CHAK Annual Health Conference
2008 Report

Conference Theme: Community strategy
towards reversing the trends: Revitalizing
primary health care in Kenya through FBOs

Dates: April 7-10, 2008
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Community strategy towards reversing the trends; revitalizing primary health care in Kenya through FBOs

By Dr Samuel Mwenda, General Secretary, CHAK

PHC model that guarantees universal access to health
Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self reliance and self determination (Alma Ata Declaration 1978, para.VI). The concept of primary health care was devised about 30 years ago in Alma Ata.

What is health?
Health can be defined as a dynamic state of complete physical, mental, social and spiritual well being and not merely the absence of disease and infirmity. The aspect of spiritual well-being was added by WCC and a political aspect was recently included. The NHSSP has also changed focus from treatment to health and the community strategy is recognized as the means towards achieving a healthy population.

Universal access to health: Quotes from WHO
- “The main target of PHC should be the attainment by all people of the world of a level of health that will permit them to lead a socially and economically productive life. Primary health care is the means of achieving this goal” (Declaration of Alma Ata: Principle 5 WHO/UNICEF 1978)
- “Decades of experience tell us that primary health care is the best route to universal access, the best way to ensure sustainable improvements in health outcomes, and the best guarantee that access to care will be fair” (Dr Margaret Chan, Director General WHO, August 2007)

There have been attempts to identify religious health assets out of recognition of the fact that churches have many resources that promote health. Such assets include:

- Health services
- Prayers for the sick
- Counseling and encouragement
- Fellowship
- Laying of hands
- Sacrament
- Preaching involving uplifting messages and messages of faith and hope

A study process to document these assets and their impact on healing is currently being conducted.
Community strategy
Kenya has developed and launched a community strategy policy document to provide a policy framework to guide stakeholders in community empowerment and mobilization for disease prevention and health promotion within the context of Health SWAps. This strategy re-defines Kenya’s approach towards revitalizing primary health care as a strategy for reversing the declining trends in the health status of the population.

Purpose of the 2008 CHAK AHC/AGM
‘To review the status of the PHC concept 30 years after its launch in the Alma Ata Conference of 1978 and to review the Community Strategy policy document as a vehicle towards revitalizing primary health care in Kenya in the context of Sector Wide Approach strategy (SWAps)’

Why the theme of primary health care?
With Kenya having recognized the community strategy, there is need for CHAK membership to be informed about the new policy direction and how the policy will be implemented. Presentations during the conference will also emphasize on the need for coordination and harmony in implementing the community strategy.

There is interest even internationally in revitalizing PHC and the World Health Organisation (WHO) is interested in strengthening partnerships with FBOs in PHC. A WHO consultative meeting with FBOs on PHC was held in Geneva on December 17-18, 2007. The meeting was titled “Towards PHC – renewing partnerships with the faith based communities & services”. Another consultation for Africa is due towards the end of April 2008 in Tanzania.

Objectives of the AHC
- **Kenyan context**: To review the *Kenya Community Strategy* and its implementation modalities within the context of SWAps
- **CHAK network experiences**: To share some case studies from the CHAK network of some successful models of PHC programmes. This shall include HIV/AIDS, Malaria, TB, Maternal & Child Health, Eye care and Disability rehabilitation.
- **Revitalizing PHC**: To discuss strategies for enhancing FBO contribution to PHC through implementation of the Community Strategy as a mechanism for accelerating progress towards attainment of National Health Sector Strategic Plan (NHSSP II) goals and the Millennium Development Goals (MDGs)
- **Malaria Conference**: To receive an update on Malaria treatment policy and review CHAK Global Fund Round 4 Malaria project
- **CHAK performance in 2007**: To receive reports of CHAK departments and projects in 2007
Role of FBOs in Implementation of the Community Strategy

Dr James Nyikal - Director of Medical Services

Introduction
The Ministry of Health is implementing its second National Health Strategic Plan (NHSSPII: 2005-2010) of the 1994-2010 Kenya Health Policy Framework. The NHSSPII aims at reversing the decline in trends of health indicators which had been experienced in the 1990s. The NHSSPII is modeled around a Kenya Essential Package for Health (KEPH) and strengthening of health systems.

Policy objectives of the NHSSPII
- Increase equitable access to health services
- Improve quality and the responsiveness of services
- Improve the efficiency and effectiveness of service delivery
- Enhance the regulatory capacity of MOH
- Foster partnerships in improving health and delivering services
- Improve financing of the health sector

The Kenya Essential Package for Health (KEPH)
The KEPH defines six levels of care in service delivery. Services are packaged and offered based on six age cohorts with emphasis on the community as the primary focus to promote health and prevent illness. The role of KEPH is to define minimum services that the population should receive in order to reverse the trends.
Levels of care in KEPH

Level 6:
Level 5: Secondary Hospital
Level 4: Primary Hospital
Level 3: Health Centre, maternity and nursing home
Level 2: Dispensary/Clinics

Interface:
Level 1 Community: Village/Household/Family/Individuals

KEPH cohorts

<table>
<thead>
<tr>
<th>Service delivery life cycle cohorts</th>
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<tbody>
<tr>
<td>1. Pregnancy and new born</td>
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<tr>
<td>2. Childhood (2 weeks-5yrs)</td>
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<tr>
<td>3. Late childhood (6-12 yrs)</td>
</tr>
<tr>
<td>4. Youth &amp; adolescensce(13-24 yrs)</td>
</tr>
<tr>
<td>5. Adult (25-59 yrs)</td>
</tr>
<tr>
<td>6. Elderly (&gt;60 yrs)</td>
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</table>
Health care workers working at the community level touch on every age group because it is where life and disease start. Disease is our interaction with the environment, thus the community environment is important.

The provision of services to the community will be strengthened through the community health strategy. The strategy will ensure that activities of all partners at community level are coordinated and improve the linkage between the community and health facilities.

The norms and standards for the community strategy are already in place. In the current AOP, each district is expected to establish and operationalise at least one community unit. To achieve this, the districts expect support in terms of capacity building, commodities and logistics. A standard curriculum will be used to train community health workers to ensure services are properly delivered.

**Challenges**

- Increased number of districts
- Provision of community kits and accompanying logistics are overwhelming.
- Uncoordinated implementation activities in some districts
- Some partners supporting only small components (especially trainings) and not establishment of whole community units

**The role of FBOs**

Many FBO health facilities are known to have well established Community Based Health Services. This has been noted in some of the successful community based programmes especially in HIV & AIDS and malaria. In addition, many CHWs have been trained on various PHC activities and are working with FBOs although training curriculums are yet to be harmonised.

However, in many districts, the coordination of community based activities has been weak leading to duplication of activities and resource allocation.

Currently, some FBOs have already begun implementation of the community strategy, but in most cases, only a small component is supported. A lot of resources have been put into training with very little support being channeled towards commodities and logistics.

Coordination of implementation of the strategy by both the Government (DHMTs) and NGOs under HENNET is quite weak. There is therefore need for FBOs to liaise with respective DHMTs to identify areas of support. The FBOs should also be encouraged to support the establishment and operationalisation of whole community units based on the laid down norms and regulations. Already established units could get sustained support in terms of commodities and logistics.
Overview of the Kenya Community Strategy

Dr Tabitha Gakuru – Head, Division of Sector Planning

Dr Gakuru making her presentation.

Kenya is currently retracing its footsteps in community health care with the realization that households form the basis of a healthy society. Kenya successfully began implementation of primary health care after the Alma Ata conference of 1978 but later moved away from this model due to several challenges.

Health care moved to facilities where all endeavors were focused. However, over the years, PHC has been provided on a very low scale and has not been systematic.

The development of a national community health strategy will ensure that PHC is successfully implemented throughout the country to ensure quality health service delivery.

Community Health Workers (CHWs) and Community Health Extension Workers (CHEWs) will form the backbone of the community strategy at the household level. The CHW is expected to be a volunteer in the community and will have an interest in working and supporting the health sector. The CHEW, on the other hand, will be on the payroll but will be doing more work within the community as opposed to the health facility. The CHEW will be a trained health worker able to provide the necessary support for the CHW.

The main target of the community strategy will be Level 2 and 3 facilities. A later part of this write up outlines the role these facilities are expected to play in the implementation of the strategy. Level 4 facilities will not be core to implementation of the community health strategy because asking them to go to the community level may take them away from their core business. They will therefore be expected to become good referrals but will be allowed to cover community units that they may have interest in. Level 4 facilities will also facilitate the level 2 and 3 to play their roles by creating demand.

The community strategy will ensure that patients visit level 4 facilities at earlier stages of disease, hence fewer complications, bringing down health care costs. Primary health care cases will also be reduced leaving hospitals devoted to serious ailments.
Strategic objectives of the community strategy

- Proving level one community services for all cohorts including the ‘differently-abled’ taking into account their needs: The NHSSP II makes a commitment to observe human rights in health care provision, hence the specific mention of the ‘differently-abled’ in this objective.

- Build the capacity of the CHEWs and community health workers to provide community services: CHEWs are what were called CORPs in the earlier PHC model. The name, however, was changed because a number of people said they were not comfortable with the abbreviation. The concept of community-owned resource persons however remains.

- Strengthen health facility-community linkage through effective decentralization and partnership: One of the design weaknesses of the first PHC model was the lack of linkage between the formal health infrastructure and community activities. This objective is therefore crucial to the successful implementation of the community strategy.

- Strengthen the capacity of the community to progressively realise their rights for accessible and quality care and to seek accountability from facility-based providers: Not only should we promote provision of services at the community level but the community should also use provided forums to feed back and demand accountability from facilities to improve quality of health care.

Key principles of the community strategy

The community strategy involves a community health committee that will oversee the implementation of the strategy at the community level. The community health committee is what was formerly called the village health committee. The name has been changed because it was recognized that in some areas the community might want to establish a committee that straddles villages.

The community health committee is linked with the facility health committee to ensure that the community unit and community interests are catered for during planning, implementation and monitoring.

The composition of the community committee needs to link up with the facility committee, a governance linkage that will be the avenue for community participation.

All Community Units (CUs) within the facility catchment area will be represented at the health facility committee with the linkage going all the way to the district level. About 5,000 people will constitute a community unit. The health facility committee shall be linked to the district health management board.

