

HIS & STI/HIV/TB PREVENTION & CONTROL IN GUYANA

“Public Health Strengthening in Guyana”

PROJECT NUMBER: A-030837

CONTRIBUTION AGREEMENT NUMBER: PO 7018609



Final Report – Executive Summary
June 2002 – March 2008



Canadian International
Development Agency



Canadian Society for
International Health



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A Bilateral Project Between The Governments of Guyana and Canada,
Managed By The Canadian Society For International Health (CSIH),
and Undertaken With The Financial Support of The Government of Canada,
Provided Through The Canadian International Development Agency (CIDA)

EXECUTIVE SUMMARY

The **Public Health Strengthening in Guyana Project (PHSGP)** was a bilateral Government of Canada – Government of Guyana project, funded by the Canadian International Development Agency (CIDA) and designed and implemented by the Canadian Society for International Health (CSIH) in partnership with the Guyana Ministry of Health (MOH) between January 2002 and March 2008. The idea for a potential health project in Guyana evolved from a comprehensive CIDA review of its health sector in 2000. The review identified, and the subsequent project sought to address, several areas in which Canadian organizations could work and play a significant role, including in the prevention and management of HIV/AIDS, sexually transmitted diseases, and tuberculosis, and in the design and maintenance of a Guyanese health information system. Following a lengthy design phase and subsequent reiterations of the Project's objectives and expected results, the Project's primary components and outcomes were formulated as:

- A national program for the diagnosis, prevention, and control of STI and HIV/AIDS in selected centres in regions 3, 4, 6 and 10 according to national and international standards;
- A national program for the prevention and control of tuberculosis using the WHO DOTS strategy in regions 3, 4, 6 and 10;
- Implementation of an adaptable and expandable electronic health information system to collect, process and communicate disaggregated health data on STI, HIV/AIDS and TB, contributing to national health policy and planning in agreed-upon sites;
- Contribution to national health policy, and establishment of a home and community-based training program for the care and support of HIV/AIDS and TB clients in Linden, Georgetown, and New Amsterdam; and
- Increased public awareness of Guyana-Canada collaboration for improving Guyana's Public Health System.

Project activities were implemented in several pilot sites selected following consultations with MOH and other key Project stakeholders. The chosen sites were located in Region 4 Demerara-Mahaica (in Georgetown), Region 6 East Berbice Corentyne (in New Amsterdam and Skeldon), and Region 10 Upper Demerara-Berbice (in Linden); additional sites were later included in Region 3 (Essequibo Islands (in West Demerara)).

In summary, the Project achieved a number of notable results, including:

- improved programs for the prevention and control of STIs, HIV/AIDS, and Tuberculosis;
- an improved capacity to collect health data, to process that data into information, and to communicate both data and information from their sources to points of use;
- an enhanced understanding of the importance of information in public health planning;
- an improved awareness of community-based approaches to disease prevention and control;
- an improved awareness of gender-specific health issues and an increased capacity, on the part of Project participants, to integrate gender awareness into their work;
- strengthened human resource capacity to sustain Project gains; and
- the development of global public goods, specifically through operational research and evaluation, and by identifying feasible and cost-effective methods for the delivery of

programs to prevent and treat STI, HIV/AIDS and TB.

In order to achieve these results, Project activities focused on strengthening and supporting human resources development, building and extending local capacity, developing guidelines and manuals, procuring medical/laboratory equipment and laboratory supplies, refurbishing laboratories, clinics and educational facilities, and undertaking Guyana-specific research to inform local decision-making, guidelines, and policy development.

Limited human resources were a key factor that had hindered the sustainability of many previous activities in Guyana. Recruitment and offers of employment from donor and overseas agencies deprived Guyana of a substantial number of locally-trained medical and health-related professionals. As a result, the additional burden of the HIV and TB epidemics had to be met by an already overextended staff. In order to address this problem, at least in part, the Project focused on in-service training (including training of trainers) and broad capacity building to help ensure sustainability. It also temporarily supported a number of key staff, providing bridge funds for salaries until they could be subsumed by the MOH or the Regions. This approach proved to be productive such that the Project leaves in Guyana both a network of trainers ready to train and retrain health professionals and a set of terms of reference and new key positions subsumed by the Ministry of Health.

