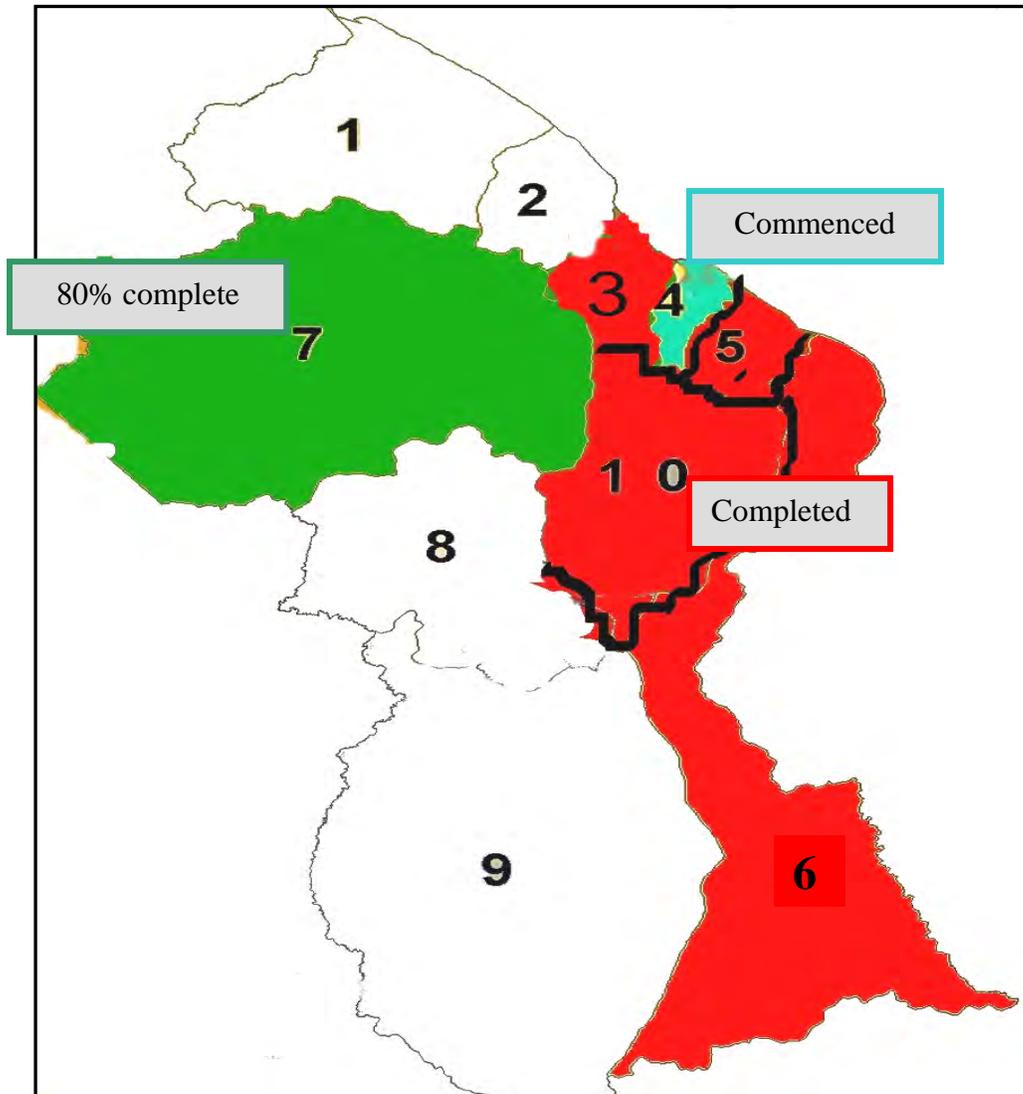


Guyana Safer Injection Project

ANNUAL REPORT
OCTOBER 2006 – SEPTEMBER 2007



INITIATIVES INC. OCTOBER 2007

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ANNEX ONE: MOH Policy: Worker Safety

ANNEX TWO: LOP Monitoring & Evaluation Plan

ACRONYMS

ARV	Anti-retroviral
CIDA	Canadian International Development Agency
EDL	Essential Drug List
EPI	Expanded Programme on Immunization
FDA	Food and Drug Administration
FXB	Francis Xavier Bagnoud
GHARP	Guyana HIV/AIDS Reduction and Prevention Project
GUYSUCO	Guyana Sugar Corporation
ILO	International Labor Organization
IS	Injection Safety
I-TECH	International Training and Education Center on HIV
MGMP	Municipal & Governance Management Programme
MMU	Materials Management Unit
MOH	Ministry of Health
MOU	Memorandum of Understanding
NAPS	National AIDS Programme Secretariat
NDC	Neighborhood Democratic Council
NGO	Non-Governmental Organization
OPD	Out-Patient Department
OSH	Occupational Safety & Health
PMTCT	Preventing Mother to Child Transmission
PPE	Personal Protective Equipment
PRR	Prescription Record Review
REO	Regional Executive Officer
RDC	Regional Democratic Council
RDU	Rational Drug Use
STG	Standard Treatment Guidelines
UNAIDS	Joint UN Programme on HIV/AIDS
VCT	Voluntary Counseling and Testing
WIT	Waste Management Implementation Team

INTRODUCTION

During the period October 2006– September 2007, the project finalized activities in four regions, is 80% complete in a fifth and has initiated activities in the populous capital region. Approximately 45% of the population has been reached. The project remains on track for completing interventions in all regions by the end of FY 08. Building on the lessons learned from the project's first two years, GSIP took a proactive role in strengthening or creating the structures and support needed to sustain injection safety practices. At the national level the focus was on the policy, standards, advocacy and partnership building; at the regional level, the project elevated the MOH and local government and municipality management teams' injection safety (IS) knowledge and skill to support planning, monitoring and budgeting and collaborating on equipment and waste management components. At the facility level efforts were made to create or strengthen dormant systems to support worker safety, equipment and waste disposal. Emphasis was also placed on inclusion of VCT and PMTCT services as well as private sector networks in training and waste management.

Developing the capacity of the municipality, NGOs and journalists to reach the public with IS messages and advocate for better waste management and worker safety was a major achievement in year three. Partnerships aided our work, these included: a MOU with a CIDA-funded project to build management capacity to safeguard municipal waste carriers and reach the community with IS messages and activities; and a working partnership with ILO and UNAIDS to build journalist capacity for reporting on AIDS activities and IS.

GSIP also initiated activities to provide MOH with data for decision making. This included: an assessment of the safety, effectiveness and satisfaction with safety-enhanced needles, personal protective equipment and needle removers; completion of phase one of the prescription record review; and a feasibility analysis for a home-use insulin injection prescription and disposal assessment to assist MOH to standardize its approach to insulin.

A relationship with the newly energized MOH Standards and Technical Service Unit assisted the project in moving along the policy, setting procurement standards for IS equipment and integrating IS modules into professional and para-professional training programs. NAPS continues to provide insight and support for policy decisions, waste management guidelines and collaborative training.

Key Accomplishments

National Policy and Plan

- ⇒ MOH worker safety policy disseminated to all regions and facilities.
- ⇒ Senior MOH and Local Government leaders oriented to policy and IS standards
- ⇒ Completed home use insulin assessment to assist MOH to set guidelines for disposal and counseling

Procurement/Logistics

- ⇒ Documented appropriateness and acceptability of all local and imported IS equipment to assist MOH decision making and budgeting

- ⇒ Supported SCMS quantification survey to include all IS equipment
- ⇒ Provided regions and facilities with data on cost, quantity and sourcing of PPE and bin liners to assist budget assumption
- ⇒ Initiated process for Bureau of Standards and FDA to approve standards for all IS equipment
- ⇒ Working with medical policy group and MOH pharmacists to prioritize and correctly procure non-injectables as first line of treatment where appropriate

Commodity Management

- ⇒ Strengthened capacity of logistics managers to forecast, order, store and distribute injection safety and waste management supplies in an appropriate and timely manner
- ⇒ Included logistics in provider training to ensure proper ordering starts at point of use and to improve storage and documentation of equipment
- ⇒ Tied PPE distribution with appropriate onsite storage accommodations

Capacity Building

- ⇒ Improved all training with inclusion of practical sessions for demonstration and application
- ⇒ Developed and integrated module on IEC materials and use and community outreach training on providing IS messages,
- ⇒ Revised WM training to address low literacy needs
- ⇒ Integrated training modules into VCT, PMTCT, home based care and nursing school curriculum
- ⇒ Completed and discussed PRR study with target facilities; updated RDU training with PRR findings
- ⇒ Piloted pharmacy training on medication counseling to improve prescription adherence for eventual scale up using Pharmacy Association resources, MOH pharmacists and the project.

