USAID | ZAMBIA
FROM THE AMERICAN PEOPLE

MIDTERM EVALUATION REPORT

PREVENTING THE MEDICAL TRANSMISSION OF HIV IN ZAMBIA

June 2008

This publication was produced for review by the United States Agency for International Development. It was prepared by Chemonics International Inc.

MIDTERM EVALUATION REPORT

PREVENTING THE MEDICAL TRANSMISSION OF HIV IN ZAMBIA

Contract No. GHS-I-00-03-00025-00, task order 1

CONTENTS

ACRONYMS

BCC	behavior change communication
CBOH	Central Board of Health
DHMT	District Health Management Team
ECZ	Environmental Council of Zambia
IEC	information, education, and communication
IP/IS	infection prevention and injection safety
JSI	John Snow Inc.
M&E	monitoring and evaluation
MISP	Medical Injection Safety Project
MOH	Ministry of Health
NIPWG	National Infection Prevention Working Group
OGAC	Office of the U.S. Global AIDS Coordinator
PEPFAR	President's Emergency Plan for AIDS Relief
RHC	rural health center
SI	safe injection
UHC	urban health center
WHO	World Health Organization

ACKNOWLEDGEMENTS

This midterm evaluation report is a required product of the Medical Injection Safety Project (MISP), a USAID/PEPFAR project designed to prevent the medical transmission of HIV in Zambia. Special thanks to the following:

Research assistants: Madrin Kunda, Senior Nursing Officer and IP Focal Person, University Teaching Hospital; Linda Muleya Libingi, IP/IS Trainer, Livingstone School of Nursing; Chishala Mpande, Clinical Officer, M'kushi District Health Management Team (DHMT); Jolly Mtonga, Nurse, Kwenje Rural Health Center, Chipata DHMT; Luck Silengo, IP/IS Focal Person and IP/IS Trainer, Ndola DHMT; Regina T. Chanda, Registered Nurse and IP/IS Trainer, Ndola DHMT; Musumba Saulombo, Environmental Health Technician, Solwezi General Hospital; Pricilla Muzyamba, Registered Midwife and IP/IS Trainer, Ndola DHMT; Champo Banda, Registered Nurse, Kabwe DHMT; and Mbweensi Lloyd, Environmental Health Technician, Lewanika General Hospital.

The MISP project acknowledges the Ministry of Health staff members from headquarters, provincial offices, district health offices, hospitals, and the staff and patients of the health facilities in Chingola, Monze, and Solwezi who voluntarily participated in MISP evaluation.

MISP also wishes to thank John Snow Inc. (JSI) for providing their original protocol and data collection instruments and allowing the adaptation of these materials for Zambia.

The project acknowledges the contributions of all MISP staff: Dr. C. Mazimba, Chief of Party; Stephen Chanda, Monitoring and Evaluation Specialist; Mr. Answell, Chipukuma Behavior Change Specialist; M. Ndhlovu, Training and Capacity Building Technical Advisor; M. Zyambo, Procurement Specialist; and Monde Luhana and Victor Zimba, Finance.

We also thank Dr. G. Sinyangwe, MISP Project Activity Manager at USAID/Zambia, for his guidance and contributions to the report, and Réne Berger, Robert Brookes, Elizabeth Tschoegl, and Erin Torre of the Chemonics home-office project management unit, for their technical input and guidance in finalizing the report.

We thank the data entry clerks and any others we may not have mentioned by name or title, but who, in one way or another, have made this evaluation a success.

SECTION I. BACKGROUND

Zambia is among 15 priority countries identified in the President's Emergency Plan for AIDS Relief (PEPFAR) for preventing the spread of HIV infections. Administered by the Office of the U.S. Global AIDS Coordinator (OGAC), PEPFAR is intended to provide treatment to at least 2 million HIV-infected persons, prevent 7 million HIV infections, and provide care to 10 million individuals infected with, or affected by, HIV.

A priority activity under PEPFAR is the elimination of preventable medical transmission of HIV (e.g., by improving the management and safety of blood supplies and specimens and increasing injection safety). In 2004, in accordance with this PEPFAR activity, Chemonics International, in partnership with JHPIEGO and The Manoff Group, began implementing the pilot phase of the Zambia Medical Injection Safety Project, which focused on improving systems and practices related to infection prevention and injection safety (IP/IS). In April 2005, Chemonics was contracted to expand the implementation of the pilot project to a national scale. This scale-up is planned to occur over 4 years, through September 2009. The MISP team plans to conduct project activities in health care facilities in all 72 districts (9 provinces) of Zambia, reaching 18 districts per year.

A. Project Objectives

The overall aim of the project is to develop and support a nation with quality infection prevention and injection safety practices. The primary objective is to prevent the medical transmission of HIV and other blood-borne diseases (hepatitis B and hepatitis C) through safe injection practices that protect heath care workers, patients, and community members from avoidable infectious diseases.

Specifically, the project objectives are to:

- Support the Ministry of Health's procurement system, ensuring efficient and effective procurement of IP/IS commodities through training and strengthening of national supply chains.
- Build the IP/IS capacity of health care workers.
- Organize and operationalize a health care waste management system that is technically sound, economically affordable, and environmentally acceptable.
- Improve infection prevention knowledge and skills among health care providers, patients, support staff, and community members.
- Support the Ministry of Health and the private health sector in changing providers' and clients' beliefs and behavior, to reduce unnecessary injections and reduce risks.
- Strengthen monitoring and evaluation (M&E) of infection prevention.
- Minimize the risk of medical transmission of HIV and other blood-borne diseases.
- Protect providers, clients, and the community by promoting safe injection practices.
- Equip health facilities with appropriate injection safety supplies and equipment.
- Promote community awareness of sharps and injection safety issues and practices.
- Provide a safe environment for the community.

The project is currently working toward the above objectives through the following strategies:

- Quantify infection prevention supply needs in each health institution.
- Sensitize district and health facility management on the importance of including the injection safety supplies on their requirements list.
- Review the composition of National Infection Prevention Working Group (NIPWG) to ensure wide representation of stakeholders.
- Establish a facility and district point-person to supervise and coordinate IP/IS activities.
- Establish or review infection prevention committees at all levels.
- Establish infection prevention minimum standards.
- Conduct site visits and make recommendations according to infection prevention standards.
- Establish preventive maintenance systems.
- Develop a training plan to scale up infection prevention at hospital and district levels.
- Review and incorporate IP guidelines into pre-service training curricula for physicians, paramedics, anesthesiologists, nurses, surgery and midwifery.
- Update the IP knowledge and skills of personnel through in-service training.
- Strengthen information, education, and communication (IEC) activities in communities.
- Produce and distribute health education materials.
- Hold advocacy meetings to lobby for human, material, and financial support.

B. Project Performance Indicators

To properly assess whether the project is meeting its long-term and short-term objectives, the MISP team developed a monitoring and evaluation plan at the start of the project. The M&E plan is a management tool developed to facilitate continuous assessment of project performance on expected results[1]. The M&E plan describes 43 performance indicators, a plan for data acquisition and data analysis, anticipated data quality issues, and reporting procedures.

The plan also measures the extent to which the project contributes to the overall achievement of PEPFAR objectives. In addition to individual project indicators, all injection safety projects funded by PEPFAR are required to report on:

- The number of individuals trained in injection safety.
- The average number of medical injections per person (aged 15-49), per year.
- The proportion of women and men (aged 15-49) reporting that the last medical injection was given with a syringe/needle set from a new, unopened package.

[1] The performance indicators presented in Annex A are organized according to the tasks outlined in the project's statement of work.

There are 15 active medical injection safety projects worldwide, each funded through PEPFAR and administrated by USAID or the Centers for Disease Control and Prevention. In recognition of the commonality among these projects, a working group, "Safe Injection (SI) Partners," was formed. The SI Partners group includes representatives from implementing contractors, Chemonics International, John Snow Inc., University Research Co., and Initiatives Inc., and from administrating agencies. The group meets on a bimonthly basis to discuss progress and lessons learned. To achieve reporting consistency and to facilitate cross-project comparison of performance, the SI Partners developed a set of common indicators for all medical injection safety projects, to be incorporated into each project's M&E plan. These indicators are identified in the indicator tracking matrix (Annex A). The data collected in this midterm evaluation will help mark achievements made towards project objectives.

Monitoring and evaluation occurs throughout the project cycle:

Pre-Implementation Phase. This phase focused on documenting existing IP/IS practices. A May 2006 study was conducted in three districts — Chingola, Monze, and Solwezi — where MISP had not yet conducted any activities. The information generated by this study comprised the baseline data for the project.

Implementation Phase. This phase encompasses current project activities. It covers a four-and-a-half year period beginning in 2005, in which the Ministry of Health and MISP have been implementing IP/IS activities in many of the 72 targeted districts.

The M&E plan for the Zambia Medical Injection Safety Project is a working document, to which this midterm evaluation is intended to contribute.

SECTION II. METHODOLOGY

The purpose of the midterm evaluation was to assess whether, and to what extent, MISP is achieving its intended results, how effective the current strategy has been, and what lessons can be learned to inform ongoing project implementation.

A. Evaluation Design

The evaluation was used process-and-output analysis of the project's M&E plan indicators, to establish how the activities are being carried out, and to gauge project achievements and the impact of IP/IS activities in Zambia. The team used a survey approach to collect data from health care workers and clients who have benefited from project activities.

The objective of the evaluation was to assess:

- The presence of reference documents (national policy standards and guidelines) in health facilities.
- The availability of IP/IS equipment and methods for managing stock.
- The IP/IS practices of health care providers.
- The availability of equipment and materials for waste collection, transport, and disposal, as well as procedures and practices for managing waste from injection activities.
- The experiences of patients (or those of their parents or families) related to IP/IS in health facilities.

B. Sampling Procedures

The Ministry of Health and MISP held meetings to discuss how the midterm evaluation would be conducted and how best to evaluate Zambia's existing IP/IS situation. Chingola, Monze, and Solwezi districts were selected for the midterm evaluation to provide consistency and allow for comparison with findings from the baseline study. The three districts reflect the national setting, as both rural and urban districts where part of the originally sampled districts and would give the project two different settings to compare. The project and the ministry agreed that all public hospitals and public health centers in the three districts would participate in the evaluation.

C. Target Populations

The following populations were targeted as data sources for this evaluation:

- Procurement managers or stores managers dealing with IP/IS equipment, medications, vaccines, etc.
- Injection providers
- Injection prescribers

- In-charges (supervisors) of facilities
- Staff members in charge of waste management
- Health care recipients: patients/clients (or parents or caretakers of patients) who were attended to at the facility being assessed.

D. Data Collection

A team of 10 health care providers from the Ministry of Health and 3 MISP staff members carried out the midterm evaluation. The 2 ministry staff chosen for the data-collection exercise were trained providers who had participated in the project's 4-day IP/IS training. All data collectors participated in a full-day evaluation workshop, during which they reviewed tools and ethical responsibilities and expectations. The evaluators were divided into 3 groups, each coordinated by 1 MISP staff member, to travel to each district: Chingola (4-person team), Monze (4-person team), and Solwezi (5-person team).

Data collection took 10 work-days in each district and involved an inventory of the facilities, provider observations, and interviews with in-charges, prescribers, providers, and waste handlers. The evaluation team conducted 9 focus group discussions in the 3 districts to learn about the public's current knowledge, attitudes, and practices related to infection prevention and injection safety.

The team evaluated all areas of service provision, using the tools listed below.

Table II-1. Number of Observations Collected Per Collection Tool and Districts Visited

Evaluation Tool	Chingola	Monze	Solwezi	Total
Facility inventory observations	10	25	34	**69**
Injection provider interviews	15	27	41	**83**
Injection provider observations	60	83	65	**208**
Injection prescriber interviews	15	27	41	**83**
Supervisor interviews	15	28	34	**77**
Interviews with waste handlers	10	22	34	**66**
Client/patient exit interviews	61	95	97	**247**
Focus group discussions	3	3	3	**9**

E. Data Analysis

The project hired three data entry clerks to assist with data coding and to create a data matrix in Epi Info with the M&E specialist. The clerks entered the data in Epi Info, and then exported to SPSS and Microsoft Excel to simplify the process of data analysis for the technical specialists. The team used thematic analysis for qualitative data and statistical analysis software (SPPS or Epi Info) for quantitative data analysis. To facilitate the analysis, the team grouped the qualitative data gained from exit interviews and focus group discussions into common themes or responses and attempted to quantify the data. The time allotted for data analysis was extended, to allow the team to create the matrix, discover representative themes, and incorporate focus group discussion write-ups.

SECTION III. FINDINGS

A. Overall Performance Indicators

PEPFAR has defined the following performance indicators on which the project is required to report on:

- The average number of injections per person per year for persons aged 15-49.
- The proportion of women and men aged 15-49 years reporting that their last health care injection was given with a needle/syringe set from a new, unopened package.
- The number of health care providers trained in IP/IS.

The number of health care providers trained is described in "Section D. Behavior Change Communication."

Table III-1. Average Number of Medical Injections per Person, per Year

Age Group (yrs.)	District			Facility[2]				Gender		Overall
	Chingola	Monze	Solwezi	RHC	UHC	Hosp.	Mission Hosp.	Male	Female	
0-14 (n=100)	1.01	0.98	0.95	1.00	0.89	0.92	0.88	1.41	1.58	**0.99**
15-49 (n=118	1.50	1.45	1.90	1.59	1.16	1.12	1.13	1.42	1.58	**1.61**
50+ (n=27)	1.20	1.35	1.45	1.36	1.01	0.98	0.79	1.48	1.12	**1.33**

The data in Table III-1 indicates a decrease in the overall number of injections per person per year from 2.16 at baseline to 1.31 (the overall average for all age groups) during the midterm evaluation. The target (1 injection per patient) is possible to achieve in the remaining project implementation period.

Table III-2. Patients Aged 15-49 Reporting Last Injection Given with a Syringe/Needle Set from a New, Unopened Package (N=59)

Age Group (yrs.)	Average at Baseline (%)	District			Facility				Average at Midterm (%)
		Chingola %	Monze %	Solwezi %	RHC %	UHC %	Hospital %	Mission Hospital %	
15-49	98.3	99	100	98.2	97.9	99	100	100	**99.1**

Zambia has adopted the practice of using single-use needles and syringes for injections as a way to ensure injection safety and reduce the transmission of blood-borne diseases. Table III-2 illustrates that, on average, 99.1 percent of clients reported that the injection they received was done using a new, unopened needle. This shows a 0.9-percent increase

[2] Facilities covered in this evaluation are rural health centers (RHCs), urban health centers (UHCs), hospitals, and mission hospitals.

from the baseline data, which surpasses the target of 90 percent. There was no difference between female and male patients, and little difference between urban and rural communities.

Reuse of needles and syringes was found to be 0 percent for both curative and immunization activities, indicating no change since the baseline and suggesting that facilities in Zambia are using single-use injections.

Table III-3. Facilities/Departments Providing Post-Exposure Prophylaxis to Staff after Sharps Injury, According to Supervisor and Provider Reports

Health Care Worker	Average at Baseline (%)	District			Facility				Average at Midterm (%)
		Chingola %	Monze %	Solwezi %	RHC %	UHC %	Hospital %	Mission Hospital %	
Supervisor	35.2 (25/71)	80.0 (12/15)	39.3 (11/28)	29.4 (10/34)	26.8 (15/56)	66.6 (6/9)	100 (6/6)	100 (6/6)	**42.8 (33/77)**
Provider	51.1 (73/143)	53.3 (8/15)	55.8 (22/34)	45.1 (23/51)	37 (23/61)	60.0 (9/15)	85.7 (12/14)	90 (9/10)	**53.0 (53/100)**

As reported by supervisors, the number of facilities providing post-exposure prophylaxis has increased by 7.6 percent, from 35.2 percent (May 2006) to 42.8 percent, although the number of providers reporting the same information increased by only 1.5 percent. The target set during project design was 40 percent of facilities able to provide post-exposure prophylaxis by the middle of the project.

Provision of hepatitis B vaccination has decreased from 2.7 percent at baseline to 0 percent at the midterm evaluation, with none of the facilities visited offering vaccination for hepatitis B. The project is working with the National Infection Prevention Working Group (NIPWG) to develop IP/IS policies that would require the government to vaccinate all health workers against hepatitis B. At the time of this evaluation, the policy was in the second stage of development.

Table III-4. Percentage of Health Care Workers Immunized Against Hepatitis B

Health Care Worker	Average at Baseline (%)	District			Facility				Average at Midterm (%)
		Chingola %	Monze %	Solwezi %	RHC %	UHC %	Hospital %	Mission Hospital %	
Provider	10.7 (17/159)	28.6 (4/14)	5.9 (2/34)	4.9 (3/61)	5.5 (4/70)	6.6 (1/15)	21.4 (3/14)	10 (1/10)	**8.3 (9/109)**
Waste Handler	1.3 (1/77)	0 (0/10)	0 (0/21)	12.5 (8/64)	13.5 (8/56)	14.3 (2/14)	0 (0/15)	0 (0/10)	**8.4 (8/95)**

In interviews, the evaluation team learned that rate of hepatitis B vaccination among health workers has decreased slightly (from 10.7 percent to 8.2 percent), but has increased among waste handlers. This increase can most likely be attributed to the mining company's requirement that its waste handlers be vaccinated against hepatitis B.