For these newly trained staff to be effective over the longer term, they needed to have access to resources and techniques that will ensure regular qualification updates and ongoing capacity building. Training and continuous education thus were important project activities designed to ensure sustainability of Project gains and provide Guyana's health care professionals with the updated skills they needed to work effectively and deliver vital services. The Project therefore provided support and capacity building directly to the University of Guyana (curricula development, visiting lecturers, refurbishment of facilities) and to the MOH's schools of professional training. The mentoring, continuing medical education (CME) sessions, workshops, study tours, conferences, and postsecondary education for health care workers were all meant to secure improved capacity of Guyana's health professionals.

The need to develop and implement national, Guyana-specific guidelines, manuals, and strategies was among the first Project tasks identified during the design phase and work on these started at the beginning of the Project's implementation phase. Canadian experts and Guyana health professionals worked together to produce a number of manuals, teaching materials, and guidelines to support the treatment of HIV/AIDS, STI, TB, Home Based Care in Guyana, and laboratory work. In the process of developing these seminal documents, the Project team recognized the need to conduct research to establish some Guyana-specific aspects that could be taken in account, particularly for the later updating of the guidelines. The research, although not initially planned, was enriching and beneficial; in addition to providing the needed results, it created an environment conducive to, and secured financial support for, scientific approaches and evidence-based decision making in Guyana's health system.

To address Guyana's weak health infrastructure, the Project team made substantial progress in refurbishing laboratories, clinics, and educational facilities, increasing stock supplies, procuring hardware and networking materials required for the Health Information System, and providing

training for the maintenance of these systems. In addition, the Project team offered ongoing support in planning for supplies and equipment. Although few of these activities had been initially planned, they facilitated the achievement of results and will go a long way to ensure sustainability over the longer term.

Combating STI in Guyana

Reliable estimates of the frequency STI in Guyana were unavailable as the Project began. The reasons for this were multi-fold, ranging from the high rate of under-reporting to the fact that the extent of the STI problem and the range of responsible pathogens were impossible to define. Furthermore, the Guyanese health system suffered from seriously weak STI diagnostic, treatment, and monitoring capacities. Relevant technical expertise and adequate staffing were also lacking. In order to improve capacity to effectively diagnose, prevent, and control STI in Guyana, the PHSG Project had to meet several objectives: to develop and adopt national guidelines for the institutional management of STI and for contact tracing, to strengthen Guyana's capacity to deliver and sustain the prevention and management of STI, and to strengthen the capacity of the country's laboratories to diagnose and treat STI. Recognizing these needs and the deficiencies then existing in Guyana's STI/HIV/TB programmes, the Project commenced a collaborative project with the Ministry of Health that involved the following components:

- A baseline study, in collaboration with CAREC, to determine the aetiology of STI pathogens in Guyana and the resistance patterns of *Neisseria gonorrhoea* to antibiotics;
- Development of treatment guidelines and incorporation of the information generated from the study into the protocols for the management of STIs;
- Training of health workers in the management of STIs in selected project Regions (both pre- and in-service training); and
- Development of laboratory support for the diagnosis of STIs.

As part of the project, nurse-driven STI clinics were established and equipped in Regions 3 (West Demerara Regional Hospital), 6 (New Amsterdam Hospital), and 10 (Upper Demerara Regional Hospital and Mc Kenzie Hospital). Health workers attached to these sites benefited from extensive training in the management of STIs using a modified syndromic approach (history taking, physical examination, sample taking, syndromic treatment, counselling and reporting). Laboratories at these health facilities and the central medical laboratory at the Georgetown Public Hospital Corporation were equipped to perform laboratory diagnosis of specific STIs (Gram stains, wet preparations, culture and identification of *N. gonorrhoea*). The An STI laboratory network is linked to CAREC, where confirmation and drug sensitivity tests can be carried out as needed. Treatment guidelines for the management of STIs in Guyana, based on WHO guidelines, were developed by PHSG in collaboration with key stakeholders (MOH, GHARP, CDC/FXB, Guyana Pharmacists' Association) and adopted by the MOH. Over its lifetime, the Project trained more than 1,000 Guyanese health workers (including physicians, nurses and medexes) in the management of STIs according to the national guidelines. More than 100 health professionals were trained in the laboratory diagnosis of STI. Re-training and mentoring for STI technologists was provided by the Project in collaboration with the Caribbean Epidemiology Centre. A core course on STI and HIV/AIDS was developed, approved by the

