

ANNUAL PERFORMANCE MONITORING REPORT

THE PREVENTION OF MEDICAL TRANSMISSION OF HIV/INJECTION
SAFETY PROJECT: ZAMBIA

OCTOBER 1, 2006 – SEPTEMBER 30, 2007

October 2007



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ACRONYMS

AD	auto disables
AIDS	Acquired Immunodeficiency Syndrome
ART	anti retroviral therapy
BCC	Behavior Change Communication
CDE	classified daily employee
CHAZ	Churches Health Association of Zambia
CSO	Central Statistics Office
DHMT	District Health Management Team
DHO	District Health Office
ECZ	Environmental Council Zambia
EHT	Environmental Health Technician
EPI	expanded program of immunization
GRZ	Government of the Republic of Zambia
HBV	Hepatitis B virus
HCP	healthcare provider
HCWM	healthcare waste management
HIV	Human Immunodeficiency Virus
HMIS	health management information system
HSSP	Health Services and Systems Program
IEC	information education and communication
IP	infection prevention
IS	injection safety
M&E	monitoring and evaluation
MISP	Medical Injection Safety Project
MOH	Zambia Ministry of Health
NHC	neighborhood health committees
NIPWG	National Infection Prevention Working Group
NMCC	National Malaria Control Centre
PEP	post-exposure prophylaxis
PEPFAR	President's Emergency Plan for AIDS Relief
PHO	provincial health office
PMTCT	prevention of mother-to-child transmission
PPE	personal protective equipment
SIGN	Safe Injection Global Network
STI	sexually transmitted infections
TIPs	trials of improved practices
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
UTH	university teaching hospital
WHO	World Health Organization
ZANARA	Zambia National Response to HIV and AIDS
ZDHS	Zambia Demographic and Health Survey
ZPCT	Zambia Prevention, Care and Treatment project

EXECUTIVE SUMMARY

The Prevention of Medical Transmission of HIV project in Zambia (the Zambia Medical Injection Safety project, or MISP) seeks to improve the infection prevention and injection safety practices observed within the healthcare workforce and greater population. This report presents the activities implemented, results achieved, and challenges faced in the operating year October 2006 through September 2007.

During the period under review, activities in all technical tasks of the project scope of work were implemented. The following summarizes the principal activities and outputs under each task:

- **Procurement and commodity management:** The project conducted needs assessments of procurement/logistics systems in three districts, and procured \$437,029 in IP/IS commodities for healthcare facilities in 13 districts. To date, the project has procured a cumulative total of \$1,585,443 in IP/IS commodities for healthcare facilities in Zambia.
- **Training and capacity building:** Two orientation workshops were held for healthcare facility supervisors/managers to raise their awareness of IP/IS issues and promote inclusion of IP/IS activities in district and facility action plans. A total of 26 healthcare facility administrators participated in these workshops. Four training workshops were conducted for healthcare providers to build provider capacity in IP/IS. MISP trained a total of 126 healthcare providers during this reporting period. To date, 600 healthcare providers have received IP/IS training provided by the project.
- **Behavior change and communication:** MISP sponsored 313 drama performances promoting proper IP/IS practices and behaviors, reaching a total population of 64,281. IEC/BCC print media (posters, information packets, and fact sheets) were distributed in 32 districts. Formative research (TIPs) was conducted in the formal private sector to begin development of a strategy with the Zambia Ministry of Health (MOH) to address IP/IS issues in this sector.
- **Healthcare waste management:** Assessments of healthcare waste management practices and systems were carried out in three districts. Technical assistance was provided to MOH and ECZ in the development and finalization of national guidelines in healthcare waste management. The guidelines have been finalized and will be disseminated.
- **Private providers and the informal health sector:** Formative research (TIPs) was conducted in the formal private sector to begin development of a strategy with the MOH to address IP/IS issues in this sector.
- **Policy environment:** MISP served as secretariat of the National Infection Prevention Working Group. In this role, project staff provided technical assistance to MOH in development of a national IP policy. A policy has been drafted and is currently under review by MOH.

- Monitoring and evaluation: MISP staff lobbied for inclusion of IP/IS indicators in the national health management information system (HMIS). Proposed indicators are currently being reviewed by MOH. Staff also lobbied for inclusion of IP/IS indicators in M&E systems utilized at the provincial, district, and facility levels to monitor provider practices. Some provinces have incorporated these indicators into the monitoring systems.
- Knowledge sharing: MISP staff presented at the 2006 SIGN annual meeting and the 2006 American Public Health Association (APHA) conference. Staff also developed a monthly newsletter presenting project activities and progress. The newsletter is disseminated nationally to relevant project stakeholders.

SECTION I: OVERVIEW

The Prevention of Medical Transmission of HIV in Zambia project is supported by USAID under the President's Emergency Plan for Aids Relief (PEPFAR). The project aims to eliminate the observance of unsafe and unnecessary injections and thereby mitigate the medical transmission of HIV in Zambia. The project is implemented by Chemonics International Inc. in collaboration with JHPIEGO and The Manoff Group.

This annual performance report presents project progress during the period of October 1, 2006 through September 30, 2007. During this reporting period, project activities were implemented in all technical areas of the contract scope of work, which include:

- Commodity management and procurement
- Capacity building and training
- Behavior change communication
- Healthcare waste management
- Private and informal healthcare providers
- Policy environment
- Monitoring and evaluation
- Knowledge sharing

However, while implementation was comprehensive in terms of technical scope, field activities were not implemented at the levels delineated in the work plan for this period. A 30 percent depreciation of the U.S. dollar against the Zambian Kwacha, coupled with the delay in appropriation of the FY 2007 USG budget for PEPFAR programs, significantly reduced funding levels for implementation. Staff deliberately halted high-cost activities, including training and procurement of injection safety commodities, from January through July 2007. As a result of reduced activity levels, many of the targets set for this reporting period in terms of program outputs were not achieved.

However, implementation of field activities has increased since the FY 2007 incremental obligation was received in July 2007, and will continue to increase. Staff anticipates that all activities delayed as a result of funding issues will be implemented in the upcoming operating year, and all previously set targets will be achieved.

Field activities and Lusaka-based activities maintained a focus on sustainability and leveraging resources for injection safety initiatives. Sustainability activities were implemented to ensure the transfer of best practices to the MOH and to develop ownership of the project within the MOH. Additionally, in implementing project activities, staff sought to create linkages with other projects and organizations working in the areas of HIV/AIDS or health systems development, with the aim of leveraging resources toward IP/IS initiatives and expanding the scope of the project.

The report is structured so that each technical task of the project's scope of work is presented separately, although all technical tasks are linked intrinsically. Project activities are most often comprehensive in that they incorporate elements of each technical task and serve as the

mechanism to measure project performance within each task. Sections of this report are organized to present activities and key results; challenges in implementation and how they have been or will be addressed; and success stories, where relevant. The results presented in the body of the report are only for the period referenced. Year-to-date data on project monitoring and evaluation indicators are presented in Annex A.

SECTION II

TASK 1: PROCUREMENT AND COMMODITY MANAGEMENT

MISP works to build capacity within public and private health care systems to forecast, finance, procure, and distribute appropriate levels of IP/IS equipment and commodities. The list below highlights activities undertaken toward achieving this objective during this operating period.

- In collaboration with the MOH, identified and selected districts for implementation of project activities. This included such activities as assessment of procurement systems and IP/IS equipment stocks being utilized at the district level.
- Promoted standardized list of IP/IS commodities required for observance of proper IP/IS practices. The list may be revised to allow for inclusion of new IP/IS technologies and/or devices that were available for purchase and had been approved for use by the MOH.
- Conducted needs assessments of procurement systems at the district level to identify existing and/or recurring gaps in availability of the IP/IS commodities required for observance of proper IP/IS practices.
- Procured IP/IS commodities and equipment to address gaps identified through the needs assessments.
- Conducted orientation workshops for health care facility administrators. Workshops primarily focus on raising the awareness of facility administrators regarding IP/IS issues and promoting inclusion of IP/IS activities in both district and facility action plans.
- Trained health care staff in procurement best practices.
- Conducted monitoring visits to districts for which the project purchased IP/IS commodities. During these visits, staff verified the delivery of the commodities and inspected the distribution and consumption of the commodities.
- Worked with organizations and programs focusing on HIV/AIDS and health systems strengthening to leverage resources toward IP/IS procurement initiatives.

2.1 IDENTIFICATION AND SELECTION OF DISTRICTS FOR IMPLEMENTATION OF PROCUREMENT NEEDS ASSESSMENTS

Selection of districts for project implementation is conducted with and approved by the central MOH. The districts selected are most commonly “priority districts” that the MOH has determined to have an immediate and significant need for implementation of IP/IS initiatives. After district selection, the MOH allocates resources to the project, designating a ministry official at the district level to introduce the project to the community and assist in conducting IP/IS assessments. Through this collaboration, ownership of project IP/IS initiatives has been fostered and will continue to grow. Table 1 indicates the districts selected by the MOH for project implementation in the upcoming operating year.

