

Ubuziⁱma

A Healthy People. A Wealthy Nation

ISSUE 1. A PUBLICATION OF THE HEALTH SECTOR



REPUBLIC OF RWANDA
MINISTRY OF HEALTH



★ Elimination of Mother to Child Transmission of HIV is possible

★ Entrenching a Service Culture in Rwanda's Health Care System

Manpower

Manpower is still a problem in the sense that we need more doctors, specialists, and nurses and professionals in allied sciences to improve the quality of care. We have a seven-year plan for which we are mobilizing resources.

specialists through academic training and mentorship. This is in progress and we are keeping our fingers crossed that we shall succeed.

HIV AIDS

We now have universal access to treatment. There is nobody who is HIV positive and needs treatment and cannot get it. We have more than 80,000 people on high quality treatment. A few of these are on second line treatment for resistance and there is also universal access to treatment for children.

We now have an ambitious program to eliminate pediatric HIV by preventing Mother to Child Transmission by giving tri-therapy at all health centres. Five years from now, we hope to have reduced the risk of Mother to Child Transmission below the current 2 percent. That is almost elimination; not eradication, but that is about the closest one can get to the elimination of pediatric HIV as a public health issue.

Available statistics indicate that 200,000 people in Rwanda carry HIV and slowly by slowly they will progress towards AIDS and need treatment. That means the mobilization to put them on treatment must continue.

Thirdly, if we are to sustain that effort we need to succeed in prevention. If we have no new infections we can care for those already infected, but if we have new infections at one time we are going to face a situation where we shall not be able to put any more people on treatment.

That will not only roll back the gains so far made and lead to higher mortality rates among AIDS sufferers but also increase the velocity of new infections. Putting people on treatment is therefore a public health need because of its ability to slow down the rate of transmission.

Mutuelle de Sante

Ninety two percent of Rwandans are now on public health insurance. Another 6 percent are on other health insurance schemes meaning 98 percent of Rwandans are covered under one form of health insurance or another. Beneficiaries were contributing 1000Rwfr to get care. In 2003, we discovered that the per capita cost of dispensing care was 3750Rwfr. That excluded the cost of doctors, nurses etc. That raises the question of who covers the funding gap. So we needed to find a way of making Mutuelle more sustainable.

We decided to get people to pay according to income since Mutuelle is a contributory scheme.

We have arrived at a rate that is now being implemented. The new system does not lock out anybody; the people who can't pay will still be entitled to care. They will be identified. Those who have little income and those with high income will pay according to their means.

Beneficiaries have been categorized into three classes. The extremely poor – will not pay anything, the government will pay for the care and premium.

So far there has been good accountability for resources in the health sector as part of the wider culture of accountability in Rwanda. Part of the fight against corruption revolves around zero tolerance for the vice.

This has created a culture and strong administrative guidelines that require signatures at every step. This is how we protect public money. And it is not about not stealing money but making money work.

These are values that have carried us this far and will continue to lead us on the road to progress as we tackle the pending challenges.

Dr. Agnes Binagwaho
Hon. Minister for Health

The Health Sector Strategic Plan

By Dr. Uzziel Ndagijimana



Sector Performance Reviews are regularly undertaken as part of Joint Health Sector Reviews (JHSR). The annual and periodic performance indicators as well as process indicators and MTEF monitoring are the basis for assessment.

Developed eleven years ago, Rwanda's 2020 Vision sets some ambitious but realistic goals that the country should have achieved by year 2020. By that year, Rwanda should be a middle-income country, halved the percentage of people living in poverty, raised life expectancy to 55 years and further reduced its aid dependency. It expects to reach these goals through seven key strategies or pillars among them, decreasing population growth, universal education and improved health of the population.

In the same vein the government has committed itself to achieving the Millennium Development Goals by 2015. Five of these MDGs contain targets related to health- eradication of extreme poverty and hunger (malnutrition); reduction of child mortality; improvement of maternal health; combating AIDS, malaria and other diseases; and ensuring environmental sustainability including access to safe water.

As part of its systematic pursuit of these goals and to ensure easier monitoring and evaluation, the government has distilled its Vision 2020 into sub-strategies. Among these is the Economic Development and Poverty Reduction Strategy, EPDRS 2008-12 which provides a medium-term (5-year) framework for achieving the goals set out in the Vision 2020 and provides the national priorities within which the sector strategic plans are implemented. It describes the status quo, the targets for 2012 and what Rwanda should do to meet these targets.

In order to achieve EDPRS health related objectives, the health sector has revised and updated its Health Sector Strategic Plan (HSSP-II 2009-2012).

After Rwanda joined the East African Community, it was necessary in July 2009 to harmonise its planning and budget cycle with that of the EAC. It was in this spirit that Health Sector Strategic Plan (HSSP-II) for the period of June 2009 to July 2012, and the current reporting action plan that commenced on 1st July 2009 and ended on 30th June 2010 were developed.

The objective of the HSSP II is to operationalize the EDPRS in the health sector to help attain national priorities and international targets, including the Millennium Development Goals (MDGs).

Broadly speaking the HSSP II provides a logical framework of prioritized objectives, outputs and activities for the sector. It is a tool for planning for the sector as a whole, based on previous achievements and needs still to be met, as well as on the available resource envelope; ensure all stakeholders have a common vision for the sector's development and; clarify the roles of stakeholders and promote coordination so that partners can combine resources (human, financial, logistical, etc.) to reduce duplication and promote synergies.

The programme areas of the HSSP-II are categorised along 2 axis to reflect the revised focus of the health sector.

Axis (a) operating under the heading Client-oriented service delivery contains all objectives and outputs directly related to improving the health of the people such as improved accessibility to health, quality of and demand for Maternal Health, Family Planning, Reproductive Health and Nutrition Services.

It also seeks to consolidate, expand and improve services for the treatment and control of diseases while expanding and improving services for the prevention of disease and promotion of health.



A fleet of motorcycles that were delivered to health facilities to increase access of health services at community levels

Axis (b) on the other hand, Systems-focused components containing objectives and outputs that provide an enabling environment for service delivery to be optimally effective and efficient (health system strengthening). These objectives include ensuring the availability of human resources; availability of quality drugs, vaccines and consumables; expanding geographical accessibility to health services; improving financial accessibility to health services; quality of and demand for services in the control of disease; improving national referral hospitals and research and treatment institutions and reinforcing institutional capacity.

Levels of interventions:

All interventions that will be implemented in the health sector are divided into three service delivery modes: family-oriented community based services (including household behavior change activities, community workers service and social marketing), population-oriented schedulable services (i.e. outreach services and campaigns for standardized universal services), and individual-oriented clinical services (requiring decisions on diagnostic and treatment).

Family-oriented community based services consist of what families and communities can practice by themselves when provided with information and education by health workers. These interventions include mostly preventive and proactive measures as well as some management of

neonatal and childhood illnesses, child growth monitoring, and recently, family planning. The responsibility of the system is to empower the community through information, education and other strategies as well as making commodities and supplies accessible. Most of activities are carried out by the Community Health Program, through Community Health Workers

Population-oriented schedulable services include disease-prevention services delivered to all individuals. The delivery strategy includes both periodic outreaches to communities and/or scheduled services at health facilities (Minimum and complementary package of health care). Family and Population oriented services basically constitute the Primary Health Care package, and PHC usually takes 75% of the total budget allocated to health

Individual-oriented clinical services include all types of individual curative care and delivery services that need to be offered by trained healthcare professionals in a healthcare facility. These interventions are offered in a continuous manner so that they can respond to unpredictable health emergencies

All interventions in the Health Sector aim at contributing to achieving both a strategic objective and a program objective. A very important aspect of the HSSP-II is the strengthening of the Health System, and a specific strategic plan that covers all major interventions across the different building blocks has been developed, in order to have a fully

functional Health System that enables Rwanda to fulfill the Millennium Development Goals (MDGs) also set out in the Health Sector Strategic Plan (HSSP) II.

The different building blocks are; human resources, medicines, vaccines and technologies; health finance; stewardship, governance; health information and health service delivery.

Several new initiatives have become instrumental in achieving strategic and program objectives prioritized in the HSSP II. A few examples of these include the performance-based financing scheme (PBF), which was developed to reward health facilities and staff for good performance measure through increased utilization and quality of services. This system emphasizes output financing mechanisms rather than input financing.

The community-based health insurance (CBHI) scheme has been scaled up even further to ideally ensure coverage for everyone, with a revised policy focused on the stratification of premium payments, extension of the package of services covered by CBHI including referral services, increase of premium payments and of the patient roaming with continuous mechanisms to subsidize the premiums for the poorest.

Achievements

Above all this is the Joint Health Sector Review (JHSR), a forum agreed upon between the Government of Rwanda and Development Partners, in which a deep analysis of performance (challenges as well as progress) is carried out for the implementation of EDPRS actions and policy matrix and an assessment of the CPAF targets and policy actions in order to come up with policy recommendations for the coming year.

Community health interventions have also been embraced as a way of bringing services closer to the people and increasing coverage with basic curative and preventive care, actually strengthened with interventions for child health, family planning and a rapid SMS system for better communication and reporting.

MONITORING OF ACHIEVEMENTS

An integral component of the HSSP-II is the development of a strong monitoring, review and evaluation framework. In order to measure and analyze the success of HSSP-II interventions in reaching outcomes and targets, a set of annual and periodic indicators have been developed through consultations with all Stakeholders. The indicators are the most important for measuring the Sector's performance and have been informed by the country's long term vision and strategic direction (2020 Vision, MDGs and EDPRS). These indicators will form the basis of monitoring and control of the HSSP-II.

Sector Performance Reviews are regularly undertaken as part of Joint Health Sector Reviews (JHSR). The annual and periodic performance indicators as well as process indicators and MTEF monitoring are the basis for assessment. A Joint Annual Review report is produced based on the review and is disseminated to all Stakeholders with any required actions monitored by the Monitoring and Evaluation unit of the ministry.

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DHS 2010

In 2010, the Rwanda Demographic and Health Survey (RDHS 2010) was conducted, from September 2010 to March 2011. The main objective of the 2010 RDHS was to obtain current information on demography, family planning, maternal mortality, infant and child mortality, and health related information such as breastfeeding, antenatal care, delivery, child immunization, and childhood diseases.



His Excellency President Paul Kagame officially launches Butaro hospital Burera district

In addition, the survey was designed to evaluate the nutritional status of mothers and children, to measure the prevalence of anemia among women and children, and to measure the prevalence of HIV infection among the male and female adult population. Preliminary results have been disclosed and findings will be used by policy makers to evaluate the demographic and health status of the Rwandan population in order to formulate appropriate population and health policies and programs in Rwanda.

MTR/HSSP II

A Mid-Term Review of the HSSP II was conducted from July 18th to August 4th by an external and independent team on the basis of a detailed Terms of Reference. The objective of the HSSP II MTR was to look back and assess achievements and constraints during its two years of implementation, but also look forward to preparing for the formulation of the next National Health Sector Strategic Plan (HSSP III), taking into account the various attributes of the Joint Assessment of National Strategies (JANS).

SELF ASSESSMENT OF EDPRS 2008 – 2013.

The current EDPRS expires in June 2012. Therefore there is a need to carry out internal assessment (self evaluations). The Evaluation of the EDPRS, since its inception, will offer policymakers and other stakeholders an opportunity to assess its effectiveness along various dimensions. The evaluation should enable us to understand whether the EDPRS has delivered as a strategy, and also whether the environment has been supportive enough to enable the EDPRS to deliver. In case it has not, it will still help policy makers understand the reasons behind the sub-optimal results, and provide corrective actions. The self-assessment was scheduled for September to October 2011.

Dr. Uzziel Ndagijimana

Permanent Secretary in the Ministry of Health

Rwanda Biomedical Centre: A new Paradigm in service delivery

By Dr. Pierre Claver Kayumba



We read lovely books about technology and all that but if it does not have reference to the kind of epidemics we occasionally experience in Rwanda, practitioners will come out of medical school with very good theory that will take them a year or more to apply.

Established by the law N°54/2010 of 25/01/2011, the main missions of Rwanda Biomedical Center (RBC) are:

- To coordinate and improve research activities in the field of disease prevention, education and provision of treatment to people at all levels;
- To enable Rwanda to participate in the vital regional and global health activities, that it is beneficial to all people living in Rwanda;
- To act as a biomedical center in the region;
- To coordinate various biomedical and research activities with a view to generating income in health activities;
- To provide Rwanda with a vision and coordinate joint activities of various organs in the fight against HIV/AIDS and other diseases;
- To coordinate activities geared towards treatment, control and management of consequences of HIV and AIDS and other contagious and non contagious diseases;
- To put at the disposal of all people living in Rwanda drugs and medical equipment;
- To provide highly classified medical expertise;

To establish relations and collaborate with other regional and international institutions having similar missions. The RBC brings together 14 public institutions linked to the health System. Initially, all these institutions were working independently and there was need to bring them together to enhance service delivery and work in a coordinated way.

Therefore, they have been grouped under 4 departments aiming at providing clinical care of higher standards, at preventing and controlling HIV other infectious as well as non communicable diseases, production and procurement of essential medicines and medical equipment and higher learning education.