Worker Safety

- ⇒ Developed regional and facility system for documenting and providing pre-exposure vaccinations for all health care workers and municipality carriers
- ⇒ Partnered with Public Service Union to promote use of PPE and vaccinations
- ⇒ Ensured NSI ledger at all sites
- ⇒ Posted referral information on ARV at all facilities

Behavior Change & Advocacy

- ⇒ Developed partnerships with municipalities to inform community and patients of waste management issues and need to participate in treatment decisions, particularly to choose non-injectables over injectables where possible
- ⇒ Reached 2308 people using WITs (municipal Waste Implementation Teams) with IS messages
- ⇒ Oriented RDC/NDC and Municipal leaders about IS and waste management to encourage cooperation and resources

Monitoring & Evaluation

- ⇒ Developed 'Exit Indicator' matrix & verification tool to focus interventions and monitoring

- ⇒ Supported supervisors to analyze and share monitoring data with senior management
- ⇒ Completed phase 1 of PRR study and used results to develop new interventions

Recognition:

- ⇒ Abstract: ‘Using Indicators to Focus Achievements: Story of IS in Guyana’ presented at HIV/Implementers’ Meeting Kigali 2007
- ⇒ Success stories chosen for USAID Guyana COP and PEPFAR website
- ⇒ Abstract: ‘Performance and Acceptability of Needle Removers in the Guyana Context’ accepted for SIGN Meeting Geneva 2007

Lessons Learned

The following will guide future planning:

- ✓ Advocacy plays a major role in providing information and acquiring resources at the central, regional and facility level; this has assisted us in the area of waste management, vaccinations and equipment procurement. We will build on initial efforts to raise awareness of administrative, governmental, private sector and donor and community entities to mobilize resources.
- ✓ Assessments and data sharing, joint planning and a Memorandum of Understanding (MOU) were instrumental in building understanding, commitment, ownership and cooperation among regional and hospital decision makers.
- ✓ Situational analysis and sharing of baseline data collection are key to involving senior management from RDCs, REOs and MOH in understanding their current practices and planning for improvement.
- ✓ Integration of IS curricula into existing programs is a slow and labor intensive process which demands tenacity to get long established professional education institutions to change but the payoff is staff arrive with training in IS.
- ✓ Assisting facilities, regions and the central to use key data is showing signs of success, quarterly meetings with regional senior management teams are used to update the action plan developed with the MOU. By reviewing the data and information, the management teams are prioritizing their responses.
- ✓ Teaching ward staff the basics of logistics has impacted correct and timely ordering and proactive problem solving when the order is not delivered at the right time or in the right amount.
- ✓ CMEs are the most effective way to reach physicians on the technical aspects of rational drug use but follow up is needed to encourage behavior change. The strategy needs to look at the prescribing practices in the context of logistics, treatment protocols, medication counseling, and waste management. In collaboration with SCMS and MOH, these elements are slowly being addressed.
- ✓ Community awareness raising and involvement in a focused area like IS/WM is strengthened by developing partnerships with projects, organizations and government services that focus on community outreach, HIV prevention and have more resources.

Scale Up Schedule

Reg.	Total Facilities		% Pop	ACTUAL				PROJECTED
				Pilot Phase Year One	Year Two	Year Three	Year Four	Year Five
1	3 4 36	Hosp HCs HPs	3.2				X	MAINTENANCE
2	2 11 19	Hosp HCs HPs	6.6				X	
3	4 14 20	Hosp HCs HPs	13.7			X		
4	1 6 34 13	Nat'l Hosp Private Hosp HCs HPs	41.3	GPHC Infectious Disease Wards GUM Clinic (HIV)			X	
5	2 16 1	Hosp HC HP	7.			X		
6	5 20 3	Hosp HCs HPs	16.5	Skeldon Hosp OPD - New Amsterdam Maternity Ward & 4 HCs	X			
7	2 2 20	Hosp HCs HPs	2.3	Bartica Hospital 1 HC		X		
8	1 4 13	Hosp HCs HPs	1.3				X	
9	2 55 13	Hosp HCs HPs	2.6				X	
10	3 16 12	Hosp HC HPs	5.5	Linden Hosp OPD & 3 HCs	X			

Partnerships:

To ensure wise use of resources, GSIP actively seeks partnerships with key organizations and agencies and projects in Guyana. To this end, GSIP is partnering with

Focal Area	Organization
Policy	MOH, Standards and Technical Unit, NAPS
Implementation	Public Service Union, EPI, Guysuco
Community Outreach	CIDA/MGMP, Guyana Press Association
Media	Guyana Press Association, ILO, UNAIDS
Waste Management	RDC, NDC, MGMP, EPI
Training	GHARP, EPI, MOH, ITECH, Schools of Nursing, University of Guyana
Rational Drug Use	Medical Association, FXB, Guyana Pharmacy Association
Logistics	SCMS, MOH (MMU, Chief Pharmacist)

RESULTS

Planning & Management

Coverage: During its lifetime, GSIP will reach all regions and facilities, although inputs will differ according to the level of care provided. The process of conducting situational analyses and using the findings to collaboratively develop an action plan with the region which is cemented in the MOU has helped us to systematically expand our work. The MOU outlines the coverage and

% Population covered thru September 2007:	45%	intervention strategy, roles and responsibilities of the MOH and the project. We will complete our 6 th region and
Number of Regions:	5	
Number of Facilities:	121	

sign our MOU with Region 4, the most populous region, by October 2007. Plans are on target to complete major interventions in all regions by end of year four.

Policy: In July 2007 a milestone was reached with the issuance of the Worker Safety Policy¹ for all facilities; this will be followed up with a launch to highlight the need. The document addresses issues manageable at the regional and facility level. There are other issues to be included in a subsequent advisory related to rational drug use, insulin home use and equipment. We have also integrated IS standards into the Health Facility Licensing Bill currently awaiting Parliamentary approval. The bill, if passed, would allow MOH to set and monitor standards for health care in public and private sector establishments. To assist understanding and compliance with the policy, efforts are made to present its content to all regional senior officials from the relevant Ministries and municipalities.

Policy Orientation: 303
▪ MOH Senior Management: 54
▪ RDC/NDC: 249

Coordination: The project conducted a review of the existing NISG to determine if it was an effective approach to national oversight. The main finding was that although it has undertaken a few activities on behalf of OSH (Occupational Safety and Health), the group's lack of a home in the Ministry is a challenge to its sustainability. The Minister has instead linked GSIP with the newly invigorated Standards and Technical Services Unit, (STSU) and its working committee representing all heads of section. This committee is invested in injection safety for workers, training and general equipment issues. They have assisted us in the process of gaining approval for IS equipment, and integrating IS into nursing schools. In the meantime NAPS remains a strong counterpart for policy development, technical assistance and prioritization of activities and ensuring IS as an integral part of the HIV/AIDS strategy in Guyana.

Assisting Decision Making

Assessments & Studies: The project is intent on delivering evidence based recommendations to the Ministry to assist in procurement, policy development, STG and EDL revisions.

⇒ **PRR:** This year the first part of the Prescription Record Review (PRR) Study was conducted at two sentinel sites. The PRR looked at OPD patient records, stock records and interviewed

¹ Annex 2

prescribers to record data on prescription practices and influences on prescriber treatment decisions. The findings lead to several interventions, the effects of which will be tested in part two of the PRR scheduled for February 2008. Guyana has a shortage of all health care workers; its current doctors have diverse backgrounds, nationalities and training. This coupled with the lack of standard treatment guidelines often results in diverse treatment practices. Despite this, the study found rational injection use is generally practiced; however specific conditions were treated with injections which could have been as effectively treated by non-injectables. These conditions are the focus of our interventions. The qualitative data also revealed that prescribers at times prescribe injections because they lack trust in patient adherence to prescriptions. The analysis of data helped GSIP and the West Demerara Hospital to identify four target groups and specific interventions. The interventions were designed and implemented and will be evaluated.

PRR Framework of Interventions: West Demerara Hospital

Group	Focus	Intervention
Physicians/Medex	Rational Drug Use; Prioritization of non-injectables; 'Minimal Information' provided to patients on prescription use	⇒ RDU training updated ⇒ List of non-injectable alternatives for conditions identified in PRR to be developed into job aid to assist prescribing and counseling
Pharmacist	Medical Counseling to improve adherence	⇒ Medication Counseling training developed and tested ⇒ Prescription Flow and client flow analysis conducted and improved
Providers	Assist patients to understand & use their right to ask about treatment options	⇒ Provider training on patient rights & posters reinforced
Patients	Reduced demand for injections and talk to your doctor about treatment options	⇒ CHW training and outreach activities reinforced ⇒ Region 3 NGO staff trained in outreach

⇒ **Equipment Acceptability & Safety:** An assessment was conducted with the aid of PATH of the acceptability and use of the PPE, safety boxes, bin liners and injection equipment supplied by GSIP. The information provided insight into the appropriateness of the equipment as well as the effectiveness. In general staff felt safety boxes, boots, gloves for handling bins, and retractables were a boon; there were, however, issues still needing resolution including glove size and type to match the tasks performed by waste handlers, bin and liner size compatibility and availability. GSIP has recommended standardizing bin size to reduce cost of bin liners; this is being addressed on a facility by facility basis. Some regions have begun purchasing appropriately sized black liners. In some regions GSIP has split the cost of purchasing bins to assist segregation. GSIP has also recommended that puncture resistant gloves be limited to those who handle waste and not be used for maids and cleaners, who find the gloves cumbersome and can continue to use latex gloves. There was

no apparent benefit to using AD syringes; we will recommend that the Ministry purchase retractables for high risk wards. This information is being shared with the Ministry and will be followed in our new regions.

