
Strengthening Public Health Management Training Capacity in Seven GAP-Focus Countries

2003 Progress Report to CDC's Global AIDS Program

Malawi
Uganda
Vietnam
Zambia



Botswana
Cambodia
Côte d'Ivoire

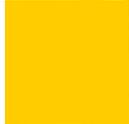


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Letter from the Director of SMDP

SMDP began working with South Africa, Uganda, Nigeria, and Malawi during the mid-1990s to strengthen public health management training capacity. These efforts, however, met with limited success because 1) counterparts often lacked a political mandate to carry out in-country management training and 2) SMDP itself lacked the resources to provide adequate in-country technical assistance.

Soon after GAP deployed field staff in the late 1990s, SMDP began receiving requests to provide management training to their local counterparts. During the period 2000-2002, the number of GAP-sponsored personnel attending the six-week Management for International Public Health (MIPH) course in Atlanta quadrupled from three in 2000 to 12 in 2002, for a total of 25 by the end of 2003. As graduates of the MIPH course returned home, SMDP began receiving requests to provide technical assistance to establish in-country management training programs addressing local training needs. As the number of these requests grew, it became clear that SMDP needed to expand its capacity. In 2003, NCHSTP and PHPPO signed a Memorandum of Understanding that enabled SMDP to provide support for up to seven GAP-focus countries per year.

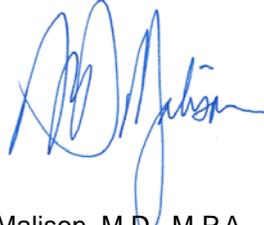
By the end of 2003, SMDP had helped GAP field assignees establish management training programs in the following countries: Botswana, Malawi, Uganda, and Zambia. These four programs have trained a total of 19 management trainers in the MIPH course since 2000. These MIPH graduates have, in turn, trained 97 local HIV/AIDS and TB program managers using content adapted from the MIPH course. These 97 local program managers also completed a total of 46 applied management projects during the course of their training (see Appendix 1). These projects 1) reinforce classroom learning, 2) provide a tangible output for assessing the impact of the training on GAP monitoring and evaluation indicators, and 3) serve as a training multiplier by encouraging informal learning among project team members who did not attend the formal workshops.

Besides those African countries mentioned above, three other GAP-focus countries are in early stages of developing management training programs:

Cambodia, Côte d'Ivoire, and Vietnam. Haiti and Thailand also worked with SMDP in 2003 and are in the process of developing plans to implement their own management training programs in the near future.

This report summarizes the progress to date towards strengthening public health management training capacity in GAP-focus countries. We have endeavored to align the applied learning projects in this report with GAP monitoring and evaluation indicators. It is important to note that this sorting process was done retrospectively – workshop participants were given considerable latitude to define their own priorities. As a result, some projects align well with specific indicators, whereas others overlap or are sorted simply by overall category.

The work described in this report represents the efforts of many dedicated individuals, each of whom has worked hard to achieve a shared vision – Global HIV/AIDS and TB programs providing high quality services, managed and led by competent, capable personnel. We thank them for their efforts, and pledge our continuing support.



Michael D. Malison, M.D., M.P.A.
Associate Director for Global Health
Director, Sustainable Management Development Program
Public Health Practice Program Office (MS-K01)
U.S. Centers for Disease Control and Prevention (CDC)
4770 Buford Hwy, NE, Atlanta, GA 30341-3724
(770) 488-2532; fax (770) 488-2868; mmalison@cdc.gov

SMDP Guiding Principles

- Emphasize applied skills, not just theoretical knowledge.
- Train in a highly interactive manner and draw out personal experience to reinforce team learning.
- Incorporate public health examples to illustrate the use of management tools which may originally have been developed for industry or other sectors (e.g., TQM); keep examples relevant for audiences in developing countries.
- Provide many tips, practical aids, and tools which facilitate teaching the materials to others.
- Emphasize evidence-based decision-making in management (i.e., objective, analytic, data-driven decisions produce more effective solutions than does trial-and-error).
- Use applied field projects to 1) reinforce classroom learning, 2) multiply training benefits, and 3) generate products which have a measurable impact on public health program goals.
- Provide post-course technical assistance to support alumni teaching efforts.
- Solicit feedback through a variety of means (e.g., questionnaires, focus groups, external evaluations) and continuously strive to improve the course content as well as the learning process.
- Provide post-training opportunities for lifelong learning (e.g., website access, regional networking between alumni, conferences, fellowship, and career development)

The Sustainable Management Development Program
Public Health Practice Program Office
U.S. Centers for Disease Control and Prevention
4770 Buford Highway, NE, Mailstop K-01
Atlanta, Georgia 30341 USA
Tel: (1-770) 488-8297 Fax: (1-770) 488-2868
email: smdp@cdc.gov



Introduction

Enhancing Public Health Management Training Capacity

Every public health intervention depends on the interactions of dozens, if not hundreds, of people, to achieve its intended impact. To deliver public health commodities and services to those who need them requires not only technical know-how in areas like medicine, nursing, and laboratory science, but also managerial skills to mobilize resources and deploy them effectively. The shortage of basic managerial skills among public health personnel is perhaps one of the most important barriers that limits the success of public health interventions throughout the developing world today. Some factors that contribute to this shortage are these:

- A weak training infrastructure with few faculty training in management science
- A lack of emphasis on management skills in medical, nursing, and other pre-service training curricula
- Inadequate incentives to attract and retain competent individuals within the public health sector

CDC's Response

Since 1992, CDC's *Sustainable Management Development Program* (SMDP) has worked with 55 developing countries and dozens of public and private sector donors to strengthen management training capacity within Ministries of Health, non-governmental organizations, and academic institutions. SMDP partners with Emory University and faculty from the private sector to offer a six-week *training for management trainers* course in Atlanta each fall.

Participants in the Management for International Public Health (MIPH) Course come from training institutions in a variety of settings and have a mandate from their sponsors to return and train others. The course is highly interactive and provides participants with practical tools needed to teach topics like planning, problem analysis, team building, and quality assurance. Each participant leaves Atlanta with a training plan that SMDP helps implement over a 3-5 year period. Typically, a country sends 2-3 trainers to the course each year over several years to form a core training team.

In-country training usually consists of a series of short (1-2 week) workshops for local public health program managers, each of whom is required to complete at his or her worksite an applied learning project that is supervised by workshop faculty. At the end of each in-country training cycle, local participants present the results of these projects to an audience of their peers and senior managers to highlight their accomplishments and share recommendations.

To date, SMDP has trained 235 trainers from 55 countries in the MIPH course. These trainers have themselves gone on to provide more than half a million person days of training collectively to more than 2,000 public health professionals. Specific programs that have benefited from improved management capacity include immunizations, tuberculosis, malaria, onchocerciasis, reproductive health, and HIV/AIDS.

SMDP received the 1998 Exemplar Award from the International Association of Continuing Education and Training (IACET) and was a semi-finalist in the 1999 Ford Foundation/JFK School of Government Awards for Innovation in American Government. An SMDP training product called Healthy Plan-*it*[™] was the 2000 winner of IACET's Oracle Award.

Since 2001, the Sustainable Management Development Program (SMDP) has been working with the Global AIDS Program (GAP) to provide management training skills to public health professionals working in HIV/AIDS and tuberculosis in a select group of GAP countries. A brief update on progress in the seven primary GAP countries follows:

- Botswana
- Cambodia
- Côte d'Ivoire
- Malawi
- Uganda
- Vietnam
- Zambia
- Others to come: Haiti, Thailand

Program Development Indicators

GAP Monitoring & Evaluation Technical Strategy, p. 2, states:

“M&E efforts seek to collect information on these above elements (*nb: inputs, activities, outputs, outcomes, impact*). Activities that focus on collecting data to measure and assess the *process* of implementing programs (i.e., input/output monitoring and process evaluation) give attention to the scope, quality, and coverage of program inputs, activities, and outputs. M&E activities that focus on *outcomes* (outcome monitoring and outcome evaluation) pay attention to the extent to which programs achieve desired outcomes.”

Early Development	Intermediate Development	Advanced Program Development
<input type="checkbox"/> Completed < 1 cycle of training and applied learning projects <input type="checkbox"/> 1-3 MIPH graduates <input type="checkbox"/> MIPH alumni doing < 50% of training <input type="checkbox"/> SMDP planning and assessment visit completed	<input type="checkbox"/> Completed >1 cycle of training and applied learning projects <input type="checkbox"/> > 4-7 MIPH graduates <input type="checkbox"/> MIPH alumni doing >50% of training <input type="checkbox"/> Country Work Plan <input type="checkbox"/> Established funding mechanisms <input type="checkbox"/> Clear institutional home with at least part-time staff <input type="checkbox"/> > 50% of applied learning projects have measurable impact	<input type="checkbox"/> Completed >3 cycles of training and applied learning projects <input type="checkbox"/> > 8 MIPH graduates <input type="checkbox"/> MIPH alumni doing 100% of training and supervisory follow-up <input type="checkbox"/> Country Work Plan in 2 nd or 3 rd Phase <input type="checkbox"/> Established funding mechanisms and income generating activities <input type="checkbox"/> Clear institutional home with permanent staff and budget resources <input type="checkbox"/> > 80% of applied learning projects have measurable impact <input type="checkbox"/> Program is serving as a regional resource for public health management training
<p>Examples:</p> <ul style="list-style-type: none"> ○ Côte d'Ivoire ○ Vietnam 	<p>Examples</p> <ul style="list-style-type: none"> ○ Cambodia ○ Malawi ○ Uganda ○ Zambia 	<p>Examples</p> <ul style="list-style-type: none"> ○ Botswana

Pre-development stage: GAP Haiti and GAP Thailand.

Botswana

Start date:	9/01	
Current stage of development:	Advanced	
SMDP technical assistance visits:	3	
Person weeks of in-country technical assistance:	8	
Institutional counterpart:	Institute of Development Management	
Total GAP-sponsored MIPH graduates:	4	
Date in-country training began:	6/03	
Target audience:	Local HIV/AIDS Program Managers	
Cycles of in-country training completed:	1	
Total number of in-country managers trained:	15	
Total in-country person-training days (# managers trained x # training days):	225	
Total number of applied learning projects:	15	
GAP M&E indicators addressed in the applied learning projects (see Appendix for details):	Voluntary counseling and testing	9 (60%)
	Public-Private Partnerships	2 (13%)
	Laboratory Improvement	2 (13%)
	Care & Treatment	1 (7%)
	Youth	1 (7%)

SMDP's partners in Botswana include BOTUSA, a collaborative effort between CDC-GAP and the government of Botswana to combat HIV/AIDS, and the Institute of Development Management (IDM), a regional NGO that conducts training and research in Botswana, Lesotho and Swaziland. BOTUSA employs three MIPH graduates, as does IDM. BOTUSA, IDM and SMDP are working together to strengthen the management skills of local health managers and workers.

Staff members from the three organizations began their efforts in February 2003 with in-person visits to key stakeholders at various non-governmental organizations, community-based organizations, and governmental agencies in Botswana to assess management training needs and plan curriculum.

With BOTUSA sponsorship, IDM then coordinated an initial two-week management workshop in Gaborone in June 2003. Fifteen HIV/AIDS program managers from nine cities learned about Total Quality Management (TQM), team building, leadership, Healthy Plan-*it*TM,

communication skills, patient flow analysis and monitoring/evaluation. The workshop faculty included MIPH alumni, SMDP staff members and local trainers.

After the initial two-week session, participants returned to their worksites and formed TQM teams to address HIV/AIDS related problems. They presented the results of these highly successful projects at a final course week in November that also covered budgeting, marketing, and project management.

Future Plans

Plans call for a 4-year program that will train 108 HIV/AIDS program managers in Botswana, as well as another 30 in Lesotho and Swaziland. All participants completing the course will have conducted TQM applied learning projects to improve the efficiency and effectiveness of their operations.

For details on each of the 15 applied learning projects carried out in 2003, and the GAP Monitoring and Evaluation Indicators they address, please see the Appendix.



MIPH graduates from Botswana and SMDP staff planned and carried out a workshop for 15 participants in 2003. The participants came from the Botswana Family Welfare Association (BOFWA), Botswana Christian AIDS Intervention Program (BOCAIP), Tirisanyo Catholic Mission, Lab Services, and the Tebelopele Voluntary Counseling and Testing (VCT) Clinics; one was a district AIDS coordinator. Speaking at the graduation ceremony, Dr. James Othwolo, Head of the Ministry of Health's Primary Healthcare Department said, "I am happy that this training did not focus just on theory, but was instead a programmatic approach with projects that were monitored and supported. The challenges of HIV are so great that those combating it must have effective management skills."