Synergy

Creating RBC results in opportunity for synergy as highlighted in some examples. A medical specialist lecturing and practicing in the hospital is good example of knowledge translation into practice. He/she is the one who can better design transferable skills based on field needs.

We read lovely books about technology and all that but if it does not have reference to the kind of epidemics we occasionally experience in Rwanda, practitioners will come out of medical school with very good theory that will take them a year or more to apply.

On the flipside, if they were taught by people from the public health institute talking to them and sharing with them practical experiences, they will easily marry the theory to the Rwandan setting.

Cost savings and incomes generation

Academic institutions involved in training and capacity building with an aim of bringing human resource for the sector. But also in closed collaboration with referral hospitals these institutions are mandated to conduct research that will potentially bring money through clinical trials for new drugs and vaccines.



A health official checks stock of available drugs



If you have institutes running vertically where one is training people for malaria while another one is training them for TB and another one does the same for HIV, you fragment what should be a more aligned process. Yet if we sat together to synchronize such trainings, we would most probably spend less money and less time.

When the labs across health units in the country carry out tests, a certain percentage of their samples are supposed to be sent to the national laboratory for quality control purposes. You have got specimens for malaria, TB, HIV and the like but someone will go let's say to Rusizi to collect samples for malaria, while another one will go to the same location to collect samples for TB and yet another one will go for HIV. If one sat and planned these movements, one person could collect samples for everybody. From pooled procurement to communication, the scope for synergies and savings is limitless.

Besides the cost efficiencies accruing from the synergies, direct savings will come from a reduced head count. If you took the example of procurement as a function within RBC, before the merger all these entities had a procurement officer and internal tender committees. We shall not need all of these when we start to fully function at the end of the transitional period which is one year. Our target headcount is 1048 from a figure closer to 1500 before the formation of IBCRBC. That suggests an attrition rate lower than 30 percent.

RBC on the rail

The law establishing the Rwanda Biomedical Centre was gazetted early March 2011. That law asks us to be functional as a fully-fledged RBC at the end of one year transition. That means by the beginning of February 2012, we must be functioning as RBC.

Today, the institution is on track to become a fully functional entity. The Deputy Director Generals and Heads of Division have been appointed. So far, we have a consolidated financial system and a consolidated activities plan for 2011-2012. The key performance indicators for 2011-2012 have been adopted by the Senior Management Meeting. Divisions under accreditation process have already set up their target and we are committed to keep health good indicators and to improve non performing indicators.

Today the institution has a summary of job positions which was gazetted (PMO Nr 108/03 of 28/09/2011) and a selection committee headed by the Permanent Secretary in MoH is almost at the end of positioning staff.

We are finalizing manuals of procedures (client-oriented operations manual, financial management, human resource etc.). At the end of transition period we should have a RBC strategic plan. The main challenge remains the Head Quarter Offices space. In collaboration with the Rwanda Housing Authority negotiations are underway with house owners.

We believe that once the entity becomes fully operational health progress will be accelerated at a faster pace.

Medical Production and Procurement just got better!



Some of the equipment at King Faisal Hospital, Kigali

Provision of quality drugs for the population is part and parcel of the process of ensuring access to health care for all citizens and attainment of the broader national health goals. This priority area has seen recent improvements aimed not only at breaking the bureaucracy that was involved in drug distribution across the country but also to assure the quality of drug supplies.

Until recently, separate entities were responsible for procurement and production of drugs in the country.

The Consumables and Equipment Central Procurement Agency (CAMERWA) had a sole responsibility to procure drugs yet existing entities like the Pharmaceutical Laboratory of Rwanda (LABOPHAR) were able to provide enough quantity of generic essential drugs with great therapeutic effectiveness at affordable prices.

On the other hand, the National Centre for Blood Transfusion (NCBT) which supplies blood for medical use also operated as a separate entity.

As part of efforts to maximize efficiency in service delivery, the three entities (CAMERWA, LABOPHAR and NCBT) were recently merged to become the current Medical Production and Procurement (MPP) Department which is under the Rwanda Biomedical Centre (RBC). Integration of production and procurement of medical supplies has proved to be a success in terms of ensuring availability of quality drugs in Rwanda.

We have set up a joint Task Force working on strategies integrating the production into the procurement needs. Progressively we shall produce locally and reduce expenses on imported drugs.

Funds for local production remain a big challenge.

If we take an example of this year alone, Rwf 40 million has been availed for this purpose yet the entity needed 200 million. A draft of business plan has been drawn and once approved; it will be a way through which we will attract people to invest in this important area.

NCBT which was also integrated in this institution is a key unit that provides the much needed blood to save lives of thousands in our health facilities. Although blood is donated or given free by our people, there are a number of costs incurred during the whole process of ensuring safety. In the end we should regard blood products as a medical supply.

In a bid to build a sustainable way through which we will recover costs incurred, we are looking at how to sell the blood products in the near future. Our goal is to make this possible through the available health insurance policies but we know that cost recovery should be a process implicating discussions with many stakeholders.

Quality Assurance

In every way, our aim is to always ensure that the products reach the end users (patients) in good conditions so that they keep their efficacy. So there should be a quality assurance system through the whole Supply Chain. Drugs are procured from pre-qualified suppliers and quality control is being conducted upon arrival at central level stores. Right from the central store level proper storage is done and during distribution we should monitor temperatures and humidity across the country and follow up on the standards of storage facilities.

The three entities (Medical Procurement and Distribution, Medical Production and Blood Transfusion) have Heads of Division who are also responsible as regards attaining the key goal of contributing to the well-being of the population through producing, selling and ensuring access to quality medical supplies. So, our management style is to ensure synergy through coordination and guidance.

Active Distribution

We deliver drugs to district pharmacies countrywide. Health professionals are not queuing at Central Level Stores as it was used to be, they only quantify their needs and then we provide. MPP also has plans to implement the Logistics Management Information System, software which will enable us to monitor store levels countrywide and supply before stock out.

In a nutshell, a lot of progress is on-going as part of government's goal to improve health and more plans are underway to make this possible.

Dr. Pierre Claver Kayumba

Deputy Director in charge of Medical Production and Procurement as well as the Acting Director General of the Rwanda Biomedical Centre (RBC)

The Institute of HIV, Disease Prevention and Control (IHDPC): A better way to manage diseases

By Dr. Anita Asimwe



When I look at the Institute of HIV Disease Prevention and Control that I head which brought together anything to do with disease, we have already started functioning in such a way that am able to follow up anything that is happening within the diseases.

The scenario that characterized the delivery of quality control samples from the provinces to the National Reference Laboratory in Kigali, typified the kind of wastage and needless duplication that until recently characterized some aspects of Rwanda's health system. As a method of oversight and ensuring uniform standards, laboratories in health units are required to submit a certain percentage of specimens they collect during routine operations to the central laboratory.

But with each disease area working independent of other actors, several trips would be made to collect these samples even though it was possible for one person to pick all samples from a particular location.

Cognizant of the inefficiencies embedded in such a modus operandi and the dividends that could accrue from a more coherent system, the Cabinet in March passed a resolution requiring the merger of a number of institutions in the health sector into a single agency. That was the birth of the Rwanda Biomedical Centre (RBC), a new entity that brings together 14 public institutions focusing on health. Six of these were agencies responsible for prevention and control of different diseases and these were all merged to form the IHDPC.

Synergies

All these were scattered and more or less operating independent of each other. We have now brought all these together under IHDPC in the confidence that this clustering together will allow us to leverage the synergies that will bring faster delivery of goals.

Most importantly having many coordinating bodies for disease control, doesn't support point of service delivery to consider a patient or client as a whole without splitting a patient into diseases. We therefore are aiming at building a national public health institute which will support the

health facilities through guidelines and other guiding tools, to handle a patient as one and not as different portions with different diseases.

When I look at the Institute of HIV Disease Prevention and Control that I head which brought together anything to do with disease, we have already started functioning in such a way that am able to follow up anything that is happening within the diseases. We have also already looked at ensuring that there is space for all of us to sit together.

We are now having sessions where we explain to all members of staff within each division the essence of RBC to ensure that as we move ahead, everybody understands what we are trying to achieve. People have many questions whenever a new institution is formed. We answer whatever questions we can and engage in dialogue over the others so that people get out of that situation where they have very little information about the evolution that is going on around them.

The bottom line is that the structural reform is healthy for service delivery in our sector and while there will be short-term costs; the benefits by far outweigh any sacrifices we may have to make individually.

Dr. Anita Asimwe

Head of the Institute of HIV, Disease Prevention and Control and the Deputy Director General of RBC.



still in
doubt?

Live responsibly and protect yourself from
HIV and other STIs by always using a condom

KUNDA
UBUZIMA

Irinde Sida
Ukoresha
Agakingirizo

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- **RHCC**



REPUBURIKA Y'URWANDA
MINISITERI Y'UBUZIMA

SPIU: A new initiative for optimal use of resources in the health sector

By Dr Daniel Ngamije



Using this unit, over the past few months, we have been giving at no extra cost, our time and expertise to a big new project that the Ministry of Health is negotiating with the United States of America, a new funding mechanism called the Global Health Initiative. This is a huge seven-year project worth \$164 million which might be implemented hopefully next year. It will address the human resource challenge in our health sector.

Not too long ago in Rwanda, it was not unusual to find different teams implementing individual projects within a single ministry. Besides the associated cost implications, this unnecessarily complicated project monitoring and follow up since one had to deal with multiple teams. It also was time wastage.

In February 2011, a Cabinet decision was taken to have a Single Project Implementation Unit (SPIU), created in each ministry. In March, the Ministry of Health issued a ministerial instruction establishing its SPIU and in August, MOH SPIU's Procedure manual was approved by the Ministry of Health through its General Senior Management meeting.

The singular objective of the Single Project Implementation Unit is to increase efficiency in the management of project funds regardless of whether they are donor or domestically sourced. In the past, each new project in a ministry was required to set up an independent management unit with a coordinator and at least four or five units; such as the planning, monitoring and evaluation unit, the procurement unit, financial and administration unit, internal audit unit and sometimes a legal affairs unit.

At the end of the day you could find that in a single ministry, there were multiple project management units which were needless duplication, but they were operating in parallel to execute work that could have been done by a single project management unit.

This mechanism allows the government in general and in particular the ministry of health, to realize some savings, which can be used to address some health issues. Secondly in terms of tracking resources or management of the project cycle from mobilization of resources to disbursement and implementation, you are using an existing pool of expertise.

For instance using this unit, over the past few months, we have been giving at no extra cost, our time and expertise to a big new project that the Ministry of Health is negotiating with the United States of America, a new funding

mechanism called the Global Health Initiative. This is a huge seven-year project worth \$164 million which might be implemented hopefully next year. It will address the human resource challenge in our health sector.

American universities will avail their professors to Rwanda to teach in the Faculty of Medicine, Kigali Health Institute and the Schools of Nursing, who will teach doctors until they reach specialist level in the different branches of medicine.

Because we were giving our expertise to plan this project instead of being briefed or informed on a new project while it is already finished when you cannot change anything, we were able to shape its structure and planned outcome. This new context allows harmonization of unit costs and avoids duplication of interventions funded by different sources.

This has come at zero cost because people who worked on the project, such as me, the procurement specialist, the head of planning, monitoring & evaluation and finance are already paid by another fund. When it is finalized and we are ready to start implementation we will not lose time recruiting project managers because the capacity is already in-house.



The Minister of Health, Dr. Agnes Binagwaho hands over one of the cars that were given to the ministry with the support of Global Fund

This kind of proactive Project planning Involvement of the Project management Unit now converted in SPIU have been used for Global Fund cycle of mobilizations of Funds through submission of proposals since 2004.

It will also save time because typically, once a project is agreed upon it takes six months to build the institutional capacity to manage it, something we already have in this case.

This is one example of the comparative advantage of progressively adjusting the existing structure so that it can quickly start to accommodate new projects.

Experience has also shown that projects tend to suffer during the last six months of their cycle because project officers are not concentrating since they are busy looking for jobs.

This complicates completion, and the dispersal of teams is a form of brain drain to competent people. Under the SPIU approach, they will progressively develop their expertise and understanding of project implementation in a particular sector.

Lastly, this single project implementation unit gives leaders in the Ministry of Health an overview of the whole portfolio related to projects from a single source at any time. The quarterly SPIU report will be covering several projects and with reliable and consolidated programmatic and financial achievements sent on time.

This gives a bird's eye view of all project activities related to HIV, Malaria, TB, immunization or the health strengthening system project funded by Government of Rwanda and MOH's partners for an annual project portfolio beyond 140,000,000 usd.

Rwanda sees Success in Management of Global Fund portfolio



A fleet of Ambulances that were given to health facilities across the country

The Global Fund for HIV and Malaria is one of the huge portfolios that Rwanda's health sector has managed. In fiscal year 2010/2011, we managed almost \$140 million to fight HIV, malaria, tuberculosis and to strengthen the health system through some specific activities such as community health insurance for the masses, performance based financing at the community and health facility level, and a lot of support to the whole monitoring and evaluation of the health system in terms of procurement of equipment, training of staff and recruitment of additional staff for monitoring and evaluation.

As the SPIU we are responsible for ensuring that funds that are agreed between the Ministry of Health and the Global Fund are spent in time and according to government accounting procedures. We have to make sure that quarterly budgets of different sub recipients are received and are as programmed. We have to make sure that all of these implementing institutions are receiving funds on time.

