

Multidisciplinary Care Teams

Report of an IAPAC Consultation in Addis Ababa, Ethiopia

DECEMBER 4, 2011



Report Summary

A multidisciplinary care team can be defined as a partnership among health care workers of different disciplines inside and outside the health sector and the community with the goal of providing quality continuous, comprehensive and efficient health services.

Academic institutions tend to support the promotion of multidisciplinary care teams at the implementation level rather than adapt their curricula to integrate the concept of a collaborative and interdisciplinary model of practice. There are models of multidisciplinary care teams in several countries but few have been documented and taken to scale. Existing multidisciplinary care team models focus on a specific disease such as HIV and /or are driven by the composition of the team and the team's leadership. There is a clear consensus about the critical role of community health workers in providing services and in linking the multidisciplinary care team to the local community but, these cadres of health workers have yet to be recognized and salaried as part of the formal health workforce in many countries.

The evaluation of a multidisciplinary care team approach cannot be exclusively quantitative or qualitative but could be a mixed method analysis looking at inputs, process, outputs, outcomes, cost and impact. Nevertheless, the scale-up of multidisciplinary care teams should not wait until they can be scientifically proven to be making a statistically significant difference. It is important to look at existing evidence. Practice is moving faster than regulatory changes and health regulatory authorities are encouraged to become partners in identifying solutions to health workforce shortages.

The goal of IAPAC's Multidisciplinary Care Team Initiative is to provide countries with policy options toward a wider implementation of the multidisciplinary care team approach to health services delivery in partnership governments of the pilot countries and in collaboration with U.N. agencies and other partners.

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Participants List

Agnes Ann Arach

District Technical Officer, Clinical Services
Northern Uganda Malaria AIDS Tuberculosis Programme
Kampala, Uganda
aarach@numatuganda.org

Erika Arthun

Program Officer, Global Health Policy & Advocacy
Bill and Melinda Gates Foundation
Washington, DC, USA

Yibeltal Assefa

Medical Services Directorate
Federal Ministry of Health
Addis Ababa, Ethiopia
yibeltalassefa343@gmail.com

Rachel Baggaley

HIV/AIDS Department
Prevention in the Health Sector
World Health Organization
Geneva, Switzerland
baggaley@who.int

Philippe Chiliade

Lead, Care & Treatment Team
Global HIV/AIDS Program
HIV/AIDS Bureau
Health Resources & Services Administration
Department of Health and Human Services
Rockville, MD, USA
pchiliade@hrsa.gov

Peter Drobac

Director, Partners In Health - Rwanda
Division of Global Health Equity, Brigham and Women's
Hospital
Harvard Medical School
Rwinkwavu, Rwanda
pdrobac@pih.org

Chris Duncombe

Senior Program Officer, HIV
Global Health Program
Bill and Melinda Gates Foundation
Seattle, WA, USA
Chris.Duncombe@gatesfoundation.org

Abraham Haileamlak

Pediatric Cardiologist
Professor of Pediatrics & Child Health
Dean of College of Public Health & Medical Sciences
Jimma University
Jimma, Ethiopia
asratab@yahoo.com

Gottfried Hirschall

Director of HIV Department
World Health Organization
Geneva, Switzerland
hirschallg@who.int

Abiy Hiruye

Executive Director
Ethiopian Medical Association
Ababa, Ethiopia
the2abi@gmail.com

Joan Holloway

Vice President, Global Health Initiatives
IAPAC
Washington, DC, USA
jholloway@iapac.org

Jehu Iputo

Director, School of Medicine
Walter Sisulu University
Mthata, South Africa
jiputo@wsu.ac.za

Tekeste Kebede

Acting Branch Chief for Health Systems
CDC-Ethiopia
Addis Ababa, Ethiopia
kebedet@et.cdc.gov

Angela Knudson

Program/Research Manager
IAPAC
Washington, DC, USA
aknudson@iapac.org

Ron MacInnis

Deputy Director
Health Policy Project
Futures Group
Washington, DC, USA
rmacinnis@futuresgroup.com

Catherine McKinney

Associate Director for Health Services
CDC-Ethiopia
Addis Ababa, Ethiopia
McKinneyC@et.cdc.gov

Laura McPherson

Deputy Director for Field Programs, Health Policy Project
Futures Group
Washington, DC, USA
lmcpherson@futuresgroup.com

Jean Nachega

Director, Center for Infectious Diseases, Stellenbosch
University
Associate Scientist, Johns Hopkins Bloomberg School of
Public Health
Cape Town, South Africa
jnachega@jhsp.edu

Andrew Oceró

Director Clinical & Community Services
Northern Uganda Malaria AIDS Tuberculosis Programme
Kampala, Uganda
aocero@numatuganda.org