Cambodia

Start date:	9/02
Current stage of development:	Early
SMDP technical assistance visits:	2
Person weeks of in-country technical assistance:	4
Institutional counterpart:	Cambodian Ministry of Health, National Institute of Public Health (NIPH)
Total GAP-sponsored MIPH graduates:	4
Date in-country training began:	3/03
Target audience:	Local Program Managers from NIPH, HIV/AIDS and STI, TB & Leprosy, Malaria
Cycles of in-country training completed:	1
Total number of in-country managers trained:	20
Total in-country person-training days (# managers trained x # training days):	200
Total number of applied learning projects:	0

Cambodia's Ministry of Health has set a priority on promoting integration of categorical disease programs such as tuberculosis, malaria, and HIV/AIDS. One step toward achieving this goal was a public health management training workshop held March 24 – April 4, 2003, for 20 public health professionals from the National Institute of Public Health (NIPH), the National Center for TB & Leprosy Control, the National Center for Malaria Control, and the National Center for HIV/AIDS and STI. A graduate of the MIPH 2002 translated the SMDP course materials into Khmer and co-facilitated the workshop with SMDP staff. Topics covered included: team building (one day), effective communication skills (3 days) and total quality management (6 days).

During the spring 2003 in-country course, participants formed Quality Improvement teams based on their organizational affiliation for the purpose of beginning TQM applied learning projects pertinent to their areas. Over the following 6 months, they were to have completed these projects with assistance from SMDP staff and the MIPH graduate from Cambodia. Even though an SMDP staff member planned a trip to Cambodia in June 2003 to assist with project supervision, only one of the four teams, the National TB Control Program team, was actively working on its project. Since the expense of an in-person trip was not warranted to supervise just one team's work, SMDP staff provided feedback to this team by fax in summer 2003, though recent correspondence from Dr. Heng indicates this project is not yet complete. The remaining three teams were not working on their projects last summer, nor have they completed them since, despite persistent and enthusiastic follow-up from MIPH 2002 graduate Dr. Thay Ly Heng.

In the fall of 2003, Dr. Has Phal Mony from the NIPH attended the MIPH Course. He returned to Cambodia with great enthusiasm for introducing TQM concepts as part of the curriculum for hospital management training, under the guidance of his supervisor Dr. Heng. Dr. Heng reports that the first cohort of 5 hospital teams will be trained and begin implementing TQM projects in early 2004, with an October 2004 scheduled completion date for the projects.

Future Plans: SMDP continues to correspond with MIPH graduates concerning their country plans developed during the course and to offer in-country technical assistance to conduct workshops and supervise applied learning projects. An SMDP staff member will visit Cambodia in March 2004 following SMDP's biennial conference, in Hanoi, Vietnam, to discuss future directions with GAP and NIPH staff.



Dr. Has Phal Mony (MIPH '03) participates in a problem-solving discussion during the Management for International Public Health course in Atlanta, Georgia.



A group from National Center for Malaria Control (NCMC) learn about Total Quality Management during the spring 2003 management training workshop.



A group from the National Institute for Public Health, also at the spring 2003 management training workshop.

Côte d'Ivoire

Start date:	9/01
Current stage of development:	Early
SMDP technical assistance visits:	2
Person weeks of in-country technical assistance:	2
Institutional counterpart:	Projet RETRO-CI
Total GAP-sponsored MIPH graduates:	2
Date in-country training began:	5/02
Target audience:	Local HIV/AIDS Program Managers
Cycles of in-country training completed:	1
Total number of in-country managers trained:	19
Total in-country person-training days (# managers trained x # training days):	95
Total number of applied learning projects (as of 2001):	3
GAP M&E indicators addressed in the applied learning projects:	n/a

Dr. René Ekpini saw that the public health management training skills he learned at the 2001 MIPH course could improve operations at Projet RETRO-CI, an HIV/AIDS prevention and control organization established by the CDC and the Ivoirian Ministry of Health.

Before departing for a role at the World Health Organization in Geneva, Dr. Ekpini also convinced Dr. Marie Laga, then Retro-CI's director, to support management training. Consequently, in May 2002, SMDP staff member Brian Robie was invited to teach management skills to 19 RETRO-CI participants. Participants were well on their way to completing TQM applied learning projects as a follow-up to the course when political unrest in Côte d'Ivoire unfortunately interrupted their progress.



Dr. Marcellin Ayé (MIPH '02), Training Director for Projet RETRO-CI, and Dr. Marie Laga, Projet RETRO-CI's Director (2000-2002), review how flowcharting can help staff to analyze problems more effectively.

Future Plans:

Dr. Marcellin Ayé (MIPH '02), Projet RETRO-CI's training director, is currently developing a regional management capacity-building program for public health professionals in the francophone countries of West Africa. Working with him in 2004 will be SMDP staff member Dr. Mamadou Dravé, a native French speaker from Mali who has served as Regional Health Director in that country and as a clinician both there and in Côte d'Ivoire, among other roles.



Odette Tossou and Moise Kouassi Tchereme from the Data Department chose to work on a project related to improving Retro-CI staff's basic computer skills.



The Prevention of Mother-to-Child HIV Transmission (PMTCT) team's problem was men whose partners tested positive for HIV-AIDS but who would not themselves agree to be tested.



The problem the Training Team chose was low participant scores on a regional epidemiology course post-test.

Malawi

Start date:	9/02
Current stage of development:	Intermediate
SMDP technical assistance visits:	4
Person weeks of in-country technical assistance:	4
Institutional counterpart:	National Tuberculosis Programme (NTP)
Total GAP-sponsored MIPH graduates:	3
Date in-country training began:	2/03
Target audience:	Local TB Program Managers
Cycles of in-country training completed:	1
Total number of in-country managers trained:	36
Total in-country person-training days (# managers trained x # training days):	180
Total number of applied learning projects:	6
GAP M&E indicators addressed in the applied learning projects (see Appendix for details):	Tuberculosis prevention and care: 6 (100%)

In February 2003, the CDC Global AIDS Program in Malawi and the country's Ministry of Health co-sponsored the first public health management training workshop for 36 public health staff from district, regional and central unit levels of the Tuberculosis Program. The MIPH 2002 graduate, who is the Deputy Regional TB Coordinator, co-facilitated the workshop with SMDP staff. The resulting six applied learning projects all focused on TB control problems which compromise program quality. The teams presented their projects and graduated in November 2003. For details on each of the six applied learning projects, please see the Appendix.

Future plans:

A second management skill-building workshop for 36 TB program managers will be conducted in February 2004. The three MIPH graduates will take a leading role in training and supervising applied learning projects in 2004 in their effort to develop a sustainable management development program in Malawi.



Rhoda Banda ('02), at far right above, discusses the use of a bar chart to display data with Dennis Ndalama, Joyce Seyara, David Jiya, and Maida Nyirenda during the public health management workshop held in Lilongwe, February 2003. All five work at the National TB Program.



Dr. Felix Salaniponi, Director, National Tuberculosis Programme, and Dr. Margaret Davis, Director of CDC GAP Malawi, pictured at the course graduation in Lilongwe, at the completion of the first training cycle.

Uganda

Start date:	9/02	
Current stage of development:	Intermediate	
SMDP technical assistance visits:	3	
Person weeks of in-country technical assistance:	7	
Institutional counterpart:	Makerere University, Institute of Public Health	
Total GAP-sponsored MIPH graduates:	5	
Date in-country training began:	5/03	
Target audience:	Local HIV/AIDS Program Managers	
Cycles of in-country training completed:	1	
Total number of in-country managers trained:	19	
Total in-country person-training days (# managers trained x # training days):	95	
Total number of applied learning projects:	5	
GAP M&E indicators addressed in the applied learning projects (see Appendix for details):	Laboratory technical support	1 (20%)
	Training	1 (20%)
	Informatics	1 (20%)
	Blood safety	1 (20%)
	Voluntary counseling and testing	1 (20%)

SMDP began its collaboration with the Global AIDS Program in Uganda in 2002. Three Ugandans were trained at the 2002 MIPH course and they then returned to Uganda and developed a national training plan designed to enhance the managerial competence of individuals responsible for implementing HIV/AIDS and TB control programs. SMDP provided technical assistance with the curriculum development as well as with teaching the first workshop. Two additional Ugandans were trained in the 2003 MIPH Course.

The first workshop, entitled “Uganda Management Development for Public Health Workers,” took place in May 2003 and targeted mid-level managers, laboratory technologists, heads of health sub-districts, members of district health teams, NGO program managers, and CDC Uganda personnel. The workshop’s goals were to 1) develop and strengthen management knowledge and skills—including discussing public health priorities in Uganda, problem solving (TQM), motivation, and team building; and 2) enable participants to apply acquired skills to address a specific problem in the workplace and thereby improve the delivery of health services to the population.

As a follow-up to the workshop, all trainees were required to begin an applied learning project to demonstrate competence in their newly acquired management techniques. Some trainees were not available for in-country supervisory visits carried out in July 2003. The Appendix contains progress reports on five of these projects.

Future Plans

Institutionalize the in-service applied public health management course at Makerere University's Institute of Public Health (IPH). Initial plans include working with the Institute for Public Health/CDC HIV Fellowship program fellows, host institutions, and TB laboratory staff.



Mr. Primo Madra and Dr. Gakenia Wamuyu Maina present their country plan at the MIPH 2003 graduation ceremony. The Uganda plan was chosen as best in class.



Dr. Donna Kabatesi explains a point during the Management for International Public Health (2002) course, and Mr. Primo Madra participates in a group discussion during the MIPH 2003 course.

Vietnam

Start date:	9/02
Current stage of development:	Early
SMDP technical assistance visits:	0
Person weeks of in-country technical assistance:	0
Institutional counterpart:	GAP Vietnam, LIFE-GAP Program Office
Total GAP-sponsored MIPH graduates:	3
Date in-country training began:	n/a
Target audience:	Local HIV/AIDS Program Managers
Cycles of in-country training completed:	0
Total number of in-country managers trained:	0
Total in-country person-training days (# managers trained x # training days):	0
Total number of applied learning projects:	0
GAP M&E indicators to be addressed in the applied learning projects:	Voluntary counseling and testing

In 2002, the first two participants from Vietnam's Global AIDS Program (GAP) attended the MIPH course, and in 2003, the LIFE-GAP Vietnam Deputy Director attended. During November 2003, SMDP staff held planning meetings with CDC GAP, LIFE-GAP, and the Hanoi School of Public Health to design a training program for HIV program managers in six provinces during 2004.

SMDP has been providing technical assistance to strengthen public health management training capacity in Vietnam since 1996. To date, a total of 22 participants, including seven faculty members from the Hanoi School of Public Health, have completed the MIPH course. SMDP's two principal counterparts in Vietnam are the Hanoi School of Public Health (HSPH) and the National Hospital for TB and Respiratory Diseases (NHTRD).

During the period 1997-1998, SMDP provided technical assistance to MIPH graduates from the HSPH faculty to help develop a management training curriculum which was integrated into the public health masters degree program. A similar curriculum was also used to train provincial and district level family planning workers for UNFPA.

In 1998, the U.S. Centers for Disease Control and Prevention (CDC), National Center for HIV, STD and TB Prevention (NCHSTP), TB Division began working with the Vietnam's National Hospital of TB and Respiratory Diseases (NHTRD) to strengthen TB surveillance and treatment and improve the management capacity of TB program and lab personnel. In 1999, NCHSTP/TB requested technical assistance from

SMDP to help to develop and implement the management training component of this project—68 TB program managers were trained and 47 applied learning projects were carried out.

To date, MIPH alumni have trained 166 program managers from the provincial and district levels and each has, in turn, found teams to complete and present an applied learning project in order to graduate. These projects represent an important step in devolving skills for problem solving, planning, and priority setting to local health workers whose responsibilities have increased dramatically in recent years, but who have had little previous access to any formal management training.

Future Plans

In addition to the training plan for HIV program managers in six provinces in 2004, plans are to expand the training to 18 provinces during 2005. A technical proposal for the project was submitted to CDC/GAP Vietnam in December 2003 by the Hanoi School of Public Health and the Life-GAP Project.

Dr. Tran Nhu Nguyen, Deputy Director, LIFE-GAP Project, attended the MIPH 2003 course in Atlanta and returned to Vietnam to support training plans for HIV/AIDS Program Managers across the country.



Ms. Nguyen Thi Thu Hong (left) and Dr. Mai Thu Hien (right) present the HIV country workplan for Vietnam in the Management for International Public Health (2002) Course.

