

A Health Information (HIS) System for Guyana



The **Public Health Strengthening Project In Guyana** has developed a flexible and powerful computerized Health Information System to revolutionize health care and health management in Guyana. It is intended to support continuity of patient care over time and across points of care. It also provides the summary statistics required for health system planning and administration, facility management, epidemiological surveillance, and detailed information for individual patient management.

Sponsors

The HIS has been developed in partnership between Guyana's Ministry of Health and the Canadian International Development Agency (CIDA), and implemented by the Canadian Society for International Health (CSIH).

Features

Clinical Care

- Secure Electronic Patient Record (EPR)
- Built-in evidence based, clinical decision support
- "Cradle to Grave" patient tracking and surveillance
- Data sharing between care providers and facilities
- Intuitive interfaces by provider type

Health Care Facility management

- Patient scheduling
- Doctor/Nurse activity reports
- Pharmacy management
- System security

System planning and administration

- Morbidity and mortality prevalence and incidence reports
- HIV and TB registries
- MCH reports

Advantages

- Limited General Public License
- Remove the need for paper files
- Reduced data loss
- Up-to-date patient records
- Better quality of care management
- Better disease surveillance
- Better monitoring and evaluation
- More efficient clinic management
- More effective patient management
- More appropriate system planning
- Increased confidentiality

Sites

Examples of where the HIS is working:

- Genito-urinary Medicine (GUM) Clinic
- Georgetown Chest Clinic
- GPHC Central Medical Laboratory
- GPHC Radiology
- GPHC Maternity Ward
- South Road Clinic

Expansion is planned for all public medical facilities in Guyana

The Database

The database is designed to record each encounter that a patient has with the medical system, including all diagnoses, treatments and tests.

The information is organized by patient, so that for each individual a thorough and ongoing medical history can be constructed and maintained.

Networking

The HIS is more than just a computer program. It is a linked network of information sites that use proven technology to enable doctors to access the medical records of patients moving from region to region.

Security

A primary concern for any HIS is the ensuring of patient confidentiality. Access to HIS data is restricted to individuals who have been granted access. More importantly, different professions can access different levels of information. Doctors and nurses may access the full spectrum of patient clinical data, while clinic administrators may access efficiency indicators and other items pertinent to their needs.

Monitoring & Evaluation

The HIS provides a convenient and inexpensive source of data for the monitoring and evaluation of Guyana's health and health care system. By tracking key indicators, such as physician case loads and treatment outcomes, administrators can more efficiently allocate funds and resources.

Surveillance

Disease surveillance is necessary to keep abreast of the burden that key illnesses, such as HIV/AIDS and Tuberculosis, present, and is a difficult task to accomplish using traditional, manual methods. Using the HIS, surveillance becomes much easier. As need arises, further modules can be added to the HIS to expand its capacity to survey and detect drug resistance, to detect the emergence of new strains of disease, and to more specifically address Guyana's management information needs.

Contact Us

For more information about the Public Health Strengthening Project in Guyana, please visit the CSIH website at www.csih.org. For more information about Guyana's new HIS, please contact the Health Sector Development Unit:

HSDU
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Georgetown, Guyana

The Future

- The HIS will continue to be installed and piloted in additional clinics and laboratories.
- More nurses, doctors and administrators will be trained in how to enter data and produce reports.
- Updated versions of the HIS will be produced, according to the experiences of current users.
- Implementation of monitoring capability for additional diseases, such as diabetes.
- Addition of new modules for in-patient use, such as ADT (admission, diagnosis, treatment)

Reporting

Before the HIS, reporting of health statistics to the WHO, Global Fund and other donors required the time and labour intensive approach of physically sifting through files and calculating or estimating summary statistics, which must then be typed onto a standard form.

The HIS can generate the needed statistics automatically, and output them in the format required by donors.

Sample Report

Clinic: Sampleville Health Clinic
Period: Jan 1 – March 31, 20xx
Requested: April 15, 20xx
Type: HIV/AIDS Epidemiology

HIV/AIDS deaths by age and sex during this reporting period; raw numbers and percentages of all patient deaths.				
age	female		male	
	N	%	N	%
<15	0	0	1	10
≥15 and <20	0	0	0	0
≥20 and <25	2	1.5	3	1.7
≥25 and <30	12	2.1	4	2
≥30 and <35	1	0.4	8	1.1
≥35 and <40	1	0.2	1	0.1
≥40 and <45	0	0	0	0
≥45 and <50	0	0	0	0
>50	0	0	1	0.1
Unknown	1	0.1	0	0
Total	17	0.9	18	0.8