Table 1: Districts selected for implementation of project activities during period September 2007 - March 2008

Province	District
Eastern	Katete
	Chadiza
	Mambwe
Northern	Mpulungu
	Mbala
	Nakonde
Luapula	Milenge
	Mwense
	Chiengwe

2.2 REVISION OF STANDARDIZED LIST OF IP/IS COMMODITIES TO ALLOW FOR INCLUSION OF NEW TECHNOLOGIES AND/OR DEVICES

MISP has developed and promoted a standardized list of IP/IS commodities (see Table 2), which has been incorporated into MOH procurement plans. In addition, Becton Dickinson (BD) has been working directly with the MOH to conduct a study to determine the effectiveness and impact of new technologies on IP/IS practices and the feasibility of introducing them for widespread use within the public health care system. New technologies include needle cutters/removers (hubcutter), auto-disable syringes (SoloMed), and vacutainers. Should the feasibility study indicate that new technologies positively impact IP/IS practices, and if supply of such technologies can be financially sustained by the MOH, the project may revise the standardized list of IP/IS.

As secretariat of the National Infection Prevention Working Group (NIPWG), the project has continuously apprised the central MOH on its findings regarding IP/IS practices in the field. As new IP/IS technologies are being introduced and promoted by vendors, the project has provided the MOH with information on WHO standards for injection safety equipment and stressed the importance of training providers on use of new technologies, should they be introduced into the health care system.

Table 2: Standardized list of IP/IS commodities

Injection Equipment	Personal Protective Equipment	Disinfectants & Antiseptics	Waste Receptors
Disposable needles (21g)	Utility gloves, medium	Sodium hypochlorite	Red-coded bin (40L)
Disposable needles (23g)	Utility gloves, large	Sanitizer hand rub	Black-coded bin (40L)
Disposable syringes (2ml)	Heavy duty gloves		Yellow-coded bin liners (40L)
Disposable syringes (5ml)	Examination gloves, med.		Black-coded bin liners (40L)
Disposable syringes (10ml)	Examination gloves, large		Disposable sharps boxes (5L)
Disposable cannulars (18g)	Surgical gloves (7.5)		Red-coded buckets (24L)
Disposable cannulars (24g)	Surgical gloves (8)		Blue-coded buckets (24L)
	Plastic aprons		
	Plastic gown		
	Face shields		
	Gum boots		

2.3 CONDUCTED NEEDS ASSESSMENTS OF PROCUREMENT SYSTEMS AT DISTRICT LEVEL TO IDENTIFY EXISTING AND/OR RECURRING GAPS IN AVAILABILITY OF THE IP/IS COMMODITIES

The project conducts needs assessments of procurement systems at the district level. During this reporting period, MISP staff conducted assessments in three districts: Katete, Chadiza and Mambwe. The assessments include analysis of staffing, reporting systems, recordkeeping systems, stock at hand, and the consumption rates of IP/IS commodities. Stock levels are compared against the MISP standardized list, and availability of a commodity is determined. The assessment is shared with the central MOH and utilized to determine the IP/IS commodities and corresponding quantities to be procured by the project. Table 3 highlights the findings of this period's assessments and includes the average availability of IP/IS commodities in each district.

Table 3: Availability of IP/IS commodities

District	Facilities		Availability of IP/IS commodities (district level)
	Hospitals	Clinics	
Katete	1	25	26%
Chadiza	0	10	22%
Mambwe	1	16	19%

* IP/IS commodities in stock are compared against the standardized list promoted by the project. Availability of a commodity is then determined taking in to account physical stock and consumption rate. The above table portrays the average "availability" of IP/IS commodities on the standardized list.

PROCUREMENT OF IP/IS COMMODITIES

The Procurement of commodities is conducted with the participation of and approval by the central MOH. The MOH approves the results of the needs assessments and participates in the tender evaluation for the purchase of the commodities required. In addition, the MOH funds the central warehousing and subsequent delivery of the commodities to the targeted districts. With the MOH participating in all stages of the procurement process (assessment, evaluation of assessment results, solicitation of tenders, evaluation of tenders), the project can impart its procurement best practices upon the central MOH.

During this reporting period, the project procured \$437,029 in IP/IS commodities to supply public healthcare facilities in which project activities were implemented during this reporting period.

2.5 ORIENTATION WORKSHOPS FOR HEALTHCARE FACILITY ADMINISTRATORS

Two orientation workshops were held for healthcare facility supervisors/managers during this reporting period. These workshops focused primarily on raising the awareness of supervisors/managers regarding IP/IS issues and promoting inclusion of IP/IS activities in district and facility action plans. The IP/IS activities included integration of commodity management and procurement best practices to ensure better monitoring and forecasting of IP/IS commodities, and inclusion of IP/IS commodities in district procurement plans. Twenty-six healthcare facility supervisors/managers participated in these IP/IS workshops. All districts

represented in these workshops have since incorporated procurement of IP/IS commodities into their annual action plans.

2.6 TRAINING OF HEALTHCARE STAFF IN PROCUREMENT BEST PRACTICES

As will be discussed in greater detail in Section III, three training workshops were held for healthcare providers to build their capacity in IP/IS. MISP training workshops incorporate a commodity management and procurement component that focuses on building provider capacity in forecasting, warehousing, distribution, and usage monitoring of IP/IS commodities. During this period, 126 healthcare providers were trained in procurement best practices. Among the districts in which training activities were implemented during this operating year, none reported stock outages of new sterile standard or safety syringes over the past six months.

2.7 SUPPORTIVE SUPERVISION VISITS TO VERIFY DELIVERY AND ASSESS DISTRICT MANAGEMENT OF COMMODITIES PROCURED BY THE PROJECT

After training activities have been implemented and commodities delivered, the project staff conducts supportive supervision visits to verify delivery and to assess the district's management of the commodities received. During this reporting period, MISP staff visited nine districts (Kabompo, Solwezi, Chililabombwe, Chingola, Nyimba, Petauke, Luangwa, Chongwe, and Kafue).

The visits to the latter five districts were conducted late in the operating year, however, and the quantitative data collected in these districts is currently being compiled and analyzed. The results presented herein represent the data collected from Kabompo, Solwezi, Chililabombwe, and Chingola.

During those visits, MISP staff observed that:

- District staff had been trained in recordkeeping to ensure that stock records are consistently and accurately updated.
- Management had instituted regular review of stock cards.
- Staff at facilities had begun to request provision of IP/IS commodities from governing offices (district and/or provincial). This may be viewed as initial evidence of a change in the procurement system utilized for IP/IS commodities, shifting from a push system to a demand-pull system.

FACILITIES ALLOCATING RESOURCES TOWARD INJECTION SAFETY

The project's needs assessment of the Nyimba district showed that, like any many other districts, Nyimba had deficiencies in its recordkeeping systems and insufficient stocks of IP/IS commodities.

However, during the supportive supervision visit conducted by the project, significant changes were observed. The Nyimba district health office had instituted the use of stock control cards (or "bin cards") to monitor and manage stocks of IP/IS commodities within the district.

The visit further revealed that facilities staff had begun to allocate funds to maintain the stocks of IP/IS equipment procured by the project. Specifically, the Minga mission hospital and the Petauke hospital have spent \$5,617 and \$416, respectively, to maintain required stock levels of IP/IS commodities.

Table 4: Observed usage of bin cards for monitoring of stock levels in facility stockrooms visited during supportive supervision activities

	Districts				Total
	Chingola	Chililabombwe	Kabompo	Solwezi	
Bin cards utilized to monitor stock levels	90%	100%	95%	100%	96.3%
Bin cards are kept up-to-date	80%	90%	90%	95%	88.8%

As with the needs assessments results, the results from supportive supervision activities are shared with the facilities, districts, and central MOH to highlight any gaps in procurement and management of IP/IS commodities that need to be addressed.

2.8 ESTABLISHING LINKAGES AND LEVERAGING RESOURCES TOWARD IP/IS INITIATIVES

In order to further IP/IS initiatives and expand the reach of the project, MISP staff seeks to establish working relationships with other organizations and programs working in the areas of HIV/AIDS and/or health systems strengthening. Through these relationships, additional resources (human, financial and material) likely will be allocated toward IP/IS initiatives. In the context of procurement of IP/IS commodities, the project has worked closely with CHAZ, ZPCT, and ZANARA to incorporate the standardized list of IP/IS commodities into their procurement programs, most notably those commodities related to waste management.

Each of these organizations/programs has adopted the standardized list of IP/IS commodities promoted by the project, and subsequently procured some commodities for their programs. At this time, however, staff is unable to quantify the specific commodities (types and amounts) procured by these partners. In future meetings and/or correspondence with these partners, this data will be obtained and reported accordingly.

CONSTRAINTS AND CHALLENGES

Scarcity of human and financial resources continues to limit the ability of the MOH to sustain IP/IS activities introduced by the project. While many district health departments in which the project has been implemented have incorporated IP/IS commodities into their procurement plans, they lack the financial resources to continue to maintain the level of IP/IS commodities needed to meet demand.

MISP staff continues to work closely with its MOH counterparts as the project procures IP/IS commodities for targeted healthcare facilities. Through this close collaboration, project staff aims to continually improve the ability of the MOH, at



Tamara, a pharmacy technologist working in the Nyimba District, discusses with Matildah Zyambo, MISP procurement specialist, the records maintained for IP/IS commodities at her institution.

all levels, to forecast, procure, and distribute the appropriate levels of IP/IS equipment. Greater efficiency in procurement may lead to greater availability of IP/IS commodities, due to a shortened timeframe between ordering and receipt of commodities; and increased financial ability of the MOH to sustain procurement of IP/IS commodities, due to reduced costs.