A guideline for the governance structure is currently under preparation.
### Norms and standards of the community strategy

<table>
<thead>
<tr>
<th>Elements of the community strategy</th>
<th>Norms/standards</th>
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<tbody>
<tr>
<td>1 Trained CHWs</td>
<td>25-50 per community unit</td>
</tr>
<tr>
<td>2 Trained CHEWs</td>
<td>2 per CU and one in Health Facility</td>
</tr>
<tr>
<td>3 Message kits</td>
<td>The message tool kit</td>
</tr>
<tr>
<td>4 Functional community based data management</td>
<td>Yet to be developed</td>
</tr>
<tr>
<td>5 Commodity kits</td>
<td>As per agreed list</td>
</tr>
<tr>
<td>6 Transport support</td>
<td></td>
</tr>
<tr>
<td>• Motorbikes per CU</td>
<td>2</td>
</tr>
<tr>
<td>• Cycles for CHWs per CU</td>
<td>3-10</td>
</tr>
<tr>
<td>7 Financial support for lunches and other operational costs</td>
<td>As per HSSF guideline</td>
</tr>
<tr>
<td>8 Functional Community Committee</td>
<td>As per governance Guideline</td>
</tr>
<tr>
<td>9 Functional health facility committee</td>
<td>As per governance and HSSF guide</td>
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<tr>
<td>10 Functional health stakeholders’ fora</td>
<td>As per governance guideline</td>
</tr>
<tr>
<td>• Divisional Health Committee</td>
<td></td>
</tr>
<tr>
<td>• District stakeholders forum</td>
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**Note:**
1. The Government and other health sector stakeholders have been training CHWs for specific health service delivery areas but this needs to change as there is need for comprehensive training aimed at holistic service delivery. There will be about 25-50 CHWs per community unit but some areas might require a little bit more.
2. Trained CHEWs will support CHWs. The CHEWs could be nurses or public health technicians and will be about two per Community Unit and one in each health facility. One of the CHEWs will be a supervisor.

3. Message kits have already been developed to facilitate health promotion messages within communities.

4. The community-based data management is still being developed.

5. The commodity kit has already been developed and contains basic drugs that the CHW will require to provide basic health care for the community as well as non-medical commodities like sprays. The contents of the commodity kit will be placed at the facility level for the CHW to get replenishment upon demand.

6. The decision on whether to provide motorbikes and/or bicycles will depend on the terrain and nature of work in a given area. The community health committee will define who will require the transport to facilitate their work.

7. Financial support for lunches and other operational costs: The trained CHW is a volunteer and will be reimbursed for costs incurred as per Health Sector Service Fund (HSSF).

CHW materials and supplies
The Community Health Workers will be provided with:

- Comprehensive message booklets to enable them communicate effectively with households to influence healthy behavior
- The community kit to ensure that they provide treatment for minor ailments as per the guideline developed for this purpose. The CHEWs will supervise CHWs on the treatment they will be providing. Minor treatments will be provided free of charge.
- Village registers
- Community information reporting tools
- Referral forms
- Necessary implementation guide

Proposed support by health facilities
a) The health facilities will provide priority to patients that are referred through the CHW.
b) The health facilities will also provide appropriate feedback on the referrals.
c) They will be required to ensure that the community health workers learn to appropriately refer patients through learning by doing.

Community Units (CUs)
Central to the implementation of the Community Strategy will be Community Units, each of which will be made up of about 5,000 people. The CHEW will visit the CU at least once in two weeks to:

- Take feedback to the community health workers from the facility
- Replenish the materials and supplies as necessary and when they are available
- Provide coaching for CHWs under his/her supervision in delivery of health messages, treatment of minor ailments, planning, reporting and record keeping
- Support the community unit health workers during health action days
- Address community health workers’ issues and concerns
**Linkage with health facilities**

Every community unit shall be linked to and supervised by a health facility (level 2, 3 and 4). The CU will submit its annual plan to the facility and each facility shall incorporate the plans and budgets of the CU(s) under its supervision in its annual plan.

Every AOP should therefore incorporate both facility and community unit plans.

Each CU will be represented in the health facility management committee to ensure that the interests of the communities are adequately reflected in service delivery by the facility.

The budget of the CU will be managed by the facility and utilized by health extension workers working within that particular community under the supervision of the health facility CHEW and the in-charge.

The budget allocated shall not in any way be diverted to facility-based use once approved for use at the community level. The facility will therefore be the accounting unit.

**Suggested incentives for Community Health Workers (CHWs)**

A key weakness of the initial PHC model was that there was little or no motivation for community health workers. Among the incentives being looked into in the current model are:

a) Reimbursement of direct costs incurred: In the old Community Strategy model, CHWs were not reimbursed for direct costs incurred. It was felt this had to be addressed.

b) Community recognition and respect

c) Preferential treatment in receiving health care in health facilities: This is still under discussion and mechanisms of facilitating it would have to be examined in detail.

d) Successful referrals to health facilities

e) Recognition through the provision of badges, shirts and other forms of certification of performance.

**Funding of the Community Unit**

Funding for the community unit will come from virtually any player in the health sector. Among these are the Health Sector Service Fund, Faith Based Organisations, CSOs and Development Partners.

FBOs working within a particular district can support either a community unit (s) either singularly or combined. To merit funding, a Community Unit will be required to meet the 10 elements and norms and standards mentioned above.

**Implementation monitoring**

Community dialogue or community auditing will be conducted each quarter. Community dialogue days will be utilized to review the implementation of the agreed actions of the previous meeting.

This will also be a forum for the community to claim their health rights as they will have the chance to discuss with the health service providers about the quality and responsiveness of services offered.
Sample district with five CUs with different support
Sources for the community health strategy

- CU-GOK supported
- CU-FBO supported
- CU-GOK supported
- CU-FBO supported
- CU-CSO supported

DHMT/DHSF plans and monitors progress
Linkages in the community health structure

DHSF

Divisional Health Committee

L3 Committee
L2 Committee
L2 Committee

CHEW support to CUs

CHC

CHW support to households

HH HH HH HH HH HH HH HH
Implementation of the community strategy: Lessons from FBOs

Prof Dan Kaseje, MBChB, MPH, PhD - Professor of Public Health, Vice Chancellor, Great Lakes University of Kisumu (GLUK)

Kenya has been implementing the community strategy since the 1970s, albeit without a national policy. Faith-based health facilities and service providers have been at the forefront of this implementation through various programmes and projects set up using the little funding that they access.

The community-based approach to health care remains the only way through which every household can access health services given that it would be quite difficult to achieve health for all where services are only provided by formal health facilities. This is because structures around individuals are so complex that people cannot by themselves access formal health services. If we want to make health services accessible to all, there is need to penetrate these complex structures.

We thank God that at last, the MOH has created a policy document on community based health services. Faith based health services need to take advantage of this policy to scale up the community health work that they are already doing. As FBOs, we need to translate community strategy policies into practice using our existing structures including the Church and health facilities.
Even more encouraging is that after 30 years of struggling with implementation of the Alma Ata Declaration, the world is decidedly going back to the community-based health model. Six out of the eight Millennium Development Goals relate specifically to health. Using data, the World Health Organisation, World Bank and UN agencies are convinced that community based health services are a key factor in ensuring that PHC is accessible to all.

The world is in fact moving fast towards a global policy on community health care. Asia and South America have already developed policies on the same. On 28th – 30th April 2008, all African states will be meeting in Mogadishu, Somalia, to create a common policy on community-based PHC.

**Why interest in CBHC/community strategies?**

There are some persisting challenges such as:

a) Africa ranks last in all MDG indicators. The continent suffers from extreme poverty and hunger, child mortality, poor maternal health, HIV/AIDS, malaria and other infectious diseases. Six out of eight MDGs have to do with health and data has shown that PHC works and can accelerate achievement of MDGs.

b) Problems are greatest where resources are least (inverse law)

c) There were encouraging gains in health in the 1960s, 70s, 80s due to literacy, food production, new medical and public health technologies. However, these have now been reversed.

In addition, players in the health sector are today providing services in a situation where people have what they regard as effective alternatives. The system is very competitive and stakeholders including FBOs have to compete with prevailing knowledge and practice.
CHAK staff distribute deworming drugs to representatives of health facilities at the conference.

To be effective in health service provision, we need to be able to listen to the consumers and find out the existing alternatives first. Communities will be more willing to listen to us if we listen to them.

Linkage between the health system and service consumers is essential given the existing gaps in infrastructure, information and knowledge, economic, viewpoints e.t.c. The community strategy provides a way of developing two-way linkages between health services and communities.

Not only are we called to provide services but also to influence all health care. The community strategy provides an opportunity to influence government services and the quality of care beyond our facilities. Some of the reasons why the community strategy has proved so attractive include:

- People are busy doing the best for themselves and their households with the bulk of care occurring at the household level. The mother is the main producer of health and her behavior is key to the health of her household.
- Households have knowledge, skills, ideas, actions for health, on which they depend. There is need to enhance capacity of households for health action through continuous respectful dialogue.
- Households are embedded in contexts that limit their response to messages for change to improve their health.
- Peer motivation and teaching, community/local leadership and community social pressure are powerful and more effective than “lectures” given by health professionals.
- We are dealing with competing systems of care but unaware of this. There is need to reduce competition and dichotomy.
- There is need to negotiate with clients as partners in health service delivery. In addition, communities need to influence how health care is given.
- Life-saving, high-quality preventive and curative care can be provided by villagers with training and supervision.
- Facilities and highly trained staff are too far away, too expensive for those who need them most. Those who need more care have less access.
• A total of 400 articles which confirm the effectiveness of community-based approaches have been reviewed.
• The community systems are faced with the challenge of growing demand for care, worsened by deepening poverty.

The community strategy as a policy is a victory for FBOs which have the longest experience in community health care in the country, given that many faith-based health facilities have been running community health programmes. The KNHSSP II provides an opportunity to scale up these sustainable approaches.