B. Commodity Management and Procurement

Table III-5. Stock-Outs of IP/IS Equipment Experienced by Health Facilities

IP/IS Equipment	Average at Baseline (%)	District			Facility				Average at Midterm (%) N=77
		Chingola (%) N=15	Monze (%) N=28	Solwezi (%) N=34	RHC (%) N=56	UHC (%) N=9	Hospital (%) N=6	Mission Hospital (%) N=6	
Disposable syringes	45.2 (33/73)	0	7.1	3.0	7.1	11.1	0	16.6	**3.9**
Disposable needles	42.3 (30/71)	0	7.1	3.0	10.7	11.1	0	16.6	**3.9**
Auto-disabled syringes	35.9 (23/64)	6.6	17.9	2.9	7.1	11.1	0	0	**9.1**
Sharps boxes	55.2 (37/67)	33.3	14.3	2.9	7.1	0	66.6	50	**13.0**

The data in Table III-5 indicates that commodity stock-outs have decreased by 42.3 percent for sharps boxes and disposable syringes, by 38.4 percent for disposable needles, and by 26.8 percent for auto-disabled syringes.

Table III-6. Provider Reports of the Availability of Sufficient Quantities of Injection Equipment

Equipment	Average at Baseline (%) N=161	District			Facility				Average at Midterm (%) N=77
		Chingola % N=15	Monze % N=28	Solwezi % N=34	RHC % N=59	UHC % N=9	Hospital % N=6	Mission Hospital % N=3	
New, single-use syringes and needles	93.2	100	100	97.1	98.2	100	100	100	**98.7**
Sharps boxes	61.4	53.3	75	79.4	22.2	80.3	100	100	**72.7**

The supply of essential injection equipment with sufficient disposal and safety devices is important for protecting health care workers and ensuring their safety both in and out of the workplace. As illustrated in the table above, 98.7 percent of providers reported that single-use syringes and needles are available, and 72.7 percent reported that sharps boxes are available.

Table III-7. Quantities of Puncture-Proof Safety Containers Observed in Stock

Number of puncture-proof safety containers	Average at Baseline (%) N=59	District			Facility				Average at Midterm (%) N=68
		Chingola (%) N=10	Monze (%) N=24	Solwezi (%) N=34	RHC (%) N=53	UHC (%) N=12	Hospital (%) N=2	Mission Hospital (%) N=1	
0	50.8	0	12.5	2.9	6	0	0	0	**5.9**
1-4	28.8	10	8.3	11.7	10	8.3	0	0	**10.3**
5-9	11.9	0	25	11.7	16	16.6	0	0	**14.7**
10-20	8.5	40	8.3	29.4	28	16.6	0	0	**23.5**
21+	0	50	50	44	44	58.3	100	100	**47.1**

Table III-7 indicates an increase in the stock of sharps boxes in all facilities visited. In hospitals, 47 percent had more then 20 puncture-proof safety containers. The percentage of facilities without any stock decreased from 50.9 percent (baseline) to 5.9 percent (midterm), indicating a 45-percent increase in the number of facilities that now stock sharps boxes.

Table III-8. Availability of Personal Protective Equipment to Health Care Workers

Personal Protective Equipment	Average at Baseline (%) N=59	District			Facility				Average at Midterm (%) N=69
		Chingola (%) N=10	Monze (%) N=25	Solwezi (%) N=34	RHC (%) N=52	UHC (%) N=12	Hospital (%) N=3	Mission Hospital (%) N=2	
Uniform	28.8	60	68	50	53.9	66.6	100	100	**58.0**
Surgical Gloves	47.5	80	48	85.3	75	75	33.3	50	**71**
Gumboots	11.9	70	72	44.1	57.7	50	66.6	100	**58.0**
Face Mask or Goggles	6.8	50	60	11.8	30.8	50	66.6	50	**34.8**
Heavy-Duty Gloves	49.2	80	44	58.8	53.9	66.6	66.6	50	**56.5**
Utility Gloves	47.5	60	52	47.1	48.1	58.3	66.6	100	**50.7**
Exam Gloves	88.1	90	76	85.3	76.9	83.3	66.6	100	**82.6**
Plastic Aprons	11.9	80	72	79.4	75	83.3	100	50	**76.8**

There has been across-the-board improvement in the availability of personal protective equipment to health care providers (Table III-8), most notably in the availability of uniforms, gumboots, face masks/goggles, and plastic aprons. The only decrease is in the availability of examination gloves.

Table III-9. Procurement Systems Used by Health Facilities, as Reported by Facility Supervisors

Procure-ment System	Average at Baseline (%) N=73	District			Facility				Average at Midterm (%) N=77
		Chingola (%) N=15	Monze (%) N=28	Solwezi (%) N=34	RHC (%) N=56	UHC (%) N=9	Hospital (%) N=6	Mission Hospital (%) N=6	
Push System	2.7	0	0	32.4	17.9	0	16.6	0	**14.3**
Demand-Based	93.2	100	100	41.2	67.9	88	83	100	**74**
Both	0	0	0	26.5	14.3	11.1	0	0	**11.7**

Use of the demand-based procurement system decreased from 93.1 percent to 74 percent, while 11.7 percent of facilities use both push and demand-based systems (not covered in the baseline study).

B1. Summary of Intermediate Commodity Management and Procurement Targets

- Health personnel trained in IP/IS commodity logistics management
- Standard list of IP/IS commodities developed
- IP/IS commodities integrated into the Ministry of Health (MOH)/Central Board of Health (CBOH) procurement plan
- IP/IS commodities worth $1 million procured by the project
- 75 percent of personnel using procurement best practices for IP/IS commodities
- 50 percent of facilities with no stock-outs of new sterile-standard or safety syringes in past 6 months
- 30 percent of facilities with no stock-outs of safety boxes for sharps disposal in the past 6 months
- 70 percent of facilities with supplies of oral formulations for common medications

B2. Achievements

- 771 health providers (including procurement officers) and all participants have been trained in commodity management and procurement.
- A standardized list of commodities has been developed and operationalized.
- Most of the IP/IS commodities integrated into Ministry of Health procurement lists. The ministry has begun independently procuring IP/IS commodities. In 2008 the ministry has procured sharps boxes worth K 1,000,000,000 (approximately $300,000).
- Commodities worth about $1.2 million have been procured and distributed to 47 districts to support the project's injection safety activities.
- 100 percent of facilities had no stock-outs of new sterile-standard or safety syringes in the 6 months prior to this evaluation.
- 87.1 percent of facilities had no stock-outs of sharps boxes in the 6 months prior to this evaluation.

B3. Challenges

The project has met the majority of its commodity management and procurement targets. Remaining challenges include the fact that many IP/IS commodities are not available locally. In addition, it has been challenging to include all IP/IS commodities currently on the project procurement list into Ministry of Health procurement lists.

B4. Recommendations

The team recommends continuous meetings with the private sector to encourage companies to make IP/IS commodities available on the local market. The project is also working with the Ministry of Health to ensure that IP/IS commodities on the essential drug list are procured, and to include those not already on the list. MISP will encourage the ministry to increase the budget for the IP/IS commodities on the essential drug list.

C. Capacity Building and Training

The project aims to improve health workers' practices through capacity building and by reinforcing good practices. Table III-10 shows improvements in most of the behaviors observed among health workers. In particular, the team observed that only 2.8 percent of providers recap needles after injection (down from 12.6 percent), 93.3 percent use sharps boxes, 73 percent wash their hands after the procedure, and those leaving a needle inserted in the vial for multiple doses dropped from 42.5 percent to 13.9 percent.

Table III-10. Observed Behaviors of Health Care Providers

Behavior/ Practice	Average at Baseline (%)	District			Facility				Average at Midterm (%) N=208
		Chingola (%) N=60	Monze (%) N=83	Solwezi (%) N=65	RHC (%) N=99	UHC (%) N=46	Hospital (%) N=43	Mission Hospital (%) N=20	
Patient shown new needle/ syringe	46.6 (68/146)	86.7	80.7	60	76.5	78	65.1	55	**76.0**
Recapped after injection	12.6 (18/143)	3.3	2.4	3.1	3.1	7.3	9.3	0	**2.9**
Disposal in sharps box	76.2 (99/130)	95	92.8	92.3	88.8	90.2	93	85	**93.3**
Hands washed before injection	26.4 (38/144)	80	65.1	49.2	76.5	68.3	74.4	20	**64.4**
Hands washed after injection	35.5	88.3	67.5	66.2	74.5	70.7	62.8	90	**74**
Needle left inserted in vial	42.5 (51/120)	8.3	10.8	23.1	12.2	19.5	9.3	20	**13.9**

The project aims to reduce the incidence of needlestick injuries among health care workers, while simultaneously creating an environment in which workers readily report

needlestick injuries and receive appropriate care to mitigate disease transmission. The team investigated the prevalence of both sustained and reported needlestick injuries. As shown in Table III-11, the incidence of needlestick injuries and reporting has reduced. Needlestick injuries among health workers dropped from 17.6 percent to 12.6 percent, and among waste handlers from 3.9 percent to 1 1.6 percent.

Table III-11. Health Care Workers Reporting Needlestick Injuries (data from interviews)

Health Care Worker	Average at Baseline (%)	District			Facility				Average at Midterm (%)
		Chingola (%)	Monze (%)	Solwezi (%)	RHC (%)	UHC (%)	Hospital (%)	Mission Hospital (%)	
Provider	17.6 (28/159)	6.6 (1/15)	5.8 (2/34)	18.0 (11/61)	12.7 (9/71)	26.6 (4/15)	7.1 (1/14)	0 (0/10)	**6.7 (14/108)**
Waste Handler	3.9 (3/76)	0 (0/9)	0 (0/22)	3 (1/33)	1.9 (1/52)	0 (0/7)	0 (0/4)	0 (0/1)	**1.6 (3/64)**

Table III-12. Needlestick Injuries Reported in the Past Six Months (data from facility records)

Health Care Worker	Average at Baseline (%)	District			Facility				Average at Midterm (%)
		Chingola (%)	Monze (%)	Solwezi (%)	RHC (%)	UHC (%)	Hospital (%)	Mission Hospital (%)	
Provider	7	0	1	4	4	1	0	0	**5**
Waste Handler	2	0	0	0	0	0	0	0	**0**

Reports of needlestick injuries have also decreased among health care providers, from seven (2006) to five (2008). Waste handlers did not report any injuries in 2008 (two had done so in 2006). The reduction in the injuries and the number of people reporting them was attributed to improved availability of personal protective equipment and injection safety devices, and to proper use of the equipment during waste disposal (Table III-13).

Table III-13. Use of Personal Protective Equipment in Sharps Disposal by Auxiliary Staff, as Observed During Facility Inspection

Personal Protective Equipment	Average at Baseline (%) N=59	District			Facility				Average at Midterm (%) N=69
		Chingola (%) N=10	Monze (%) N=25	Solwezi (%) N=34	RHC (%) N=52	UHC (%) N=12	Hospital (%) N=3	Mission Hospital (%) N=2	
Uniform	33.9	70	76	29.4	42.3	75	100	100	**52.2**
Gumboots	13.6	70	72	47.1	59.6	41.6	100	100	**59.4**
Face Mask or Goggles	3.4	30	40	29.4	21.2	25	66.6	50	**33.3**
Heavy-Duty Gloves	37.3	70	48	50	50	66.6	33.3	50	**52.2**
Utility Gloves	28.8	60	44	29.4	34.6	50	66.6	50	**39.1**
Exam Gloves	67.8	70	44	29.4	38.5	50	66.6	0	**40.6**
Plastic Aprons	3.4	60	80	67.6	71.2	75	66.6	50	**71.0**

During observations, almost all waste handlers wore some protective clothing during waste disposal, although face masks were missing in 66.7 percent of the observed cases. When compared with the baseline, the midterm data also indicates an improvement in the use of appropriate personal protective equipment for waste disposal. Use of examination gloves by waste handlers reduced from 67.8 percent to 40.6 percent.

C1. Summary of Intermediate Capacity Building and Training Targets

- 540 health care providers trained in IP/IS
- 90 percent of health care providers give each injection with a new sterile-standard or safety syringe
- 85 percent of providers dispose of used needles without recapping
- 75 percent of providers dispose of sharps in a safety box immediately after use
- 80 percent of providers wash hands with soap and water or use hand rub before and after injection
- 70 percent of patients report that needle and syringe were taken out of new packet
- 25 percent of health care providers leave the needle inserted in a multi-dose vial
- 22 percent of health care providers use personal protective equipment

C2. Achievements

- 771 providers have been trained in IP/IS.
- 97 percent of providers dispose of used sharps without recapping.
- 93.3 percent of providers dispose of sharps in a safety box.
- 64.4 percent of providers wash hands, compared with 26.4 percent in the baseline.
- 75.9 percent of patients report that needle and syringe were taken out of a new packet.
- 13.9 percent of providers leave needles inserted in a multi-dose vial.

C3. Challenges

Hand hygiene is still a challenge among health care providers. Although a significant increase was observed (from 36.4 percent at the baseline to 64 percent at the midterm evaluation), there is still a need to educate health care providers on the rationale behind proper hand hygiene. Supervision of hand washing needs to be strengthened. In addition, most health care providers and waste handlers do not report injuries for a variety of reasons, and this may encourage silent infections. Facilities need to work to protect health care workers and encourage reporting of needlestick injuries.

C4. Recommendations

- Continue education on the importance of hand hygiene and the importance of providing hand washing facilities.
- Train health care providers in clinical training skills in each province.
- Work with the Ministry of Health to train supervisors and managers.

- Through the Ministry of Health, introduce a standardized tool for reporting needlestick injuries.
- Introduce a standardized reporting system in all institutions.
- Encourage the Ministry of Health to procure retractable or auto-disabled syringes, to prevent providers from leaving needles and syringes in multi-dose vials.

D. Behavior Change Communication

The project has been working to reduce demand for and provision of unnecessary injections by changing the beliefs of providers and community members. The midterm evaluation examined the increase in appropriate knowledge, attitudes, and perceptions toward injections. Table III-14 reveals the current status.

Table III-14. Reported Patient Treatment Preference when Patients Present with Febrile Illness

Provider	Average at Baseline (%)	District			Facility				Average at Midterm (%)
		Chingola (%)	Monze (%)	Solwezi (%)	RHC (%)	UHC (%)	Hospital (%)	Mission Hospital (%)	
Injection providers' patient preference	54.1 (80/148)	38.5 (5/13)	48.2 (13/27)	67.5 (27/40)	67.2 (39/58)	44.4 (4/9)	12.5 (1/8)	20 (1/5)	**56.3 (45/80)**
Injection prescribers' patients preference	56.3 (54/96)	36.4 (4/11)	41.9 (13/31)	56.1 (32/57)	47.8 (33/69)	46.1 (6/13)	60 (6/10)	57.1 (4/7)	**49.5 (49/99)**

The injection providers and prescribers who believe that patients prefer injections when they present with febrile illness has not changed significantly. Among injection providers, the figure rose by 2.1 percent, while it fell by 6.8 percent among prescribers.

Table III-15. Percentage of Patients Reporting a Preference for Injections

Average at Baseline (%) N=170	District			Facility				Average at Midterm (%) N=253
	Chingola (%) N=61	Monze (%) N=95	Solwezi (%) N=97	RHC (%) N=166	UHC (%) N=39	Hospital (%) N=26	Mission Hospital (%) N=22	
51.2	18	12.6	10.3	13.3	10.3	15.4	13.6	**13**

Patients' preference for injection has decreased by 38 percent, when compared with baseline data. The reduction is associated with the community drama sensitizations. Patients reported that they now know that oral medication works in the same way injections do, and that they do not need to be at the facility when taking oral medication, whereas injections must be administered by qualified health personnel.

This data is also supported by: (1) the increase in oral medication prescriptions, from 50.5 percent at baseline to 70.7 percent at the midterm evaluation; and (2) the decrease in

injection prescriptions, from 39.7 percent to 26.5 percent (Table III-16). These changes are on-track with the MISP goal of a 10-percent reduction in unnecessary injections by the middle of project implementation.

Table III-16. Treatment Prescribed to Patients Interviewed

Provider	Average at Baseline (%) N=277	District			Facility				Average at Midterm (%) N=253
		Chingola (%) N=61	Monze (%) N=95	Solwezi (%) N=97	RHC (%) N=166	UHC (%) N=39	Hospital (%) N=26	Mission Hospital (%) N=22	
Injection	39.7	26.2	25.3	27.8	20.5	28.2	38.5	50	**26.5**
Oral	50.5	73.8	69.5	70.1	76.5	69.2	57.7	45.5	**70.8**
No preference	9.4	0	5.3	2.1	3	2.6	0	4.6	**4.6**

In Zambia, providers prescribe what they feel is appropriate medication, based on the patient's condition at the facility. While there has been a significant reduction in the number of patients who said the provider suggested injections (from 98.5 percent to 29.6 percent), most patients did not know what kind of medication they had been given until they received the prescribed medication in the treatment room.