⇒ **Needle Remover Acceptability & Safety:** A separate assessment was carried out on the needle removers to gather information on the use, acceptability and relative cost of needle removers and sharps barrels in order to provide the Ministry of Health with evidence to help it make informed plans and policies with regard to needle removal devices. This study will be shared with MOH to assist in them in future procurement decisions. The results are also being used by the project to strengthen training and monitor maintenance.

KEY FINDINGS: NEEDLE REMOVER ASSESSMENT

- 100% (35) of health workers and waste handlers interviewed felt that the needle removal device and sharps barrel reduced their risk of needle stick injury.
- 94% (17) of health providers and 100% (17) of waste handlers interviewed rated the performance of the needle removal device as either “very good” or “excellent.”
- 100% (18) of health providers felt the devices were easy to use.
- 100% (17) of waste handlers felt the disposal process associated with needle removers and sharps barrels was easy.
- No needle stick injuries were reported at any of the pilot sites in the last 12 months.
- 94% (29) of needle removers were observed to be in good or excellent condition.
- Only 55% (10) of needle removers are being thoroughly cleaned as required.
- The additional per annum cost of using needle removers and sharps barrels for sharps disposal ranges from US \$29.66 to US \$15.38. See Table 7 for details.

RECOMMENDATIONS

- Maintenance is critical to the effectiveness and longevity of the needle removal devices. To ensure proper care, maintenance training should be integrated into training for health providers and waste handlers on needle remover use. While all workers should be capable of caring for the needle removal device, clear responsibility for maintenance should be assigned to a worker in each facility.
- Supervision should be provided on needle remover use and maintenance, especially during the months directly following the introduction of the needle removal device and sharps barrel. Thereafter, supervision of needle removal and waste management systems should be integrated into regular visits by health facility supervisors.
- While hospital staff appreciate the needle removal devices, maintenance appears to present greater challenges in hospital settings than in health post or health center settings. In settings with multiple users, more attention should be provided to ensure that the needle removal device is being used and maintained appropriately and that needle waste is being disposed of safely.
- The use of needle removers has added costs that need to be carefully considered. However, the contribution of the needle removers and sharps barrels to the containment of sharps waste is significant. The combined use of needle remover and sharps barrel provides a more secure option for needle waste disposal than the safety box alone. The containment of waste may be well worth the added costs of using the needle remover and sharps barrel. Methods of reducing costs should be explored.

⇒ **Home Use Insulin Issues:** In Guyana, insulin using diabetics are a key population of injectable-medicine users. Most diabetics who are prescribed insulin inject their insulin at home. Yet there appear to be no clear protocols for home-use of insulin or disposal of needles and syringes used by diabetics. Nor are there clear data on injection and disposal practices by insulin-users. The insulin home use assessment was designed and implemented to investigate insulin prescription practices, needle availability and use, and needle disposal by home users in order to assist the Ministry of Health to develop strategies that will contribute to safer injection practices for insulin and disposal of insulin needles. The assessment was conducted in three hospitals: GPHC, New Amsterdam and West Demerara. The results indicate that there is a broad range of insulin use at different hospitals – from approximately 22% to 48% - inclusive of both type 1 and 2 diabetics, although the reasons for the variation are not clear. Insulin needle re-use is common and insulin-users require more information on needle use, storage and disposal. In addition, health facilities need to work with clients and the MOH to develop safer methods for insulin needle disposal. Guidelines on client counseling for needle use and disposal are needed as well as access to a greater and more regular supply of oral medication and insulin needles. The families of diabetic patients also need to be considered in strategies for improving insulin needle safety as many diabetics receive assistance for injecting insulin and disposing needles from family members. The Project will assist the Ministry to use the findings of the assessment to design pilot programs to test syringe supply, counseling and waste management approaches.

Capacity Building

Training: The main objective of GSIP is to provide standards and to assist health care workers to adhere to them through training, education, supervision and monitoring. Training covers disease transmission, standards, monitoring, waste management and interpersonal communication and takes up to one day. Provider training is generally two days; waste management training is one day. Healthcare workers are defined as: all levels of nurses, dentists, community advocates, laboratory technicians and phlebotomists, usually stationed at VCT and PMTCT sites, as well as other VCT/PMTCT staff. GSIP has worked with MOH, private sector and municipal workers to strengthen work practices and reduce risk of accidental transmission. Supervisors are trained in how to monitor and improve practices to meet injection safety standards. The supervisory training is two days.

Implementing Injection Safety



Medex Johnson received GSIP training in IS, RDU and supervision. She supervises two centers in Berbice. At the Region 5 Launch on Injection Safety held at the Fort Wellington Hospital on Friday 29th June, 2007 she proudly recounted the changes she instituted:

“My exposure to training in Injection safety has significantly impacted how I operate, especially how I treat my patients. I pulled my staff together to review the training. First we rearranged the medication cupboard to reflect the First Expired First Out. This improved our management of medical supplies. We then set up patient education talks at the chronic disease clinics

Reorganized Supply



Patient Education



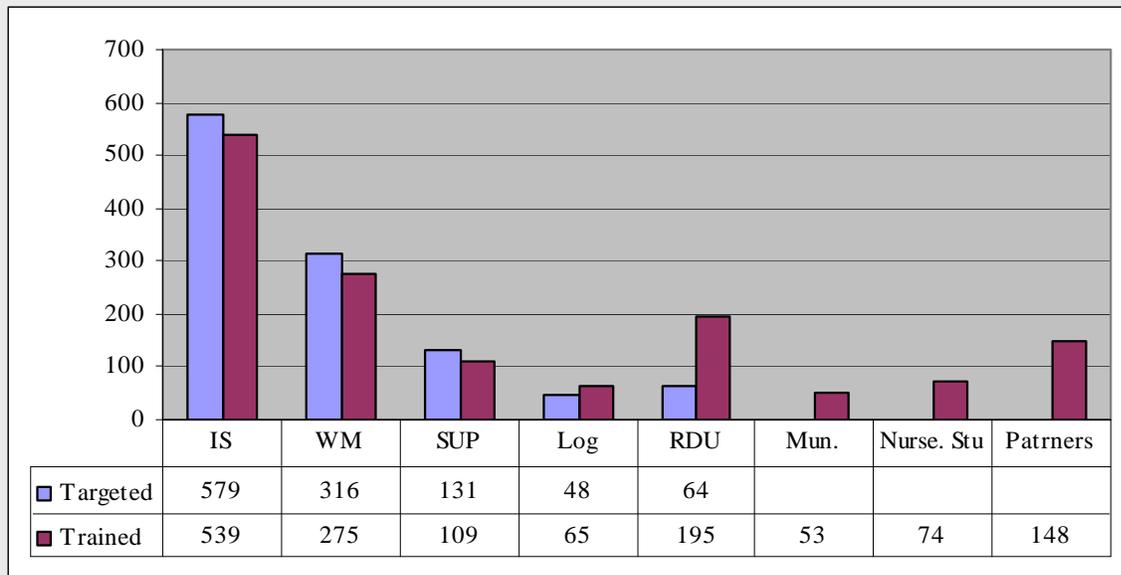
held three times each week. As a result of RDU training, I reduced the use of injectables for hypertensive cases. Giving a stat dose of the anti-hypertensive drug was normal practice; now I use the oral form (sub-lingual), and monitor the patients before sending them home.”

This has not only improved her relationship with her patients, but reduced the amount of injections used and the potential cause of disease transmission through sharps injury.

- ⇒ Provider training was enhanced by the addition of a) an IEC use and placement component and b) a practical exercise involving site visits. These additions led to improvements in storage of medications and medical devices, improved ordering and placement and use of IEC materials.
- ⇒ Supervisory training was also strengthened by a practical component to aid in using monitoring tools. During the maintenance phase, GSIP supports supervisors to collect monitoring data and present identified problems to senior officials. GSIP has helped the supervisors to adapt the monitoring tool to ensure the information collected is useful for the site.
- ⇒ The WM training has been revamped to address the issues of low literacy among waste handlers and carriers. The new version relies on pictorial presentations, hands-on exercises and a site visit to identify challenges and resources to effective sharps management.
- ⇒ In all regions, our partnership with EPI allows us to use their 3 day quarterly meetings to provide training, especially for staff from hard to reach health posts and health centers. The EPI sets aside 1-2 days for GSIP training and post training review.
- ⇒ Our partnership with MGMP enables us to train waste carriers as well as provide management with guidance on the systems and procedures for ensuring safe and effective waste pick up. This training is now being delivered to RDC and NDC employees.
- ⇒ Collaboration with other PEPFAR projects enables us to participate in MOH inservice training or NAPS focused training. GSIP presents on relevant IS topics for various target audiences.