Some child health indicators for Kenya

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<tr>
<td>IMR(per1000)</td>
<td>60</td>
<td>62</td>
<td>74</td>
<td>78</td>
</tr>
<tr>
<td>UMR(per1000)</td>
<td>89</td>
<td>96</td>
<td>112</td>
<td>114</td>
</tr>
<tr>
<td>Fully immunized</td>
<td>79%</td>
<td>65%</td>
<td>59.2%</td>
<td></td>
</tr>
<tr>
<td>MMR(100000)</td>
<td></td>
<td>590</td>
<td>414</td>
<td></td>
</tr>
<tr>
<td>ANC attendance</td>
<td>78%</td>
<td>95%</td>
<td>92%</td>
<td>90%</td>
</tr>
<tr>
<td>Delivery by Professional</td>
<td>50%</td>
<td>45%</td>
<td>44%</td>
<td>40.8%</td>
</tr>
<tr>
<td>TFR</td>
<td>5.4</td>
<td>4.7</td>
<td>5.0</td>
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Emerging child mortality trends

![Emerging child mortality trends chart](chart.jpg)
Emerging child mortality pattern by province

Elements of the community strategy
1. Organizational structures for community participation
2. The linkage is governing structures
3. Participatory evidence-based planning and action
4. Community Based Information Systems and Health Management Information Systems provide evidence to enhance accountability and responsibility.
5. Community-based resource mobilization
6. Community-based resource people
7. Community-based minimum package of care by cohort
8. Community-based communication strategy
9. Coordination and networking

Key tasks of the strategy
a) Establish linkage between governing structures i.e. Community Units, Level 2 Management Committees, Level 3 Management Committees as well as work with the District Health Stakeholders Forums (DHSF) and Divisional Health Committees.
b) Identify, train and support community-based volunteers to expand the capacity of house holds for essential care
c) Train and deploy Community Health Extension Workers (CHEWs) at Community Unit (CU) level to support Community Health Workers (CHWs)
d) Improve HMIS, CBIS which should be linked to CUs for accountability, responsibility, regular dialogue, planning and action
e) Organize and deliver the essential care package for health at six levels and for all six cohorts
f) Monitor, evaluate, feedback and dialogue at all levels for improvement.
Community strategy structures
Faith-based organisations and churches may want to customise some names to fit their existing structures as follows:

• Household leadership (extended family)
• Village/Congregation Health Committee
• The Community Unit Health Committee (Parish)
• Level 2 Management Committee
• Level 3 Management Committee
• Divisional Health Stakeholders Forum
• District Health Stakeholders Forum

Functions of the Village/Congregation Health Committee

• Identification health priorities through regular dialogue
• Planning for community health actions (health action days)
• Participating in community health actions
• Monitoring and reporting on planned health actions
• Mobilizing resources for health action
• Coordinating CHWs activities
• Organization and implementation of community health days
• Reporting to Level 2 on priority health issues
• Leading community outreaches and campaign initiatives
• Advocating for health improvement in the community

The committee will meet monthly to:

• Receive reports from villages in order to compile monthly reports
• Review progress on agreed actions
• Review chalkboard records of key indicators
• Identify and dialogue on improvement areas
• Identify advocacy issues to be taken up to the next level
• Recognize the CHW of the month, based on data

Structure and roles of the level 2 and 3 management committees
These will have 12 members including representatives of the CUs served. Each Community Health Committee will nominate up to five members to the L2/3 management committee. The chair and treasurer will be elected while the facility in charge will be the secretary. Among their roles will be to:

a) Establish the linkage between the facility and community
b) Market the health facility and enhance its credibility
c) Plan, implement and evaluate health actions
d) Hold data-based and regular dialogue
e) Support outreach and referral activities
f) Recognize the CHW of the month based on data
g) Participate in community health days, outreaches and campaigns
h) Process CBIS and FHIS, display and discuss data for action
i) Review clients’ satisfaction records
j) Address facility and community-based issues causing gaps indicated in the data by CUs to ensure specificity of responsibility
Initiating the community strategy

a) Activity 1: Community entry
b) Activity 2: Awareness raising and formation of structures
c) Activity 3: Identification of workers (CHWs, CHEWs)
d) Activity 4: Situation analysis: We need to use data that we already have to analyse what the key problems are so that we do not only continue with popular programmes
e) Activity 5: Participatory planning: Strategic planning and AOPs come in handy in terms of participatory evidence based planning and action.
f) Activity 6: Training of community resource people
g) Activity 7: Registration and mapping of households: FBOs need to lead the way in this as Churches know their congregations.
h) Activity 8: Establishing regular evidence-based dialogue
i) Activity 9: Disseminating information for expansion

The workforce

The issues of whether or not CHWs should be volunteers as well as the definition of a volunteer in the community health strategy have been discussed at length. Part of the battle is that there is no uniform standard of who a CHW is.

The need for volunteers is based on the fact that a CHW can only be useful in so far as he remains part of the community that he comes from. He should be part of the complex context that is the community being served.

Such volunteers shall be providing health services from the household outwards and are more likely to dialogue with the community with much better results. A volunteer is also more likely to understand and dialogue with the individual at high risk.

Once such volunteers begin getting paid for their services, they are effectively removed from the complex context that is their community. The volunteer can be better sustained if he or she is part of a reciprocating system, where there is a reciprocal relationship with neighbours that does not necessarily translate to payment in the form of money.

In this system, a neighbour may do something for the volunteer to thank them their services. The reciprocating system may also include the extended family, the church e.t.c.

There have also been other ways of rewarding these community health workers, for example through access to credit that will not remove them from their communities. In addition, peer motivation and teaching is seen as more effective since people listen to each other much more than they listen to an outsider, hence the need for CHWs to belong to the communities that they serve.
The CHEW, on the other hand, will:

a) Be a dedicated CHW trainer, supervisor and coach
b) Manage logistics, referral, CBIS and up-date the community chalk board
c) Facilitate the CU evidence-based dialogue
d) Be able to read and write
e) Belong to local, loyal, reciprocating unit and is part of house hold health team
f) Have access to life-long learning
g) Care for 20-50 households and maintain a register
h) Facilitate household evidence-based dialogue
i) Be recognized and rewarded based on output (via the community)

Essential care package

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Key Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy, Delivery, Postnatal (First week)</td>
<td>• Care of the New Born, Nutrition and Breastfeeding</td>
</tr>
<tr>
<td></td>
<td>• ANC Care</td>
</tr>
<tr>
<td></td>
<td>• PMTCT awareness, Enhanced partner, family community support, Health promotion, Sanitation</td>
</tr>
<tr>
<td>Early Childhood (2 weeks -5 Yrs)</td>
<td>• C-IMCI, Nutrition-Breast Feeding</td>
</tr>
<tr>
<td></td>
<td>• Protection-safe environment, Play</td>
</tr>
<tr>
<td>Late Childhood (6-13 yrs)</td>
<td>• Nutrition, Protection</td>
</tr>
<tr>
<td></td>
<td>• School health programs (formal and informal), Health Promotion, Physical assessment</td>
</tr>
<tr>
<td>Adolescents (14-24yrs)</td>
<td>• Nutrition, Shelter, Education, Employment</td>
</tr>
<tr>
<td></td>
<td>• Access to RH services</td>
</tr>
<tr>
<td></td>
<td>• School health activities</td>
</tr>
<tr>
<td>Adulthood (25-59 yrs)</td>
<td>• Employment, Investment, Participation,</td>
</tr>
<tr>
<td></td>
<td>• Health promotion, Access to RH services, Screening</td>
</tr>
<tr>
<td>Old Age (60 Yrs and above)</td>
<td>• Care, Nutrition, Clean Environment</td>
</tr>
<tr>
<td></td>
<td>• Screening</td>
</tr>
</tbody>
</table>

Lessons: Characteristics of successful CBHC

- Rational structures for participation (social, spiritual, political), enhancing mutual accountability
- Partnership approach to relationships
- Regular evidence-based PIMEF
- Defined population, division to district with data base, enhancing evidence base to inform and fuel change
- Regular home visiting
• Frontline workers who are trained and supported
• CHWs rewarded according to output, access to training, credit
• Comprehensive package of level 1care based on evidence supported by the referral system
• Mechanism for maintaining supplies and drugs
• Lifelong learning through information dissemination, networking and sharing to scale up

The bulk of health care occurs at the household level with about 70 per cent of child mortality occurring at home. This means that if we do not make health services accessible to the household, we will not achieve much.

Churches need to maintain a complete list of their members and their households so that they are able to identify the health needs of households under the community strategy.

Also important is the need for evidence based on collected data. Currently, FBOs do not have information organized in a scientific way to enable confirmation that community health has made a difference or data organized scientifically to help us to prove that community based health care services are improving PHC of our people and at an affordable cost. As a result, the achievements of FBO health facilities in Kenya have not been captured in the world’s data system.

The continuous improvement tool for PHC

- What is the situation from evidence? Why?
- What improvement can we accomplish?
- What can we do to improve the situation?
- How will we measure the improvement?
Expanding service coverage through PHC: PCEA Chogoria Hospital community health programme

By Franklin Njagi – PCEA Chogoria Hospital

Profile
PCEA Chogoria Hospital is a 312-bed mission facility established in 1922 by Scottish missionaries. Over the years, the hospital has established 31 rural health clinics which are distributed all over its catchment area which covers about 3,000 sq kilometers and has a population of about one million people. This catchment area covers Meru South, Tharaka and the lower parts of Meru Central district.

The Community Health Department (CHD)
Vision
CHD would like to see a healthy community able to identify and address its own needs using resources available for self-reliance to the glory of God

Mission
To effectively witness for the Lord Jesus Christ by reaching out to the disadvantaged in the community with promotive, preventive and curative quality services

The CHD supervises integrated health care services and activities in the 31 rural health clinics affiliated to Chogoria Hospital. These facilities are situated in Meru South and part of Meru Central districts. Among the services offered at the rural health clinics are:

- Integrated MCH/FP services
- Malaria control
- Health education
- Curative and referral

Achievements
- Full integration of MCH/FP services on a daily basis
- A clearly established referral system
- Control of outbreaks of epidemics
- Access to essential drugs and treatment for minor ailments

Challenges
- Poverty: The target population has a low per capita income which translates into low earnings for the rural clinics. The clinics are often unable to break even.
- Staff turnover is quite high.
• Due to inadequate transport, support supervision visits to the rural clinics cannot be done often.
• Competition: Some private clinics and Government facilities operating in the catchment area charge less than the Chogoria rural clinics.

**Donor funded community health programmes**
The community health department has been able to implement a number of donor-funded programmes. These are:

**Community Based Activities (CBA) - Tharaka Project**
This project, being implemented in Tharaka District, began in 1974. Around 1971, there was high population and high disease incidence in the target district. The hospital thought of seeking donor funds to address the needs of the population. The project therefore aims to address communicable diseases, lack of family planning, clean water and other felt needs of the community.

Donors to the programme are:

- Family Planning International Assistance (FPIA)
- Oxfam
- Swedish International Development Agency
- USAID
- Inter-Church Action (ICA)
- GTZ
- Kenya Family Health Programme

**Sustainability of the CBA project**
After 10 years of funding by USAID, the hospital negotiated for an endowment fund to ensure sustainability of the programme. It was realized early on that sustainability would be difficult given the high poverty levels within the target population. Beginning 1998 to date, the project has been running using interest generated from the fund.