University of Guyana, and began in January 2005. It is now a core mandatory course for all students in the Faculty of Health Sciences at the University of Guyana; the course has since been modified and has been offered to the general public as an annual summer course.

All these improvements and achievements are a product of the joint efforts of the Project team and the Ministry of Health (especially the Division of Health Sciences Education), and of the extensive collaboration with the Guyanese partners and CAREC. Training on Guyana's National Guidelines for STI was delivered in coordination with GHARP, and the study on access to health care by commercial sex workers and men who have sex with men was carried out jointly with the Pan-American Health Organization (PAHO). The Project's technical assistance has been requested by NAPS for the GFATM-funded expansion of STI services into other regions. Such efforts allow for an increased level of expertise and experience in implementation, which enhances the gains made by the Project.

Combating HIV/AIDS in Guyana

Prior to the development of the PHSG Project, Guyana was experiencing significant difficulties in controlling HIV/AIDS. At the end of 2001, official statistics showed that the number of Guyanese (adults and children) living with HIV/AIDS was approximately 18,000. More worrisome, though, was the estimation that officially reported cases represented less than one-third of the actual cases in the country. In order to improve capacity to effectively diagnose, prevent, and control HIV/AIDS in Guyana, the Project had to meet several objectives: develop and adopt national guidelines for the clinical management of HIV/AIDS, including cases of co-infected patients; strengthen Guyana's capacity to deliver and sustain the prevention and management of HIV/AIDS; and support the efforts of Guyana's National AIDS Programme Secretariat (NAPS). The Project team worked in coordination with other donors to identify niche areas for each. Through this process, the Project supported the GUM Clinic and focused on the development and implementation of national guidelines for the care and treatment of STIs and HIV/AIDS and on training (in addition to piloting rapid testing for syphilis). HIV-specific laboratory activities were ultimately downplayed, as other donors (notably CDC) assumed that focus and responsibility.

National Guidelines for HIV/AIDS were developed and adopted in collaboration with the US Centres for Disease Control. The Project also took part in a review process to develop the National HIV/AIDS Strategy for the years 2006 to 2010. Guidelines for the treatment of HIV/TB co-infection were finalized, National Guidelines for Anti-Retroviral Therapy were printed, and a practical manual for the management of HIV/AIDS was developed. As part of the effort to establish a home and community-based training program for the care and support of HIV/AIDS and TB clients in Linden, Georgetown, and New Amsterdam, Guidelines for Care in the Home and Community with an emphasis on treating HIV/AIDS clients were written and adopted.

Training and mentoring on the clinical management of HIV/AIDS was continuous in Guyana, and was planned to contribute to the long-term sustainability of Project achievements. The Project team worked with the MOH's Division of Health Sciences Education to upgrade the country's HIV/AIDS training programs, including the development of training modules and the training and mentoring of health professionals in the four Project regions. Upon request,

education sessions were provided for several line ministries, including the Ministry of Amerindian Affairs, the Ministry of Education, the Health Sector Development Unit, and the UNICEF and UNDP offices in Guyana. Training sessions emphasized the gender implications of HIV/AIDS, as it has had different impacts on the country's male and female populations. The Project also collaborated with the International Labour Organization's "HIV at the Workplace" training program to train home-based care trainers from over fifteen Guyanese trade unions.

