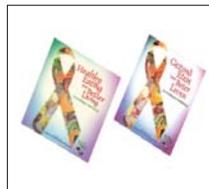


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Nutrition to Combat HIV and AIDs

Fitzroy Henry and Clare Forrester^a

This issue is dedicated to a five-year project of the Caribbean Food and Nutrition Institute (CFNI), funded by the Canadian International Development Agency (CIDA), aimed at the incorporation of nutrition in the treatment and management of HIV and AIDS in the Caribbean.

The project derived from the Institute's concern that, despite extensive documentation on the benefits of good nutrition as an important component in the holistic approach to the treatment and management of HIV and AIDS, the region has been lagging in the application of best practices in this regard.

Titled "Combating HIV/AIDS through Nutrition in the Caribbean: A Low-Cost Option with High Benefits", the project was designed "to strengthen the capacity of institutions, communities, male and female caregivers and (persons living with HIV or AIDS) PLWHA in the Caribbean to include nutrition in treatment and management of HIV and AIDS, thus helping to delay disease progression".

Its targets were lay care-providers and PLWHA, both adults and children; and health-care providers, primarily professionals but also including healthcare workers who form part of the extended healthcare team.

A great deal of interesting and useful information was revealed in focus group discussions and interviews with key informants conducted as a necessary precursor to the production of educational materials for the project.

All CFNI member countries were represented by healthcare workers as participants in workshops that took place throughout the region. Happily, responses to questionnaires administered before and after the workshops showed significant improvement in the knowledge of participating healthcare workers as well as in their attitude to persons living with HIV or AIDS. The responses augur well in terms of the reduction in stigma and discrimination against PLWHA.

In the project report, however, optimism was tempered by the statement that "there still seems

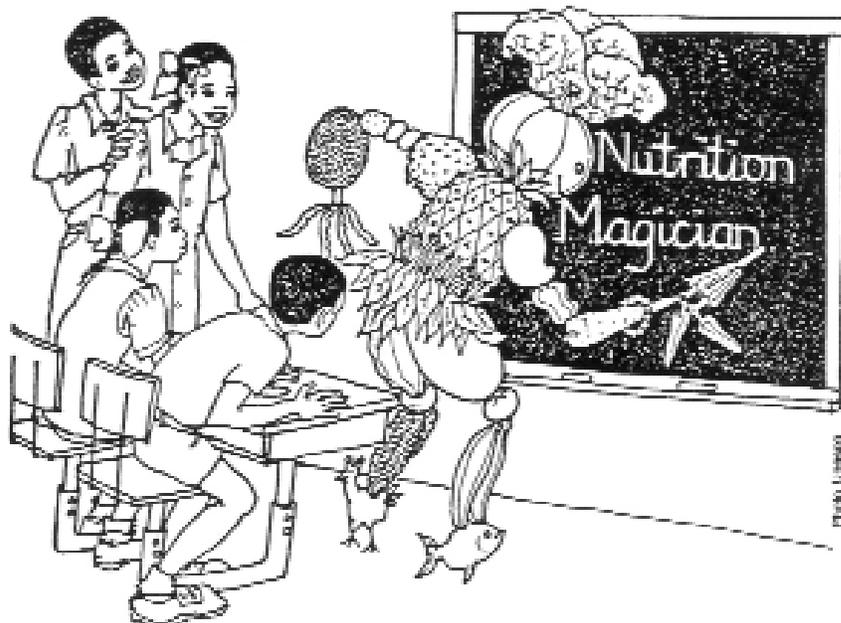
^a*Fitzroy Henry is Director, CFNI and Clare Forrester, is CFNI Communication Consultant.*

EDITORIAL

to be a 'hidden stigma' when it comes to activities outside the health systems and there was no change in the percentage of responses regarding the issue of HIV-infected teachers being able to continue teaching and also about continuing to buy food at a shop where the shopkeeper was HIV positive".

On balance, however, the responses to the questionnaires do reflect relatively healthy attitudes, which demonstrably benefited from brief exposure and training. The project was clearly a very useful exercise whose benefits will resonate for years to come.

The main course in this issue, the report of the project aimed at the incorporation of nutrition in the treatment and management of HIV and AIDS in the Caribbean, is followed by an appropriate dessert - an article titled "Lack of Food Worsens AIDS Epidemic in Jamaica". Penned by Andrea Downer, this article won the Jamaica National Award, and subsequently, a regional award in the PAHO health journalism competition. For the first time in those annual contests the link between HIV/AIDS and nutrition was highlighted, and this was highly commended by the judges. It is a very interesting read. 





Combating HIV/AIDS Through Nutrition in the Caribbean: A Low-Cost Option with High Benefits

Introduction

Treatment and care for Persons Living with HIV/AIDS (PLWHA) requires an effective and comprehensive programme that includes components such as voluntary counselling and testing, psychosocial support, good nutrition, a supportive and accessible health system, prevention and treatment of opportunistic infections, and appropriate drug therapy. The benefits of good nutrition are extensively documented in the literature, but in the Caribbean the incorporation of nutrition in comprehensive care was identified as a gap by the Caribbean Food & Nutrition Institute (CFNI). This resulted in the development and implementation of a four-year project entitled *“Combating HIV and AIDS Through Nutrition in the Caribbean: A Low-Cost Option with High Benefits”*. Major funding was obtained from the Canadian International Development Agency (CIDA). The project was implemented in October 2002 and was expected to end by September 2006. However, a one-

year no-cost extension was granted, resulting in a new completion date of September 2007.

Goal, Purpose, Outcomes and Outputs

The Goal, Purpose, Outcomes and Outputs of this project were as follows:

- I. **Goal:** To improve the quality of life of male and female persons living with HIV or AIDS.
- II. **Purpose:** To strengthen the capacity of institutions, communities, male and female caregivers and PLWHA in the Caribbean to include nutrition in treatment and management of HIV and AIDS, thus helping to delay disease progression.
- III. **Outcomes:**
 - Improved dietary and food-safety practices of PLWHA and their lay caregivers;
 - Improved nutritional care practices, including referrals for consultations, by healthcare workers;
 - WHO infant-feeding recommendations adapted in the

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development of national infant feeding policy to prevent mother-to-child-transmission (MTCT);

- Alliances with other healthcare workers, PLWHA, community groups and institutions established or strengthened.

IV. Outputs: Outputs were organised using three subheadings, namely:

- Production of Educational Materials
- Dissemination of Nutrition Information
- Building Alliances.

Project Targets

The project was targeted to two groups of individuals, namely:

- *Laypersons:* that is, lay care-providers and Persons Living with HIV or AIDS (PLWHA) both adults and children, and
- Healthcare providers, primarily professionals. Other healthcare workers who formed part of the extended healthcare team were also included in this group.

Implementation Summary

The project was divided into four phases as follows:

- *Phase I: Development of Educational Materials*
 - ◆ Needs Assessment; audience segmentation and targeting;

- ◆ Detailing the contents of the manuals; developing the materials and pre-testing.

- *Phase II: Launch, Publicity and Training*

- ◆ Enhancing awareness regionally and within each member country, and assessment of curricula content on nutrition and HIV and AIDS in tertiary-level health-care training institutions.

- *Phase III: Dissemination and Distribution*

- ◆ Vehicles include professionals, professional associations, NGOs, CBOs, PLWHA, support and other relevant community groups, in conjunction with national training in the use of the materials.

- *Phase IV: Evaluation*

- ◆ Continuous evaluation of process and outcomes using appropriate tools for the different stages.

Development and implementation of activities and tasks were guided by the "Log Frame" and was revised by stakeholders. Effective from April 2006, this revised management tool was used for the remainder of the project's life.

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OUTPUTS

- **Production of Education Materials**

This component of the project was guided by activities with corresponding outputs.

Activity 1.1: Plan and conduct educational needs assessment with lay caregivers, PLWHA and HCWs.

Output 1.1: Needs of target groups identified.

Production of educational materials was preceded by focus-group discussions (FGD) and key informant interviews (KIIs). All FGD and KIIs

were conducted by knowledgeable and skilled technical staff from the CFNI. National HIV Coordinators were consulted to assist with the organisation of these sessions as well as the selection of persons for the relevant target groups. A total of 34 lay-persons (7 males and 27 females) from eleven countries representing 10 of the CFNI's 18 member countries participated. At some of the sites, home visits were necessary because these persons were unable to come to the stipulated venue. **Table 1** gives some insight into the composition of the interviewees by country.

Country	Category of Persons					
	Lay Caregivers	Parents of PLWHA	HIV+	AIDS	Total	
					M	F
Antigua	1	1	1	1 [^]	1	3
Bahamas	-	1	1 [^]	1	1	2
Dominica	2	0	1 [^]	1	1	3
Grenada	1	1	1	1 [^]	1	3
Guyana	1	1	1	0	0	3
Jamaica	0	1	0	1	1	1
St. Kitts	1	1	0	1	0	3
St. Lucia	1	0	2	0	1	1
			1 [^]			
St. Vincent	1	1	0	1	0	3
Tobago*	-	1	1	-	0	2
Trinidad*	1	0	1 [^]	0	1	1
TOTAL	9	8	10	7	7	27
					34	

*1 Country - Trinidad & Tobago but 2 sites

[^]Male Participants

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KIIs were also conducted with healthcare workers from 9 countries and FGDs were conducted in 3 of the 4 countries that were identified; namely, Trinidad & Tobago, Guyana and the Bahamas. Mobilising appropriate persons in Jamaica presented some challenges and consequently this FGD did not materialise. Overall, needs assessment with healthcare workers was conducted at 11 sites representing 10 member countries (Table 2). Although the sex of these individuals is not reflected in the Table, it should be noted that individuals of both sexes were included.

Activity 1.2: Develop, test and produce nutrition and HIV Handbooks and other educational

materials for lay persons including PLWHA.

Outputs 1.2.1: Handbooks and other educational materials produced for laypersons.

1.2.2: HCW Manuals Produced

Findings of the needs assessment from the respective groups were included during the drafting of the English version of the Manual for healthcare personnel and the Handbook for laypersons.

Drafting of the English version of the Handbook for laypersons was initiated by the CFNI but the manual for healthcare professionals was spearheaded by a Canadian consultant with input from CFNI team members.

Table 2
Key Informant Interviews and Focus Group Discussion
With Healthcare Workers by Country

Country	Focus Group Discussion	Key Informant Interviews [^]
Antigua	-	✓
Bahamas	✓	✓
Dominica	-	✓
Grenada	-	✓
Guyana	✓	-
Jamaica	-	✓
St. Kitts	-	✓
St. Vincent	-	✓
Tobago	-	✓
Trinidad	✓	✓

[^]10 persons were interviewed.

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Finalisation of both publications was a collaborative exercise. Both publications were translated into Dutch for use in Suriname, where an in-country team was recruited to assist the CFNI team.

This Handbook included a chapter with sample high-calorie, nutrient-dense recipes that were developed specifically for HIV+ individuals. The criteria established to guide this exercise were that the products had to be nutritious and acceptable, and consist of ingredients that were generally affordable and available regionally. After the initial production, the products were evaluated by a mixed-gender team of technical and non-technical staff from CFNI. The final sensory evaluation of these sample recipes was conducted by a group of PLWHA from Jamaica. Guided by their comments, specific modifications were made. The recipes were revised and the products were re-evaluated by the PLWHA until their approval was obtained. The ingredients for the sample recipes were adjusted to make them suitable and acceptable for use in Suriname. All recipes were analysed and selected nutrition facts per serving were included.

The title of the publication for the laypersons is "Healthy Eating for Better Living, A Caribbean Handbook" and the healthcare professionals' Manual is "Healthy Eating for Better Living, A Manual on

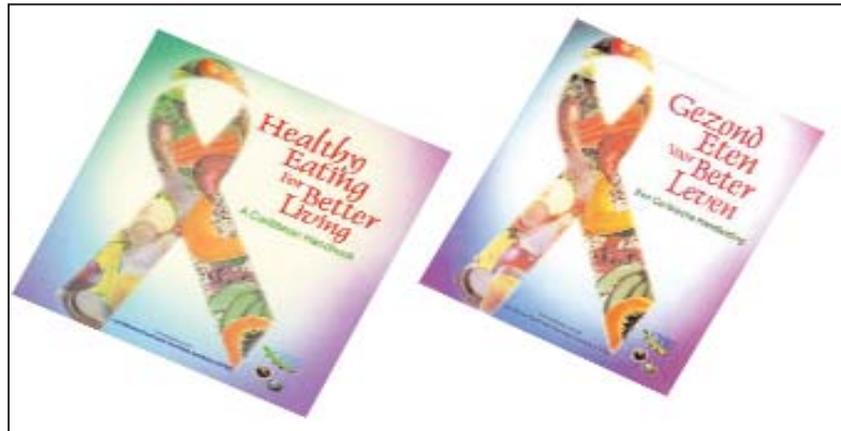
Nutrition and HIV/AIDS for Healthcare Workers in the Caribbean". Both titles were finalised after field testing with PLWHA and healthcare professionals. During the needs assessment exercise, the PLWHA specifically indicated that use of neither HIV nor AIDS in the title nor the red ribbon on the cover would be acceptable. It was felt that these could identify the publication and thus further contribute to stigma and discrimination that they were experiencing. Another concern was that text on white paper tends to cause some ophthalmic irritation, especially with persons who are living with AIDS. These issues were resolved by creating a title for the Handbook that was devoid of the words HIV or AIDS, a cover without a red ribbon in the graphics (Figure 1) and the printing of the information on pastel-coloured paper that was less "harsh" on the eyes. Professional expertise was sought to assist with the graphics and overall presentation of both publications.