Table III-17. Patients Receiving an Injection Who Reported that Provider Suggested Treatment

Average at Baseline (%) N=133	District			Facility				Average at Midterm (%) N=253
	Chingola (%) N=61	Monze (%) N=95	Solwezi (%) N=97	RHC (%) N=166	UHC (%) N=39	Hospital (%) N=26	Mission Hospital (%) N=22	
98.5	27.9	30.5	29.9	23.5	33.3	42.3	54.6	**29.6**

Table III-18. Facilities in which BCC Materials were Appropriately Displayed (data from facility supervisor interviews)

Average at Baseline (%) N=73	District			Facility				Average at Midterm (%) N=77
	Chingola (%) N=15	Monze (%) N=28	Solwezi (%) N=34	RHC (%) N=56	UHC (%) N=9	Hospital (%) N=6	Mission Hospital (%) N=6	
46.6	93.3	82.1	88.2	87.5	100	100	100	**87**

Appropriate display of behavior change communication (BCC) materials has improved, from 46.6 percent at the baseline, to 87 percent at present. The percentage of patients who reported they had seen or heard about BCC messages related to infection prevention increased by 1.5 percent. When asked what they could remember about the message, 51.6 percent (82/159) could remember the message correctly.

Table III-19. Patients Reporting They had Heard or Seen BCC Messages about Injection Safety (data from patient interviews)

Average at Baseline (%) N=270	District			Facility				Average at Midterm (%) N=232
	Chingola (%) N=56	Monze (%) N=91	Solwezi (%) N=85	RHC (%) N=150	UHC (%) N=36	Hospital (%) N=25	Mission Hospital (%) N=21	
54.1	62.5	56	50.5	52	61	68	57	**55.6**

D1. Summary of Intermediate BCC Targets

- 540 providers trained in interpersonal communication/BCC related to safe injections
- 46.6 percent of health facilities appropriately displaying BCC materials
- 54.1 percent of patients exposed to BCC messages about infection prevention and injection safety
- 50.5 percent of health care providers prescribing oral formulations
- 48.8 percent of patients requesting oral medications (of those who report that they prefer injection)

D2. Achievements

- 771 health care providers have been trained and are receiving supportive supervision, continuous medical education, and pre-service training.
- Job aids targeting providers, patients, and community member have been distributed.
- 87 percent of facilities are appropriately displaying BCC materials.
- IEC/BCC materials have been printed and distributed to 51 of the 72 districts.
- 55.6 percent have been exposed to BCC messages about IP/IS.
- Continued public education through folk media: 346 drama performances in 16 districts have reached more than 120,820 community members in schools, churches, and market centers.
- 70.7 percent of providers are prescribing oral formulations.

D3. Challenges

Project staff observed that oral formulation of some injectable medications were sometimes not available. It has also been difficult to influence patients to request oral medication. Traditionally, Zambians respect their health care providers' decisions and recommendations about medication, a fact that makes it difficult for patients to question guidance from a health care provider who recommends injection over oral medications.

D4. Recommendations

- Continue training health care providers to use and distribute BCC materials, and continue to sensitize the community through folk media.
- Continue producing IEC/BCC materials that encourage use of oral medications.

- More interpersonal communication on the use of oral medical, encouraging health care providers to talk to their patients and clients.
- Continue the project's advocacy efforts.

E. Medical Waste Management

The team evaluated medical waste disposal practices at health facilities and observed decreases in the incidence of overflowing containers (from 10.2 percent to 0 percent) and in the presence of sharps in the surrounding area (from 22 percent to 4.3 percent). The team did not observe much improvement in labeling and securing of disposal sites.

Table III-20. Health Care Facilities with Satisfactory Disposal of Used Injection Equipment

Disposal Practice	Average at Baseline (%) N=59	District			Facility				Average at Midterm (%) N=69
		Chingola (%) N=10	Monze (%) N=25	Solwezi (%) N=34	RHC (%) N=52	UHC (%) N=12	Hospital (%) N=2	Mission Hospital (%) N=1	
Sharps containers overflowing	10.2	0	0	0	0	0	0	0	**0**
Presence of used sharps in the immediately surrounding areas	22	0	8	2.9	23.1	8.3	0	100	**4.3**
Secure disposal site	23.7	20	24	20.6	23.1	8.3	50	100	**21.7**
Properly labeled disposal site	1.7	10	0	2.8	3.9	8.3	50	100	**5.8**

Health care facilities have changed their primary disposal methods since the baseline study. Facilities that where burning on the ground 60.9 percent of the time now burn in a hole or in an enclosure 32.2 percent of the time. Incineration has been reduced by 3.2 percent. The team also noted a method of waste disposal not reported during the baseline study, in which a hired company or DHMT collects waste.

Table III-21. Primary Methods Used for Sharps Waste Disposal

Disposal Practices	Average at Baseline (%) N=59	District			Facility				Average at Midterm (%) N=69
		Chingola (%) N=10	Monze (%) N=25	Solwezi (%) N=34	RHC (%) N=52	UHC (%) N=12	Hospital (%) N=2	Mission Hospital (%) N=1	
Open burning (ground)	32.2	0	8	20.6	13.5	8.3	0	0	**13**
Open burning (hole or enclosure)	32.2	60	60	61.8	65.4	58.3	0	0	**60.9**
Incineration	22	30	24	11.8	17.3	8.3	100	100	**18.8**
Burial	3.4	0	0	2.9	1.9	0	0	0	**1.5**
Dumping in pit latrine or other secure pit	25.4	0	0	2.9	1.9	0	0	0	**1.5**
Dumping in unsuper-vised area	13.6	0	4	0	0	8.3	0	0	**1.5**
Removal by company/ district	0	10	4	0	0	16.6	0	0	**2.9**

E1. Intermediate Medical Waste Management Targets

- 540 providers trained in waste management
- 30 percent of health facilities using safety boxes for disposal of sharps
- 50 percent of health facilities with satisfactory disposal of sharps
- 50 percent of health facilities with waste management in their action plans
- Medical waste management guidelines finalized

E2. Achievements

- 771 of health care providers have been trained in medical waste management.
- 93.3 percent of health facilities are using safety boxes.
- 79.7 percent of facilities are using satisfactory methods of sharps disposal.
- 65.3 percent of facilities include waste management in their action plans.
- Waste management guidelines have been finalized and launched, and trainers are being trained to educate districts and health facilities about the guidelines.
- Most health facilities using a color-coding system.
- Personal protective equipment for waste handlers is available in most facilities.

E3. Challenges

Waste receptacles are not locally available, and usually must be imported. Some incinerators are not made to standard and therefore do not burn as expected. Final waste disposal does not include marking of medical waste, thereby posing a danger to workers.

E4. Recommendations

The project team will continue to work with the Ministry of Health and the private sector to ensure availability of appropriate waste receptacles. The Ministry of Health should monitor procurement and installing of incinerators at health facilities. There is a need to work with the Lusaka City Council to ensure that medical waste is separated from other waste.

F. Policy Environment

The project has been working with the Ministry of Health to establish a policy environment that will facilitate the availability of relevant guidelines and adequate resources for safe injection practices, and which will support continuous monitoring and improvement of those practices. In the facilities evaluated, 56.6 percent of supervisors showed the IP/IS guidelines, compared with 48 percent in the baseline study. The availability of the new Health Care Waste Management Guidelines has been reduced, because the Environmental Council of Zambia (ECZ) just launched a new guideline, and most facilities visited had not yet received a copy.

Table III-22. National IP/IS Guidelines Implemented at the Facility Level

Guidelines	Average at Baseline (%) N=73	District			Facility				Average at Midterm (%) N=69
		Chingola (%) N=10	Monze (%) N=25	Solwezi (%) N=34	RHC (%) N=57	UHC (%) N=9	Hospital (%) N=2	Mission Hospital (%) N=1	
IP/IS guidelines available	48	90	60	44.1	89.3	88.9	100	100	**56.5**
Health care waste manage-ment guidelines available	20.6	0	8	5.9	5.9	0	0	100	**5.8**

Table III-23. Supervisors Reporting IP/IS Activities in Current Facility Action Plan

Action Plan	Average at Baseline (%) N=73	District			Facility				Average at Midterm (%) N=69
		Chingola (%) N=10	Monze (%) N=25	Solwezi (%) N=34	RHC (%) N=57	UHC (%) N=9	Hospital (%) N=2	Mission Hospital (%) N=1	
IP/IS activities in action plan	53.4	90	72	73	66	89	100	100	**84.3**

More than 84 percent of health facilities now include IP/IS activities in their action plans. This represents an increase of 30.9 percent. Facilities which previously had no such activities are now planning for IP/IS on an annual basis.

F1. Summary of Intermediate Policy Environment Targets

- The National Infection Prevention Working Group at the Ministry of Health strengthened
- National Infection Prevention Guidelines revised
- Lobbying and support for the development of the National Infection Prevention and Control Policy
- National Health Care Waste Management Plan finalized

F2. Achievements

The National Infection Prevention Working Group, chaired by the Directorate of Clinical Care and Diagnostics at the Ministry of Health, has been strengthened through the following measures:

- Development of terms of reference
- Increased representation of partners
- Formation of subcommittees on infection prevention policy, guidelines, training, medical waste management, and an infection prevention day (or week)
- Inclusion of IP/IS issues in Ministry of Health action plans
- Dissemination of national guidelines for medical waste management and specifications for incinerations.
- Development of the Draft National Infection Prevention and Control Policy (the policy currently awaits finalization)

F3. Challenges

Central funding of IP/IS activities (training, procurement of commodities, follow-up, supportive supervisory activities, etc.) may be difficult to obtain.

F4. Recommendations

- The National Infection Prevention Working Group should continue acting as a technical advisory group to the Ministry of Health after the project ends.
- The National Infection Prevention and Control Policy should be finalized and implemented.
- The revision of the National Infection Prevention Guidelines should be completed and disseminated.
- Continue including IP/IS issues in the action plans.

G. Monitoring and Evaluation

The project has been working with the Ministry of Health at the district and facility levels to establish a system for continuous monitoring and improvement of injection safety. In interviews, 64 percent of supervisors reported that their facilities had an M&E plan in place to monitor providers' IP/IS and other practices (compared to 31.5 percent in the baseline). The team also found that IP/IS indicators have been included in provincial and district-level performance assessment tools, and as part of the sustainability plan.

Table III-24. Supervisors Reporting that Facility has an M&E Plan to Monitor IP/IS and Other Practices

Average at Baseline (%) N=73	District			Facility				Average at Midterm (%) N=69
	Chingola (%) N=10	Monze (%) N=25	Solwezi (%) N=34	RHC (%) N=57	UHC (%) N=9	Hospital (%) N=2	Mission Hospital (%) N=1	
31.5	80	36	52.9	41.7	44	100	100	**64**

G1. Summary of Intermediate M&E Targets

- Baseline survey for IP/IS activities in Zambia
- Creation of the project monitoring and implementation plan
- Creation of project monitoring and follow up tools
- Development of M&E tools
- IP/IS indicators included in the HMIS

G2. Achievements

The project has been implemented according to the plan established at the beginning of the project, and most of its activities are proceeding ahead of schedule. The majority of indicators measured have already reached their intermediate targets, and some have even exceeded the end-of-project targets. The project has followed its M&E plan throughout project implementation, and is following the project monitoring plan.

The evaluation team found that some indicators have been included in the Ministry of Health's provincial and district monitoring tools; these indicators are reflected in the health information management system. This integration will lead to continuous monitoring of IP/IS indicators, even after the project ends.

The IP/IS indicators in Table III-25 have been included in the Ministry of Health's health information management system.

Table III-25. IP/IS Indicators Included in Health Information Management System and in Provincial Performance Assessment Tools

Functional Area and Guiding Questions	Minimum Acceptable Standard	Indicator
Infection control and infection prevention	At least 80% of health centers comply to infection prevention standards	Number of health centers complying to infection prevention standards/ total number of health centers
Medical waste management	All health facilities comply to waste management standards appropriate for their level	Number of facilities complying to waste mgt standards appropriate for their level/total number of health facilities
Availability	All drugs on essential drug list have balance at hand between minimum and maximum quantity	Number of drugs have balance at hand between minimum and maximum quantities (sample: 10 selected drugs)
	All stock control cards and books are continuously updated	Number stock control cards updated and complete (10-item sample)
	Monthly physical counts and FEFO followed	Number of items with monthly physical counts (10-item sample)

G3. Challenges

There is a need to explain to all health facilities what it means to carry out IP/IS activities according to project standards. Some health facility workers do not know how to capture such indicators, and many activities go unrecorded. Data capture and recordkeeping for IP/IS needs to improve.

G4. Recommendations

The IP/IS indicators included in the provincial and district monitoring tools need to be operationalized in each facility. There is a need to employ data clerks for most health facilities to improve data capture and recording.

SECTION IV. CONCLUSION

Infection prevention and injection safety activities are essential for presenting the medical transmission of HIV. The initial baseline situation in Zambia posed many challenges: lack of IP/IS knowledge, poor health practices, lack of commodities, and poor health care waste management, among others.

After two and a half years of implementing IP/IS activities in Zambia through capacity building, commodity management, behavior change communication, policy environment improvement, and prudent waste management, the situation has improved. The project has met and exceeded most of its targets. Given the remaining period, and assuming all funds are disbursed, the Medical Injection Safety Project expects to be performing above targets when it closes in September 2009.

ANNEX A. PERFORMANCE INDICATOR TRACKING MATRIX

Preventing the Medical Transmission of HIV in Zambia

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
Overall IP/IS Indicators								
Average number of medical injections per person per year **[PEPFAR]**	The average number of injections administered for purposes of prevention and treatment to a person aged 15-49 in the last 6 months. **Unit:** Number **Numerator:** Number of injections administered by a health care worker to all respondents aged 15-49 **Denominator:** Number of women and men aged 15-49 surveyed	Population survey/baseline then every 2-3 years Community surveys/ baseline then every 2-3 years	Gender	2005 sample survey 2.2[3]	1.5		1	
Proportion of women and men age 15-49 reporting that the last health care injection was given with a syringe and needle set from a new, unopened package. **[PEPFAR]**	This indicator measures the proportion of men and women, aged 15-49, reporting that the last health care injection they received (in the past 6 months) was given with a syringe and needle set from a new, unopened package. **Unit:** Percent	Population survey/baseline then every 2-3 years Community surveys/ baseline then every 2-3 years	Gender Age	2006 baseline survey	TBD	99.1%	TBD	

[3] The 2.2 average medical injections per person, per year was calculated by dividing average number of needles/syringes by the average number of patients that went to the 4 health facilities.

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
	Numerator: Number of men and women who recall that the last injection received was given with a syringe and needle set from a new, freshly opened package. **Denominator:** Number of women and men aged 15-49 surveyed who recall receiving an injection							
Proportion of health care facilities in which project activities have been fully implemented. **[PEPFAR]**	The proportion of health care facilities in targeted districts in which project activities have been fully implemented. **Unit:** Percent **Numerator:** Number of health care facilities in which project activities have been implemented **Denominator:** Total number of facilities	Project activity reports/ Quarterly	Facility (level, public vs. private) District Activity	2004 4.4%	12.1%	43.7%	35.2%	
Project activities implemented in all targeted districts **[SI Partners]**	This indicator measures the number of districts in which the project has been fully implemented. **Unit:** Number	Project activity reports/ Quarterly	Province	2005 2	20	49	72	
Proportion of population covered by the project SI interventions	Proportion of population covered by the project SI interventions.	National DHS surveys or census reports/ Annually	District Province	2005		7,208,324 70%	100%	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
[SI Partners]	**Unit:** Percent **Numerator:** Population covered by project SI interventions **Denominator:** Total population							
Average number of injections per patient per a specific diagnosis **[SI Partners]**	The average number of injections given per patient per a specific diagnosis or symptom (e.g., ARI, diarrhea, STD, etc.) per year. **Unit:** Number **Numerator:** Number of injections administered by a health care worker to all respondents **Denominator:** Number of people surveyed	Facility surveys/ baseline then every 2-3 years Chart reviews/ baseline then every 2-3 years	Diagnosis Age Gender	2005 sample survey STD 2.3[4]	STD 2	2	STD 1	
Health care facilities reusing sharps on patients without reprocessing **[SI Partners]**	Proportion of health care facilities where sharps are observed to be reused on patients without reprocessing. **Unit:** Percent **Numerator:** Number of health care facilities where sharps are observed to be	Direct observations during facility assessments/ Annual	Facility (level, public vs. private) Geographic location (district, province, rural vs.	2004/2005 0%[5]	0	0	0	

[4] Co-artem, fansider, and quinine are the common drugs for the treatment of malaria, quinine being given both as oral and injection, most patients are on oral treatment except for serious cases only. STD treatment was mainly through injectables.
[5] Results from both pilot phase and extension phase have shown that there are no sharps being re-used without being reprocessed.