Project staff has continued to foster and maintain relationships with other projects and organizations in an effort to develop synergies between respective procurement activities, mitigate redundancies, and leverage additional resources toward IP/IS initiatives. Leveraging efforts were especially important during this operating year, as the project's procurement activities were halted due to the funding constraints discussed previously.

As the project begins to phase out its procurement activities in the upcoming operating year, gaps in provision of commodities may arise that the MOH will be unable to cover. Consequently, while partners such as CHAZ and ZPCT have begun to allocate financial resources toward procurement of IP/IS commodities, MISP must continue to leverage funds, both from within and outside of the MOH, for procurement of commodities.

In addition, costs of IP/IS commodities remain relatively high in Zambia. At present, there is no local manufacturer of commodities such as needles and syringes. All such commodities must be imported, and consequently they bear the mark-up costs associated with shipping. Further, local vendors do not often maintain stocks of IP/IS commodities in the quantities required to meet local demand. MISP staff will continue to work with local manufacturers and vendors, linking them with public and private health institutions in effort to exhibit the existing demand for such commodities and stimulate local production and increased supply.

SECTION III

TASK 2: CAPACITY BUILDING AND TRAINING

Through provision of awareness building and training workshops, MISP seeks to foster normalization of safe and necessary injection practices within both the public and private sector healthcare workforce. The list below highlights activities undertaken toward achieving this objective during this operating period.

- Conducted orientation workshops for healthcare facility administrators. Workshops focus on raising the awareness of facility administrators regarding IP/IS issues, and promoting inclusion of IP/IS activities in both district and facility action plans
- Trained healthcare staff in infection prevention and injection safety best practices
- Conducted facility-level supportive supervision visits to districts in which project training activities and procurement of commodities had been implemented
- Provided technical assistance to public and private health institutions implementing IP/IS training activities for their staff

3.1 ORIENTATION WORKSHOPS FOR HEALTHCARE FACILITY ADMINISTRATORS

Two orientation workshops were held for healthcare facility supervisors/managers. This workshop focused primarily on raising the awareness of supervisors/managers regarding IP/IS issues and promoting inclusion of IP/IS activities in district and facility action plans. The IP/IS activities promoted included:

- Integration of training for healthcare providers in IP/IS into action plan
- Integration of monitoring and evaluation of healthcare provider IP/IS practices and behaviors into action plan
- Integration of medical waste management

PROTOCOL OF ORIENTATION WORKSHOP

The Zambia Medical Injection Safety project introduced and discussed:

1. Current status of IP/IS in Zambia
2. Overview of the project
 - a. PEPFAR and USAID
 - b. Objective(s) and technical scope of the project
 - c. Strategies and interventions being implemented by the project

Training and Behavior Change Communication (BCC)

1. Findings on IP/IS practices from the baseline survey conducted by the project.
2. Behavior change continuum (how behavior change can occur)
3. Proper use of BCC materials

Procurement and commodity management

1. Findings of commodities needs assessments conducted by the project
2. Procurement function within the supply chain and relationship to IP/IS practices
3. Forecasting

Medical waste disposal management

1. Classification and sources of healthcare waste
2. Processes of managing waste (handling, treatment, storage, disposal)
3. Reasons for proper waste management
 - a. Prevent injury (among staff and community)
 - b. Prevent transmission of disease (among staff and community)
4. Demonstrations (safety box assembly/usage, hand hygiene)

Monitoring and Evaluation

1. Definition of monitoring and evaluation
2. Developing and establishing a M&E system: tools utilized

Development of IP/IS action plans

guidelines and best practices

- Use of IP/IS BCC materials to promote proper practices
- Integration of procurement and commodity management best practices to ensure better monitoring and forecasting of IP/IS commodities
- Inclusion of IP/IS commodities in procurement plans

Twenty-six healthcare facility supervisors/managers representing the districts of Luangwa, Chongwe and Kafue participated in these IP/IS workshops.

3.2 TRAINING WORKSHOPS FOR HEALTHCARE PROVIDERS

Four training workshops were held to build the IP/IS capacity of healthcare providers. The workshops incorporated training in the following technical areas:

- Procurement and commodity management
- Infection prevention and injection safety
- Interpersonal communication with patients (behavior change communication component)
- Medical waste management
- Policy development
- Monitoring and evaluation of provider practices and behavior



A trainer demonstrates proper hand hygiene during a workshop conducted by MISP.

Training workshops lasted four days and were conducted with assistance from representatives from the NIPWG. The table below presents a summary of the training workshops implemented by the project during this reporting period. After trainings were completed, participants were expected to serve as IP/IS focal persons to champion implementation of IP/IS activities in their healthcare institutions.

Table 5: Summary of training workshops conducted by MISP during reporting period October 2006 - September 2007

Province	Date conducted	Districts	Number of participants	Total
Lusaka	October 17-20, 2006	Luangwa	13	38
		Chongwe	12	
		Kafue	13	
Western	Nov.28 – Dec.1, 2006	Mongu	16	31
		Senanga	15	
Eastern	January 15-20, 2007	Nyimba	15	29
		Petauke	14	

Central	August 27-31, 2007	Mumbwa	13	28
		Mkushi	15	
TOTAL				126

3.3 FACILITY-LEVEL SUPPORTIVE SUPERVISION

Table 6 indicates the IP/IS practices observed in the facilities visited in Kabompo, Solwezi, Chililabombwe and Chingola districts.

Table 6: Observations of healthcare provider practices during supportive supervision visits

Behavior	District				Cumulative average
	Chingola	Chililabombwe	Kabompo	Solwezi	
Use of new, sterile syringe	100%	100%	100%	100%	100%
Recapping after injection	25%	0%	0%	0%	6.3%
Disposal in sharps box	100%	100%	100%	33%	83.3%
Wash hands before injection	100%	67%	67%	33%	66.8%
Leave needle inserted in vial	0%	33%	33%	67%	33.3%

3.4 PROVISION OF TECHNICAL ASSISTANCE TO ORGANIZATIONS AND/OR INSTITUTIONS IMPLEMENTING IP/IS TRAINING ACTIVITIES

Due to the funding constraints faced by MISP during this reporting period, training workshops implemented by the project were halted in January 2007 until additional funding became available. To maintain visibility and to ensure that training of the healthcare workforce continued during this time period, project staff provided technical assistance to organizations, programs and facilities that were implementing IP/IS training for their healthcare staff. The partnering organizations bore the costs of the training, allowing MISP to reduce or eliminate the normal costs incurred. The list below outlines the technical assistance work performed during this reporting period.

- Led the Mazabuka district health management team (DHMT) in development and implementation of an orientation workshop for healthcare facility administrators on proper use of IP/IS commodities. The workshop was attended by 33 facility administrators. At the conclusion of the workshop, the managers developed action plans to improve IP/IS practices in their facilities and wards.
- Provided a one-day orientation workshop to the Lusaka DHMT in the development and implementation of IP/IS best practices for facility administrators. The workshop was attended by 28 facility administrators.
- Provided assistance to the Zambia Defense Forces (ZDF) medical injection safety project in conducting needs assessments and implementing an IP/IS training workshop for ZDF

EVIDENCE OF SUSTAINABILITY

1. Following the training activities implemented by MISP, Nyanje Mission Hospital in Petauke created an IP/IS committee. The committee has been exceptionally active in promoting and implementing IP/IS activities. IP/IS training has been conducted for 64 health care providers and 12 support staff, and regular supportive supervision visits to assess compliance have been instituted. Posters promoting proper IP/IS practices have been produced and placed throughout the facility. The committee has actively worked with facility administration to incorporate IP/IS equipment, such as gumbots and overalls, into the hospital's procurements.
2. Nyimba DHMT created an IP/IS committee at the district and district hospital level immediately after MISP training activities in the district. The Nyimba DHMT has also included training for providers and support staff in its district action plan and budget (ZMK 2,875,000 or \$737), as well as the procurement of IP/IS commodities. Additionally, the district hospital has held an IP/IS orientation session for its support staff and waste handlers.
3. Lewanika General Hospital in the Western province introduced a tool to monitor IP/IS practices and activities and developed a system to grade the performance of its various departments and wards in IP/IS. The hospital has strengthened the facilities IP/IS committee and has been procuring additional IP/IS commodities.

medical staff. The ZDF project is being administered by the CDC and JHPIEGO. Twenty-seven medical staff of the ZDF participated in this training workshop.

- Provided assistance to the Mkushi DHMT in the development and implementation of an orientation workshop for healthcare facility administrators on IP/IS best practices. The workshop was attended by 26 facility administrators.
- Provided assistance to the Kafue district hospital in development and implementation of IP/IS training of both healthcare providers and support staff. Through this activity 17 healthcare providers and 33 support staff were trained in IP/IS best practices.
- Provided technical assistance to organizers of a meat industry workshop. The project participated in this workshop, presenting information on infection prevention to participants. The purpose of the workshop was to promote the adoption of proper IP practices among administrators and meat handlers; the workshop was attended by 38 participants.

The project also actively assisted other projects/organizations, most notably HSSP, in development and incorporation of IP/IS in pre-service and in-service training curricula of healthcare providers. Project staff also participated in the development of emergency obstetric and neonatal care (EmONC) curricula to ensure an IP/IS was incorporated and strengthened.