Following the introduction of the Handbook to the regional community, as reported under Activity and Output 2.1, a preliminary dissemination plan was implemented to begin the field-testing process. The cooperation from member countries was commendable. The PLWHA Handbook was thoroughly reviewed and invaluable feedback was incorporated during

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Figure 1

Handbook Covers in English and Dutch



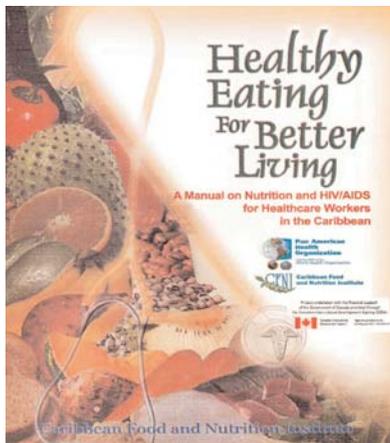
editing and redesigning of the Handbook. This publication was arranged as follows:

- **Chapter 1:** About HIV, AIDS and Your Immune System
 - **Chapter 2:** What is Good Nutrition?
 - **Chapter 3:** What Does Nutrition Have to Do With HIV/AIDS?
 - **Chapter 4:** Planning A Healthy Diet
 - **Chapter 5:** Keeping Healthy: People with HIV Have Special Needs
 - **Chapter 6:** Food Safety and Hygiene
 - **Chapter 7:** Coping with Problems Related to HIV/AIDS
 - **Chapter 8:** Infants and Children with HIV/AIDS
 - **Chapter 9:** Other Key Issues
 - **Chapter 10:** Recipes.
 - Appendices
- As time progressed and the Handbook was widely disseminated, evaluation by the users continued. Additional feedback was received. The CFNI heeded requests to dissect the Handbook and create a series of thematic booklets. This also provided an opportunity to further edit and update the contents, thus making this publication more user-friendly. Seven thematic booklets were developed, namely:
- What is Good Nutrition for HIV?
 - About Nutrition and HIV
 - Planning a Healthy Diet
 - Keeping Healthy and Living with HIV

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- Food Safety and Hygiene
- Dietary Tips for Coping with Problems that Could Affect Your Nutritional Health
- Getting the Best from your Food and Drugs.

Figure 1.1
English Version of Manual



Although these subtitles were used, the root of the original title “Healthy Eating for Better Living” was retained.

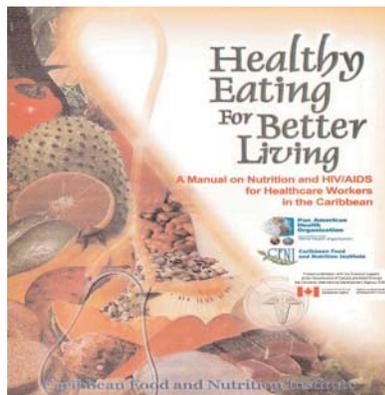
A similar process was adopted during the development of the Manual for healthcare workers. The initial version was drafted by the Canadian consultant with input from the CFNI team. Field-testing was conducted throughout the region. The contents were arranged as following:

- **Chapter 1:** Overview of HIV/AIDS

- **Chapter 2:** Nutritional Implications of HIV/AIDS
- **Chapter 3:** Nutritional Management of Adults with HIV/AIDS
- **Chapter 4:** Mother-to-Child Transmission
- **Chapter 5:** Nutritional Management of the HIV-infected Infant or Child
- **Chapter 6:** Nutritional Strategies for Common Dietary Problems
- **Chapter 7:** Food-Drug Interactions
- **Chapter 8:** Food and Water Safety
- **Chapter 9:** Other Issues.

Formatting of the English versions was done in Jamaica while all the Dutch publications were formatted in Suriname. All printing was done by the CFNI Materials Production Unit (MPU) in Jamaica.

Figure 1.2
Dutch Version of Manual



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National Nutrition and HIV Coordinators at the Regional Launch and Training held in Guyana

- **Dissemination of Nutrition Information**

- **Activity 2.1: Launch project regionally and nationally in selected member countries.**

Output 2.1: Increased public awareness of nutrition and HIV/AIDS.

In November 2002, a sub-regional forum was convened in Guyana to launch and present the Handbook to the public and professionals. This was done in conjunction with the Annual Conference of Regional Nutrition Coordinators. The audience included the Minister of Social Security, Guyana, representatives of several other Ministries, PAHO, UNICEF, FAO, CIDA Guyana office, Caribbean Association of Nutritionists and

Dietitians (CANDi), Caribbean Association of Home Economists (CAHE), Civil-society organisations (CSOs) e.g. faith-based organisations, Non-Government Organizations (NGOs) and Community-Based Organizations, (CBOs) especially PLWHA support groups, and the media in Guyana.

Approximately 60^a persons attended this main launch. Following the regional launch, national launches were conducted in 14 CFNI member countries. These were attended by Government Ministers, PAHO and UNICEF representatives, and members of PLWHA support groups, organisations of the medical and paramedical professions, CBOs and the media. These launches were followed by training workshops with lay-persons.

^a18 Nutrition Representatives and 18 HIV/AIDS Coordinators from the Region (CFNI member countries); 13 CFNI staff members (professional and administrative); 14 other representatives: Ministries of Health and Public Service, Guyana; PAHO/WHO Representation; UNICEF; CARICOM Secretariat; CIDA; CAREC; Pan Caribbean Partnership on HIV and AIDS (PANCAP); Network of Guyanese Living with HIV and AIDS; Caribbean Home Economics Association (CAHE); and the Caribbean Association of Nutritionists and Dietitians (CANDi).

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Media Exposure

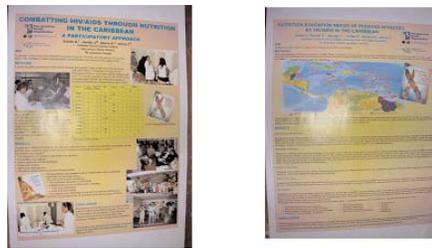
Throughout the duration of this project, the CFNI always demonstrated its willingness to be interviewed by national television and government broadcasting stations, radio stations or print journalists. In some countries, a national of the country accompanied the CFNI personnel. Some of the radio and television programmes included a "call-in" segment that allowed for immediate responses to callers. Reports of national launches were also included in national news and aired during prime time. Some of these releases were also aired via Caribbean broadcast media which allowed for the population in one country to be informed of an event that occurred in another country. In addition, reports were published via the print media. The regional and national launches and interviews with the media were instrumental in bringing nutrition to the forefront, emphasising its importance and its role as a contributor to other aspects of clinical treatment and care of PLWHA in the Caribbean.

Additional Dissemination and Exposure

The CFNI embraced opportunities to further disseminate the nutrition message by accepting requests to train staff attached to a home for children in one of its

member countries, delivering presentations, mounting displays or poster presentations at subregional and international meetings/conferences. These occasions are listed as follows:

- Lecture and discussion with lay caregivers/staff employed at the Cyril Ross Nursery, a home for HIV+ children in Trinidad & Tobago, November 23-25, 2004;
- Poster presentation at the 14th International Congress of Dietetics, Chicago, U.S.A. 2004;



Posters Presented at the International Congress of Dietetics, Chicago, 2004

- Oral presentation at the 55th Anniversary of the Instituto de Nutricion de Centro Americo y Panama, Guatemala, 2004.
- Display and oral presentation at the Fourth Annual General Meeting, Pan Caribbean Partnership against HIV/AIDS (PANCAP), Bridgetown, Barbados, 2004;
- Presentation to staff at the Oak Tree Clinic, The Women and Family HIV Centre, Vancouver, B.C., Canada, during experiential visits, 2004 & 2005;

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Posters on display in "The Market Place", San Salvador, 2005.

- Attended and mounted a display in "The Market Place" during the State of the Art in HIV/AIDS/STI Prevention and Comprehensive Care Among Young People in Latin America and the Caribbean (LAC) Inter-agency Meeting, San Salvador, 2005.
- Mounted a poster presentation and 2 other abstracts were included in the publication for XVI International AIDS Conference, Toronto, Canada, 2006;
- Participated in the PAHO Regional Consultation on Guidelines for Antiretroviral Therapy, Preventing Mother-to-Child Transmission (PMTCT) and technical cooperation (TC): Implications and Next Steps for Latin America and the Caribbean, Dominican Republic, 2006;
- Oral presentation at the forum organised by PANCAP, "Universal Access by 2010:



Addressing HIV Care and Treatment Gaps in the Caribbean", St. Lucia, 2007.

Activity 2.2: Plan and conduct workshops with lay caregivers and PLWHA.

Output 2.2: Increased capacity of laypersons to include dietary strategies with HIV/AIDS interventions and/or for self-management.

Workshops with laypersons began in November 2003 and culminated in June 2006. At four sites twinning arrangements were implemented. Thus all member countries were reached. During this period, an additional workshop was requested and conducted in one country. Table 3 provides a listing of the fourteen workshops that were conducted with laypersons from the 18 CFNI member countries. Excepting Jamaica, one workshop was conducted at each site and an additional workshop

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was requested and conducted in Tobago. Inclusive of this additional workshop, a total of 535 laypersons were the direct beneficiaries.

This training was conducted by the CFNI team with the assistance of the National HIV and Nutrition Coordinators, a local Environmental/Public Health Officer and a local pharmacist and a physician. These persons were included to ensure that information specific to the country would be shared with participants, but a framework was provided by the CFNI to guide the organisation of each presentation. Although these selected resource persons were included as workshop facilitators, the Handbook was used as the primary resource.



Participants from Antigua in discussion during the training sessions.

Arising from the needs assessment that was conducted with laypersons in the region, it was found that many of these lay care-providers and PLWHA lacked critical nutrition-related information that would enable them to



Participants from Cayman Islands who attended the training held in Jamaica.

manage HIV disease effectively. At the beginning and end of each of the 3-day workshops, tests comprising 20 questions were administered to the participants. For a variety of reasons all participants did not complete both tests. The tests were not used in the first three countries and in others participants arrived late on the first day or were absent on the last day. Further, no detailed data was available for one country and in another country only half of the test questions was available. These situations accounted for approximately 231 participants.

Table 4 shows that, region-wide, there was improvement in knowledge as evidenced by the change between pre- and post-tests score of 248 participants from 13 countries who completed both tests. The minimum, maximum and average scores were better on the post-test than the pre-test. Out of a maximum of 20 points, for each

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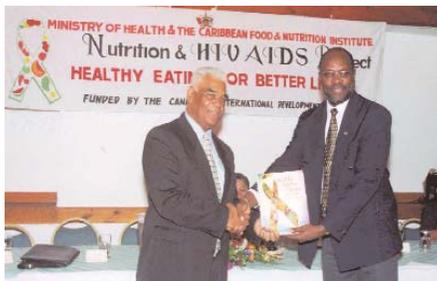
Table 3
Summary of Workshops with Laypersons (PLWHA % Lay Care-Providers)

Date	Country of Origin of Participants	No. of Participants	Country of Workshops
November 4-6, 2003	Guyana	36	Guyana
November 12-14, 2003	Dominica	22	Dominica
December 1-3, 2003	Suriname	37	Suriname
March 16-18, 2004	St. Vincent & the Grenadines	35	St. Vincent & the Grenadines
April 27-29, 2004	St. Lucia	28	St. Lucia
May 4-6, 2004	Antigua & Barbuda Montserrat	30) 31 01)	Antigua & Barbuda
June 8-10, 2004	St. Christopher & Nevis	26	St. Christopher & Nevis
June 7-9, 2004	Trinidad & Tobago	38	Trinidad & Tobago
June 30-July 2, 2004	Grenada	29	Grenada
August 3-5, 2004	Belize	46	Belize
September 1-3, 2004	Jamaica Cayman Islands	67) 72 05)	Jamaica
September 13-15, 2004	British Virgin Islands Anguilla	27 07	British Virgin Islands
January 18-20, 2005	Barbados	39	Barbados
February 15-17, 2005	Bahamas Turks & Caicos Islands	42 04	Bahamas
ADDITIONAL WORKSHOP (S)			
June 21-23, 2006	Tobago	16	Tobago
GRAND TOTAL		535	

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Table 4
Change in Knowledge of Lay Care-Providers and PLWHA

Country	No. Completing Both Tests	Minimum Score		Maximum Score		Average Score		Persons with 15-20 Points		Persons with Total Score	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
ANG	06	7	11	19	19	15	17	5	5	0	0
ANU & MON	19	13	08	19	20	16	17	13	15	0	1
BAH	32	10	10	19	20	16	17	24	29	0	3
B'DOS	25	09	11	19	20	15	17	18	21	0	2
BEL	38	10	16	20	20	16	19	32	38	1	10
BVI	08	12	15	19	20	16	18	6	8	0	1
CAY	03	16	18	17	19	17	18	3	3	0	0
JAM	38	09	11	19	20	16	17	32	34	0	1
SCN	17	13	15	20	20	17	18	16	13	1	4
SVG	28	02	13	17	20	14	17	16	24	0	3
TCI	04	13	10	19	19	16	16	3	3	0	0
TRT	30	11	14	17	20	14	17	14	29	0	1
TOTALS	248							182	222	2	26
Average		10	12	11	18	14	16				



Director of CFNI (right) launching the Project in Trinidad.



The Hon. John Junor, former Minister of Health of Jamaica, during the national launch of the project.

test a score ranging between 15 and 20 points was considered satisfactory. Table 4 also shows that 182 (73%) of 248 persons scored within this range on the pre-test and the number increased to 222 (90%) on the post-test.

Table 4 further shows that only 2 persons (0.8%) obtained the maximum score on the pre-test compared with 26 persons (10%) on the post-test. Figures 3 and 4 graphically depict the shift in scores and improvement in knowledge of laypersons.