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
	reused on patients without reprocessing **Denominator:** Total number of facilities observed		urban)					
Proportion of facilities providing post-exposure prophylaxis to staff after a sharps injury **[SI Partners]**	This indicator measures the proportion of facilities that have a system in place to offer post exposure prophylaxis to staff within 24 hours after sharps injury or blood borne pathogen exposure. **Unit:** Percent **Numerator:** Number of facilities who have a system in place to offer post exposure prophylaxis within 72 hours to its staff after sharps injuries or blood borne pathogen exposure **Denominator:** Total number of facilities surveyed	Post-exposure prophylaxis and sharps injury logs/ Annually Key informant interviews/ Annually	Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2006 34 %	TBD	53%	TBD	
Vaccination of health care facility workers immunized against Hepatitis B	The proportion of health care facility employees who have been immunized against Hepatitis B. **Unit:** Percent **Numerator:** Number of health care facility	Key informant interviews/ Annually Facility surveys/ Annually	Job Facility (level, public vs. private) Geographic	2006 2%	TBD	8.4%	TBD	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
	employees immunized against Hepatitis B **Denominator:** Total number of health care facility employees surveyed		location (district, province, rural vs. urban)					
Task 1: Commodity Management and Procurement *Objective:* To support the CBOH to ensure that public facilities, private providers, and NGO sector providers can estimate, finance, procure, and distribute the appropriate levels of injection equipment, supplies, and waste disposal containers. *Activities:* a) Identification and selection of suppliers in collaboration with MOH/CBOH to assess the IP program needs b) Assessing the existing of recurring gaps in commodities and supplies needed to ensure effective supply commodities c) Standardizing the list of IP program commodities and introduce new IP/IS items d) Undertake and implement the procurements of identified commodities and supplies needed to support the objectives of the program e) Integrate procurement and delivery procedures in MOH/CBOH to build commodity management related to injection safety at all levels f) Integrate best practices into national procurement plans g) Coordinate with other donors, leveraging with other projects								
Health personnel trained in IP/IS commodity logistics management **[SI Partners]**	Number of health personnel trained in IP/IS commodity logistics management **Unit:** Number	Project activity reports/ Quarterly	Job Training Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004 58	328	771	1,080	
Standard list of IP/IS commodities	Refers to development of a standardized and	Project progress reports/	N/A	2004	Standard list finalized	Already done	Standard list is fully	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
developed	recognized list of IP/IS commodities that will be used to guide procurement. **Unit:** N/A	Annually					implemented	
IP/IS commodities integrated into MOH/CBOH procurement plan	An outcome indicator that measures project success in having IP/IS commodities included in the MOH/CBOH procurement plan. **Unit:** N/A	Project progress reports/ Annually Review of MOH procurement plan/ Annually	IP/IS commodity	2005	IP/IS commodities integrated into procurement plan	Its has been included	IP/IS commodities integrated into procurement plan	
IP/IS commodities procured by the project	The number of IP/IS commodities purchased by the project for distribution to target health facilities. **Unit:** Number	Project progress reports/ Quarterly	IP/IS commodity	2004 0	 $1,100,000	$1,200,000	 $2,100,000	
Health personnel using identified procurement best practices in the procurement of IP/IS commodities	Proportion of health personnel observed using identified procurement best practices in procurement of IP/IS commodities. **Unit:** Percent **Numerator:** Number of health personnel observed using identified procurement best practices in procurement of IP/IS commodities **Denominator:** Total number of health care	Direct Observation during facility assessments/ Annually	Facility (level, public vs. private) Facility department Geographic location (district, province, rural vs. urban)	2006 baseline survey	75%	85.7%	100%	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
	providers observed							
Health personnel using identified procurement best practices in the procurement of IP/IS commodities	Proportion of health personnel observed using identified procurement best practices in procurement of IP/IS commodities. **Unit:** Percent **Numerator:** Number of health personnel observed using identified procurement best practices in procurement of IP/IS commodities **Denominator:** Total number of health care providers observed	Direct Observation during facility assessments/ Annually	Facility (level, public vs. private) Facility department Geographic location (district, province, rural vs. urban)	2006 baseline survey	75%	85.7%	100%	
Proportion of facilities with no stock-outs of new sterile standard or safety syringes in past six months **[SI Partners]**	Proportion of facilities with no recorded stock outages of sterile standard or safety syringes in the prior 6 months. **Unit:** Percent **Numerator:** Number of facilities reporting no stock-outs of needles/syringes **Denominator:** Total number of facilities surveyed	Stock card review/ Semiannually Key informant interviews/ Semiannually	Facility (level, public vs. private) Geographic location (district, province, rural vs. urban) Injection equipment	2004/2005 <u>Needles</u> 21g-94.4% 23g-100% <u>Syringes</u> 2ml-72.2% 5ml-88.9% 10ml-72.2%[6]	%	94.3%	100%	

[6] Information for the above 2 indicators is coming from commodity assessment on IP/IS commodities in 12 districts (including the 2 pilot districts) assessed for that particular month.

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
Proportion of facilities with no stock-outs of safety boxes for sharps disposal in prior six months **[SI Partners]**	Proportion of facilities with no recorded stock outages of safety boxes for sharps disposal in the previous 6 months. **Unit:** Percent **Numerator:** Number of facilities reporting no stock-outs of safety boxes **Denominator:** Total number of facilities surveyed	Stock card review/ Semiannually Key informant interviews/ Semiannually	Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004/2005 11.1%	30%	87%	70%	
Health care facilities with supplies of oral formulations of common medications **[SI Partners]**	Proportion of health care facilities with supplies of oral formulations of common medications.[7] **Unit:** Percent **Numerator:** Number of facilities with supplies of oral formulations of common medications **Denominator:** Total number of facilities surveyed	Facility assessments/ Annually	Medication Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2005 sample survey STD Inje-100%[8]	STD oral 70%	85%	STD oral 30%	
Task 2: Capacity Building and Training *Objective:* To foster normalization of safe and necessary injection practices. *Activities:* a) Injection safety orientation, advocacy, and training in IP/IS best practices (BCC, procurement, IPC, health care waste management, M&E tools) b) Supportive supervision/follow-up visits to monitor behavior change among target groups								

[7] This is a measure of facilities where alternatives to injections are available; e.g., oral penicillin available as an alternative to injectable penicillin.
[8] Facilities in the mini-survey had more oral drugs for treating malaria and only serious cases were treated by injection, but no facility had oral drugs for treating STDs.

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
c) Technical assistance to locally organized trainings by PHO/DHOs and hospitals								
Health care providers trained in IP/IS best practices **[PEPFAR]**	Number of health care providers trained in IP/IS best practices. **Unit:** Number	Project activity reports/ Quarterly	Job Training Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004 58	328	771	1080	
Health care providers give each injection with a new sterile standard or safety syringe **[SI Partners]**	Proportion of health care providers observed giving injections with a new sterile standard or safety syringe. **Unit:** Percent **Numerator:** Number of health care providers observed giving each injection with a new sterile standard or safety syringe **Denominator:** Total number of health care providers observed	Direct Observation during facility assessments/ Annually	Facility (level, public vs. private) Facility department Geographic location (district, province, rural vs. urban)	2004/2005 39%[9]	90%	100%	95%	
Health care providers	Proportion of health	Direct	Facility	2004/2005				

[9] Information for the above 3 indicators is coming from Trials of Improved Practices (TIPS) conducted in 2004 and 2005 in 5 districts in which 522 providers were observed.

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
dispose of used sharps without recapping them **[SI Partners]**	workers observed who dispose of used sharps without recapping. **Unit:** Percent **Numerator:** Number of health care providers observed disposing of sharps without recapping **Denominator:** Total number of health care providers observed	observations during facility assessments/ Annually	(level, public vs. private) Facility department Geographic location (district, province, rural vs. urban)	30%	86.66% 85%	97.1%	95%	
Health care providers dispose of used sharps in a safety box or a puncture- and leak-proof sharps container immediately after administering an injection **[SI Partners]**	Proportion of health care workers observed disposing of used sharps in a safety box or a puncture- and leak-proof sharps container. **Unit:** Percent **Numerator:** Number of health care providers observed disposing of sharps in a safety box or a puncture- and leak-proof sharps container immediately after administering an injection **Denominator:** Total number of health care providers observed	Direct observations during facility assessments/ Annually	Facility (level, public vs. private) Facility department Geographic location (district, province, rural vs. urban)	2004/2005 31%	69.7% 75%	93.3%	100%	
Health care providers reporting on needlestick injuries	Proportion of health care providers reporting one or more needlestick injury in	Facility surveys/ Annually	Facility (level, public vs.	2006 baseline survey		6.7%		

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
[SI Partners]	the past six months. **Unit:** Percent **Numerator:** Number of health care providers reporting one or more needlestick injuries **Denominator:** Total number of health care providers surveyed	Review of Sharps Injury Log/ Annually	private) Facility department Geographic location (district, province, rural vs. urban)	17.3%			0%	
Waste handlers reporting on needlestick injuries **[SI Partners]**	Proportion of health care providers reporting one or more needlestick injury in the past six months. **Unit:** Percent **Numerator:** Number of health care providers reporting one or more needlestick injuries. **Denominator:** Total number of health care providers surveyed	Facility surveys/ Annually Review of Sharps Injury Log/ Annually	Facility (level, public vs. private) Facility department Geographic location (district, province, rural vs. urban)	2006 baseline survey 4.1%		1.6%	0%	
Health care providers adequately wash hands (with soap or hand rub) before and after injection procedure	A qualitative indicator used to measure the proportion of health workers observing proper hand hygiene before and after administering injections. **Unit:** Percent **Numerator:** Number of	Direct observations during facility assessments/ Annually	Facility (level, public vs. private) Facility department Geographic	2006 baseline survey 30.45%	70%	69.2%	90%	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
	health care providers observed properly washing hands before and after injection procedure **Denominator:** Total number of health care providers observed		location (district, province, rural vs. urban)					
Patients reporting that a needle and syringe taken out of a new package and shown to them before the injection was administered	Proportion of patients that report a needle and syringe was taken out of a new package and shown to them before receiving an injection. **Unit:** Percent **Numerator:** Number of patients reporting that a needle and syringe taken out of a new package and shown to them before the injection was administered **Denominator:** Total number of patients surveyed	Exit interviews/ Annually Community surveys/ Annually	Facility (level, public vs. private) Facility department Geographic location (district, province, rural vs. urban)	2006 baseline survey 46.6%	70%	99.1%	85%	
Health providers leaving a needle inserted in a vial to withdraw multiple doses	Proportion of health providers that leave a needle in a vial for the purpose of drawing several doses. **Unit:** Percent **Numerator:** Number of health care providers observed leaving a needle	Direct observations during facility assessments/ Annually	Facility (level, public vs. private) Facility department Geographic location	2006 baseline survey 42.5	25%	13.9%	10%	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
	inserted in a vial to withdraw multiple doses **Denominator:** Total number of health care providers observed		(district, province, rural vs. urban)					
Health providers placing needle and syringe directly in the puncture-resistant container after use	Proportion of health providers who place a needle and syringe directly in the puncture-resistant container after use. **Unit:** Percent **Numerator:** Number of health care providers observed placing needle and syringe directly in the puncture-resistant container after use **Denominator:** Total number of health care providers observed	Direct observations during facility assessments/ Annually	Facility (level, public vs. private) Facility department Geographic location (district, province, rural vs. urban)	2006 baseline survey 69.7%		93.3%	100%	
Use of personal protective equipment by health care personnel	This indicator measures the number of health care personnel who wear protective equipment during the disposal of sharps. **Unit:** Percent **Numerator:** Number of health care personnel observed wearing proper protective equipment during disposal of sharps	Direct observations during facility assessments/ Annually	Job Facility (level, public vs. private) Facility department Geographic location (district,	2006 baseline survey 22%		49.6%	100%	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
	Denominator: Total number of health care personnel observed		province, rural vs. urban)					
Task 3: Behavior Change: *Objective:* To support the CBOH to change beliefs and behaviors of providers and clients to reduce unnecessary demand and use of injections. *Activities:* a) Review and finalize the national advocacy and BCC strategy b) Formative research c) Pretest BCC materials developed in the pilot phase d) Conduct advocacy meetings to lobby for support among health managers, administrators, and policy makers for IP/IS programs e) Conduct exit interviews at facility and community levels on a semiannual basis f) Develop and carry out IP/IS public education campaigns through electronic, print, and folk media programs								
Health care personnel trained in interpersonal communication/BCC regarding safe injections **[SI Partners]**	Number of health care personnel trained in BCC regarding safe injections. **Unit:** Number	Project activity reports/ Quarterly	Job Training Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004 58	540	771	1,080	
Appropriate display of BCC materials at health facilities	The number of targeted health facilities that are appropriately (correctly) using project BCC materials. **Unit:** Number	Facility surveys/ Semiannually	Facility (level, public vs. private) Facility department	2006 baseline survey 47.9%		87%		

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
			Geographic location (district, province, rural vs. urban)					
Exposure to BCC messages about IP/IS **[SI Partners]**	Proportion of clients interviewed who have heard BCC messages about injection safety. **Unit:** Percent **Numerator:** Number of patients (or community members) interviewed who recognize BCC messages related to injection safety **Denominator:** Total number of patients (or community members) surveyed	Community Surveys/Annually Exit Interviews/ Annually	Gender Age Geographic location (district, province, rural vs. urban)	2006 baseline survey 54.1%	90%	55.6%	95%	
Health care providers prescribing oral formulations	The proportion of prescriptions indicating oral formulations used where injectables of similar efficacy are available. **Unit:** Percent **Numerator:** Number of visits in which an oral formulation was prescribed where injectables of similar efficacy are available	Facility surveys/ Semiannually Chart reviews/ Semiannually	Diagnosis Facility (level, public vs. private) Facility department Geographic location	2006 baseline survey 28.4%	40%	70.8%	55%	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
	Denominator: Total number of patient records reviewed in which medication was prescribed		(district, province, rural vs. urban)					
Patients requesting oral medications	The proportion of patients that request oral medication. **Unit:** Percent **Numerator:** Number of patients who request oral medications **Denominator:** Total number of patients surveyed	Facility surveys/ Semiannually Exit interviews/ Annually	Gender Age Geographic location (district, province, rural vs. urban)	2006 baseline survey 28.4%	30%		20%	
Task 4: Establish a Standardized System for Proper Sharps Disposal *Objective:* To support the CBOH, in collaboration with other ministries, to establish a standardized Medical Waste Management System. *Activities:* a) Assessment of current health care waste management system b) Coordinate and plan with other organizations and donors to incorporate sound waste-management practices at all levels c) Advocate incorporation of infection prevention activities and supplies in the action plans at all levels								
Health care personnel trained in medical waste management best practices **[SI Partners]**	Number of health care personnel trained in medical waste management best practices. **Unit:** Number	Project activity reports/ Quarterly	Job Training Facility (level, public vs. private) Geographic location (district, province,	2004 58	540	771	1,080	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
			rural vs. urban)					
Health care facilities using safety boxes for sharps waste disposal **[SI Partners]**	Proportion of targeted health care facilities using safety boxes for sharps waste disposal. **Unit:** Percent **Numerator:** Number of health care facilities observed in which safety boxes are used for sharps disposal **Denominator:** Total number of facilities observed	Facility Assessments/ Annually	Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004/2005 11.1%[10]	30%	93.3%	70%	
Health care facilities with satisfactory disposal of sharps and used injection equipment (i.e., no used sharps where they pose a needlestick risk for providers or the general population either inside or outside the facility and no overflowing or open safety boxes)	Proportion of facilities with satisfactory disposal of used injection equipment. **Unit:** Percent **Numerator:** Number of health care facilities observed in which sharps and used injection equipment is disposed of properly **Denominator:** Total number of facilities observed	Facility Assessments/ Annually	Injection equipment Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004/2005 17.4%[11]	50%		80%	

[10] Data from IP/IS commodity assessments performed in 12 districts (including the 2 pilot districts).
[11] Data from waste management assessments performed in 12 districts (including the 2 pilot districts).

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
[SI Partners]								
Districts include medical waste management in their action plans	The number of districts whose health sector action plans include waste management. **Unit:** Number	Key informant interviews/ Annually	Geographic location (province, rural vs. urban)	2006 baseline survey		47 districts		
National medical waste management guidelines are finalized	This is a qualitative indicator assessing effectiveness of project TA to support the MOH produce final guidelines for waste management. **Unit:** N/A	Project progress reports/ Annually	N/A	2004 No guidelines exist	Guidelines are finalized	Done	Guidelines are finalized	
Task 5: Private Providers and the Informal Health Sector *Objective:* To ensure that private providers are using safe injection and safe sharps-disposal practices in the country.								
Private health care providers trained in IP/IS best practices[12]	Number of private health care providers trained in IP/IS best practices **Unit:** Number	Project activity reports/ Quarterly	Geographic location (district, province, rural vs. urban)	2006 TBD	540	771		
Task 6: Policy Environment *Objective:* To support the CBOH to establish a policy environment that will facilitate the availability of relevant guidelines, adequate resources for safe injection practices, strong values supporting injection safety, and continuous monitoring and improvement of injection practices. *Activities:* a) Continue to participate in NIPWG activities b) Finalize and disseminate the national infection prevention guidelines and policies related to safe medical waste management c) Participate in the national drug formulary review committee								

[12] Many of the indicators listed under the preceding disaggregate public and private sector; therefore, indicators measuring IP/IS capacity are not presented under this task.