- ⇒ Aside from MOH hospital and primary care facilities, GSIP training extends to all PMTCT and VCT staff, GUYSUCO (Guyana Sugar Industry), municipality, RDC and NDC staff, nursing school tutors and students.

Training to Date:



Prescriber training continues as the effort to reduce unnecessary injections is a major theme of the project. Guyana’s diverse range of physicians and lack of standard treatment guidelines has created a mix of treatment practices.

- ⇒ GSIP has presented at group meetings of Chinese and Cuban doctors on rationale injection use, Infection Control and WM.
- ⇒ GSIP provides RDU training to physicians and medex in all regions.
- ⇒ GSIP has provided continuing education to the pharmacy association in RDU and medication counseling
- ⇒ GSIP is trialing a new version of RDU training at West Demerara Hospital to address the findings from the PRR. The results of this training will be analyzed to see how it can be incorporated into future training.



Institutionalizing Training: Vital to sustainability is incorporating IS/WM curricula into existing pre- and in-service training programs so that all new staff are schooled in the standards for safety and in some cases are better prepared as managers to oversee systems and monitoring. A milestone was reached on September 13, 2007 when the Nursing School tutors agreed that the modules should be incorporated into their existing curriculum. The

process of integration was led by the Chief Nursing Officer (MOH) and the principal tutors with

the assistance of GSIP. This achievement will go far in facilitating other professional schools to follow suit.

Ministry promoting injection safety practices

Monday, September 17th 2007²

The Ministry of Health is introducing safer practices and standard precautions in health care facilities to reduce occupational exposure to HIV and other blood-borne diseases among healthcare workers, the Government Information Agency (GINA) reported.

The Integration Injection Safety module launched last Thursday by the Ministry of Health and the Guyana Safer Injection Project (GSIP), focuses on reducing unsafe and inappropriate injections.

Acting Chief Medical Officer, Dr. Shamdeo Persaud said a safe injection does not harm the recipient, expose the provider to any risk, or result in waste that is dangerous to the community.

"As part of (US) President Bush's five-year emergency plan for AIDS relief (PEPFAR), the project is developing a national strategy to improve injection safety, improve healthcare waste management and educate the population about precautions that will reduce accidental transmission of HIV, hepatitis and other blood-borne diseases," Dr. Persaud is quoted by GINA as saying.

To fully protect workers, GINA added, the ministry is advocating several interventions including the use of closed, puncture-resistant safety boxes at all injection and x-ray sites. Workers are encouraged to adhere to the requirement for pre-exposure to hepatitis B and tetanus vaccinations.

Dr. Persaud said there is a need for posted information on post-exposure counseling and treatment for injuries caused by sharp instruments and the identification of a storage area for protective gear to ensure they are not removed from the facility to prevent against exposing family and community members to pathogens. These actions will be monitored and enforced for the safety of workers and patients.

GINA reported that Dr. Persaud said: "According to the World Health Organisation, approximately 20 million Hepatitis B and C and 260,000 HIV infections are due to injection practices. This is exacerbated by the 16 billion injections given annually, 70 per cent of which are either necessary or could be replaced by oral formulations. It is also a result of inadequate or unsterilised equipment, unsafe disposal practices, and limited awareness of the potential risk by community members and health workers.

- ⇒ GSIP has integrated IS material into national VCT/PMTCT modules, contributed to the CHW modules for MOH and the Care and Treatment module for HIV/AIDS as well as the EPI training curricula. The IS modules are currently under review by the Medex program. The nursing schools held a press conference to note their inclusion of injection safety into the school curriculum. GSIP will continue working on this integration process with para and professional training programs to ensure our modules are mainstreamed.
- ⇒ GSIP collaborates with other agencies: GHARP (VCT,PMTCT) ITECH (infection control) and Municipal and RDC workers to conduct training

² Starbroek News 17 September 2007

- ⇒ GSIP also works with the private sector, introducing all of our interventions to GUYSUCCO, a parastatal commercial establishment covering 1/7 of the population with 17 health facilities.

Worker Safety

Worker Safety: GSIP, in cooperation with MOH, concentrates on providing the equipment, information and systems necessary to prevent needle stick injuries and limit the risk of disease transmission in the event of exposure. This translates into pre-exposure vaccinations, post-exposure guidance, documentation of vaccination and NSI, protective equipment for workers dealing with waste handling, and monitoring of the results.

	Hep B Dose 1	Hep B Dose 2	Hep B Dose 3	Tetanus
Nurse	220	211	193	250
W/H	105	68	69	116
Municipality	95	90	17	84
Total	420	369	279	450

- ⇒ Waste handlers, waste carriers & injection providers and laboratory technicians as well as phlebotomists are registered for tetanus & hepatitis B vaccinations; the data is entered at the RHO and the hospital. The Public Service Union is working to promote adherence to this policy. RDCs and municipalities now encourage their workers to be vaccinated; access to vaccination sites is facilitated by GSIP and MOH. The new policy directive by the Ministry supports this effort.

In response to the RDC of Region 3, the Senior Health Visitor obtained vaccines for all RDC (24), NDC (230) and other health facility workers. In early October 24 Regional Democratic Counselors- including the Regional Chairman and Vice Chairman initiated the process by receiving their first dose of Hepatitis B and Tetanus vaccines. Vaccines were administered and recorded.



Regional Chairman receiving Hep B Vaccination

The Public Service Union is working to promote adherence to this policy. RDCs and municipalities now encourage their workers to be vaccinated; access to vaccination sites is facilitated by GSIP and MOH. The new policy directive by the Ministry supports this effort.

- ⇒ Waste Handlers, maids & porters in all targeted regions have been provided with personal protective equipment. As part of the MOU with the regions, facilities must provide onsite storage before distributing the PPE to safeguard the staff, their families and the equipment. Based on the findings from the assessment on PPE acceptability, guidance on additional guidance on appropriate equipment use will be provided.

- ⇒ GSIP continues to work with NAPS to revise the NSI report format. In the interim, GSIP supplies all facilities with a ledger to record NSIs and causes. BCC, IEC and information sessions are being used to encourage workers to report NSIs. GSIP works with the facilities to analyze the data to address causes of accidents. This would be further enhanced if NSIs were included as part of the national HMIS, a suggestion that is being worked on with the Ministry.

Staff NSI	Q1	Q2	Q3	Q4
Waste Handlers	0	0	0	1
Providers	4	1	7	3
Total	4	1	7	4

Waste Management

Waste Management: The key areas for waste management are training of handlers and carriers on adhering to standards for safety equipment, segregation, handling, and transport from the origin of waste until the final disposal. To accomplish this, GSIP provides PPE, and assists the facility to define roles & responsibilities, steps and monitoring all detailed in a waste management plan. The plan is collaboratively developed by the staff and local organizations dealing with waste collection.

- ⇒ Providers, including nurses, laboratory staff, dentists, and medex are trained in waste management during their 2-day training.
- ⇒ GSIP has trained facility and municipal staff in effective and safer waste handling.
- ⇒ To address low literacy, the WM module had been revised, tested and scaled up
- ⇒ GSIP has been advocating with local government and MOH administrators to identify and address the infrastructure deficiencies, such as ineffective and overfilled burn boxes, unsecured disposal sites and irregular collection.
- ⇒ The WIT Team in Region 6 is now working on finding resources from service organizations and the private sector to address health facility waste system inadequacies.
- ⇒ Bin liners are being provided by the project to all facilities to ensure segregation standards can be met; cost sharing of bins and liners is integrated into MOUs.
- ⇒ GSIP assists the development of WM plans, which are then laminated and placed at each facility

HC Burn Box: Practicum Experience e



Regions	6	10	5	3	7
WM Plans	26/30	18/28	15/16	0/36	0/23

Pre-Intervention



- ⇒ Advocacy has led to an active role for RDCs in responding to the risks identified at the facilities as a result of GSIP's assessments. The RDCs are proposing and providing solutions, including spades and wheelbarrows for cleaning ash from burn boxes, and pits to bury ash and clearing of walkways to disposal sites.