CONSTRAINTS AND CHALLENGES

The suspension of supportive supervision activities due to funding constraints made it difficult to monitor and measure improvement in provider IP/IS practices via this mechanism. The project has developed a supportive supervision tool to be utilized by district health management teams and healthcare facilities to monitor and report on provider IP/IS practices. Districts and facilities will likely use this tool to monitor provider practices, and subsequently the project can access this data to monitor progress and sustainability. Incorporating this practice will reduce project

implementation costs and may lend to building the monitoring and evaluation capacity of district health management teams and healthcare facilities.

Limited financial resources continue to hinder the ability of the MOH at the district level to incorporate and sustain IP/IS training activities introduced MISP. While many districts in which the project has been implemented have incorporated IP/IS training into their annual action plans, they lack the financial resources to carry out these activities. MISP has been invited by the central MOH to participate in the development of its annual action plan and to advise the MOH on IP/IS issues that need to be addressed. Through this participation, the project will lobby for inclusion of IP/IS training for the healthcare workforce. It is hoped that this will result in increased and continual appropriation of public funds for IP/IS training.

SECTION IV

TASK 3: BEHAVIOR CHANGE COMMUNICATION

MISP works closely with the MOH to reduce demand for and observance of unsafe and unnecessary injections by changing IP/IS beliefs and behaviors among healthcare providers, clients/patients, and community members. The list below highlights activities undertaken toward achieving this objective during this operating period.

- Conducted public education campaigns through print and folk media programs.
- Trained healthcare providers in health communication techniques to enable them to influence behavior change within different target audiences in the public sector.
- Conducted supportive supervision visits to monitor behavior change in targeted groups at healthcare facilities and within communities where IP/IS training activities have been implemented.
- Conducted a situational assessment and formative research in private sector health institutions to begin development of a strategy to address the IP/IS gaps identified.
- Conducted advocacy meetings with representatives from the public and private sectors to promote incorporation of IP/IS activities into their action plans.
- Provided technical assistance to public and private healthcare institutions in development and implementation of BCC activities related to IP/IS.

4.1 PUBLIC EDUCATION CAMPAIGNS

Print media

IEC materials on IP/IS were distributed to 32 districts during the reporting period. All districts in which material were disseminated had previously received IP/IS training implemented by MISP. The materials included:

- Three types of posters (two targeting healthcare providers, one targeting community members) promoting proper IP/IS
- A packet with materials on IP/IS, circulated to health policy-makers and healthcare facility administrators
- Two fact sheets (one targeting community health workers, one targeting policy-makers and healthcare facility administrators) on IP/IS



As a way to impart information on IP/IS best practices to community groups, a drama group contracted by MISP incorporates IP/IS messages into its performance.

Folk media

MISP contracted 17 community drama groups in 12 districts to conduct drama performances promoting IP/IS. The groups were taught the scripts for the drama sketches and provided with a guide on how to conduct/implement the sketches. Table 7 presents a summary of the drama performances implemented during this reporting period.

Table 7: Summary of drama performances between October 2006 and September 2007

Province	District	Number of Groups Contracted	Performances Allocated	Number of Performances Conducted	Health Centers Reached	Audience Reached
Copperbelt	Mufurila	2	35	35	35	3,752
	Kitwe	2	35	28	28	7,641
Eastern	Chama	1	35	37	37	9,101
Northern	Mungwi	1	35	35	35	15,553
	Kasama	2	35	34	25	4,117
Luapula	Samfya	2	35	32	32	7,671
	Mansa	2	35	35	26	7,146
Northwestern	Zambezi*	1	35	5	3	2,050
	Lukulu	2	35	35	20	3,135
Central	Serenje	2	37	37	37	4,115
TOTAL		17	352	313	278	64,281

* Implementation of drama performances has recently been initiated. It is anticipated that the contracted or allocated amount of drama performances will be conducted in this district.

4.2 TRAINING OF HEALTHCARE PROVIDERS IN INTERPERSONAL COMMUNICATION

Three training workshops were held for healthcare providers to build provider capacity in IP/IS. The training provided incorporated material in proper interpersonal communication with patients and proper utilization of BCC/IEC materials. As previously provided, a total of 126 healthcare providers were trained by the project during this reporting period.

4.3 SUPPORTIVE SUPERVISION

Table 8 presents the results observed during supportive supervision visits to Kabompo, Solwezi, Chililabombwe, and Chingola with regard to appropriate display of IP/IS BCC materials.

Table 8: District displays of IP/IS behavior change communication materials

	District				Cumulative Average
	Chingola	Chililabombwe	Kabompo	Solwezi	
Appropriate display of IP/IS BCC materials	61.5%	69%	37%	56.7%	56.1%

MISP conducted follow-up visits in the districts of Mufulira, Kitwe, and Chama to assess the impact of drama performances on beliefs and perceptions in the greater community. Staff conducted interviews with community members and found that:

- A common perception is that injections are more effective in treating illness than oral medications remains within the community.
- Community members obtain the majority of their health information from healthcare workers, family, and friends rather than print or mass media.
- Community members do possess knowledge on the health risks associated with unsafe injections.
- Drama performances are viewed as an effective alternative method for influencing behavior change within the community.

REACHING THE COMMUNITY

In the community of Kwenje in the Chipata district, IP/IS initiatives have begun to be embraced by the community. MISP was invited by the Kwenje community to attend a community meeting on September 22, 2007. The meeting was attended the chair of the national traditional healers association, as well as traditional birth attendants and community health workers.

During the meeting, community leaders presented how they had learned through the activities implemented by MISP to prevent medical transmission of blood-borne infections such as HIV/AIDS through safe medical practices. The traditional healers further added that as a result of IP/IS messages disseminated by the project, the bad practices they utilized in the past, such as using the same razor blade on multiple clients, had ceased.

4.4 SITUATIONAL ASSESSMENT OF IP/IS IN FORMAL PRIVATE HEALTH SECTOR

A situational assessment of IP/IS practices in the formal private health sector was conducted in order to allow development of a strategy to address the gaps found within the MOH.

Accordingly, formative research (TIPs) was conducted in Kitwe, Luanshya, and Lusaka. Staff undertook the following activities.

- Led 11 focus group discussions, with three to 10 community members participating in each discussion.
- Observed healthcare provider IP/IS practices and subsequently interviewed each provider. They included 27 healthcare providers who prescribe injections and 31 healthcare providers who administer injections.
- Conducted in-depth interviews regarding IP/IS policies and practices with 20 healthcare facility administrators.
- Held 43 exit interviews with patients at the facilities visited, focusing on IP/IS.

The baseline was conducted between November 2006 and January 2007 in formal, private health institutions (hospital and health centers). Follow-up visits were conducted between August and September 2007 in the same facilities, and the data collection methods (observation and interview) were repeated. The data collected is currently being analyzed and will be made available upon completion.

ADVOCACY MEETINGS

MISP staff held advocacy meetings at the national, provincial, and district/facility levels, and conducted and/or actively participated in lobbying for support of IP/IS in the public and private sectors.

At the national level, project staff held a dissemination workshop attended by representatives from the MOH, all provincial health offices, and the Lusaka district health management team, among other project stakeholders. A total of 90 people attended the workshop. During the workshop, project activities and results were presented, and discussions were held regarding the actions that the MOH could take at all levels to improve IP/IS practices.

At the provincial and district levels, two IP/IS orientation workshops were conducted for healthcare facility supervisors. Through this activity, MISP staff promoted the inclusion of IP/IS activities in district and facility action plans. In the context of the BCC task objectives, the orientation workshops included promotion of interpersonal communication and how to include it in IP/IS training for healthcare providers; and utilizing BCC materials to promote proper IP/IS practices among healthcare providers and in the community.



The Honorable Angela Cifire, minister of health, opens the dissemination meeting held by MISP.

4.6 TECHNICAL ASSISTANCE TO PUBLIC AND PRIVATE HEALTH INSTITUTIONS

In conjunction with other organizations such as WHO and UNICEF, project staff provided technical assistance to the MOH in planning and monitoring the implementation of the 2007 National Measles Vaccination campaign, which aimed to vaccinate 2 million children nationwide. The technical assistance focused principally on the injection safety and waste management components of the campaign. Specifically, MISP assisted with implementation by:

- Participating in weekly planning meetings conducted by the MOH child health technical committee.
- Participating in orientation meetings for medical staff that would serve as national and provincial trainers of healthcare providers participating in the campaign. These meetings were attended by more than 100 participant “trainers.”
- Led orientation workshops for healthcare facility administrators in the Eastern, Western, and Southern provinces. The workshops were attended by a total of 60 facility administrators.
- Assisted in the supervising and monitoring the implementation of the campaign in three provinces (Lusaka, Central, and Northern).

CONSTRAINTS AND CHALLENGES

As presented in the previous section, project field activities were largely halted in January 2007, per the instruction of USAID, to ensure that the project would not exceed its current obligation before the USG 2007 budget had been appropriated and the subsequent funding for the project's next incremental obligation was made available. Consequently, follow-up visits to complete the formative research conducted were not implemented as per the project work plan, and additional printing and subsequent dissemination of IEC materials was postponed. The follow-up visits and printing/dissemination of IEC materials have, however, been continued upon receipt of incremental funding.

SECTION V

TASK 4: ESTABLISHING A STANDARDIZED SYSTEM FOR MEDICAL WASTE MANAGEMENT

MISP provides support to the MOH, and other relevant ministries, to develop and establish a national standardized system for management of medical waste. The list below highlights activities undertaken toward achieving this objective during this operating period.