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
d) Collaborate with key regulatory bodies (ECZ, MCZ, pharmacy and poisons board, and nursing council) e) Review the post-exposure prophylaxis guidelines and facilitate the development of policy for health care workers with the MOH/CBOH f) In collaboration with the MOH/CBOH, UNICEF, WHO, and other organizations, advocate for the provision of hepatitis B vaccine for health care providers								
Health personnel oriented in safe injection policies and related issues **[SI Partners]**	Number of health personnel oriented in safe injection policies and related issues. **Unit:** Number	Project activity reports/ Quarterly	Job Content of orientation Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004 58	540	771	1,080	
National IP/IS guidelines implemented at the facility level **[SI Partners]**	The proportion of targeted health care facilities that have implemented the national IP/IS guidelines. **Unit:** Percent **Numerator:** Number of health care facilities observed in which national IP/IS guidelines have been implemented **Denominator:** Total number of facilities observed	Facility assessments/ Annually	Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2006 baseline survey		Done		

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggre-gation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2007/08	EOP Target FY 2008/09	Actual FY 2008/09
National IP/IS strategic plan finalized **[SI Partners]**	Refers to support provided by the project towards finalization of the national IP/IS strategic. **Unit:** N/A	Project progress reports/ Annually	N/A	2005 National IP/IS strategic plan incomplete	National IP/IS strategic plan finalized	Done	National IP/IS strategic plan implemented	
Participation of stakeholders in IP/IS coordination	This indicator measures the number of stakeholders (including donors) who participate in the Infection Prevention Working Group meetings. **Unit**: Number	Project progress reports/ Semiannually	Stakeholder (public vs. private)	2004		In-progress		
Task 7: Monitoring and Evaluation (M&E) *Objective:* To support the Zambia CBOH to establish a system for continuous monitoring and improvement of injection safety through monitoring the content and process of care, identifying quality gaps, developing and implementing improvement interventions, and continuous reporting of results. *Activities:* a) Develop M&E tools to be used for monitoring at all levels b) Support MOH/CBOH and collaborate with other partners to incorporate IP/IS indicators in HMIS c) Collaborate with the MOH/CBOH, ZANARA, ECZ, and MCZ to monitor the existing health care waste disposal practices								
M&E tools developed	Refers to various instruments developed by the project for data collection and management. **Unit:** N/A	Project progress reports/ Annually	N/A	2005	Tools developed and tested	Done	Tools finalized; used for monitoring	
IP/IS indicators included in the HMIS	Refers to inclusion of IP/IS indicators into the HMIS operated by the CBOH. **Unit:** N/A	Project progress reports/ Annually	N/A	2005	Indicators identified; CBOH to incorporate in HMIS	Done	Indicators incorporated in HMIS	

ANNEX B. MIDTERM EVALUATION TOOLS

Zambia Medical Injection Safety Project (MISP)

Midterm Evaluation Tool

Section 1: Facility Inventory (Observation)

Province: _____ **District:** _____

Name of Facility: _____ **Dept./Ward:** _____ **Date:** _____

Facility Inventory (Observation)										
1. (Check) Reuse of syringes or needles in this facility for **immunization injections**	1-yes					2-no				
2. (Check) Reuse of syringes or needles in this facility for **curative injections**	1-yes					2-no				
3. **If yes,** sterilization methods available (circle all that apply)	High pressure steam (Autoclave)		Dry heat oven			Chemical		Non applicable		
Other (specify):										
4. Presence of swabs used for skin preparation that are dirty, bloodstained or kept wet	1-yes		2-no							
5. Number of puncture-proof safety containers (safety boxes) in stock	0	1-4	5-9	10-20		Above 20				
6. Presence of safety boxes in areas where injections are given	1-yes		2-no							
7. Presence of overflowing, pierced, or open or not stored properly sharps and safety box(es) exposing people to needle stick injury	1-yes		2-no							
8. Presence of used sharps in the immediate surroundings of the health center and/or the disposal site	1-yes		2-no							
9. Type of waste disposal method used in the facility for the disposal of the majority of sharps (tick what is applicable)	1-open burning on the ground 2-open burning in a hole or enclosure 3-incinerator 4-burial 5-dumping in pit larine or other secure pit 6-dumping in an unsupervised area 7-removal by district/big health facility/or private company									

10. Disposal site is well secured or supervised	1-yes	2-no	
11. Check for labeling of disposal site and equipment	1-yes	2-no	
12. (Check) availability of PPEs storerooms/staff having them	Uniform 1-yes 2-no Surgical gloves 1-yes 2-no Gumboots 1-yes 2-no	Facemasks/goggles 1-yes 2-no Heavy duty gloves 1-yes 2-no Utility gloves 1-yes 2-no	Examination gloves 1-yes 2-no Plastic aprons 1-yes 2-no
13. (Check) Use of PPE by auxiliary staff during disposal of sharps	Uniform 1-yes 2-no Surgical gloves 1-yes 2-no Gumboots 1-yes 2-no	Facemasks/goggles 1-yes 2-no Heavy duty gloves 1-yes 2-no Utility gloves 1-yes 2-no	Examination gloves 1-yes 2-no Plastic aprons 1-yes 2-no
14. (Check) Use of PPE by auxiliary staff during cleaning and handling of contaminated waste	Uniform 1-yes 2-no Surgical gloves 1-yes 2-no Gumboots 1-yes 2-no	Facemasks/goggles 1-yes 2-no Heavy duty gloves 1-yes 2-no Utility gloves 1-yes 2-no	Examination gloves 1-yes 2-no Plastic aprons 1-yes 2-no
15. How many health care workers have reported needle stick injuries? (check records)	Past 6 months -----	None	
16. How many waste handlers (auxiliary) have reported needle stick injuries? (check records)	Past 6 months -----	None	

Data Collected By: _____

Zambia Medical Injection Safety Project (MISP)

Midterm Evaluation Tool

Section 2: Supervisor Interview

Province: _____ **District:** _____

Name of Facility: _____ **Dept./Ward:** _____ **Date:** _____

Greetings! We are working to monitor the quality of health care in infection prevention and injection safety. I would like to ask you a few questions on your facility. Please feel free not to answer if you don't wish. The information collected will be recorded anonymously and I will not write your name on this form.
(For some questions, you should give an additional choice. For example, safety boxes may be present in some but not all sites, so the answer is neither yes nor no.)

Interview				
1. In your current action plan, are there activities that address IP/IS? (check action plan)	1-yes	2-no		
2. Do you have an M&E plan which includes IP/IS indicators in place?	1-yes	2-no	3-don't know	
3. Do you have tools in place which you use to monitor IP/IS activities?	1-yes	2-no		
4. Do you have a copy of the injection safety/infection prevention guidelines/recommendations issued by your health services? (ask to see a copy)	1-yes	2-no	3-don't know	
5. Do you have a copy of the health care waste disposal guidelines issued by ECZ/health services? (ask to see a copy and record type of guidelines)	1-yes	2-no	3-don't know	
6. Are there any MISP BCC materials or job aids?	1-yes	2-no	3-don't know	
7. What types of MISP BCC/IEC materials are available in the facility?	1-poster	2-sticker	3-leaflet	
8. If yes, are they placed in appropriate places?	1-yes	2-no	3-not applicable	
9. How many health care providers have been **trained** in IP/IS by the facility own resources?				
10. How many health care providers have been **oriented** in IP/IS by the facility own resources?				
11. How many injections, which are not immunizations, are given per week on average in your facility?	_____ injections/week		_____ other (i.e. FP) injections/week	

12. How many immunizations/injections given per week?	_____ immunizations/week			
13. In the last year, how long in total have you been out of new, disposable syringes and needles?				
14. In the last year, how long in total have you been out of new, AD syringes and needles?				
15. In the last year, how long in total have you been out of puncture-proof sharps containers?				
16. Are stocks of vaccines always delivered with matching quantities of injection equipment?	1-yes	2-no	3-don't know	
17. Are stocks of vaccines always delivered with matching quantities of puncture-proof sharp containers?	1-yes	2-no	3-Don't know	
FOR STERILIZEABLE EQUIPMENT				
18. Do you have a sterilizer in your institution?	1-Yes	2-No		
19. What type(s) of sterilizer(s) do you have?	1-High pressure steam (Autoclave)	2-Dry heat oven	3-Other (specify)	
POST EXPOSURE PROPHYLAXIS				
20. Do you provide post exposure prophylaxis to your staff?	1-Yes	2-No	3-don't know	
21. How many staff have received PEP in the past 6 months?			2. Non Applicable	
22. Is the procedure for administering PEP followed before giving PEP? (ask and check for Counseling __ Testing __ ARVs __)	1-Yes	2-No		
23. Do you provide Hepatitis B vaccine?	1-Yes	2-No		
24. How many staff have you vaccinated against Hepatitis B as an institution? (check records)				
PROCUREMENT				
25. What procurement system is being used in your institution	1-Push system	2-Demand system	3-Both systems	

Zambia Medical Injection Safety Project (MISP)

Midterm Evaluation Tool

Section 3: Injection Provider Observation

Province: _____ **District:** _____

Name of Facility: _____ **Dept./Ward:** _____

Date: _____

Greetings! We are working to monitor the quality of health care in infection prevention and injection safety. I would like to observe how you prepare and give injections, I will also ask you a few questions. Please feel free not to answer if you don't wish. The information collected will be recorded anonymously and I will not write your name on this form.

	Fill out only one form for each injection provider	**Yes**	**No**	**NA**
OBSERVATION OF INJECTION PROCEDURE				
1	Hand hygiene is observed — washing hands with soap and water or use of hand rub			
2	Injection is prepared on a clean designated table; trolley or tray where blood or body fluid contamination is unlikely[1]			
3	Purpose of the injection:	1-curative 2-immunization 3-family planning 4-other		
	If other: Specify:			
4	Cleans top of vial with antiseptic (if multidose) before withdrawing drug			
5	Patients skin visibly dirty?			
6	Was patient's dirty skin cleaned with soap and water?			
7	Was patient's dirty skin cleaned with dry swab?			
8	Was patient's dirty skin cleaned with a dirty/blood stained swab?			
9	Shows patient that needle and syringe is new and sterile.			
10	Type of syringe used:	1-AD 2-single-use 3-sterilizeable		
11	Patient brought his/her own syringe and needle for the injection.			
12	Needle is removed from vaccine/vial between injections.			
13	**If glass ampoules are used:** A clean barrier is used **(**e.g., gauze pad, cotton, sponge) to protect fingers when breaking the top from the glass ampoule.			
14	Re-capping of the needle after the injection (one hand).			
15	Re-capping of the needle after the injection (two hand).			

[1] Not an area also used for procedures that may lead to blood contamination (e.g., blood sampling, wound dressing, etc.)

16	**For disposable or AD syringes:** Syringes and needles are disposed in a puncture-proof safety container immediately after the injection.			
17	**For sterlizeable syringes:** Syringes and needles are flushed in 0.5% Chlorine solution, solution is drawn up into syringe, soaked 10 minutes, disassembled and dropped into bowl containing soapy water to cover them. **(Dental and MV INJECTIONS)**			
18	Did the provider wash hands with soap and water or use hand rub after the procedure?			
OBSERVATION OF INJECTION AREA				
19	Puncture-proof safety container is available.			
20	Dirty sharps are present in place where they expose health care workers to needlestick injuries. (take pictures)			
21	**If puncture-proof container is available:** Container is more than ¾ full or overfilled.			
	Comments:			

Data Collected By: _____

Zambia Medical Injection Safety Project (MISP)

Midterm Evaluation Tool

Section 4: Injection Provider Interview

Province: _____ **District:** _____

Name of Facility: _____ **Dept./Ward:** _____

Date: _____

1	How many injections do you give on average per week in this unit of the facility?	1 – Vaccinations:_____ 2 – Curative:-_____ 3 – Family Planning:_____ 4 – Other-specify:_____
2	Do you currently have stocks of new, single-use syringes and needles?	1 – Yes 2 – No 3 – Don't know
3	**If no sharps box observed:** Do you use sharps boxes?	1 – Yes 2 – No 3 – Don't know
4	Do you have sufficient quantities of sharps boxes to dispose of sharps safely?	1 – Yes 2 – No 3 – Don't know
Comments:		
5	When do you dispose of your sharps box?	1 – Every day 2 – When 1/3 full 3 – Every other day 4 – Once a week
6	Who collects the sharps boxes to take to the disposal site	1 – Potter 2 – Maids 3 – Private contractor 4 – DHMT 5 – Other-specify:_____
7	Who disposes off the sharps boxes	1 – Potter 2 – Maids 3 – Private contractor 4 – DHMT 5 – Other-specify:_____
8	How are sharps waste disposed of in your health care facility?	1 – Open burning 2 – Protected incineration 3 – Burial in a pit 4 – Dumping (regular trash) 5 – Other-specify:_____
Comments:		

9	Do patients/client provide their own injection equipment?	1 – Yes 2 – No
10	Are new, disposable syringes and needles available for purchase in this community?	1 – Yes 2 – No
11	What kind of sharps (i.e. needles) do you reuse in this facility?	1 – Dental 2 – Trocker 3 – Other
12	What kind of medications do patients prefer when they present at an outpatient clinic with a febrile illness? (high temperature)	1 – Injections 2 – Oral/Other non-injectables 3 – Either
Comments:		
13	Do patients ask you specifically to give them injections?	1 – Yes 2 – No
14	**If so,** Do you give injections to those who request them?	1 – Yes 2 – No
15	Can you name diseases that may be transmitted through unsafe injections, such as reuse of non-sterile needle or by needlestick? Others-list:	1 – HIV 2 – HCV 3 – HBV 4 – Other (specify)
16	Have you ever had needlestick injury in the last 6 months	1 – Yes 2 – No
17	If yes, how many?	
18	What did you do about it?	1 – Reported to administration 2 – Washed with running water 3 – Received counseling 4 – Tested for HIV 5 – Put on ARV
19	Have you ever seen post exposure prophylaxis (PEP) guidelines	1 – Yes 2 – No
20	Are staff members provided with PEP after a sharps injury?	1 – Yes 2 – No
21	Is the procedure of Counseling-Testing-ARVs followed before accessing PEP?	1 – Yes 2 – No
22	Are you vaccinated against Hepatitis B?	1 – Yes 2 – No
23	Have you been trained in interpersonal communication for IP/IS?	1 – Yes 2 – No
24	Have you ever come across any information on IP/IS?	1 – Yes 2 – No
25	If yes, from what type of material?	1 – Poster 2 – Sticker 3 – Factsheet/Leaflet

		4 – Guidelines 5 – Other
26	What procurement system is being used in your institution?	1 – Push system 2 – Demand-based 3 – None
Comments:		

Data Collected By: _____

Zambia Medical Injection Safety Project (MISP)

Midterm Evaluation Tool

Section 5: Injection Prescriber Interview

Province: _____ **District:** _____

Name of Facility: _____ **Dept./Ward:** _____

Date: _____

1	How many outpatients on average do you see during a week	___ patients
2	Of these, for how many would receive a prescription that includes at least one injection?	___ patients
3	For those to whom you prescribe an injection, how many injections on average would the total treatment include?	___ injections
4	What are the three common diseases for which you prescribe an injection most often? 1. 2. 3.	
Comments:		
5	What are the three injectable medications that you prescribe most often? 1. 2. 3.	
Comments:		
6	When you prescribe an injection, who usually administers the injection to the patients? (one or more answers)	
Comments:		
7	What kind of medications do patients prefer when they present at an outpatient clinic with a febrile illness? (tick the preference)	1 – injections 2 – oral/non injectables 3 – either
Comments:		
8	Do patients ask you specifically to give them injections?	1 – Yes 2 – No
9	**If so,** do you give injections to those who request for them?	1 – Yes 2 – No 3 – Don't know
10	Do you think that you prescribe too many injections?	1 – Yes 2 – No 3 – Not applicable
11	Could you name diseases that may be transmitted through unsafe injections such as reuse of non-sterile needle or by needlestick?	1 – HIV 2 – HCV 3 – HBV 4 – Others (specify)
Others-list:		

Data Collected By: _____

Zambia Medical Injection Safety Project (MISP)

Midterm Evaluation Tool

Section 6: Interview of Waste Handlers

Province: _____ **District:** _____

Name of Facility: _____ **Dept./Ward:** _____

Date: _____

Instructions: This section is based on the waste handler's answers only. If more than one is present on the day of the interview, interview the one who is the primary person in charge of managing health care waste. If the waste handler is the same person who was interviewed as the main injection provider, complete Questions 6.1 to 6.10 only.) Only one form will be filled out per hospital.