Zambia

Start date:	9/01	
Current stage of development:	Intermediate	
SMDP technical assistance visits:	5	
Person weeks of in-country technical assistance:	9	
Institutional counterpart:	Zambian Central Board of Health, Zambian Ministry of Health	
Total GAP-sponsored MIPH graduates:	6	
Date in-country training began:	3/03	
Target audience:	Provincial Laboratory Managers, Medical Technologists	
Cycles of in-country training completed:	1	
Total number of in-country managers trained:	27	
Total in-country person-training days (# managers trained x # training days):	135	
Total number of applied learning projects:	18	
GAP M&E indicators addressed in the applied learning projects (see Appendix for details) (all projects were laboratory-related, so total > %100):	Laboratory technical support	18 (100%)
	Tuberculosis care and treatment	6
	Training	1
	Blood safety	1
	Sexually Transmitted Infection	1

In January 2003, SMDP technical staff, CDC's Division of Laboratory Systems (DLS), and MIPH graduates from Zambia's Central Board of Health (CBoH) and Ministry of Health (MOH) developed a curriculum for the first laboratory management training workshop. This curriculum was presented to key collaborating partners in the Ministry of Health, CDC-GAP Zambia, non-governmental organizations and other international agencies who agreed that it met a significant need.

The two-week workshop was held in March 2003 for 27 provincial laboratory managers and medical technologists. Co-sponsors included CDC GAP Zambia, the Zambia CBoH, MOH and the World Health Organization Zambia office. The workshop combined public health management and capacity-building topics with laboratory quality assurance including leadership, an overview of health reforms in Zambia, the role of provincial laboratory managers, effective

communication, managing conflict constructively, Total Quality Management (TQM), team building, report writing, turn-around-time flow analysis, and information management systems.

All nine Zambian provinces were represented, with participants from the Ministry of Health, Central Hospital Laboratories, the Ndola College of Biomedical Sciences, Tropical Diseases Research Centre, and several private hospital laboratories. Trainers included MIPH graduates as well as trainers from Zambia's Central Board of Health, CDC's Division of Laboratory Systems, the American Public Health Laboratories (APHL), CDC GAP Zambia, and SMDP staff.

Participants returned to their worksites and formed project teams to address laboratory issues. Supervisory visits took place over the next several months and successful project results were presented at a graduation held in August 2003.

Future Plans

A series of workshops and supervised applied learning projects among public health laboratory workers at the district level will be undertaken from 2004 to 2005 to improve management capacity in the national laboratories; TB public health workers will also be included in this second round of training. A continuous professional development course and a pre-service management curriculum will be established in the Ndola College of Biomedical Sciences by the end of 2005. Plans include expanding management training to tertiary public health professionals by 2007.



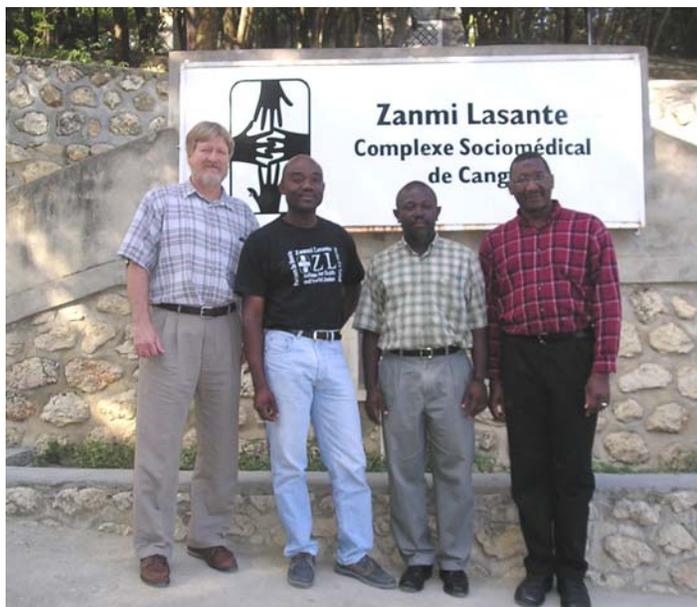
March 2003 workshop facilitators from SMDP, DLS, APHL, CDC Zambia, and MIPH graduates from the Zambia Central Board of Health.

New Countries

Haiti

The Global AIDS Program opened the CDC-Haiti office in early 2003. In collaboration with the U.S. Agency for International Development, CDC-Haiti has begun supporting the rapid start-up of a nationwide network of 40 centers for Voluntary Counseling and Testing and treatment for Preventing Mother-to-Child Transmission, and establishing 10 specialized centers for comprehensive care and treatment of HIV-infected persons.

Anticipating the many management challenges posed in creating this national network, CDC-Haiti staff requested assistance from the Sustainable Management Development Program to strengthen local management training capacity. SMDP staff undertook an initial assessment and planning visit in December 2003.



Dr. David Bull, SMDP, Dr. Leandre Fernet R., Director of the HIV/TB Program, Dr. Maxi Raymonville, Director, Women's Health and PMTCT Program, both at Zanmi Lasante Complexe Socio-medical Cange, and Dr. Mamadou Dravé, SMDP, on a field visit to the charitable hospital started by Dr. Paul Farmer.

During 2004, SMDP expects to train three Haitian faculty from the two non-governmental agencies of INHSAC (Institut Haitien de Sante Communautaire) and GHESKIO (Groupe Haitien d'Etude sur le Sarcome de Karposi et des Infections Opportunistes), as well as to assist with in-country workshops.

Thailand

CDC's Global AIDS Program established an office in Thailand in 2001. Following discussions with SMDP staff at the GAP Country Directors meeting in Atlanta in 2003, GAP/Thailand sent a 4-person delegation to Manila to observe the graduation and project presentation workshop of the second cohort of the Philippines Laboratory Management Training Program (LMTP) in September 2003. The delegation included these individuals:

- Ms. Orapin Suksripanich, Lab Support Unit, CDC/GAP Thailand
- Dr. Hansa Thaisri, HIV/AIDS Lab Division, Thai National Institutes of Health (NIH)

-
- Ms. Nareeluch Kullurk, Maternal & Child Health Section, Ministry of Public Health (MOPH)
 - Mr. Krisnan Lawnub, International Cooperation Section, MOPH
- During the visit, the delegation met with SMDP staff and discussed potential options for developing an LMTP in Thailand to be housed in the NIH. A possible target audience will include staff of the 12 regional labs as well as the three provincial labs from the HIV Lab Network (Chang Rai, Ubon, and Phuket). A draft work plan and budget were developed and presented to the Thai NIH and GAP/Thailand.

Following the Manila visit, CDC/GAP Thailand sponsored the Director of the Thai Field Epidemiology Training Program (FETP), Dr. Potjaman Siriarayapon, to attend the 6-week Management for International Public Health (MIPH) Course in Atlanta. As part of her training requirements, Dr. Siriarayapon developed a timeline for establishing a management training program in Thailand with the following benchmarks:

- Discussions with the Thai NIH staff – December 2003
- Meet with four of the five Thai MIPH graduates – February 2004
- Organize meeting with MIPH graduates, FETP section of MOPH, FETP Alumni Association and Director of Medical Science – March 2004
- Solicit input from GAP Thailand – April 2004
- Form sponsor and core design team – May 2004
- Write proposal and discuss with other stakeholders – August 2004
- Present plan to donors and stakeholders – September 2004
- 1st NIH cohort join the MIPH course – September 2004
- Revise plan and begin in-country training – December 2004



Dr. Sylvia Tseng, Southern Branch, CDC Taiwan, and Dr. Potjaman Siriarayapon, Bureau of Epidemiology, Thailand, work on a teambuilding exercise during leadership training in the MIPH 2003 Course.

Appendix

Applied Learning Projects

Botswana

Malawi

Uganda

Vietnam

Zambia

Botswana: Applied Learning Projects

Global AIDS Program M&E Indicators Addressed

Voluntary Counseling and Testing

1.4 Number of individuals (by sex) tested in VCT sites supported by CDC/GAP

1.5 Number of individuals (by sex) testing HIV-positive in VCT sites supported by CDC/GAP

1.6 Number of individuals (by sex) receiving HIV test results in VCT sites supported by CDC/GAP

Tebelopele VCT Center, Kanye

Problem: During the period April to June 2003, Kanye VCT planned six mobile testing visits, two to be conducted each month. Only two visits were conducted during the quarter, 67% less than the projected number, thus denying people in the catchment area access to VCT services.

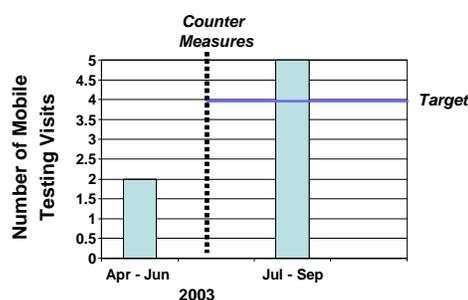
Improvement Target: Decrease the number of missed mobile testing visits from 67% to 33% in the third quarter (July-September 2003).

Countermeasures: 1) Provide better information on the VCT role to village leaders; 2) develop written plan for outreach activities and adhere to it; 3) coordinate outreach meetings with DMSAC.

Results: The target for improvement called for a decrease in the number of missed mobile visits from 67% to 33%; the actual decrease was to 16% for the third quarter of 2003. In other words, 2 of 6 projected visits occurred in the April to June period, while 5 of 6 occurred during July to September.

Tebelopele VCT Center, Kanye

Increased Number of Mobile Testing Visits



Tebelopele VCT Center, Letlhakane

Problem: For the first two quarters of 2003, client use of the Letlhakane center averaged 161 of the anticipated 196 per month. Potential clients did not access available HIV/AIDS programmes nor were they able to know their HIV status.

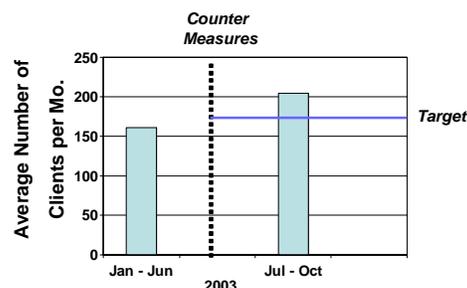
Improvement Target: Increase the average number of clients to 175 per month for the period July-October 2003.

Countermeasures: 1) Provide sensitization at targeted villages; 2) create a schedule for informal discussions; 3) employ a driver for the center and increase mobile visits.

Results: The average number of clients seen per month from July to October was 205, 27% higher than baseline and 30 higher than targeted.

Tebelopele VCT Center, Letlhakane

Increased Number of Clients per Month



Participants at a June 2003 workshop group in Gaborone develop plans for applied learning projects to improve operations at their worksites.



Botswana: Applied Learning Projects

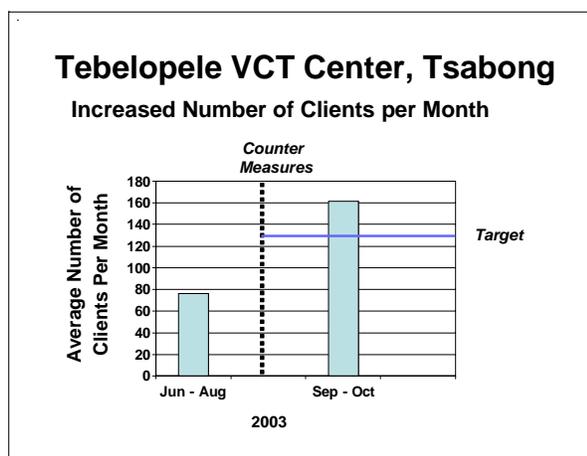
Tebelopele VCT Center, Tsabong

Problem: In the months of June, July, and August, 227 clients accessed counseling and testing services at Tsabong VCT Center, 16% less than the expected number of 270, thus resulting in potential clients not knowing their HIV status.

Improvement Target: Reduce the percentage of projected clients not seeking counseling and testing services at Tsabong VCT from 16% to 0% in September and October 2003.

Countermeasures: 1) Schedule more mobile VCT activities; 2) reach out to people in remote areas.

Results: During September and October, 324 clients utilized VCT services, considerably better than the targeted 260.



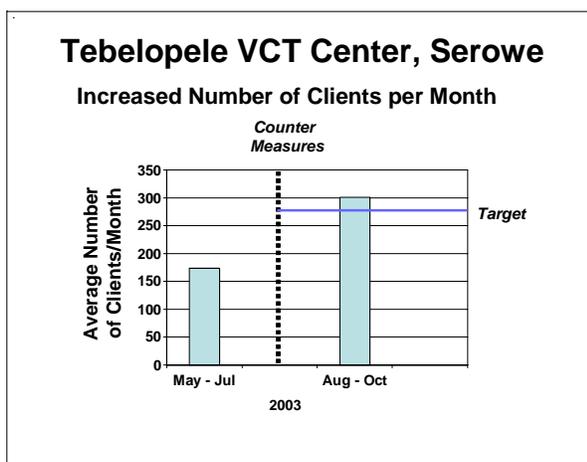
Tebelopele VCT Center, Serowe

Problem: During the months of May, June, and July 2003, 523 clients accessed VCT services at the Serowe VCT Center instead of the expected 900, thus resulting in 42% of potential clients neither knowing their status nor benefiting from counseling.

Improvement Target: Reduce the percentage of clients not accessing VCT from 42% to 10% during the period August through October 2003.