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Figure 3
Shift in Scores of Laypersons

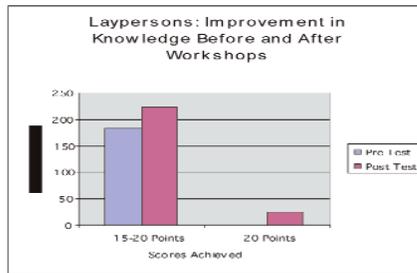
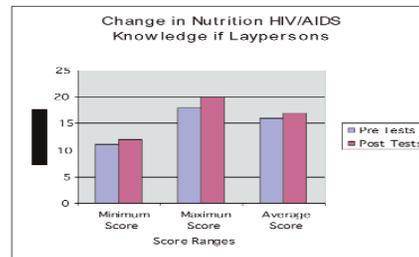


Figure 4
Improvement in Knowledge - Laypersons



All workshop participants were encouraged to use the Handbook as the choice for nutrition and dietary information as well as a tool for advocacy to have national HIV healthcare teams include nutrition in HIV treatment and care.

Activity 2.3: Plan and conduct workshops with HCWs.

Outputs 2.3.1: Increased capacity of National Nutrition Coordinators and National HIV/AIDS Coordinators and other healthcare workers to integrate nutrition in comprehensive medical management of HIV disease.

Improvement in HCWs' knowledge about HIV and infant-feeding options to decrease risk of MTCT of HIV.

Introductory Sensitisation Workshop

Immediately after the launch, an introductory three-day sensitisation workshop was conducted with both the Nutrition and HIV National Coordinators and CFNI

technical staff. Of significance at this forum was the inclusion of Regional HIV Coordinators and introduction of two Canadian consultants, one of whom was intermittently consulted during the life of the project.

Workshops and Seminars with Healthcare Providers: Use of the Manual

Training workshops were also conducted to orient healthcare personnel to the Manual and the scope of nutritional therapy. These workshops began in October 2004 and culminated in July 2006. Twelve 4.5-day workshops were conducted in 12 countries with participants from 15 countries; one 3-day workshop was conducted in 1 country and one 4-day workshop in 1 country. Table 5 [sub totals (a) and (b)] shows that at the end of this period a total of 693 persons participated in these workshops that were conducted by CFNI staff

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and in some of the countries they were also accompanied by the dietitian from the Oak Tree Clinic (The Women and Family HIV Centre) in Vancouver, Canada, who also acted as the project Consultant. She was invited to be either the main facilitator or a co-facilitator during some of the training sessions. Table 5 also includes data from four additional workshops that were conducted between February and July 2006 resulting in an additional 125 beneficiaries. Specifically, the Ministry of Health in Jamaica wanted to ensure that all nutrition-related professionals employed by the Ministry were trained in nutritional management of HIV disease so that, having built national capacity, they could facilitate subsequent workshops without reliance on the CFNI team. In response, two 3-day workshops were held with a total of 85

healthcare professionals. In both of these workshops, the CFNI team received assistance from local nutrition professionals and pharmacists.

In addition to the aforementioned workshops, there were seminars/presentations in five countries that primarily facilitated physicians who were unable to participate in their national workshops. In the Cayman Islands, one half-day seminar was conducted while in the other three countries (Guyana, Antigua & Barbuda, the British Virgin Islands and the Bahamas) the duration was between one and one and a half hours. This resulted in dissemination to 98 healthcare professionals.

CFNI, Caribbean Health Research Council and the University of Southampton

The CFNI also collaborated with the Caribbean Health Research Council (CHRC) and the University



Canadian Consultant, Ms. Diane Johnson during one of the training sessions.



Healthcare workers during one of the national training sessions.

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Table 5			
Summary of Workshops and Seminars with Healthcare Workers			
Date	Country of Origin of Participant	No. of Participants	Country of Workshop/Seminar
October 4-7, 2004	Guyana	31	Guyana
October 11-14, 2004	Dominica	38	Dominica
December 6-9, 2004	St. Vincent & the Grenadines	35	St. Vincent & the Grenadines
January 24-28, 2005	Antigua & Barbuda, Montserrat	33} 05}	Antigua
Jan. 31-Feb. 4, 2005	St. Kitts-Nevis	30	St. Kitts-Nevis
April 4-8, 2005	Jamaica	70	Jamaica
April 25-29, 2005	Trinidad & Tobago	53	Trinidad & Tobago
May 2-6, 2005	Suriname	31	Suriname
May 23-27, 2005	St. Lucia	27	St. Lucia
June 13-15, 2005	Belize	40	Belize
July 18-22, 2005	Barbados	35	Barbados
September 26-30, 2005	British Virgin Island Anguilla	19} 08}	British Virgin Islands
December 5-9, 2005	Bahamas Turks & Caicos Islands	47} 07}	Bahamas
March 27-31, 2006	Grenada	59}	Grenada
(a) Sub-Total		568	
Additional Workshops (3 Countries)			
February 14-16, 2006	St. Vincent & the Grenadines	20	St. Vincent
March 13-17, 2006	Jamaica	85	Jamaica
July 3-7, 2006			
July, 11-14, 2006	Tobago	20	Tobago
(b) Sub-Total		125	
Seminars (5 Countries)			
October 4-7, 2004	Guyana	30	Guyana
January 24-28, 2005	Antigua & Barbuda	11	Antigua
September 30, 2005	British Virgin Islands	06	British Virgin Islands
November 21, 2005	Cayman Islands	41	Cayman Islands
November 6-8, 2006	Bahamas	10	Bahamas
(c) Sub-Total		98	
Special Workshop - PMTCT			
May 18-19, 2006	Trinidad & Tobago		Trinidad & Tobago
(d) Sub-Total		30	
Special Workshop - CHRC			
April 18-19, 2005	Tobago		Tobago
(e) Sub-Total		21	
GRAND TOTAL		842	

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of Southampton to plan and conduct a 2-day workshop at Mount Irvine Bay Hotel, Tobago. Twenty-one health and non-health persons from 10 Caribbean countries, namely Antigua and Barbuda, the Bahamas, Barbados, Dominica, Grenada, Jamaica, Montserrat, St Kitts-Nevis, St Vincent and the Grenadines and Trinidad and Tobago participated. Copies of the Manual were distributed to all participants. This workshop was conducted prior to the convening of the CHRC 50th Annual Council and Scientific Meeting.

HIV, Infant Feeding and Prevention of Mother-to-Child Transmission of HIV

The agenda for each workshop included a session that was devoted to sharing WHO nutrition guidelines for young child-feeding in the presence of HIV. A special workshop was organised in one country for this purpose. Thirty persons participated. These sessions and the workshop generated a great deal of discussion, particularly in view of national policies in all the territories.

Beneficiaries

Collectively, during the life of this project a total of 842 healthcare providers were direct beneficiaries and recipients of nutrition information useful in the treatment or care of PLWHA .

The reach extended to nutritionists, dietitians, dietetic technicians/dietetic assistants, nutrition officers,

a food-service supervisor, physicians, psychologists, nurses, social workers, pharmacists, laboratory technicians, health educators, voluntary counseling and testing (VCT) counsellors and HIV/AIDS coordinators. Nursing personnel were the largest group at each workshop site.

Anthropometry Skills Development

Feedback received from the workshop evaluations by healthcare providers, participants from almost all countries, indicated that there was a need for anthropometry knowledge and skills enhancement. A sub-regional workshop was convened in Nassau, Bahamas, from November 6 to 8, 2006. This specially targeted workshop attracted 50 healthcare providers, 35 of whom were country representatives invited by the CFNI.

Each country was asked to nominate a nutrition or dietetics professional and a public-health nurse involved in providing HIV treatment and care. Fifteen countries responded accordingly. Each country sent one representative and Trinidad and Tobago had four representatives to cover the two islands. The remaining 15 persons were from the host country.

The facilitators were the dietitian from the Oak Tree Clinic in Vancouver, Canada, and CFNI staff members.

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Practical Session during the Anthropometry training for Healthcare Workers.

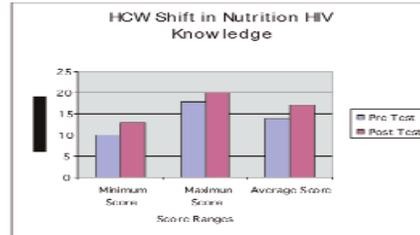
Following this workshop, representatives were required to plan and conduct a similar workshop in their country by May 2007. These follow-up workshops occurred in 12 of the 19 participating countries with one country conducting two workshops. Excepting some minor adjustments, the representatives indicated that they simulated the training to which they were exposed in the Bahamas.

Written reports were received from 12 representatives. Table 6 shows that the greatest number of participants were nursing personnel, followed by nutrition/dietetic personnel, including dietetic interns. Indeed, this was another opportunity to reinforce the importance of nutrition and to advocate its inclusion in HIV therapy.

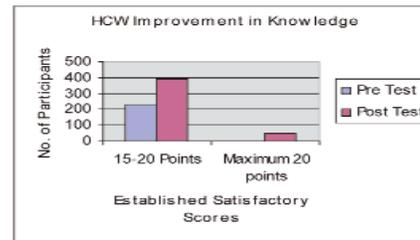
Improvement in HIV Nutrition Knowledge of Healthcare Workers

Healthcare workers' improvement in knowledge was evaluated using pre- and post-test scores. Of a total of 693 workshop participants (Table 5),

**Figure 5
HCW Shift in Knowledge**



**Figure 5.1
HCW Improvement in Knowledge**



447 healthcare workers completed both tests as shown in Table 7. Of this number, 49 persons (11%) scored the maximum 20 points on the post test compared with only 1 person on the pre test. Table 7 also shows that 389 (87%) persons versus 231 (52%) achieved the established satisfactory score between 15 and 20 points. Comparison between the minimum pre- and post-test scores, the maximum pre- and post-test scores and the average scores shows that there was a positive shift after the workshops. Figures 5 and 5.1 also present these comparative results.

Activity: Distribute Handbooks, Manuals and other materials to member countries.

ARTICLE 3

Output: *Handbooks, Manuals and other educational materials sent to member countries.*

Table 8 shows that a total of 17,000 copies of the Handbook, 4,400

copies of the Manual and 5,000 of each of the thematic booklets were produced for distribution. The bulk of the copies of these productions was sent to member countries.

Table 6
In-Country Anthropometry Skills Development Workshops

Country	No. of Works	Duration	Category of Person				Total
			Dietitian Nutritionist/ Nutrition Officers	Dietetic/ Nutrition Interns	Hospital/ Community Nursing Personnel ¹	Other ²	
Antigua & Barbuda	1	2 days (12 hrs)	1	0	11	0	12
Bahamas	1	-	0	0	7	1	8
Barbados	1	2.5	10	0	2	0	12
BVI	1	2 days	0	0	6	0	6
Grenada	3	2 days	0	0	30	7 ³	39
						2 ⁴	
Guyana	1	24 hours	3	0	0	7	10
Jamaica	1	-	10	5	0	0	15
St. Vincent & the Grenadines	2	12 hrs. each	5	0	42	3	50
St. Christopher & Nevis	1	1 day	1	0	13	1	15
Suriname	1	3 days	0	0	10	0	10
	1	3 days	0	0	11(HIV)	0	11
Trinidad	1	1 day	16	3	0	0	19
Tobago	1	2 days	0	0	8	1	9
TOTALS			46	8	140	22	216

¹Nursing Assistants, Registered Nurses, Public Health Nurses, Family Nurse Practitioner, Ward Sisters, Clinic nurses from VCT sites.

²Planned Parenthood Association/HIV Support Group; HIV Counsellors from Secretariat; Health Educator; Food and Nutrition Council Worker; Nutrition Auxiliary Worker; Dietary staff; Clerk.

³Grenada Food & Nutrition Council (GFNC) staff.

⁴Students from Community College.

ARTICLE 3

Table 7
Change in HCW Knowledge Pre and Post Workshops

Country	No. Finishing Both Tests	Minimum Score		Maximum Score		Average Score		Persons with 15-20 Points		Persons with Total Score	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Anguilla	09	13	18	19	20	16	19	05	09	0	01
Antigua	27	10	12	19	19	14	17	12	21	0	00
Bahamas	31	10	13	19	20	14	17	15	29	0	01
Barbados	16	10	12	18	20	14	17	08	14	0	02
Belize	32	09	10	19	20	15	17	20	28	0	03
British Virgin Islands	03	13	16	16	19	15	17	02	03	0	00
Dominica	24	09	11	16	18	13	15	08	13	0	00
Grenada	37	09	15	19	20	15	18	22	37	0	03
Guyana	24	08	09	17	19	12	14	05	10	1	00
Jamaica	93	09	12	20	20	15	17	58	82	0	12
Montserrat	05	13	15	15	19	14	17	01	05	0	00
St. Christopher & Nevis	18	09	16	18	20	15	18	11	18	0	01
St. Lucia	20	11	15	17	20	14	18	09	20	0	03
St. Vincent & the Grenadines	45	11	12	19	20	15	18	24	44	0	06
Suriname	17	11	11	19	20	14	16	07	13	0	01
Turks & Caicos	06	10	11	16	18	13	16	01	04	0	00
Trinidad & Tobago	40	09	13	19	20	15	18	23	39	0	16
TOTALS	447							231	389	1	49
Average		10	13	18	20	14	17				

Table 8
Summary of Copies of Handbook, Manual and Thematic Booklets Produced

Publication	English	Dutch	Total
Handbook	15,000	2,000	17,000
Thematic Booklets	5,000	-	5,000
Manual	4,200	200	4,400
	24,200	2,200	26,400

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Activity 2.5: Guide development and monitoring of plans for further national dissemination of publications and nutrition information

Output 2.5: Greater awareness of role and importance of nutrition among HCWs and the general population.

Each workshop included a period when groups of participants brainstormed and decided on at least one appropriate and achievable activity to promote further use and dissemination of nutrition information to other lay persons or HCWs. Guidance was provided by the facilitators. The local workshop coordinators were designated as country monitors to ensure that the activities were implemented. CFNI staff also met with group representatives to assess progress with implementation of such plans. A format was also provided to be used as a guide for submission of written reports. It was revealed that there was minimum monitoring and only a few countries were able to implement some of their plans. Generally, it was challenging for most of countries and many of them identified lack of finance as a limitation.

Activity 2.6: Upload educational materials onto CFNI website.

Output 2.6: Handbook, Manual and other materials available via CFNI website.

