult, as women might be sick or need to spend more time caring for the ill, often leaving the responsibility to collect water and wood to children. HIV also might undermine the ability of communities to pool risk and work together to sustainably manage common property including rangeland, cropland and river basins.

**Social capital.** Social networks within communities deteriorate with the spread of HIV, as more households and individuals become affected and cannot help other families. Social capital may also be weakened as affected households and individuals are shunned because of the stigma attached to HIV. Institutions that contribute to social capital, such as local non-governmental organizations (NGOs) and faith-based organizations (FBOs), are likely to weaken as members die. At the national level, the capacity of government and social institutions to provide formal safety nets and support to HIV-affected people decreases as

the epidemic progresses because of increasing costs, diminishing revenues as a significant number of productive-age people become ill or die, and the deterioration of human resources to implement and manage the provision of social safety nets and services.

## HIV Impacts on Institutions

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HIV can have a significant effect on the institutions that provide social services that are critical to the livelihoods of households. These impacts are both demand and supply related. For example, HIV influences the demand side of all service institutions by reducing financial resources available to pay for services. The demand side of education is also affected as fewer children attend school due to death or illness of a family member or to stigma.<sup>39</sup> HIV influences the supply side of education by reducing the supply of educators. Agricultural services are diminished as the number of extension workers declines. Market and transportation systems are impaired as the number of traders and drivers falls.

HIV's impact on health services in high prevalence areas is also significant. Demands for HIV treatment can place burdens on health care institutions that result in shifting infrastructure, personnel and financial resources away from meeting other basic health care needs.<sup>40</sup> Shifting resources away from investing in basic-needs infrastructure (e.g., potable water, sewage services, child vaccination programs) could have profound effects on the larger population's health.

## HIV Impacts on Livelihood Strategies

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The likelihood that individuals will be exposed to HIV will depend in part on their livelihood strategies. As noted earlier, strategies such as migrating to earn additional income or engaging in transactional sex to get food can increase exposure. Once a household is exposed, its livelihood strategies can change significantly because of shortages of labor, the sale of productive assets and the need for cash to pay medical costs.

The impact of HIV on assets, institutions and strategies will also influence the strategic responses of communities and households. These responses in turn will have outcomes—on availability, access and utilization of food—that will themselves affect future susceptibility and vulnerability.<sup>41</sup>

## Key Concept

# 2 Understanding the Relationship Between HIV and Food Insecurity

The cyclical nature of the relationship between food insecurity and HIV has been shown to depend on a number of factors including:<sup>42</sup>

- ▶ Household's demographic structure
- ▶ Gender of household head
- ▶ Timing of illness and/or death (e.g., agricultural season)
- ▶ Number of people infected
- ▶ Length of time the household has to cope with the impacts of the disease
- ▶ Household's resources
- ▶ Level of expendable household income
- ▶ Level of community reciprocity and nature of social networks

The HIV epidemic can be seen as a shock deeply affecting all components of livelihood systems and their outcomes. The term "new variant famine" has been widely used to describe food insecurity that results in regions with high HIV prevalence.<sup>43</sup> The term conveys the concept that pervasive food shortages or famine in regions with high HIV prevalence are fundamentally different than acute food insecurity in other contexts. Previously, a drought, civil conflict or other shock would temporarily alter food production and livelihood systems, requiring households to cope as best they could until the situation returned to normal. However, in the case of HIV, households and communities face a shock to food and livelihood security from which no quick return to normalcy is possible.