Countermeasures: 1) Prepare and implement plan for staff leave; 2) prepare and implement outreach schedule; 3) prepare and implement plan for working with partners; 4) put up directional signs for center; 5) ensure that air conditioning is in order.

Results: A total of 905 clients accessed VCT services during August, September, and October 2003, or 12% more than targeted for this time period. This number represents an increase of 73% over the previous period.



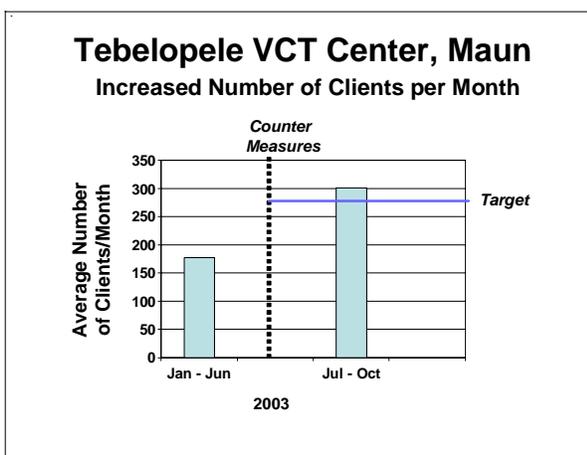
Tebelopele VCT Center, Maun

Problem: During the period from January to June 2003, the number of clients accessing counseling and testing services at Maun VCT was 1,063 instead of the projected 1,500. In other words, 29% of the projected clients were not informed of their HIV status.

Improvement Target: Reduce the percentage of clients off target from 29% to 0% by October 2003.

Countermeasures: 1) Develop and implement staff leave schedule; 2) report fuel account problem to management.

Results: Total number of clients from July to October was 1,205, or 10% over the projected number of 1,100.



Botswana: Applied Learning Projects

Tebelopele VCT Center, Jwaneng

Problem: During the period January to June 2003, 25% of projected clients at the Jwaneng Tebelopele Center did not access counseling and testing services, resulting in projected clients neither knowing their HIV status nor accessing available HIV programs.

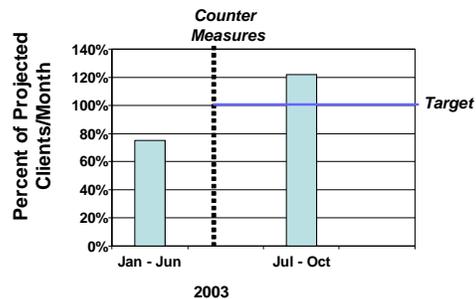
Improvement Target: Meet the targeted number of clients accessing HIV counseling and testing services in Jwaneng by the end of November 2003.

Countermeasures: 1) Develop and implement a plan for more mobile VCT activities; 2) hold meetings with health workers and chiefs of respective villages; 3) develop a schedule for training staff.

Results: During the period July to October 2003, a total of 753 clients accessed the VCT Center. This number not only met target, but actually surpassed it by 22%.

Tebelopele VCT Center, Jwaneng

Increased Number of Clients per Month



Tebelopele VCT Center, Molepolole

Problem: For the period February to June 2003, the Molepolole Tebelopele VCT center served 19.4% fewer than projected clients (782 of 970).

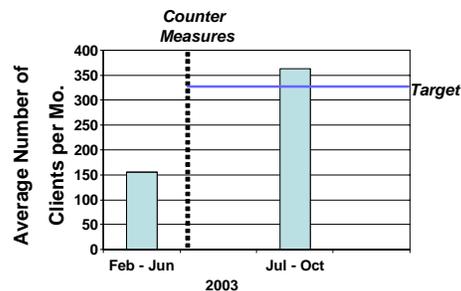
Improvement Target: To decrease the underutilization of the center from 19% to 0% during the period July to October 2003.

Countermeasures: 1) Place signage at center; 2) use a banner to show the center location; 3) establish a working plan with targeted villages by writing letters to stakeholders requesting meetings and distributing information-education-communication (IEC) materials

Results: Actual number of clients exceeded projected numbers for July, August, September, and October, for a total of 1,454 actual versus 1,250 projected for the four months.

Tebelopele VCT Center, Molepolole

Increased Number of Clients per Month



Modisaotsile (Em'dee) Mokomane (MIPH '03) of BOTUSA works with Management for International Public Health course classmates from Zambia on a consensus-building exercise.

Botswana: Applied Learning Projects

Global AIDS Program M&E Indicators Addressed

Voluntary Counseling and Testing

1.6 Number of individuals (by sex) receiving HIV test results in VCT sites supported by CDC/GAP

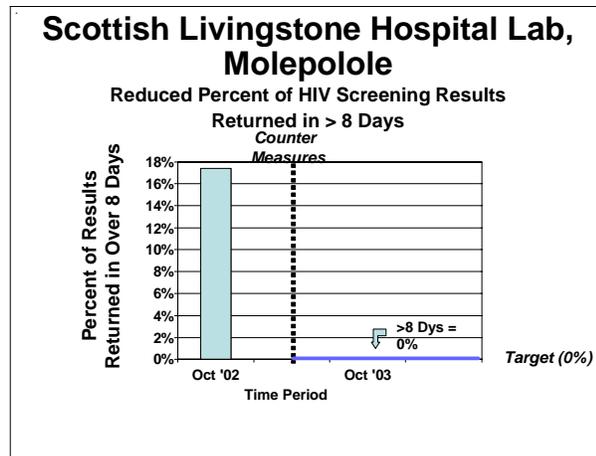
Scottish Livingstone Hospital Laboratory, Molepolole

Problem: In October 2002 at Scottish Livingstone Hospital laboratory, 17% of samples for HIV screening using Elisa tests took longer than expected (> 8 days) for the patients to receive their results, resulting in patient dissatisfaction and delays in joining HIV care and support programs.

Improvement Target: To reduce the percentage of ELISA test results returned late (> 8 days) from 17% to 0%.

Countermeasures: 1) Hold lab staff meeting to introduce stock management system, in which physical items are compared with records; 2) hold staff meeting regarding implementation of screening rosta; 3) supervise adherence to screening rosta, using checklist; 4) meet to decide and schedule new test days; 5) hold quality improvement (QI) team meeting to discuss and develop procedure for ordering ELISA tests; 6) hold QI meeting to discuss daily equipment maintenance checklist, then supervise.

Results: During October 2003, of the 432 blood samples collected, 0% were returned late (> 8 days).



Global AIDS Program M&E Indicators Addressed

Voluntary Counseling and Testing

1.10 Number and percent of observed HIV counseling sessions meeting international or national standards for quality counseling in VCT sites supported by CDC/GAP

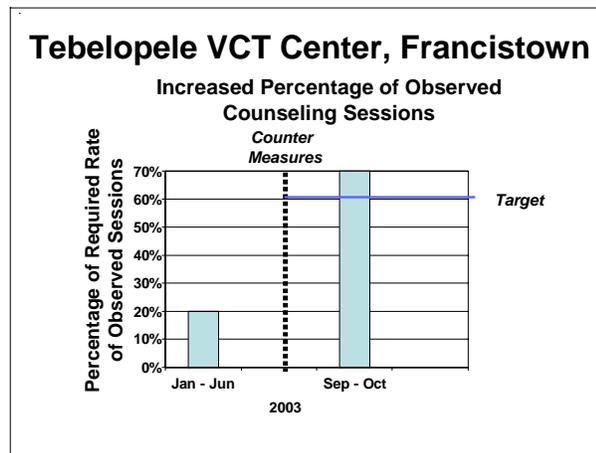
Tebelopele VCT Center, Francistown

Problem: For the first two quarters of 2003, the percentage of observed counseling sessions at the Francistown voluntary counseling and testing (VCT) center was 20% of the number required by the Tebelopele VCT Network to safeguard the quality of counseling services.

Improvement Target: Increase the rate of observed sessions to 60% for the months of September and October 2003.

Countermeasures: 1) Assign individuals in turns to provide and receive observation; 2) select a day in the week for observation to occur; 3) consult with center manager and plan mobile trips together; 4) combine/compress mobile trips by using a caravan.

Results: The number of observed counseling sessions for September and October was 7 of the required 10, or 70% of the required rate, exceeding the 60% indicated in the improvement target. (The team will continue toward its long-term goal of 100% compliance.)



Botswana: Applied Learning Projects

Global AIDS Program M&E Indicators Addressed

Youth

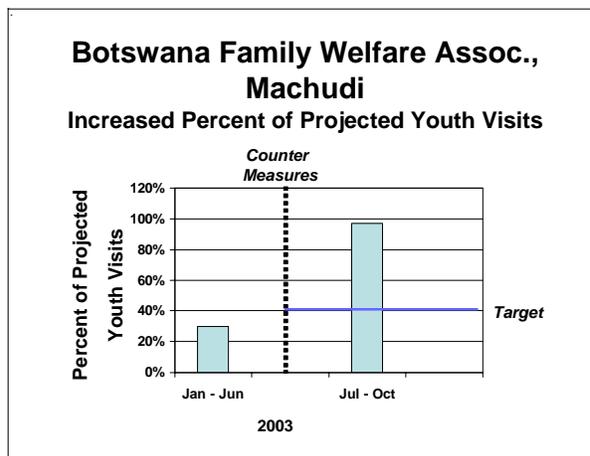
4.4 Number of youth (define age group, sex, location of population) served by organizations supported by CDC/GAP

Botswana Family Welfare Association, Mochudi

Problem: For the months January to June 2003, an average of only 30% of projected visits per month by youth aged 10-29 took place at the Mochudi BOFWA center. As a result, many other teenagers who could have accessed the client's Adolescent Sexual and Reproductive Health (ASRH) information did not do so.

Improvement Target: Increase the percentage of youth visits per month to 40% of the number projected during July to October 2003.

Countermeasures: 1) Develop and distribute more information; 2) speak about BOFWA at ward meetings; 3) visit schools; 4) open at 10:00 a.m. and remain open until 6:00 or 7:00 p.m.



Results: The average percentage of actual to projected visits by youth to BOFWA Mochudi during July to October was 97%, a considerable improvement over the 30% seen during the baseline period.

Global AIDS Program M&E Indicators Addressed

Public-Private Partnerships/Workplace Programs

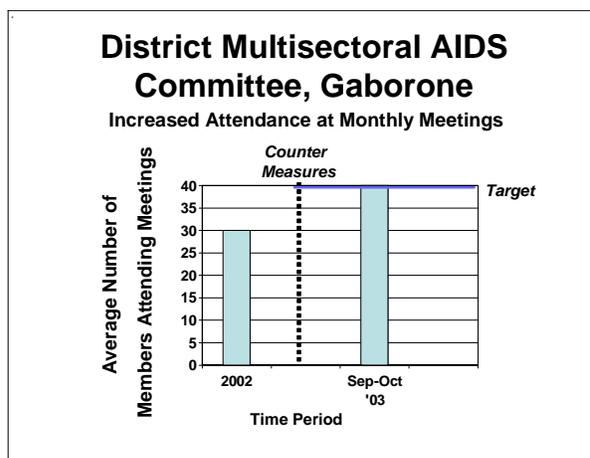
5.1 Number of companies, unions or umbrella organizations supported by CDC/GAP

District Multi-Sectoral AIDS Committee, Gaborone

Problem: The average number of Gaborone DMSAC members who attended DMSAC meetings for 2002 was 30, only 53% of the expected 57. This absenteeism had a negative impact on the implementation and coordination of HIV/AIDS response programmes at the district level.

Improvement Target: Decrease the percentage of DMSAC members not attending meetings from 47% to 30% for the period September to November 2003.

Countermeasures: 1) Discuss rescheduling meeting day; 2) develop membership guidelines; 3) look at ways to make the meetings more productive; 4) make roles specific and simple; 5) district commissioner persuade department heads to learn about HIV/AIDS structures and functions.



Results: The average number of members not attending meetings for the months of September and October was reduced from 47% in the baseline period to 30% after implementing countermeasures.

Botswana: Applied Learning Projects

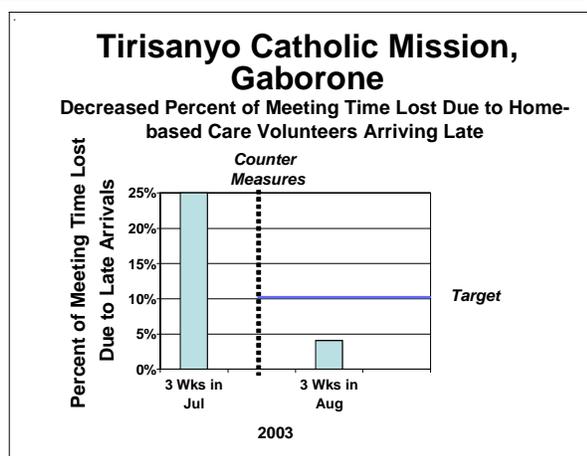
Tirisanyo Catholic Mission, Gaborone

Problem: During the first three weeks of July 2003, the Home Based Care (HBC) Program lost 25% of team meeting and planning time (723 out of 2880 available minutes) due to late arrival of HBC volunteers.