- Assisted the MOH and other relevant agencies in the development and dissemination of national health care waste management guidelines.
- Conducted district-level assessments of healthcare waste management practices and systems currently being utilized.
- Conducted orientation and training workshops for facility administrators and healthcare providers, respectively, in IP/IS best practices.
- Conducted facility-level supportive supervision visits in districts where project IP/IS training activities have been implemented to assess waste management practices.

5.1 ASSIST IN THE DEVELOPMENT AND DISSEMINATION OF NATIONAL HEALTHCARE WASTE MANAGEMENT GUIDELINES

Through its role as secretariat of the National Infection Prevention Working Group (NIPWG), MISP continued to provide technical assistance to the MOH in the development of national healthcare waste management guidelines. The project hired a waste management consultant to review the draft guidelines, ground-truth them against existing conditions observed in the field, and make realistic and feasible recommendations on revisions. As result of the assistance provided to the MOH, the project achieved the following results:

- National healthcare waste management guidelines for public and private healthcare facilities have been finalized and are being disseminated.
- Standardized guidelines for disposal of healthcare waste in pits, burning chambers, and incinerators have been developed and are being disseminated

5.2 DISTRICT-LEVEL ASSESSMENTS OF EXISTING HEALTHCARE WASTE MANAGEMENT PRACTICES AND SYSTEMS

MISP staff conducts assessments of healthcare waste management practices and systems utilized at the district level, and conduct them simultaneously with the procurement needs assessments. The assessments analyze staff waste management practices, availability and use of personal protective and waste disposal equipment, and the flow of medical waste. The information collected and gaps identified are then shared with the central MOH and district health management teams, and project staff utilizes the information during training workshops for those districts. During this reporting period, MISP staff conducted assessments in Katete, Chadiza, and Mambwe.

5.3 ORIENTATION AND TRAINING OF HEALTHCARE FACILITY ADMINISTRATORS AND HEALTHCARE PROVIDERS

Orientation workshops were held for healthcare facility supervisors/managers to raise their awareness of IP/IS issues and promote inclusion of IP/IS activities in district and facility action plans. Training workshops were also conducted for healthcare providers to build provider capacity in IP/IS. In regard to healthcare waste management, the training focused on appropriate disposal at the provider and facility levels, including use of disposal equipment (safety boxes, bin liners, etc.), segregation and security of waste, and methods of disposal (burial, incineration, etc.). A total of 26 facility administrators and 126 healthcare providers participated in the orientation and training workshops, respectively.

5.4 FOLLOW-UP AND SUPPORTIVE SUPERVISION VISITS TO HEALTHCARE FACILITIES IN DISTRICTS WHERE PROJECT IP/IS TRAINING ACTIVITIES HAVE BEEN IMPLEMENTED

Table 9 illustrates the waste management practices that staff observed in the facilities visited in Kabompo, Solwezi, Chililabombwe, and Chingola.

Table 9: Observation of healthcare waste practices during supportive supervision visits

Observation	District				Cumulative Average
	Chingola	Chililabombwe	Kabompo	Solwezi	
Presence of sharp boxes in injection giving areas	100%	100%	50%	25%	68.8%
Presences of overflowing, pierced or open sharp containers inside facility	16.6%	0%	0%	66.6%	20.8%
Presence of used sharps waste in immediate area surrounding the facility	0%	0%	25%	50%	18.8%
Secured disposal site	33%	25%	0%	33%	22.8%

All health facilities visited had included healthcare waste management activities in their action plans and had begun to use waste management equipment, such as color-coded bins (i.e. yellow for infectious waste and black for domestics waste) and bin liners, purchased with their own financial resources.

Premium Clinic

Premium Clinic is a private health institution located in Lusaka. MISP conducted TIPs activities at the clinic as part of a situational assessment to develop a strategy to address IP/IS gaps identified in the formal private sector. During the initial visit, project staff formed agreements with facility managers and healthcare providers on IP/IS practices to improve. During the follow-up visit, the MISP team interviewed Ms. Maureen Chanda, a sister-in-charge at the clinic. During the interview, Ms. Chanda proudly stated, “During the last visit, MISP recommended that the

clinic procure some of the commodities, such as alcohol-based hand rub, to allow for proper IP/IS practices to be observed. We have managed to procure hand rub using funds allocated for the day-to-day operation of the clinic. We were able to procure this within a very short period of time.”

Ms. Chanda added, “Premium Clinic has worked to ensure that color-coded bin liners are in now being used according to the guidelines established by the Environmental Council of Zambia. As for sharps boxes, because of limited resources, the clinic is using improvised puncture-proof boxes made locally and available at minimal cost.”



Sister Maureen Chanda and nurse Dorothy Nkonde display Premium Clinic’s innovative substitute for formal sharps boxes.

MISP staff commended the clinic for its efforts to procure recommended IP/IS commodities with the limited financial resources it has available. However, the principal challenge the clinic claimed to face in procuring IP/IS commodities was the non-availability of these commodities on the Zambia market. Staff was quick to provide information on where these commodities could be procured locally at reasonable prices. The clinic has since begun to procure all recommended IP/IS equipment for proper waste management.

CONSTRAINTS AND CHALLENGES

Many assistance programs provide medical supplies, such as test kits, to healthcare facilities in Zambia, without considering or providing assistance in the management of the medical waste generated. MISP has begun to approach the staff of programs, discussing with them issues regarding medical waste disposal and lobbying for inclusion of a waste management component into their programs. As discussed previously, MISP is also working closely with the MOH and ECZ to disseminate the national healthcare waste management guidelines to all healthcare institutions (public and private) in effort to promote and allow for adherence to correct procedures in the disposal of waste.

Even with widespread dissemination of guidelines, many healthcare institutions lack the financial resources to consistently procure the equipment necessary to effectively manage healthcare waste. This issue is further complicated by a lack of or poor infrastructure for the end disposal (burial, incineration, etc.) of waste. Consequently, observance of proper management of waste is difficult to sustain after the stocks of waste equipment procured by the project have been exhausted. MISP staff will continue to lobby the MOH at all levels to provide additional financial resources to healthcare institutions, enabling them to procure the equipment needed to manage waste effectively and improve their infrastructures.

SECTION VI

TASK 5: PRIVATE PROVIDERS AND THE INFORMAL HEALTH SECTOR

MISP is working with the MOH and other relevant organizations in Zambia to ensure that private providers in the formal and informal health sectors are observing safe injection and safe waste disposal practices. The list below highlights activities undertaken toward achieving this objective during this operating period:

- Advocacy for IP/IS within the private and informal health sector.
- Development of a strategy to address IP/IS issues in the formal private health sector.

6.1 ADVOCACY FOR IP/IS WITHIN THE PRIVATE AND INFORMAL HEALTH SECTOR

As secretariat of the National Infection Prevention Working Group, MISP promotes and lobbies for IP/IS initiatives to the group constituents in the public and private health sectors. The Traditional Health Practitioners Association of Zambia (THPAZ) is an active member of this working group and has been privy to the IP/IS best practices promoted by the project. THPAZ regularly consults with project staff on IP/IS issues being addressed by the association. At present, however, no tangible quantitative or qualitative results are available on how this working relationship has impacted or might impact IP/IS practices in the informal health sector. Project staff will work with THPAZ during the upcoming operating year to determine if such results may be quantified and subsequently reported.

6.2 STRATEGY TO ADDRESS IP/IS ISSUES IN THE FORMAL PRIVATE SECTOR

In collaboration with the MOH and the Medical Council of Zambia (MCZ), MISP is developing a strategy to integrate IP/IS initiatives into the formal private sector. To develop this strategy, MISP staff conducted formative research activities (TIPs) in private healthcare institutions operating in the districts of Lusaka, Luanshya, and Kitwe. Details of the research methodology utilized are presented in Section IV. The data collected from these research activities is presently being compiled and will be utilized to formulate the integration strategy. The research results and strategy will be finalized and made available during the next reporting period.

CONSTRAINTS AND CHALLENGES

Integration of IP/IS initiatives into the informal health sector remains a challenge. A single, comprehensive strategy to address IP/IS issues within the informal sector is difficult to develop, given the large number of tribes (73) and the strength and breadth of traditional customs and practices that influence health outcomes. MISP is working with the THPAZ, the only legal, local body in the area, on how best to approach the informal sector. This sector includes traditional healers, traditional birth attendants, and “backdoor, briefcase” doctors (doctors that are not legally registered and allowed to practice). However, the role of the project in addressing IP/IS issues in the informal sector will go beyond advising MOH and THPAZ and advocating for increased attention and allocation of resources for this sector. MISP staff will continue working to educate communities on IP/IS issues through print and folk media, with the intention of decreasing community demand for injections and/or unnecessary medical procedures that involve sharps.

SECTION VII

TASK 6: POLICY ENVIRONMENT

MISP has continued to support the Ministry of Health in the establishment of a policy environment that will facilitate the availability of relevant IP/IS guidelines, provide adequate resources for safe injection practices, promote strong values supporting injection safety, and undertake continuous monitoring and improvement of injection practices. The list below highlights activities undertaken toward achieving this objective during this operating period:

- Participated in National Infection Prevention Working Group (NIPWG) activities.
- Conducted orientation and training workshops for facility administrators and healthcare providers, respectively, in IP/IS best practices.
- Conducted facility-level supportive supervision visits in districts where project IP/IS training activities have been implemented to assess development and dissemination of IP/IS policies.
- Established linkages with other organizations to garner support of and leverage resources toward IP/IS initiatives.