This means that after submission of proposals, and approval by the country coordinating mechanism (the CCM) of the action plan we make sure that all of these implementers know the contents of this action plan. Each one should know the exact content of their component of this action plan and their role and obligations.

We make sure that once funds are there, they start to submit requests for these funds on a quarterly basis. When they receive these funds, we give them financial and technical support to make sure that they are implementing their activities in line with the plan.

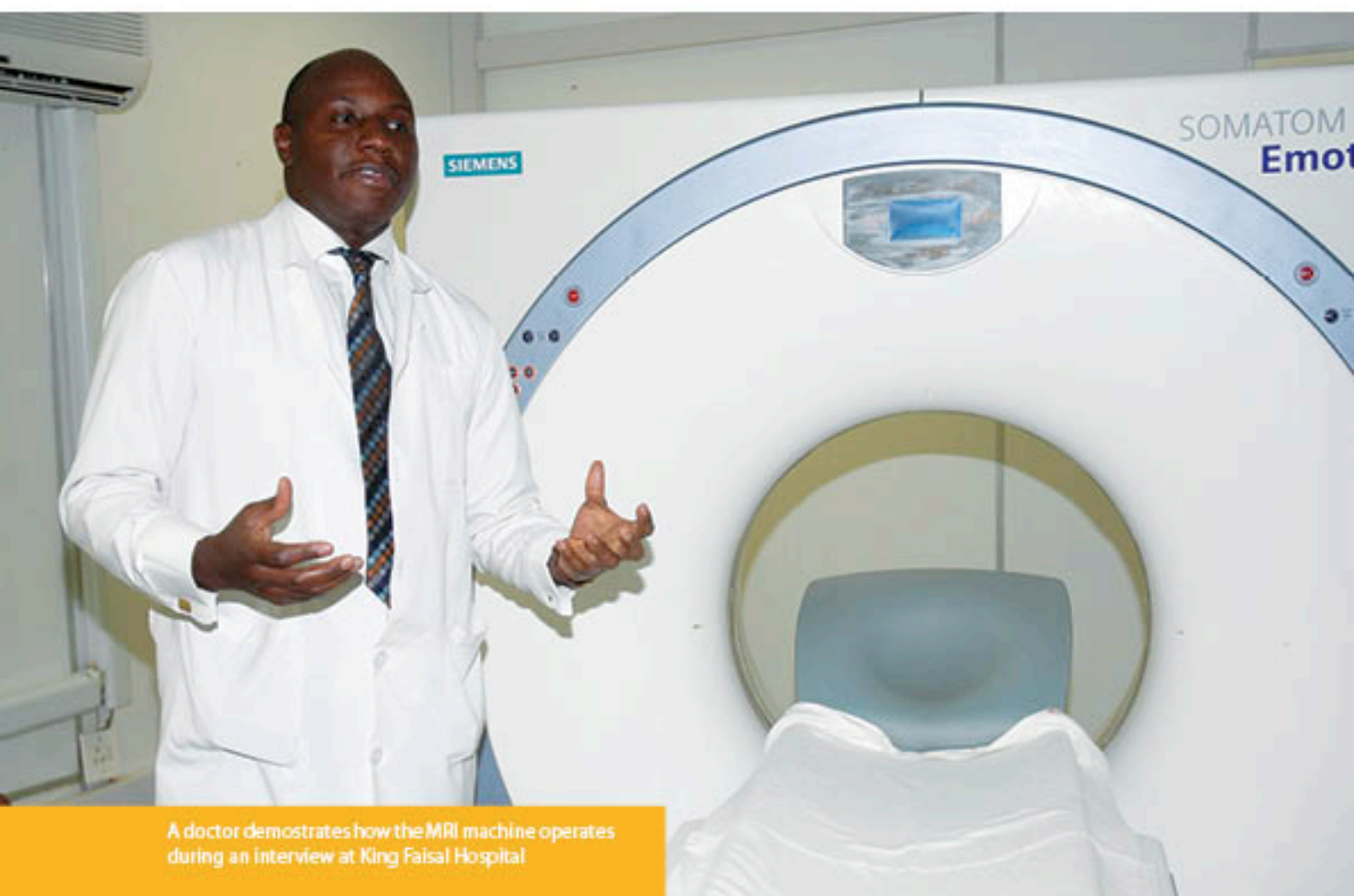
This support can come in the form of assisting them with procurement expertise, development of documents, budget execution monitoring and internal audit to make sure that they are following public regulations related to project fund.

We also have to make sure that they have sent their reports on time, (financial report), and we have to assess this financial report, even check on the bank statement to make sure that what they are reporting is exactly what they did. If there is any suspected mismanagement of funds, we have to report it to the CCM and we suspend further disbursement of funds, until a final decision is taken by the CCM.

This is how we have been managing the Global Fund and we have done well so far in that since 2004; we have been able to increase progressively the annual budget from the Global Fund from less than one million US dollars in 2004 to \$140 million US dollars last year.

Our absorption rate during 2010 was 85 percent of the budget. This is one of the best budget execution rates across the global fund portfolio. This can only be achieved if you have a very good and competent staff, including all bureaucracy and functional systems especially from the aspect of procurement because at least fifty percent of these funds are spent through procurement.

This means we are making sure the whole process is transparent; the staff is committed to make sure that everything is transparent and we are crosschecking. If any bottlenecks are encountered in the form of development of technical specifications, bidding



A doctor demonstrates how the MRI machine operates during an interview at King Faisal Hospital

Global Fund portfolio

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documents and publication of bidding documents, up to the notification to the winner; we deal with any complaints promptly and if one is not satisfied they can appeal to the Independent Review Committee in the ministry of finance. So far only two or three complaints reached the ministry of finance level, which means my internal procurement team is doing rather well.

We have received only one instruction to suspend final notification. This relates to the procurement of 74 thermal generators. In the other cases our decisions were confirmed. If you look at our procurement plan, we are procuring a lot, which means people are motivated, dedicated, honest, competent and their integrity is beyond reproach.

Dr Daniel Ngamije

Coordinator of Single Project Implementation Unit in the Ministry of Health

Securing Maternal and Child Health

By Dr Fidele Ngabo



Rwanda gets around 350,000 live births per year. According to the DHS Modern Contraceptive use in 2000 was 4% but had increased to 45% in 2010.

All this is attributed to a handful of key factors. First is a good political and economic environment and we used those opportunities to reduce maternal and child mortality.

In clinical terms, Maternal and Child Health or MCH refers to the period when a woman conceives to 42 days after delivery. The delivery period and 42 days after delivery are critical because most deaths of mothers that occur within that window are often the result of complications from delivery or pregnancy.

Over the past decade, Rwanda has been making progress towards reduction of maternal mortality in line with the target of reducing deaths to 268 per 100,000 live births by 2015. As recently as the turn of the century, Rwanda was losing 1071 mothers for every 100,000 newborns in 2000. In 2005, this number decreased to 750 deaths and three years later in 2008, maternal deaths reduced further to 383.

Similar progress, albeit less dramatic has been recorded in child health. From 196 deaths for every 1000 live births in 2000, under-five years old mortality had been brought down to 76 at the end of 2010. Under-one mortality was down from 107 per thousand in 2000, to 50 in 2010.

Rwanda gets around 350,000 live births per year. According to the DHS Modern Contraceptive use in 2000 was 4% but had increased to 45% in 2010.

All this is attributed to a handful of key factors. First is a good political and economic environment and we used those opportunities to reduce maternal and child mortality.

In line with the Millennium Development Goals adopted in 2000 an MCH component has been included in Rwanda's Vision 2020 Strategy, the EDPRS and the Health Sector Strategic Plan. In all these strategies, government set targets for MCH and committed itself to meeting them.

From these key strategy documents we have developed sub-strategies such as the roadmap for reducing maternal and child mortality; the strategy for child survival and a

strategy for family planning. It is from all these strategies that a single plan for Rwanda has been distilled.

Our new plans are informed by the challenges we have faced in implementation in the past, by and large we have learnt that attending to peripheral issues is as important as direct medical interventions in improving health indicators. Financial barriers came out as the single biggest challenge to Rwandans accessing health services. In response, we introduced Community Health Insurance which now exceeds 92% coverage therefore the financial barrier has greatly diminished.

In addition there were also geographical barriers to which the government responded to by building district and community hospitals to bring services closer to the population. The government equipped them and bought more 152 ambulances to enable people to be reached in emergency situations. In each village community health workers were trained to provide prevention, sensitization and basic care to the population such as treatment of fevers, diarrhea, pneumonia and malaria. Those were the biggest killers of children under 5 years. We then trained them to give basic care to mothers and newborns.

All community workers were given mobile phones so that they can send rapid SMS in emergency situations to acquire ambulance assistance. For instance this is useful in situations where a woman is delivering and requires emergency medical care.



The First Lady, Mrs. Jeannette Kagame gives a vaccine to a baby during the mother and child health campaign

We sign performance based financing agreements with all our health units. Under this system, the Ministry of Health is buying qualitative and quantitative indicators from health units at all levels. For example, if we set a target of vaccinating 95% of the population under the jurisdiction of a given health unit, when this target is achieved, there is an amount of money we shall give as a reward for that achievement.

If babies are delivered in health facilities following set guidelines, a health unit will receive a certain percentage of money. If treatment is given in accordance with appropriate guidelines or a health unit is clean every time I visit, the health unit receives money.

The money is shared between the unit and its workers. For each successful delivery the unit is paid 2500Rfrw (\$4). If a hospital delivers 100 children it earns \$400. At the end of the month, the combined earnings on each indicator can earn a unit enough money to buy sundries and motivate workers.

This approach has brought the 2015 goal of reducing maternal deaths to 268 per 100,000 live births and 28 deaths per 1000 children under 5 well within sight.

Our experience so far shows that while other factors such as nutrition, financial, geographical and knowledge barriers were the major drivers of the negative trend MCH had fallen into in Rwanda.

However these gains need to be consolidated through increased sensitization to bring about behavior change, especially of attitudes that stand in the way of adoption and use of modern facilities.

Dr Fidele Ngabo
Maternal and Child Health Coordinator,
Ministry of Health, Rwanda

Running the last mile in the fight against Malaria

By Dr Corine Karema



By 2008, malaria had pushed down the mortality ladder to the third leading cause of death while in 2010 it had been relegated to fourth position based on consultations at health units.

In 2010, we began massive deployment of long lasting treated mosquito nets in all households. Since then a total of 6.1 million nets have been distributed countrywide.

A cursory look at Rwanda's disease profile will show that, respiratory diseases followed by diarrhea and malnutrition take the top position as the leading causes of mortality in the country. Although respiratory diseases are more of a category representing a cluster of individual maladies such as tuberculosis and pneumonia, malaria is still the fifth leading cause of mortality.

It was not always like this and over the past five years for which data is available, Rwanda has made good progress in the fight against malaria. For many years, this preventable disease was the leading cause of morbidity and mortality in Rwanda. It was number one in terms of outpatient consultations and admissions to hospital as well as patient deaths. That situation began to change after we embarked on a number of interventions targeting malaria.

In 2006, we launched a nationwide aggressive campaign to scale up malaria control tools, such as insecticide treated nets (ITNs) and artemisinin-based combination therapies (ACTs), which led to a large fall in the burden of malaria. Distribution of ITNs began with pregnant women through ante-natal care clinics and for children under 5 through routine immunization.

In 2006, we were fortunate to receive money from the Global Fund so we started massive distribution. In fact 1.9 million insecticide treated mosquito nets were distributed through vaccination campaigns.

We had also earlier changed the treatment policy by adopting Artemisinin Combination Therapy for the treatment of malaria countrywide. In addition we introduced Community Health workers, four groups per village, two of which were trained to treat malaria in children under 5 at community level.

By 2008, it had pushed down the mortality ladder to the third leading cause of death while in 2010 it had been relegated to fifth position based on consultations at health

units. In 2010, we began massive deployment of long lasting treated mosquito nets in all households. Since then a total of 6.1 million nets were distributed countrywide.

The infrastructure to manage the disease is now in place and 96% of malaria cases in Rwanda are laboratory confirmed.

Today, the incidence of malaria has decreased by more than 70%; morbidity is down by 60% while mortality has been reduced by 54%. Looked at in hard numbers, in 2005, we recorded 1.6 million cases of malaria but this had been brought down to 662,000 in 2010. In terms of mortality, there were around 600 deaths from malaria compared to the 1450 deaths recorded in 2005.

In combination with improved delivery of health services thanks to increased coverage of the community health insurance known as *Mutuelle de Santé* and the performance based funding for all health providers, these interventions have brought us success in the fight against malaria.

The immediate benefits of our success are obviously a healthier and more productive population. Fighting malaria also frees resources so that they can be focused on other priorities. When someone is admitted for malaria, the person normally spends 4-5 days on bed rest imposing a great economic burden both to his family and the national economy in terms of lost productivity.



Man and woman sleeping under a mosquito net

Besides the decrease in morbidity and mortality, we have seen benefits in terms of the reduction in workload in health facilities at district and community level. The health workers at community level used to attend to approximately 20 to 40 cases of malaria in children under 5 a week, they now see only 2 to 3 over the same period.