Improvement Target: Decrease the percentage of team meeting and planning time lost due to late arrival of volunteers from 25% to 10% during the first three weeks of August 2003.

Countermeasures: 1) Reschedule meeting time; 2) reduce the time volunteers must work.

Results: The total number of minutes lost due to late arrival during the first three weeks of August was 106.1 minutes, as compared to 722.50 minutes during the first three weeks of July. This 4% rate exceeded the 10% targeted rate.



Global AIDS Program M&E Indicators Addressed

Care and Treatment of HIV/AIDS and Opportunistic Infections

10.10 Number of households with a person who has been ill with HIV/AIDS receiving community-based assistance with medical treatment and/or social support that is supported by CDC/GAP

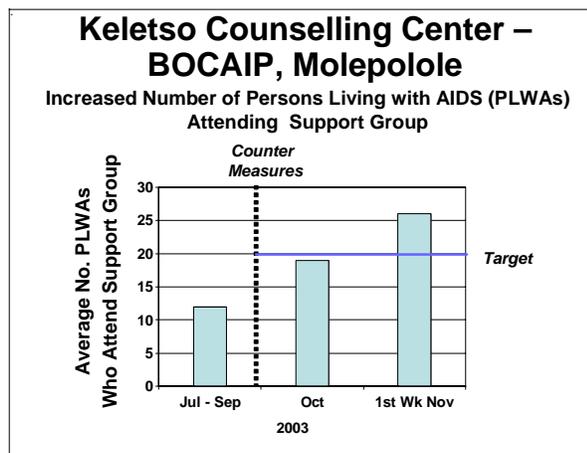
Keletso Counselling Center, BOCAIP, Molepolole

Problem: For the period July to September 2003, an average of only 12 persons living with AIDS (PLWAs) attended the support group program, which is 20 less than the target. Consequently, an average of 20 PLWAs did not receive the support they could have received from the program.

Improvement Target: Increase the average number of PLWAs attending the support group programme from 12 to 20 during the months October and November 2003.

Countermeasures: 1) Develop a support group program schedule; 2) discuss rule that new members must announce their status; 3) develop a membership form; 4) discuss attitudes and behaviors, e.g., regarding gossip; 5) assess activities, divide into workgroups and assign a counselor; 6) to reduce stigma, invite motivational speakers and include the topic of stigma and visit other support groups; 7) discuss purpose of the support group at meetings; 8) provide transport fare.

Results: The average number of PLWAs attending meetings during July, August, and September was 12; this number jumped to 19 in October and to 26 for the first meeting in November.



Botswana: Applied Learning Projects

Global AIDS Program M&E Indicators Addressed

14. Laboratory Technical Support

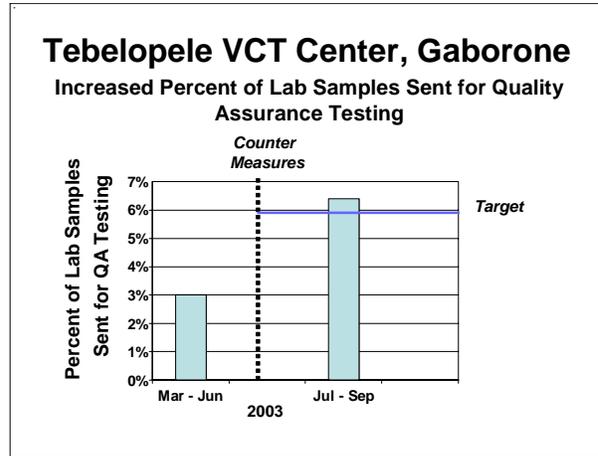
Tebelopole VCT Center, Gaborone

Problem: For the period March to June 2003, the Gaborone VCT Center sent only 3% of its blood samples (126 of 4,150) to the Ministry of Health Laboratory for quality assurance, instead of the required 10%, thus compromising quality assurance (QA) procedures as well as clients' confidence in the rapid tests.

Improvement Target: Increase the number of samples sent to the Ministry of Health Laboratory for quality assurance from 3% to 6% for the period July to October 2003.

Countermeasures: 1) Orient the lab technician on VCT QA procedures by meeting to discuss the procedure and providing a hard copy of the SOPs to the team; 2) increase monthly communication on QA performance by scheduling monthly feedback meetings and submitting routine monthly reports; 3) develop technical supervision guidelines on lab QA by forming a taskforce to draft and then having a VCT management meeting to discuss.

Results: The number of samples sent during July, August, and September represented 6.4% of those required. (Data for October was unavailable for the November presentation.) The team will continue on its long-term goal to achieve the full 10% compliance.



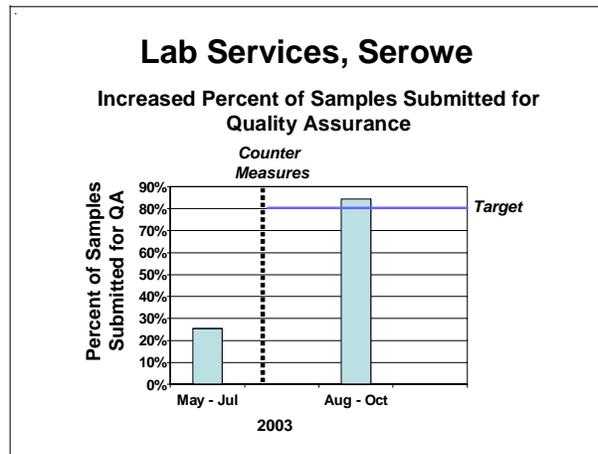
Laboratory Services, Serowe

Problem: During the period May to July 2003, only 5,400 of 20,380 samples, or 27%, were submitted for quality control, thus affecting the laboratory's quality and reputation.

Improvement Target: Record at least 80% of assayed controls by the end of October 2003.

Countermeasures: 1) Provide schedule for morning reports; 2) establish signed registers; 3) establish data records; 4) meet maintenance personnel regarding schedule; 5) keep records of number of pieces of equipment; 6) meet maintenance personnel regarding standard operating procedures.

Results: During the period August to October 2003, 84.5% of samples were submitted for quality control, better than the 80% indicated in the improvement target. The team will continue to work on its goal of 100% compliance.



Malawi: Applied Learning Projects

Global AIDS Program M&E Indicators Addressed

9. Tuberculosis Prevention and Care

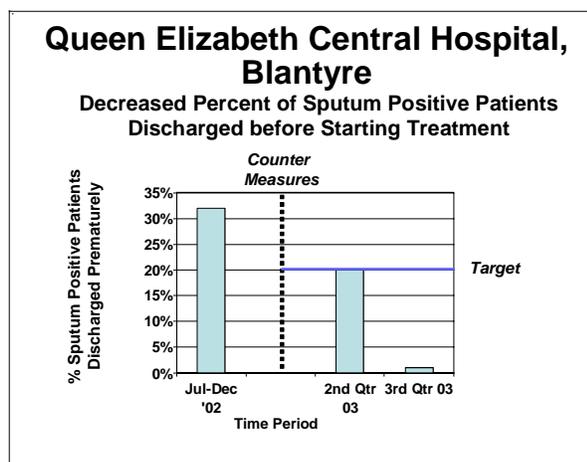
Queen Elizabeth Central Hospital, Blantyre

Problem: Between July and December 2002, the medical wards admitted 480 TB suspects who submitted sputum. Twenty-three percent (111/480) were smear positive and, of these, 32% (35/111) were prematurely discharged before sputum results were reported. Consequently, they were not started on treatment and were thus capable of infecting others in the community.

Improvement Target: Reduce the number of prematurely discharged smear-positive TB suspects from 32% to 15% by the end of July 2003.

Countermeasures: 1) Assign someone to establish sputum-result follow-up procedures; 2) develop patient roster regarding information-education-communication (IEC) and install by DTOs and nurses; 3) assign staff for IEC; 4) assign someone to supervise staff; 5) provide training to general staff.

Results: During the second quarter of 2003, the percentage of prematurely discharged smear positive patients was reduced to 20% (35/111); during the third quarter it was reduced to 1%.



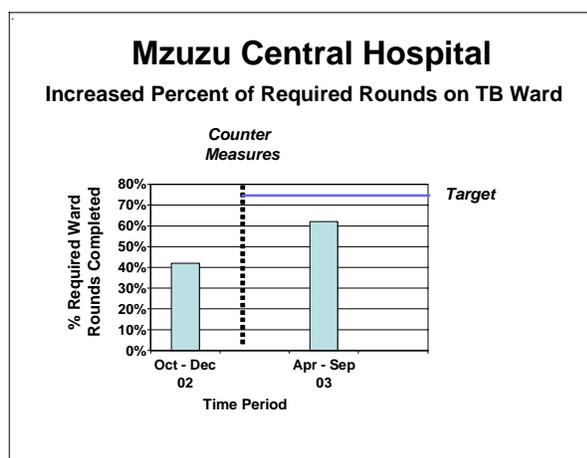
Mzuzu Central Hospital

Problem: From October to December, 2002, at Mzuzu Central Hospital TB ward, chest specialists and clinicians conducted only 10 of the required 24 ward rounds, or 42%, resulting in patient complaints and failure to attend to life-threatening conditions.

Target for Improvement: Increase regular TB ward rounds from 42% to 75% in the 2nd and 3rd quarters of 2003.

Countermeasures: 1) Conduct orientation showing need for clinician; 2) assign staff to organize TB ward staff meetings; 3) assign staff to supervise number of ward rounds per week; 4) conduct a motivational briefing on TB for clinicians, nurses and other staff.

Results: During the period April to September 2003, 30 of the required 48 ward rounds, or 62%, were conducted.



Malawi: Applied Learning Projects

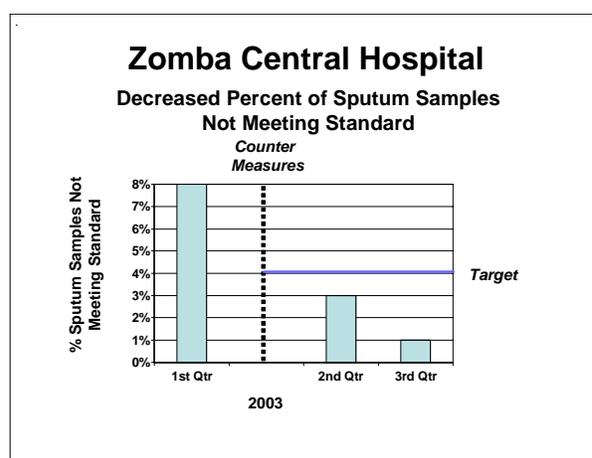
Zomba Central Hospital

Problem: During the first quarter of 2003, 1,400 sputum samples were registered at Zomba Central Hospital, of which 114, or 8%, did not meet the expected standard. Consequently, patients were not able to receive results on time, delaying their diagnosis and treatment.

Improvement Target: Reduce the percent not meeting standard from 8% to 4% during the second and third quarters of 2003.

Countermeasures: 1) Introduce written instructions; 2) assign responsible officers to perform regular follow-ups on sputum samples given; 3) supervise proper refrigeration storage; 4) demonstrate how to collect sputum samples for drivers; 5) have regular meetings for drivers; 6) use available resources to collect samples at assigned focal points.

Results: The percentage of sputum samples not up to standard was reduced to 3% in the 2nd quarter and to 1% in the 3rd quarter.



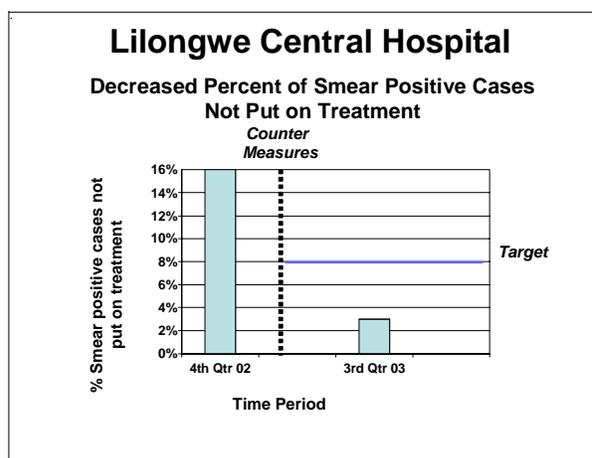
Lilongwe Central Hospital

Problem: During the fourth quarter of 2002, 16% (16 of 101) of the sputum-positive patients in the laboratory register at LCH (Old Wing) did not begin TB treatment, resulting in low case finding, and spread of the infection.

Improvement Target: Reduce the percentage of smear-positive patients not in treatment to 8% during the months of July, August, and September 2003.