The Handbook and the Manual were uploaded to the CFNI website, www.paho.org/cfni, thus increasing their accessibility. It is also part of the PAHO HIV and PAHO Nutrition resources available on the web. The CFNI also serialised the information from both publications in CAJANUS. Two special editions^a dedicated to Nutrition and HIV/AIDS were published and each edition was distributed to 4,000 subscribers regionally and internationally. These editions are also available on-line at the CFNI website.

The CFNI website is also used to further disseminate the nutrition information via the power-point slides used during the training workshops will be uploaded in the coming year. Consequently these can be accessed by visitors to the site.

Activity 2.7: Plan and conduct survey to determine inclusion of nutrition and HIV and AIDS in tertiary-level curricula for educating or training healthcare professionals.

Output 2.7: Awareness of scope of pre-service training curricula for healthcare professionals.

It was envisaged that dissemination of HIV nutrition information could be accomplished through pre-service educational programmes for healthcare professionals at tertiary-level institutions in the

^aCajanus, Volume 36, No. 3, 2003 and Volume 37, No. 4, 2004.

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region. Although this was outside the scope of the project, a preliminary survey was undertaken to determine the extent of inclusion of HIV and AIDS nutrition information in such programmes. As at 2004, 46 of 66 programmes included some nutrition. However, Nutrition and HIV and AIDS was reported to be included in 25 of the 46 programmes in 11 countries, namely the Bahamas, Barbados, Belize, the Cayman Islands, Dominica, Jamaica, St Kitts & Nevis, St Lucia, St Vincent & the Grenadines, Suriname and Trinidad and Tobago.

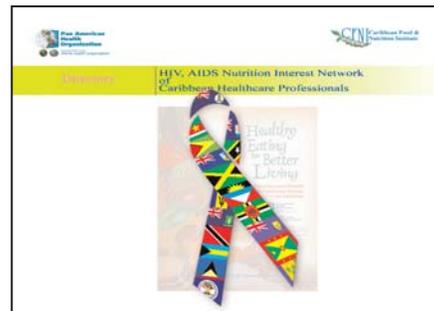
From another standpoint, only 25 (38%) of the 66 programmes for which responses were received reported that nutrition and HIV and AIDS is included in their education or training of healthcare professionals. These preliminary findings suggest that consideration should be given to expanding healthcare professionals' pre-service education and training to include some component, nutrition for HIV and AIDS, to further broaden the scope for dissemination and use of information. This issue was discussed with the Caribbean HIV/AIDS Response Team (CHART) in Jamaica as well as with the nursing school in Suriname. Both institutions have considered using the material in their training curricula.

Building Alliances

Activity 3.1: Establish national and regional networks of HCWs.

Output 3.1: HCWs linked through network for improved communication and support to each other for PLWHA.

Arising from the workshops with healthcare professionals, a Nutrition Interest Network (NIN) of Healthcare Professionals was created. To help these interested persons to maintain contact and assist each other as well as be nutrition focal points nationally and in the region, a Directory was created and disseminated to each NIN member and other key persons in health and non-health sectors, and international organisations, e.g. PAHO and CIDA.



Cover of the Directory of Healthcare Professionals with an interest in Nutrition and HIV.

Activity 3.2: Plan and administer survey for HCWs to evaluate themselves about awareness of stigma and discrimination toward PLWHA.

Output 3.2: Healthcare professionals and other workers sensitised to treat PLWHA with dignity.

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Healthcare workers (HCW) from varied professions are required to be involved in provision of comprehensive treatment and care to persons living with HIV/AIDS (PLWHA). Conscious or unconscious demonstration of stigma and discrimination can impact on the effectiveness and efficiency of health services provided and can thus limit access to care by PLWHA. Lack of awareness can be an underlying factor that may contribute to such behaviours by HCWs. A secondary objective of the nutrition and HIV workshops was “to help healthcare workers recognise negative views that they may have towards PLWHA, thereby increasing their awareness and improving their attitudes of stigma and discrimination”.

Methodology

Before and after each workshop, a ten-statement questionnaire was administered for each participant to evaluate personal feelings about interfacing with PLWHA.

The ten statements were:

- I feel empathy for people living with HIV;
- I am comfortable treating people with HIV;
- I worry about contracting HIV when I treat people with HIV or AIDS;

- Health care workers should be allowed to refuse to care for HIV-infected clients;
- HIV-infected school teachers should be able to continue teaching;
- People who are HIV-positive are responsible for their infection;
- I would be comfortable with my child playing with an HIV+ child;
- I would feel comfortable about being treated by an HIV-infected healthcare worker;
- I would continue to buy food at a shop if I found out that the shopkeeper was HIV-infected;
- I would be willing to care for a family member who is sick with HIV or AIDS.

Anonymous responses were elicited using a five-point Likert scale, ranging from strongly disagree to strongly agree.

Results

Pre-workshop and post-workshop responses were received from 517 and 465 participants respectively. Females and nursing personnel were the predominant groups.

Responses to each statement were collated and evaluated. This grouped data are presented in tabular and graphical formats reflecting a regional position.

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Table 9 Pre and Post Tests by Country		
Country	Pre-Test Total No. of Persons	Post Test Total No. of Persons
Anguilla	8	8
Antigua & Barbuda	43	30
Bahamas	38	33
Barbados	31	23
Belize	42	36
British Virgin Islands	11	7
Dominica	33	26
Grenada	39	41
Guyana	29	26
Jamaica	61	61
Montserrat	4	5
St. Christopher & Nevis	25	22
St. Lucia	24	22
St. Vincent & the Grenadines	48	47
Suriname	26	25
Trinidad & Tobago	49	47
Turks & Caicos Islands	6	6
Total for All Countries	517	465

Table 10: Responses to the Question “I Feel Empathy for People Living with HIV”

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	No Response	Rounded Total
% Pre	1	1	2	39	55	2	100
% Post	1	3	5	38	53	1	100

Table 11: Responses to the Question “I am Comfortable Treating People With HIV”

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	No Response	Rounded Total
% Pre	1	3	10	39	46	2	100
% Post	0	1	0	29	67	2	100

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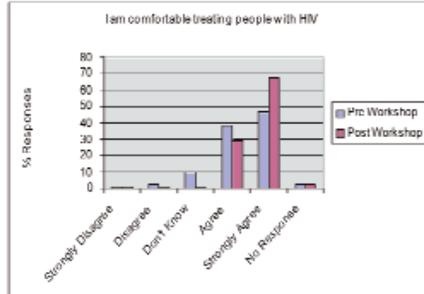
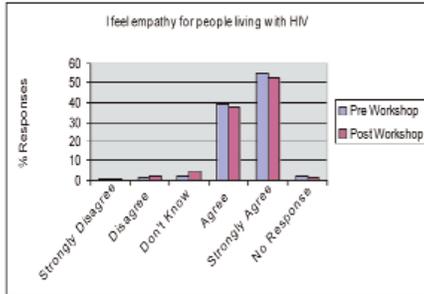
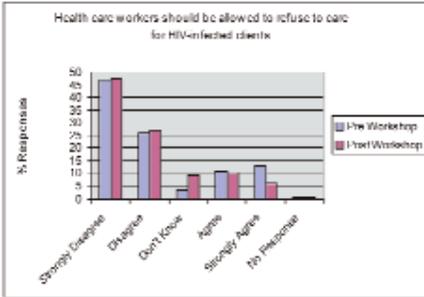
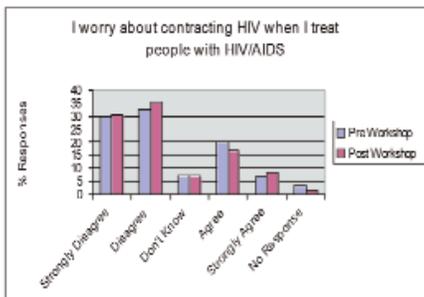


Table 12: Responses to the Question “I Worry About Contracting HIV When I Treat People With HIV/AIDS”

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	No Response	Rounded Total
% Pre	30	33	7	20	55	7	100
% Post	30	36	7	17	53	8	100

Table 13: Responses to the Question “Healthcare Workers Should be Allowed to Refuse to Care for HIV-Infected Clients”

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	No Response	Rounded Total
% Pre	47	26	4	11	13	0	100
% Post	47	27	9	10	6	0	100



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Table 14: Responses to the Question “HIV-Infected School Teachers Should be able to Continue Teaching”

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	No Response	Rounded Total
% Pre	2	2	4	39	54	0	100
% Post	2	1	4	37	56	1	100

Table 15: Responses to the Question “People Who are HIV-Positive are Responsible for Their Infection”

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	No Response	Rounded Total
% Pre	25	39	13	11	7	2	100
% Post	29	34	15	10	6	2	100

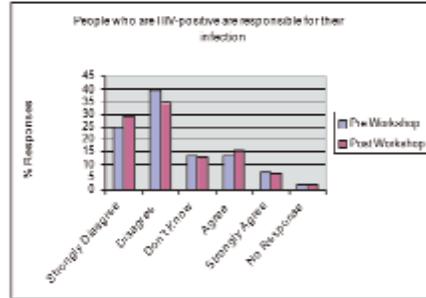
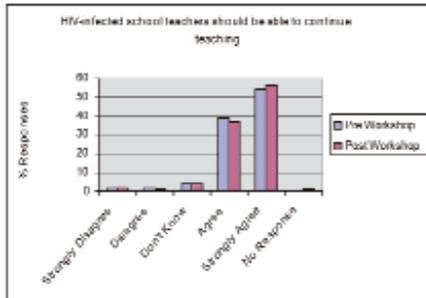


Table 16: Responses to the Question “I Would be Comfortable with my Child Playing with an HIV Positive Child”

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	No Response	Rounded Total
% Pre	4	14	26	38	17	1	100
% Post	4	11	25	40	19	1	100

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Table 17: Responses to the Question “I Would Feel Comfortable About Being Treated by an HIV-Infected Healthcare Worker”

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	No Response	Rounded Total
% Pre	4	14	21	41	19	1	100
% Post	3	9	23	45	20	1	100

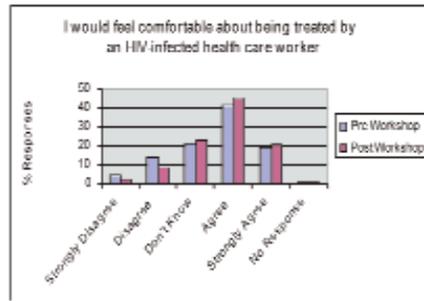
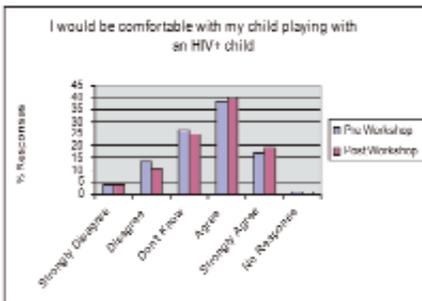


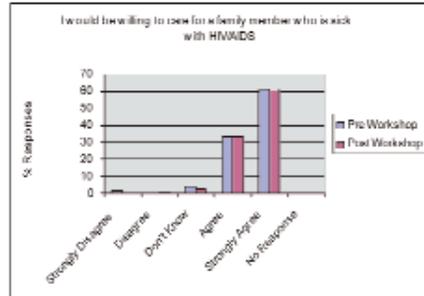
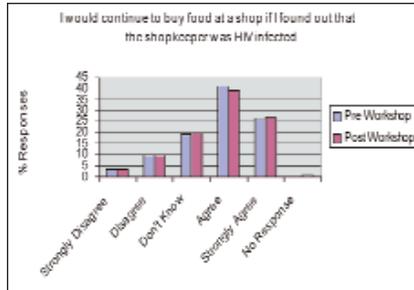
Table 18: Responses to the Question “I Would Continue to Buy Food at a Shop If I Found Out that the Shopkeeper is HIV Infected”

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	No Response	Rounded Total
% Pre	4	10	19	41	26	0	100
% Post	4	10	20	39	27	1	100

Table 19: Responses to the Question “I Would be Willing to Care for a Family Member Who is Sick with HIV/AIDS”

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree	No Response	Rounded Total
% Pre	1	1	4	33	61	0	100
% Post	1	1	2	34	62	1	100

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Conclusions

Involvement in and discussions during the workshops allowed the participants to express their feelings and for many encouraging signals of a change in attitude emerged. There were signs that the participants became more aware of their feelings, suggesting that this may contribute to a reduction of stigma towards PLWHA. This was especially observed with the question "I am comfortable treating people with HIV" where those that agreed or strongly agreed increased from 85% to 96% of the group and those who strongly agreed increased from 46% to 67% of the group at the end of the training. The major shift was from those who responded "don't know" which changed from 10% in the pre-training to nil in the post-training. This could be interpreted as being the effect of the training where the healthcare workers felt more trained and equipped to deal with HIV post-training. This change in perception is important

as the healthcare workers involved are the change agents and should be the persons leading the fight against stigma and discrimination. If prior to the training we still had 14% of the cohort not comfortable in treating people with HIV then it would have been difficult to expect them to carry the positive messages to the general public and their other colleagues not directly involved in the management of HIV.

Another important shift was seen in the questions which asked "I would be comfortable with my child playing with an HIV+ child" and "I would feel comfortable being treated by an HIV-infected healthcare worker". In both cases the post-training responses elicited a stronger agreement with the former moving from 55% to 59% of the group and the latter moving from 60% to 65% of the group. Those who disagreed with the latter statement also decreased from 18% to 12%, which could show that certain stigmas and

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misconceptions on the transmission of the virus had been clarified during the training.

A smaller increase in support was seen to the statement "I would be willing to care for a family member who is sick with HIV/AIDS" with a shift from 94% to 96% agreeing with the statement. Although the starting percentage was already high the training itself might have clarified certain issues, which may explain the shift of those who answered "don't know". This moved from 4% in the pre-training to 2% in the post-training.