In addition to these workshops and training sessions and programmes, modules for continuing education developed and delivered by the Project addressed the impact of HIV/AIDS on children and the family, the epidemiology of HIV, the interactions of HIV and the body, and the importance of leadership in fighting HIV/AIDS. Lectures were given to University of Guyana students on a variety of topics, including HIV and nutrition, partner notification, and the clinical presentation of HIV. As well, there was a considerable number of research studies related to HIV/AIDS that produce a number of papers that fed into policy development.

Service delivery in Guyana has been enhanced greatly through the use of surveys, clinic reorganization, retreats, and counsellor evaluation and training. This has included recommendations for enhancing the clinical management of HIV/AIDS for clinical staff. The capacity of the National AIDS Programme Secretariat to deliver programs aimed at preventing and managing HIV/AIDS has been strengthened significantly by a number of efforts, including training of personnel and the drafting of Terms of Reference for additional positions. The Project played an instrumental role in leading a National Consultation on HIV/AIDS Law Ethics and Human Rights Review with staff of the GUM Clinic and supported the MOH's HIV/AIDS programs, thereby contributing to the sustainability of Project gains in this area.

Combating Tuberculosis in Guyana

By 2005 Guyana had the fourth highest incidence of TB in the Americas and the rate had shown a significant upward trend. Combined with emerging drug resistant TB and limited laboratory services, this situation clearly required effective and quick measures. In order to improve Guyana's National Tuberculosis Prevention and Control Program, the Project had to meet several objectives:

- Provide technical and administrative support for the National TB Program;
- Develop and implement national technical and operational guidelines for the diagnosis and treatment of TB;
- Develop implementation strategies for Directly Observed Therapy Short-course (DOTS), which is the approach recommended by the WHO for treating TB; and
- Strengthen Guyana's laboratory capacity to support the diagnosis of TB.

The National TB Program has been greatly strengthened through Project activities and support. A vehicle was purchased for the National TB Program to support activities in the field (such as specimen transport, training, control, etc.). Extensive work has been performed to refine TB procedures and guidelines, and both a National TB Manual and a Laboratory Manual were finalized, printed, and disseminated. Technical assistance was provided for the revision of the NTP Plan for 2000-2005, and for the subsequent drafting of the five year plan for 2006-2011, which includes DOTS expansion. Laboratory strengthening initiatives were very successful in

overcoming a number of staffing and procurement issues. The Project has produced a well-trained group of laboratory staff at the Central Medical Laboratory and at the laboratories in New Amsterdam, Linden and West Demerara, providing training in Biosafety and the technical requirements needed for performing TB lab work, appropriate to the level of TB work to be performed at each site. The enhanced diagnostic capacity was demonstrated by the increased number of smear positive samples, by an external quality assessment done for CML by CAREC, and by the National Laboratory Coordinator for the regional laboratories. Measures are now in place to ensure that TB laboratory services in Guyana meet international standards for quality assurance. Essential support for realization of the TB laboratory network was very important and the network is now in place. It includes culturing services and the option to refer to a laboratory at CAREC and to the National Reference Laboratory in Canada. Procurement for Guyana's laboratory, being second by volume share (after the GHIS equipment) proved to be a very challenging task. The Project consultants and local experts spent significant time and effort to identify and select the optimal laboratory equipment based on needs, good compromise between quality and price, and the fact that few suppliers could deliver to Guyana. By the end of 2007, a TB Laboratory at the Georgetown Public Hospital Corporation was fully equipped and additional equipment was procured for 4 smaller laboratories (New Amsterdam, Linden, West Demerara and the University of Guyana). DOTS programs have been successfully implemented in Regions 3, 4, 6 and 10. Capacity building with all TB staff, including physicians, nurses, DOTS workers, and laboratory technicians, has been sustained through on-site mentoring and continuing education sessions. In addition, in support of the country's fight against TB, the Guyana Chest Society was reactivated in 2004, and first inaugural meeting was held in the spring of that year. In collaboration with a GFATM initiative, TB programs in Guyanese prisons have been reviewed and expanded.

The results of several research projects were analysed and used in program and planning documents. This was a prerequisite for the enhanced TB Programme and strategy development. TB guidelines, based on the existing CAREC guidelines, were thus adapted to the Guyanese context by incorporating the studies' findings.