Countermeasures: 1) Share information on treatment; 2) develop functional plan for lab; 3) conduct monthly meetings; 4) conduct quarterly supervision; 5) provide on-the-job training in documentation; 6) provide education every morning to patients in the TB registry; 7) conduct communication skills workshop; 8) conduct supervision meetings focused on customer service; 9) conduct quarterly meetings with drivers.

Results: The percentage of smear-positive patients missing treatment was reduced to 6% during the 3rd quarter of 2003.



Mr. Wright James Chisamba (left) and Mr. Andrew Dimba (right) take advantage of the pleasant October weather in Atlanta to work on the Malawi country plan for presentation during the final week of the Management for International Public Health (2003) course.



Malawi: Applied Learning Projects

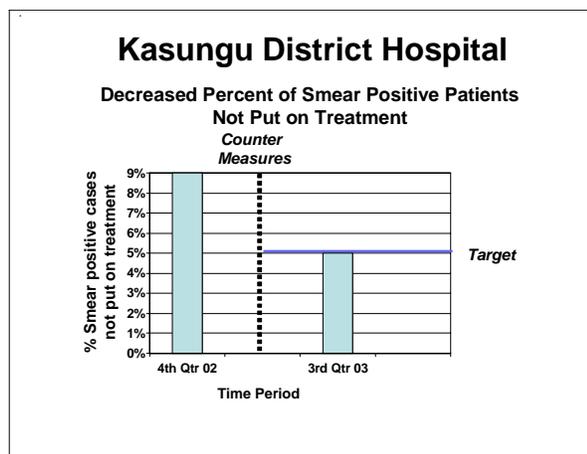
Kasungu District Hospital

Problem: For the 4th quarter of 2002 at Kasungu District Hospital, out of 55 surviving sputum smear-positive patients whose records were found in the lab register, only 50 (91%) received TB treatment, less than the 95% target for the National TB Programme, thus increasing the risk of spreading TB in the community.

Improvement Target: Reduce the percentage of smear-positive patients not receiving TB treatment from 9% to 5% by the third quarter of 2003.

Countermeasures: 1) Provide TB briefings to estate employers and chiefs; 2) brief health workers on importance of documentation; 3) TB office to recheck documentation and follow up; 4) conduct a briefing for the secretary, transport office, and drivers; 5) appoint representatives from maintenance to supervise radios; 6) brief new staff on TB activities.

Results: During the 3rd quarter of 2003, 95% (90 of 95) of sputum smear-positive patients received TB treatment.



National TB Programme Central Unit

Problem: For 2001-2002, of the 2,500 total number of workdays that 5 NTP motor vehicles could have been in use, 1,205 days (48%) were lost due to break-downs, thus jeopardizing many TB control activities.

Improvement Target: Reduce the percentage of vehicle days lost to 29% in the third quarter of 2003.

Countermeasures: 1) Annual workshop at Ministry of Works and Transport; 2) briefing/orientation/induction refresher course at MIM or Ministry of Works and Transport; 3) driver training at Ministry of Works and Transport for newly recruited drivers; 4) control and discipline officers and drivers using vehicles; 5) orientation/briefing on transport protocols for transport officers/drivers; 6) NTP Director contact Principal Secretary regarding garages.

Note: New vehicles were delivered to the NTP during the summer of 2003, interfering with data collection on the number of days the older vehicles were unavailable due to breakdowns. The team, however, has developed a number of counter-measures that will be implemented in order to better maintain the new vehicles.

National TB Programme Central Unit
Procedures for Reducing the Number of Vehicle Days Lost Due to Breakdowns

Note: The delivery of new vehicles to NTP during Summer 2003 interfered with data collection on the older vehicles.

The team's work is no less valuable, however, as it has developed a number of counter-measures that will be implemented to better maintain the new vehicles.

Uganda

Uganda: Applied Learning Projects

Global AIDS Program M&E Indicators Addressed*

Laboratory Technical Support

14.2 Number of country nationals trained in the provision of laboratory-related services

Kasangati Health Center

During the month of June 2003, 26% of malaria slides at Kasangati Health Center were incorrectly read, negatively affecting clinical decision-making for patient management.

Improvement Target: Reduce incorrect smear reporting from 26% to 5% during November 2003.

Training

16.1 Number of CDC/GAP training activities implemented: a) for a technical/program area, b) for a general public health area, and c) for program management

16.2 Number of country nationals trained by CDC/GAP training activities: a) for a technical/program area; b) for general public health, and c) for program management

Entebbe Hospital

This team was composed of three trainees from the May workshop—Dr. Opumar Martin, Mrs. Kalibwani, and Charles Matsiko—and nine other hospital unit managers. This team's overall objective was to improve the delivery of quality health services in Entebbe Hospital. The lack of management skills among hospital managers was an *a priori* assumption as an actionable root cause. The team did not focus on a single specific problem because they believed that poor management skills was a common problem for all their department managers and focusing on one specific problem in just one department would not yield the desired broad-based improvement in managerial competence.

They conducted a two-day in-service training for 20 staff and taught the seven steps of Total Quality Management. The team identified 11 problem themes and used multivoting to reduce the number to three. The team then used a theme selection matrix to select "lack of management skills" as the problem to be addressed.

**Note: All GAP Uganda projects were in process as of February 2004.*



Dr. Gakenia Wamuyu Maina (center) of the Institute of Public Health in Kampala, takes notes during a group exercise in the Management for International Public Health (2003) course.

Uganda: Applied Learning Projects

Informatics

15.3 Number of county nationals trained in information management concepts

Wakiso Health Center

The 8-person team is led by Dr. Rebecca Kirvumbi. Using the theme selection matrix, the team chose a problem which could be addressed without the commitment of additional financial resources.

Problem statement: During the period January through December 2002, 30% of the Health Management Information Systems (HMIS) monthly reports submitted by Wakiso Health Center had missing or incorrect information, resulting in poor planning for drugs and administrative services.

Improvement Target: Reduce the number of HMIS reports with inadequate information by 20% by July 2003.

Blood Safety

2.5 Number of country nationals trained in blood safety

Naguro Health Center

This is a busy, semi-urban health center. The team of 6 consists of a medical doctor, a lab technician, and 4 nurses. The team has had only one meeting during which they brainstormed a number of themes that may prove difficult to measure. The team then multivoted to select the topic of "risk of infection among health workers."

Voluntary Counseling and Testing

1.10 Number and percent of observed HIV counseling sessions meeting international or national standards for quality counseling in VCT sites supported by CDC/GAP

AIDS Information Centre (AIC) and The AIDS Support Organization (TASO)

The two workshop participants from AIC and TASO have not yet formed teams. The site managers chose the following as their problem statement: "80% of counselor supervision is inadequate to ensure quality counseling."



From left, Charles Mastiko, Training Director, Uganda Ministry of Health, Mr. Peter Awongo ('02), Dr. Joshua Musinguzi ('02), Dr. Donna Kabatesi ('02), Mr. James Kanu ('95), ATPM Fellow, and Ms. Laurel Zaks, SMDP, meet to plan the May 2003 management training workshop in Kampala.

Zambia: Applied Learning Projects

Global AIDS Program M&E Indicators Addressed

14.2 Laboratory Support

Number of country nationals trained in the provision of laboratory-related activities

Kasama General Hospital

Problem: During the period April 25-May 28, 2003, 60 blood samples for haemoglobin estimation, analysed colorimetrically, produced average readings of 1.5g/dl higher than the ABX Haematology Analyser readings, leading to improper diagnosis and treatment.

Improvement Target: Reduce the haemoglobin values to within 0.5g/dl for the period June-July 2003.

Countermeasures: 1) Calibrate colorimeter-use standards, 2) limit use of cuvettes, 3) use new cuvettes per sample, 4) use automatic dispensers, 5) train staff, 6) calibrate weighing scale with standard weights.

Results: During the period June-July 2003, values for hemoglobin estimation, analyzed colorimetrically, were reduced to a mean difference of 0.3 g/dl. This number surpassed the 0.5 g/dl goal.

Chikankata Health Services

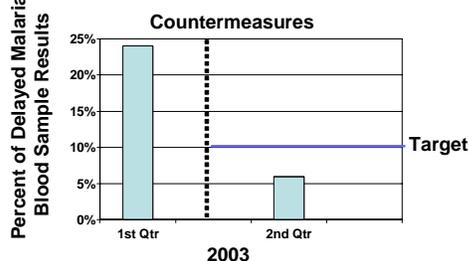
Problem: In the first quarter 2003, the Chikankata Hospital Self-Assessment Team noted that 24% of malaria parasite results were delayed more than 60 minutes in the laboratory, leading to a delay in malaria treatment.

Improvement Target: By the end of the second quarter 2003, the percentage of the malaria parasite delayed more than 60 minutes in the laboratory must be reduced from 24% to 10%.

Countermeasures: 1) Employ phlebotomist, 2) develop job descriptions, 3) create awareness of malaria significance.

Results: The number of malaria parasite results released after 60 minutes in the second quarter 2003 was reduced from 24% in the first quarter to 6% of the total results released. This surpassed the 10% goal.

Chikankata Health Services, Southern Province Decreased Percentage of Delayed Malaria Blood Smear Results



Mr. Michael Musonda Nguluta of Zambia (at right) explains a point to Dr. Primo Madra, Uganda, during the Healthy Plan-it™ session at the 2003 Management for International Public Health Course in Atlanta.

Zambia: Applied Learning Projects

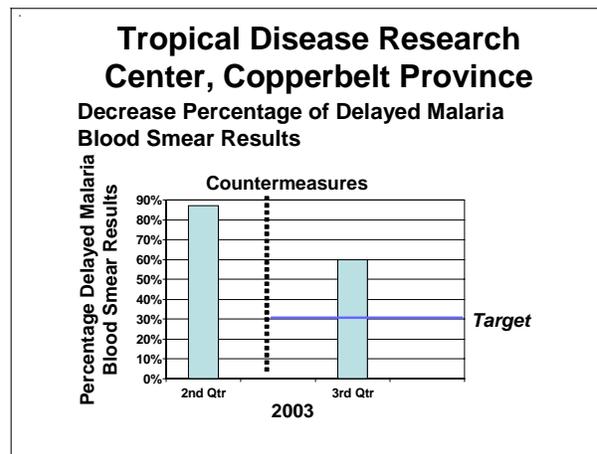
Tropical Disease Research Center Ndola Copperbelt Province

Problem: In the second quarter of 2003, 87% of the patients at the TDR Clinic had their malaria blood smear results delayed by more than 60 minutes, resulting in late treatment.

Improvement Target: Reduce delayed results from 87% to 50% by the third quarter 2003.

Countermeasures: 1) Prepare and distribute written standard operating procedures (SOPS) to the laboratory staff, 2) regularly inventory laboratory supplies and consumables, especially reagents, 3) arrange transportation for laboratory staff.

Results: The number of patients receiving their malaria blood smear results late was reduced from 87% to 60% in the third quarter. The target set was 50%. There is more work to do to achieve the set target and eventually reduce delayed results to zero.



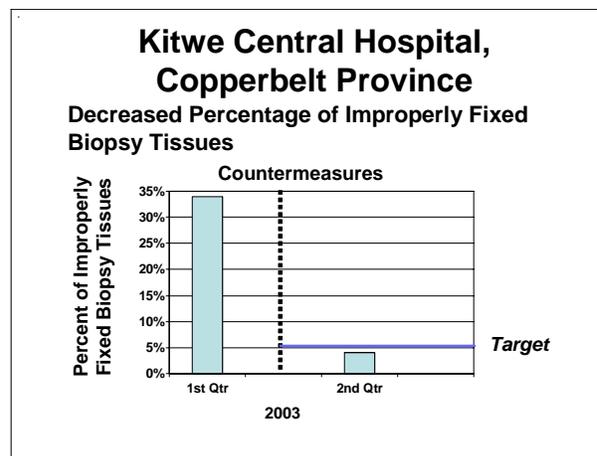
Kitwe Central Hospital, Copperbelt Province

Problem: In the first quarter of 2003, 34% of biopsy tissues from the theatre to the laboratory were not properly fixed; hence affected patients could not get appropriate treatment.

Improvement Target: Reduce improperly fixed biopsy tissues to 5% by the second quarter 2003.

Countermeasures: 1) Provide guidelines on biopsy tissue preparation and fixation to the theatre staff, 2) organize in-house orientation for the theatre staff on preparing and fixing biopsy tissues, 3) provide bin cards for stock inventory.

Results: Improperly fixed biopsy tissues were reduced from 34% to 4% in the second quarter, 2003. The set target was 5%.