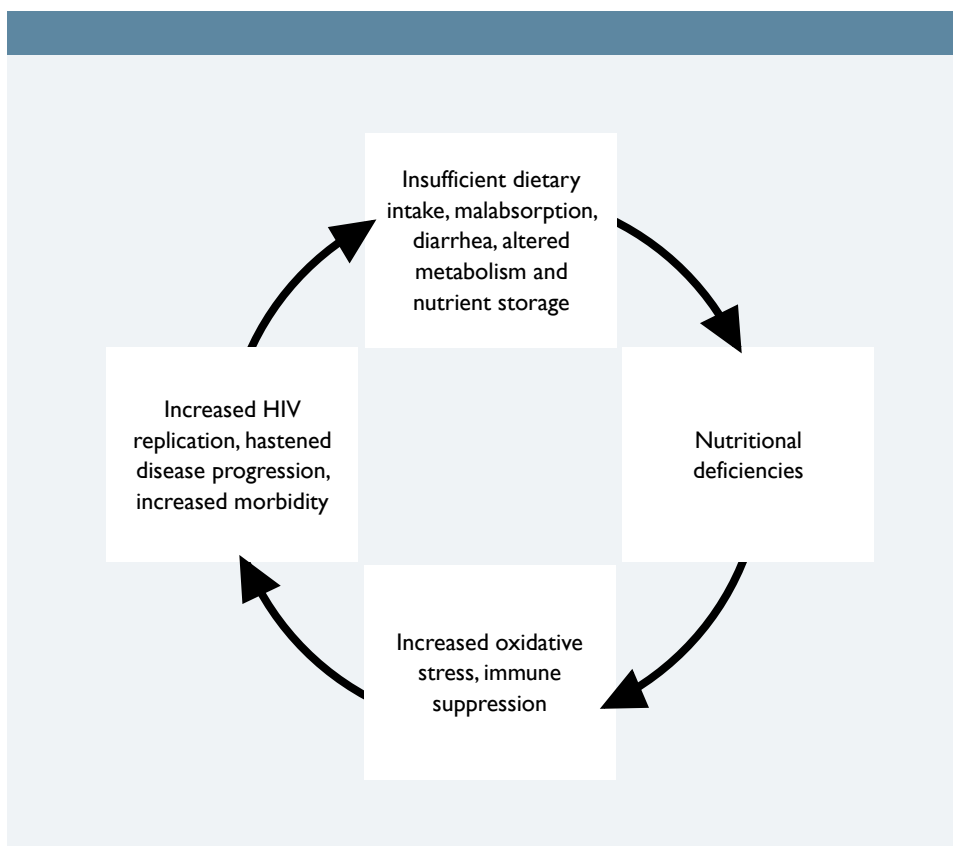
In contrast to more traditional shocks, the convergence of food insecurity and HIV often leads to the establishment of an increasingly vicious cycle, with food insecurity heightening **susceptibility** to HIV exposure and infection, and HIV in turn heightening **vulnerability** to food insecurity.<sup>45, 46, 47</sup> These factors often contribute to and reinforce this cycle:<sup>48</sup>

- ▶ Unlike many short-term shocks HIV tends to have a continual and cumulative effect on household food security.<sup>49</sup>
- ▶ HIV disproportionately affects prime-age adults, killing the most productive members of society. It therefore increases household dependency ratios, reduces agricultural productivity, income generation and caring capacity, and impairs knowledge transfer between generations.<sup>50</sup>
- ▶ HIV typically has a more pervasive impact on household food security than other shocks because the disease **increases** the nutritional requirements of infected individuals, widening gaps between food needs and food access.
- ▶ Efforts to address the impacts and prevent the spread of HIV are hindered by affected individuals' reluctance to seek assistance due to the stigma surrounding the disease.<sup>51</sup>
- ▶ The scale of the HIV epidemic is larger than that of most other shocks to food security, in that it has impacted entire countries and regions with high prevalence rates.