Admissions due to malaria are also on the decline. In 2010, we had 36,000 admissions for severe malaria. If we take the number of hospitals in the country, that means about two patients per hospital per day on average are admitted. Before that, we had more than 10 cases daily. So our interventions have decreased the workload for both health workers and communities. In terms of productivity, not admitting anyone in hospital for 5 days (as a result of malaria illness) translates into immense economic benefits for families and the national economy.

The benefits of our achievements have manifested in various ways. For example in 2010, Rwanda spent \$64 million on malaria interventions and treatment. Expenditure on the same had been more than \$100 million in 2008, coming down to over \$90 million in 2009 before settling down to \$64 million in 2010. We expect further increase in this figure although they may not be that significant due to a need to replace the stock of mosquito nets in 2012/13.

After 3-4 years it is necessary to replace mosquito nets and in terms of expenditure this may appear to slow down the rate of progress against the disease.

We are currently carrying out the malaria costing exercise to look at the cost-benefit relationship of our interventions for the past 10 years in Rwanda and I am sure the results are going to be interesting.

What is clear: more money needs to be invested into strengthening and expanding prevention and surveillance activities to maintain a reduced burden of malaria. By finding new ways to ensure viability of the malaria control program, Rwanda will be able to sustain high coverage of malaria control tools, continue to avert malaria cases, and generate far-reaching economic benefits into the future.

The Last Mile

The challenge now is how to close the remaining gap of those who still suffer from endemic malaria. Looking at the map and the fact that Rwanda is a landlocked country, it quickly becomes clear that to win against malaria, our neighbors will need to fight alongside us. Whatever our successes, we need collaboration at a regional level so that we can deploy common malaria control interventions with our neighbors.

This is one of the key priorities that the government has set for this year - to negotiate with our neighbors so that

we can harmonize malaria control interventions. When one looks at the disease burden map for Rwanda, one notices that the incidence of malaria is higher in districts located at borders so it is important that we work with the other countries in the region to control malaria.

We are conducting Indoor Residual Spraying (IRS) using Deltanethrine in seven districts. Rwanda does not use DDT because we are a signatory to the Geneva Stockholm Convention.

IRS is a new intervention that is being assessed though other countries that have used IRS have seen success. We want to see the extent that this will help to reduce malaria.

We are still heavily reliant on external funding and one of our priorities should be to establish a revolving fund to help sustain malaria control interventions. The Malaria Division (National Malaria control program) is evaluating several possible mechanisms for generating new revenues.

One of the sustainability mechanisms we are looking at is involvement and participation of communities in malaria control interventions. For instance we are now using community health workers and local leaders to carry out malaria sensitization and awareness. With assistance of our very own population, breeding sites have been cleared. This is done during monthly communal work (Umuganda). You don't need money for this and it is a clear example of what we can do within our means as we continue to mobilize funding.

Dr Corine Karema

Head of Malaria and Other Parasitic Diseases Division
(National Malaria Control Program), Rwanda.

Scoring Against TB

By Dr. Michel Gasana



We need to improve the diagnosis of TB through an improved lab network to allow faster results. If we were to use these routine methods when dealing with Multi-Drug Resistance TB (MDRTB) where one has to send sputum to the national reference laboratory for culture and drug sensitivity testing, the process takes about 4 months. This is too long a period between detection and appropriate treatment if we want to make more progress.

As is increasingly the case in many countries battling HIV/AIDS, Tuberculosis (TB) in Rwanda is a double-edged sword because of its close relationship with HIV in recent years.

Each year, between 7000 and 8000 new cases of TB are reported in the country. It is an infectious disease whose incidence has increased with the advent of HIV and it continues to be a health burden. Also, because it is an airborne disease, its transmission is fairly easy.

Although it is an old disease, Rwanda's National TB program was only started in 1990 as the National TB and Leprosy programme. This notwithstanding, we are making progress. Since treatment is available, case finding is the first line of defense to curb the spread of the disease. Over time we have improved case finding by using all tools such as microscopy, chest x-ray and trained health workers to recognize symptoms and identify the disease. We have also trained Community health workers who assist to follow up on the health of patients.

Treatment for TB is completely free of charge. Over the past five years we have begun to fight HIV and TB jointly since the two diseases are linked. TB is mainly linked with HIV because exposure to HIV reduces immunity making carriers more susceptible to TB. Even before the advent of HIV, TB had always been linked to events that led to drops in the immunity of its victims stress and HIV only complicated the situation. It is however important to integrate TB and HIV activities and in Rwanda currently all confirmed TB cases are tested for HIV. Those found positive get treatment for both diseases. This has helped reduce mortality caused by two diseases.

Earlier programs combined TB and Leprosy because both are caused by the same family of pathogens –mycobacteria. Tuberculosis is a bacillus and mycobacteria leprosy is also a bacillus. But the symptomatology is very different because one is a skin disease and affects nerves while TB in general affects the lungs although it can affect other organs.

Other interventions where we have been proactive relate to tackling multi-drug resistance in TB treatment and Rwanda has the Centre of Excellence (CoE) for training on Programmatic management of multi drug resistant Tuberculosis (PMDT) in the East Africa region. It was established in Kigali (Rwanda) in 2010 by the Tuberculosis Control Assistance (TB CAP) Project of USAID. Many neighboring countries come to Rwanda to learn from our experience in the areas of prevention and management of TB, treatment and diagnosis.

Nevertheless we secured money and we are now going to conduct a TB prevalence survey. Rwanda will be the second country in Africa after Ethiopia to conduct a TB prevalence survey. The results will be available next year and this will give us a comprehensive picture of the disease and help us in planning our interventions from a more informed position.

We have the trend but this survey will help us as a baseline on which future interventions will be based. For now all health centres in Rwanda can treat TB, of these 194 can both diagnose and treat while 286 can only treat. Those that cannot diagnose are helped through a referral system where specimens are sent to those health units with diagnostic services.



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A TB patient takes his medication at a health centre

Trend is stable

Our programme has achieved some important milestones. Our treatment success rate has already reached the WHO threshold of 85%. This is important because if our patients are treated well, then we shall be able to avoid multi-drug resistance which occurs because people do not adhere to treatment regimens.

Rwanda is the first country in Africa to successfully manage TB and HIV co-infection. In 2010, all TB cases were tested for HIV and 31% were found to be co-infected. If one is found co-infected they get co-trimoxazole preventive therapy which helps keep HIV in check.

Testing all TB patients for HIV started in 2006 97 percent of all TB patients were tested for HIV in 2010 and co-infection was found to be around 31.8%. This rate should not be surprising given that national HIV prevalence is currently 3%.

Challenges

Despite these encouraging successes, we need to consolidate the gains and double our efforts. We started many interventions in the communities, prisons, health facilities and with traditional healers; however these interventions need to be consolidated. The foundation is in place which gives us the basis to improve on what we are doing.

We also need to improve the diagnosis of TB through an improved lab network to allow faster results. If we were to use these routine methods when dealing with Multi-Drug Resistance TB (MDRTB) where one has to send sputum to the national reference laboratory for culture and drug sensitivity testing, the process takes about 4 months. This is too long a period between detection and appropriate treatment if we want to make more progress.

Fortunately in Rwanda, there is the rapid test that reduces the time it takes to get results, for instance MDRTB results are received within three days. This is important because it means we can put patients on treatment earlier and avoid death and further spread of the disease.

Lastly, you cannot win against TB if the community is not involved. We are working closely with community health workers and traditional healers through training and sensitization. The community trusts them and gives them requisite knowledge which brings the fight against TB to the community level.

Dr Michel Gasana
Head of TB and Other Respiratory
Communicable Diseases Division

Community Health Workers: The epicenter of Rwanda's health progress

By Catherine Mugeni Murasa



Today, there are 60,000 CHWs across the country with a minimum of four per village (Umudugudu). Two are in charge of general health and community integrated management for childhood illness, one in charge of mothers and children below nine months while the other is responsible for hygiene and sanitation in the community.

Rwanda has a long history of volunteer-ship and recently this has begun to play a critical role in Rwanda's success story in delivery and improving access to basic health care.

As its moniker 'the land of a thousand hills,' suggests Rwanda is a country gifted with a scenic but challenging topography. This has implications for access to timely healthcare since access is a function of distance, time and the capacity to move from one point to another or mobility.

These factors make volunteers a critical element in Rwanda's healthcare delivery matrix. It was in recognition of these unique physical and other challenges that the government embarked on a unique system of training Community Health Workers (CHWs) as a means of advancing healthcare at grass root or community level.

Today, there are 60,000 CHWs across the country with a minimum of 4 per village (Umudugudu). Two are in charge of general health and community integrated management for childhood illness, one in charge of mothers and children below nine months while the other is responsible for hygiene and sanitation in communities.

CHWs are respectable people in communities who have been trained on the basic medical ethics such as keeping patient confidentiality. They must have the ability to read and write so that they can easily transform knowledge acquired from training to perform necessary health initiatives.

The system was introduced in 2009 with an aim of having about 80 percent of health issues solved in communities. In the community, the CHWs educate the public on priority health issues in a bid to promote behavior change.

They sensitize the population on hygiene and sanitation, improving the state of health of children in Rwanda through educating the public on how to give children the right diet to eliminate malnutrition.

They also teach the population about malaria prevention and treatment, elimination of malnutrition as well as key topics on HIV prevention and treatment.

By using Rapid tests, CHWs are now at the forefront of treating malaria and today most malaria cases are diagnosed and treated scientifically by CHWs at home through the continuous supervision efforts done by the health professionals who also do this work at sector level. This same approach is a key platform through which the ministry of health has managed to improve maternal and child health thus registering progress towards Millennium Development Goal 4 and 5.

They are also responsible for advancing key services like use of modern family planning methods an effort to control population growth. It is the government's aim to ensure that Rwandans have few children that they can support because while development is on a positive path, the resources must be enough for the population.

Rwanda has about 420 health centres, 42 district hospitals and 4 referral hospitals but the need for more health facilities still remains. The CHWs therefore act as the strong link that facilitates quick access to medical care.

To facilitate the work of CHWs and achieve results, President Paul Kagame pledged to give the CHWs phones that will enable them to communicate with officials at health facilities.



The Minister of Health, Dr. Agnes Binagwaho together with community health workers at Kibilizi Hospital

Community Health Workers

Today, there are 60,000 CHWs across the country with a minimum of four per village (Umudugudu).

Two are in charge of general health and community integrated management for childhood illness, one in charge of mothers and children below nine months while the other is responsible for hygiene and sanitation in communities.

Early 2009, the President delivered on this promise and today the phones-for-health system enables them to call officials at health facilities for guidance, call for ambulances in case of emergencies in the community and send monthly reports regarding health progress at the community level and other MDG indicators.

By use of the phones, most women are now able to deliver at health facilities unlike before, and this is attributed to the fact that a community health worker is able to call for an ambulance and save life.

Capacity building efforts are on going and the use of community health workers has shown great results since these are the immediate health ambassadors at community level.

Efforts to improve healthcare through the CHWs are clear. We believe that with the assistance of these determined health care providers in communities, malaria will soon be eliminated.

The goal of ensuring that women attend the four antenatal care sessions and deliver at health facilities can be reached and malnutrition will soon be a case of history.

Catherine Mugeni Murasa

Coordinator of the Community Health Desk

Accelerating hygiene promotion campaigns to eliminate preventable illnesses

By Joseph Katarwa



Experience shows that use of a Community-Approach through the Community Hygiene Clubs is a very effective method of sharing experiences and learning not only of how to do things better to promote good health but also save and protect our environment.

Across Africa and the world over, most hygiene related illnesses such as diarrhea as well as other infectious diseases are the leading cause of mortality especially for children under five. In Rwanda, over 90 percent of consultations at the rural health facilities revolve around malaria, acute respiratory tract infections, diarrhea, skin diseases, tuberculosis and intestinal parasites among others. Findings show that 11.3 percent of children under-five die of diarrhoeal diseases annually while the prevalence still stands at 14 percent.

CBEHPP statistics show that by 2009, as many as a quarter of school children were suffering from intestinal worms while in 2007, 44 percent were suffering from amoebiasis. It was against this background that the Community-Based Environmental Health Promotion Programme (CBEHPP) was created in 2009 to increase awareness on priority health needs as regards hygiene. This strategy is premised on the reasoning that facilitating behavior change among the population can yield desirable results since hygiene related diseases can be prevented by simply promoting the right hygienic behaviours.

Under the Ministry of Health, the CBEHPP is working at community level in villages (Imidugudu) by setting up hygiene clubs which enable residents to meet and share ideas on existing hygiene problems and how to curb them. Rwanda's vision 2020 aims at ensuring that citizens master and practice good hygiene and waste disposal. This is in fact one of the objectives behind the creation of CBEHPP. Our country's leadership believes that a healthy people can quickly lift themselves out of poverty and the young generation must be healthy to be able to grasp what is taught in school.

In communities, residents are taught how to make water safe for drinking, proper disposal of liquid and solid waste, through use of hygienic latrines and toilets, proper food storage as well as adopting a hand-washing with soap culture.

Experience shows that use of a Community-Approach through the Community Hygiene Clubs is a very effective method of sharing experiences and learning not only of how to do things better to promote good health but also save and protect our environment.