1. What is the main health care waste disposal method used in this facility to dispose of **sharps waste?**
   Instructions: Multiple codes. Circle the answers that apply to this facility (for example: 2 + 6 for open burning in a hole followed by burial)
   1. open burning on the ground
   2. open burning in a hole or enclosure
   3. incinerator
   4. burial
   5. dumping in pit larine or other secure pit
   6. dumping in an unsupervised area
   7. removal by district/big health facility/or private company

2. What is the main health care waste disposal method used to dispose of **infectious waste?**
   Instructions: Multiple codes. Circle the answers that apply to this facility (for example: 2 + 6 for open burning in a hole followed by burial)
   1. open burning on the ground
   2. open burning in a hole or enclosure
   3. incinerator
   4. burial
   5. dumping in pit larine or other secure pit
   6. dumping in an unsupervised area
   7. removal by district/big health facility/or private company

3. What is the main health care waste disposal method used to dispose of **non infectious waste?**
   Instructions: Multiple codes. Circle the answers that apply to this facility (for example: 2 + 6 for open burning in a hole followed by burial)
   1. open burning on the ground
   2. open burning in a hole or enclosure
   3. incinerator
   4. burial
   5. dumping in pit larine or other secure pit
   6. dumping in an unsupervised area
   7. removal by district/big health facility/or private company

Interviewer: If incineration is not mentioned in Questions 6.1-6.3, skip to Question 6.6

4. What is done with the ash that results from incineration?
   1. Open dump
   2. Sanitary landfill
   3. Buried in secured pit
   4. Buried in unsecured pit
   5. Dumped in latrine or placenta pit
   6. Left in pile near health center
   7. Other (Specify): _____

5. If you usually use an incinerator, what do you do when the incinerator is not working?
    1. Open burning on the ground.
    2. Open burning in a hole or in an enclosure
    3. Burial
    4. Dumping in a pit latrine or placenta pit or other secure hole (pit)
    5. Dumping in an unsupervised area
    6. Transportation for off site treatment
    7. Other (Specify): _____

6. Overall, what problems (if any) do you encounter with the disposal of health care waste?
   Instructions: Circle all that are mentioned. ***Do not read the list aloud.***
    1. No problems
    2. Lack of fuel
    3. Lack of incinerator
    4. Unfilled safety boxes
    5. Lack of land area for burial
    6. Falling boxes during transport
    7. Lack of safety boxes
    8. Other (Specify): _____

7. What protective equipment (if any) is available for waste handlers at this facility?
   Instructions: Circle all that are mentioned. ***Do not read the list aloud.***
    1. None
    2. Boots / closed-toe shoes
    3. Light (latex) gloves
    4. Heavy duty gloves
    5. Goggles
    6. Aprons
    7. Masks
    8. Other (specify): _____
    9. Don't know

8. Have you received any training on handling injection waste - such as safety boxes - safely?
    1. Yes
    2. No
    3. Don't know

9. How long ago was this training?
   Instructions: Read aloud the possible responses.
    1. Less than 6 months
    2. More than 6 months
    3. Don't remember

10. Where else have you heard or seen anything about safe disposal practices?
    Instructions: Do not read the list aloud. Multiple codes. Mark only those communication channels that are mentioned ***spontaneously*** *by the waste handler. Probe, asking, "Anything else?" If the respondent mentions "training," clarify whether this was pre-service training or a training workshop before marking the response.*
    1. Training workshop
    2. Radio
    3. Television
    4. Newspaper/Magazine
    5. Booklet/brochure
    6. Poster

7. Drama group/Road show
8. Billboards/banners
9. Supervisor
10. Other health staff/personnel
11. Other, specify: _____
12. None/nowhere
13. Don't know/don't remember

Interviewer: If the waste handler was also interviewed as an injection provider, stop here and go on to the next section of the survey. If the waste handler is a different person, continue with Question 6.11.

11. During the last 6 months, how many times did you have needlestick injuries?
    Number: _____ (00 = None 99 = does not remember)

12. Are you aware of any diseases that can be transmitted by a needlestick injury?
    1. Yes
    2. No
    3. Don't know

13. What diseases are you aware of?
    *Instruction: Mark only those illnesses that are mentioned **spontaneously** by the waste handler.*
    1. HIV
    2. Hepatitis B
    3. Hepatitis C
    4. Other (specify) _____

14. Have you received the vaccine against the hepatitis B virus?
    1. Yes
    2. No
    3. Don't know / Don't remember

15. How many doses have you received?
    Number: _____ (9 = do not remember)

16. To what extent do you feel that you or waste handlers that work under you are at risk of contracting an infection from injection waste?
    Instructions: Read aloud the possible responses.
    1. Very much
    2. Somewhat
    3. A little
    4. Not at all

17. Why do you feel that way?

Instructions: Record the waste handler's answer in his or her own words. Summarize as needed.

_____

_____

Data Collected By: _____

Zambia Medical Injection Safety Project (MISP)

Midterm Evaluation Tool

Section 7: Exit Interview for Patients/Clients

Province: _____ **District:** _____

Name of Facility: _____ **Dept./Ward:** _____

Date: _____

Greetings! We are working to monitor the quality of health care in infection prevention and injection safety. I would like to observe how you prepare and give injections. I will also ask you a few questions. Please feel free not to answer if you don't wish. The information collected will be recorded anonymously and I will not write your name on this form.

An exit interview means that an interviewer interviews a number of patients, one at a time, as they leave the health care facility. It is important to do so out of sight of the doctor or provider, so those patients can speak freely. Certain criteria can be employed in selecting patients for exit interviews; for instance, every third patient should be interviewed, or a certain number of men and a certain number of women should be interviewed.

The research advantage of an exit interview is that the interviewer can ask questions about the therapeutic interaction that just took place. This enables the patient to give very concrete answers in additions to the general opinions. This may facilitate contact and insights into common injection practices. Exit interviews can provide an easy way of collecting baseline information before interventions. They can be repeated at regular intervals to measure changes in the number of patients who receive an injection or IV fluid (or other relevant indicators).

SOCIO-ECONOMIC INFORMATION

Establish who the patient is:

- How old is the patient?
- Gender
- What tribe are you? (if possible)
- What is your religion? (Probe church)
- What is the highest level of education which you have attained?
- What do you do for a living?
- What brought you to the health care facility?

TREATMENT JUST RECEIVED

1. Who attended to you?

2. What treatment did the health care provider prescribe? *(Injection or oral formulation)* If injection:

   - Who suggested an injection? (HCP/himself or herself)
   - Probe: Why?
   - Who provided the needle and the syringe?
     Self
     Health facility
   - If self, where did you get the needle and the syringe?
   - Was the needle and syringe sealed?
   - If health facility, was the syringe new or used? Was it opened in front of you?
   - Who administered the injection?
   - How was the injection administered?
     Hand washing
     Cleaning of site of injection
     Through the vein
     Through the muscle
   - Where did the HCP discard the needle and syringe after injecting?
   - Did you see used needles and syringes lying around in the clinic?

     Yes No

   - If yes, where? (floor, tables, in waste-basket etc)

QUALITY OF TREATMENT

3. Are you happy with the treatment you have received?

   Yes No

   If yes, what were you happy about?
   If no, what were you unhappy about?

OPINION ABOUT INJECTION

4. What is your opinion about injections compared to oral formulation?

   - Probe: Why do you have this opinion?

5. What is your opinion on injections use?

6. Can you name some diseases/conditions for which injections should be used?

   - . Probe: Why?

ADVANTAGES AND DISADVANTAGES OF INJECTIONS

7. Are there any advantages or disadvantages of injections?

- Probe: What / Why for each disadvantage and benefit?
- For abscesses and pain etc.
- How can you avoid these?

COMMUNICATION AND SOURCE OF INFORMATION

From where do you get information on health care? Where do you get most of the information about injection use and its advantages and disadvantages?

FACILITY INFORMATION

8. Why do people come for treatment to this facility compared to elsewhere?

   - Probe: advantages and disadvantages/reason of preference

9. Do they go anywhere else, for care, including pharmacy, traditional healers?

   - Probe: Why and when?

10. Have you ever come across any information on IP/IS (1= Yes; 2= No)

11. Have you seen any of these posters? (Display the posters)

    Yes No

12. If yes do you remember any message on IP/IS(probe) 1= yes;2= No

Message remembered: _____

_____

_____

13. What was the source of this message?
    1. Printed material (poster, brochures, stickers, newspapers)
    2. Individuals including friends and HCP
    3. Drama performance
    4. Electronic media (radio/TV)
    5. Other

14. If drama performance not mentioned above, find out if any drama group performed in their community (for districts which have been funded).

    Yes No

15. If yes, what do you remember about the performance?

_____

_____

_____

PAST INFORMATION

16. Did you receive any injections in the last year?

17. How many injections did you receive?

18. For those injections received in the last year, how often did you provide your own needles and syringes?

19. For which diseases were you treated with injections?

SUGGESTIONS FOR IMPROVEMENT

20. Do you have general suggestion for improvement in the quality of treatment/health care in your community?

21. Do you have any suggestions for improvement for injection use?

    - Probe: when should injections be used or when not?

22. Ask whether the patient has any questions regarding anything and thank the patient for his/her time.

Data Collected By: _____

Zambia Medical Injection Safety Project (MISP)

Midterm Evaluation Tool

Section 8: Guide for Focus Group Discussions on Injection (Community and Patients)

Province: _____ **District:** _____

Name of Facility: _____ **Dept./Ward:** _____

Date: _____

GUIDE FOR FOCUS GROUP DISCUSSIONS ON INJECTIONS (PATIENTS AND COMMUNITY)

This focus group guide is used for both patients and community members. The patient focus group consists of patients either waiting to be treated at a health facility or just leaving. The community focus group consists of members selected from households in the community (see moderator guide). It is suggested that group members in each type of focus group should be of the same sex and cultural background.

A. OBJECTIVES OF THE FOCUS GROUP DISCUSSION

(1) To explore the social and cultural meaning of injections
(2) To identify the people's perception of the therapeutic rationale behind the injections
(3) To understand the direct and indirect costs of injections
(4) To understand people's perception of injection safety.

B. GENERAL INFORMATION

Date:
Name of note-taker:
Name of moderator:
Location:
Type, sex, and number of respondents:

C. SUBJECTS TO EXPLORE IN SESSION

The below listed subjects and questions may be explored in any order. If the participants have already covered a subject then there is no need to ask the specific question relating to that subject.

1. What symptoms will make you seek help from a treatment provider?

    - Probe for type of symptoms, perception of severity and cause.
    - For which symptoms do you self-medicate?
    - Are there symptoms for which you do not take any medication at all? In these cases, do you do something else?

2. How and why do you choose specific treatment providers?

    - Probe for which formal as well as informal providers people choose and why.
    - Why this provider was chosen and what type of treatment does he normally give?
    - How do you know the qualifications of a specific provider and do these qualifications matter to you?
    - Who do you see for getting injections?

3. How do you determine if a treatment is effective?

    - Probe for efficacy in relation to injections

4. Are there any specific diseases or symptoms for which injections are most effective?

    - Probe for which ones and why.

5. Are some providers better for providing injections than others?

    - Please explain how the provider administers the injection
        - Hand hygiene
        - Cleaning of site
        - Intravenously or intramuscularly
        - Type of injection equipment used

    - Are the reasons for people's preferences:
        - Safety
        - Convenience
        - Skills of the provider
        - Efficacy
        - Cost

6. What are the reasons for the advantages of injections and IV-fluids?

    - Do you prefer injections and/or IV-fluids to other types of treatment?
    - How did you form that opinion?
    - Probe for who educates people on health, relevant personal experiences or other local sources of health information.

7. How do the direct costs (for instance provider fee) and the indirect costs (for instance cost of travel to provider) compare to the cost of other types of therapy?

    - Indicate cost of prescription with injection compared to prescription without injection.

If injections are more expensive then probe for:

    - Why people prefer injections, for instance perceptions of injections being a quicker cure and therefore worth more money/effort

    - How often people travel for injections vs. how often they travel for other therapeutic treatment

8. How do you think the injection prescribers decide on whether or not to give an injection?

    - Who initiates the injection in the therapeutic encounter, patient or provider?
    - Probe for people's perception of the prescribers' therapeutic rationale.
    - Do people request injections from the prescriber?
    - Do these requests influence the prescriber?

9. Are there any risks associated with injections or circumstances where injections should not be given? How can you avoid these risks?

    - Probe for what they are (for instance, jaundice, HIV, Hepatitis B or C, abscesses).
    - How people know about these risks and what they do to prevent them?

- What makes an injection dangerous?
    - Inadequate provider skills
    - Inadequate cleaning procedure (please describe how cleaning is done)
    - Reuse of equipment instead of using disposable syringes
    - Sharing of injection equipment among patients or family members

10. Have there been times when people in this area received too many or bad injections?

    Probe for examples (from which providers and reasons for the bad quality).

11. Are there differences in men, women and children receiving injections (not immunizations)?

    - Probe for differences in prescribing patterns and perceived gender/age based reactions to injections.

    - Are there circumstances (age groups or symptoms) where injections should not be given?

12. Do people have their own injection equipment for use in health facilities or at home?

    Yes No

    If yes, probe for reasons:

    - Why people have their own equipment. What type of injection equipment is it (disposable, reusable)
    - Where they obtain it?
    - If it is disposable syringes, how do people know that it is new? (Is it opened in front of the patients?)
    - How they sterilize it if not disposable?
    - Do people prefer a certain type of equipment for injections, for instance plastic or metal???
    - Ask whether providers discuss people's sterilization practices with the patients????
    - What happens to disposable syringes and needles after use?

13. Do people get injections outside health facilities? If yes, where and why does this happen?

    Probe for:

    - Who gets these injections?
    - Who administers them (relative, dispensary, traditional healer, hospital, other)?
    - What are the conditions?
    - Why this treatment or provider is chosen?

14. What do you think happens to syringes and needles after they have been used and discarded?

    - Do you see used syringes lying around on tables and floors of health facilities?
    - Can they be found in your environment?
    - Do they lead to needle stick?
    - Are needle sticks risky and why?

15. Do you have any suggestions for how injection practices can be improved in your community?

    - Probe for credible sources of future health information (providers, teachers, religious figures etc.)

16. Where do you get information on injections in your community? Probe:

Radio _____ *TV* _____

Health Care Provider _____ *friends* _____

Leaflet/Pamphlet _____ *drama show* _____

Poster _____ *Sticker* _____

Other (specify): _____

17. How best do you get your information on health matters?

18. Have you ever come across any information materials on injection safety?

Yes No

If yes, probe about the type of information materials:

Leaflet/Pamphlet _____ *drama script* _____

Poster _____ *Sticker* _____

Other (specify): _____

19. If drama performance not mentioned, find out if any drama group performed in their community

Yes No

If yes, find out what they remember about the performance.

Data Collected By: _____

ANNEX C. SAMPLE FOR HEALTH FACILITY SURVEYS
Making Medical Injections Safer Project

MAKING MEDICAL INJECTIONS SAFER (MMIS) PROJECT
SAMPLE FOR HEALTH FACILITY SURVEYS

GUIDELINES FOR FIELD WORK
(to be covered during training)

Letters of Introduction/Gaining Access to Facilities

- Each team will go to the districts in which data are to be collected with a letter from the Ministry of Health as introduction. The MMIS office will provide you with this letter. In many cases, the MMIS office may inform the facilities that they have been selected to participate in a survey and that data collectors will be visiting them, but it is best if the facility staff and management do not know the exact day of the visit.

- Before beginning data collection activities in public facilities, each team will go to the hospital director (or the person in charge at each lower level facility) with a formal letter explaining that the purpose of the survey is to improve injection safety and health care waste management. The team leader or supervisor will explain the purpose of the survey and request the cooperation of the director. If the director does not agree to letting his/her facility be surveyed or requests time to check with higher authorities, thank him/her for his time and report that response to your supervisor. Agree to check back with him/her on a later day if more time is requested but do not announce the specific day that you will be returning. In large hospitals, once the director agrees to the survey, ask him/her to have one of his/her staff walk the team members around to the different departments and introduce them to the staff at the hospital. This will facilitate access to the different departments. Wait until the person accompanying the team leaves before beginning data collection.

- In private facilities, data collection teams or supervisors visit the medical director on site to explain the project and the purpose of the survey and ask him/her for permission to conduct the survey. If the director does not agree to letting his/her facility be surveyed or requests time to check with higher authorities, thank him/her for his time and report that response to your supervisor. Agree to check back with him/her on a later day if more time is requested but do not announce the specific day that you will be returning.

Selection of Facilities and Procedure for Replacements

- The list of selected health facilities in each site has been produced and each team should have a copy of the list of selected facilities for their area.

- You will be provided with a list of replacement public facilities. You should take a replacement facility from this list only if the public facility that appears on your primary list is closed or refuses to participate.

- Included on the list of facilities are the following:

- Public hospitals
- Selected public health centers (in areas with more than 25)
- Selected private health facilities (which may qualify either as a hospital or a health centre (lower-level facility)

- The following guidelines apply to cases where you may need to use a replacement facility.
  - You will be provided with a list of replacements for **private** facilities. Use this list only in the event that a particular **private** facility that was selected to participate in the survey is found to be closed (out of business) or refuses to participate.
  - For states (districts) in which the **public** facilities were sampled (that is, for areas which have more than 25 lower-level facilities), you will be provided with a list of replacement public facilities. You should take a replacement facility from this list only if the **public** facility that appears on your primary list is closed.
  - **Do not mix the public and private facility lists.**
  - Contact your supervisor if you need additional replacements to be identified for you.

Facility Codes

♦ The facility code has been assigned to each facility and is included in the list you have been given. Add the first letter of the state in which you are collecting data to the code on the listing for the full facility code. Before arriving at each facility, data collectors must insert the facility code onto the questionnaire. In hospitals, data collectors must insert the facility code onto each section of the questionnaire to facilitate eventual collation of all sections of the questionnaire.

Selecting and Interviewing Respondents

- In each department, select the provider who gives the most injections and request permission to interview that person. Read aloud the consent form that has been given to you. Inform the person that the data you collect are confidential and that he/she will not be identified by name. If the person refuses to participate, accept the refusal and request to interview a different provider who is giving injections at the time of your visit if another one is available. If no one else is available, report to your supervisor that the interview could not be completed at that department in that facility.