Robert Ochai

Executive Director
The AIDS Support Organization (TASO)
Kampala, Uganda
oachair@tasouganda.org

Ann Phoya

Director, SWAP
Ministry of Health
Lilongwe, Malawi
phoyaann@yahoo.com

Badara Samb

Coordinator a.i. for Health Systems Strengthening
World Health Organization
Geneva, Switzerland
sambb@who.int

Kwasi Torpey

Deputy Chief of Party
Family Health International
Abuja, Nigeria
ktorpey@fhi.org

Kora Tushune

Assistant Professor
Jimma University
Jimma, Ethiopia
kora.tushune@ju.edu.et

Marco Antônio de Ávila Vitória

Medical Officer
HIV/AIDS, TB & Malaria (HTM) Cluster
Department of HIV/AIDS
Antiretroviral, Treatment and HIV Care Team
World Health Organization
Geneva, Switzerland
vitoriam@who.int

Gebrekidan Mesfin Zbelo

Health Systems & Services
WHO Ethiopia, United Nations
Addis Ababa, Ethiopia
gebrekidanem@et.afro.who.int

José M Zuniga

President/CEO
IAPAC
Washington, DC, USA
jzuniga@iapac.org

Introduction

The International Association of Physicians in AIDS Care (IAPAC) was founded in 1995 as the first international association devoted exclusively to marshaling health care expertise for addressing HIV/AIDS around the globe. The mission of IAPAC and its 17,000 plus members in over 100 countries is to improve the quality of prevention, treatment and care services provided to people living with HIV/AIDS.

Recognizing the critical shortage of health care workers in low-and middle-income countries, IAPAC has, for several years, explored ways to engage with health professionals and other health care workers to improve the quality and efficiency of HIV care delivery and increase access to treatment, care and support services. With support from the U.S. National Institutes of Health (NIH), IAPAC conducted two consultations, the first in Washington, DC, in December 2010, and a second in Addis Ababa, Ethiopia, in December 2011.

“I seize this opportunity to express my sincere appreciation to IAPAC for its efforts to improve the quality of care provided to all people living with HIV/AIDS and to extend my best wishes for fruitful cooperation through MCTI.”

*Mr. Suleiman J. Al-Herbish,
OFID Director-General*

The consultations explored the potential of introducing multidisciplinary care teams into sub-Saharan health care settings in an effort to scale up access to antiretroviral therapy (ART) and to achieve efficiencies in the use of existing financial and human resources for health. The December 2010 consultation in Washington, DC focused on the macro and micro-level considerations for implementing a multidisciplinary care team approach in sub-Saharan Africa. The deliberations from this consultation informed the development of the Multidisciplinary Care Team Initiative (MCTI).

In October 2011, IAPAC was awarded funding by the OPEC Fund for International Development (OFID) to implement Year 1 of a three year Multidisciplinary Care Team Initiative in several East African countries. The December 2011 consultation, held in Addis Ababa, Ethiopia, focused on the future implementation of the Initiative.

This report highlights the findings and recommendations of clinical, academic and governmental leaders from six East African countries, representatives of the World Health Organization (WHO), Joint United Nations Program on AIDS (UNAIDS), the Bill & Melinda Gates Foundation, the President’s Emergency Plan for AIDS Relief (PEPFAR), and from several non-governmental organizations who participated in the consultation.

The consultation was organized around five areas: interdisciplinary education and training; putting interdisciplinary training and continuing education into practice; multidisciplinary care team models; regulatory frameworks and scope of practice challenges; and measuring success.

Background

Data from Australia, Canada, the United Kingdom and the United States show that efficiencies can be achieved and patient outcomes improved when health care workers come together to work in teams. Multidisciplinary care team (MCT) models exist in several low-and middle-income countries, however, little research has been done in these countries to document successful models of integrated service delivery using multidisciplinary care teams to scale-up access to antiretroviral treatment (ART).

The first MCT consultation held in December 2010, with academic experts, representatives of multilateral organizations and the U.S. government, identified seven characteristics of a multidisciplinary approach:

- Governance by and accountability to local communities;
- Services provided by teams of professionals and other health care workers with special emphasis on facilitating nurse leadership;
- Supportive regulatory and policy environments with training and certification systems in place to support health workers and allay community concerns;
- A balance between prevention and treatment;
- Information systems in place to collect and manage data and foster communication among health workers and the health system;
- Systems developed for tracking, reporting and continuously improving quality; and
- HIV as the entry point to other priority health services such as maternal and child health, treatment adherence and retention in care support, and care and treatment for related co-morbid conditions.