**Activities in the CBA project**
- Community health education
- Training of community volunteers (AHCs, CHWs, CBDs, TBAs, folk media troupes)
- Drilling water boreholes
- Gender issues such as encouraging girl child education and educating the community on the dangers of FGM

**Achievements of the CBA project**
- Proper management of funds has seen the project attract 10 donors in its lifetime.
- High usage of family planning has led to lower population levels.
- About 47 CBHC sites have been established with all the required volunteers.
- Improved health and living standards for the people living in Tharaka District
- Introduction and supply of ITNs has resulted in reduction of malaria infection in the area
Challenges

- Fluctuation of interest rates has affected the endowment fund.
- Tharaka is a vast district and experiences very heavy rains. This has compounded transport problems experienced by the programme.
- Facilities and equipment for community education are inadequate. Audio visual equipment such as DVDs and TVs can be used to effectively pass messages to the community.
- High poverty levels within the catchment population
- Over 4,000 volunteers have been trained by the programme. However, many have abandoned their work due to lack of pay.
- High staff turnover

EZE/EED project

This project has been in existence since 1994 and is implemented in three-year phases. Each phase is followed by an external evaluation, development of a new proposal and budget. The project covers Meru South and the lower parts of Meru Central.

Around 1990, it was realized that many admissions in Chogoria hospital could be prevented if a good community education programme was started. Educating the community on health issues would also help to decongest the OPD. The EZE/EED project was therefore started with the following two aims:

- To promote health, prevent and treat diseases by providing affordable and accessible health care to those most in need
- To decongest the OPD and decrease bed occupancy rates in the hospital

Activities

- Community health education in reference to the elements of primary health care
- Home-based care for PLWHAS
- Health education and loans to commercial sex workers for income generating activities. Social workers identified those to benefit from the loans and some abandoned commercial sex work after identifying alternative sources of income.
- Establishing new CBHC areas and training volunteers to serve in the vast catchment
- Establishing projects to improve water supply in the catchment area
- Youth education and behaviour change campaigns
- Educating the community on gender issues
- Establishing Barmaco Initiative (BICPS) to ensure supply of essential drugs for the target community

Achievements

- Maintenance of a long term working relations with donors
- Improved health and living standards for the catchment community
- Behaviour change among the youth and CSWs
- Formation of local networks for community health workers
Challenges

- Volunteer demands
- Difficult terrain: Roads are often rendered impassable by heavy rains
- Damaging talk by the local community about the medical programmes
- Stigma and discrimination

Malaria Control

Chogoria hospital community health department has been involved in malaria prevention and control activities for a long time because part of its catchment area is in the malaria endemic districts of Meru Central and Tharaka. Given that malaria was a major cause of morbidity and mortality in the hospital’s catchment area, donor funding was sought in 1997 for a project whose main activities were community education and distribution of ITNs. The main donor at the start of the project was the Presbyterian Church of USA and nets were sold to the catchment population at subsidized rates. The project is currently running on a revolving fund and the community sometimes receives free ITNs when these are available.

Other sources of support towards malaria prevention and control are:

- Friends of the hospital from overseas
- Ministry of Health which trains staff and has given ITNs for pregnant mothers and the under fives.
- CHAK has trained staff and community health workers. It has also supplied ITNs to be distributed free to pregnant mothers and under fives. About 2,800 ITNs were received from CHAK in March 2008 and have been distributed to the community through the clinics.
Disability rehabilitation

Jack Muthui – CEO, AIC-Cure International Children’s Hospital, Kijabe

Dr and Mrs Harrison during an event at AIC Cure. Left, sitting is AIC Cure, Kijabe, CEO Jack Muthui.

AIC Cure International Children’s Hospital, Kijabe, was started in 1998 by Scott Harisson, a doctor, and his wife, Sally. Dr and Mrs Harisson are the founders of Cure International, an NGO registered in the US.

The hospital specializes in treating children with physical disabilities as reflected in its mission statement ‘Transform lives of physically disabled children and their families through physical and spiritual healing’. The AIC Cure Children’s Hospital is one of 11 Cure International hospitals around the world that offer similar services. It is part of AIC Health Ministries and a member of CHAK. AIC Cure Kijabe partners with Kijabe Hospital in orthopedics.

Cure international specialty hospitals in Africa

- Kijabe, Kenya – Pediatric orthopaedics
- Mbale, Uganda – Hydrocephalus
- Blantyre Malawi – Orthopaedics
- Lusaka, Zambia – Hydrocephalus and orthopaedics
- Addis, Ethiopia – Plastic surgery and orthopaedics

Other Cure International hospitals are to be found in Egypt, Honduras, Dominican Republic, Bethlehem, Afghanistan and UAE. Those in Bethlehem, Egypt, Niger and Ethiopia are still under construction.
AIC-Cure 2007 statistics

<table>
<thead>
<tr>
<th>Statistics</th>
<th>2007</th>
<th>Beginning to date</th>
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<tbody>
<tr>
<td>Average Length of Stay - Days</td>
<td>6.1</td>
<td>5.0</td>
</tr>
<tr>
<td>Number of Operations</td>
<td>2151</td>
<td>16500</td>
</tr>
<tr>
<td>Number of Outpatients Seen</td>
<td>7929</td>
<td>56500</td>
</tr>
</tbody>
</table>

Common procedures

- Clubfoot
- Angular Limb Deformities
- Burns
- Spinal deformities
- Too many fingers or toes
- Cleft lip and palate

Mobile clinics and outreaches enable AIC-Cure to reach as many people as possible. Among the partners they work with in various towns are as follows:

- Kisumu – Association for the Physically Disabled of Kenya (APDK), New Nyanza Hospital
- Kitale – ACK
- Eldoret – ACK CBR offices
- Nakuru – Association for the Physically Disabled of Kenya (APDK)
- Embu – Provincial Hospital
- Mombasa – Association for the Physically Disabled of Kenya (APDK), Port Reitz
- Machakos – Catholic Cathedral
- Nairobi – Westlands Health Centre
- Thika – Joytown Primary School

As disabled children are often hidden away by their families due to stigma, the outreach partners help to identify those in need and refer them to the clinic. Each year, the hospital holds about 64 mobile clinics. Nearly 90 per cent of patients that come to the hospital are referred from these clinics. In addition, patients who have undergone operations are followed up and reviews done from the mobile clinics.
During these clinics, spiritual counselors, most of them volunteer pastors from the community, are included in the outreach team to counsel the children about disability. The hospital also holds workshops for staff.

Facilities and services
The 30-bed hospital has two operating rooms, an orthopedic workshop, rehabilitation department, outpatient clinic, X-ray, laboratory and pharmacy. AIC-Cure recently received a grant to fund its expansion programme and has put up four additional operating rooms.

Physician education
A primary goal of Cure International is to boost physician education in an effort to combat physical deformities. AIC-Cure recently received certification to conduct an orthopedic training for doctors. The COSECSA Orthopedic Fellowship is a 4 or 5-year programme in which an intern works with a qualified surgeon for the period of the training and acquires the necessary skills. The training has been recognized by the Kenya Government and some countries in East and Southern Africa.

In 2008, the programme had five residents in training and plans to admit an additional one or two interns in each subsequent year. The programme is also in the process of developing a Masters programme in orthopedics in collaboration with Moi university.

Clubfoot for Kenya (CCK) project
The two-year CCK project has been funded by Johanniter, a German organisation. It targets to treat cases of club foot in children under two years. This early intervention is non surgical and uses the Ponseti method.
Thus far, the project has enrolled close to 1,000 children and recorded a 90 per cent success rate. About 75 health workers have been trained on the Ponseti method and 15 clinics established throughout the country. The ultimate goal is to have this method of treatment taken up by MOH so that all children with club foot are treated early enough.

A national management committee was recently formed to ensure that the programme continues even after the end of the funding.

**The Ponseti method**

Many club foot treatment methods have not been successful due to improper application of the casting. The Ponseti method involves casting and manipulating the foot for about six months. After this period, the child wears a brace during sleep for two years during which he or she has to continue attending clinic as advised by the doctor. This method of treatment is non-invasive and involves no surgery, hence is quite cost effective. AIC-Cure Children’s Hospital is currently developing the counseling aspect to ensure mothers complete treatment and dispel myths about disability.

The Legs Project by Litano University, Texas, was started to develop artificial legs for people with amputations above the knee. This foot has a flexible knee which is quite expensive and hence out of reach for ordinary people. The aim of the project was to have an affordable knee of this type, locally made. The leg has been developed and is still being tested. A similar programme has been started in Sri Lanka.

**Challenges**

- Male involvement is low. Men rarely accompany their disabled children to the hospital. It is hoped that this will change.
- Stigma: Mothers often narrate terrible stories about being disowned by their families after giving birth to disabled children.
- Sustainability: Outreach clinics are one of the biggest cost areas for the hospital. However, the hospital has worked these costs into its budget and engages in intensive fundraising. Without outreaches, patient numbers would be quite low.
- Some people lose feeling in the foot after an operation.
- The hospital relies on the families to get the patients to the mobile clinics and outreaches. Given the high poverty levels in the country, this is not often possible, hence many children and adults miss out on the treatment opportunities.

The hospital issues a calendar at the beginning of each year to raise awareness on clinic dates.
**The Mission of the Coptic Orthodox Church: HIV & AIDS care**

Mena Attwa – Senior Program Manager, Coptic Hospital

The Coptic Church began in 1976 and has over 40 parishes and 10 priests in Kenya alone. The Church is committed to integrated ministry involving:

- Spiritual development
- Humanitarian relief
- Medical outreach

Apart from Kenya, the Coptic Mission is present in four countries in Africa, namely Zambia, Tanzania, Congo and Nigeria.

The Church’s spiritual services include:

- Church planting
- Theological and leadership trainings
- Slum outreach
- Remote village outreach
- Family ministry
- Youth ministry
- Secondary class
- Sunday school

Among its humanitarian services are:

- The orphan support program
- Street children ministry
- School fees program
Medical outreach

Currently, Coptic has five medical facilities that are already operating and two under development. The ones already operating are:

- The Coptic Hospital Nairobi, Kenya, located a short distance from the Kibera slums
- Coptic Medical Center, Industrial Area, Nairobi located near Lunga Lunga, Kayaba, Kwareh and Mukuru Kwa Njenga slums
- Coptic Nursing Home in Maseno, Kenya
- Coptic Hospital, Lusaka, Zambia
- Coptic Medical Centre, Kanyama, Zambia

The facilities under development are Coptic Clinic Musoma, Tanzania and Coptic Clinic in the Democratic Republic of the Congo

The Coptic Hospital in Nairobi has seen rapid expansion and growth since 1994. Pharmacy, laboratory and casualty services are provided on a 24-hour basis. The 60-bed facility boasts two operating theaters, a maternity unit, ambulance services, full laboratory, x-ray and ultrasound services.