Environmental Health Officers acquired skills to train 60,000 Community Health Workers across the country so that they could assist in making the programme a success. It is believed that the goal of ensuring good hygiene for all will be attained by 2012.

Out of the 15,000 Villages in the country, about 78 percent have formed these clubs and in June 2011, CBEHPP set in motion the National Water Drinking Water Surveillance Project. Today there are water testing kits in place which will be used to test and identify contaminated water sources so that water treatment is done at home to maintain hygiene at water sources.

There is a plan to launch an intensive sensitization campaign to improve the state of traditional latrines and their cleanliness. We know that they are still a source of infection because many are not built according to the standards that require one to be at least 4 meters deep, a slab top, structured enclosure, a roof, and a simple door—at least for every household.



The Permanent Secretary in the Ministry of Health, Dr. Uzziel Ndagijimana promoting the handwashing hygiene campaign

Ventilated Improved Pit Latrines are encouraged because they combat flies and the bad odor.

With invigoration of the existing efforts in place, it is believed that diarrheal diseases will be eliminated. The Ministry of Health through its various campaigns also ensures that de-worming is done for children and adults across the country. If the efforts in place attain the intended goal of curbing hygiene related diseases, most health problems will be solved and in turn this will reflect positively on the country's economic development since healthy people are economically more productive.

Joseph Katabarwa

Head of Environmental Health Desk and Coordinator of the Community-Based Environmental Health Promotion Programme

Rolling out Universal access to Post-Exposure Prophylaxis in Rwanda

By Dr. Sabin Nsanzimana



Most of the people seeking PEP at the TracPlus clinic say a condom failed or they misused a condom due to intoxication. Sometimes, one says, they had engaged in unprotected sex with a sex worker and are afraid she was HIV positive and so they need prophylaxis. Apart from failed condoms, the other people coming sometimes have information about the source of infection; they know about the rapid test and that they can get treatment.

Post-Exposure Prophylaxis or PEP has always been an important component of Rwanda's efforts to prevent the transmission of HIV from infected individuals to new hosts but its wider application had been constrained by lack of enough information on its importance.

PEP started when Highly Active Anti-Retroviral Treatment (HAART) or ARV treatment became available in Rwanda around 2001. By 2003, universal access had become a national goal and PEP started around the same time using the same molecules used in the treatment of HIV/AIDS.

An emergency response, PEP is premised on the understanding that when introduced within 48 hours of exposure, anti-retroviral treatment can reduce the probability of transmission by huge margins. Research suggests that this intervention can reduce the risk of infection by up to 95 percent. These results have therefore made PEP an important element of the overall strategy for slowing down or even breaking the transmission chain of HIV.

In Rwanda as in many other countries that have since adopted it, the first beneficiaries of PEP were medical workers, mainly those involved in surgery that got exposed to HIV during surgical operations or gynecological interventions. Treatment was and continues to be free for exposure suffered during surgical or gynecological or other medical activities and most importantly cases of rape.

Although the intervention was scientifically sound, there was one molecule in the PEP regimen –Nevirapine– that scared many people from seeking PEP because of the adverse reactions it manifested in a severe skin rash in some patients. It was later learnt that this reaction was associated with higher levels of immunity. The higher the level of immunity in the patient, the more adverse the reaction would be. It also depended on one's predisposition to allergic reaction. Otherwise it was an effective treatment.

Now nevirapine has been removed from the list of drugs to be used in PEP. It has since been replaced by Kaletra in the triple therapy combination that also includes Tenofovir and lamivudine or 3TC. The other reason is that Kaletra is more potent in stopping the progression of the virus into the deeper cells of human tissue than Nevirapine or Effavirenz.

Rolling out Universal PEP

The withdrawal of Nevirapine has made PEP more tolerable and with time the number of people in Rwanda seeking the service has increased. In 2007 when I began to work in the TracPlus Clinic, there were few people seeking PEP. However, after a while we have seen the number of cases increase, suggesting that there was information-sharing among people.

This also means that there are many people that get exposed to unprotected sex with or without their knowledge. Because these people are many and somehow they have the means to contribute to the cost of treatment, scaling up and PEP available universally has been a priority for TRACplus.

Rwanda has around 450 health centers but for now the service is available at 336 sites offering Anti-Retroviral Treatment. The personnel at these sites are trained and can competently provide PEP at the point of demand.

They don't need to refer anybody to a higher level medical facility. Most of the people seeking PEP at the TracPlus clinic say a condom failed or they misused a condom due to intoxication. Sometimes, one says, they had engaged in unprotected sex with a sex worker and are afraid she was HIV positive and so they need prophylaxis. Apart from failed condoms the other people coming sometimes have information about the source of infection; they know about the rapid test and that they can get treatment.

We can say that in terms of information dissemination, PEP has been a success. Now it has reached a point where we have to put in place measures such as selecting victims to isolate accidental from intentional exposure however it is not always easy to sit and evaluate and confirm the truth in whatever they say. In view of the growing demand for PEP especially around the weekend, we sat as a technical group and proposed that they should contribute to the cost of providing treatment. These people are quantified in our ARV stocks so we decided that they should pay RWfr 10,000 (\$13). It is also a way of discouraging people from abandoning basic layers of protection just because there is free treatment. Cases of rape and professional exposure remain treated free of charge countrywide.

Paying for the service is not seen as a major problem to access because the people seeking the service are probably paying more than RWfr 10,000 for sex so this fee should not constitute a barrier to accessing the service.

We had very long meetings with the former National Council for Aids Control CNLS, and TracPlus until it was agreed that these people should make a small contribution that will go into a basket fund to replace stocks. ARV coverage in Rwanda is currently higher than 90% meaning that there is gap of 10% of people that need ARV's that are not getting them.

Rapid test

Ideally PEP should be administered within 48 hours of exposure. People seeking PEP are first tested to ensure they did not have a pre-existing HIV condition. In some cases we have found people seeking PEP hoping to join treatment when they were already HIV positive.

Those found already positive are sent to counselors to help them come to terms with reality and accept their status. The central message we try to put across to such people is that HIV is no longer a terminal disease but a chronic one just like diabetes.

So far it has been difficult to track people who come for PEP since they don't come back to the place where they first reported on follow-up visits.

In scaling up PEP, we started from the clinical side because we did not want to call people and then they find the providers are not there. That has now been addressed. At all the sites the providers are available, they have guidelines and standards and the tools for treatment. We are satisfied by what we have done in the last few

months. Next we will inform the population in general that those services are available. Some people know but there are many others that don't know about the availability of PEP. Once we inform the public, we expect to see a surge in demand for these services.

The objectives of this campaign tie in with the overarching strategy for prevention and reduction of transmission even after exposure. We have just concluded a campaign on condom use and now we are launching a campaign on PEP targeting Health care workers who are the most at risk and the police and other local authorities in relation to the cases of rape or sexual violence.

What has really changed is that we want this service to be available to whoever may need it in Rwanda. Prophylaxis treatment is still available for free in some cases and can be given at every health facility giving ARV's in Rwanda.

The difference between prophylaxis and universal access to HAART is that people in need of ARV treatments are those already infected and have become eligible for ARV's after they reach a certain threshold criteria. There are currently two criteria for access - one based on a CD4 cell count of 350 or less. In some circumstances other factors such as pregnancy or the presence of TB may make people with counts above this criterion eligible to start treatment even when the CD4 count is above 350.

Another criterion is the WHO Stage defined by the level of occurrence of opportunistic infections. In Stage 1 the patient is generally asymptomatic, betraying no opportunistic infections that can be ascribed to HIV. In the second stage there are less serious infections such as simple cough of transient diarrhea.

Stage 3 is more serious because here you encounter complications such as tuberculosis and other advanced disease which suggest that one has passed from living with HIV to AIDS. Stage 4 is the most advanced condition that sometimes goes with the number of CD4 and level of disease. Patients falling between stage 3 and 4 are immediately eligible for ARV's.

Presently, more than 90,000 people are on treatment with ARV's in Rwanda today. This number can keep growing and make provision of treatment for all difficult or impossible if no effective measures for slowing down the rate of new infections are adopted. Making PEP universally available offers a new and important avenue for breaking the transmission chain of HIV not just in Rwanda but across the globe.

Dr. Sabin Nsanzimana

Head of HIV AIDS STIs and Blood Borne Infections Division
Institute of HIV Disease Prevention and Control at the
Rwanda Biomedical Centre

Male Circumcision and HIV Prevention

By Simon Kanyaruhago



Male circumcision is one of the three intermediate outcomes towards the reduction of sexual transmission of HIV as articulated in the Rwanda National Strategic Plan for HIV and Health 2009-2012.

In any setting, HIV presents a complicated picture whose understanding is important in shaping the different responses and mitigation measures. In Rwanda's case, the major drivers of HIV transmission among others transactional sex, HIV-negative partners in sero-discordant couples and uncircumcised men.

Rwanda's National Strategic Plan on HIV aims at three major outcomes – halve the incidence of HIV in general by 2012, significantly reduce morbidity and mortality among people living with HIV and those infected by the diseases should have the same opportunities as the general population. The first objective can be broadly achieved through reduction of sexual transmission of HIV, reduction in mother to child transmission and maintenance of low levels of blood-borne transmission of HIV/AIDS.

Male circumcision is one of the three intermediate outcomes towards the reduction of sexual transmission of HIV as articulated in the Rwanda National Strategic Plan for HIV and Health 2009-2012. A high coverage of male circumcision has been demonstrated to be effective in reducing heterosexual transmission of HIV. Three randomized trials in South Africa, Kenya and Uganda demonstrated that a 60% reduction in the risk of transmission of HIV among adult males who got circumcised was possible. The evidence from these studies led the World Health Organization (WHO) to adopt male circumcision as an additional intervention in HIV prevention.

According to the 2007 intermediate DHS, at least 12% of men in Rwanda in different age groups have been circumcised. Commendable as this might be, it still shows a large scope for use of male circumcision as a means of preventing the transmission of HIV. The Rwanda National Strategic Plan has adopted the Male Circumcision strategy over and above the existing base line to enable our Country to achieve NSP. This would result in total cumulative of 12.8% of new HIV infections averted by 2012 and nearly 25% of new HIV infection averted by 2015.

In Rwanda the target is to have carried out 2 million circumcisions by June 2013. We have already embarked on this strategy by training the people to carry out circumcision in all district hospitals. We started by training care providers such as doctors and nurses to perform the surgeries in all 41 district hospitals. We started with two pilot districts – Nyanza in the South province and Musanze in the North province. The idea during the pilot was to train at least two nurses per health centre in the district and two doctors and four nurses per District Hospital.

This would then be scaled up to cover all health units in the entire country. Training has also been completed in Kabgayi District hospital in Muhanga District, Kibuye District hospital in Karongi and Kirehe District hospital in Kirehe District under the second phase. The third phase training is ongoing at Kibagabaga District hospital in Kigali, Gahini District hospital in Kayanza District and Gisenyi hospital in Rubavu District. We are hoping that after training and assessment, we shall be able to scale up the programme.

We began with the master trainers at the teaching hospitals (CHUB and CHUK) and now we are at district hospitals. At the end of the programme we shall reach the community through mobile outreach facilities. Military clinics run by the Rwanda Defense Forces and private clinics run by faith based organizations and other private providers of health services are also involved.

Simon Kanyaruhago
Health Adviser in RBC/IHDP

The PrePex™ device offers hope for scaling up Male Circumcision in Resource Limited Settings

By Dr. Vincent Mutabazi



The PrePex™ device is composed of three single use components; Placement ring, Elastic Ring and Inner Ring. All PrePex™ device circumcisions are performed by PrePex Operators who are experienced in using the PrePex device from prior Safety and Efficacy studies in Rwanda. The procedure is carried out in a clean non-sterile environment.

In 2007 it was estimated that 33.2 million people were living with HIV across the world and that there were 2.5 million new infections during that year. The "ABCs" – Abstinence, Be Faithful and Condoms are crucial elements, but are not enough. The much anticipated HIV vaccines have been under development for nearly 20 years but are nowhere near market readiness so discovering ways to prevent the transmission of HIV remains a primary goal for health care authorities worldwide.

It is well known from a range of observational and epidemiological studies that the lifetime risk of acquiring HIV among males can be significantly reduced via male circumcision. Numerous papers on the topic were published in the past two decades to elevate HIV prevention awareness, especially in sub-Saharan countries.

In March 2007 during a meeting in Montreux, the WHO/UNAIDS recommended that male circumcision be promoted as part of a comprehensive HIV prevention package in addition to other HIV prevention means, and that countries with generalized heterosexual epidemics and low male circumcision rates be a focus for scaling up this intervention of circumcision.

In the Republic of Rwanda, the number of circumcised men is estimated at about 15%. The Government of Rwanda adopted a nationwide Male Circumcision program as part of a comprehensive package of HIV prevention strategies since 2007, and has defined national targets for adolescents and adults MC within the 2009-2012 National Strategic Plan (NSP) to fight HIV/AIDS, to achieve a national goal of decreasing HIV incidence rate by 50%. However, given the current resource limitations, such a goal would be impossible to meet using standard surgical methods.

Surgical Male Circumcision (SMC) requires highly trained medical professionals and sterile surgery-type settings. While genuine attempts have been made by target countries to scale up SMC in the past years, the procedure is not geared for the volume required in Africa, especially in rural and resource limited areas hence, the government

is interested to explore a male circumcision solution that has the potential to be carried out by a non-physician, in a non-sterile setting, thus minimizing the burden on the existing healthcare system, which is already strained handling life-saving procedures.