The establishment of a home and community-based training program for the care and support of HIV/AIDS and TB clients in Linden, Georgetown, and New Amsterdam has made a significant contribution to fighting TB in Guyana. The Project has trained trainers from three Project regions who now teach sessions on caring for HIV/AIDS and TB clients. Training modules for Tuberculosis, Infection Control, and Palliative Care, amongst other things, have been finalized and used in these sessions. In order to lessen the burden on the institutional health care system, the Project trained community-based caregivers to deliver care to TB clients. This aspect of the Project was implemented with the help of consultants from the Victorian Order of Nurses (VON), who specialize in home-based care and training.

Building a Health Information System in Guyana

Prior to the start of the PHSG Project, Guyana lacked an electronic national Health Information System (HIS) that could transform clinical data into health information for use at both the national and regional levels. Although the Statistical Unit of the Ministry of Health was charged

with collecting and analyzing data, its efforts were hampered both by a high degree of under-reporting from the country's health facilities as well as by the length of time required to analyze numerous paper forms. At the same time, the Guyana National AIDS Programme emphasized the need for the development of improved surveillance systems in order to address the significant under-reporting of STI/HIV/AIDS, to improve the quality of the data reported, and to improve the analysis and utilization of surveillance data; similarly, and assessment of the National Tuberculosis Programme highlighted the need for all clinics to adopt the WHO-recommended registration and reporting system to ensure consistent and accurate reporting. In order to improve the epidemiological surveillance of communicable diseases in Guyana, the Department of Disease Control identified three key priorities: to review existing surveillance protocols for communicable diseases; to implement an efficient communicable disease surveillance system; and to introduce appropriate information technology.

In order to implement an effective, adaptable, and expandable electronic HIS which would contribute to national health policy and planning, the Project had to meet several targets:

- Develop, implement and evaluate data collection and processing services for STI/HIV/AIDS/TB clinical needs and Ministry of Health networking;
- Provide basic computer and networking training, as well as health information science education; and
- Ensure that data collection allows for the availability of quality information and statistics which can be used for evidence-based decision-making.

Designing, programming, and implementing a Health Information System for Guyana (GHIS), then ensuring its sustainability, was the most challenging and demanding Project component. The new information system needed to support the collection, storage, and communication of health data, and the processing of that data into health information, while keeping in mind the poor communication infrastructure and transportation systems in Guyana.

The GHIS system was designed as a generic, expandable tool, simple and small enough to secure portability, easy installation and sustainability, and at the same time able to collect and accommodate all data required for decision-making and to satisfy administration and planning needs at the institutional, regional and national levels. The result, GHIS version 1.1, is a product of expert technical knowledge and extensive consultations with Guyanese partners, and incorporates feedback from eleven design prototypes. GHIS Version 1.1 is presently installed on all workstations at the GUM Clinic (including laboratory and pharmacy), Chest/TB Clinic, Maternity ward (PHSG), Dorothy Bailey Clinic in Georgetown (Region 4), the New Amsterdam Family Centre (Region 6), and the Linden/Wismar Family Health Clinic (Region 10). The GHIS offers a very comprehensive database, modules covering home and palliative care, drug inventory, pregnancy, human resources, and an electronic registry for TB and HIV/AIDS cases (as per WHO specifications). The users can enter ICPC codes and generate reports in both ICPC and ICD 10 formats. The system offers a set of built-in reports and the possibility of exporting data in common formats accessible to other software products. This should reduce the additional load on clinical staff produced by the need to fill in different paper forms or separate computer files serving the needs of a variety of health agencies and international organizations.

The GHIS is generic and open enough to be adaptable to the constantly-changing health care environment, system priorities, and technology available in Guyana. However, in order “to live” and be useful, all currently required data must be routinely entered into the system and the quality of the data collected and information produced must be maintained at an acceptable level. This will ensure that data collection supports the availability of quality information and statistics which can be used for evidence-based decision-making.