Final Disposal path cleared by RDC – W. Demerara Hospital



FACILITY WASTE MANAGEMENT PLAN



Process	Standard	Steps and Staff Responsibilities
SEGREGATION	Separate waste at point of generation into: <ul style="list-style-type: none"> ▪ Non-infectious (black bag) ▪ Infectious (red bag) ▪ Sharps (Needle remover & safety box) 	<ul style="list-style-type: none"> ▪ ----- collects bin liners and safety boxes from ----- every ----- ▪ ----- -assembles and uses safety boxes ▪ ----- lines bins with red and black liners
COLLECTION & STORAGE: Sharps	SHARPS SHOULD EITHER: <ul style="list-style-type: none"> ▪ Be immediately cut-off with a needle remover; needle container should be filled no more than ¾ full ▪ Needle container should be emptied into a sharps barrel ▪ Used syringes should be immediately deposited into a cardboard safety box which should be filled no more than ¾ full OR <ul style="list-style-type: none"> ▪ The needle and syringe without separating or recapping should be deposited into a safety box ▪ Filled safety box should be stored in a secure, dry location, awaiting transport to the final disposal site. 	<ul style="list-style-type: none"> ▪ ----- Tapes safety box closed when ¾ full. ▪ ----- collects safety boxes from injection site. ▪ ----- stores safety boxes in ----- at -----
Infectious Waste	Infectious waste should: <ul style="list-style-type: none"> ▪ Be deposited in red bags which should be filled no more than ¾ full. ▪ Bag/s should be tied and stored in a secure, dry location until final disposal. 	<ul style="list-style-type: none"> ▪ ----- ties red bags when ¾ full. ▪ ----- collects red bags from wards ▪ ----- stores red bags in-----located at-----
Non-infectious Waste	Non-infectious waste should: <ul style="list-style-type: none"> ▪ Be deposited in black bags which should be filled no more than ¾ full ▪ Bags should be tied and stored in a secure, dry location until disposal. 	<ul style="list-style-type: none"> ▪ -----ties black bags when ¾ full. ▪ -----collects black bags from wards ▪ ----- stores black bags in-----located at-----
TRANSPORT & FINAL DISPOSAL:	Safety boxes should: <ul style="list-style-type: none"> ▪ Be transported to the final disposal site by a trained waste handler or contractor 	<ul style="list-style-type: none"> ▪ ----- removes safety boxes from----- every ----- ▪ -----transports safety boxes to -----every -----

Sharps		<p>----- using a -----</p> <ul style="list-style-type: none"> ▪ ----- disposes of safety boxes by-----
Infectious Waste	<p>Infectious waste bags should:</p> <ul style="list-style-type: none"> ▪ Be transported to the final disposal site by a trained waste handler or contractor 	<ul style="list-style-type: none"> ▪ ----- removes infectious waste bags from ----- every --- ----- ▪ ----- transports infectious waste bags to the final disposal site located ----- every----- ▪ -----disposes of infectious waste bags by----- ▪ ----- disposes of ash (if burning) by ----- after every burn cycle
Non-infectious Waste	<p>Non-infectious waste bags should:</p> <ul style="list-style-type: none"> ▪ Be transported to the final disposal site by a qualified waste handler or contractor 	<ul style="list-style-type: none"> ▪ ----- removes non-infectious waste bags from ----- every ----- ▪ ----- transports black non-infectious waste bags to final disposal site, <i>located</i> ----- ▪ ----- disposes of non-infectious waste bags <i>by</i> ----- ----- ▪ ----- disposes of ash (if burning) by ----- after every burn cycle

Procurement

Procurement & Distribution: GSIP has introduced AD and retractable syringes in select wards; needle removers and sharps barrels in settings meeting the established criteria; safety boxes and protective equipment for waste handlers in all locations; and red and black bin liners for maintaining waste segregation in all facilities. The MOUs with the regions state that the budget and procurement for these items will be assumed by the regions and hospitals.

Regions	# Facilities with Needle Removers
5	4
6	22
7	2
10	11
Total	39

As part of our strategy to share cost for needed equipment, the RHO for Region 3 has recently agreed to purchase 2/3 of the needed bins to facilitate segregation; GSIP will purchase the remaining amount.

⇒ GSIP supplies consumption data, specifications, sources and costs to assist regions with assuming budgetary responsibility. GSIP has supplied SCMS with all information on equipment to ensure that IS

products are accounted for in their quantification survey and budget analysis.

- ⇒ GSIP assessments on product satisfaction and effectiveness will be shared with the Ministry to guide future procurement decisions.
- ⇒ GSIP in cooperation with our JSI sub-contractor has prepared and delivered training in procurement and logistics for logistics and ward staff. As new agreements are reached between the Ministry, the MMU and SCMS, any changes affecting our procedures will be addressed.

BCC & Advocacy

Behavior Change and Advocacy: All workers are trained in interpersonal skills to help them discuss obstacles to meeting performance expectations with peers, supervisors and administrators and providers are trained to enhance information dissemination and counseling with clients. In addition workers have been provided with job aids and posters to encourage adherence to safety standards. These include:

- ⇒ Talking points for nurses to explain to patients why oral medications are beneficial and how to ask their prescriber about possible alternatives to injections.
- ⇒ PEP guidelines for all facilities, a joint product of GSIP and NAPS and FXB.
- ⇒ Posters on using personal protective equipment for waste handlers; promotion of tablets for patients; using safety boxes for immediate disposal; reporting and seeking treatment for NSI; and no recapping

Strategic efforts to support community outreach are also taking place:

- ⇒ Nurses and community health workers have been trained in the purpose, use and placement of posters for information and behavior change. Waiting rooms, clinic days and community visits are used for delivering important messages
- ⇒ Community outreach is focused on developing partnerships to delivery IS messages
 - The partnership with CIDA and 4 urban municipalities has enabled the WIT team, the community arm of the municipalities to be trained in IS and message delivery. Approximately 36% of Guyana's 751,223 citizens (2002) live in municipalities. To date 2308 people have been reached by this team at community meetings, PTAs, church events, etc.

- The teams are now working in region 6 to gather funding and resources for fixing health center waste management deficiencies.
- NGOs in regions 5, 3 and 7 are also being trained in message delivery.

Municipalities Partners with Ministry of Health, GSIP for IS/WM

The partnership forged between the four municipalities in Regions 6 and 10: Corriverton, Rose Hall, New Amsterdam and Linden, along with the CIDA funded Municipal Governance and Management Programme has resulted in a strong community outreach campaign which saw members of the municipal Waste Management Implementation Team (WIT) members reaching out into the community to disseminate key messages on ISWM.



Using drama and their own creativity and making the sessions culturally appropriate, the messages were delivered in entertaining ways even as the take home messages were reinforced.

More than 2308 residents of regions 6 and 10 have benefited from outreach sessions. Target audiences included Parent Teachers Associations, Chambers of Commerce, and religious organizations.

⇒ The media has been another focus of attention this year. Thirty-one print, radio and TV

Participating Journalists



journalists participated in a workshop run by ILO, UNAIDS and GSIP to acquaint them with: a) appropriate terminology and need for evidence based data in reporting, b) the responsibility of the workplace to remove risk and to care for those infected and c) injection safety goals and objectives and how the media could assist in reporting on and disseminating IS messages.

Role plays and practice writing sessions were included to help journalists report effectively.

- ⇒ The journalists will provide GSIP, ILO and UNAIDS with a record of the number of articles published and meet quarterly for additional review and feedback. This will enable GSIP to build a network of trained communicators.

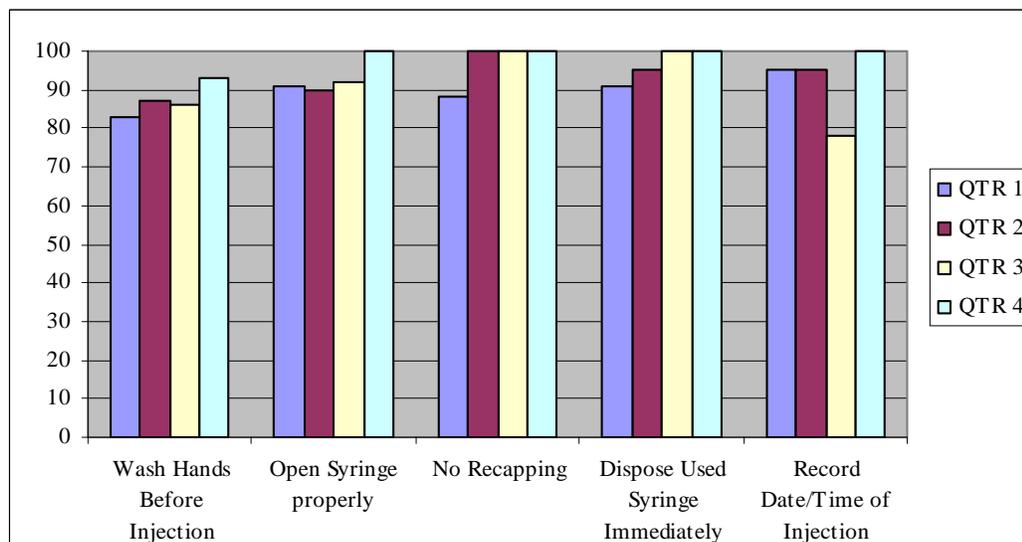
Monitoring and Supervision

Monitoring and Supervision: The goal of GSIP is to ensure that workers fully understand and adhere to standards for injection safety. This requires monitoring adherence which is initially done by GSIP and then GSIP in coordination with trained facility supervisors. The supervisors monitor adherence to the indicators developed with the MoH and GSIP and learn how to analyze the data and solve problems. They are also helped to share this data with senior management.