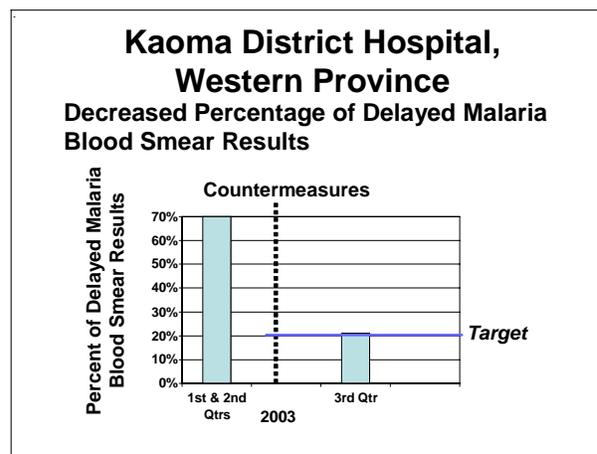
Kaoma District Hospital, Western Province

Problem: During the period of March 23-May 3, 2003, 70% of patients requiring malaria blood slides experienced delays in receiving their results, thus leading to late treatment.

Improvement Target: Reduce this rate to 20% by July 2003.

Countermeasures: 1) Teach importance of a schedule for staff, 2) prioritize specimens, 3) maintain laboratory registry.

Results: A total of 628 patients waiting for their malaria blood slides was reduced to 132, or 21%.



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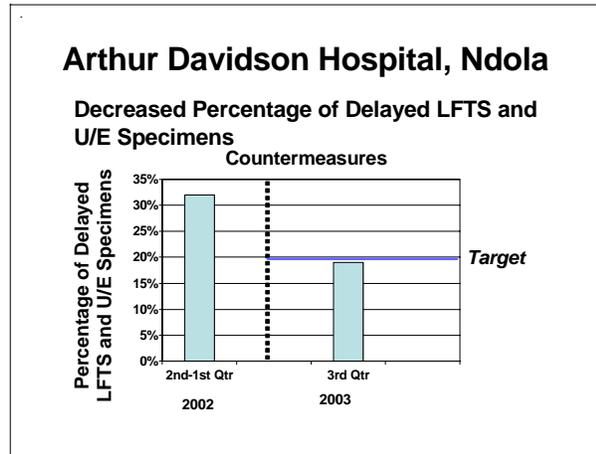
Arthur Davidson Hospital Copperbelt Province

Problem: From July 2002 to March 2003, an average of 32% of all samples received for Liver Function Tests (LFT) and Urea Electrolyte Analyses (U/E) were not processed within 24 hours of receipt in the Biochemistry Lab at Arthur Davidson Hospital, thus leading to frequent complaints from the doctors and delay in commencing appropriate treatment for the patients.

Improvement Target: By the end of July 2003, reduce the number of delayed samples to 20%.

Countermeasures: 1) Train more technologists to program the equipment, 2) acquire controls, 3) implement periodic rotation of technicians to the biochemistry lab, 4) conduct reorientation on needs for LFTS and Urea Electrolyte analysis.

Results: By the end of July 2003, the number of delayed LFT and U/E was reduced to 19%. This was a slight improvement over the 20% goal.



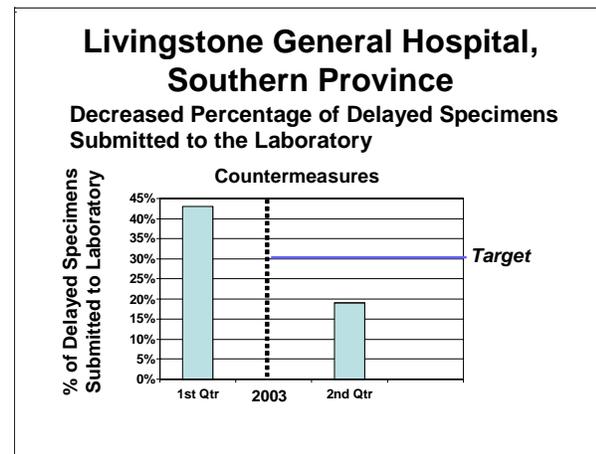
Livingstone General Hospital Southern Province

Problem: In the first quarter 2003, 43% of the specimens from the wards at Livingstone General Hospital were received in the lab after the deadline for that day's processing. This could result in compromising the quality of the samples and a delay in the release of results.

Improvement Target: Reduce the number of specimens received late from the wards to 30% by the end of the second quarter 2003.

Countermeasures: 1) Create schedule for picking up doctors, 2) introduce moonlighting, 3) create work schedule for taking specimens to the lab.

Results: By the end of the second quarter 2003 only 19% of specimens were received later than laboratory hours for processing specimens. This exceeded the original goal of 30%.

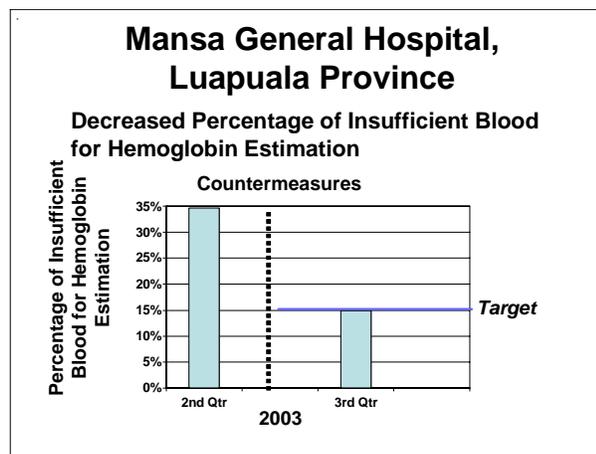


Mansa General Hospital, Luapula Province

Problem: In the second quarter of 2003, 35% of blood samples collected from in-patients for hemoglobin estimation were insufficient samples from the children's medical ward resulting in delayed release of results and untimely treatment of patients.

Improvement Target: Reduce the number of insufficient samples collected from children's medical ward from 35% to 15% by the third quarter 2003.

Countermeasures: 1) Doctors to collect blood samples from the children's ward, 2) use 23G



Zambia: Applied Learning Projects

needles to collect blood from children, 3) laboratory staff to monitor blood collection, 4) conduct in-house refresher orientations for laboratory and clinical/nursing staff.

Results: Insufficient blood for hemoglobin estimation decreased from 35% to 15% in the third quarter 2003, meeting the set target.

University Teaching Hospital Hematology Laboratory, Lusaka Province

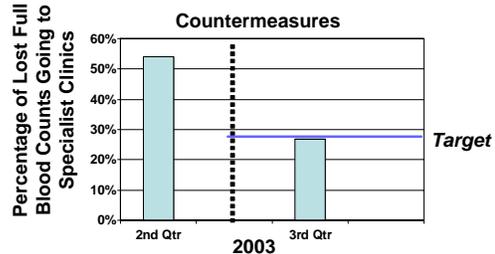
Problem: In the first quarter of 2003, 54% of lost full blood count results from the hematology laboratory were those going to specialist clinics, thereby causing a delay in patient treatment.

Improvement Target: Reduce the number of lost full blood count results going to specialist clinics from 54% to 27% in the third quarter.

Countermeasures: 1) Introduce record books to register the in- and out-flow of report/results, 2) educate staff at in-house staff meetings on the importance of timely delivery of results to clinicians, 3) introduce file boxes for different units in the specialist clinics.

Results: Missing full blood count results declined from 54% to 27% in the third quarter of 2003, meeting the set goal.

Hematology Dept., University Teaching Hospital, Lusaka **Decreased Percentage of Lost Full Blood Count Results Going to Specialist Clinics**



Global AIDS Program M&E Indicators Addressed

14.2 Laboratory Support

Number of country nationals trained in the provision of laboratory-related services

9.2 Tuberculosis Prevention and Care

Number of country nationals trained in the provision of TB services

Lusaka District Health Centers **Lusaka Province**

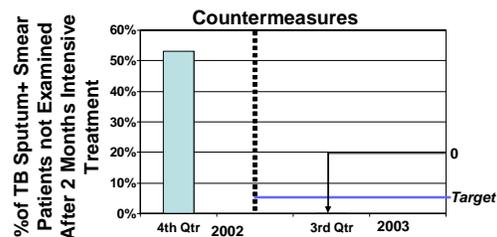
Problem: During the 4th quarter of 2002, 53% of AFB sputum smear-positive patients did not have their sputum examined after two months' intensive treatment at Chipata, Matero, Main, and George Health Centres, thus posing a risk for Multiple Drug Resistance (MDR).

Improvement Target: Reduce the number of patients not having their AFB sputum examined by July 2003 following two months of intensive chemotherapy from 53% to 5%.

Countermeasures: 1) Increase supply of containers, 2) prepare timetable, 3) provide procedures manual, 4) provide TB focal person to motivate nurses, 5) provide orientation for new staff.

Results: The percentage of patients not having their AFP sputum examined after two months' intensive chemotherapy was reduced to 0%. This exceeded the set goal of 5%.

Lusaka District Health Centers, Lusaka Province **Decreased Percentage of TB Sputum+ Smear Patients not Examined After 2 Months' Intensive Treatment**



Zambia: Applied Learning Projects

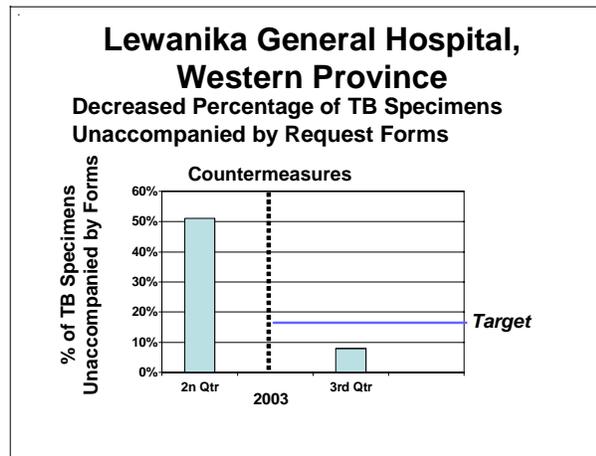
Lewanika General Hospital Western Province

Problem: In April 2003, an average of 51% of sputum specimens at Lewanika General Hospital were not accompanied by laboratory forms. This made it difficult for the laboratory to process the specimens, leading to potential delays in making a diagnosis.

Improvement Target: Reduce specimens without accompanying laboratory forms to 15% by July 2003.

Countermeasures: 1) Compile data on monthly requirements for TB laboratory forms, 2) TULEP Officer to extract data from TB laboratory register to estimate laboratory forms required for urban and chest clinic, 3) laboratory to provide statistics on consumption of laboratory forms.

Results: The percent of sputum specimens without accompanying laboratory forms was reduced from 51% to 8%, well below the 15% target for improvement.



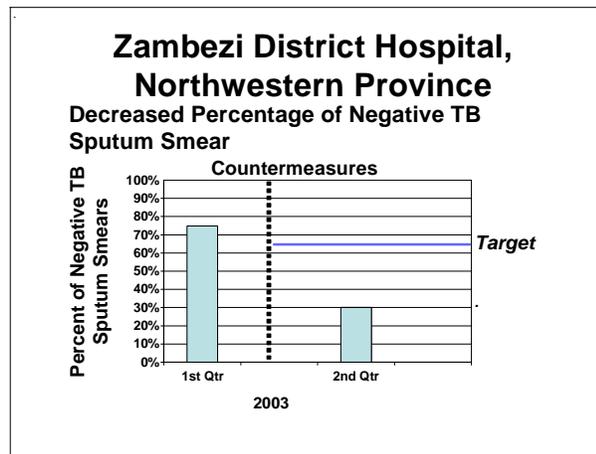
Zambezi District Hospital Northwestern Province

Problem: In the first quarter of 2003 at Zambezi District Hospital, 75% of TB sputum smears examined were negative, leading to inappropriate treatment of patients.

Improvement Target: Reduce negative TB sputum smears examined to 65% in the second quarter of 2003.

Countermeasures: 1) Conduct in-house clinical meetings with targeted staff, 2) introduce distance learning materials for staff in laboratory health centres, 3) strengthen reagent ordering system, 4) introduce lab equipment maintenance schedule, 5) conduct one-to-one health education to TB patients in their local languages.

Results: 30% (12 out of 40) of the total smears examined in the second quarter 2003 were negative, improving significantly on the number of misdiagnosed examinations.



Priscilla Lugwalo and Dorothy Banda assume the roles of nurse and patient in a patient flow exercise in the laboratory training workshop, Kafue Gorge, March 2003.