The Government of Rwanda through the Ministry of Health continues showing great progress in responding to HIV through intensification of evidence based prevention strategies. In the framework of accelerating efforts towards averting new HIV infections it has started identifying gaps and looking at maximizing the use of funds to accelerate the deployment of safe and effective methods of circumcision in adult males and has embarked on randomized clinical trials to evaluate new non-surgical methods of circumcision such as the PREPEX™ male Circumcision device.

PrePex is the first known device to facilitate medical adult MC that can claim all of the following: No injectable anesthesia. No blood. No sutures. No sterile facilities.

The PrePex™ device is composed of three single use components; Placement ring, Elastic Ring and Inner Ring. All PrePex™ device circumcisions are performed by PrePex Operators who are experienced in using the PrePex device from prior Safety & Efficacy studies in Rwanda. The procedure is carried out in a clean non-sterile environment.

The subject undergoes sizing and cleaning of the penis; anesthetic cream may be applied on it. The operator then marks the circumcision line, loads the Elastic-Ring on to the Placement Ring, the Inner Ring is applied through the stretched foreskin and these three are adjusted to fit the circumcision marking line. The Elastic-Ring is rolled from the Placement Ring on to the Inner Ring to press the foreskin. The procedure that lasts on average three minutes is complete.

The Ministry of Health has so far carried out studies on the Safety and Efficacy of the PrePex™ device for male circumcision, a prospective randomized trial comparing the PrePex™ device to surgical circumcision for rapid scale up in Resource Limited setting, a comparison study of safety and cost of adult male circumcision using the PrePex™ device who performed by nurses in two different staffing patterns and is currently undertaking a study to assess the safety and efficacy of the PrePex™ device when performed by nurses.

These studies have demonstrated that the PrePex™ device is very safe to use on male adults. Comparison studies on the device demonstrated its superiority over surgical circumcision in areas of procedure time, related adverse events and expected side effects. Results have been published in Peer Reviewed Journals like the Journal of Acquired Immune Deficiency Syndromes (JAIDS) and also presented in the international conferences such as the 18th

Conference on Retroviruses and Opportunistic Infections (CROI) in March 2011 (Paper # 1007) and American Urology Association Conference in May 2011 (abstract #: 1107106)

Although it will be available alongside traditional surgical circumcision, its simplicity potentially makes the PREPEX™ device a very important component in the ministry's plans to scale up male circumcision to reach 2 million adult males in Rwanda in a period of 24 months.

While the 2005 Demographic and Health Survey put the National HIV prevalence in Rwanda at 3 percent, male circumcision prevalence is equally low. The Ministry of Health looks to have many adults circumcised so that the incidence of new HIV infection may be curbed and as a result have a major public health impact due to male circumcision.

The Ministry of Health has started training trainers who will fan out from the central level down to the provinces' and districts in district hospital and health centres to train health care providers on the safe and efficient use of the PREPEX™ male circumcision device. If successful, it will open the door to large-scale rollout of male circumcision.

Dr. Vincent Mutabazi

Coordinator of HIV Research in the HIV Division of the Rwanda Biomedical Centre and Principal Investigator of the PrePex clinical trials in Rwanda.

Editorial

By Arthur Asimwe



You don't light a candle and then put it under the table, Jesus Christ said at one point during his sermons more than 2000 years ago. The moral in that teaching is that we should not be shy of our actions and that illumination and improvement of the human condition should be the primary motivator of whatever we choose to do.

Thanks..

The discipline and dedication of an obviously outnumbered cadre, Rwanda's health system has undergone a remarkable turnaround and is now poised to conquer those elusive peaks be it in maternal and child health, malaria, HIV/AIDS or TB.

Those words ring a distinct echo in my mind today as we launch this the first edition of our health sector quarterly magazine. For better or worse, Rwanda's reconstruction effort has been a herculean task, driven by single-minded determination and faith in our ability to reshape our destiny and change the course of life for the better. And perhaps nowhere else is this change more directly perceptible to the average man than in the delivery of health care.

Thanks to the discipline and dedication of an obviously outnumbered cadre, Rwanda's health system has undergone a remarkable turnaround and is now poised to conquer those elusive peaks, be it in maternal and child health, malaria, HIV/AIDS or TB.

It is to chronicle this journey of faith and achievement as well as to create a platform for peer review and debate within the sector that the Rwanda Health Communication Centre RHCC conceived this idea of a quarterly magazine. This product has been designed in such a manner that professionals can directly communicate with their audiences. Besides a more friendly engagement with the reader, this approach also minimizes the chances of error.

We hope that this product really provides the different actors in this complex story, a platform through which they can share their triumphs and tribulations, and give readers a glimpse of what the future represents for delivery of health services in Rwanda.

Welcome aboard and have a nice reading.

Arthur Asimwe
Head of Division
RBC/RHCC

Keeping Epidemic and Infectious diseases at bay

By Dr. Thierry Nyatanyi



In the face of an epidemic or infectious disease, we remain committed to act fast by stopping the invasion in its tracks while ensuring quick and proper health care to save lives. A lot has been done to strengthen preparedness but more is still on-going especially capacity building and development of flexible plans that are interoperable with key response partners.

It is always hard to predict the timing, nature and severity of an epidemic or infectious disease but the effects can always be mitigated by careful preparation and planning.

This is why, we have the Epidemic and Infectious diseases unit in the Institute of HIV Disease Prevention and Control (IHDP) that is responsible for planning and response should the unpredictable occur.

Initially there was an epidemiology division in charge of this response but over the years, there has been an evident need to strengthen systems in a bid to ensure proper preparedness.

Knowing that such diseases know no borders and have great potential to spread easily and cause harm, the health ministry seeks to ensure that effects do not lead to loss of lives. As part of our mitigation measures, we have strengthened collaboration with international and national domains to enhance response capabilities. In case of a disease outbreak such as cholera or Avian Influenza, there are plans in place to ensure immediate response right from the community to the national level.

What is common is that in every case, the vigilance of the population is the first line of defense. Coupled with communication at borders and across the country, we are always in a position to curb spread using our strong surveillance systems.

This division is also in charge of stocking medication and supplies that can be used in case of outbreaks and continuous training of health workers to enable them identify suspected cases and treat these illnesses in case they occur. We also prepare manuals and other important documents that can be used to quickly pass on important messages when needed.

If you take the example of the 2009 outbreak of the influenza H1N1, we were not caught off guard and managed to respond swiftly and in a manner that controlled panic

and minimized spread. Other minor outbreaks have occurred since the system has proved robust and capable of dealing with them.

Successful mitigation of the likely effects of any outbreak is dependent on successful coordination across the country. So within the health ministry the Epidemic and Infectious diseases unit is always on the alert and closely monitoring health progress and disease out breaks within and outside the country. To further improve response, we are looking at putting in place a multi-sectoral response plan involving various stakeholders that will put the country in an even better position to respond to outbreaks.

In the face of an epidemic or infectious disease, we remain committed to act fast by stopping the invasion in its tracks while ensuring quick and proper health care to save lives. A lot has been done to strengthen preparedness but more is still on-going especially capacity building and development of flexible plans that are interoperable with key response partners.

Dr. Thierry Nyatanyi

Head of Division of Epidemics and other Infectious Diseases and Response Division RBC/IHDP

Rwanda's 90% immunization coverage: A sure way of eliminating preventable diseases

By Maurice Gatera



Children receive immunization against Polio, Tuberculosis, Diphtheria, Pneumonia, Tetanus, Whooping Cough and Measles while girls receive the cervical cancer vaccine.

As the adage goes, "prevention is better than cure". If there is any effective way that Rwanda has kicked out preventable diseases, then this has been so as a result of universal immunization against preventable diseases.

Raising a healthy generation that is strong and able to be productive implies that you protect them from diseases right from childhood. Under the country's vaccination programme, children, pregnant women and girls receive free vaccines against a number of diseases.

Children receive immunization against Polio, Tuberculosis, Diphtheria, Pneumonia, Tetanus, Whooping Cough and Measles while girls receive the cervical cancer vaccine.

Government's plan to avail free vaccines for the population is also in line with attaining key Millennium Development Goals especially MDG4 which emphasizes reduction of child mortality. According to the Demographic Health Survey Report of 2010, 90 percent of all our children are immunized against these preventable diseases and this has been attained through concerted efforts at district and health centre level.

Under the Ministry of Health, the Vaccine Preventable Diseases Division monitors the immunization programme to ensure that all vaccine preventable diseases are indeed eliminated.

Besides the above vaccines, we also administer yellow fever vaccines and meningitis vaccines to people traveling out of the country so that they are safe from contracting these diseases. This way we are also sure that they will not bring the same diseases on return.

Annually, our division conducts countrywide campaigns against polio and measles especially if cases are reported in our neighboring countries so that the population remains vigilant and report suspicious cases – this way we are able to check progress and limit effects, should infections occur.

The HPV vaccine

This is the newest vaccine on the list. The Human Papillomavirus Vaccine (HPV) was introduced this year because background studies have proved that cervical cancer is the most common cancer among women in Rwanda.

Clearly this shows that it is a national public health concern since the World Health Organization ranks Rwanda among the countries worldwide with the highest cervical cancer incidence estimated at 49.4 per 100,000 women.

Fortunately, cervical cancer is preventable! To address this, the government of Rwanda started with the roll out of a vaccination program for all girls, as modern molecular diagnostic screening for women will start later this year. Under the auspices of the First Lady of Rwanda, Mrs. Jeannette Kagame, Rwanda became the first nation in Africa to offer a prevention program for cervical cancer for girls.

This program targets young girls who are not yet exposed to this cancer, that is to say, those who have not yet started having sex.

During this high-level launch, Mrs. Kagame highlighted the importance of the new initiative as an opportunity that will save thousands of young Rwandan girls from the threat of what has been a potentially fatal illness. So far the first phase of vaccination showed 97 percent



The First Lady, Mrs. Jeannette Kagame and Minister of Health, Dr. Agnes Binagwaho administer the first dose of the HPV vaccine

coverage for the girls targeted to receive it in the first phase and second. The third phase is ongoing. Screening for women which is set to begin end of this year, will assist in early detection so that quick treatment is administered to those who will be tested positive with the virus.

Supported by MERCK and QIAGEN, HPV vaccines and HPV screening tests have been made available to Rwanda for free for the first three years after which the country will purchase the vaccines.

Other achievements

In post genocide Rwanda, there is clear evidence of government's commitment to eliminate preventable diseases. Some diseases like measles and polio that were often reported at health facilities in the past 18 years are no more. Close follow up has ensured that progress to eliminate them is maintained. Today, there are also community health workers who play a significant role in the elimination and follow up processes.

Government has provided high quality refrigerators across the country so we are able to maintain the effectiveness of the vaccines that we distribute. Everyone including people in the rural (most poor) acquire vaccines in the same quality.

Capacity building is on going and we have enough medical resources like syringes and needles. It is very impressive that Rwanda's vaccination programme is ahead of those in many countries and efforts to maintain progress continue.

In 2002, this country was the first in the region to introduce the Pentavalent vaccine which is a unique single vaccine which prevents about five diseases at once.

In 2009, we introduced the PCV pneumococcal vaccine against pneumonia and two years on we can see the progress. Pneumonia cases have reduced among children and this has lowered child deaths that result from this disease.

Future prospects

We have been approved by GAVI to introduce the Rotavirus vaccine to fight diarrhea among children. It is believed that this will lower the under five mortality rate by 80 percent.

2008 Health Management Information Systems statistics show that after pneumonia and neonatal infections, diarrhea is the third cause of death among children under five in Rwanda.

From December 2010 to April 2011 of the children's stool samples brought to laboratories in CHUK, 30 percent were found to be positive of Rotavirus and this is why the government has decided to introduce this vaccine. The move is set to begin next year.

Rwanda is committed to raise healthy generations that will drive the nation to key development goals. This begins with ensuring that children lead a healthy life.

Without the assurance of good health, other development initiatives like education for all would not be well attained because without good health one can not grasp what is taught in class and in turn will never perform well in other areas of life.

Maurice Gatera

Head of Vaccine preventable Diseases

Making Mutuelle de Santé Sustainable

By Shema Joseph



Mutuelle de Santé is one of those innovations that give Rwandans a sense of pride and faith in their ability to change life for the better. Combined with other private health insurance schemes in operation, Rwanda is closer to having 100 percent of her population covered by health insurance.

With ninety one percent of the population covered by Mutuelle de Santé, the community health insurance scheme introduced a few years ago, Rwanda has been successful in delivering universal access to health insurance. The challenge now is how to make the scheme sustainable and increase the range of services available to beneficiaries throughout the health system.

As a community-based scheme whose major purpose was inclusiveness "Mutuelle de Santé" was able to bring the majority of ordinary people, vulnerable and indigents into the insurance loop. As a matter of necessity the government had to contribute to the scheme to make it successful.

The government picked 100 percent of the premium for the extremely poor while those who could afford paid Rwf 1,000 annually.

Over time however, the cost of health provision has been increasing and eating into the premium making a review necessary. At the same time the economic status of Rwandans has been improving and their hierarchy of needs changing.