7.1 PARTICIPATION IN THE NATIONAL INFECTION PREVENTION WORKING GROUP

MISP continued its role as secretariat of the NIPWG. In this capacity, project staff has been actively involved in efforts to develop national IP/IS and healthcare waste management policies and guidelines and promote IP/IS initiatives. Project staff has been working closely with the MOH in the development of a national IP policy, serving on a MOH subcommittee tasked with drafting the policy, which is currently being reviewed by the MOH. The MOH is also currently organizing a “National IP Day” to raise awareness of IP issues and promote proper IP/IS practices. Project staff is assisting the MOH in developing the content of this activity.

7.2 ORIENTATION AND TRAINING OF HEALTHCARE FACILITY ADMINISTRATORS AND HEALTHCARE PROVIDERS

Orientation workshops were held for healthcare facility supervisors/managers to raise their awareness of IP/IS issues and promote inclusion of IP/IS activities in both district and facility action plans. Training workshops were also conducted for healthcare providers to build provider capacity in IP/IS. In regard to policy environment, the project promoted adoption of safety policies, such as provision of PEP and hepatitis B vaccine, for healthcare workers; and disseminated current IP/IS and healthcare waste management guidelines to activity participants. A total of 26 facility administrators and 126 healthcare providers participated in the IP/IS orientation and training workshops, respectively.

7.3 CONDUCT FOLLOW-UP AND SUPPORTIVE SUPERVISION VISITS TO HEALTHCARE FACILITIES IN DISTRICTS WHERE PROJECT IP/IS TRAINING ACTIVITIES HAVE BEEN IMPLEMENTED

Table 10 illustrates staff observations relating to implementation of IP/IS policies in the facilities visited in Kabompo, Solwezi, Chililabombwe, and Chingola.

Table 10: Observation of policy implementation during supportive supervision visits

	District				Cumulative Average
	Chingola	Chillabombwe	Kabompo	Solwezi	
Copy of IP/IS guidelines available	20%	50%	50%	50%	40%
Functional IP/IS Committee	33.3%	100%	50%	50%	58.3%
Provision of PEP	50%	40%	50%	50%	47.5%
Provision of Hepatitis B Vaccination	0%	0%	0%	0%	0%

7.4 ESTABLISHING LINKAGES AND LEVERAGING RESOURCES

To expand the reach of the project and identify synergies, MISP staff approached several organizations and projects working in the area of HIV/AIDS and health systems strengthening. During this reporting period, project staff worked closely with the following organizations.

- ZANARA project: MISP worked closely with the MOH and the Environmental Council of Zambia (ECZ) in the development of the national health care waste management guidelines. Under the auspices of the NIPWG, project staff was then able to successfully lobby the ZANARA project to fund the printing and dissemination of the finalized guidelines. The ZANARA project has allotted \$100,000 to fund the printing and dissemination of this document.
- Health Systems Support Project (HSSP): MISP staff provided technical assistance to HSSP in the development and incorporation of IP/IS training into pre-service and in-service training for healthcare workers.
- MISP served as a member of the National Child Health Technical Committee, established by the MOH, and staff advised on child health activities such as immunizations. In this role, MISP established initial working relationships with several organizations, including UNICEF, the National Malaria Control Center, and the Zambia National Broadcasting Corporation. These relationships are anticipated to be cultivated in the upcoming year and potential synergies between programs established.
- International Labor Organization (ILO): MISP participated in the World Day for Safety and Health in the Workplace meeting organized by the International Labor Organization (ILO). MISP was an exhibitor at the meeting, presenting the importance of policies to encourage safe work practices. The exhibit also provided information on personal protective equipment and protocols on post exposure prophylaxis (PEP) and distributed print media on avoiding injury in the workplace.

DEVELOPMENT OF NATIONAL HEALTHCARE WASTE MANAGEMENT GUIDELINES

The national infection prevention campaign began in 2001, when the WHO conducted a national study on the state of IP/IS practices in Zambia. In 2003, national infection prevention guidelines were developed and disseminated by the Ministry of Health, and the National Infection Prevention Working Group was established. However, neither the campaign nor the guidelines

significantly incorporated healthcare waste management, causing this area to go largely unaddressed until this year.

At the onset of his term, current Minister of Health Dr. Brian Chituwo stated publicly, “I challenge all health facilities to ensure that the waste they generate be managed well so that our facilities can be safe not only to the providers, but also to the clients and the community at large.”

The NIPWG took up this challenge, and with the assistance of MISP, ZANARA, and the Environmental Council of Zambia, NIPWG championed the development of national health care waste management guidelines and standard methods of incineration. MISP hired an external consultant, a waste management specialist, to provide technical assistance to ECZ to develop and revise the guidelines and adequately address gaps identified in field assessments. ECZ and the Ministry of Health then circulated the working draft of the guidelines to all participating members of the NIPWG for comment and approval. Upon approval, the ZANARA project pledged financial support to print and distribute the document throughout the healthcare system.

“I am pleased to inform the working group that, with the finalization of the health care waste management guidelines, ZANARA has budgeted 100,000 U.S. dollars to print and disseminate the document,” stated Roy Mwilu of ZANARA.

In a recent staff visit to the Kapata Clinic in Chipata, one of the community members discussed how she found her children with medical waste such as used gloves and syringes. She was elated to hear that something was being done to address the issue. “I want my children to be safe as they play, and I am willing to help in securing the disposal sites, but the clinic should and will now be able to guide us correctly on what to do.”

CONSTRAINTS AND CHALLENGES

Organizations and projects working in the area of HIV/AIDS and health systems strengthening maintain funds that are earmarked for specific activities to achieve program objectives. Effective collaboration between MISP and these partners is difficult at times, due to differing priorities and financial constraints related to expansion a program’s scope of work. MISP staff will continue to work with other partners to identify synergies between programs and expand the reach of MISP initiatives. Staff anticipates that through this collaboration, additional resources (human, financial, or material) will continue to be leveraged to address IP/IS issues faced in the public and private health sectors.

SECTION VIII

TASK 7: MONITORING AND EVALUATION

MISP works closely with the MOH, at all levels, to establish a system for continuous monitoring and improvement of injection safety practices. The list below highlights activities undertaken toward achieving this objective during this operating period:

- Work with the central Ministry of Health to incorporate IP/IS indicators in the national health management information system (HMIS).
- Work with provincial and district health offices to incorporate IP/IS indicators in their already existing M&E tools.

8.1 INCLUSION OF IP/IS INDICATORS IN THE NATIONAL HEALTH INFORMATION SYSTEM

The project has continued to work with the central MOH, lobbying for inclusion of IP/IS indicators in the national health information management system (HMIS). MISP staff meets regularly with the M&E unit of the central MOH responsible for the management of the HMIS to discuss which and how IP/IS indicators may be incorporated into the system. At present, MOH is reviewing the IP/IS indicators that the project has proposed for inclusion.

8.2 INCORPORATION OF IP/IS INDICATORS INTO EXISTING M&E TOOLS AND/OR SYSTEMS AT THE PROVINCIAL, DISTRICT AND FACILITY LEVEL

MISP has worked closely with Provincial Health Offices (PHO), lobbying for inclusion of IP/IS indicators into the M&E systems that they utilize to monitor healthcare practices. The project has experienced moderate success to date in this endeavor. The Lusaka health office has included some IP/IS indicators into the performance assessment tool they use to evaluate healthcare practices. The indicators incorporated include: number of people trained in IP/IS, number of health facilities providing post exposure prophylaxis, and number of health facilities incorporating IP/IS commodities in the action plans. The project has also developed a supportive supervision tool to be utilized by district health management teams and/or healthcare facilities to monitor and report on provider IP/IS practices. Districts and facilities are anticipated to use this tool to monitor provider practices and report results to appropriate governing bodies. MISP staff may then also access this data to measure progress and sustainability.

CONSTRAINTS AND CHALLENGES

Incorporation of IP/IS indicators into existing M&E systems utilized at the provincial, district, and facility levels has been difficult. Administrators at all levels have been resistant to add more evaluation tools and/or additional indicators to existing systems, as they are wary of making already lengthy assessment tools more cumbersome to users. Project staff plans to work with administrators, lobbying for inclusion of IP/IS indicators into existing M&E systems. However, the number of indicators promoted will be streamlined to include only those viewed as most critical to determining whether healthcare providers are observing appropriate IP/IS practices.

SECTION IX

TASK 8: KNOWLEDGE SHARING

MISP actively seeks to participate in forums, both international and domestic, in an effort to share project approaches and results with the greater development community. The list below highlights activities undertaken toward achieving this objective during this operating period.