Coptic’s involvement in HIV & AIDS programmes

In the late 1990s Coptic recognized the severity of HIV and AIDS as a multi-sectoral issue. H.G. Bishop Paul, the head of the Church, and other clerical leaders in the mission felt the urgency to respond to the issue by integrating HIV and AIDS relief in Coptic’s spiritual, medical and humanitarian outreaches. People of all ages in the Church were dying of AIDS and were the subjects of severe discrimination. In the medical mission, the overwhelming majority of cases presenting in the clinics were related to HIV and its complications. In addition, the church was presented with hundreds of orphans and widows in need of social and humanitarian support because of HIV related deaths.

In 2002, Coptic pioneered the provision of generic HIV & AIDS drugs in Kenya through arrangements directly negotiated with pharmaceutical companies. In 2004, the Hope Clinic was opened and ran a subsidized HIV & AIDS programme with four staff. Another milestone came in July 2004 when Coptic
purchased land and a building to expand its Hope Clinic. Three months later in October, the clinic received support from PEPFAR to cover its running costs, allowing it to offer fully comprehensive services free of charge to its clients.

From five patients, the clinic was now seeing 100-200. In 2005, the Hope Centre was officially opened by then US ambassador to Kenya William Bellamy and then Vice President Moody Awori.

As patient numbers grew, more room was needed for expansion. The year 2006 saw extensive programmatic diversification with the centre exceeding its enrollment targets by 20 times the initial projection. Tents had to be set up outside the buildings to cater for the increased patient load.

The Coptic mission in Africa continued to expand and in April 2006, the Church received Global Fund support to launch the Lusaka Hope Centre in Zambia. A pediatric programme and home based care tracer programme, the first of its kind in Kenya, was established in 2007.

With the high patient numbers, the Hope Centre was expanded from two to four to six floors. The centre now has over 70 rooms to cater for its operations. In 2010, the programme projects to serve 24,000 patients through eight specialized HIV & AIDS programmes in three countries in Africa.

The hope center currently has 146 staff across four sites as follows:

- 25 MOs and COs
- 16 nurses
- 15 counselors
- Six social workers
- 10 field workers
- Six nutritionists
- 12 receptionists
- Nine pharmacists
- Seven pharmacy assistants
- 20 IT/data officers
- Five medical records officers
- 15 volunteers

In 2007, the Hope Centre programme further expanded by opening new centres and diversifying programme services as in the diagramme below.
HIV & AIDS services at Coptic
The Coptic Mission takes a comprehensive and holistic approach to care which encompasses:

- Clinical consultation
- Lab testing
- ARV and OI drug program
- Nutritional counseling and supplement program
- Social work services
- General support counseling
- Adherence counseling
- VCT
- PMTCT - Antenatal and delivery program
- Integrated TB clinic
- Peer support group
- Treatment literacy – community outreach
- Cervical cancer screening program
- Full pediatric clinic
- Tracer and Home Care Program

**Program Statistics**

As at September 2007, the total patients enrolled in the Coptic Church HIV Programs in the four centres were 10,542. The total patients on ARVs were 6,844 with an average monthly enrollment of 415. The average daily flow of patients is 500 with ages ranging below one year to 81 years. The breakdown of these numbers is as shown in the diagramme below.

This high enrollment can be attributed to the free and high quality services offered by the Hope Centre. Word of these services spread fast especially among slum communities. Community outreaches were also utilized to tell potential clients about Hope while social workers also gave information to the patients.

**HAART Initiation at Hope**

About 60-65 per cent of patients are on ARVs. The Gong Road clinic sees about 250 patients a day, out of the 500 seen daily by the entire Hope programme. The programme aims to reach more people with no initiation to drugs with slum areas being the main target.
Adherence
Before a patient begins treatment, they undergo three counseling sessions by a social worker, pharmacist and nutritionist to ensure they are ready to start on ARVs. The patient then visits the clinic for follow up every three months. This visit is also used to collect medication. A computer programme was provided by MSH to help with pill count for each patient. Patients who are not on ARVs but are enrolled in the programme are required to see a doctor every six months.

Achievements in 2007
- Setting up of a pediatric clinic
- Establishment of a tracer and home care program
- Establishment of a treatment literacy program
- The programme saw an increased enrollment totaling more than 10,500 across three centres in Kenya and one in Zambia
- Increased clinic capacity and space with the construction of the new building

Specialized programs
Pediatric Program
This is a programme designated for pediatric HIV & AIDS management with specialists in all disciplines to cater to child-specific medical and psycho-social needs. The programme is child-friendly and boasts pediatric HIV medical experts for both clinical and nursing care. Play therapy and pediatric counseling for child and care-givers is encouraged. The pediatric tracer and home care program aims to assess and support household stability and ability to care for the needs of children living with HIV & AIDS. In the tracer programme, field workers visit the children at home and can bring the minors in for an appointment where this is due. They also ensure that the children follow their medication regime.
Home Tracer and Care Program
This programme targets ARV defaulters, dependant or special need adults and post-partum women for home follow-up and integrated family care. Services offered under this programme include:
- Adherence monitoring
- Psycho-social assessment and referral
- Counselor assisted disclosure
- Home-based/mobile VCT
- PMTCT support
- Care-giver and household education and training on HIV

Practical recommendations for church health facilities
Effective Human Resource Management
Build a team of staff who are:
- Stewards in their character
- Skilled in various fields
- Diverse in terms of gender and ethnicity. It is also important to target greater involvement of PLWHA.
- Teachable and willing to learn
- Communicate regularly through meetings and devotions
- Committed and loyal
- Perform excellently

Church health institutions also need to invest in the development of the staff to ensure retention and longevity of the team. Stress management and psychological support systems should also be put in place. A major challenge for Hope Centre is staff turnover. The centre, however, has adjusted to this reality and tries to hire people who are fully qualified for the job.

Accountability and professionalism in administration
- Establish administrative and financial systems to ensure that all its work is clearly documented for internal and external purposes.
- It is also important to communicate activities regularly including challenges, successes and outcomes and prepare documentation according to the needs of supporters
- Reports should be sent on time
- Conduct regular audits of internal activities to preserve integrity

Form Partnerships
Coptic knows its strengths and recognizes its limitations. The hospital partners with different organizations and churches to be the best equipped to deliver HIV and AIDS services. Among its partners are:
- Government: MOH (Kenya, Zambia and Tanzania), CDC, USAID, PEPFAR
- The Global Fund – CHAZ
- Bread for the world, Germany
- Ecumenical councils and churches
- University of Washington
- CUHA
- Community based groups and other medical centers
Establish an action oriented approach

- Show your commitment to actively serve the needs the people face without delay as part of your mission, not based on your ability to execute large activities. Coptic has always been active in addressing community issues and commits its efforts and resources to make a change, even if with a small beginning.

Integrated approach to PHC by Tenwek Hospital Community Health & Development Department

By Mr. Jonathan Bii – Community Health and Development Department, Tenwek Hospital

Tenwek Hospital is one of the largest mission hospitals in Africa. Tenwek is located in the Western Highlands of Kenya in Bomet District, Rift Valley Province. It provides primary health care to 600,000 Kipsigis people within a 32 kilometer radius and serves a referral center for a much larger region.

Tenwek Community Health and Development is a holistic ministry that focuses on bringing God’s hope to individuals, families, and communities. The mission of Tenwek Community Health and Development is to serve Christ by facilitating change through primary health care and appropriate development within needy communities. This is carried out every day in a variety of outreach projects.

This ministry has dramatically improved the welfare of families and communities in the six districts in which it operates. Since the ministry is carried out in cooperation with local pastors, the church is strengthened as well.

Tenwek Community Health and Development Department was started in 1983 as an outreach arm of the hospital in response to the many patients visiting the hospital as a result of preventable diseases. Such cases were estimated at approximately 80 per cent of the total patients reaching the hospital.

The department’s motto is “Bir Mat Ko Loo”! (Prevention is better than cure).
The mission and ministry of Tenwek Hospital Community Health and Development are carried out through a variety of outreach projects. The department serves in parts of six districts i.e. Kericho, Narok, Bomet, Trans Mara, Molo and Bureti.

The Community Health and Development Department moves Tenwek’s ministry outside the hospital walls. Communities are encouraged to form Community Health Committees and select people to be trained as community health workers.

The health program has trained volunteer health workers, who, in addition to teaching their friends and neighbors, help the staff to provide health services including immunizations.

**Strategies**

- Communities identify their own needs: The development program helps local communities meet their identified needs such as collecting rainwater, ministering to widows and obtaining small-scale business loans.
- Participatory appraisals are done, priorities identified and Community Resource Persons selected for training.
- Use of community resource persons to reach their own communities. This leads to the formation of Community Health Committees (CHCs), signing of MOUs and training of Community Health Helpers (CHHs).
- Mobilization through the church
- Self help groups

**Roles of the Community Health Committee (CHC)**

The CHCs, which cover seven villages each, have the following functions:

1. They provide the base for the program within their community
2. Provide leadership for the community activities
3. Provide supervision to Community Health Helpers (CHHs)
4. Provide management of essential drugs

After training, the Community Health Helpers are provided with a start up medicine bag containing essential drugs and mosquito nets. The CHHs play the following roles:

- Provide health education, demonstration and act as role models
- Identify and refer cases
- Do home visits on two afternoons per week. Usually, they visit 20-30 homes.
- Networking and collaboration
- Dispensing of essential drugs
- Mobilize and provide support for outreach services

**Outreach ministries of the Tenwek Community Health and Development**

**Maternal child health, Family Planning (FP) and PMTCT**

Among the activities under this outreach are:

1. Holding monthly immunization and antenatal care/ FP clinics: Volunteer health workers help staff to provide immunization.
2. Malaria prevention education through Community Health Workers which also includes provision of mosquito nets at subsidized prices.
3. Community-based distribution of essential drugs through Community Resource Persons (CRPs)
4. PMTCT follow up and referrals

**Hygiene and sanitation**
Hygiene and sanitation outreaches target primary schools and communities for health education. The department partners with communities in the construction of pit latrines in schools and conducts de-worming programmes. Other activities include training of Town Health Promoters and clean up campaigns.