To ensure the achievement of the GHIS and its longer-term sustainability, in addition to procuring and installing a significant volume of hardware and software (including the electrical and networking connections), the Project team assisted with building the management and support structure for the system and provided ongoing training for two different categories of personnel: professional staff to support and update the system and to provide user training, and health professionals who would ultimately use the GHIS in clinics and management units. A set of manuals and documented description of the GHIS was provided to MOH to facilitate ownership of the system and to ensure its further development. The need for an IT department located within the MOH to help create and implement rules and policies related to the GHIS, as well as to support the system itself, was identified during the project’s first year. The creation of these structures took longer than expected, but the IT department (Management Information System Unit MISU) now exists and includes fully staffed key IT positions. A Health Information System Coordinating Committee (HISCC) was created in 2006 as an instrument to create the behaviour/security standards and policies needed to coordinate the implementation and use of the GHIS. This body has assumed a less dominant role with the development of the MISU, but remains the key policy-making group in terms of the operations of the GHIS.

The ultimate success of the GHIS as an important contributor to improved and more effective health policies and planning will be seen over the longer term. However, the successful realization and implementation of the GHIS to date is a testament to the common efforts of the Project and its Guyanese partners. Recognition of the quality and potential of this system can be seen by the fact that the World Bank is currently planning to fund the roll-out of the GHIS database to over ninety sites in Guyana.

Developing Home- and Community-based Health Care in Guyana

International experience, particularly in resource-poor settings, has demonstrated that AIDS and TB treatment in the community significantly reduces the cost of providing care, allows for efficient treatment delivery, timely detection and management of side effects, and lowers abandonment rates. Experience further indicated that trained nurses and community health workers could effectively administer treatments and monitor side effects outside of the hospital setting. In Guyana prior to the start of the Project, however, there was little clear understanding or knowledge about palliative care and the need for, and the value of, home- and community-based care. The Project team thus identified the need to develop and implement a gender-sensitive home and palliative care programme that would support AIDS and TB patients and that could be integrated into care and treatment services. Consultants from the Victorian Order of Nurses for Canada (VON - Canada), an organization with a considerable amount of experience in designing and implementing community health and home-based care programs

and training volunteers, provided technical expertise to this work. The following objectives were outlined:

- Develop and establish gender-sensitive home and palliative care;
- Develop Nursing Guidelines for Care in the Home and Community for home and palliative care and adapt them for use in Guyana;
- Develop home and palliative care training modules for use by local trainers;
- Train HBC trainers who could then train and educate community resource persons, volunteers and family caregivers to care for a severely under-served segment of the Guyanese population using Project-developed training modules.

Through a consultative process with representatives of the government and civil society, Nursing Guidelines for Care in the Home and the Community, especially for HIV/AIDS and Tuberculosis and Palliative Care (NGCHC) were developed and approved by the Ministry of Health; these guidelines were widely disseminated not only to Project Regions, but also countrywide, and served as a basis for HBC training workshops. A group of fifty-four health workers were trained and mentored over a one year period as HBC trainers; they then became responsible for the training of volunteers and family member to provide care for infected patients in the home. In collaboration with the Health Sector Development Unit (HSDU) and the Global Fund (GFATM), the Project team participated in the development of a National Home-based Care Strategy that focused on case management. In addition, the Project team assisted the HSDU to develop an operational plan and supervisory manuals for the Home-based Care Strategy.

The Guyana health sector now has appropriate guidelines, a strategy, core teaching materials, and a much better understanding of the significance of home- and community-based health care. These are reflected in a strong National Home-based Care Program and a well-trained cadre of trainers who will use the modules to train new community volunteers as needed.

Increasing Public Awareness of Guyana-Canada Collaboration

The Project's communications strategy sought to increase public awareness of the Canada-Guyana collaboration to improve Guyana's Public Health System. Its main objectives, besides accountability to Canadian tax payers, were to promote the goals and activities of this CIDA-funded project, to enhance the Canadian and Guyanese public's understanding of their importance, and to leverage additional funds and human resources by involving Canadian Guyanese and Canadian medical and community health workers and students in the Project.