Following this consultation, IAPAC applied for and received a grant from OFID to begin implementation of multidisciplinary care team models through an initiative named the Multidisciplinary Care Team Initiative (MCTI). Implementation of the MCTI will involve:

- Baseline assessments of existing services delivery models at two sites in East African countries for a total of four sites;
- Development of MCT guidelines, protocols, educational materials, assessment questionnaires;
- Delivery of training in MCT principles and practice for staff at the intervention sites to facilitate structured task shifting and other team-based approaches; and

“We are grateful to OFID and other donors for their investment in MCTI, through which we aim to deliver evidence to stakeholders, decision-makers, and donor agencies around how to make more efficient use of the existing health workforce in countries facing significant human resources for health scarcities.”

*Dr. José M. Zuniga,
IAPAC President/CEO*

- Monitoring and evaluation to gain insights into the feasibility to achieve efficiencies in the utilization of existing financial and human resources for health while optimizing HIV care and treatment services.

In partnership and consultation with host country governments, study sites will be chosen and matched to a nearby comparison facility. Study sites could be matched based on workforce composition, scopes of practice, urban versus rural location, size/type of catchment area, complexity of services, and or retention in care rates. We expect that these will vary based on the unique characteristics of each country.

The Addis Ababa consultation in December 2011 was held to further define the multidisciplinary care team concept and recommend strategies for implementing, monitoring and evaluating the MCTI. A multidisciplinary care team was defined as a partnership between different cadres of health care workers, inside and outside the health sector and the community they serve, with the goal of providing continuous, comprehensive and efficient health services. Participants noted that the team composition may vary from country to country but will likely include, at a minimum, a team leader (a nurse practitioner or clinical officer with a back up medical doctor for support and consultation); an enrolled nurse; and a community health worker. Depending on the country the team could also include a clinical pharmacist or pharmacy technician, and/or a social worker.

Several country models were described at the consultation and will be discussed in more detail later in the report.

Panels

A. Interdisciplinary Education and Training

In the consultation's first panel, Professors from Walter Sisulu University (WSU) in South Africa and Jimma University in Ethiopia addressed the successes, challenges and lessons learned in the innovative incorporation of interdisciplinary, community-based education as well as the challenges and lessons learned from innovation in education on clinical practice.

"...graduates are trained to value effective communication and loyalty between team members."

*Dr. Jehu Iputo,
Walter Sisulu University*

Professor Jehu Iputo, Director of the (WSU) School of Medicine, provided an overview of the university's approach to interdisciplinary training.

The WSU is located in a rural, impoverished region of South Africa. Its Faculty of Health Sciences includes a School of Medicine, a School of Nursing and a School of Allied Health Professions. Graduates include physicians, physician assistants, nurses, social workers and health promoters. All are trained to value effective communication and loyalty between team members; to be prudent managers of scarce resources; and to provide comprehensive, holistic primary care. Although the length of time each cadre spends in classes in the university differs by profession, all students have an opportunity for community-based, patient-centered practice. However, the varying lengths and complexity of the curricula makes interdisciplinary pre-service education a challenge.

The WSU has had success with in-service training for inter-professional collaboration which involves an initial three day classroom training of multidisciplinary teams of physicians, nurses, allied health professionals and community health workers. In the course of the training the participants discuss role clarification, and develop implementation plans and individual action plans. The results have been:

- increased sharing of knowledge, skills, protocols and implementation tools; successful multidisciplinary training and planning;
- improved referral systems; and
- increased confidence and competence in clinical decision-making skills.

The WSU faculty has created a platform for continued learning through monthly visits to the 15 learning networks established to serve 25 sub-districts in the Eastern Cape of South Africa.

Professor Abraham Haileaklak of Jimma University described Jimma University's model of community-based interdisciplinary education. Jimma University students begin their community education and practice in their first year during which they learn to collect and analyze data and

prioritize problem-solving. This problem solving approach is used not only by health sector students in medicine, dentistry, nursing, anesthesia, pharmacy, laboratory sciences, and environmental health but also by agriculture and engineering students. Jimma University is planning a team training program where health science students and other disciplines address community problems through a multidisciplinary approach.

Challenges to community-based interdisciplinary education include transportation to the communities, student housing, and linkages to the public health system. Regulatory bodies have, in some cases, been unwilling to adapt their curricula to integrate a multidisciplinary community-based approach to learning. In South Africa, for example, the nursing council has refused to join the health professions council negotiations around curriculum, competencies and innovative approaches to learning. The general consensus was that in spite of these challenges, an evolutionary rather than a revolutionary approach will result in longer term innovation in education and training; and that sustainable innovation will require strengthening the health system through the participation and support of the government.

B. Putting Interdisciplinary Training and Continuing Education into Practice

“Training is a continuous process. We have to plan for [training] and have to integrate it into our standard procedures and systems for HR development.”