- ⇒ In regions 6 and 10, 100% of the data is collected by facility supervisors
- ⇒ Supervisors are helping to identify and address gaps in system development to improve logistics, practices and safety in general.
- ⇒ EPI sessions are used to review and respond to relevant health center data

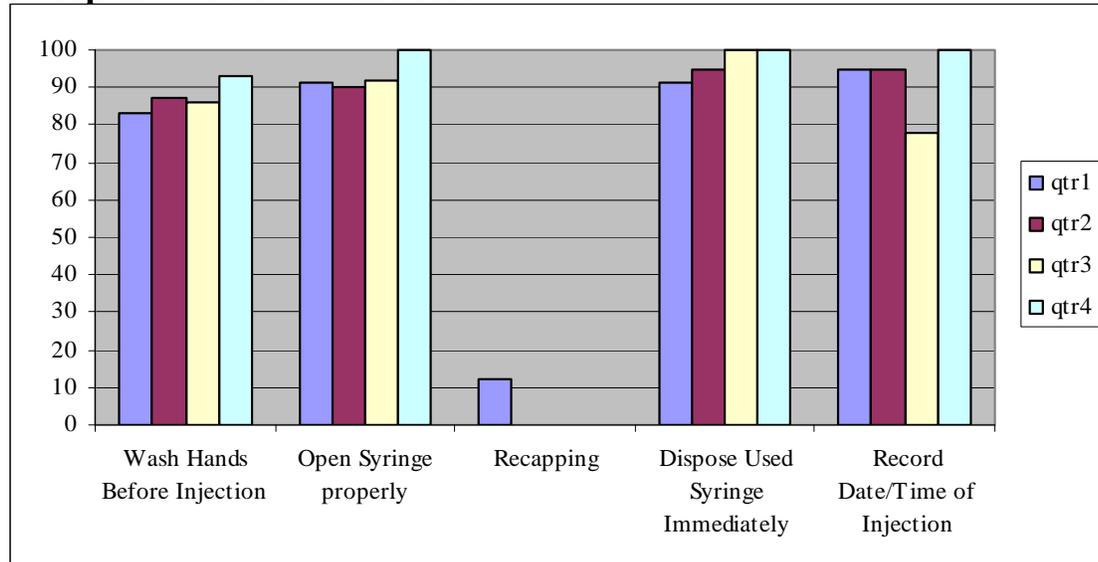
The following graphs show provider practices according to standards. The monitoring data covers four regions: 3, 5, 6 and 10. Results are influenced by the addition of new facilities from region 3, introduced in quarter three and four.

Health Center Provider Practices



N= Q1: 46HC/57 obs.; Q2: 46HC/69 obs.; Q3: 60HC/50 obs.; Q4: 93HC/45 obs.

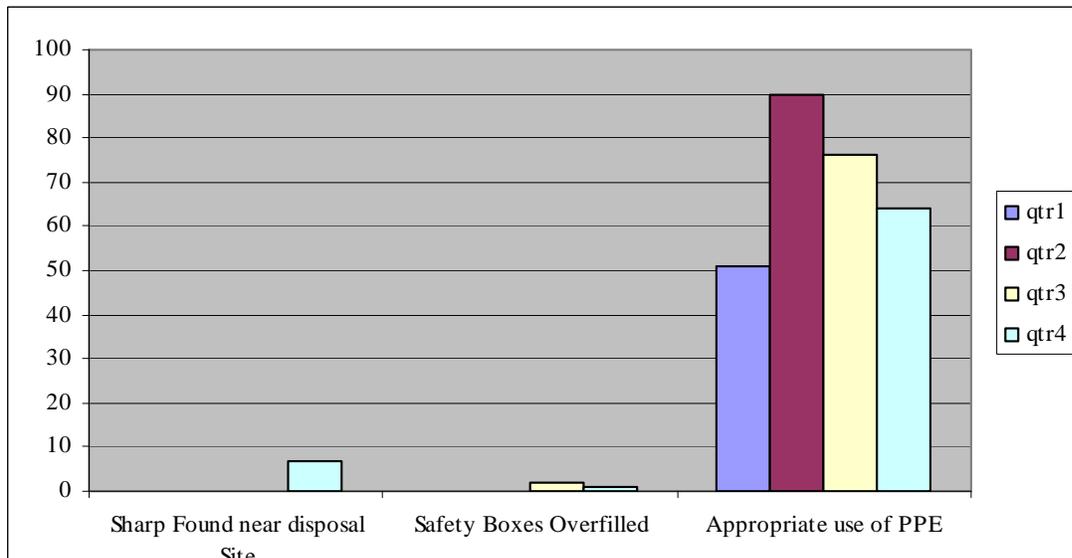
Hospital Provider Practices:



N= Q1: 8 hosps/57 obs.; Q2: 8 hosps/59 obs.; Q3: 10 hosps/22 obs.; Q4: 14 hosps, 9 obs.

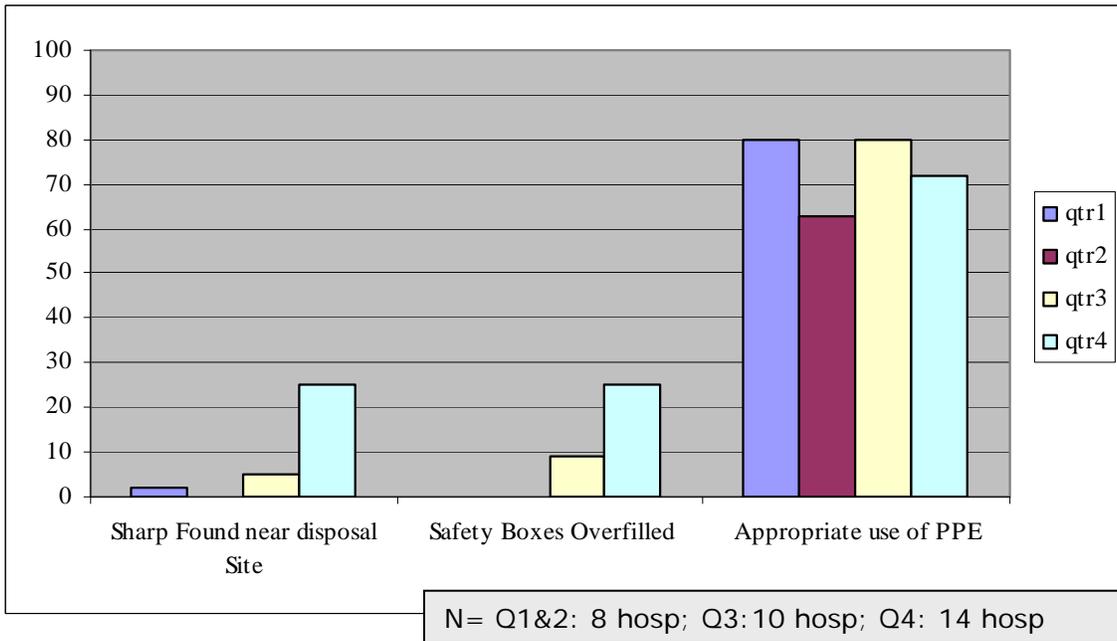
⇒ GSIP looks at the state of waste management to ensure that loose sharps are not found in or around facilities, and that waste handlers are appropriately using protective gear to minimize infection risk and that safety boxes are not overfilled.