To achieve this strategy, the Project developed and utilized a number of different communication and dissemination tools, including (i) the project website, (ii) promotional materials (such as leaflets, newsletters, flyers, invitations for Project events, etc.), (iii) publications in health sciences journals and the press, (iv) press releases to draw attention to important for the Project events and achievements, (v) participation in conferences and other events to publicize the Project's achievements.

The Project's successful identification and implementation of tools and approaches to address challenges in Guyana's health system related to HIV/AIDS/STI/TB, and the extensive work

undertaken to disseminate its results, were recognised when CSIH was awarded the Canadian Award for International Cooperation sponsored by CIDA and the Canadian Manufacturers and Exporters Association. This award is granted annually to Canadian companies or organizations for their achievements in supporting sustainable economic growth and social programs to reduce poverty in developing countries.

Contributions to Gender Equality in Guyana

In Guyana, women are more vulnerable than men to HIV infection because they lack the negotiating power to determine where, when, and whether sex occurs. The rate of the increase in the number of AIDS cases is also faster in females than in males. Within Guyana's ethnically diverse population, the way in which men are expected to behave according to social and cultural norms in turn heightens their vulnerability to other diseases. Men are also less likely than women to seek health care, and are more likely to engage in risk-taking behaviours. To address these issues, the goal of the Project's gender equality strategy was to increase the awareness of gender-based analysis (GBA) amongst health care providers in Guyana and to provide them with tools for integrating GBA into their work. Gender workshops were organised by the Project team and delivered by local and Canadian experts. In addition, all training workshops sponsored by the Project included modules that addressed gender awareness; the aim of these gender modules was to provide participants with knowledge of the differential impact of HIV/AIDS, STIs, and TB on men and women, with a view to making informed treatment decisions.

By delivering training and education sessions, incorporating gender awareness into guidelines and manuals, and increasing awareness of gender issues, the Project team contributed to a greater participation of women in the process of decision-making and to the reduction of inequality between men's and women's access to appropriate health services. It is hoped that future policies and priorities will reflect this increased gender awareness.

Sustainability

The Project was designed to strengthen the existing infrastructure, resources, and technical capacity of Guyana's health care system. A specific focus of the Project was human resources development and capacity building of local educational institutions to sustain Project gains, with an emphasis on the collaborative development of replicable training models, teaching materials, curricula, modules and guidelines. In order to ensure that the Project's outcomes would be institutionalized, Guyanese partners participated in the design and implementation of all aspects of the Project; this has created a sense of ownership which will assist in maintaining their commitment to the Project's achievements.

Another key aspect of the Project's sustainability strategy was coordination and collaboration with other donors and international organizations working in Guyana and in regional programming. The Project's communication strategy, by documenting and disseminating lessons learnt and Project achievements, also raised the profile of the gains made by the Project among the public in Guyana and Canada.

Given the project's short duration, it was not possible for the Project team to witness whether

population-level health improvements had resulted, or in fact whether all achievements made during the project would be sustained by the Ministry of Health over the longer term. However, the activities undertaken collaboratively with the Project's Guyanese partners and the strong professional relationships built between the local staff and the Canadian consultants and staff have created a foundation upon which the achievements made will continue to contribute to the enhancing and strengthening of Guyana's Health Sector, which over the longer term will bring greater benefit to the Guyanese people.