*Mr. Robert Ochai,
TASO*

The focus of the consultation’s second panel was on translating training and continuing education for health professionals and other health workers into clinical practice. To begin the discussion Mr. Robert Ochai, Executive Director of TASO Uganda, described the organization’s approach to interdisciplinary training and continuing education. The approach is both a response to the shortage of health workers and to rapid advances in the treatment of HIV/AIDS and related co-morbidities.

TASO was founded in Uganda in 1987 to contribute to the process of restoring hope and improving the quality of life of persons and communities affected by HIV/AIDS by providing HIV/AIDS prevention, care and support services. TASO’s multidisciplinary team of 1,000 health care workers provides clinical care and community support to 100,000 people living with HIV/AIDS in Uganda annually.

The TASO model of interdisciplinary continuing education is based on a foundation of well designed and implemented pre-service education in Uganda. Continuing education, then, becomes a continuous quality improvement process that is integrated into human resources for health procedures, budgeted for and adequately funded. Also important is that the training is conducted efficiently and effectively so that it does not interfere with existing health workforce challenges. TASO believes that training and retraining of multidisciplinary teams is critical to good care. Consequently, regular needs assessments involving all members of the workforce team are conducted to determine emerging knowledge and skills gaps. In addition to formal training, continuous on-site supervision and mentoring is done to promote the use of the newly acquired knowledge and skills. Regular training evaluations are conducted and, where

necessary, repeat training is conducted. The TASO approach to continuing education for interdisciplinary teams is an integrated approach based on leadership commitment and adequate resources, and on external support to improve the efficiency and effectiveness of the training as needed.

The role of the community in engaging and supporting people living with HIV/AIDS and retaining them in care was a topic of much discussion. Mr. Ochai noted that retention in care for TASO clients is 98%. Much of this success in retaining clients is due to community involvement—many of the staff members are recruited from the local community, trained in the community, and accountable to the community. More than 60% of the care is provided in the community in local health centers and in home care. This community involvement is an important element in the success of TASO’s multidisciplinary care team approach. Community health workers, who are part of the local community, work with the medical doctors, nurses and other health professionals in a team approach on initiating and retaining people on treatment. Another outcome of the team approach with integrated and continuous education and training is the retention of health care workers who are essential in scaling up access to HIV/AIDS care, treatment and support services.

“...change should be evolutionary rather than revolutionary.”

*Dr. Jehu Iputo,
Walter Sisulu University*

“...multidisciplinary care team... a partnership between cadres, between different cadres that are bringing complementary expertise with the aim to provide comprehensive services, efficient services and continued services.”

*Dr. Badara Samb,
WHO*

C. Multidisciplinary Care Team Models

Multidisciplinary care team models, how they work, the characteristics of successful models and the role of the many stakeholders in introducing, implementing and evaluating the models, was the topic of the third panel discussion. Four specific models were presented:

- an Eastern and Southern African HIV specific model
- the Ethiopian model of health extension workers
- a community-based model in Rwanda
- a post-conflict expert patient model in Northern Uganda

Dr. Kwasi Torpey presented FHI360’s experience in several African countries. Dr. Peter Drobac discussed the Partners in Health (PHI) model in Rwanda, Professor Kora Tushune described the Ethiopian health extension worker model in the context of multidisciplinary care, and Dr. Andrew Ochero from the Northern Uganda Malaria AIDS TB Programme (NUMAT) presented the expert patient model.

The rapid scale up of ART as a result of the introduction of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the WHO's 3x5 initiative in 2004 required an innovative approach to the delivery of HIV/AIDS services. FHI360, working in several sub-Saharan African countries including Zambia, Ethiopia, Tanzania, Ghana, and Nigeria introduced a multidisciplinary care team approach for establishing a continuum of care, optimizing existing capacity, and improving adherence, patient management and outcomes. "Multidisciplinary care" was defined as a partnership among health care workers of different disciplines toward delivery of quality HIV prevention, care and treatment services for patients/clients.

Multidisciplinary care teams evolved from a physician-led, nurse-coordinated tertiary and secondary facility model. In this model each team member had a defined role: physicians delivered care and treatment and engaged in adherence counseling; nurses provided basic care, triaged patients, adherence counseling and community follow-up; pharmacists dispensed medications, and conducted adherence and medication counseling; laboratory staff performed basic HIV-related tests; social workers assessed psychological needs and followed patients; and records staff collected data, documented visits, and scheduled appointments. The rapid scale up of ART and increased access to services resulted in the decentralization of ART at the primary health care level and a more flexible multidisciplinary care team model. The level of care provided at the primary health clinic, district, secondary or tertiary hospital, and the function of the health care worker rather than the discipline in which he or she was trained determined the composition of the team. The cadre of workers available at the site, the regulatory framework and the model of care practiced further determined the model of multidisciplinary services provided in each country.