- The interviews of providers, supervisors and patients should be conducted in as private a setting as you can find, and they must be done individually. Data collectors should introduce themselves and explain the purpose of the survey saying that we are trying to find ways that our project can support the health services to improve injection safety to protect them and the community from unsafe injections and used equipment. When you request permission to conduct the interview, inform the people to be interviewed that the interview will take about 10 minutes.

♦ When conducting patient interviews, there may be several patients in a room and they may be in bed; in this case, it is not possible to take them to a separate location for the interview, but the data collector should be sensitive to ensuring the patient's privacy throughout the interview. In pediatric wards, the parent or responsible adult

accompanying the child is the person to interview. If no adult is present with the child when the injection is given, you may record the observation of the injection but wait to conduct the exit interview until an injection is given when an adult is present. In laboratory settings, since the patients are mobile, try to find a quiet spot outside the lab for the interviews. In all cases, wait until the provider leaves before interviewing any patients. You may tell the providers that you are interested in interviewing patients to learn about where else in the community they receive injections; do not suggest that you are interviewing patients because you are "checking up on" the provider's work.

Obtaining Informed Consent

- Sign a copy of the consent form for each person that you request to interview. Mark the consent form to show if the person did or did not agree to be interviewed. Do not record the person's name at any time. Your signature means that you are giving your word that you have read aloud the consent form and the person you wish to interview has had the opportunity to refuse to participate.

Tips for Efficient Data Collection

- In order not to miss an injection at facilities where opportunities for observation may not be many, interviewers should:
  - — arrive early at facilities
  - — start the day with public facilities where activities may be tied to official day hours as compared to private facilities
  - — politely and discreetly find out when injections are due or are about to be given upon arriving to a facility (after the initial introductions)
  - — **Prioritize getting to the areas where injections are to be given so that opportunities to observe the administration of injections are not missed.**

- Teams should organize themselves to facilitate achieving survey objectives. This includes (to the extent feasible) visiting public facilities on designated vaccination days, visiting public facilities in the mornings, dividing up the team as needed to complete the different sections of the questionnaire, prioritizing visits to departments in public facilities where injections are commonly delivered only at a few specific times during the day (9 am, noon, etc), and completing other sections of the survey as time permits while you wait for injections.

- After 2 hours, if you have not been able to observe 4 injections in a department of a hospital or in a lower level facility and there are no more patients waiting, you should complete the interview with the injection provider and move on.

- Complete the observations of injections before the interviews of injection providers so as to avoid biasing the interviews.

- Record your observations directly on the tool; do not use other sheets of paper or wait to write down your observations.

Special Duties of Supervisors/Team Leaders

- Be sure to compile the complete survey questionnaire for each hospital visited at the end of each day. Mark each section of the questionnaire with the facility code. Supervisors/Team Leaders are responsible for overseeing this process.

- **Each Supervisor/Team Leader is to collect and check the questionnaires** administered for completeness and consistency before leaving the facility. Completed questionnaires will be collected by assigned supervisors or should be brought to the JSI Office at the conclusion of the field work.

- Your team will be provided with a set of questionnaires for the data collection. The Supervisor/Team Leader should keep one blank copy of the questionnaires in case more copies need to be made in the field.

- In hospitals, every member of the data collection team should have a copy of Section 2 on which to take notes during the visits to specific units. Before beginning data collection, the Supervisor/Team Leader should instruct team members to mark their copies of Section 2 as "DRAFT." The team leader should reserve one copy to be marked as "FINAL." At the end of the day it is the responsibility of the team leader to collect all draft versions of Section 2 and compile them into one final version for the hospital. Only the final version should be turned in for data entry.

Deciding which Tool to Use and Tips on Using Them

- While the distinction between hospital and health centre (lower-level facility) may be relatively obvious in the public sector, the same may not be true in the private sector. It is suggested that the interviewer use the criteria provided below to categorize a private health facility as either a hospital or a lower level facility and then apply the appropriate data collection tool. A facility is to be categorized as a hospital if:

    a. It has at least 2 functional specialty departments such as medicine, surgery, obstetrics/gynecology, pediatrics, general outpatients and/or laboratory.

    OR

    b. It has more than 10 beds, facilities for admission and has attending physicians (doctors) on full time engagement.

    Please note that you are to categorize private health facilities into hospitals or health centers based on these criteria. Public hospitals have been specifically identified in the list provided to you.

- At every hospital (public or private) included in the study, use the Hospital Assessment Tool. You are required to do the following (See also Appendix A):

— Carry out 1 inventory assessment using **Section 1.** Complete the inventory in the central pharmacy. It is not necessary to include the dispensaries or stocks held in different departments in the inventory of needles, syringes, and safety boxes at the facility. A stock-out at the central store room is considered to be a stock-out for the facility.
— Complete 1 set of general observations for the facility as a whole using **Section 2**. If your team divides up to complete the data collection in the different departments, you may each take a copy of the tool with you to record your notes, but be sure to mark your Section 2 as a "draft" copy. Your supervisor will compile one "final" version of Section 2 at the end of the day.
— In each of the available departments, you must administer **Sections 3, 4, 5, and 7.** The departments in which to collect data include:

1. General outpatient
2. Medicine (male and/or female inpatient care)
3. Pediatrics
4. Obstetrics/Gynecology
5. Laboratory
6. Surgery
7. Vaccination (If there is a separate vaccination clinic with personnel that do not work in any of the above units, you should also include that clinic as a 7th data collection area. This is likely to be found only in the largest facilities.)

If a particular facility does not have one of the departments listed above, note that fact on the checklist that you have been provided. (See Appendix C.)

— The following special instructions apply to these departments:
  - In **Section 3**, four (4) injections are to be observed and reported on **in each department**. It is expected that in most cases, one nurse will be designated as the injection provider for a particular day. This is the person to observe. If the shift changes and a new nurse takes over, continue the observations with the new nurse. You should record all 4 observations in this ward on one copy of the tool.
  - In the inpatient Medicine Ward, if there are separate wards for men and women, visit both to see when patients are scheduled to receive injections. You may complete all 4 injections in either the male or female ward if there are enough patients or, if necessary, you may alternate between both wards to complete the 4 injections. If you observe injections in both wards, select the provider who has given the most injections for your interview. (These 2 wards count as 1 for the purposes of observations of injections and the interview of the injection provider.)
  - In **Section 4**, interview the same injection provider(s) that you observed in Section 3 **in each department**. Interview them AFTER you complete the observations.
  - In **Section 5**, interview the supervisor **for each department**. You may find that some supervisors cover more than one of the departments listed above. In

this case, you will have fewer than 6 interviews. Make sure to complete Question 5.1 so that the analysis correctly combines the supervisors' responses with the injection providers they supervise.

- **Section 7** is the exit interview. Four (4) patients who received injections are to be interviewed **in each department**. As much as possible, the same patients observed during injection administration are to be interviewed, but you may need to interview patients whom you did not observe receiving an injection in order to complete all 4 interviews.

— Complete 1 interview of a waste handler at the hospital using Section 6. Choose the most senior waste handler on site for this interview, but make sure that the person you select actually works with waste. (In other words, the interview will not be with the senior management of the hospital.)

- In all facilities that do NOT qualify as hospitals as clarified earlier, use the Lower Level Health Facility Assessment Tool. You are required to carry out the following (See also Appendix A):
  — Carry out 1 inventory assessment in the main store room using **Section 1**.
  — Complete 1 set of general observations for the facility as a whole using **Section 2.**
  — Four (4) injections are to be observed and reported on in **Section 3**. One injection of each of the following types should be included in these 4 if possible: 1 vaccination, 1 curative, 1 family planning, and 1 diagnostic (blood draw). If there are few injections being given on the day of your visit, you may record your observations for a maximum of 2 curative injections, but try to observe one injection of each type if possible. If it is not possible to observe 4 injections within a reasonable amount of time (2 hours), it is acceptable to leave the facility with fewer than 4.
  — In **Section 4**, interview 1 injection provider. Choose the one who gave all or most of the injections observed for this interview. Interview this person AFTER you complete the 4 observations unless you have waited the full 2 hours and no more patients are expected. In this case, you may have less than 4 observations but you may still complete the interview before you leave the facility.
  — Complete 1 interview of a supervisor who works at the facility being visited using **Section 5.** If there is no supervisor working at the facility, you may interview the senior injection provider on site.
  — Complete 1 interview of a waste handler using **Section 6**.
  — **Section 7** is the Exit Interview. Four (4) patients who received injections are to be interviewed. As much as possible, the same patients observed during injection administration are to be interviewed.
  — Note that you may be able to complete more patient *interviews* than injection *observations*. If there are many patients receiving curative injections, you should record 1 curative observation as instructed above and continue conducting exit interviews of other patients receiving curative injections while you are waiting for the opportunity to observe vaccinations, diagnostic injections, and family planning injections.

How to Deal with Dangerous Situations and Emergencies

- If you observe a situation that is dangerous to a patient (such as a provider who is about to reuse a used injection device), interrupt as tactfully as you can to resolve the situation. If you observe any cases where the patients are in danger because of the practices that you are observing, you should report them to your supervisor and work together to find the best way to bring these issues to the attention of the hospital director.

- In the event that an emergency occurs while you are collecting data, be sensitive to the fact that the injection provider may need to stop the interview to treat the patient and use your best judgment about continuing or postponing the rest of the data collection until the situation is resolved. Report any such problems and incomplete interviews to your supervisor. In some cases, data collectors may need to agree to return on the following day to complete their work.

How and To Whom to Give Feedback at the End of Data Collection

- When you finish collecting all the data in a lower-level facility or department of a hospital and are preparing to leave, you may give feedback to the injection providers that you have observed. It is particularly important to explain why any practices that you observed may put the provider or the patient at risk. For example, if you observed a provider recapping a used needle, you can inform him/her that it is dangerous to recap used needles because the person risks getting a needle stick injury. If you saw an injection that was about to take place in which the provider was not using a new sterile needle and syringe, inform him/her that reusing injection equipment puts the patient at risk of contracting HIV or hepatitis and that a new needle and syringe must be used with each injection. This type of feedback should be given to the person that you observed in a quiet, private location so that you maintain the confidentiality that was promised to the provider when you initiated the interview. This means that results should not be given to supervisors in the facility in a way which identifies particular people.

- In hospitals, the director may request a debriefing at the end of your visit. You may review general findings, but be careful not to identify any particular providers by name or department.

Please refer to Appendix B for guidelines on completing specific sections. Please also refer to instructions in the questionnaire itself for guidance in answering specific questions.

Appendix A: Summary of Data to be Collected in Public and Private Facilities by Level

Facility Level	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6	Section 7
Hospitals	1 (central pharmacy only)	1 set of obser-vations	4 injections PER DEPT	1 injection provider PER DEPT	1 supervisor PER DEPT	1 waste handler	4 patients PER DEPT
Lower-level facilities	1 main store room	1 set of obser-vations	4 injections (1 of each type listed in questionnaire if possible, no more than 2 curative injections)	1 injection provider	1 supervisor	1 waste handler	4 patients

Appendix B: Guidelines by Section

Section 1:

- Stock (bin) cards are the preferred source of data, but they may not always be available. If the staff in the store room are using a register book instead of a stock card, collect the data from the register.
- "Balance on stock card" refers to the current balance (the most recent entry on the stock card.)
- Record stock as number of pieces, not number of boxes.
- If an item on the inventory is not part of the facility stores (not simply stocked out), record as "NA" (not applicable) in the first question and leave the rest blank. Record "NO" for the first question (column 1) on the stock card only if the product exists at the facility. Items which are not carried at all are a different situation than a temporary stock-out of a product that they had been receiving.
- When asking for a stock card (bin card), use the term that the local pharmacy attendant will understand.
- Remember to use the most recent **6 months for stock outs**. It is recommended that you establish the 6 month period of interest before looking at the cards so that you are not tempted to count stock outs that occurred earlier than the last 6 months.
- Remember to use the most recent **3 months for consumption data.** *Note that this is different from the stock-out time frame*. It is recommended that you establish the 3 month period of interest before looking at the cards to collect data.

Section 2:

- Q2.4 "inside the health center" means inside the **building(s).**
- Q2.7 "outside the health center" means outside the buildings but within the facility's compound.
- Q2.8 and 2.9 "safety boxes" refers only to safety boxes.

Section 3:

- "NO" means that you were able to observe whether something was done and you know that it was not. (For example, you saw a provider that began an injection with a needle and syringe sitting on a table, not in a packet. You code that as "NO" on the question about taking a needle and syringe from a new packet.)
- "NA" means that you were not able to observe something. (For example, you were not able to observe a reconstitution, so you do not know what the provider would have done. In this case, you code that injection as "NA" (not "NO").
- Q3.0 Be sure to indicate what type of injection was observed using the codes provided on the questionnaire.

Section 4:

- Q4.1 If the injection provider being interviewed is not able to estimate the number of injections of each type, you may supplement the responses by asking the supervisor. This applies ONLY to this question. All other questions must be asked ***only*** of the injection provider being interviewed.

Section 5

- Some questions do not make sense when asked of certain hospital supervisors. For example, questions 5.9-5.12 do not make sense in laboratories. Asking about *curative* services does not make sense in vaccination clinics and laboratories. Use the "NA" option when the question is not applicable to the unit that you are visiting.

Section 6:

- Q6.1-6.3 These questions are intended to capture current waste disposal. You may find that some facilities have incinerators that are not working. These should not be listed as the current waste disposal method if they are not in service. If you observe an incinerator within the facility compound and it is not mentioned as a waste disposal method by the waste handler, you can enquire about its status. Record your notes at the end of Section 2, but do not count it as a current method of disposal if it is not mentioned by the waste handler.

Section 7:

- In Section 7, you will see instructions that say For Questions 7.6-7.9 and 7.12-7.14, which ask about "you (your child)," read the questions aloud as "you" when interviewing an adult. Read as "your child" when interviewing the parent of a child. If both the adult and child received an injection today, ask these questions about the adult's experience only. The questions are worded as "you (your child)" so that they can be read in one of two ways: for the adult being interviewed **or** for the child about whom the adult respondent is answering questions. The goal is to collect data on only **one person's** history of injections. In other words, we want to make sure that the patient does not include injections received by themselves and other family members in the response or we will not be able to analyze the results. For questions such as 7.10, which ask the patient whether the patient brought needles and syringes, the question is only worded as "you" (and should only be read aloud as "you") because it is not necessary to distinguish between injection devices that the respondent brought for use on himself/herself and those that he/she brought for use on a child. In either case, it is the respondent who brought them. For this reason, the same question is asked of everyone.
- Q7.9 This question refers to all injections received in any unit of the hospital (or health facility) other than the injection received today.
- Q7.12 This question refers to all injections received outside of the hospital (or health facility) and **not** to injections received in other units of the hospital (or health facility).
- Q7.20-7.23 If patients are buying their medications at the hospital pharmacy before the injection is given (and thus before our interview), they may respond by counting injectable medications just given to them. This is acceptable for these questions because today is part of the last 6 months.
- Q7.24 This is similar to Questions 7.6-7.9 and 7.12-7.14 in the use of "you (your child)" described above. Be careful not to count all medications purchased on the day of the survey as injections *given* in Q7.24 if the injections are intended to be given over several days following the day of the survey.

Appendix C: Checklist of Completed Hospital Questionnaires

Supervisor/Team Leaders: Place a checkmark in the boxes in each section of the questionnaire as you compile them at the end of the day. If you cannot complete any section because it does not exist at a sampled facility, note that fact on this checklist. Use the “Comments” line as needed.