It was for this reason that in July 2011, government announced a new policy that saw revisions to the premium and benefits accompanying the policy.

Where previously, one had a uniform premium of Rwf 1000, two new layers have been created to cater for the extremely poor, the poor and those with reasonable means to establish the principle of equity between the Rwandan population based on "UBUDEHE" program (The program under Ministry of local governance).

In the extremely poor category, the government and its partners will pay Rwf2000 while a middle income family will pay Rwf3000 per family member per year and those considered rich will pay Rwf 7000 per member per year. The stratifications of who pays what

are arrived through assessment under the Ubudehe programme considering income and other parameters such as land owned and economic status.

Alongside the higher premiums, the new policy also comes with added benefits. Under the old scheme, policy holders were tied to health facilities within their locality. The new policy gives card holders mobility allowing them to get treatment from health facility in Rwanda.

More importantly policy holders will also benefit from the referral system including treatment at the referral hospitals level.

Citizens were given up to December 31, 2011 to pay their premiums under the new system.

Mutuelle de Santé is one of those innovations that give Rwandans a sense of pride and faith in their ability to change life for the better. Combined with other private health insurance schemes in operation, Rwanda is closer to having 100 percent of her population covered by health insurance.

Shema Joseph

Ag. Coordinator of CAAC and CTAMS

Mainstreaming ICT in the delivery of health care

By Dr. Richard Gakuba



In practical terms e-Health targets various business areas within the healthsector. I use the word business because there are specific activities within the health sector that call for different application of and use of ICTs. For example in health centres and hospitals, we have started deploying electronic medical records whereby everyone who comes into a healthcare facility will have their medical history recorded electronically.

It has been eight years since Rwanda first embarked on exploring the benefits of ICTs in the delivery of health care. The application of e-Health started way back in 2003, when we had telemedicine systems being set up and video conferencing systems between teaching hospitals.

Around 2006, as Rwanda began to write its first e-Health strategic plan, the concept of looking at information technologies in the health sector had begun to expand in scope to including automation of more services in healthcare.

Since then, we have made progress in various areas where some systems are running, while in other areas we are in the planning phase developing new systems. What we develop and deploy depends on national priorities. As we progress our understanding of the concept of ICTs and their application in healthcare it is becoming clearer and more of a priority.

In practical terms e-Health targets various business areas within the healthsector. I use the word business because there are specific activities within the health sector that call for different application of and use of ICTs. For example in health centres and hospitals, we have started deploying electronic medical records whereby everyone who comes into a healthcare facility will have their medical history recorded electronically.

That will help to track the care and provide continuity of patient data that even if you go to another healthcare facility the service provider will have access to a particular patient's case history without the need to look at paper records.

We have started deploying that and we have over 30 healthcare facilities that are using the system. This financial year which started in July, we are planning to deploy

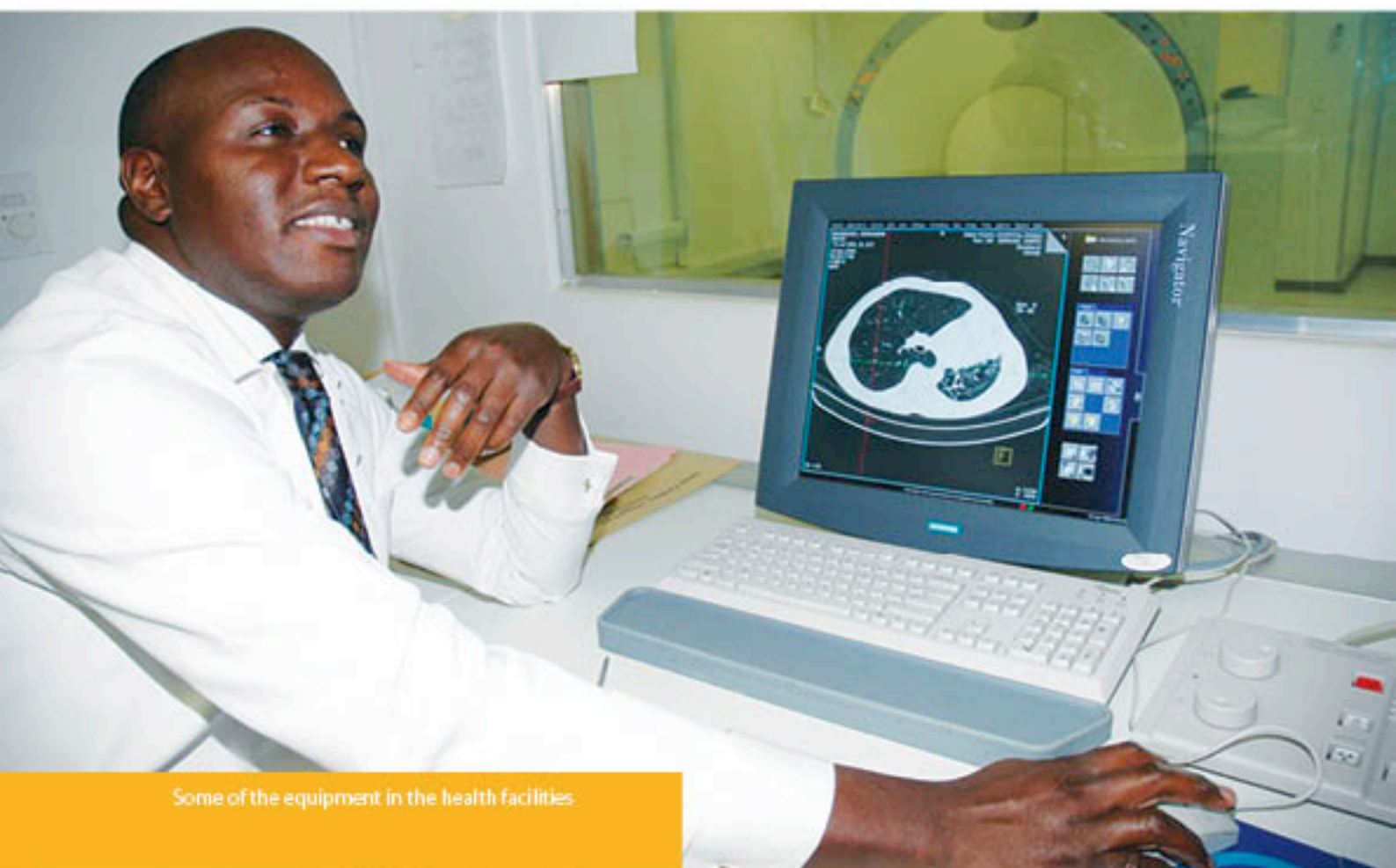
over seventy more healthcare facilities and over the next three years we plan to automate and link all the different healthcare facilities in the country.

It will take us a couple of years and this is partly tied to availability of electricity in all these places; fortunately the majority of our healthcare facilities are already on grid power.

Another use of ICTs in the sector relates to planning. For planning purposes the health sector needs information and data on operational aspects from the various healthcare facilities or communities so as to make appropriate plans which benefit the population. Using the HIV programme as an example, it is necessary to know how many patients need HIV treatment in the country or in a particular facility so that the appropriate types and quantities of medication can be availed to a particular facility.

It can also be used to know how many people have actually tested positive so that plans for follow-up and eventually provision of treatment can be made in advance.

Those aggregate figures are required and the population benefits in terms of better planning and decision making at different levels in the system. Currently, we are using e-health systems, to collect all data related to HIV and all the other programmes as well. In addition we have the data in electronic form in a timely manner, which allows us to make the appropriate plan for which support we can give them. So if a citizen goes to a health facility gets treated and receives his medication on time it is because planning



Some of the equipment in the health facilities

has been done and it can only be possible because such information is available.

That is the aspect of reporting, monitoring and evaluation of the healthcare system which is different from the medical records example that I first gave.

The other use relates to logistics management information systems. We have a central warehouse formerly called CAMERWA, which procures medical supplies for the entire country (public health facilities) and they distribute these through a certain supply chain mechanism from a central level to district, down to district hospitals, health centres and even up to the community level using community health workers. Such a supply chain needs to be automated and we are in the process of doing it now.

When fully deployed, the system will allow a healthcare facility to forecast how much they will need for each stock item up to six months or even more in advance. That way, managers of individual health units will coordinate the procurement cycle between their units and CAMERWA.

In turn CAMERWA should also be able to derive forecasts for the entire country and make the right procurement plans. Essentially, that is what constitutes business areas for automation that we are targeting.

There are others such as e-Learning for education of nurses, we have automated reporting for community health workers, telemedicine and automation of imaging services within healthcare facilities on which we have made some good headway as well.

A common area of confusion during discussions of e-Health often arises from making the distinction between e-health and telemedicine. In simple terms telemedicine is a small component of e-health.

Generally, telemedicine deals with exchange of medical information between one practitioner and another, for the sake of giving a second or expert opinion. We have video conferencing services which connect all the teaching hospitals, and that has been running for some time and is operational. We encounter occasional hitches mainly because of connectivity but generally it is functional.

We have different projects to connect district hospitals and we have actually equipped two hospitals to start using telemedicine services, but there was a big challenge with connectivity. Rolling out the national fiber optic backbone has just been completed, so we hope that this is going to energize our efforts.

Telemedicine is so reliant on connectivity that without reliable connectivity it is quite a big challenge. But we do our best and we have some services running but we hope to make it better.

Looking beyond three years

Our strategic plan is a five-year plan that still has three years to completion. We started in 2009, and we are reviewing to update our activities and priorities. Various heads such as medical records, facility management including finance and basically looking at the facility as an enterprise, human resource management and reporting at various levels of care within the healthcare sector, logistic management, laboratory information systems, telemedicine, should within the next three years be fully functional on a national scale at least up to 70 percent of planned levels.

A key objective of this project is to ensure that all these different systems that we are deploying looking at three years' times should actually materialize much earlier; most likely in 2012. They should be able to interact with each other by then; because it is a key component of deploying the technologies. We don't want to have standalone systems that don't interact with each other, so from a layman's point of view I would say by then all the systems that we do have should be connecting with each other and also with other systems outside the health sector.

Price tag

Technology does not come cheap. We are fortunate enough that the government and the leadership that we have all across the entire government acknowledge that technology is a key pillar in developing all the different sectors, so that makes acquiring the funds simpler, but there is a price tag especially if you are talking on a national scale.

In 2009, the five year strategic plan was estimated to cost around \$30 million. That may at first look like a hefty price tag but then we are talking about national level systems. If we get it right, given the benefits that will occur in form of efficiency, this is a worthwhile investment.

As would be expected with any strategic plan, when you cost it for five years, there are a lot of assumptions that you make. But we try to mitigate all the costs as we can possibly do. For example we use open source systems where they are appropriate, which can be managed internally without paying big license fees. Again when you plan on national scale you enjoy cost savings so instead of doing piecemeal systems we try to leverage synergies and economies of scale to cut costs.

Challenges

The biggest challenges we have met this far are manifested in terms of infrastructure. One aspect of this is connectivity because most if not all of these systems need connectivity, to be running and interacting with each other. We are

trying to mitigate that by using mobile phone technologies, because the coverage of mobile phones is now good, but it is still a challenge for systems that cannot run on mobile phone networks, so connectivity is one issue.

The second is that we need reliable electric power. If you are running a hospital or a health centre without electricity there is very little that you can do. Fortunately, the biggest number of our facilities have electricity but it is not as reliable as one would have wished. Some of the systems require electricity running 24 hours. If you want a patient to come in and access his electronic medical record without retrieving information from archived papers, then the electricity has to be up and running otherwise you have to mix both systems and that becomes very costly in healthcare.

The second category of challenges is the human resources; we don't have many people that understand technologies as they are applied in the health sector. In other words we have doctors and nurses and healthcare professionals on one side and ICT and computer science professionals on the other side. To bridge this gap and ensure that you implement the right technology strategy, you have to put these two together.

Luckily there are efforts at mitigation. We have set up an e-Health centre of excellence which was running at KIST that was recently moved into Kigali Health Institute that is going to train the cadre of people. So human resource is a challenge and in addition we have between 400 and 500 healthcare facilities that require IT people to run these systems at the point of care.

Hiring IT people in all these healthcare facilities increases the budget so exponentially that it becomes difficult. So human resource related issues arising from a skills gap plus the budget demands for salaries in these facilities is another challenge.

What next for e-Health?

In Rwanda we have made e-Health one of the key pillars for improving healthcare and strengthening healthcare systems. This has been made clear to all stakeholders and our strategies are also aligned to that. Going forward I see our healthcare system being strengthened a lot by technologies in the coming few years. Having a lot of dependencies on technologies and automation of most services and getting away from the archaic way of doing things will save money, time and lives.

Dr. Richard Gakuba
Coordinator of e-health
Rwanda Ministry of Health

Person-centered care in mental health

By Dr. Yvonne Kayiteshonga



Photo by Florence Gakuba

Care plans are personalized for each individual's unique situation, and health care is provided as close to home as possible. Trained nurses provide a broad range of mental health services under the supervision of a physician. Tools have been introduced to facilitate referral system and coordination between the different levels of care.

"Families are our partners in the health-care business; everything is done with them."