The FHI360 approach to training the multidisciplinary care team varies from country to country but generally there are two main approaches. In the first the members of the team, with the exception of the lay providers, are trained together in clinical management and remain together for the duration of the training. The second approach is one in which the team is initially trained together for a short period of time, followed by breakouts by discipline, and then finally coming together again for the end of the training. In both these training approaches lay providers are trained together but separate from the rest of the team with a specific focus in their training on adherence support and case management.

Much of the discussion about lay providers or community health workers revolves around their link to and relationship with the local community. In the FHI360 HIV care model, community-based lay providers are selected in close collaboration with the community and are generally people living with or affected by HIV/AIDS. In some countries the community health workers serve as adherence case managers or adherence supporters (Ethiopia, Zambia, Tanzania, and Nigeria); in others they may be called treatment supporters. FHI360's experience with these lay workers has shown that the adherence counseling they provide is comparable to the counseling provided by professionally trained health care workers and has resulted in a significant decline in loss-to-follow-up for patients on ART and improved levels of medication adherence.

According to Dr. Torpey, it is important that the roles and responsibilities of each member of the team are clearly defined from the beginning. The multidisciplinary care team is, in most cases, led by a clinician—the clinician can be a physician, assistant medical officer, clinical officer,

physician assistant or nurse practitioner. Generally the coordination of the team is facilitated by a nurse but the task may also be performed by a case manager who may or may not be a lay provider. The teams meet weekly and/ or monthly for case reviews where they discuss patients lost to follow-up and other clinical and psychosocial challenges. Unlike the health care professionals on the team, the lay provider may or may not be paid by the Ministry of Health but they report to the other members of the team. The case-manager-lay providers have come to play a central role in connecting and interfacing with the community and are an essential member of the team.

The shortage of physicians and the successful implementation of task shifting approaches have shown that nurse-led HIV care can lead to successful patient outcomes. The practice has been documented in several African countries including Botswana, Ethiopia, Zambia, Rwanda, and South Africa. In most cases the nurses are given additional theoretical and practical training and mentoring and back up clinical support.

Dr. Torpey closed his discussion of multidisciplinary care teams by noting that:

- The optimal performance of the team may require that health care workers and lay providers go beyond the roles that were traditionally assigned to them;
- In order to function effectively as a team, roles and responsibilities for each team member must be clearly defined;
- Buy-in from the regulatory authorities, professional associations and the Ministries of Health are critical to address potential medical/legal issues; and
- Community involvement in the selection of lay providers is essential for the community to accept them as members of the team.

In partnership with the government of Rwanda, Partners in Health has implemented a country-wide, community-based, integrated HIV care program that includes wraparound services to address social and economic barriers to care while reinforcing the community-based aspects of the care. The PIH community health worker program in Rwanda includes about 45,000 community health workers, three in each village in the country. The community health workers, who are part of and integrated into the government's healthcare system, report on their activities on a monthly basis and are paid a performance-based stipend for their work. All community health workers receive several weeks training and are supervised by a community health worker supervisor. A nurse in each of the health centers is responsible for the overall supervision of the health workers. Community health workers provide directly observed therapy (DOT) daily in the home of each HIV-positive patient. Community health workers are in charge of medication pick up which reduces the number of clinic visits by patients once they are stable, to three month intervals. Patients also receive nutritional support if needed, and access

“...the multidisciplinary health team is to really help establish the continuum and to get the best out of the human resource that you have to improve efficient adherence and eventually improve patient management and outcomes.”

Dr. Kwasi Torpey,

FHI360

to poverty reduction strategies. The community health workers, who provide care and support to 13,000 HIV-positive patients, 8,000 of whom are on ART, have been successful in increasing retention in care and visit and medication adherence. The loss-to-follow-up rate for adults in the program after six years is 2.7%, and for children under 15 in the pediatric program the loss to follow-up rate is 0.000%. The HIV RNA viral suppression rate for patients in the program after two years was 97% and after five years, 95%. According to Dr. Drobac, the PIH integrated community based model of care in Rwanda has resulted in improved patient outcomes through the provision of high quality comprehensive HIV services.

The government of Ethiopia has trained and deployed more than 33,000 health extension workers who are supported and compensated by the national health system. The health extension workers provide HIV care in addition to comprehensive care including maternal and child health, environmental health, and other primary care services. There are two health extension workers for every 5,000 population, each backed up by 10 volunteers. Health center nurses supervise and support the health extension workers and are a critical part of the health team. The HIV focus for the health extension workers is on prevention and activities to support retention in care. Health extension workers receive one year training, are integrated into the government civil services system and are provided opportunities for career progression.

The NUMAT programme is a post-conflict model of multidisciplinary care teams working in Northern Uganda to provide HIV care and treatment. The program has developed networks of expert patients, people living with HIV/AIDS who are called network support agents and who work with clinic health workers to provide basic counseling services, follow patients in their homes and communities, and assist the patients in obtaining other clinical and support services.