**Safe and accessible water**
The department continues to partner with communities in the construction of water tanks and digging of water pans for schools and communities to ensure the target population has access to safe drinking water.

It also promotes the use of Biosand Water Filters, a biological slow sand filtration system designed for household use. The filter uses layers of ballast, coarse and fine sand to remove water-borne bacteria, viruses, protozoa, and other organisms that cause diseases such as cholera, typhoid fever, and amoebic dysentery. The filter also strains out the particles and organic matter that cause cloudiness, unpleasant taste, colour, and odour. Rain, surface, or ground water is poured through the top and filtered as it passes through the layers of sand and gravel.

**BSF Design**
Facts about the Bio Sand Water Filter

**Bacteria Removal:** 90 – 99%

**Virus Removal:** 70 – 99%

**Protozoa:** > 99.99%, **Worms:** > 99.99%

Springs are a natural source of water for rural communities. The department educates the local communities on spring protection to ensure the natural water sources remain unpolluted.

**Food security**

Tenwek Community Health and Development Department encourages the communities in its catchment area to keep dairy goats in a bid to improve nutrition for families. This project is carried out in partnership with GOK and Dairy Goats Association of Kenya. The department has also continued to partner with local communities to promote establishment of food banks and drought resistant crops.

![Dairy goats project.](image)

**HIV/AIDS prevention and care**

Among the activities under this outreach are:

1. Operation of Voluntary Counseling and Testing (VCT) centers, both static and mobile. The VCTs also offer moonlight services from 9pm – 11pm for those who are not willing to go for voluntary counseling and testing during the day.

2. Training of students, teachers and youth leaders in the “Why Wait?” program, an abstinence-based, biblical, character formation curriculum.

3. Prevention of Mother to Child Transmission (PMCT)

The department also mobilizes churches to spearhead the holistic ministry in the communities, provides Home Based Care to terminally ill patients and supports orphans in the community.

**Challenges**

1. Migration and relocation of trained Community Resource Persons

2. Target communities not fully participating
3. Conflicts in community entry processes by other stakeholders and partners: There is need to harmonise the way in which we engage with the community to strike a balance and fill in the gaps created by other partners.

4. Changing policies

5. Striking a balance between voluntarism and earning a living has become tricky.

6. Poor infrastructure

7. Sustainability

8. Motivation and retention of CRPs in voluntary service: The outcome of their work motivates the CHWs to continue in the service and keeps them motivated. However, if the community does not respond and/or participate, they may drop out.

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Other impacts of the programme include:
- Decreased burn cases are being reported in the hospital
- Reduction in the number of sick children being brought to the hospital

42
Mobilizing the Church for PHC: Maua Methodist Hospital community-based palliative care programme

By Stanley Gitari, Community Health Department, Maua Methodist Hospital

According to NASCP figures, HIV prevalence in Kenya currently stands at 5.1 per cent with 1.1 million Kenyans living with HIV. There are 233 deaths daily through HIV/AIDS while the number of AIDS orphans stands at 1.15 million. In addition,

- 1.5 Million pregnant women need VCT
- 68,000 need PMTCT
- 23,000 children need ARVs
- 430,000 people urgently need ARVs and 120,000 are currently on ARVs

There is urgent need for community care to deal with HIV & AIDS more effectively. We especially need to involve the community if we want to change behaviour to prevent HIV infection as the community needs to own the problem, process of finding solutions and the solutions themselves.

Why does the Church need to be involved with Palliative Care?

- The number of people infected with HIV and needing care is worrying
- Many terminal patients are suffering alone and in pain
- Only one in five people infected with HIV are on ARVs
Mobilizing the Church for PHC

- The hospital encouraged the Church to own HIV/AIDS as a problem in the community and persuaded church leaders to acknowledge that there was a problem.
- Church health committees were reactivated.
- It was also realized that we needed to involve all faiths and denominations including Muslims and Catholics. They were invited to join the health committees.
- The Church began to identify its own resources and found that there were many ways in which it could make a difference.
- Local resources were mobilised through harambees so that there were resources to care for the sick.
- Members of the health committees were trained.
- The community was involved in identification of volunteers who were then trained.
- Community clinics were set up in conjunction with MMH.
- The programme then started seeing patients in community.

Once programme was up and running, a lot of people, including donors, expressed interest with Church congregations identifying their own needs and forming support programmes.

Support programmes

HIV/AIDS Widows support group

Widows have formed their own support group.

Orphans

The Guardian Support Programme and Giving Hope project support orphans. The programme seeks to enhance the capacity of orphans and vulnerable children to identify, prioritize and address their long term challenges with little emphasis on short term emergency intervention.
Maua Sacco
The hospital Sacco was initially started by the hospital staff and is now opened to other members of the community. It provides employment to some PLWHIV.

Kitchen garden initiative
The PLWHAs are encouraged to create kitchen gardens in their homes to meet their nutrition needs and to become self supporting.

Teens with HIV & AIDS
Some children were started on ARVs at the early age of three years and are now teenagers. The support group allows them to vent their frustrations and share their experiences.

We Hope CSWs
This is a support group for commercial sex workers who are HIV positive and operates in Maua town and its environs. Despite many challenges, the group members have been active in sensitizing their clients on HIV & AIDS, including the importance of safe sex. The group has also managed to start a group savings and loans initiative, which seeks to support members to generate alternative sources of income.

Young mothers with HIV & AIDS
None of the children borne by these mothers is HIV positive due to PMTCT interventions.

NHIF
The PLWHAs are asked to contribute Ksh100 towards meeting the cost of their health insurance through NHIF. A donor provides the remaining Ksh60 to ensure the PLWHIV are covered through NHIF.

Other support programmes are micro financing, a dairy programme and day care centre.

Among those supporting the programme are:
- GOK
- AIDSRelief
- Diana Fund
- Difaem
- Food for the Hungry
- Ziegler Fund
- Samaritan’s Purse
- Giving Hope Project
- True Colours

Challenges
- Stigma still poses a big problem, even within the Church
- Male involvement in HIV/AIDS programmes is quite low
- There is need for more networking
- Lack of resources to expand services to more communities
- Motivating volunteers is still a big challenge
The Church should realize that it has the capacity and responsibility to make a difference in the community in this era of HIV & AIDS. The problem of HIV & AIDS has provided an opportunity for the Church to show the power of the Gospel of Jesus Christ and be effective in ministering to the community. There is need for the Church to align its vision, mission and activities with the needs of the community to be more effective and to document its work.
Malaria Conference
Keynote address

National Malaria Strategy 2001-2010

Dr. Willis Akhwale, Head of Division of Malaria Control (DMOC), MOH

Goal

To reduce the level of Malaria infection and consequent death in Kenya by 30 per cent by 2006 and sustain that improved level of control to 2010

Kenya has reduced the incidence of Malaria but the main challenge remains sustaining the achievements made. Malaria sentinel districts in Kenya are Makueni, greater Kisii, Kwale and Bondo.

The National Malaria Strategy has the following four key strategies:

- Provide prompt and effective treatment
  
  Target:
  
  About 80 per cent of MOH health facilities shall have continuous and adequate supplies of drugs essential for management of malaria

Group photo of participants at the CHAK AGM&AHC 2008.
- Malaria vector control using ITNs and other methods
  Target: About 60 per cent of at risk population sleep under ITNs
- Management of malaria and anaemia in pregnancy
  Targets:
  - 60 per cent of pregnant women will have two doses of IPT during second and third trimesters
  - 60 per cent of pregnant women will sleep under ITNs during their confinement
- Epidemic preparedness and response
  Target
  - 60 per cent of confirmed epidemics will be effectively contained through selective interventions including community mobilisation, effective case management, ITNs and Indoor Residual Spraying.
  – Increased IRS activities coverage (target 680,000 house units)

It also has 2 cross-cutting strategies:
- Information, education and communication
  Target
  80 per cent of households nationwide should have received targeted IEC on key messages from at least one source every six months to support the strategies defined above
- Monitoring and evaluation including operational research
  There is need to monitor progress against National Malaria Strategy targets in sentinel districts at community and facility levels through the Kenya Demographic Health surveys and Malaria Indicator Survey.

Reduction of malaria shall contribute to the following four Millennium Development Goals:-
- MDG1 - Eradicate extreme poverty and hunger
- MDG4 - Reduce child mortality
- MDG5 - Improve maternal health
- MDG6 – Combat Malaria, HIV/AIDS and other diseases

Achievements
Some achievements by the MOH-DMOC in achieving the targets set by each strategy are as follows:
- 20,750 (69 per cent of target) guidelines have been printed and distributed.
- Seven different job aides have been developed and printed
- About 81 national ToTs, 405 provincial ToTs and 9,000 health workers have been trained in case management
- 450 new health workers have been recruited and 12 million doses/10 million of AL procured
- 100,000 RDTs have been procured and distributed
- One survey has been undertaken for post market surveillance

Availability and use of anti-malarial drugs
- About 98 per cent of health facilities have access to first line drugs for malaria treatment compared to 89 per cent in 2002
- About 92 per cent of ill children are receiving the correct first line dosage of antimalarial drugs
Management of Malaria and anaemia in pregnancy

- Scaling up of ITNs through ANC and commercial outlets has been possible
- ITN use by pregnant women rose from 4.7 per cent to 36.5 per cent in 2006.
- Scaling up of IPT through ANC rose from 4 per cent to 24 per cent.
- Scaling up of ITNs through ANC and commercial outlets

Vector control

- 13.5 million ITNs were distributed between 2002-2006
- Mass distribution of 3.4 million nets to children under five in 46 malaria endemic districts was undertaken in July and September 2006.
- Free mass distribution was pro-poor
- Household ownership rose from 4.6 per cent in 2003 to 50.2 per cent in 2006
- Use of ITN by children under 5 rose from 4.6 per cent to 51.3 per cent in 2006

Among the net distribution channels were:

- PSI/DFID contract to deliver social marketing and supplies of ITN for sale at clinics
- Between October 2004 and December 2006 five million nets were delivered through routine clinics in six provinces
- Retail sales of Supanet were on the decline
- Half the nets in the country were from the PSI program
- More than one million Power Tab tablets were distributed
- UNICEF bought nets for marginalized groups in NEP

Epidemic preparedness

- About 3.5 million people are protected from malaria infection

IEC

- Over 70% awareness on net treatment in 2005 from 24% in 2000
- A lot more needs to be done in creating awareness among pregnant women on malaria

Impact

- There is evidence that the proportion of primigravid women delivering low birth weight babies has fallen
- There has been reduction in child mortality
- Hospital admissions have fallen by 50 per cent in the four malaria sentinel districts.