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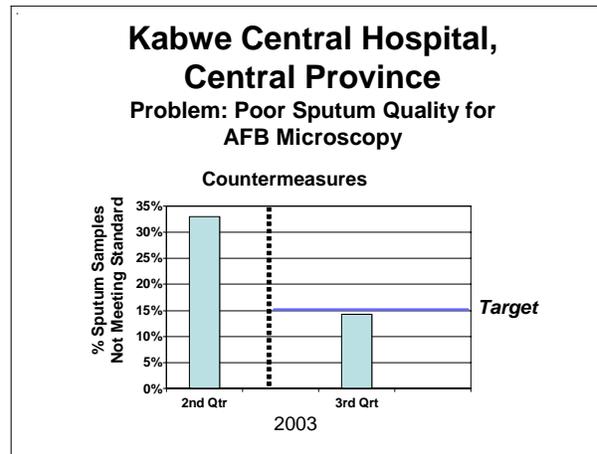
Kabwe Central Hospital Central Province

Problem: During May 2003, 33% of sputum samples received at the Kabwe Central Hospital laboratory were salivary, thus affecting the quality of the results and patients' treatment.

Improvement Target: Decrease the number of salivary sputum samples from 33% to 15% by the end of the second quarter 2003.

Countermeasures: 1) Provide written guidelines for proper sputum submission to the laboratory and clinical staff, 2) arrange quarterly meetings of laboratory and clinical/nursing staff, 3) Chief Laboratory Technologist to check TB register fortnightly.

Results: Salivary sputum samples decreased from 33% to 14% at the end of the second quarter 2003. This exceeded the goal.



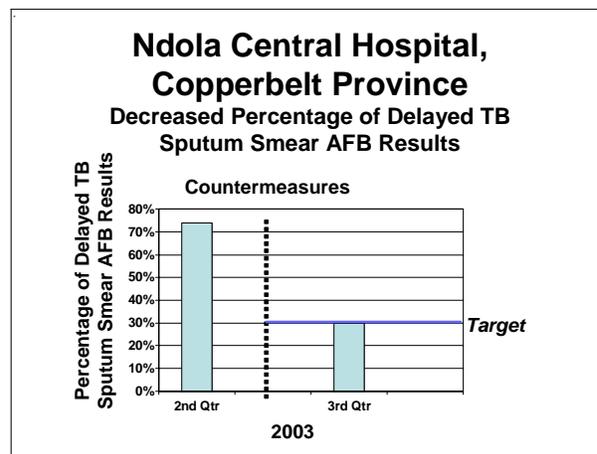
Ndola Central Hospital Copperbelt Province

Problem: In the second quarter of 2003 at the Ndola Central Hospital laboratory, 74% of AFB sputum smear reports were delayed, resulting in patients receiving late treatment.

Improvement Target: Reduce delayed AFB sputum smear reports from 74% to 30% by the third quarter 2003.

Countermeasures: 1) Update supervisors with current guidelines on AFB microscopy, 2) microbiology section chiefs to make weekly checks on the AFB sputum microscopy needs, 3) laboratory reception clerk to ensure that porters collect results as they bring samples to the laboratory.

Results: AFB sputum smear-delayed results declined from 74% in the second quarter of 2003 to 30% in the third quarter.



Zambia: Applied Learning Projects

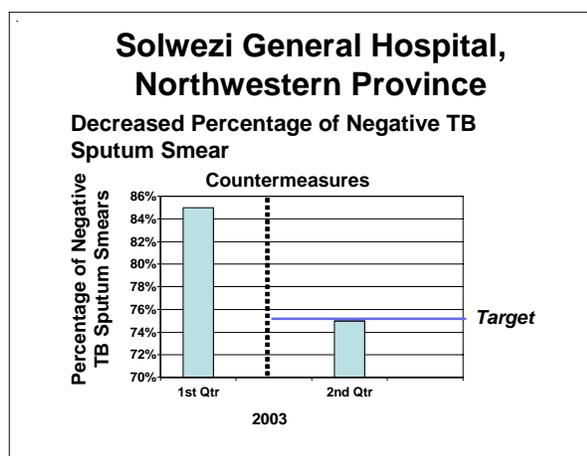
Solwezi General Hospital Northwestern Province

Problem: In the first quarter of 2003, 85% of TB sputum samples examined were negative for AFB microscopy, resulting in inappropriate treatment given to misdiagnosed patients.

Improvement Target: Reduce the negative TB sputum samples for AFB microscopy from 85% to 75% by the end of the second quarter 2003.

Countermeasures: 1) Conduct in-house meetings between laboratory and nursing/clinical staff, 2) introduce new microscopes, 3) develop schedule for equipment maintenance, 4) provide AFB microscopy refresher training for laboratory staff.

Results: TB sputum negative smear results for AFB microscopy declined from 85% to 75% during the second quarter 2003, meeting the set goal.



Global AIDS Program M&E Indicators Addressed

14.2 Laboratory Support

Number of country nationals trained in the provision of laboratory-related services

2. Blood Safety

2.9 Number and % of blood transfusion units screened for HIV in the last 12 months

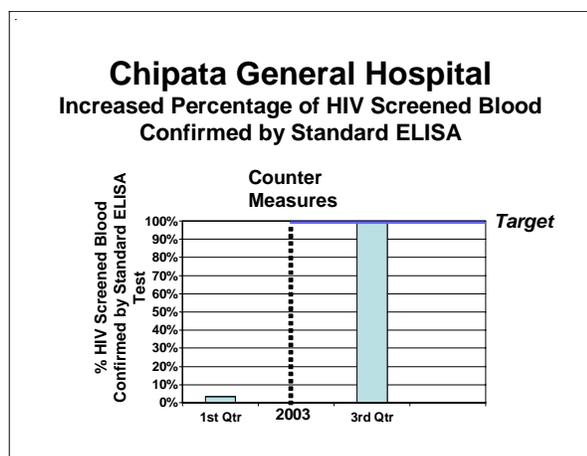
Chipata General Hospital, Eastern Province

Problem: From the third quarter 2002 to the end of the first quarter 2003 at Chipata General Hospital, <4% of HIV screening tests on donated blood were confirmed with standard ELISA testing, thus exposing potential blood recipients to a possible infection with HIV.

Improvement Target: Increase the confirmation with standard ELISA of screened donated blood to 99% during the third quarter of 2003.

Countermeasures: 1) Assign experienced staff to perform the confirmation test using the ELISA technique, 2) update staff on standard operating procedures at in-house meetings, 3) provide IEC materials to laboratory staff.

Results: The confirmation of HIV-screened donated blood by the ELISA technique increased from 3% in the first quarter 2003 to 99% in the third quarter of 2003.



Zambia: Applied Learning Projects

Global AIDS Program M&E Indicators Addressed

14.2 Laboratory Support

Number of country nationals trained in the provision of laboratory-related activities

3. Sexually Transmitted Infection: Prevention and Care

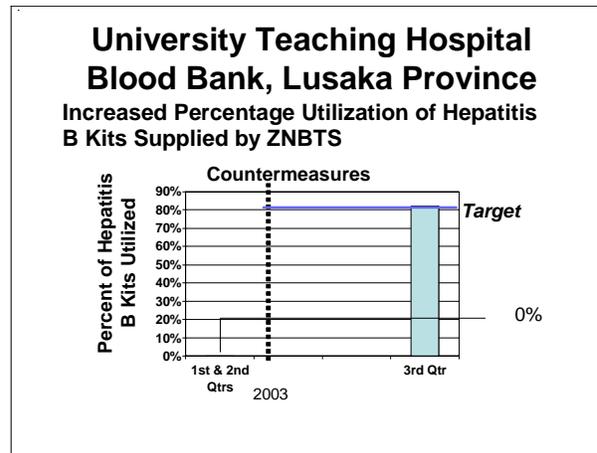
University Teaching Hospital Blood Bank, Lusaka Province

Problem Statement: Of 400 units of blood collected January-April 2003 by 6 centres visited in Central province, none used ZNBTS-Hepa 3 supplied hepatitis kits, but instead used alternative kits.

Improvement Target: Bring the monthly utilization levels of ZNBTS-supplied hepatitis kits to 80% during the third quarter 2003.

Countermeasures: 1) Provide pipettes, 2) develop guidelines and train staff, 3) increase staffing levels.

Results: During the third quarter 2003, monthly utilization levels of ZNBTS-supplied hepatitis kits increased to 82%.



Global AIDS Program M&E Indicators Addressed

16. Training

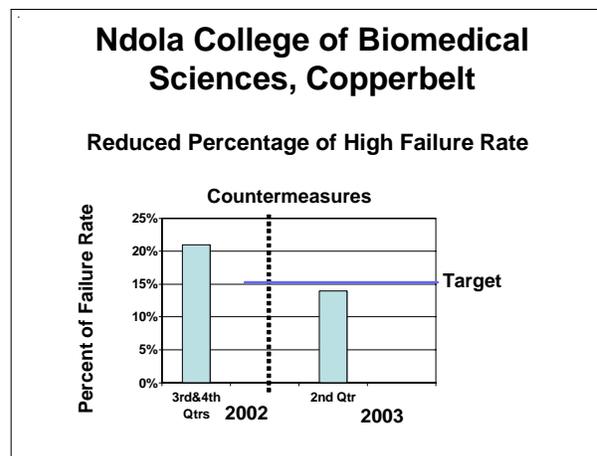
Ndola College of Biomedical Sciences, Copperbelt Province

Problem: In the third and fourth quarters of 2002, DBS/1 class at Ndola College of Biomedical Sciences recorded a failure rate of 21% at first sitting of their examinations, which may lead to some students not completing their training.

Improvement Target: Reduce the failure rate from 21% to 15% by the end of the second quarter, 2003.

Countermeasures: 1) Recruit full time staff, 2) conduct induction courses for new intakes, 3) adhere strictly to admission guidelines.

Results: Failure rate reduced from 21% to 14% during the second quarter 2003. The set target was 15%.



From left, Mr. Paul Toloka, Mr. Michael Ngutula ('03), Ms. Fales Zulu ('03), Mr. Felix Chuswe, and Mr. Edward Lungu participate in a leadership training exercise during the Kafue Gorge workshop held in March 2003.



MIPH Graduates from GAP Countries

Botswana

Ms. Audrey Kgosidintsi ('00)
Mr. Modisaotsile Mokomane ('03)*
Mr. Ronald Molosiwa ('01)*
Ms. Kgomotso More ('00)
Mr. Martin Seike Mosima ('01)*
Mrs. Othilia Tjawada Phumaphi ('02)*

Cambodia

Mr. Chanthol Eang ('98)
Dr. Has Phal Mony ('03)*
Dr. Thay Ly Heng ('02)*
Dr. Saorith Khun ('02)*
Dr. Bak Khim Team ('02)*
Dr. Sam-An Ung ('98)

Côte d'Ivoire

Dr. Georgette Adjorlolo-Johnson ('99)
Dr. Marcellin Ayé ('02)*
Dr. Nablé Y. Coulibary ('97)
Dr. René-Anatole Ekpini ('01)*

Malawi

Mrs. Rhoda Patricia Banda ('02)*
Ms. Theresa Banda ('93)
Mr. Wright James Chisamba ('03)*
Mr. Andrew D.R.C. Dimba ('03)*
Mr. Jonathan Nkhoma ('93)

Thailand

Dr. Potjaman Siriarayapon ('03)*

Uganda

Ms. Mary Grace Alwano ('95)
Mr. Peter Awongo ('02)*
Mr. Edmund R. Gumisiriza ('98)
Dr. Donna Kabatesi ('02)*
Mr. Charles Kasozi ('97)
Dr. Primo Madra ('03)*
Dr. Gakenia Wamuyu Maina ('03)*
Dr. Sophia Mukasa-Monico ('96)
Dr. Joshua Musingizi ('02)*
Mr. John Onen ('97)

Vietnam

Prof. Tam Thanh Bui ('97)
Dr. Nguyen Mai Anh ('03)
Dr. Mai Thu Hien ('02)*
Dr. Le Van Duc ('01)
Dr. Mai Hoa Do ('97)
Dr. Pham Hoang Yen ('03)
Dr. Tran Nhu Nguyen ('03)*
Dr. Van Nhu Ha ('98)
Dr. Le Thanh Hai ('01)
Dr. Vu Khac Luong ('96)
Dr. Binh Hoa Nguyen ('00)
Dr. Thi Ngoc Hanh Nguyen ('99)
Ms. Nguyen Thien Huong ('99)
Dr. Liem Nguyen-Dinh ('00)
Ms. Ngan Nguyen Le ('99)
Dr. Nguyen Bich Ngoc ('02)
Ms. Nguyen Thi Thu Hong ('02)*
Dr. Tran Thi Thanh Nhan ('02)
Ms. Phuong Lan Pham ('98)
Dr. Tuong Van Phan ('97)
Dr. Truong Thi Ngoc Dieu ('02)
Dr. Nguyen Dinh Tuan ('01)

Zambia

Mr. Harry Mussa Banda ('02)*
Dr. Chishala Chabala ('03)*
Ms. Grace Cecilia Kahenya ('02)*
Mr. Michael Musondo Nguluta ('03)*
Ms. Ireen Silweya ('00)
Ms. Ruth Bwalya Tembwe ('01)*
Ms. Fales Mwamba Zulu ('03)*

*funded by GAP