		Section																										
Code	Hospital Name	1	2	3						4						5						6	7					
				Med	O&G	Ped	Surg	GOPD	Lab	Med	O&G	Ped	Surg	GOPD	Lab	Med	O&G	Ped	Surg	GOPD	Lab		Med	O&G	Ped	Surg	GOPD	Lab
		Comments:																										
		Comments:																										
		Comments:																										
		Comments:																										
		Comments:																										
		Comments:																										
		Comments:																										

ANNEX D. ACTIONS PLANS FOR 2006-2007 AND 2007-2009

Preventing the Medical Transmission of HIV in Zambia

Preventing Medical Transmission of HIV: Zambia
19-Month Action Plan (April 2006 to September 2007)

LEGEND

BCC	BCC Specialist	JHP-Z	JHPIEGO Zambia office	M&E	Monitoring & Evaluation Specialist	RA	Research Assistants
MOH	Health Ministry of Health	MAN	Manoff Group home office	SG	Safe Injection Sub-group	WMC	Waste Management Consultant
CDC	Centers for Diseases Control	PS	Procurement Specialist	ST	Short-term technical advisor	IP	IP Specialist
CI	Chemonics Intl home office	PC	Project Coordinator	TL	Team Leader	NIPWG	National Infection Prevention Working Group
DHMT	District Health Mgmt Team	PT	Project Team	TM	Technical Manager		
JHP	JHPIEGO home office	COP	Chief of Party	USAID	US Agency for Intl Development		

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Tasks	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Resources	Deliverable/Output/Result
Work planning session	X																X			COP	
Work plan complete and submitted to USAID/Zambia	X																			CI	
Completed work plan submitted to USAID/Washington	X																			CI	
Life of Project Implementation Plan	X																			CI,COP	
TASK 1: COMMODITY MANAGEMENT AND PROCUREMENT																					
Standardizing the list of IP program commodities and introduce new items that will improve IP quality of services		X																		COP,PS,NIPWG,PT	Revised Standardized procurement list
Assess the existing gaps in availability of commodities & supplies needed to ensure effective supply of IP/IS commodities			X	X	X															COP,PS,M&E,PHO	Assessment reports and procurement list
Undertake & Implement the procurement of identified commodities and supplies needed to support the objectives of the program			X	X	X	X	X	X	X	X	X	X	X							COP,PS,MOH,Crown agents,PT,PMU	Efficient and effective purchase and delivery
Integrate MISP procurement and delivery work with MOH in order to build commodity management capacity					X	X	X	X	X		X	X					X	X		PS,PT	Procurement officers and providers trained and oriented
Follow up and monitor the delivery and consumption of commodities in the facilities		X	X	X			X			X		X		X				X	X	COP,PS,MOH,Crown agents	Efficient and effective purchase and delivery
Identify best practices and encourage institutions to incorporate them in their action plans			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COP,PS,IS,MOH	Efficient procurement systems introduced at all levels of care
Coordination with other donors and projects to maximize the impact of assistance initiatives			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PS,COP,BCC,M&E	Interaction among donors
TASK 2: CAPACITY - BUILDING AND TRAINING																					
Orient and secure support for injection safety program by PHO,DHMT and hospital management staff											X									COP,PC,PT	Beneficiaries oriented
Training for selected practicing health care providers					X	X		X	X		X	X					X	X		COP,PC,PT	Beneficiaries trained
Technical assistance to the locally organized training sessions conducted in PHO/DHOs & hospitals and other institutions		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PC,NIPWG,IP/IS trainers	Number of IP/IS trained health care providers in various districts
Conduct facility level supportive supervision and follow ups			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		MOH,NIPWG,PC,PT	supportive supervision system in place and incorporated as a routine activity
Provide follow up support to strengthen IP/IS practices & monitor usage of supplies		X	X	X			X			X				X				X	X	PT, NIPWG, MOH, HSSP and other TA agencies	Improved IP/IS practices
Partner with other organizations to strengthen pre service and in service training curricular	X			X			X			X			X			X			X	PC,PT,IPWG,HSSP,MOH	Revised pre service and in service curricular
TASK 3: BEHAVIOR CHANGE																					
Conduct advocacy meetings to lobby for support among health managers, administrators within public & private sectors		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BCC, MOH and partners	increased number of sensitized advocates for on IP/IS
Follow up and monitor behavior change among target groups both public & private sectors		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	MOH,BCC,PT	improved IP/IS practices among health care providers & community
To conduct training for the public and private sector					X	X		X	X		X	X					X	X		MOH,BCC,PT	health care providers trained in BCC
Carry out public education campaigns through print and folk media programs			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		BCC,MOH and partners	improved IP/IS practices among health care providers & community
Carry out formative research using TIPS approach in private sector						X	X	X	X											MOH,BCC,PT	research report
Develop a BCC strategy to address the gaps identified within the private sector													X							MOH,BCC,PT	BCC strategy for private sector developed
TASK 4: ESTABLISHING A STANDARDIZED SYSTEM FOR PROPER SHARPS DISPOSAL																					
Partner with MOH and other organizations in development of HCWM policy		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	MOH,COP, PS,ECZ,ST	development of HCWM policy
Provide technical assistance to identify HCWM gaps & provide solutions			X	X	X															COP,PS,MOH,ECZ	Assessment report and recommendations
Capacity building					X	X		X	X		X	X					X	X		COP, PS, BCC	health care providers trained in HCWM
Sensitize health care waste handlers on HCWM									X	X	X	X					X	X		PS,PT	health care waste handlers sensitized
Develop & submit HCWM proposal to GEF			X																	PMU, COP,PS	Proposal submitted
TASK 5: PRIVATE PROVIDERS AND THE INFORMAL HEALTH SECTOR																					
Conduct a situational assessment to select types of private providers					X	X	X	X												PT	Assessment report
Develop a strategy to address the gaps identified within the private sector													X							MOH,PT,COP	IP/IS Strategy developed for the private sector
Conduct integrated training for private sector for the private providers to ensure standardization of IP/IS practices															X		X			COP,PT	Number of private health providers trained
Follow up and monitor behavior changes among target groups in private sector																		X	X	PT,MCZ,GNC,ECZ	improved IP/IS practices among providers

Preventing Medical Transmission of HIV: Zambia
19-Month Action Plan (April 2006 to September 2007)

LEGEND

BCC	BCC Specialist	JHP-Z	JHPIEGO Zambia office	M&E	Monitoring & Evaluation Specialist	RA	Research Assistants
MOH	Health Ministry of Health	MAN	Manoff Group home office	SG	Safe Injection Sub-group	WMC	Waste Management Consultant
CDC	Centers for Diseases Control	PS	Procurement Specialist	ST	Short-term technical advisor	IP	IP Specialist
CI	Chemonics Intl home office	PC	Project Coordinator	TL	Team Leader	NIPWG	National Infection Prevention Working Group
DHMT	District Health Mgmt Team	PT	Project Team	TM	Technical Manager		
JHP	JHPIEGO home office	COP	Chief of Party	USAID	US Agency for Intl Development		

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Tasks	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Resources	Deliverable/Output/Result
TASK 6: POLICY ENVIRONMENT																					
To continue to participate in NIPWG activities		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COP,PT,IPWG	reports and minuets
revise, finalize & disseminate the national infection prevention guidelines		X	X	X	X	X	X	X	X	X	X	X	X							COP,PT,IPWG	Finalized document of the national IP guidelines & distributed
collaborate with ECZ and MOH to disseminate the national health care waste management technical guidelines		X	X	X	X	X	X	X	X	X	X	X	X							COP,PT,ECZ,MOH	health care waste management technical guidelines disseminated
continue participation in the national drug formulary review committee		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COP	reports and minuets, revised national drug policy
collaboration with key regulatory bodies such as ECZ,MCZ,pharmacy & poison board & nursing council		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COP, MOH	reports and minutes
Review the current HMIS to incorporate IP/IS indicators		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COP, MOH, M&E	HMIS documents reviewed, IP/IS indicators included and minutes of meetings
Facilitate development of policy for PEP with MOH & advocate the provision of HBV for at risk health personnel		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COP,MOH	PEP policy formulated at central level and # of health care providers receiving PEP and HBV
TASK 7: MONITORING AND EVALUATION																					
Conduct baseline survey in selected district to indicate the current levels of IP/Is practices & impact projects interventions		X	X	X	X															M&E,PT,MOH	Baseline survey conducted
Data analysis and report writing			X	X	X															M&E,PT,MOH	Baseline report
MISP Dissemination workshop							X													M&E,PT,MOH,PMU	Workshop conducted
Conduct assessment of private sector health care providers to identify gaps in the IP/IS practices						X	X	X	X											M&E,PT,MOH	Assessment report for private providers
Conduct formative research on behavior patterns pertaining to IP/IS in the private sector					X	X														M&E, MOH,PT	research reports
Analyze data from follow up and supportive supervision that will include exit interviews with clients			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	M&E,PT, MOH	data analyzed and documented
Support MOH and collaborate with other partners to incorporate IP/IS indicators in the HMIS		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	M&E,COP,MOH	Reports written
Implement the performance indicator tracking matrix to monitor the project results		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	M&E,PT,MOH	results tracked
TASK 8: MEETING TRAVELS																					
SIGN Meeting									X											CI- 1 from PT, M	Participant attending the SIGN meeting
TASK 9: PROGRAM MANAGEMENT																					
Quarterly Financial Accruals Report	X			X			X			X			X			X			X	CI, Finance/Admin Manager	
Annual Report (October 1 - September 30th)							X												X	Team, CI, JHP-Z, MAN	
Semi Annual Report (March 31)	X												X							Team, CI, JHP-Z, MAN	
Financial report in conjunction with annual and semi annual reports	X						X						X						X	CI, Finance/Admin Manager	
Annual Inventory Report (due September 30th of each year)							X												X	CI,COP, Finance/Admin Manager	
End of Project Report - 90 days after close of project on September 30, 2009																				Team, CI, JHP-Z, MAN	
Supervisory visits by Technical Manager, ST,						X												X		TM	
Supervisory visits by HO Procurement Specialist						X												X		CI	
Supervisory visits by Manoff BCC advisor					X												X			MAN	
Supervisory visits by HO M&E Specialist																	X			CI	
Waste management STTA				X													X			CI ST	
TASK 10: MISCELLANEOUS REPORTING																					
Trip Reports following each short term consultant visit					X	X											X				
USAID/Washington/Office of HIV/AIDS Review (ad hoc)																					
USAID/Zambia Portfolio Review and Annual Report (ad hoc)																					
USAID/Washington/Office of HIV/AIDS Annual Report (ad hoc)																					

Preventing Medical Transmission of HIV: Zambia
24-Month Action Plan (October 2007 to September 2009)

LEGEND

BCC	BCC Specialist	JHP-Z	JHPIEGO Zambia office	M&E	Monitoring & Evaluation Specialist	RA	Research Assistants
MOH	Health Ministry of Health	MAN	Manoff Group home office	SG	Safe Injection Sub-group	WMC	Waste Management Consultant
CDC	Centers for Diseases Control	PS	Procurement Specialist	ST	Short-term technical advisor	IP	IP Specialist
CI	Chemonics Intl home office	PC	Project Coordinator	TL	Team Leader	NIPWG	National Infection Prevention Working Group
DHMT	District Health Mgmt Team	PT	Project Team	TM	Technical Manager		
JHP	JHPIEGO home office	COP	Chief of Party	USAID	US Agency for Intl Development		

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Tasks	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	**Resources**	**Deliverable/Output/Result**
Work planning session										X															Team, CI, JHP-Z, TM, ST	
Work plan complete and submitted to USAID/Zambia											X														CI	
Completed work plan submitted to USAID/Washington											X															
TASK 1: COMMODITY MANAGEMENT AND PROCUREMENT																										
Standardizing the list of IP program commodities and introduce new items that will improve IP quality of services							X																		COP,PS,NIPWG,PT	Revised Standardized procurement list
Assess the existing gaps in availability of commodities & supplies needed to ensure effective supply of IP/IS commodities								X	X	X								X							COP,PS,M&E,PHO	Assessment reports and procurement list
Undertake & Implement the procurement of identified commodities and supplies needed to support the objectives of the program																										
Integrate MISP procurement and delivery work with MOH in order to build commodity management capacity	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				PS,MOH,PT	Procurement officers and providers trained and oriented
Follow up and monitor the delivery and consumption of commodities in the facilities	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				PS,PT,MOH	Efficient and effective purchase and delivery
Identify best practices and encourage institutions to incorporate them in their action plans	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				COP,PS,IS,MOH	Efficient procurement systems introduced at all levels of care
Coordination with other donors and projects to maximize the impact of assistance initiatives	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				PS,COP,BCC,M&E	Interaction among donors
TASK 2: CAPACITY - BUILDING AND TRAINING																										
Orient and secure support for injection safety program by PHO,DHMT and hospital management staff																										
Training for selected practicing health care providers who should in IP focal person selected	X	X		X	X	X				X	X		X	X											COP,PC,PT	Beneficiaries trained
Technical assistance to the locally organized training sessions conducted in PHO/DHOs & hospitals and other institutions	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				PC,NIPWG,IP/IS trainers	Number of IP/IS trained health care providers in various districts
Conduct facility level supportive supervision and follow ups	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		MOH,NIPWG,PC,PT	supportive supervision system in place and incorporated as a routine activity
Provide follow up support to strengthen IP/IS practices & monitor usage of supplies	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				PT, NIPWG, MOH, HSSP	Improved IP/IS practices
Partner with other organizations to strengthen pre service and in service training curricula	X			X			X			X			X			X			X			X		X	PC,PT,IPWG,HSSP,MOH	Revised pre service and in service curricular
TASK 3: BEHAVIOUR CHANGE																										
Conduct advocacy meetings to lobby for support among health managers, administrators within private sector																										
Follow up and monitor behavior change among target groups both public & private sectors	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				BCC,MOH,PT	improved IP/IS practices among health care providers & community
To conduct training for the public and private sector	X	X		X	X	X				X	X		X	X											MOH,BCC,PT	health care providers trained in BCC
Carry out public education campaigns through print and folk media programs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BCC,MOH,PT	continuous improved IP/IS practices among health care providers & community
To conduct a situation assessment that would allow selection of one to three types of private to focus on																										
Develop a BCC strategy to address the gaps identified within the private sector																										
TASK 4: ESTABLISHING A STANDARDIZED SYSTEM FOR PROPER SHARPS DISPOSAL																										
Partner with MOH and other organizations in development of HCWM policy																										
Provide technical assistance to identify HCWM gaps & provide solutions	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Capacity building	X	X		X	X	X				X	X		X	X											COP,PC,PT	Beneficiaries trained
Follow up health care waste handlers on HCWM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PC,PS	improved health care waste management
Develop & submit HCWM proposal to GEF																										
TASK 5: PRIVATE PROVIDERS AND THE INFORMAL HEALTH SECTOR																										
Conduct a situational assessment to select types of private providers							X	X																	PT,MOH	Assessment report
Develop a strategy to address the gaps identified within the private sector																										

Preventing Medical Transmission of HIV: Zambia
24-Month Action Plan (October 2007 to September 2009)

LEGEND

BCC	BCC Specialist	JHP-Z	JHPIEGO Zambia office	M&E	Monitoring & Evaluation Specialist	RA	Research Assistants
MOH	Health Ministry of Health	MAN	Manoff Group home office	SG	Safe Injection Sub-group	WMC	Waste Management Consultant
CDC	Centers for Diseases Control	PS	Procurement Specialist	ST	Short-term technical advisor	IP	IP Specialist
CI	Chemonics Intl home office	PC	Project Coordinator	TL	Team Leader	NIPWG	National Infection Prevention Working Group
DHMT	District Health Mgmt Team	PT	Project Team	TM	Technical Manager		
JHP	JHPIEGO home office	COP	Chief of Party	USAID	US Agency for Intl Development		

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Tasks	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	**Resources**	**Deliverable/Output/Result**
Conduct integrated training for private sector for the private providers to ensure standardization of IP/IS practices																										
Follow up and monitor behavior changes among target groups in private sector	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PT	continuous improved IP/IS practices in private sector
TASK 6: POLICY ENVIRONMENT																										
To continue to participate in NIPWG activities	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PT,MOH,NIPWG	reports & minutes
Disseminate the national infection prevention guidelines	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PT,MOH, other stakeholders	national infection prevention guidelines distributed
collaborate with ECZ and MOH to disseminate the national health care waste management technical guidelines	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COP,PT,ECZ,MOH	health care waste management technical guidelines disseminated
continue participation in the national drug formulary review committee	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COP	reports, minutes
collaboration with key regulatory bodies such as ECZ,MCZ,pharmacy & poison board & nursing council	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COP,PT	reports, minutes
Review the current HMIS to incorporate IP/IS indicators	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COP, MOH, M&E	HMIS documents reviewed, IP/IS indicators included and minutes of meetings
Facilitate development of policy for PEP with MOH & advocate the provision of HBV for health personnel	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COP,MOH	PEP policy formulated at central level and # of health care providers receiving PEP and HBV
TASK 7: MONITORING AND EVALUATION																										
Conduct baseline survey in selected district to indicate the current levels of IP/IS practices & impact projects interventions																										
MISP Dissemination workshop											X														M&E,PT,MOH,PMU	Workshop conducted
Conduct assessment of private sector health care providers to identify gaps in the IP/IS practices																										
Conduct formative research on behaviour patterns pertaining to IP/IS in the private sector																										
Conduct follow up and supportive supervision that will include exit interviews with clients																										
Support MOH and collaborate with other partners to incorporate IP/IS indicators in the HMIS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	M&E,COP,MOH	Reports written
Implement the performance indicator tracking matrix to monitor the project results	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	M&E,PT,MOH	results tracked
TASK 8:MEETING TRAVELS																										
SIGN Meeting														X											CI- 1 from PT, M	Participant attending the SIGN meeting
TASK 9:PROGRAM MANAGEMENT																										
Quarterly Financial Accruals Report						X			X			X			X			X			X			X	CI, Finance/Admin Manager	
Annual Report (October 1 - September 30th)												X												X	Team, CI, JHP-Z, MAN	
Semi Annual Report (October 1, - March 31)						X												X							Team, CI, JHP-Z, MAN	
Annual Inventory Report (due December 31st of each year)												X												X	CI,COP, Finance/Admin Manager	
Financial report in conjunction with annual and semi annual reports						X						X						X						X	PM	
End of Project Report - 90 days after close of project on September 30, 2009																					X				CI	
Supervisory visits by Technical Manager, ST,											X												X		TM	
Supervisory visits by HO Procurement Specialist											X												X		TM	
Supervisory visits by Manoff BCC advisor										X															ST,BCC	
Supervisory visits by HO M&E Specialist																						X			CI,ST,M&E	
Waste management STTA										X															CI,PS,ST	
TASK 10: MISCELLANEOUS REPORTING																										
Trip Reports following each short term consultant visit										X	X											X			ST	
USAID/Washington/Office of HIV/AIDS Review (ad hoc)																										
USAID/Zambia Portfolio Review and Annual Report (ad hoc)																										
USAID/Washington/Office of HIV/AIDS Annual Report (ad hoc)																										