The right of healthcare workers to refuse to care for HIV-infected persons was also clarified through the training, with those who agree or strongly agree that they have the right to choose coming down from 24% to 16% and those who strongly agree with the right decreasing from 13% to 6%.

Notwithstanding, there still seems to be a "hidden stigma" when it comes to activities outside the health systems and there was no change in the percentage of responses regarding the issue of HIV-infected teachers being able to continue teaching and also about continuing to buy food at a shop where the shopkeeper was HIV positive.

Healthcare workers can be encouraged to treat PLWHA with dignity. These nutrition workshops provided opportunities for open

discussion on issues that could affect the quality of care provided to PLWHA. We recommend that all "Staff Development Programmes" for healthcare workers should include a component relating to stigma and discrimination to help increase participants' self-awareness and contribute to improvements with client-provider relationship and quality of care. This small study has shown how even within the healthcare workers there is still a level of stigma which may be a barrier to providing services as well as in dealing with PLWHA with respect and dignity. More work is needed in this area and maybe nutrition could be another avenue that can be used to facilitate the removal of stigma and discrimination both within the health systems and for the public in general.

Activity 3.3: Initiate establishment of linkages with PLWHA (and/or support groups) and country coordinators.

Output 3.3: Focal persons identified and contact information exchanged

Having identified a focal person in each member country from the Caribbean Regional Network (CRN positive), the CFNI was instrumental in linking these persons with National HIV/AIDS Coordinators and Nutrition Coordinators especially in countries where this relationship did not previously exist. The workshop, in some countries, was the first opportunity

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for the nutrition personnel to meet the members of the local support groups. This training was especially important to facilitate access to PLWHA and planning of subsequent activities nationally, and in some countries the support groups have been actively using the nutrition specialists to assist them in their activities. Activities of this kind have been taking place in Antigua, Barbados, Guyana and Jamaica.

Activity 3.4: Collaborate with other Regional institutions and initiatives in the expanded response to HIV/AIDS.

Output 3.4: Institutions identified and linkages initiated.

This project enabled the CFNI to build alliances with other stakeholders involved in addressing the HIV epidemic in the Caribbean. Such alliances were attempted, fostered or strengthened with the Pan Caribbean Partnership Against HIV (PANCAP), the Caribbean HIV/AIDS Regional Training (CHART), CIDA/ESAC Partners, healthcare providers throughout the Region. The CFNI became a member of PANCAP in 2004.

This project also increased the profile of nutrition and HIV within PAHO. The CFNI is now a recognised and accepted focal

point for nutrition on the PAHO HIV team and was consulted during the development and finalisation of the PAHO Caribbean HIV/STI Plan for the Health Sector, 2007-2011. The Institute has been identified as the regional institution with responsibility for providing “technical leadership and capacity-building support on discrete aspects of responses in the health sector. Within the context of the PAHO Caribbean HIV Plan, the CFNI will provide technical leadership in the area of HIV and Nutrition^a.”

REMEMBER....

- ❖ Pay special attention to your diet as soon as you are diagnosed.
- ❖ Use the Caribbean Six Food Groups to select your food choices for a good mix of the 6 groups of nutrients and to help balance your diet every day.
- ❖ Keep good nutrition as your goal everyday.

^aPAHO Caribbean HIV/STI Plan for the Health Sector, 2007 to 2011, A Strategy and Plan to Support Countries in Strengthening Health Systems to Maximise the Access, Quality and Impact of HIV/STI Services. Washington, DC: PAHO, 2007.

Project Outcomes and Outcome Evaluation

Consequent on the initial stakeholder workshops, the four project outcomes in the revised log frame were as follows:

- Improved dietary and food-safety practices of PLWHA and their lay caregivers;
- Improved nutritional care practices, including referrals for consultations, by HCW;
- WHO infant-feeding recommendations adapted in the development of national infant-feeding policy to prevent MTCT (of HIV);
- Alliances with other healthcare workers, PLWHA, community groups and institutions established or strengthened.

Qualitative and quantitative surveys were used to obtain participants' feedback to determine the outcomes of this project. Qualitatively, focus group discussions, key informant interviews, were conducted with representatives of both target groups. Quantitatively, each participant was asked to complete the relevant self-administered questionnaire. All instruments were developed by the CFNI. These were transmitted along with instructions and a copy of the workshop attendance registers. In the workplan it was

proposed to conduct a patient chart audit to determine nutrition-related practices of healthcare providers. Due to the logistics associated with this task and confidentiality issues, an alternative approach, Section 3 of the layperson's questionnaire, was used to obtain this information.

Outcome 1: *Improved dietary and food-safety practices of PLWHA and their lay caregivers.*

PLWHA and Lay Caregivers/ Providers

The questionnaire for this target group (laypersons) was arranged into three sections, namely:

- **Section 1:** Respondent's Profile
- **Section 2:** Evaluation of Usage of Information at Home
- **Section 3:** Evaluating provision of nutrition-related healthcare providers' services to PLWHA.

Responses were received from 149 (36%) of 412 participants in 15 countries. Table 1 lists the number of responses received from each of these countries in relation to the number of participants. . No responses were received from three countries: the British Virgin Islands, Grenada and Jamaica. Staff turnover in the British Virgin Islands and Grenada as well as

Table 1:

Outcome Evaluation: Summary of Lay Participants and Returned Questionnaires

Country of Origin of Participants	No. of Participants	No. of Returned Questionnaires
Anguilla	07	07
Antigua & Barbuda	30	04
Bahamas	42	24
Barbados	39	19
Belize	46	13
Cayman Islands	05	02
Dominica	22	08
Guyana	36	10
Montserrat	01	01
St. Christopher-Nevis	26	10
St. Lucia	28	05
St. Vincent & the Grenadines	35	06
Suriname	37	13
Trinidad & Tobago	54	23
Turks and Caicos Islands	04	04
TOTAL	412	149 (36%)

technical and logistical issues in Jamaica presented great challenges. Many focal persons reported that they were unable to contact a number of the lay participants for varied reasons including death.

Findings of Quantitative Survey with Laypersons

Section 1: Respondents' Profile

Figures 1 to 1.6 present the profile of the 149 laypersons who responded. Of the one hundred and forty nine respondents, 66% were females and the predominant age group was between 25 and 50 years followed by persons over 50 years, then those who were under 25 years of age.

Only 44 (30%) of respondents stated that they are HIV Positive, 62 (42%) indicated that they are lay care-providers and 75 (50%) stated that they are associated with a support group.

One hundred and twenty five (84%) participated in the entire workshop; almost the same number (126/85%) reported having a personal copy of the Handbook and an additional 21 (14%) reported having some information from the Handbook. Overall, almost all respondents (147) have access to nutrition and HIV information from this source.

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**Figure 1:
Profile of Lay Respondents**

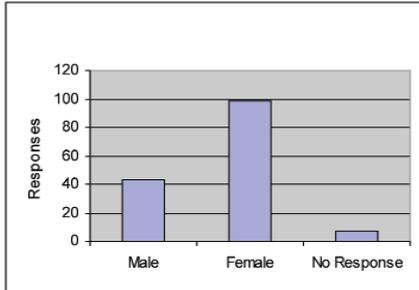


Figure 1.3: Laypersons' Access to Nutrition Information

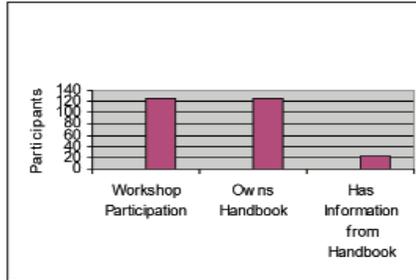


Figure 1.1: Age Distribution of Lay Respondents

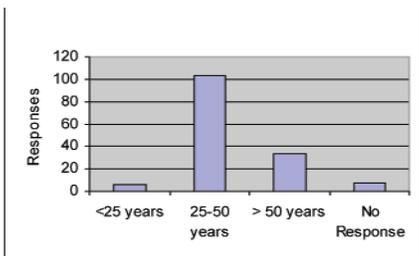
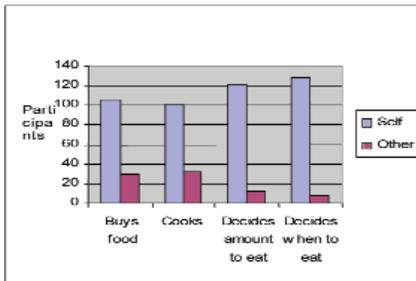


Figure 1.4: Laypersons' Socio- Environment



**Figure 1.2
Distribution of HIV + and Lay Care-Providers and Their Association with Support Groups**

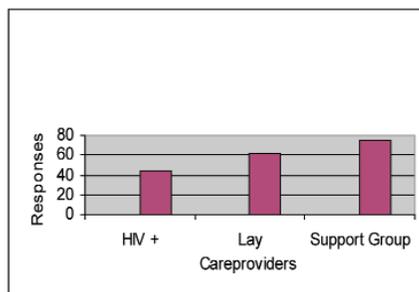
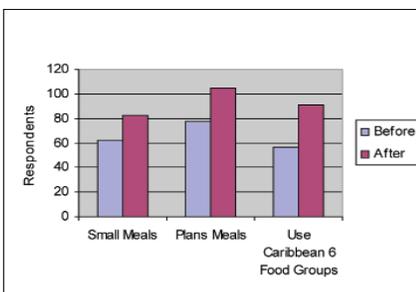


Figure 1.5: Change in Dietary Practices



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A large number of respondents indicated that they are independent about making choices regarding food purchasing (105/70%); food preparation (101/68%); the amount of food that is eaten (121/81%) and the frequency of meals (128/86%). Between 7 and 32 persons (5 to 21%) reported that they depend on others to provide or assist them. The structure of the questionnaire did not allow for desegregation of these responses to determine HIV Positive persons versus lay care-providers. It should also be noted that very few respondents stated the sex of the “other” person and therefore it was impossible to assume whether any gender issues existed.

Usage of Information

Section 2 inquired about eating and lifestyle habits to determine change in dietary and lifestyle practices before and after participation in the workshops. Review of Figures 2 to 2.4 shows that except for practices relating to food and water safety, there were positive outcomes regarding efforts to have small frequent meals, to engage in meal planning and to use the six Caribbean food groups to help plan meals and snacks. With regard to food safety and hygiene, the responses should not necessarily be interpreted as negative outcomes. Rather, adherence to food safety and hygiene practices

might have been a priority before the workshop.

These responses show that respondents are also now focusing on food choices and timing of meals to minimise drug-food interactions.

In addition, participants' responses are also demonstrating that they are paying greater attention to keeping a record of their body weight and body mass index given the emphasis that was placed on these indicators during the workshops.

Figure 2: Change in Dietary Practices

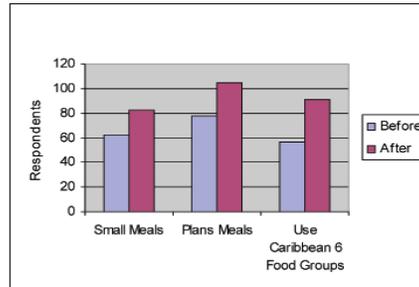
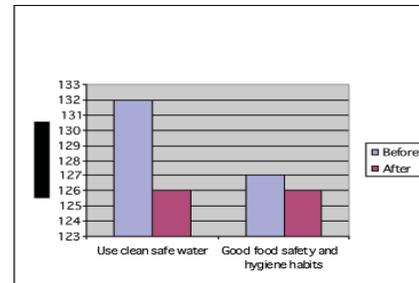


Figure 2.1: Food Safety and Hygiene Practices



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Figure 2.2: Change in Focus Regarding Drug-Food Interactions

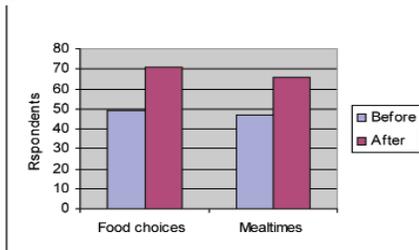


Figure 2.3: Change in Awareness of Body Weight Status

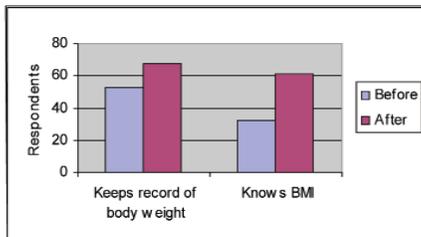
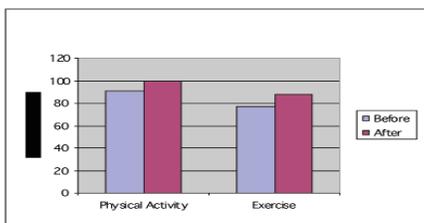


Figure 2.4: Change in Physical Activity and Exercise Practices



Section 3 of this questionnaire was structured to determine the practices of healthcare providers during the past year that PLWHA attended clinic. Like the previous sections, respondents were asked to answer all of the questions, but it was noted that the “no response” rate was high ranging from 37-43%

regarding anthropometric measurements of clients; 37-39% regarding discussion of factors relating to nutritional status; 37-40% regarding discussion of lifestyle issues and 35-39% regarding referral of clients to a dietetics professional or for food assistance. Figures 3 to 3.2 give a breakdown of the other responses from this target group.

Figure 3: Anthropometric Measurements of Clients

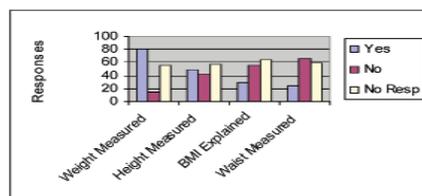
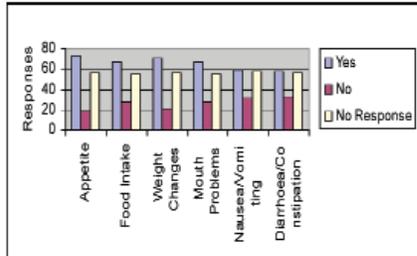


Figure 3 shows that 80 (54%) of the respondents stated that weight was measured during the last year of attending clinic; 49 (33%) reported that their height was measured but only 30 (20%) reported that BMI was explained. A smaller number 24(16%) stated that their waist was measured. This feedback suggests that HCWs are making some efforts to use anthropometric measurements in provision of treatment and care of PLWHA.