By 2010, AIDS could leave as many as 25 million children in Africa under the age of 15 without one or both parents, studies suggest.<sup>44</sup>

- ▶ As it intensifies, the epidemic decreases the capacity of key institutions, creates a huge burden on inadequate health services and contributes to increasing household dependency ratios in affected communities, impacting the ability to provide adequate care for children, pregnant women and PLHIV.
- ▶ The progression from initial infection to presentation of symptoms may take several years, facilitating the further spread of HIV in the interim. At the national and community level, the scale and impact of HIV may not be recognized until prevalence is already high, limiting and delaying the establishment of coping strategies to deal with food security impacts.<sup>52</sup>
- ▶ Food insecurity exacerbates gender inequality and can lead women to engage in exploitative sexual relationships that place them at greater risk of contracting HIV.<sup>53</sup>
- ▶ Food insecurity can promote migratory labor and marketing arrangements that place individuals at greater risk of being exposed to HIV.<sup>54</sup>
- ▶ Food insecurity can increase susceptibility to HIV in that the risk of infection and the disease's rate of progression are influenced by an individual's nutritional status. For instance, micronutrient deficiencies have been shown to increase the likelihood of mother-to-child transmission.<sup>55,56</sup>

**Figure 4: The Vicious Cycle of Malnutrition and HIV**



Source: Semba and Tang, "Micronutrients and the Pathogenesis of Human Immunodeficiency Virus Infection," *British Journal of Nutrition* (1999), 81.

Just as the relationship between food insecurity and HIV can be distinguished from other types of shocks, the interaction between the disease and malnutrition is considerably more complex and dynamic than many other threats to individual health (see Figure 4).

It has long been recognized that synergistic interactions between infection, nutritional status and immune function undermine individual health by reducing dietary intake and nutrient absorption while increasing utilization and excretion of proteins and micronutrients. However, HIV is considerably more damaging than most other types of infections because it directly attacks and destroys the cells of the immune system. Likewise, HIV also affects the production of hormones involved in the metabolism of carbohydrates, proteins and fats, contributing to the dramatic weight loss observed in most adult AIDS patients. In advanced stages of the disease, severe malnutrition is typically reflected by continual decreases in weight from the loss of muscle tissue and subcutaneous fat, as well as fever, nausea, vomiting, diarrhea and susceptibility to opportunistic infections.<sup>57-64</sup>

In addition to compromising the health of PLHIV, HIV undermines the nutrition of other members of affected households. For instance, the weight loss, fatigue and decreased productivity among infected individuals, many of whom are heads of household and/or mothers, have a direct and negative impact on the household's ability to get, prepare and eat nutritionally adequate food, including appropriate replacement feeding. Good infant and child feeding and care suffer as mothers sicken and die, and children are cared for by fathers, grandparents, foster parents or siblings who may not have the knowledge, resources or time to provide adequate care. In this way, children, whether they are HIV positive or not, suffer nutritional consequences as a result of HIV.

## Key Concept

### 3 Implications for Food Assistance Programming in Response to HIV

Because the impacts of HIV and food insecurity are highly correlated and the epidemic is very different than other common shocks, vulnerability to HIV and food insecurity cannot be reduced by providing food or health care alone. Rather, it must be recognized that multiple processes influence vulnerability, shape the outcomes of responses, and in many cases, spread the effects of infectious disease and malnutrition.<sup>65</sup>

Ultimately, assessment of the interrelated effects of HIV and food insecurity should be guided by conceptual frameworks for food security and livelihoods. Factors such as the timing of illness or death, the duration of illness, gender and age of the person infected, household size and wealth status, as well as marriage systems and social support, can also ease or worsen the disease's impact on food security.<sup>66</sup>

Before resorting to food assistance, food assistance program managers should carefully assess the root causes of hunger and malnutrition. Often, poverty or the inability to earn income is the underlying cause of chronic hunger; which in turn is compounded by the effects of HIV. While food assistance can play an important short-term role in such instances, it is not likely to help those affected over the long term unless it also provides support for improving livelihoods.<sup>67</sup>

## Food Assistance Objectives

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Food assistance programs are in-kind or cash transfers to address hunger and malnutrition (e.g., food stamps, Women, Infants and Children [WIC] programs, food subsidies, food price stabilization). This guide's main focus is food assistance programming that provides food transfers. Food aid is any international concessional flow in the form of food, cash or credit to purchase food in support of food assistance programs. The flexibility of food aid, including the ability of implementing partners to monetize food aid to fund program interventions, has allowed it to be used for relief assistance as well as a wide range of development interventions.