In conclusion, Dr. Akhwale noted that there had been a reduction of child deaths by 44 per cent in the four sentinel malaria endemic districts. At the current ITN coverage levels, seven deaths are averted by every 1,000 nets used while malaria out-patient attendance is down by at least 13 per cent. In addition, over 3.5 million people at risk of epidemics have been protected by IRS.
Questions and discussions

- Are there plans to go to other districts and provide nets to other groups of people other than pregnant women and children under five years?

The malaria project is 99 per cent donor funded, with the GOK’s contribution being less than 0.5 per cent. The project targets those areas in Kenya with the highest incidence of malaria infection. There have been increased resources towards malaria control and MOH is moving towards universal coverage. In future, MOH - DMOC seeks to scale-up the project to more districts as well as target the entire family. However, this is subject to availability of funds. The MOH - DMOC is also seeking to establish how many nets can be used in a sleeping space.

- Resistance to ACT

MOH would like to make the drug available in all public health facilities. The drug was to be distributed by qualified health providers in the first two years. The main contributing factor to resistance to anti-malarial is unnecessary use of malaria drugs. One of the key strategies to avoid this is to strengthen diagnosis and treatment of malaria through capacity building of health workers as well as provision of rapid diagnostic tests to grass root health facilities. However, there is need for more resources to carry out this.

- Owning a net does not necessarily translate to proper usage. Has the MOH examined why a certain percentage of people own nets yet do not use them?

The colour and the shape of the net present a challenge. In Coast Province, people resisted the nets which were white in colour because of cultural beliefs about ghosts. Installation of the nets is also an issue. The DMOC is conducting a research on colour and shape preference to ensure that beneficiaries use the nets provided.
• Stockouts.
The MOH lacks an efficient method of establishing the number of people who need malaria treatment in each region although MEDS has a better method of determining the stock required in each region. The MOH – DMOC also faces increasing demand from health facilities which are being put up over night through CDF. Another major challenge is the lack of timely reports from all the 4,000 MOH facilities on the number of people treated for malaria. Despite these challenges, the MOH shall have sufficient stock of drugs in the next 4 months.

Malaria case management update
By Julius Kimitei – Division of Malaria Control

Malaria situation in the country
Malaria remains a leading cause of morbidity and mortality in Kenya especially in young children and pregnant women. It is the major cause of Perinatal deaths, low birth weight and maternal anaemia. Approximately two-thirds of Kenya’s population or 25 million people live in malaria prone areas.

Facts on malaria in Kenya
• About 80 per cent of Kenya’s population is at risk of malaria
• At least 20-45 per cent of hospital admissions in Kenya are due to Malaria
• Child deaths can be reduced by 20 per cent through the use of ITNs
• About 25-35 per cent of outpatient clinic visits in Kenya are due to malaria
• At least 96 children die from malaria daily in Kenya
• Each family in Kenya spends Ksh1,400 or more annually on Malaria treatment
• About 170,000 million working days are lost each year as a result of malaria

Policy issues around case management of malaria
Treatment and diagnosis
One of the pillars of Kenya's Malaria control strategy is ‘prompt and effective treatment of clinical malaria’. It is the first intervention in the national malaria strategy. Between 2001–2003 there was convincing evidence that SP was failing to clear infection 14 days after initiation of treatment. The confirmed failure rate was 33 per cent.

The SP failure was indicated by:
• Increase in malaria morbidity and mortality
• Provider and consumer dissatisfaction
• Unacceptable treatment failure rates
• Evidence of better efficacy of other anti malarial drugs

In April 2004, Kenya hosted a national symposium that recommended the adoption of Artemisinin Based Combination Therapy (ACT) for the management of uncomplicated malaria. This followed from the management of TB that had succeeded through use of varying medicines. In September 2006, Kenya officially launched ACT with the President presiding over the event in Makueni.
The nation-wide implementation of this new malaria treatment policy would be accompanied by other interventions to reduce morbidity and mortality caused by malaria.

**What is combination therapy?**
Artemisinin Based Combination Therapy (ACT) is the simultaneous use of two or more schizontocidal drugs with independent modes of action and different biochemical targets one of which must be artemisinin-based.

**Advantages of ACTs**
The main reason for the adoption of ACTs was that they are “more efficacious than monotherapies and there is more evidence of the safety of ACTs than for many other widely used anti-malarial drugs” (WHO – RBM Partnership September, 2002). Among the advantages of this mode of treatment are:
- Rapid reduction of parasite biomass
- Rapid resolution of clinical symptoms: Once the clinical signs are cleared, the patient feels better.
- Reduction of gametocyte carriage: Past drugs did not work on the gametocytes, facilitating the spread of malaria.
- Effective against multi-drug-resistant *P. falciparum*
- There is no documented resistance of artemisinin and its derivatives
- It reduces the likelihood of resistance to the partner drug as the drugs defend each other from resistance by the parasite.

**ACT options**
The following combined therapy options were considered for adoption:
- **ART-LUM** — Fixed dose combination: This was the only co-formulated ACT in the market at the time of changing treatment and was in one tablet.
- **SP + ART** — high SP TFR: This was decided against because SP was losing its efficacy in malaria treatment.
- **ART+ Mefloquine**: This was also decided against because Mefloquine is only good in low transmission areas and has quite a number of undesirable side effects.
- **ART+ AQ- UTL**: This was not promising as Amodiaquine was also losing its efficacy. Amodiaquine is available even in retail kiosks and hence would have been a form of monotherapy. There was no need for a combined therapy in the health sector and a monotherapy in the retail sector.

**The policy**
- First line treatment for uncomplicated malaria: Use AL (Artemether-Lumefantrine), six-dose regimen
- Second line treatment: Use oral Quinine, seven-day course
- For severe and complicated malaria, Parenteral Quinine is used
- For presumptive treatment in pregnancy, SP should be used
- For case management in Pregnancy, Quinine can be used in all trimesters while AL may be used in the second and third trimesters.

**Chemoprophylaxis**
This is applicable for people moving from malaria-free areas to high transmission areas.
- For long-term residence, Proguanil (Paludrine) to be taken one week before and four weeks after.
- Mefloquine to be taken three weeks before and four weeks after, Doxycycline 100mg OD to be taken during stay and four weeks after the visit. However, it should not be taken by children
and pregnant women. Long-term visitors are advised to carry a treatment dose of AL in case they cannot access medical care.

Recommendations on the parasitological diagnosis of malaria

**For children under five years:**
- In high malaria endemic areas, any child with fever or history of fever should be presumptively classified and treated as malaria (IMCI). The use of parasitological diagnosis is not a prerequisite to treatment.
- In low malaria endemic areas, any child with fever or history of fever in the absence of any other cause of fever should be presumptively classified and treated as having malaria. Use of parasitological diagnosis is recommended where possible.

For children above five years and adults:
Where the patient has fever or history of fever, in the absence of any other cause of fever, the use of parasitological diagnosis is recommended.

**Treatment of uncomplicated malaria**

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<td>1</td>
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<td><strong>TWO</strong></td>
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<tr>
<td><strong>THREE</strong></td>
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</table>
### Treatment of severe malaria

Management must be appropriate to each complication that develops. Quinine is not contraindicated in pregnancy.

#### IV Quinine

**First dose:** 20 mg/kg in ½ litre of fluid in 5% dextrose given over 4 hours (Max. 1,200 mg)

8 hours after commencing the initial dose, give 10 mg/kg in ½ L of fluid over 4 hours (max 600 mg)

Repeat 10 mg/kg 8 hourly until the patient can take orally.

**Taking orally?**

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</tr>
<tr>
<td>ONE</td>
<td>3</td>
</tr>
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<td>TWO</td>
<td>3</td>
</tr>
<tr>
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Change to full course of AL OR oral quinine to complete 7 days therapy.
Training of health workers on malaria case management
Training of health workers on malaria case management begun in 2006. The Ministry of Health through the Division of Malaria Control came out with a structured program to train health workers at all levels.

The training program

The training program was developed by DOMC and funded by development partners. About 485 TOTs were trained from all levels i.e. national, provincial and district. About 81 national TOTs were trained at the national and provincial levels. Slightly over 400 district TOTs were also trained. The mission sector trained 360 health workers and 50 TOTs. Trainings for malaria M&E were also conducted.

The programme targeted to train 20,000 health workers in MOH facilities although the actual number trained was 9,000. Health workers in the mission sector were supported to do trainings through Global Funds.

Procurement and distribution of commodities
About 16 million doses of AL were procured and distributed and 20,750 copies of treatment guidelines produced. In addition:
- 60,000 job aides were distributed
- 8,000 participants’ manuals were produced
- 8,000 facilitators’ manuals were produced
- 228,000 RDT kits were procured
KEMSA distributes about 70 per cent of the AL procured to MoH facilities while MEDS distributes the remaining 30 per cent through a pull system.

**Way forward**

- Review and revise case management guidelines
- Produce and disseminate more guidelines
- Train and do supervision of health workers in public and FBO facilities
- Support training of health workers in IMCI
- Conduct health facility surveys
- Strengthen diagnostic services
- Procure and distribute anti malarial drugs
- Train HWs on Drug management
- Strengthen Quality Assurance of anti malarial drugs
  Increase equitable access to ACTs in the informal sector/communities. Plans are underway to pilot access to ACTs in the retail sector in three districts in Western Kenya.
- Capacity building on pharmacovigilance

**Questions and discussions**

*a) Advantages and disadvantages of RDT kits:*

RDTs test the presence of antigens produced by malaria parasites. In microscopy, capital investment is high although it proves cost-effective in the long-term. A major advantage of RDTs is that they do not require skilled personnel. Most RDTs can test for more than one of the malaria-causing parasites in the blood as well as quantify the number of parasites.

However, RDTs also have a number of disadvantages. One cannot tell whether the patient has been cured because there is persistence of antigens in the blood, even after treatment. Results are either positive or negative in RDT. RDTs are also quite expensive and where the user is not adequately trained, problems may arise. Transport and storage also affect quality of tests while slides only last 15 minutes and hence cannot be counterchecked.