INTERNATIONAL AND DOMESTIC CONFERENCES AND MEETINGS

- 2006 Safe Injection Global Network (SIGN) annual meeting, Mexico City, Mexico. The 2006 SIGN meeting was attended by the project BCC specialist, Answell Chipukuma; and a representative from the MOH, Dr. Pashane Mtolo. At the meeting, Mr. Chipukuma and Dr. Mtolo gave a formal oral presentation, “Strategies for sustaining infection prevention and injection safety programs in Zambia.”
- 2006 American Public Health Association (APHA) conference, Boston, Massachusetts, United States. The APHA meeting was attended by the project injection safety specialist Martha Ndhlovu. At the conference, Ms. Ndhlovu gave a formal oral presentation, “Importance of management leadership in affecting change: Experiences from the Medical Injection Safety Project in Zambia.” As travel and technical concurrence for Ms. Ndhlovu’s participation was not granted by USAID, in accordance with PEPFAR guidelines, all costs associated with Ms. Ndhlovu’s participation were covered on company overhead and not directly billed to the contract.
- PEPFAR Safe Injection Partners Meetings. On a bimonthly basis, all the PEPFAR-funded projects meet with USAID and the CDC to discuss project approaches and the progress being made. Through this forum strategies, best practices and challenges faced are shared, allowing for ready transfer of knowledge that may be applied to and improve project implementation.

In the past year, the project also submitted abstracts for presentation at the following international conferences.

- 2007 APHA conference, Washington, D.C., United States. The project submitted the abstract “Role of advocacy in implementing and sustaining IP/IS programs in Zambia.” This abstract has been accepted for oral presentation.
- 2007 Global Health Council conference, Washington, D.C., United States. The abstract submitted was not accepted for presentation.

PUBLICATIONS

Beginning in March of 2007, MISP began publishing and distributing a monthly publication titled *The Reflector*. The purpose of this publication is to share updates on project activities and successes with project stakeholders, including USAID, the Ministry of Health, suppliers, and other relevant local organizations.

ANNEX A: MISP MONITORING AND EVALUATION INDICATORS TRACKING MATRIX

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project 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 healthcare 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 Medical Injection Safety Project/ 3 times via active surveillance survey	Gender Age Geographic location (district, province, rural vs. urban)	2006 2.18	1.5	TBD – will be measured in follow-up study in 2007/2008	1	
Proportion of women and men age 15-49 reporting that the last healthcare 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 healthcare injection they received (in the past 6 months) was given with a syringe and needle set from a new, unopened package Unit: Percent 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	Population survey/baseline then every 2-3 years Medical Injection Safety Project/ 3 times via active surveillance survey	Gender Age Geographic location (district, province, rural vs. urban)	2006 98.3%	100%	TBD – will be measured in follow-up study in 2007/2008	100%	
Project activities fully implemented in targeted healthcare facilities (SI Partners)	The proportion of healthcare facilities in targeted districts in which project activities have been fully implemented. Unit: Percent Numerator: Number of healthcare facilities in which project activities have been implemented Denominator: Total number of facilities	Medical Injection Safety Project/ Semiannually	Facility (level, public vs. private) District Activity	2004 5.6%	62%	37.6% (Partial reporting. Number based on reporting from training participants.)	95%	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
Project activities implemented in all targeted districts (PEPFAR)	This indicator measures the number of districts in which the project has been fully implemented. Unit: Number	Medical Injection Safety Project/ Semiannually	Province	2004 2	38	38	72	
Population covered by the project IP/IS interventions (SI Partners)	Proportion of population covered by the project SI interventions. Unit: Percent Numerator: Population covered by project SI interventions Denominator: Total population	National DHS surveys or census reports/Annually	Geographic location (district, province, rural vs. urban)	2004 7.2%	53%	70%	95%	
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., Acute Respiratory Infection (ARI), diarrhea, Sexually Transmitted Infections (STI), etc.) per year. Unit: Number Numerator: Number of injections administered by a healthcare worker to all respondents Denominator: Number of people surveyed	Medical Injection Safety Project/ 3 times via active surveillance survey	Diagnosis Age Gender Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2005 Sample survey STI 2.3 ¹	STI 2	TBD – will be measured in follow-up sample survey in 2007/2008	STI 1	
Healthcare facilities re-using sharps on patients without reprocessing (SI Partners)	Proportion of healthcare facilities where sharps are observed to be re-used on patients without reprocessing. Unit: Percent Numerator: Number of healthcare facilities where sharps are observed to be re-used on patients without reprocessing Denominator: Total number of facilities observed	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2006 0%	0%	TBD – will be measured in follow-up study in 2007/2008	0	

¹ Only average injections for treatment of STI are presented for this indicator. However, other diagnoses commonly treated by injectable medications, for which oral alternatives exist, will be analyzed over the life of the project. The diagnoses to be analyzed will be determined during the implementation of the baseline survey in January 2006.

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
Healthcare facilities providing post-exposure prophylaxis (PEP) 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 that 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	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2006 37.3%	50%	TBD – will be measured in follow-up study in 2007/2008	75%	
Healthcare facility workers immunized against Hepatitis B	The proportion of healthcare facility employees who have been immunized against Hepatitis B. Unit: Percent Numerator: Number of healthcare facility employees immunized against Hepatitis B Denominator: Total number of healthcare facility employees surveyed	Medical Injection Safety Project/ 3 times via active surveillance survey	Job Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2006 10.7%	50%	TBD – will be measured in follow-up study in 2007/2008	75%	
<p>Task 1: Commodity Management and Procurement Objectives: 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:</p> <ol style="list-style-type: none"> Identification and selection of suppliers in collaboration with MOH/CBOH to assess the IP program needs Assessing the existing of recurring gaps in commodities and supplies needed to ensure effective supply commodities Standardize the list of IP program commodities and introduce new IP/IS items Undertake and implement the procurements of identified commodities and supplies needed to support the objectives of the program Integrate procurement & delivery procedures in MOH/CBOH to build commodity management related to injection safety at all levels Integrate best practices into national procurement plans Coordinate with other donors, leveraging with other projects 								