Health Centers Waste Management Practices:



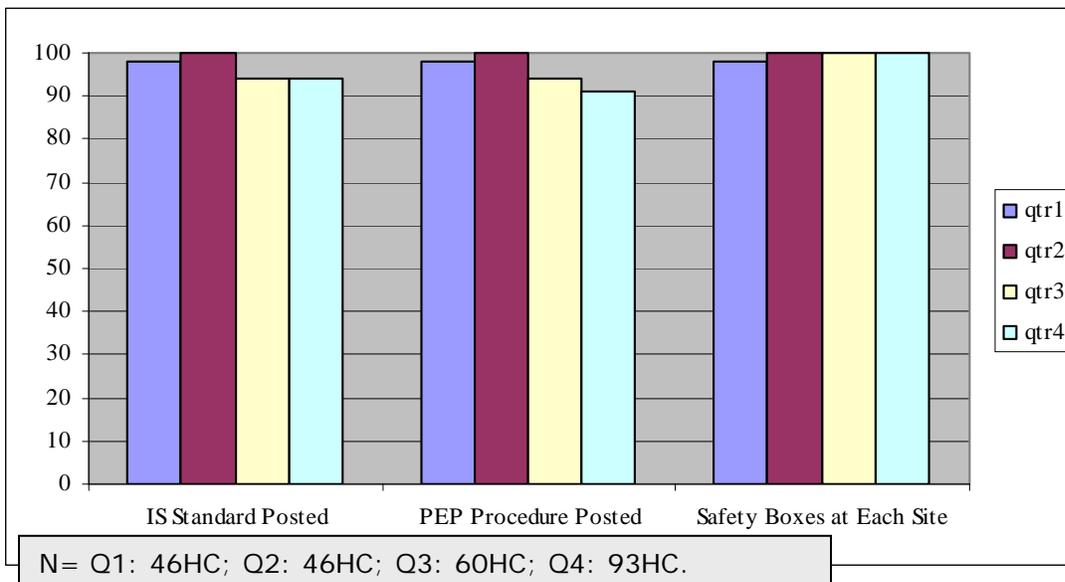
N= Q1/2 = 46 HC, Q3= 60, Q4 = 93

Hospital Waste Management Practices:

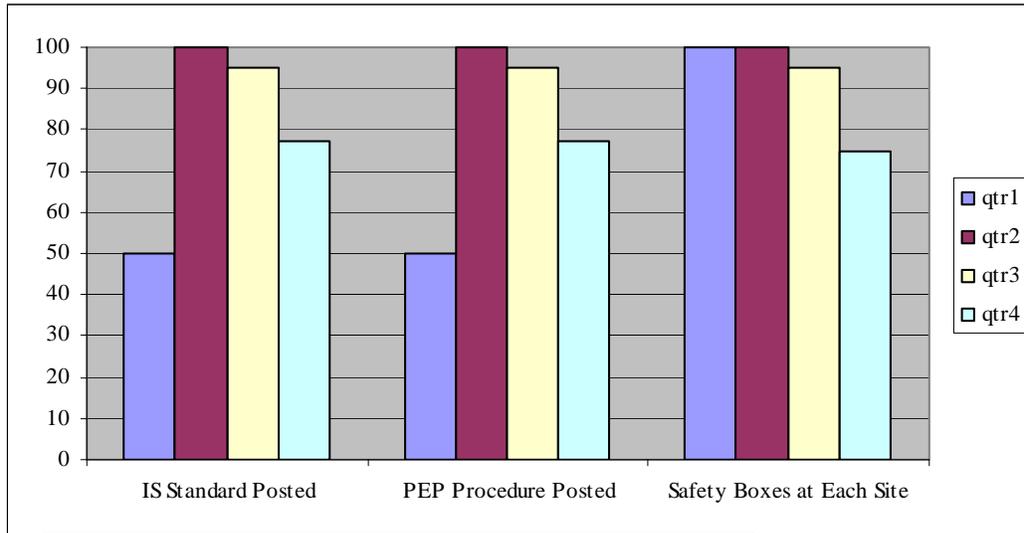


⇒ GSIP looks at the state of the facility to see whether standards are posted and safety boxes available.

Health Center Standards & Safety Boxes



Hospital Standards & Safety Boxes



N= Q1&2: 8 hosp; Q3: 10 hosp; Q4: 14 hosp

⇒ Determining whether equipment is consistently available is also key to injection safety

% Stockouts

		Syringes	Safety Boxes			Syringes	Safety Boxes
Qtr 1	HC ³	16%	3%	Hosp	0	0	0
Qtr 2	HC	0	0	Hosp	0	0	0
Qtr 3	HC	0	0	Hosp	0	0	0
Qtr 4	NC	0	0	Hosp	0	0	0

³ Note GSIP does not supply safety boxes or syringes to health centers. These are provided through the EPI program.

ANNEX ONE: MOH Policy: Worker Safety



Minister of Health

MINISTRY OF HEALTH - Lot 1 Brickdam, Georgetown, Guyana, South America.

Tel: 592 226 1560 Fax: 592 225 4505 E-mail: ministerofhealth@gmail.com

August 3, 2007

Regional Health Officers
Guyana Public Hospitals

Dear Sir/Madam,

Please be advised that the Ministry of Health will be introducing a new policy that addresses the safety of Health Care Workers (HCWs).

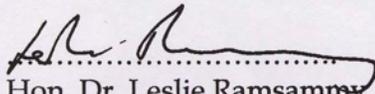
The Ministry of Health is making a concerted effort to address this issue with the cooperation of the Guyana Safer Injection Project (GSIP). Health care workers and waste handlers are at risk for needle stick and sharps injuries that can result in transmission of blood borne diseases. In 2003, World Health Organization (WHO) documented that HCWs had over two (2) million exposures world wide; needle stick injuries accounted for

- 40% of Hepatitis B transmission
- 4.4% of HIV

In Guyana, the number of needle stick injuries are under-reported but a 2004 baseline study conducted by GSIP revealed that 30% of waste handlers and 22% of the providers interviewed stated they had a needle stick injury within the past year.

The main focus of this initiative is to educate and ensure that there is strict adherence to standard precautions in order to reduce the chance of occupational injuries.

Sincerely,


Hon. Dr. Leslie Ramsammy
Ministry of Health



Government of Guyana Ministry of Health

Policy for Health Care Worker Safety

In an effort to reduce occupational exposure to transmission of blood-borne diseases among health care workers, the Ministry of Health is setting a policy for safer work practices and standard precautions.

To protect workers, the Ministry is advocating the following interventions:

- Use of closed, puncture resistant safety boxes at all injection and x-ray sites
- Use of closed, puncture resistant sharps containers at all phlebotomy sites
- Strict adherence to Standard Precautions
- Strict adherence to the requirement for pre-exposure hepatitis B and tetanus vaccinations for all health care workers
- Posted information on post-exposure counseling and treatment sites for sharps injuries
- Facility documentation of needle stick injuries and their cause to facilitate follow-up and interventions to prevent accidents
- Strict adherence to the provision and use of protective gear for waste handlers including boots, aprons and gloves
- Identification of a safe storage area for protective gear to ensure they are not removed from the facility exposing family and community members to pathogens

These actions should be monitored and enforced for the safety of our workers, our patients and our communities.

Department of Standards & Technical Services
1 Brickdam, Georgetown
Tel/Fax: 592-226-5118

ANNEX TWO: LOP Monitoring & Evaluation Plan

**Performance Indicators:
Guyana Safer Injections Project (GSIP) ¹**

						GSIP PILOT		GSIP EXPANSION				
#	CODE	INDICATOR	INDICATOR DEFINITION	DATA SOURCE	NATIONAL BASELINE 2004	GSIP BASE-LINE 2004	GSIP ACTUAL 2005	2007	INTER - MEDIATE 2008		FINAL 2009	
								A	T	A	T	A
1. Project Coverage												
1.1	P	Percent of population covered by SI in the regions and nationally ²	Number of population covered/total number of population in the region and country	Project Records / National Census Reports		ND		45%	60%		100 %	
1.2a	P	Coverage of facilities providing safe injections	Proportion of facilities covered by SI in project regions vs. all facilities providing injections in project regions	Project Records		0	14	-94% (15 hosp) -99% (73 HC) -66% (33 HP)	80% 80% 40%		100% ³ 100% 50%	
1.2b	P	Regions covered by the project	Number of regions covered by the project	Project Records			ND	5				
1.3	P	Presence of national policy	Policy document highlighting injection safety and waste management submitted to relevant authorities and operationalized	Project Records		0	Drafted & sent for final approval	Policy Disseminated 2007				

¹ **Table Key:** A = Actual; GAIS = Guyana AIDS Indicator Survey; P = PEPFAR; S = Supplementary; T = Target; HF = Health Facility; ND = No Data

² These data will also be reported in annual reports from 2006 through 2009.

³ Targets relate to hospitals 100%, health Centers 100% and health posts 50%.

1.4	S	National SI plan	Existence of plan with designated activities to improve the safety of injection and waste disposal practices,	Project Records		0	0	Expected draft 2008				
							GSIP PILOT		GSIP EXPANSION			
#	CODE	INDICATOR	INDICATOR DEFINITION	DATA SOURCE	NATIONAL BASELINE 2004	GSIP BASELINE 2004	GSIP ACTUAL 2005	GSIP BASELINE March 2006	INTER - MEDIATE 2008		FINAL 2009	
									T	A	T	A
2. Reducing Unnecessary Injections, Advocacy and Behavior Change												
2.1	P	Average number of injections per person per year ⁴	Average number of annual medical injections reported by the population(15-49)	GAIS	.95 = GAIS				.95		.95	
2.2	P	Average number of injections per patient per a specific diagnosis	Number of injections given per patient per a specific diagnosis or symptom : PAIN and Headache	Record Audit at Sentinel Sites		ND	ND	Headache 1.3 Body/limb pain 1.1 ⁵	1.1 1.0			
2.3a	P	BCC Messages reaching clients	Number of patients who have heard or seen BCC messages related to injection safety/Total number of patients interviewed	HF Survey	ND	ND	16% (n=58)	17% (n=52)	30%		40%	

⁴ Data will be collected in 2007 when the GAIS is scheduled to be conducted and will be included in the 2008 intermediate evaluation report.