A common thread across all the models presented was the critical role community health workers play in linking multidisciplinary care teams to the local community. In each of the country models presented, community health workers have different names, roles and responsibilities, and length and type of training. Many are paid workers, some are volunteers. In some countries community health workers provide comprehensive care and support, in others they provide disease specific services. Task shifting to community health workers expanded in many countries in Africa as an emergency response to the human resources for health crisis as well as the burden of HIV/AIDS. Community health workers became the interface between the formal health system and the community. Community-based programs and the use of community health workers have been most successful in countries where the community health workers are a recognized cadre of health care workers and formally integrated into the health system. An infrastructure of supportive supervision is also a critical element of successful community health worker programs. The government of Ethiopia recognized early on the important work of the community health worker, making them a part of the formal health workforce with civil service positions, specified and formal training, and opportunities for career advancement. Malawi was also in the forefront of recruiting training and providing salaries for community health workers. Ten thousand community health workers, called health surveillance assistants, provide immunizations, HIV counseling and testing, family planning including injectable contraceptives, and other primary health services. Zambia is considering a similar approach. Nigeria has a cadre of community health extension workers. In Rwanda, as noted earlier, the community health workers are trained and compensated for their work. Long-term

sustainability of the village health team approach is dependent upon the integration of the workers and the team into the health system. There is, in fact, widespread consensus that the quality of the work is not going to be sustained in the long term if health workers are asked to volunteer their services, as volunteerism is not sustainable over the long term. Professionalization of community health workers was seen as essential if they are to become a part of the formal health workforce and equal members of the health care team.

In summarizing the session on multidisciplinary care team models, the WHO's Dr. Badara Samb noted that there were a number of different models of multidisciplinary care teams presented and currently in use in various countries. The models can be classified by targets or team composition and leadership. From a target perspective, some models focus on one disease or a select number of related diseases while others are broader in their focus. From the team composition and leadership perspective, some models are physician-driven while others are nurse-driven. Outcomes could be measured by the focus of the team, which might be on a specific activity such as ART access or on the provision of comprehensive services.

D. Regulatory Framework and Scope of Practice Challenges

How regulatory frameworks function and how they can be used to strengthen multidisciplinary care was the topic of the fourth panel led by a presentation from Dr. Ann Phoya of the Ministry of Health in Malawi. Dr. Phoya focused on five areas:

- The establishment, mandate and status of health regulatory authorities in health care systems;
- Strategies for fulfilling the mandate of health regulatory authorities;
- The prevalence of health regulatory authorities;
- The response of the health regulatory authorities to the human resources for health crisis; and
- Improving the relevance of health professional regulatory authorities.

“...one of the key success factors with regards to community-based programs and the use of community health workers is that they are professionalized and integrated into the health system as opposed to just sort of as an add-on.”

*Dr. Peter Drobac,
PIH*

Regulatory authorities in Malawi and many other countries in sub-Saharan Africa are called Councils or Boards. Established under acts of Parliament, they support the health care system through regulation of health professional training and practice to ensure the safety of patients in both formal and informal health care settings. The number of Councils in a country is generally dictated by the categories of health care workers in the country. Independent and well established health regulatory authorities are less organized in sub-Saharan Africa than they are in Western nations and often do not enjoy autonomy from their Ministries of Health (MOH). Regulatory authorities

are governed by elected board members appointed by the government with the MOH having an advisory role.

In order to carry out their mandate to ensure safety in health care settings, the regulatory authorities have several functions:

- Setting requirements for entry into professional education and training;
- Prescribing the syllabus, curriculum and competencies of graduates of professional educational institutions;
- Accrediting health professional schools and colleges;
- Administering licensing exams;
- Administering sanctions against professional misconduct and negligence; and
- Approval and licensure of practice settings.

The human resources for health crisis facing many sub-Saharan African countries presented both a challenge and an opportunity for experimenting with nontraditional approaches to expand and retain the health workforce. These innovative approaches require the concurrence and approval of the regulatory authorities to function properly. This, in turn, requires flexibility in entry requirements into the profession, and willingness to register and license nontraditional health care providers such as the cadre of health surveillance assistants in Malawi. Health Surveillance Assistants are trained community health workers on government payroll who provide a variety of clinical services such as immunizations, HIV testing and family planning services in community settings and primary health care facilities. Despite the commendable job that these community health workers do, none of the three regulatory health authorities in Malawi, is willing to register them. Task shifting the initiation and delivery of ART to registered nurses, and in some cases to enrolled nurses, also requires the approval of health regulatory bodies; yet regulatory authorities in many countries faced with acute shortages of medical doctors and registered nurses are still reluctant to expand the role of either registered or enrolled nurses.