Figure 3.1 shows that 58 (39%) to 74 (50%) of respondents stated healthcare workers have been discussing factors that could affect nutritional status. Discussions about appetite seemed to be very

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Figure 3.1: Discussion of Factors Affecting Nutritional Status



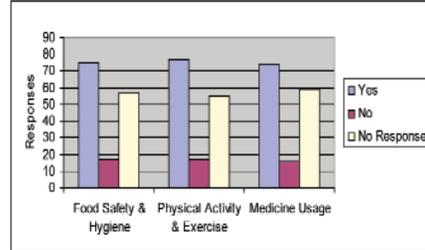
common while discussion about diarrhoea/constipation was reported as being less common.

Figure 3.2 reports that 74 (50%) to 77 (52%) of respondents stated that healthcare workers have been engaging clients in discussions about the importance of food safety and hygiene, physical activity and exercise and how and when to take medicines.

In addition to the previous responses, it was necessary to establish the frequency with which these practices prevailed. Although there were many non-respondents, **Table 2** gives some indication about the frequency of these practices as reported by those persons who responded affirmatively to the questions.

Figure 4 reports were made by healthcare workers to discuss and offer suggestions to address diet-related problems but referrals to a dietitian/nutritionist occurred less often. Some respondents indicated that this was not necessary or the service was not available. Here, again, there were many non-respondents.

Figure 3.2: Discussion of Lifestyle Issues



Findings of Qualitative Survey with Laypersons

Focus group discussions were conducted by two of the CFNI project officers with 9 groups totalling 77 laypersons, 26 males and 51 females, including PLWHA from 8 member countries (Barbados, St Vincent & the Grenadines, Trinidad & Tobago, Antigua, Belize, Guyana, Jamaica and Suriname) with one group in Trinidad as well as Tobago. A discussion guide consisted of six questions, some of which were multipart questions.

1. Tell me something that you remember learning from the Handbook

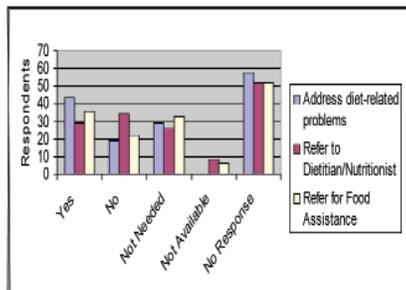
Participants' levels of recall varied to the extent that there was little repetition within the group. The area of food safety and hygiene was outstanding, and since this is a broad topic it was not exhausted. Some comments were:

- Handling eggs and storing them in the fridge and not on the door;
- The time span when dealing with food;

Table 2:
Frequency of Nutritional Care Practices by Healthcare Providers

Question	Frequency of Responses					
	No. of Positive Responses	Every Visit	Monthly	Bimonthly	Other**	No. Response
Was weight measured?	79	29	13	3	9	25
Was height measured?	49	11	6	1	10	21
Was BMI explained?	30	3	1	1	5	19
Was waist measure taken?	24	5	3	1	2	13
Did the healthcare provider ask any questions about....						
a) appetite	73	4	4	2	12	29
b) food intake	66	5	5	1	10	28
c) weight changes (loss or gain)	71	4	4	2	11	32
d) mouth problems	67	2	2	0	10	30
e) nausea and/or vomiting	59	1	1	1	10	28
f) diarrhoea or constipation	58	1	1	1	9	27
Did the healthcare provider discuss the importance of....						
g) food safety and hygiene	75	20	3	1	14	37
h) physical activity and exercise	77	20	4	1	13	39
i) how and when to take your medicines	74	19	3	0	12	40
Other**: not often; 1st visit; 4 times per week, weekly; every 6 weeks; every 2-3 months/quarterly; every 6 months; when needed; sometimes; not frequently; occasionally; always.						

Figure 4: Dietary Interventions and Client Referrals



- Food should be stored in the refrigerator under two hours after cooking;

- Not to keep cooked and raw foods together;
- Reheat food to the right temperature
- Did not know that vegetables carry bacteria if they are not washed properly before cooking. Some participants shared on food, nutrients and using the six Caribbean food groups with comments such as:
- Eating a balanced diet using the food groups: "eat from all in a day's meal";

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- Eating in small amounts and planning meals;
- Eating certain foods can help the immune system;
- How to change the diet when HIV+;
- The importance of food for HIV+ children; and
- How important nutrition is combining for health.

Others recalled about exercise, activities to relieve stress, body mass index, weight maintenance, "eat good food and work out to keep muscles good" and the importance of rest and sport in combination with good food. Adjusting the diet in the presence of diarrhoea, the "importance of taking drugs with right food and timing"; and avoiding alcohol and grapefruit juice with medication were also mentioned.

2. *Since you participated in the workshop, what type of nutrition-related activities have you been involved in?*

Many persons stated that they have been involved in sharing the information with others either at health fairs, in clinics, in workshops, formally by presentations or reports or informally "even in a taxi talking with the driver, just like how I spread the gospel." The topics varied depending on the needs. Some persons used the information for themselves with meal planning and food preparation and others copied parts of the book and shared as needed, and one person placed a copy on loan in a

library to allow other persons to access the information. There was a general impression that persons felt that there was "no sense keeping knowledge to self." One person said that nothing was done because "I am looking after a relative who is infected."

3. *How do you think this exposure to nutrition information has helped you with eating away from home, making better food choices, being more conscious of food preparation and being more conscious about food safety and hygiene?*

- *Eating away from home:* Generally, it appears that there is a greater amount of cautiousness about food selection and the environment and that food should be bought from a reputable place. Some indicated that they have started to walk with their own water, food and snacks because people "do not want to eat about." But a respondent said "if hungry, I buy snack on the road."
- *Making better food choices:* Using the food group charts to buy foods from different groups; prepared a leaflet on "Affordable Healthy Eating" and also encouraged backyard gardening using old tyres to grow vegetables; "they have improved – they know that to stay alive you have to balance everything." One person said that "I advise but cannot force them. Finance is overall a big problem, especially for females."

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- *Being more conscious of food preparation:* Most of the responses were centred around food safety, particularly food storage, handling leftovers, cooking only the required amounts so that leftovers are minimal and the proper thawing of frozen vegetables "in the fridge."
 - *Being more conscious about food safety and hygiene:* Boiling water always for drinking and making sure that vegetables are washed in safe, clean water; proper washing of cutting boards between food items if more than one is not available; the importance of hand-washing throughout cooking preparation and greater awareness of adherence to expiry dates were mentioned.
4. *What do you think that you have been doing differently/better since you attended the workshop?*

Many of the responses to this question centred around food preparation and food safety but a participant spoke about drinking "free water - pipe water" and skipping meals when money is unavailable. "Greasy food turns me off" was uttered by a respondent and another said that the workshop "serve to reinforce and the information is shared." Educating others and trying to practise what is known and taught also features among the responses - "proper nutrition and rest are now two

important things in my management of HIV." Some other comments were "the use of foods with medication has helped me to reduce the side effects of the medication"; "I use the food groups better and have been using yellow foods more"; "I make more natural juices and include the fruits and vegetables that I previously did not like" and "I have included nutrition in the training of counsellors."

5. *Are you receiving any food assistance?*

Some persons reported having access from the food bank in one country, the Welfare Department, NGO or Faith Based Organisations (FBO). In one country it was felt that the supply was not adequate or consistent and in another country a participant felt that "food assistance sometimes makes a person to be dependent and not teaching them to be empowered." The lack of vegetables and fruits was identified as an issue. Where food assistance is available, there are no systems for monitoring usage or impact.

6. *Is there anything else that you would like to say about food and nutrition for your health?*

Comments centred around food availability and affordability as well as further education and updates. One participant stated that "nutrition has a lot to do before medication - try nutrition first and see what will happen. I think it is working". In a similar light, a participant said that

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"people think that they need to have medication to feel healthy when it should be that they stay healthy to avoid medication." Another person made a statement about plans to launch a website and plans to include some information from the book. One male participant said that there was insufficient or limited advertisement about nutrition in a similar manner to advertisements about condom use, stigma, et cetera.

Attempts were made to determine if there were gender issues regarding food. There were mixed responses, in that some felt that "meals are withheld but persons at home may not be aware" while others said that females are not treated differently from males. These views could neither be supported nor

refuted because of the absence of responses in the quantitative survey.

Healthcare Workers

The self-administered questionnaire for healthcare workers was structured in two parts:

- *Section 1:* Respondent's Profile

Section 2: Outcomes Evaluation – Nutritional Care Practices Before and After Participation in the Workshop.

Responses from healthcare workers totalled 279 (59%) of the participants who were reached in 14 countries. This data is presented in Table 3. There was no workshop in the Cayman Islands and no completed questionnaires were received from Grenada, Jamaica and the Turks and Caicos Islands for the reasons previously stated.

Table 3:
HCW Participants and Questionnaire Responses

Country of Origin of Participants	No. of Participants	No. of Returned Questionnaires
Anguilla	08	08
Antigua & Barbuda	33	27
Bahamas	47	24
Barbados	35	30
Belize	40	23
British Virgin Islands	19	13
Dominica	38	20
Guyana	31	19
Montserrat	05	03
St. Christopher & Nevis	30	17
St. Lucia	27	14
St. Vincent & the Grenadines	55	27
Suriname	31	18
Trinidad & Tobago	73	36
TOTAL	442	279 (61%)

Respondents' Profile

Given the generally observed predominance of females in the healthcare environment in the region, it was no surprise that 251 (90%) were females compared with 28 (10%) male respondents as shown in Figure 5. This was also consistent with the composition of participants at the workshops.

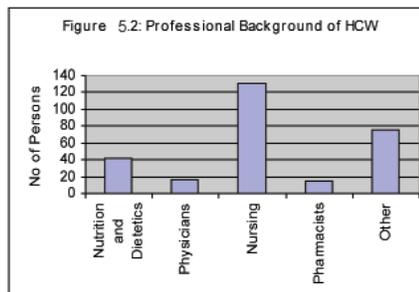
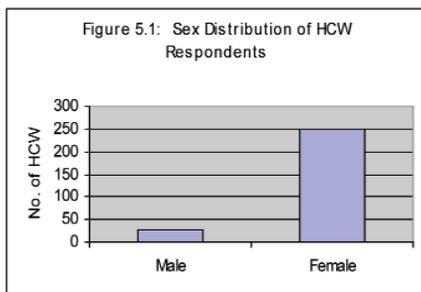
Figure 5.1 shows that nursing personnel amounted to 131 (47%) of these respondents followed by a mixed group of professionals totalling 76 (27%) and categorised as "Other." Nutrition and Dietetics personnel totalled 42 (15%) and the remaining 11% comprised 6% physicians and 5% pharmacists. Within this group, 225 (81%) stated that they remained for the entire duration of the workshop (Figure 5.2) while 38 (13%) reported partial attendance and 16 (5%) offered no response to this question.

One hundred and fourteen respondents (41%) indicated that their primary and current work area

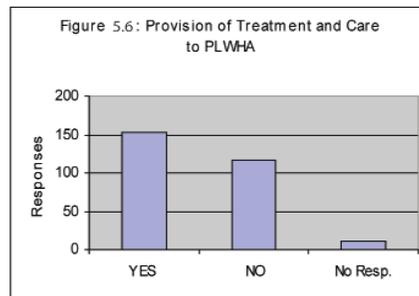
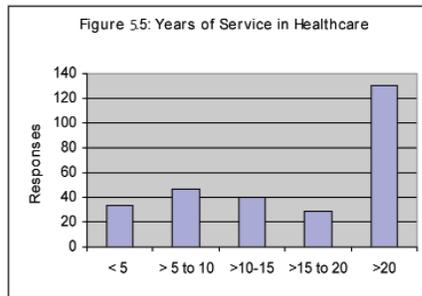
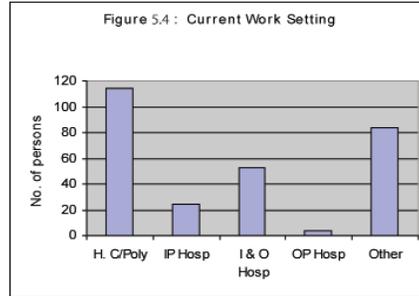
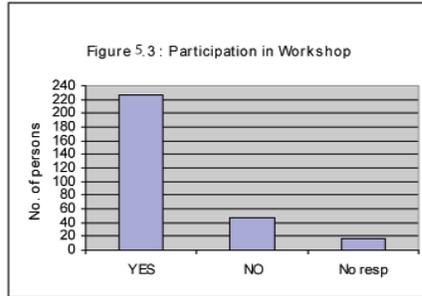
is in the community stationed either at a health centre or at a polyclinic (HC/Poly). Figure 5.3 further shows that 84 (30%) did not identify their current work area. The remaining 81 (29%) worked in a hospital in ambulatory and/or inpatient (I&O, OP, IP).

Figure 5.5 shows that the 130 (47%) of the respondents have been working for >20 years in healthcare; 47 (16.8%) have been working <5 to 10 years; 40 (14.3%) have been in the system >10 to 15 years; 33 (11.8%) for <5 years and the remainder 29 (10.4%) for >15 to 20 years. Of this number, 152 (55%) of the respondents stated that they are involved in providing treatment and care to PLWHA in the workplace while 116 (42%) responded negatively (Figure 5.6). The remaining 11 persons did not respond to this question. In an attempt to determine if the nutrition information was being used elsewhere, the healthcare providers were asked whether treatment and

**Figure 5:
Profile of HCW Respondents**



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care was being provided elsewhere; that is, outside of their workplace. In response 50 (18%) responded affirmatively as depicted in Figure 5.6. It is possible that there may be some overlap between these groups of users, but it is still striking that many of the respondents were not working in environments that allowed for use of the information at this time.