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
Health personnel trained in IP/IS commodity logistics management (SI Partners)	Number of health personnel trained in IP/IS commodity logistics management Unit: Number	Medical Injection Safety Project/ Semiannually	Job Training Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004 58	328	600	1080	
Standard list of IP/IS commodities developed	Refers to development of a standardized and recognized list of IP/IS commodities that will be used to guide procurement Unit: N/A	Medical Injection Safety Project/ Annually	N/A	2004 No standard list exists	Standard list finalized	Standard list has been finalized	Standardized list utilized by MOH	
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	Medical Injection Safety Project/ Annually	N/A	2005 Some required commodities in plan	All required IP/IS commodities integrated into procurement plan	In process	All required IP/IS commodities integrated into procurement plan	
IP/IS commodities procured by the project	The dollar amount of IP/IS commodities purchased by the project for distribution to target health facilities Unit: Number	Medical Injection Safety Project/ Semiannually	IP/IS commodity	2004 \$0	\$1,400,000	\$1,585,443	\$2,400,000	
Healthcare facilities with no stock-outs of new sterile standard or safety syringes (SI Partners)	Proportion of facilities with no recorded stock outages of sterile standard or safety syringes in the prior six months. Unit: Percent Numerator: Number of facilities reporting no stock-outs of needles/syringes Denominator: Total number of facilities surveyed	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Geographic location (district, province, rural vs. urban) Injection equipment	2006 54.8%	100%	TBD – will be measured in follow-up study in 2007/2008	100%	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
Healthcare facilities with no stock-outs of safety boxes for sharps disposal (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	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2006 43.1%	60%	TBD – will be measured in follow-up study in 2007/2008	80%	
Healthcare facilities with supplies of alternative oral formulations to common injectable medications (SI Partners)	Proportion of healthcare facilities with supplies of alternative oral formulations of common injectable medications Unit: Percent Numerator: Number of facilities with supplies of alternative oral formulations to common injectable medications Denominator: Total number of facilities surveyed	Medical Injection Safety Project/ 3 times via active surveillance survey	Medication Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2005 Sample survey STI Oral - 0%	STI Oral - 30%	TBD – will be measured in follow-up sample survey in 2007/2008	STI Oral - 70%	
<p>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, interpersonal communication, health care waste management, M&E tools) b) Supportive supervision/follow-up visits to monitor behavior change among target groups c) Technical assistance to locally organized trainings by PHO/DHO's and hospitals</p>								
Healthcare providers trained in IP/IS best practices (PEPFAR)	Number of healthcare providers trained in IP/IS best practices Unit: Number	Medical Injection Safety Project/ Semiannually	Job Training Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004 58	328	600	1080	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
Healthcare providers give each injection with a new sterile standard or safety syringe (SI Partners)	Proportion of healthcare providers observed giving injections with a new sterile standard or safety syringe Unit: Percent Numerator: Number of healthcare providers observed giving each injection with a new sterile standard or safety syringe Denominator: Total number of healthcare providers observed	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Facility department (i.e. pediatrics, OB/GYN, etc.) Geographic location (district, province, rural vs. urban)	2006 46.6%	90%	TBD – will be measured in follow-up study in 2007/2008	100%	
Healthcare providers dispose of used sharps without recapping them (SI Partners)	Proportion of health workers observed who dispose of used sharps without recapping. Unit: Percent Numerator: Number of healthcare providers observed disposing of sharps without recapping Denominator: Total number of healthcare providers observed	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Facility department (i.e. pediatrics, OB/GYN, etc.) Geographic location (district, province, rural vs. urban)	2006 87.4%	95%	TBD – will be measured in follow-up study in 2007/2008	100%	
Healthcare providers dispose of used sharps in a safety box or a puncture- and leak-proof sharps container (SI Partners)	Proportion of healthcare workers observed disposing of used sharps in a safety box or a puncture- and leak-proof sharps container immediately after administering an injection Unit: Percent Numerator: Number of healthcare 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 healthcare providers observed	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Facility department (i.e. pediatrics, OB/GYN, etc.) Geographic location (district, province, rural vs. urban)	2006 76.2%	90%	TBD – will be measured in follow-up study in 2007/2008	100%	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
Healthcare providers reporting needle stick injuries (SI Partners)	Proportion of healthcare providers reporting one or more needle stick injury in the past six months. Unit: Percent Numerator: Number of healthcare providers reporting one or more needle stick injuries Denominator: Total number of healthcare providers surveyed	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Facility department (i.e. pediatrics, OB/GYN, etc.) Geographic location (district, province, rural vs. urban)	2006 17.6%	10% (aim to reduce incidence, yet encourage reporting)	TBD – will be measured in follow-up study in 2007/2008	10%	
Waste handlers reporting needle stick injuries (SI Partners)	Proportion of healthcare providers reporting one or more needle stick injury in the past six months. Unit: Percent Numerator: Number of healthcare providers reporting one or more needle stick injuries Denominator: Total number of healthcare providers surveyed	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2006 3.9%	10% (aim to reduce incidence, yet encourage reporting)	TBD – will be measured in follow-up study in 2007/2008	10%	
Healthcare 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 healthcare providers observed properly washing hands before and after injection procedure Denominator: Total number of healthcare providers observed	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Facility department (i.e. pediatrics, OB/GYN, etc.) Geographic location (district, province, rural vs. urban)	2006 26.4% - before injection 35.5% - after injection	60% - before injection 60% - after injection	TBD – will be measured in follow-up study in 2007/2008	85% - before injection 85% - after injection	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
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	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Facility department (i.e. pediatrics, OB/GYN, etc.) Geographic location (district, province, rural vs. urban)	2006 98.3%	100%	TBD – will be measured in follow-up study in 2007/2008	100%	
Health providers leaving a needle inserted in a vial to withdraw multiple doses	Proportion of health providers that are observed leaving a needle in a vial for the purpose of drawing several doses Unit: Percent Numerator: Number of healthcare providers observed leaving a needle inserted in a vial to withdraw multiple doses Denominator: Total number of healthcare providers observed	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Facility department (i.e. pediatrics, OB/GYN, etc.) Geographic location (district, province, rural vs. urban)	2006 42.5%	25%	TBD – will be measured in follow-up study in 2007/2008	5%	
Use of personal protective equipment by healthcare providers and auxiliary staff	This indicator measures the proportion of healthcare personnel who wear protective equipment during the disposal of sharps Unit: Percent Numerator: Number of healthcare personnel observed wearing proper protective equipment during disposal of sharps Denominator: Total number of healthcare personnel observed	Medical Injection Safety Project/ 3 times via active surveillance survey	Job Facility (level, public vs. private) Facility department (i.e. pediatrics, OB/GYN, etc.) Geographic location (district, province, rural vs. urban)	2006 Uniform – 36.4% Boots – 14.6% Facemask – 5.5% Aprons – 3.6% Gloves: Heavy duty – 40.0% Utility – 30.9% Exam – 70.9%	50% - for all equipment (75% for gloves)	TBD – will be measured in follow-up study in 2007/2008	100% - for all equipment	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
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: <ul style="list-style-type: none"> a) Review and finalize the national advocacy and BCC strategy b) Formative research c) Pre-test 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 semi-annual basis f) Develop and carry out IP/IS public education campaigns through electronic, print, and folk media programs 								
Healthcare personnel trained in interpersonal communication/BCC regarding safe injections (SI Partners)	Number of healthcare personnel trained in BCC regarding safe injections Unit: Number	Medical Injection Safety Project/ Semiannually	Job Training Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004 58	328	600	1080	
Appropriate display of BCC materials at health facilities	The number of targeted health facilities that are appropriately displaying project BCC materials. Unit: Number	Medical Injection Safety Project/ Annually	Facility (level, public vs. private) Facility department (i.e. pediatrics, OB/GYN, etc.) Geographic location (district, province, rural vs. urban)	2006 50.0%	75%	TBD – will be measured in follow-up study in 2007/2008	90%	
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	Medical Injection Safety Project/ Annually	Gender Age Geographic location (district, province, rural vs. urban)	2006 54.1%	75%	TBD – will be measured in follow-up study in 2007/2008	90%	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
Healthcare providers prescribing oral formulations	The proportion of patients reporting oral medication was prescribed. Unit: Percent Numerator: Number of patients interviewed reporting an oral formulation was prescribed Denominator: Total number of patient interviewed.	Medical Injection Safety Project/ Annually	Diagnosis Facility (level, public vs. private) Facility department (i.e. pediatrics, OB/GYN, etc.) Geographic location (district, province, rural vs. urban)	2006 50.5%	65%	TBD – will be measured in follow-up study in 2007/2008	75%	
Patients requesting oral medications instead of injections	The proportion of patients that request oral medication instead of injections. Unit: Percent Numerator: Number of patients who request oral medications Denominator: Total number of patients surveyed	Medical Injection Safety Project/ Annually	Gender Age Geographic location (district, province, rural vs. urban)	2006 49.4%	30%	TBD – will be measured in follow-up study in 2007/2008	15%	
<p>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 medical waste management activities and supplies in the action plans at all levels</p>								
Healthcare personnel trained in medical waste management best practices (SI Partners)	Number of healthcare personnel trained in medical waste management best practices Unit: Number	Medical Injection Safety Project/ Semiannually	Job Training Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004 58	328	600	1080	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
Healthcare facilities with satisfactory disposal of sharps and used injection equipment (SI Partners)	Proportion of facilities with satisfactory disposal of used injection equipment. (i.e., no used sharps where they pose a needle stick risk for providers or the general population either inside or outside the facility and no overflowing or open safety boxes) Unit: Percent Numerator: Number of healthcare facilities observed in which sharps and used injection equipment is disposed of properly Denominator: Total number of facilities observed	Medical Injection Safety Project/ 3 times via active surveillance survey	Injection equipment Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2006 Overflowing sharps containers: 10.2% Used sharps in facility surroundings: 22.4% Secured disposal site: 25.4%	Overflowing sharps containers: 0% Used sharps in facility surroundings: 0% Secured disposal site: 40%	TBD – will be measured in follow-up study in 2007/2008	Overflowing sharps containers: 0% Used sharps in facility surroundings: 0% Secured disposal site: 50%	
Districts include medical waste management in their action plans	The number of districts whose health sector action plans include waste management Unit: Number	Medical Injection Safety Project/ Annually	Geographic location (province, rural vs. urban)	2004 2	38	38	72	
National medical waste management guidelines are finalized	This is a qualitative indicator assessing effectiveness of project TA to support the MOH in the development and implementation of national guidelines for waste management Unit: N/A	Medical Injection Safety Project/ Annually	N/A	2004 No guidelines exist	Guidelines are finalized	Completed	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. ²								
Private healthcare providers trained in IP/IS best practices ³	Number of private healthcare providers trained in IP/IS best practices Unit: Number	Medical Injection Safety Project/ Semiannually	Geographic location (district, province, rural vs. urban)	2006 0	TBD	0	TBD	

² Specific activities under this task to be determined during work planning for FY 2006. Work planning activities to be conducted in May of 2006.

³ It is important to note that many of the preceding indicators disaggregate by public and private sector; therefore, indicators measuring project output and impact regarding IP/IS capacity-building within the private sector are not presented under this task.

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
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 National Infection Prevention Working Group (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 d) Collaborate with key regulatory bodies (ECZ, MCZ, National Pharmacy Board and National Nursing Council) e) Review the post exposure prophylaxis (PEP) 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	Medical Injection Safety Project/ Semiannually	Job Content of orientation Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2004 58	328	600	1080	
National IP/IS guidelines implemented at the facility level (SI Partners)	The proportion of targeted healthcare facilities that have implemented the national IP/IS guidelines Unit: Percent Numerator: Number of healthcare facilities observed in which national IP/IS guidelines have been implemented Denominator: Total number of facilities observed	Medical Injection Safety Project/ 3 times via active surveillance survey	Facility (level, public vs. private) Geographic location (district, province, rural vs. urban)	2006 49.3%	75%	TBD – will be measured in follow-up study in 2007/2008	100%	
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	Medical Injection Safety Project/ Annually	N/A	2005 National IP/IS strategic plan incomplete	National IP/IS strategic plan finalized	In process	National IP/IS strategic plan implemented	

Indicator	Indicator Definition and Unit of Measure	Data Source/ Reporting Frequency	Disaggregation	Baseline (specify year)	Intermed. Target FY 2006/07	Actual FY 2006/2007	End of Project Target FY 2008/09	Actual FY 2008/09
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	Medical Injection Safety Project/ Semiannually	Stakeholder (public vs. private)	2004 10	20	TBD – members have been increasing	30	
<p>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, MCZ to monitor the existing health care waste disposal practices</p>								
M&E tools developed	Refers to various instruments developed by the project for data collection and management Unit: N/A	Medical Injection Safety Project	N/A	2004/2005 Tools developed for baseline study, formative research	Tools finalized; used for monitoring	In process	N/A	
IP/IS indicators included in the HMIS	Refers to inclusion of IP/IS indicators into the HMIS operated by the CBOH. Unit: N/A	Medical Injection Safety Project/ Annually	N/A	2004/2005 Collaboration with CBOH to establish IP/IS indicators initiated	Indicators identified; CBOH to incorporate in HMIS	In process	Indicators incorporated in HMIS	