⁵ This is based on the findings from the PRR study conducted in 2006. It highlights conditions for which injections are not the recommended first line of treatment but are being used.

						GSIP PILOT		GSIP EXPANSION				
#	CODE	INDICATOR	INDICATOR DEFINITION	DATA SOURCE	NATIONAL BASELINE 2004	GSIP BASELINE 2004	GSIP ACTUAL 2005	GSIP BASELINE March 2006	INTER-MEDIATE 2008		FINAL 2009	
									T	A	T	A
3. Standards and Training												
3.1	P	Percentage of facilities where sharps are observed to be re-used on patients without reprocessing	Number of injection observations where sharps are observed to be reused on patients without reprocessing/ Total number of observations of injections	HF Survey	0% (n=51)	0% (n=14)	0% (n=10)	0% (n=22)	0%		0%	
3.2	S	Injection Provision Standards available	Number of facilities in which procedures for injection safety are posted/total number of facilities surveyed	HF Survey	22% (n=37)	22% (n=14)	67% (n=14)	20% (n=10)	90%		98%	
3.3	S	PEP Standards	Proportion of facilities in which procedures for PEP are posted	HF Survey	14% (n=36)	14% (n=14)	100% (n=14)	70% (n=10)	90%		95%	

#	CODE	INDICATOR	INDICATOR DEFINITION	DATA SOURCE	BASELINE 2004	ACTUAL 2005	2006		2007		2008		2009	
							T	A	T	A	T	A	T	A
3.4	P	National Policy Implementation	Number of persons trained in safe injection policies and related issues	Project Records	0	0	30	45	ND	54 249	150		TBD	
3.5	P	Number of persons Trained Commodity Management (CM)	Number of persons trained	Project Records	ND	46	100	5** 192*	50** 300*	23** 333*	15** 500*		TBD	
3.6	P	Injection Providers trained	Number of providers trained in injection safety	Project Records	0	103	200	192	300	333	500		TBD	
3.7	P	Number of persons trained in interpersonal communication/ BCC regarding safe injections	Number of persons Trained	Project Records	0	237	360	286	450	472	600		TBD	
3.8	P	Number of staff trained in waste management	Number of staff trained	Project Records	3	78	160	94	150	139	100		TBD	
3.9	S	Number of physicians trained in reducing injections	Number of trained	Project Records	ND			100	125	99	75		TBD	

** dedicated logistics staff

* all providers are trained in logistics for ward supplies

						GSIP PILOT		GSIP EXPANSION				
#	CODE	INDICATOR	INDICATOR DEFINITION	DATA SOURCE	NATIONAL BASELINE 2004	GSIP BASELINE 2004	GSIP ACTUAL 2005	GSIP BASELINE March 2006	INTER-MEDIATE 2008		FINAL 2009	
									T	A	T	A
4. Equipment, Supplies and Commodity Management												
4.1	P	Number/percent of facilities with stock-outs of any size of new sterile standard or safety syringes in prior six months	Number of supervisors interviewed who report stock outs of any size of new sterile standard or safety syringes in the prior 6 months/ Total number of supervisors interviewed	HF Survey			27% (n=15)	40% (n=10)	20%		TBD	
4.2	P	Number/percent of facilities with stock outs of safety boxes for sharps disposal in the prior six months	Number of supervisors interviewed who report stock outs of safety boxes in the prior 6 months/ Total number of supervisors interviewed	HF Survey			27% (n=15)	10% (n=10)	15%		TBD	
5. Sharps Waste Management												
5.1	P	Number/percent of health workers that dispose of used sharps in a safety box or puncture-proof, leak-proof sharps container (or use a needle remover) immediately after injection	Number of health workers observed giving injections who dispose of used sharps in a safety box or puncture-proof, leak-proof sharps container (or use needle remover) / Total number of health workers observed giving injections	HF Survey	100% (n=30)	14% (n=11)	86% (n=10)	64% (n=22)	85%		95%	

						GSIP PILOT		GSIP EXPANSION				
#	CODE	INDICATOR	INDICATOR DEFINITION	DATA SOURCE	NATIONAL BASELINE 2004	GSIP BASELINE 2004	GSIP ACTUAL 2005	GSIP BASELINE March 2006	INTER-MEDIATE 2008		FINAL 2009	
									T	A	T	A
5.2	P	Proportion of facilities with satisfactory disposal of used injection equipment (no used sharps where they pose a needle stick risk for providers or the general population either inside or outside the facility and no overflowing or open safety boxes)	Number of facilities with satisfactory disposal of used injection equipment (no used sharps where they pose a needle stick risk for providers or the general population either inside or outside the facility and no overflowing or open safety boxes)/ Total number of facilities surveyed.	HF Survey	82% (n=38)	77% (n=14)	86% (n=14)	100% (n=9)	85%		TBD	
5.3	P	Number/percent of facilities using safety boxes for sharps waste disposal	Number of facilities using safety boxes for sharps waste disposal/ Total number of facilities surveyed	HF Survey	ND	ND	100% (n=14)	80% (n=10)	75%		95%	

						GSIP PILOT		GSIP EXPANSION				
#	CODE	INDICATOR	INDICATOR DEFINITION	DATA SOURCE	NATIONAL BASELINE 2004	GSIP BASELINE 2004	GSIP ACTUAL 2005	GSIP BASELINE March 2006	INTER-MEDIATE 2008		FINAL 2009	
									T	A	T	A
6. Infection Prevention and Control												
6.1	P	Number/proportion of facilities providing post-exposure prophylaxis (PEP) to its staff (medical staff and waste handlers) who have sharps injuries	Number of facilities that have a system in place to offer post exposure prophylaxis within 24 hours to its staff after sharps injuries or blood borne pathogen exposure/ Total number of facilities	HF Survey	20% (n=51)	21% (n=14)	87% (n=14)	80% (n=10)	85%		95%	
6.2	P	Percent of men/women (15-49) who report that the most recent health care injection was given with a syringe and needle from a new, unopened package	Proportion of women and men ages 15-49 who report that the most recent health care injection was given with a syringe and needle set from a new, unopened package	GAIS		87%	91.45%	81% (n=52)	90%		92%	

						GSIP PILOT		GSIP EXPANSION				
#	CODE	INDICATOR	INDICATOR DEFINITION	DATA SOURCE	NATIONAL BASELINE 2004	GSIP BASELINE 2004	GSIP ACTUAL 2005	GSIP BASELINE March 2006	INTER-MEDIATE 2008		FINAL 2009	
									T	A	T	A
6.3	P	Number and percent of facilities that reprocess and re-use syringes and needles (including sterilization and high-level disinfection)	Number of facility observations where there is evidence of syringes and needles being reprocessed and re-used/ Total number of observations of facilities	HF Survey	0% (n=51)	0% (n=14)	0% (n=10)	0% (n=10)	0%		0%	
6.4	P	Number/percent of health workers who dispose of used sharps without recapping	Number of health workers observed giving injections who disposed of used needles without recapping/ Total number of health workers observed giving injections	HF Survey	8% (n=38)	92% (n=14)	100% (n=10)	100% (n=22)	95%		100%	

						GSIP PILOT		GSIP EXPANSION				
#	CODE	INDICATOR	INDICATOR DEFINITION	DATA SOURCE	NATIONAL BASELINE 2004	GSIP BASELINE 2004	GSIP ACTUAL 2005	GSIP BASELINE March 2006	INTER-MEDIATE 2008		FINAL 2009	
									T	A	T	A
6.5	P	Number/percent of health workers who give each injection with a new sterile standard or safety syringe	Number of health workers observed giving injections with a new sterile standard or safety syringe/ Total number of health workers observed	HF Survey	87% (n=38)	100% (n=14)	100% (n=10)	82% (n=22)	95%		100%	
6.6	P	Number/Percent of injection providers reporting one or more needle stick injuries in the prior six months	Number of injection providers who report one or more needle stick injuries in the prior 6 months/total number of injection providers interviewed	HF Survey	26% ⁵ (n=31)	22% (n=14)	20% (n=25)	17% (n=22)	20%		TBD	
6.7	P	Number/percent of waste handlers reporting one or more needle stick injuries in the prior 6 Months	Number of waste handlers reporting one or more needle stick injuries in the prior 6 months/ Total number of waste handlers interviewed	HF Survey			0% (n=19)	33% (n=12)	25%		TBD	

⁵ The national baseline and GSIP data are based on a 12 month period rather than 6 months. The 2006 GSIP baseline will collect data based on the last 6 months.