Rwanda faces an exceptionally large burden of mental disorders. The prevalence of depression and post-traumatic stress disorder has been reported higher than international averages. Much of the country's burden of mental disorders can be traced back to the 1994 Genocide against the Tutsi, which resulted in the deaths of more than one million people and untold additional disability and suffering.

In response to the burden of mental disorders, the government of Rwanda has taken steps to provide people-centered services for all people with mental health problems. It developed its first national mental health policy in 1995.

By 2005, mental health was identified within the overall health sector policy as a priority area for intervention. This policy also called for the integration of mental health services in all national health system structures and at the community level. Mental health services are now decentralized, mainly to district hospitals. Currently, 41 of 43 district hospitals throughout the country offer mental health services.

Care plans are personalized for each individual's unique situation, and health care is provided as close to home as possible. Trained nurses provide a broad range of mental health services under the supervision of a physician. Tools have been introduced to facilitate referral system and coordination between the different levels of care.

Mental health workers are provided with on-site supervision and participate in regular case review sessions. Importantly, medical students and other health workers in training also receive training and supervision on how to address mental health issues and conditions.

Mental disorders are managed with a bio psychosocial and holistic approach. Affected individuals are not seen only in terms of their disorders, but also in terms of their history, community, and current life circumstances. Families are viewed as key care partners, and community groups are engaged to raise awareness about the extent of mental disorders in the country and to dispel common misunderstandings about their causes and treatability.

Capacity building is currently in progress. Primary health workers are being trained to provide mental health services that are integrated with general health services. Similarly, community health workers and other community stakeholders are being trained to fight stigma and help people with mental disorders to join health care facilities and also to be reintegrated into society.

Dr. Yvonne Kayiteshonga
Head of Division, Mental Health, RBC.

Surgeons at work!



Dr. John Nkurikiye together with Dr. Geoff Tabin doing eye surgery at King Faisal Hospital, Kigali

Through the support of various partners, Rwandans have benefitted from operations ranging from cardiac (heart) and ophthalmic (eye) surgery to cleft lip and cleft palate surgeries that have been done by visiting specialists in different health units across the country.

Early this year, seventeen patients with rheumatic and congenital heart diseases successfully underwent cardiac surgery free of charge at King Faisal Hospital-Kigali (KFH-K).

So far, 221 cardiac patients who have been referred to KFH from various hospitals across the country have already benefited from these highly specialized operations.

A team of Rwandan doctors, including two cornea transplant specialists from King Faisal Hospital Kigali (KFH, K) and Kigali Health Institute (KHI), successfully performed three cornea transplant surgeries this year. Annually, the country's medical army specialists also perform free eye check-ups and surgeries as part of the highly celebrated Army week.

Dr. John Nkurikiye an ophthalmologist and cornea specialist at King Faisal Hospital says that 22 patients were previously operated on, in July 2009, and 9 in February 2010.

To date, there are skills and equipment to perform these surgeries however efforts are still underway to ensure that the big challenge of acquiring corneas is met. Experts are hopeful that soon, the country will possess an eye bank. The first cornea transplants in Rwanda were carried out in 2005 when 10 operations were performed.

Current progress shows that there is a growing trend towards performing surgeries that would otherwise be sought after elsewhere. Annually, more medical students leave the country to specialize in surgery so it is believed that over the next few years, Rwandans will be able to acquire all key surgeries that are demanded countrywide.

Ensuring access to quality health care: Minister's visits to countrywide health facilities



Minister of Health Dr. Agnes Binagwaho handing over the Ambulances at MOH headquarters in Kicukiro

The Minister of Health, Dr. Agnes Binagwaho has continued to tour health facilities across the country to ensure that the population indeed accesses the available health facilities. During her visits, health officials in the respective working areas discuss the progress and key challenges encountered in the line of duty, with an aim of addressing existing problems so that the population gets the best health care.

Official launch of Gishubi Health Centre, Gisagara, Southern Province

On 23rd August 2011, the Minister of Health launched the facility which will serve over 30,000 residents that initially walked about 19 kilometers to access health care at the district hospitals of Gakoma and Kibilizi.

This is part of government's goal to bring health services closer to the population. Gishubi health centre is worth over Rwf280 million and has various departments of maternity, laboratory, pediatrics, internal medicine as well as public wards and private self contained rooms.

12th August 2011, Tour of Murunda Hospital

The Minister also visited Murunda Hospital Rutsiro district in the Western Province. While addressing medics and community health workers, Dr. Binagwaho highlighted the need for the community workers to sensitise the public on priority health issues.

Citing malnutrition, a preventable deficiency, the minister called on the health workers to ensure that the public understands what is supposed to be on a child's plate in order to avoid the deficiency which results from taking an unbalanced diet in which certain nutrients may be lacking or are in the wrong proportions.



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"Rwandans must know that it is unacceptable to have any of our children suffering from malnutrition. It is not enough that people have kitchen gardens. Community health workers should emphasize what must be put on the child's plate to ensure that they get a balanced diet," the Minister said.

11th August 2011, Dr. Binagwaho tours Bisesero, Mugonero health facilities

As part of her countrywide tour of health facilities, the Health Minister, Dr. Agnes Binagwaho continued with visits to Bisesero Health Centre and Mugonero Hospital in Karongi District, Western Province.

While addressing health officials, Dr. Binagwaho noted that community health workers must continue to play a key role in sensitizing the public about the need to deliver at health facilities, eliminate malnutrition, promote hygiene and sleep under treated nets among others to curb malaria.

10th August 2011, Visit to Musango, Kibuye Health Facilities

Dr. Binagwaho extended her visit to these two facilities Karongi district, Western Province, where she also held discussions with health workers and community health workers as well. "We will also construct a maternity section at Musango dispensary so that mothers who live around this area can quickly access health care. This is part of the government's goal to improve maternal health. The upcoming facility will be included in next year's budget," the Minister said.

Plans are also underway to expand Kibuye hospital which serves over 148,652 people who live in this area. The Minister examined the master plan of the proposed extension and revealed that the government is committed

to providing all the necessary equipment that will make the facility a very efficient one. "Soon every province will have a referral hospital and we also plan to establish nursing schools and a medical university which will solve the human resource problem that is faced by many health facilities especially those located in rural areas," Dr. Binagwaho explained.

In a bid to ease the work of health workers at the dispensary, the minister also pledged a motorcycle which will mainly be useful during supervision of progress and activities done by the community health workers.

15th July 2011, Tour of Health facilities in Rusizi

As part of a countrywide tour of health facilities, the Minister of Health, Dr. Agnes Binagwaho, visited Rusizi District to assess the performance and collectively lay strategies for effective service delivery.

Speaking to the officials of Gihundwe Hospital and other health officials who included community health workers, the Minister called for improvement in service delivery and strict adherence to norms expected of any health professional.

She commended Gihundwe Hospital for maintaining adequate hygiene standards and called on its management to expedite the hospital's master plan, which is set to be transformed into a provincial referral hospital from the current District Hospital Status.

Dr. Binagwaho urged development partners working in the district to harmonize their activities and work in close partnership with district officials.

URUKINGO RWA KANSERI Y'INKONDO Y'UMURA RWARABONETSE MU RWANDA



**babyeyi namwe barezi mushyigikire gahunda yo gukingiza
abangavu urukingo rwa kanseri y'inkondo y'umura**

**kurwanya kanseri y'inkondo y'umura dusingiza
abangavu, nibibe intego yacu twese**

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Elimination of Mother to Child Transmission of HIV is possible

BY Jeannette Kagame



Under the Millennium Development Goals, we have committed ourselves to eliminate Mother – to – Child Transmission (MTCT) of HIV by 2015. That means reducing the MTCT rate below 2 percent at birth. It also implies reducing the rate at which children are newly infected with HIV by 90 percent.

Elimination of Pediatric HIV provides a unique window of opportunity in the fight against one of the most vicious infectious diseases mankind has ever faced. Comparatively cheap, Prevention of Mother – to – Child – Transmission or PMTCT offers resource constrained countries an avenue to deliver an AIDS free generation by breaking the transmission chain at one of its critical links.

EMTCT is one of the key goals that Rwanda is trying to attain through making access to PMTCT services universal. Our experience over the past decade shows that this goal is attainable and encourages us to pursue this route more resolutely.

From 2005 until now, availability of PMTCT services has increased from 42 percent of health facilities in the country to 82 percent today.

The cart and the horse are now paired and we are seeing an increasing number of Rwandan mothers seek to use PMTCT services. This has led us to the next logical step which should be an action plan to Eliminate Mother – To – Child Transmission (EMTCT) of HIV.

Under the Millennium Development Goals, we have committed ourselves to eliminate Mother to Child Transmission (MTCT) of HIV by 2015. That means reducing the MTCT rate below 2 percent at birth.

It also implies reducing the rate at which children are newly infected with HIV by 90 percent.

Various activities have been introduced to support the final push towards achieving Millennium Development Goals 4, 5 and 6 that sets targets for reductions in child mortality; maternal health and HIV/AIDS, malaria and TB.

As First Ladies in Africa, we have pledged our commitment to helping deliver an AIDS free generation. This is achievable if there is increased access to EMTCT, and then sexual and reproductive health services are integrated into mainstream health care.

Building on the efforts we started back in 2001, we recently launched a national awareness campaign on May 12, 2011. Through this campaign, we hope to keep the EMTCT flame burning. To ensure maximum impact, the campaign was rolled out at community level during our national communal cleaning day – Umuganda.

I hope we succeeded in focusing attention on the need to have pregnant women access these services which are available at the majority of our health facilities since high level advocacy meetings were also held in each province countrywide.

Looking back at where we have come from and the momentum that this initiative has gained, I am certain that if every mother takes the responsibility to access these services, we will break the chain of Mother to Child Transmission of HIV.

I believe that this is possible and by 2015, we will have attained this goal. This is reflected in the words of the Minister of Health, Dr. Agnes Binagwaho, who observed



Pregnant woman receives Iron Tablets from UNICEF country representative, Joseph Fombi

Building on the efforts

we started back in 2001, we recently launched a national awareness campaign on May 12, 2011. Through this campaign, we hope to keep the EMTCT flame burning.

To ensure maximum impact, the campaign was rolled out at community level during our national communal cleaning day – Umuganda.

that “mothers in all parts of the country, whether in rural or urban places can now access these services, and it is our call to ensure that strategies for eliminating mother to child transmission are successfully implemented so that our children are born free of HIV.”

Such strategies include but are not limited to; primary prevention of HIV infection among women of reproductive age particularly adolescent girls, prevention of unintended pregnancy among women living with HIV, prevention of transmission of HIV from a woman living with HIV to her infant and providing appropriate treatment, care and support to mothers living with HIV, their children and families. This is the last mile in our race against HIV/AIDS and we must not lose faith in our ability to win.

[Mrs. Jeannette Kagame](#)

Founder and Chairperson of Imbuto Foundation.

Entrenching a Service Culture in Rwanda's Health Care System

By Dr. Agnes Binagwaho



By just getting consumers to play their civic role of opposing wrong practices, we can take the quality of health care to the next level within the same resource envelop; without adding a single coin to our budget. This should help us on our journey to improvement.

Over the past decade, Rwanda's health sector has made some laudable strides. 98 percent of the population has access to health insurance, mainly as a result of Mutuelle de Sante; maternal deaths are down to 70 percent and the incidence of malaria has been reduced by the same margin. More than 80,000 people that need treatment for HIV are receiving medication while pediatric HIV has been brought down to 2 percent.

The primary health care system is working. Health units are stocked, equipped and manned by appropriately trained care givers. As we acknowledge these achievements however, we are reminded that the higher you go the more difficult it becomes to achieve incremental progress.

Yet much as they are more challenging, those next few steps are all the more important in terms of the impact they are likely to have on performance of the sector. We have diversified services and spread them across the country and the population will have better health if they maximize use of those services.

They also need to be part of the process, highlighting any shortfalls we may have in the health sector such as hygiene and customer care. If they can understand that those services are meant for them and they insist on those simple rights, then the quality of care should improve.

We have adopted a participatory approach in the health sector and the major goal right now is to bring the consumer of health services on board, to learn to demand services and help ensure that we provide services that are appropriate and relevant to their needs.

Even though the consumers of our services are not technical and we may sometimes disagree, involving them will help understand what we are doing and trying to achieve.

By just getting consumers to play their civic role of opposing wrong practices, we can take the quality of health care to the next level within the same resource envelop;

without adding a single coin to our budget. This should help us on our journey to improvement.

We have had a problem of lack of compliance with quality guidelines and lack of acceptance by consumers that they are paying for this service and are therefore entitled to quality care.

People need to know that they can complain and we shall listen to them; it is a right to be attended to in a clean healthy facility, to have a health professional wash hands before touching a patient, have a clean bed and to be attended to and receive medication in time.

There are so many small things that can improve the quality of service- care and speed all comings at low costs.

We need to make the public aware of these goals through sensitization and demonstrating that we have no tolerance for those malpractices. This will be achieved by making them know that if they bring a complaint about a person who does not give them the expected quality of care, we shall listen to them and if their complaints are valid, we shall act.

Manpower

Manpower is still a problem in the sense that we need more doctors, specialists, nurses and professionals in allied sciences to improve the quality of care. We have a seven-year plan for which we are mobilizing resources.

We want to introduce provincial hospitals that will act as an intermediate level between the district and referral