In the context of HIV, food assistance has considerable potential for reducing individuals' susceptibility to HIV by preventing them from adopting high-risk livelihood strategies to feed themselves and their families. Food assistance also can ease the impacts of HIV by enhancing the diet of PLHIV, which in turn can benefit other household members, including orphans and vulnerable children (OVC).<sup>B</sup> In this way, food assistance facilitates a greater productive and caring capacity.<sup>68</sup>

Defining the objectives of food assistance within the food security and livelihood frameworks is essential to designing an effective response to a target population's food security needs. Combined use of both the food and livelihood security frameworks is also helpful for identifying strategic partnerships throughout the continuum of needs of PLHIV. For instance, food can be used in several ways to protect and enhance human capital, such as saving lives in the aftermath of a natural disaster; reducing chronic malnutrition among young children; improving women's nutrition; improving education levels and helping to support the prevention and treatment of HIV. Such interventions can have a direct impact on food utilization. In the case of supplementary feeding and therapeutic care of PLHIV or OVC, food assistance may be used in the short term to help the household with immediate food needs and may increase adherence to treatment regimens.

Food assistance also can help protect livelihoods when provided in the form of direct transfers to households after a shock such as the death of a household head. It may also serve as a safety net until new or reestablished livelihoods become productive. Household and community assets can be created through food for assets (FFA) projects such as building or repairing roads, water reservoirs, irrigation systems and soil conservation structures. Food assistance is also commonly provided to help offset the opportunity cost for participating in skills training and technical assistance programs. Such transfers can have a positive impact on food access. Food provided through public works programs to build community infrastructure can also help communities protect and enhance their resiliency. Building cyclone shelters, flood embankments and other soil and water conservation structures can help communities manage future shocks and maintain food availability. In all cases, non-food resources are necessary to ensure the completion of these interventions.<sup>69</sup>

Planners of food assistance interventions should aim to use food resources to build the coping capacities of communities and households, in addition to meeting short-term needs for food.

## Targeting Food Assistance

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Food assistance should support positive coping strategies among HIV-affected households. To do this, food assistance programs must be appropriately targeted. Targeting identifies the groups in need of assistance, where such groups are, the specific type of assistance

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<sup>B</sup> Definitions of OVC can vary from country to country and between various implementing agencies and donors. National definitions of OVC should take precedence in the country in which programs are being implemented.

appropriate for the particular context, as well as how and when to get the assistance to them. Food assistance programs that do not accurately define and effectively reach target groups will not help improve food security. Meanwhile, providing food to relatively food-secure groups may have unintended negative consequences such as displacing trade or diminishing incentives to produce food. In addition, care should be taken to avoid targeting food assistance exclusively to food-insecure households that are HIV-affected. Excluding food-insecure households that are not HIV-positive could be perceived as discrimination, creating disharmony in the community.

Despite considerable improvement in food assistance targeting over the years, much progress must be made in developing information systems that can identify and locate factors that contribute to food insecurity resulting from HIV, as well as determine households and communities most at risk (see **Chapter 5: Targeting**).

While food assistance can be used to support a number of program areas, it may not be appropriate in circumstances where a lack of food is not a problem, where risk of creating dependency is high or where food-based employment schemes are likely to disrupt market functions.<sup>70</sup> To guard against such negative effects, NGOs and the World Food Programme (WFP) should address these questions:

- ▶ Are PLHIV and affected households food-insecure?
- ▶ Is food insecurity due to lack of availability of food or access to food?
- ▶ Are food transfers an appropriate response to food insecurity?
- ▶ At what point and for how long would food assistance be most critical for PLHIV and affected households?
- ▶ When would the provision of food assistance be most useful to prevent negative coping strategies?
- ▶ When would food assistance be least likely to have negative repercussions?
- ▶ What is the role and purpose of food assistance in the prevention of HIV?
- ▶ What is the role and purpose of food assistance in HIV treatment programs?
- ▶ What is the role and purpose of food assistance in HIV care and support?

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