Dr. Phoya presented recommendations for improving the relevance of health professional regulatory authorities including:

- Encouraging health regulatory authorities to become active partners in identifying solutions to the chronic health workforce shortages;
- Harmonizing existing health regulatory authorities and their functions to facilitate the institutionalization of multidisciplinary care teams;
- Creating a general health professional regulatory authority to harmonize the regulatory authorities; and
- Strong advocacy among the different health professional regulatory authorities, Boards and professional associations.

Dr. Abiy Hirye, Executive Director of the Ethiopian Medical Association, noted that in Ethiopia the health professional regulatory authority is the regulatory arm of the Ministry of Health, and is known as the Food, Medicine, and Health Care Administration and Control Authority. He noted that the Ethiopian health policy spelled out a team approach to health care as a strategic policy

focus. The medical association is working with the government to develop scopes of practice for the health professions. He noted a recent journal article that compared ART services provided by physicians in hospitals in Ethiopia with ART delivery in health centers by health officers. Retention in care in the centers led by health officers was better than in the physician led hospitals but he added that the challenge for long-term implementation of this practice is the lack of regulatory policies.

*“The interdisciplinary team
should be a circle rather than a
kind of hierarchy.”*

Dr. Rachel Baggaley,

WHO

E. Measuring Success

The consultation’s final panel looked at approaches and indicators to monitor and evaluate the success of multidisciplinary care team models. Dr. Yibeltal Assefa of the Ethiopian Federal HIV/AIDS Prevention and Control Office presented an overview of the National AIDS Control Program in Ethiopia and its approach to measuring program success. The model of care in Ethiopia is particularly relevant to this discussion in that it is based on a multidisciplinary approach to service delivery. The six characteristics of the HIV/AIDS service delivery model in Ethiopia are:

- A public health approach;
- A multidisciplinary approach that includes, clinicians, adherence counselors, laboratory technicians, pharmacists, case managers, adherence supporters and outreach workers;
- Decentralized service delivery;
- Task shifting to mid-and lower-level cadres of workers;
- Physician-led services at the hospital level; and
- Health officer-or nurse-led services at the health center level.

Implementation of this HIV services delivery model resulted in an increase in the number of HIV-positive people on ART from 3,880 in 2005 to 247,805 in 2011. The number of sites providing HIV services in Ethiopia increased from three hospitals in 2005 to 743 health facilities, including 148 hospitals and 595 health centers providing ART in 2011.

As Dr. Assefa described it, when a clinic is set up, the first step is to organize a multidisciplinary care team to provide the care. The second step is to build the staff capacity so that they are able to provide appropriate and quality care. Finally the staff begins providing the care and treatment. At the same time a monitoring and evaluation plan is developed that includes a

routine monitoring system to assess program and patient performance. Regular and ongoing evaluations are also conducted through surveys and other research modalities.

Three types of indicators are developed for monitoring and evaluating HIV/AIDS care, treatment and support service delivery sites:

- Impact indicators - long-term indicators based on the goals of the program
- Outcome indicators - mid-term indicators based on the program objectives
- Output indicators – short term indicators based on program strategies

Impact indicators are related to the reduced impact of HIV/AIDS at the population level. These are considered evaluation indicators because they examine the long-term impact of the services. Examples of these indicators include the number of children orphaned due to HIV/AIDS in the country. As a result of large-scale ART access expansion, Ethiopia has documented a decrease in the number of orphans due to HIV/AIDS. According to Dr. Assefa, another impact indicator used is the reduction in population mortality resulting from ART scale up. Using this indicator Ethiopia has documented a 50% decrease in AIDS mortality in its capital city, Addis Ababa, over the past 5 years.

Outcome or mid-level indicators are patient or program level indicators of the effectiveness of the program in general. These indicators are documented through routine patient monitoring systems and may or may not be regularly reported. They are evaluation indicators but are also sometimes considered monitoring indicators. Outcome indicators can include patient survival and retention in care, immunological and virological changes, and patient functionality and satisfaction over time (6 months, 12 months and/or 24 months).

Output indicators are short-term monitoring indicators related to access, utilization and coverage and are routinely reported by the health facility. Using the number and type of health facilities providing care and treatment as a short-term output indicator, Ethiopia documented an increase in the number of facilities providing ART resulting from the implementation of a multidisciplinary care team model. Coverage is calculated based on the percentage of patients receiving care and treatment from the overall eligible population. In Ethiopia there are approximately 400,000 patients clinically eligible for and in need of ART and around 248,000 patients currently on ART for a country coverage rate of around 62%. Other output indicators used include the number of patients on first-line ART and the number on second line ART regimens.

Dr. Assefa identified four important components of the package of indicators:

- Feasibility of the service delivery, mainly the issue of process and organization of the service delivery;
- Acceptability of the service delivery by the patient, provider and community;
- Effectiveness of the service delivery including quality as measured by decreased morbidity and mortality; and
- Cost effectiveness of the service delivery.