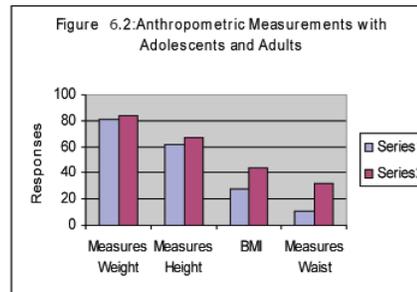
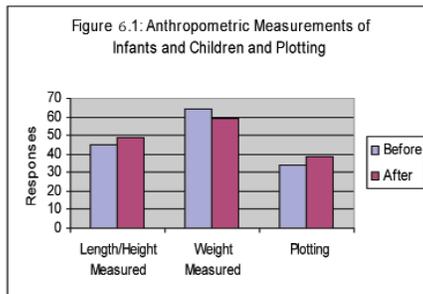
Outcome 2: Improved nutritional care practices, including referrals for consultations, by HCW

Responses to these statements/questions shown in Figures 6.1 to 6.4 are in relation to the 152 persons who indicated that they are currently involved in providing

treatment and care to PLWHA at their workplace. The graphs presented refer only to those healthcare workers who responded in the affirmative and provide some indication of the outcome of participation in the workshops.

Figure 6.1 shows little change in practices regarding measuring length/height of infants and children and plotting these measurements on the appropriate chart(s). Figure 6.2 shows improvement in practices in capturing the weight, height and waist circumference measurements and the body mass index (BMI) of adolescents and adults.

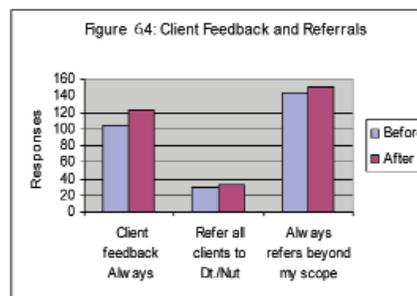
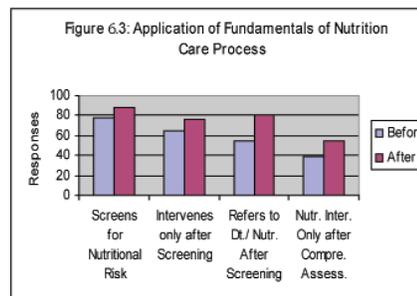
During the workshops, it was emphasised that nutrition intervention should always be preceded

Figure 6: Nutritional Care Practices of HCW Pre and Post Workshops

by screening for nutritional risk and/or a comprehensive nutritional assessment. It was therefore necessary to find out to what extent these aspects of the nutrition care process were being used by healthcare providers. It is encouraging to note that respondents have been trying to implement this practice as evidenced by the responses shown in Figure 6.3 which shows that there have been improved practices in the areas of screening for nutritional risk, intervening only after screening or a comprehensive nutritional assessment and referral to a dietetics professional after screening.

Referrals to dietetics professional or a nutritionist and consulting with other members of the healthcare team are often necessary and augur well for improved client outcomes. Based on the responses provided, it has been noted that following the workshops there has been a general trend (Figure 6.4) to involve other

team members, including the client whose feedback is critical during the counselling process.



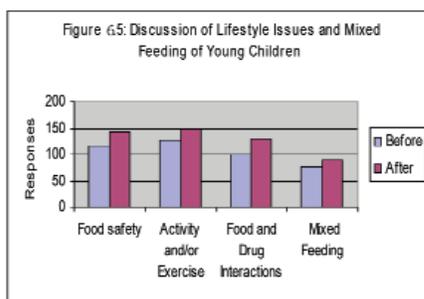
The nutritional status of PLWHA is dependent on dietary intake as well as other factors such as food safety and hygiene, physical activity

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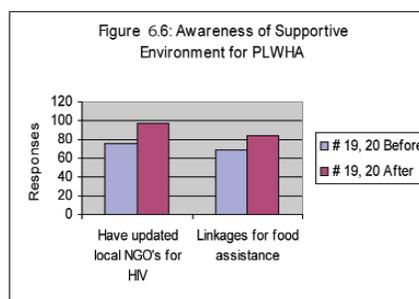
and exercise and food-drug interactions. These topics were discussed and emphasised during the workshops and are also included in the Manual. Participants were reminded that they should make every effort to discuss these topics with clients as well as avoiding mixed feeding of infants and young children born to HIV+ mothers. Figure 6.5 shows notable improvements with these practices.

The provision of nutrition services often involves managing

that they will be more aware of opportunities, organisations and agencies that can offer some food assistance to PLWHA. Based on the responses provided and represented in Figure 6.6, it can be said that since participating in the workshops, there has been increased awareness among HCW of local opportunities that can offer commodity food items to help improve household food security of PLWHA.



household food insecurity to help clients eat balanced healthful meals. Access to food is of concern to many PLWHA. Clients are likely to be more receptive to making behavioural changes when food insecurity is addressed. Networking with organisations and individuals who have access to food can be of tremendous help to PLWHA. During the workshops, the issue of household food security/insecurity came to the fore. Consequently healthcare providers were encouraged to investigate and become more familiar with their environment so



Qualitative Survey with Healthcare Workers

A series of focus group discussions and key informant interviews were conducted in the same seven countries as previously mentioned with respect to laypersons. Three key informant interviews were conducted with 3 females and 61 persons (17 males and 44 females) participated in the FGD. Each group consisted of a combination of professionals. Overall, there was representation from nutrition and dietetics,

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nursing, social work, pharmacists, counsellors/educators and physicians. Individuals were working simultaneously in settings spanning hospital ambulatory and in-patient settings as well as in the community. Some individuals' services were specific to infants and children, pregnant mothers or adults but most were involved with all age groups. This data and information is in response to questions 1 and 2.

1. How often do you measure clients' length/height, weight and waist circumference?

Responses depended on the workplace. Generally, height was taken of children, pregnant women at first visit, adults in some settings and in one country when patients are admitted. Weight was taken more often especially during pregnancy, in maternal child health clinics (MCH), monthly in VCT clinic and routinely in family planning. In two countries, this task was the nutritionist's responsibility. Waist circumference measurements were not done. These responses are not consistent with the findings from the quantitative survey.

2. What do you do with these measurements?

In most countries, a subjective assessment is done but in one country, BMI is calculated and discussed with the client, who is

then referred to the dietitian. The dietitian does skinfold measurements and will soon be starting Bioelectrical Impedance Analysis (BIA) because a machine arrived just at the time of the FGD. In the MCH clinic in one country, the growth of the child is monitored as well as progress during pregnancy. All "out of the normal" is referred to the physician.

3. What barriers/conditions prevent you from taking any of these anthropometric measurements?

Lack of tools/equipment, the physical facility, inadequate staff, the workload, not my responsibility and no data recording form were stated as some of the barriers.

4. How often and when do you screen clients to determine their nutritional risk?

It was evident that there was no system in place and that screening was not taking place in any structured manner. This impression does not correlate with the findings from the quantitative survey. In some countries, clients were asked about some conditions that could affect nutritional status such as nausea and vomiting; appetite; current dietary intake; stomach problems, particularly in relation to side effects of medication; finance; and the home situation (social worker), or if the HIV+ mother is breastfeeding.

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5. *What barriers/conditions/ situations prevent you from screening your clients?*

Some barriers identified were: workload; lack of equipment; limited time because there are other clinics to run; staff turnover, so continuous training is essential; no form to record information; and, in two countries, HIV+ clients are seen in a specialised clinic.

6. *How do you go about providing nutrition intervention?*

Nutrition intervention seemed to be centred on providing information, giving advice and education about nutrition, food safety, avoiding breastfeeding or discussing and referring client to the recipes in the Handbook to help increase dietary intake. In some cases, the client is referred to the physician while in another country the physician refers to the community nutritionist. In more than one country, accessibility to food was identified as a barrier to compliance. Here again, the responses to this question do not correlate with the general impression obtained from the quantitative survey regarding application of the nutrition care process.

7. *Since the workshop, how have you been using the manual?*

Many HCWs reported being involved in information dissemination to colleagues either in the

hospital or in the community, having conducted training sessions on all or selected aspects of nutrition therapy or the nutrition care process. One country reported: "The workshop training and sensitisation of other health-care professionals has been important for the acquisition of a BIA machine" and nurses and physicians "have started doing BMIs more regularly as now they know the importance of this measure and also the use of it in the holistic management of clients." In a few countries, information was extracted and converted to pamphlets.

8. *In providing treatment and care, which other healthcare professionals do you interact with?*

The extent of interaction varied depending on the country, operating systems, the physical environment and the availability of professionals. Titles noted were physicians, nurses, social worker, HIV and AIDS counsellor, psychologist, dietitian or nutritionist (if available or accessible, since there may be only one such person in the country), laboratory technician (in hospital).

9. *What else do you want to share about providing nutrition care?*

Many respondents were concerned about food unavailability but in one country where there is a food bank. A group member stated: "I can see a lot of changes/

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improvement since the nutritionist has come to work at the food bank (close to the HIV clinic).” Some dietetics and other professionals expressed the desire to be more involved but the current closed system (due to stigma) seems to be a barrier.

Outcome 3: WHO Infant-feeding recommendations adapted in the development of national infant feeding policy to prevent MTCT.

In summarising the survey responses from 13 of the 18 CFNI member countries, it was noted that WHO recommendations have either been adopted (6 countries) or adapted (7 countries) in the development or revision of national policies. Regarding the latter, four countries referred only to replacement feeding and three others mentioned the mother's “right to decide” but they are discouraged from breastfeeding.

Only three countries' policies included statements discouraging

mixed feeding and almost all identified government's assistance in providing replacement feeds. The duration varied between 6 and 18 months and in one country this assistance was up to 2 years. Only one country's policy included statements about discussion and demonstration of preparation of the feeds as well as assisting the mother to develop skills to cup-feed rather than bottle-feed.

Outcome 4: Alliances with other healthcare workers, PLWHA, community groups and institutions established or strengthened.

This has been reported in the various sections of this report, including the development of the directory for healthcare professionals with an interest in nutrition and HIV, the liaison with the various CRN+ committees during the development and execution of the project and the establishment of nutrition as one of the components of the PAHO Caribbean HIV Strategy.



WORLD AIDS DAY

Started on 1 December 1988, World AIDS Day is about raising money, increasing awareness, fighting prejudice and improving education. World AIDS Day is important in reminding people that HIV has not gone away, and that there are many things still to be done.

According to UNAIDS estimates, there are now 33.4 million people living with HIV,

including 2.1 million children. During 2008 some 2.7 million people became newly infected with the virus and an estimated 2 million people died from AIDS. Around half of all people who become infected with HIV do so before they are 25 and are killed by AIDS before they are 35.

The vast majority of people living with HIV and AIDS live in lower- and middle-income countries. But HIV today is a threat to men, women and children on all continents around the world.

Source: www.avert.org/world-aids-day.htm

Challenges Faced During the Project

Planning and implementing this project was not devoid of challenges, but through discussion and collaboration the CFNI was able to overcome most of them. Some of the challenges were as follows:

- Some delays were experienced with the formal start of the project. Nevertheless, the cooperation received from everyone and the priority that was given to this project implementation allowed for satisfactorily meeting most of the timelines.
- Initially, some difficulty was experienced with identifying the appropriate consultants from Canada. Intensive searching and networking resulted in the selection of someone whose contributions were invaluable.
- The participatory approach that this project required sometimes contributed to delays. However, the creation and utilisation of networks facilitated achievement of project objectives.
- It was often challenging to obtain the requested number of healthcare workers to participate in workshops because of the limited personnel in all of the healthcare disciplines, daily work commitments and competing activities in some countries that targeted some of the same persons. In some countries, the workshop was condensed or special evening sessions were organised especially for physicians.
- Inability to acquire a sufficient number of BIA machines affected anthropometry skills development of individuals during this specific workshop. Nevertheless, explanation of use was provided and in at least one country a machine was later acquired and is being used.
- After workshop participants developed preliminary plans to further disseminate nutrition information and increase awareness locally, implementation was challenging in most countries because of limited financial resources and existing workload. These were identified as reasons for partial accomplishment of these plans.

Lessons Learned During the Project

- PLWHA in the region continue to have unmet needs for comprehensive treatment and care. Although this project contributed greatly to raising awareness for the inclusion of nutrition, many PLWHA are in need of tangible food assistance to apply knowledge.
- Persons from the lay community involved in HIV disease management or caring for PLWHA are eager to learn and be guided toward achieving optimal health. As long as the environment is conducive, learning is possible as was evidenced during the workshops. PLWHA and their caregivers need to be empowered to accept responsibility for their overall health and quality of life.
- Management of HIV disease extends beyond the involvement of persons from the health sector. Educational programmes should aim to include persons from other sectors as well as the affected. Countries should embark on planning and conducting regular educational programmes with laypersons. These initiatives will contribute greatly to the overall health of PLWHA.
- Nutrition professionals are limited in number in most countries and thus are not always available to be part of a multidisciplinary healthcare team, but where available express willingness to make a contribution.
- Individuals in the region continue to look to the CFNI for information and they have appreciated the contribution of this project. However the general profile of nutrition in the primary and secondary healthcare team is still a struggle.
- Networking with national HIV Coordinators, CRN+ and other more visible stakeholders is extremely important to help with the involvement and participation of PLWHA.
- Some specific needs of school-aged children and adolescents were not covered by the project publications or training. Resource mobilisation is being sought as a follow-up project to address specifically the nutritional needs and concerns of this age group.
- Non-nutrition professionals are not trained in nutrition screening techniques. This was partially addressed by the anthropometry workshop/training but needs also to be included in other staff development initiatives.