LIST OF ACRONYMS

ADT	Admission Discharge Transfer (TB)	HIS	Health Information System
AIDS	Acquired Immune-Deficiency Syndrome	HIV	Human Immunodeficiency Virus
AFB	Acid-Fast Bacteria	HPC	Home and Palliative Care
ANC	Antenatal clinic	HSDU	Health Sector Development Unit
ARV	Anti-retroviral	ICD 10	International Classification of Disease
BCCP	Building Community Capacity Project	ICN	International Council of Nurses
BV	Berwagting clinic, region 4	ICPC	International Classification of Primary Care
CA	Contribution Agreement	IDB	Inter American Development Bank
CAREC	Caribbean Epidemiological Center	ILO	International Labour Organization
CCIH	Canadian Conference on International Health	INH	Isoniazid
CDC	(US) Centers for Disease Control and Prevention	IRB	Internal Review Board
CE	Continuing Education	IUATLD	International Union Against Tuberculosis and Lung Disease
CEA	Canadian Executing Agency	JICA	
CHC	Canadian High Commission	LTC	Local Technical Coordinator
CHDC	Community Health Development and Care	MCH	Mother and Child Health
CHRC	Caribbean Health Research Council	MERG	Monitoring and Evaluation Resources Group
CHWs	Community Health Workers	MOH	Ministry of Health, Guyana
CIDA	Canadian International Development Agency	MOU	Memorandum of Understanding
CME	Continuing Medical Education	MPH	Masters of Public Health
CML	Central Medical Laboratory	MPT	Multipurpose technician
CMO	Chief Medical Officer	MSM	Men who have Sex with Men
CNA	Canadian Nurses Association	NAP	National AIDS Programme
CO	Canadian Office	NAPS	National Aids Programme Secretariat
CRPs	Community Resource Person	NGO	Non-Government Organization
CRS	Catholic Relief Services	NGCHC	Nursing Guidelines for Care in the Home and Community
CSIH	Canadian Society for International Health	NIDL	National Infectious Disease Laboratory, Guyana
CSW	Commercial Sex Workers	NBTS	National Blood Transfusion Service
DB	Dorothy Bailey Clinic, Georgetown	NPHRL	National Public Health Reference Laboratory
DHSE	Division of Health Sciences Education, MOH	NTP	National TB Program
DOTS	Directly Observed Treatment, Short-Course	OS	Operating System
FBO	Faith based organisation	PAHO	Pan-American Health Organization
FHI	Family Health International	PANCA P	Pan Caribbean Partnership for HIV/AIDS
FO	Field Office	PH	Public Health
FXB	Francoise Xavier Bagnaud Centre	PHC	Primary Health Care
GAP	Global AIDS Program	PHN	Public Health Nurse
GC	Gonococcus	PHSGP	Public Health Strengthening in Guyana Project
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria	PIC	Project Implementation Committee
GHARP	Guyana HIV/AIDS Reduction and Prevention	PIP	Project Implementation Plan
GNA	Guyana Nurses Association	PLWHA	Persons Living with HIV/AIDS
GNC	Guyana Nursing Council	PMTCT	Prevention of Mother to Child Transmission
GNP	Gross National Product	PMU	Project Implementation Unit
GPA	Guyana Pharmacist Association	PNO	Principal Nursing Officer
GPHC	Georgetown Public Hospital Corporation	PPT	Power Point presentation
GRPA	Guyana Responsible Parenthood Association	PS	Permanent Secretary
GUM	Genito-Urinary Medicine Clinic	PSC	Project Steering Committee
HBPC	Home Based and Palliative Care	PSI	Population Services International
		PSU	Project Support Unit
		QA	Quality Assurance

QC	Quality Control
RHO	Regional Health Officer
RHA	Regional Health Authorities
RPR	Rapid Plasma Reagent
STDs/STI	Sexually Transmitted Diseases/Infections
TB	Tuberculosis
ToR	Terms of Reference
TUC	Trades Union Congress
UG	University of Guyana
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nation Development Programme
UNETG	United Nations Expanded Theme Group
UNICEF	United Nations Children's Fund
UNV	United Nations Volunteers
USAID	United States Agency for International Development
UBC	University of British Columbia
UWI	University of West Indies
WAD	World AIDS Day
WB	World Bank
WHO	World Health Organisation

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Finally, we would like to re-state the following, first noted in the Guyana National HBC Strategy Acknowledgements, an ambitious project of which the PHSGP was proud to be a part:

To all the caring and compassionate health care providers across Guyana, who have chosen to work within their communities to improve the health and well-being of their people, your personal sacrifices and contributions are gratefully acknowledged. Your continued dedication will certainly not only help results of the PHSG project to live and mature, but in a long term will have a profound impact on the lives of all Guyanese people.

And although thankful for the support of all contributors, CSIH assumes full responsibility for the opinions expressed in the Report.