These four measures -- feasibility, acceptability, quality and cost effectiveness -- result in process, outcome and quality indicators.

Using a quantitative and qualitative, mixed-method approach, Ethiopia was able to assess retention in care in multidisciplinary care team service delivery as well as patient and provider

“... [this is] a good opportunity because we need to be more efficient, more cost effective in many ways.”

*Dr. Marco Vitória,
WHO*

acceptability of the model. A quantitative study found that patient retention in care after two years on ART in health centers using a nurse-led model was 76% as compared to 67% in the physician-led hospitals. A qualitative study conducted at the same time, in which service providers and patients were interviewed about the care, found that patients preferred nurses to physicians because nurses spent more time with them. Physicians agreed that the nurses were doing a good job and they were comfortable with them prescribing and monitoring ART. The challenge Ethiopia is facing, based on these findings, is the lack of a regulatory framework to support nurse and health officer in prescribing ART. Practice is moving faster than

regulatory changes, and until there is a regulatory framework put in place that supports this model of ART prescribing, there may be potential problems over the long-term.

Ethiopia’s model of integrated multidisciplinary care is designed to address patients’ social, nutritional, emotional and financial needs as well as their clinical needs. In organizing this holistic model of care and treatment, Dr. Assefa said it was essential that the monitoring and evaluation plan be developed and implemented in concert with the implementation of the care model in order to assess the success of the model, and to measure and improve performance and patient satisfaction with the care. Dr. Assefa summarized by saying that in Ethiopia “we believe M&E [monitoring and evaluation] is the engine for service delivery and performance improvement.”

Dr. Badara Samb and Dr. Marco Vitória from the WHO’s Health Systems Cluster and Department of HIV/AIDS, respectively, discussed the issues and challenges in implementing a monitoring and evaluation strategy to measure the success of multidisciplinary care team models more broadly.

Dr. Vitória noted that while it is important to focus on the quality of the care provided there should also be a focus on the quality of work. In an environment in which various institutions are striving to simplify treatment (e.g. the WHO’s Treatment 2.0 approach), he said there is a need to look at 1) the efficiency and the efficacy of care and treatment service delivery, including discussions of cost effectiveness, sharing responsibility among the team members, and 2) the challenges of different regulatory frameworks. Dr. Vitória also pointed out that it was important to recognize that in many of the teams the health care workers may also be HIV-positive patients which could create conflict or bias the discussion if not accounted for in developing evaluation plans.

Dr. Samb agreed that monitoring and evaluation is important for commitment to implementation of multidisciplinary care team models but noted it is also and necessary for

model's sustainability and for the multidisciplinary care team's and accountability to the communities they serve. He also noted that multidisciplinary care team service delivery is complex because it involves changing the system - the way health care workers work together. As such, it is also about measuring the process and the acceptance of the approach by patients, communities, and professional associations. When it comes to measuring health systems, neither qualitative nor quantitative measures in isolation are enough. Identifying the right mix of quantitative and qualitative approaches, as Ethiopia has done, is the challenge. Evaluating multidisciplinary care teams is essentially measuring the organization of services. To do this requires a composite indicator that will address the programs successes (or failures), acceptance by the affected population, and cost-especially in times of economic constraints.

In the discussion following the presentations by Dr. Samb and Vitória it was also noted that while monitoring and evaluation are important, they also have the potential to slow down the pace of multidisciplinary care team programming. This delay may arise due to the issue of attribution potentially resulting in the unwillingness of multiple stakeholders to support the approach. The problems that can be addressed by implementing multidisciplinary care teams are:

- there are not enough health care workers in Africa and methods to increase the health workforce are needed;
- there is not enough money to address the problem of HIV/AIDS and cost effective services are essential; and
- not all health workers have all the skills necessary to respond to all the health care needs of patients.

Consultation participants agreed that waiting until it can be scientifically proven that multidisciplinary care teams are making a statistically significant difference is **not** the answer. Program implementers should, however, be encouraged to conduct operational research as the programs are rolled out so that the key components can be identified. This approach will be site-specific but will be important to support scale- up of a multidisciplinary care team approach.

Building on the momentum of the consultation, it was agreed that an important next step would be to form Working Groups to tackle some of the more complicated issues such as training and curricula, indicators and implementation science, and operational research.

Dr. Ann Phoya summarized all the issues related to the scale up of multidisciplinary care teams including training, implementation and evaluation as critical to creating an atmosphere where **"everybody feels that they are valued."**

"...if we wait until we can scientifically prove that these multidisciplinary teams are making a statistically significant difference, we are going to wait a long time, and meanwhile people are going to be dying and we shall not be reaching them."

Mr. Robert Ochai,

TASO