ARTICLE 3

Revised Log Frame for Nutrition and HIV/AIDS Project: *Developed January 2006, Effective April 2006*

Cajanus

Vol 41 No. 1, 2008

Narrative Summary	Expected Results	Performance Measurements	Assumptions/ Risk Indications
Project Goal To improve the quality of life of male and female persons living with HIV/AIDS (PLWHA).	Impact Improved nutritional status of infants, children and adults living with HIV/AIDS, including enhanced infant feeding practices to decrease postpartum MTCT.	Performers Indicators National reports of evaluation of nutrition interventions and postpartum infant feeding practices in MTCT prevention programmes.	Capacity in countries to implement HIV/AIDS policy, protocol and support system for optimal nutrition or dietetic services for infants, children and adults
Project Purpose To strengthen the capacity of institutions, communities, male and female caregivers and PLWHA in the Caribbean to include nutrition in treatment and helping to delay disease progression.	Outcomes Improved dietary and food safety practices of PLWHA and their lay caregivers.	Performance Indicators Reports of changes in dietary practices by PLWHA and lay caregivers.	Willingness and ability to acknowledge and adopt desirable dietary behaviours most times.
	Improved nutritional care practices, including referrals for consultations, by HCW.	Documentation in medical records reflecting nutrition care practice by HCW.	Accessibility of medical record for case review and documentation by healthcare workers.
	WHO Infant feeding recommendations adapted in the development of national infant feeding policy to prevent MTCT.	No. of countries with revised and implemented infant feeding policy documents for preventing MTCT of HIV.	Acceptance of WHO recommendations by stakeholders within countries.
	Alliances with other health-care workers, PLWHA, community groups and institutions established or strengthened	No. of countries with networks and linkages being established.	Willingness of persons to be associated with this initiative.
Activity Sets & Activities Production of Educational Materials Plan and conduct educational needs assessment with lay caregivers, PLWHA and HCWs.	Outputs Needs of target groups identified.	Performance Indicators Reports from focus group discussions (FGD) and key informant interviews (KII)	Mobilising individuals, especially PLWHA, to participate in FGD and KII.
Develop, test and produce nutrition and HIV handbooks and other educational materials for lay persons including PLWHA.	Handbooks and other educational materials produced for lay persons.	No. of English and Dutch copies of the Handbook reproduced No. of copies of brochure and other materials.	Timely and useful feedback from peer reviewers.

ARTICLE 3

Revised Log Frame for Nutrition and HIV/AIDS Project (Developed January 2006, Effective April 2006)			
Narrative Summary	Expected Results	Performance Measurements	Assumptions/ Risk Indications
Dissemination of Nutrition Information Launch project regionally and nationally in selected member countries.	Increased public awareness of nutrition and HIV/AIDS.	Media interviews and reports.	Attendance of invitees and interest demonstrated by the media.
Plan and conduct workshops with lay caregivers and PLWHA.	Increased capacity of lay persons to include dietary strategies.	Reports of number of workshops conducted; number of participants.	Mobilising participants especially PLWHA
	HIV/AIDS Intervention and/or self management	In workshops; evaluation of quality of work-shops; change in participants knowledge post-workshops.	
Plan and conduct workshops with HCWs.	Increased capacity of national Nutrition Coordinators, and other healthcare workers to integrate nutrition in comprehensive medical management of HIV disease.	Reports of no. of workshops conducted; number and category of HCWs participating in workshops; participants' evaluation of quality of workshops; change in participants' knowledge post workshops.	Availability of participants
	Improvement in HCWs knowledge about HIV and infant-feeding options to decrease risk of MTCT of HIV.	Change in HCWs' knowledge.	Acceptance of HIV infant feeding recommendations.
Distribute Handbook, Manuals and other materials to member countries.	Handbooks, Manuals and other educational materials sent to member countries.	Reports of no. of Handbooks, Manuals and other materials received by countries.	Establishment of efficient distribution systems regionally and nationally.
Guide development and monitoring of plans for further national dissemination of publications and nutrition information.	Greater awareness of role and importance of nutrition among HCWs and the general population.	Copies of plans for each country and records of publication dissemination.	Identification of responsible person at national level.
Upload educational materials on CFNI website	Handbook, Manual and other materials available via CFNI website.	Number of hits to CFNI website.	Accessibility of hardware to lay persons and other users.

ARTICLE 3

**Revised Log Frame for Nutrition and HIV/AIDS Project
(Developed January 2006, Effective April 2006)**

Narrative Summary	Expected Results	Performance Measurements	Assumptions/ Risk Indications
Plan and conduct survey to determine inclusion of nutrition and HIV/AIDS in tertiary level curricula for educating or training healthcare professionals	Awareness of scope of pre-service training curricula for healthcare professionals.	Report of completed survey	Timely responses from participating institutions
Building Alliances Establish national and regional networks of HCWs	HCWs linked through network for improved communication and support to each other for PLWHA.	Reports from countries about usage of networks.	Number of persons and countries interested in establishing the networks.
Plan and administer survey for HCWs to evaluate themselves about awareness of stigma and discrimination toward PLWHA.	Healthcare professionals and other workers sensitised to treat PLWHA with dignity.	Report of stigma awareness of HCWs pre and post workshops.	Willingness to participate in survey and honest self-evaluation.
Initiate establishment of linkages with PLWHA (and/or support groups) and country coordinators.	Focal persons identified and contact information exchanged.	Listing of contact persons for each country	Acquisition of information.
Collaborate with other regional institutions and initiatives in the expanded response to HIV/AIDS.	Institutions identified and linkages initiated.	Reports of outcome of meetings or initiatives.	Complimentary role and operations of collaborating institutions.

GENERAL FEEDING TIPS FOR THE CHILD WITH HIV/AIDS

- ❖ *Offer small servings of food more often.*
- ❖ *Give more protein and energy rich foods.*
- ❖ *Be sure the child has plenty to drink if he has vomiting or diarrhoea so that lost body fluid and minerals are replaced.*
- ❖ *Do not use food as a reward or as a form of punishment.*
- ❖ *Encourage your child to help you with shopping and making food choices, preparing meals and setting the table. Make meal-time an enjoyable time.*
- ❖ *Plan picnics and invite other children for meals.*
- ❖ *Make life and meals as normal and happy as possible.*



Lack of Food Worsens AIDS Epidemic in Jamaica

He hadn't eaten in 24 hours. Hunched over in a chair, looking anxiously round, he nervously clutched the right pocket of his worn-out pair of jeans, which held medicines that prevent violent seizures.

The seizures, he explained, had occurred only three times in as many years, and the first and the most vicious had rendered one of his hands and one of his legs useless for six months.

Joshua^a is HIV-positive and seizures are just one of the many side-effects of his illness. Curiously, it is not the seizures that bother him. Neither is it the availability of drugs, for he has enough tablets to last at least another week.

Rather, Joshua is tired of being hungry, always uncertain of when he will have his next meal or even where it will come from.

"Sometimes two days pass and I don't eat anything. A man who is not working has to beg for everything, but people don't always have it to give," he said.

"And sometimes I lie down in the bed, and I don't even want to come out because I have already exhausted all the channels I know [for food]."

'Not even a bellyful!'

With the rashes on his body clearly visible, he said it does not take long for employers to figure out that he is living with HIV and fire him. Forced to flee his home in rural Jamaica after his HIV-positive neighbour's house was torched, he lives in temporary shelter with the help of a Samaritan.

His last visit to the local clinic in early November confirmed what he suspected: deprived of food and the accompanying medication to boost his immune system, his CD4 count was a dangerously low 48, whereas it should be 400 to 500.

"If I don't do something to improve that CD4 count, one day I might just collapse," he said.

"I am not looking a bellyful... just fruits, vegetables or something with substance."

Unfortunately, Joshua is not alone in his predicament.

Of the 500 members of the Jamaica Network of Sero-positives (JN+), an NGO that provides support for HIV-positive people in Jamaica, some 400 - or 80 per cent - share Joshua's plight.

^aSome names have been changed to protect identities.

NEWSBRIEFS

"Access to treatment has increased, and while we are happy about that, persons who are HIV-positive cannot take the medicines unless they have proper nutrition," said Janet, who works for the organization. Janet has been HIV-positive for nine years.

"I have a job, so I can find something to eat. But many people who are HIV-positive are not working and they may not live in their own homes as their family members might have rejected them".

It's a vicious cycle, she explained: "It affects treatment, which results in resistance to drugs, which hastens the progression to AIDS and can end in death."

Donors Blamed

Dr. Mukesh Kapila, Acting Director in the Policy and Planning Division of the International Federation of Red Cross, blamed the rigid donor policies for the plight of those living with HIV.

Kapila, who was in Jamaica recently, claimed donors have a tendency to insist that funds are used primarily to provide medicines, which leaves other crucial needs of HIV-positive people underfunded and unaddressed.

"Never before have so much money, attention and interest been dedicated to HIV and AIDS worldwide. Every day, some politician or president is vowing yet more

billions to HIV. And yet, you don't see the benefits on the ground", he said.

"Just by writing a cheque and saying you have done it is not a sufficient discharge of the obligation that comes with contributing. It is not a question of getting more money; it's a question of making the money work much more smartly," he added.

Kapila said Red Cross intends to collect evidence of how the system is not working and lobby donors to ensure that funds go towards making life easier for HIV-positive people.

Major donors are expected to give the Global Fund to Fight AIDS, Tuberculosis, and Malaria at least \$9.7 billion over the next three years, 57 per cent more than they gave over the past three years.

Passing the Buck?

Dr Kevin Harvey, Senior Medical Officer at the Health Ministry and a key member of the National HIV Control Programme, told 2010 Features that the Ministry's primary responsibility is to provide AIDS drugs.

A whole network of non-governmental organisations and relief agencies had feeding programmes in place meant for people with HIV, he said.

"The Poor Relief, Jamaica AIDS Support for Life (JASL), Food for The Poor and the Jamaica Red Cross have feeding programmes, and we facilitate the distribution of

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food through some of those organisations,” he said.

But these efforts do not appear to be enough.

Tonya Clarke, Home-Based Care Coordinator at JASL, said that although her organisation and others have been running feeding programmes for several years many people were left out of this net.

“It will always be a challenge for some clients to get to food due to their illness or lack of money to pay bus fare,” she said.

Red Cross in Jamaica too is facing a serious challenge in meeting the demands of the ever-growing numbers who are turning up for free food.

Tony Hron, advocacy officer at JN+, said Red Cross recently told his organisation that it should not refer anyone else to them.

“Generally when we referred people to Red Cross, it has been able to help. However, recently, it told us that it cannot take on any more people, because it would then have to reduce the amount of food.”

Too Ill to Move

Hron was preparing to transport Jeff, an HIV-positive person from JN+'s office to Red Cross, where he gets a monthly food package. Jeff, who is paralysed in his legs because of an unrelated medical condition, says there is a need to scale up both the quantity and quality of food provided by various organisations.

Activists and carers such as Hron also point to a related problem: the Government does not include vitamin supplements in the national HIV programme. Vitamins are too expensive to purchase at full cost at pharmacies, putting them beyond the reach of Jeff and others like him.

Fabian Thomas, Red Cross Branch Director for Kingston & St Andrew, said the Red Cross food package programme is specifically meant for those HIV-positive people who are too ill to travel.

The organisation extended its feeding programme when some HIV-positive people made it to its offices but had to withdraw when large numbers of able-bodied patients began turning up.

“With the increased availability of ARVs, we need to reduce stigma and discrimination and encourage HIV-positive people to reclaim their lives. Everybody faces challenges. There are many people who are homeless, and those who suffer from other chronic diseases, who also need help and are not getting it,” he said.

Meanwhile, Joshua worries about the thrush (sore spots) that is again forming on his tongue. He has started to beg for J\$50.00 so that he can buy himself a cup of soup.

It would be his first meal in 24 hours. - 2010 Features.

[Source: Andrea Downer, for PANOS 2010 Features, Kingston, Jamaica, December, 2007.]



Book Review

What are the Options?

Enett Noble, Librarian, CFNI

Using formative research to adapt global recommendations on HIV and infant feeding to the local context. Geneva: WHO. Department of Child and Adolescent Health and Development, 2004. 40p.

Mother-to-child transmission (MTCT) of HIV accounts for about 800,000 or 10% of all new HIV infections worldwide each year. Paediatric HIV infection causes premature death when antiretroviral (ARV) treatment is not available. In Africa, for example, 30 to 50% of all untreated HIV-positive children die before their first birthday and fewer than 30% survive beyond 5 years of age. MTCT occurs during pregnancy, at the time of delivery, and after birth through breastfeeding. In the absence of interventions to prevent transmission, 5 to 10% of infants born to HIV-infected mothers are infected in-utero, 10 to 15% are infected during childbirth, and another 5 to 20% are infected through breastfeeding.

The purpose of this manual is to provide programme managers, researchers, and policy makers with basic guidance on how to conduct local assessments to establish the range of replacement feeding options and breastmilk feeding options that may be acceptable, feasible, affordable, sustainable and safe (AFASS) in different contexts. Findings from local assessments may also be used to develop national policies, guidelines for health workers, materials for training of

counsellors and behaviour change communications strategies to support safe infant feeding in programmes to prevent HIV infection in infants and young children. Current feeding options including home-modified animal milk are explored.

Additionally, issues related to complementary feeding, are also examined. The guidance is based on work already carried out to develop infant feeding recommendations for HIV positive mothers in sub-Saharan Africa and Asia (1998-2002), and many years of experience developing infant feeding recommendations for the Integrated Management of Childhood Illness (IMCI) strategy. This strongly suggests that rapid formative research, using a combination of qualitative and quantitative methods along with dietary assessment, provides the information necessary for defining feeding recommendations.

Matrices which list the priority topics related to each feeding option and the types of methods most useful for collecting this information are found in the Tables. The priority topics cover the: Knowledge, attitudes, and practices related to the feeding options, availability of materials (commodities, ingredients) and cost, nutritional considerations, constraints and facilitating factors for safe implementation.

Further there are 'sample formative research design' and 'Useful information on Replacement Feeding Options'.