*b) Training*

There is need for health workers to be trained on new guidelines as they are disseminated. Health workers will rarely read a guideline presented to them without interpretation. There is also need to harmonise malaria management among service providers, even in the private sector. It should also be noted that provision of free AL was not meant to replace the MEDS system of procuring drugs such as quinine to FBOs but was necessary because AL was a new treatment.

*c) AL syrup for under-fives*

AL Syrup for under-fives is rarely available. As an alternative, patients weighing 5-15kg should get one crushed tablet of AL with fluid. However, for children below the age of five, it was thought that this might not be ethically possible to administer. In addition, chances are that fever may not be due to malaria. In case of malaria, however, syrup quinine can also be administered at the recommended dosage. Syrup quinine should be freshly prepared as its shelf life is only a week. Use of syrup AL is not recommended.
d) Integration of services
To reach vulnerable groups more effectively, there is need to combine malaria management with Family Planning, HIV/AIDS services, ANC, among other services. The ANC, for example, has been used as an outlet for ITNs.

e) Allergic reactions to ACT
No cases of allergic reactions have so far been reported. However, the treatment guidelines issued by MoH list alternative drugs that can be used for management of severe malaria. However, more needs to be done on this subject.

f) Use of IPT in second and third trimester
It is possible to administer two doses within one trimester as long as the doses are four weeks apart.

Malaria Prevention and Control
James Sang, Division of Malaria Control, Ministry of Health

Epidemiology of Malaria
Malaria endemicity can be classified depending on prevalence rates. Zones are classified as:
- Holoendemic
- Hyperendemic
- Mesoendemic
- Low endemic
- Malaria free

Kenya: Distribution of Endemic Malaria
Malaria epidemiological zones can be divided into:

- Stable perennial transmission (holo/hyper) which includes the shores of Lake Victoria and its environs and the East African Coastal strip
- Stable seasonal fluctuations (meso) which include Western Kenya and areas adjacent to major rivers
- Epidemic prone (meso to low) including the western highlands, arid and semi-arid areas of northern and southern and eastern parts of the country
- Low malaria risk (low) including Nairobi and most of central Kenya
- No transmission (Malaria free) which includes mountainous areas and deserts

Malaria control aims at reduction of morbidity and/or mortality arising from malaria infections and involves case management and reduction in the number of new infections in a given time (incidence). Malaria prevention involves vector control such as reduction of adult mosquitoes, barriers, reduction of larvae, and environmental management. Drugs can also be used for prevention.

Vector control aims at reducing morbidity and mortality from malaria through the lessening disease transmission. Use of IRS and ITNs targets adult vector populations while source reduction/environmental management and larviciding target larval control. Vector control results in reduction of human-vector contact, vector density and vector survival.

Interventions whose primary objective is reducing human-vector contact are:

- Mosquito nets treated with insecticides
- Targeted coverage of ITNs for under fives and pregnant women
- Screening of houses
- Repellents which are a form of personal protection, have an insignificant mass effect and little impact on overall malaria transmission

Interventions with the primary objective of reducing vector density include:

- Source reduction which involves modifying the environment to make it unfavorable for vector breeding
- Larviciding

Examples of interventions whose primary objective is to reduce vector survival are:

- Indoor residual spraying of insecticides
- Community wide use of ITNs

Routine periodic indoor residual spraying of insecticides, community level use of ITNs and larval control (implemented selectively) can be used for epidemic prevention.

During predicted or early detected epidemics, the use of IRS is most appropriate while ITNs can be used as a secondary measure. These interventions which are mainly aimed at reducing vector survival lessen
the potential impact of epidemics and can be deployed rapidly. Additionally, they act fast to curb the spread of malaria. Larval control is not a priority intervention during epidemics.

**Important considerations when implementing IRS for epidemic control**

- Time interval between optimum peak meteorological indicators (rainfall, temperature, RH) and peak vector abundance is 1-2 months
- Time interval between peak vector abundance and peak malaria prevalence is 1-2 months
- IRS at the advanced stage of an epidemic contributes little to reducing the impact of the disease
- Good quality and high coverage (above 80 per cent) of targeted structures is critical
- Poor quality, substandard and low coverage of spraying is not better than no spraying

**Distribution of ACT/AL to faith based health facilities**

By Charles Njoroge Kimani – MEDS

**Introduction**

The Use of ACT in Kenya is part of global roll back malaria policy to reduce the burden of malaria, following evident resistance to monotherapy. The shift from monotherapy to combined therapy was not by choice. No new malaria drug was in the pipeline despite the developing resistance to existing drugs so the situation was dire. The change from monotherapy to Artemisinin- based combination (ACT) was in line with WHO standards which approve of Artemether/Lumefantrine (AL) as the recommended ACT.

Kenya received a grant from Global fund for a five-year period with the Malaria Drug Policy Technical Working Group drafting the new policy. The new malaria policy was adopted and announced by
Minister for Health in 2004 with its implementation by the division of Malaria Control beginning in 2006. Since July 2006, AL has been made available in both Government and FBO health facilities free of charge.

**Distribution of AL by MEDS**
MEDS was contracted by a consortium called Procurement and Supply Chain Management Consortium (PSCMC) to distribute the drug to FBO health facilities. The first contract covered August 2006 to June 2008.

Information on availability and ordering format was shared with the mission health facilities and emphasized on MEDS days and in the MEDS Update, a quarterly newsletter published by the drug procurement agency.

The contract was for distribution of 30 per cent of the AL received in the country to faith based health facilities. A ‘pull’ strategy was adopted whereby facilities were to order as per their needs, especially given that data on malaria patients was scant. Distribution started Aug 2006 - Nov 2007 when stocks ran out. New stocks were received at MEDS by March 2008 and distributed. The AL orders were processed and distributed along side other regular supplies to the facilities, so the health units are not invoiced for the service. Ideally, facilities put their orders on an ordering template availed by MEDS although the drugs can still be supplied for those not able to order using the template. So far, MEDS has received about 10 per cent of the drugs from the Government instead of the 30 per cent promised.

The ordering template

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<td>&gt;35 kg</td>
<td>24 tabs</td>
<td>4*6 tablets</td>
<td>Green</td>
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**Achievements**

- MEDS was allocated **1,806,720** doses. Out of these, **1,401,120** doses have been successfully distributed while **405,600** doses have been returned to KEMSA for redistribution due to short expiry.
- Out of 1,035 eligible faith based health facilities, 600 ordered the drug.
- MEDS has contributed to the new malaria treatment policy by distributing the drug to health facilities and communities.

**Lessons learned**

- Training on use of ACTs should have preceded distribution. Sentiments have been expressed by health workers that ACT is difficult to dose. Others do not understand why it was necessary to switch to combined therapy.
- Testing kits should have been supplied along side AL.
- Free drugs tend to be misused by both facilities and patients. This is manifested in over treatment of malaria in our health facilities. Each case with fever is treated as malaria, probably because the drug is free.
Challenges

• AL has a short shelf life of two years. This has posed a major challenge for health workers especially given that most other drugs take between six months to one year to expire.
• There was a stock out between November 2007 and March 2008.
• Reverse logistics: Excess AL from facilities had to be returned to MEDS for redistribution. This has led to added expenses for MEDS and as such, facilities should only order what they need.
• The drug does not come in liquid or parenteral dosages.
• MEDS is yet to receive the bulk payments for its distribution role.
• There have been few reports to aid in quantification and monitoring. Facilities therefore need to improve on reporting.
• Limited warehouse space.
• Contract on distribution with the Global Funds consortium expires in June 2008 and there is no clear way forward as yet.
• Loss of revenue to facilities due to reduced demand for other anti-malaria drugs.
• Training on the use of the drugs has been skewed in favour of MOH staff.
• Misuse of the free drugs. Health workers should only use the drugs on patients who have been confirmed to have malaria.

Conclusion

• AL has greatly contributed to reduction of the malaria burden in Kenya.
• Training should be ongoing for capacity building and confidence.
• There is need for test kits to ensure correct diagnosis and proper treatment.
• MEDS currently has about 591,360 doses with more expected later in the year. Faith based health facilities should therefore order the drug.

Questions and discussions

• Stock outs and supply problems
  The stock out that occurred was not a MEDS’ problem but a country issue. The procurement procedure was international and done by WHO. This problem was therefore beyond the control of both CHAK and MEDS.

• Media publicity and misuse of AL
  Media publicity with regard to the switch to AL seems to have had both positive and negative results. Because the switch to AL was well publicized, patients seemed to have developed the notion that every time they developed symptoms of malaria, they needed to take AL. This self diagnosis is risky and can lead to resistance of the parasite to the drug. However, the malaria guidelines are very clear about how to diagnose and treat a patient and health workers should not give in to pressure from the patient who only wants to be treated for malaria. There is need to treat the disease as opposed to treating the patient.

• Ordering AL from MEDS
  All faith based health facilities in Kenya should strive to get into the MEDS data base so that they can get the malaria drugs which are supplied free of charge. Even where a health facility owes MEDS for previous services, AL is supplied free of charge. However, patients may be charged for
consultation and laboratory services. MEDS is the only authorized supplier of coartem from MoH to the faith based health facilities and honours all orders no matter how small. In addition, those faith based health facilities that know about the availability of these drugs need to spread the information to others that do not.

- **Short expiry dates of AL**
  There should be no short cuts when it comes to expiry dates. All health workers should observe the drugs’ expiry dates as we all have a responsibility to uphold life.

- **Misuse and unavailability of diagnostic kits**
  Many facilities do not have diagnostic kits. As such, it is important to make use of laboratories that are near such health facilities to ensure proper patient management.

**CHAK Malaria project**

By Joseph Oyongo - Health Services Training Officer, CHAK

**The Malaria parasite**
Malaria is a febrile condition caused by protozoa called plasmodia. The species are:
- Plasmodium malariae
- Plasmodium vivax
- Plasmodium ovale
- *Plasmodium falciparum*: It is the most common type in Kenya causing severe disease with complications.

**How Malaria is spread**
The malaria disease is spread through a bite by an infected female anopheles mosquito. The mosquito injects sporozoites into the victim’s blood. The sporozoites spread all over the body with specific affinity to the liver and placenta. Thus, pregnant women are more at risk of Malaria than the general population. Malaria causes higher mortality in children under five than adults as children have lower immunity.
Malaria is a febrile condition caused by protozoa called plasmodia. Malaria is spread through a bite by an infected female anopheles mosquito. The mosquito injects sporozoites into the victim’s blood from where they spread all over the body with specific affinity to the liver and placenta. Pregnant women are more at risk of malaria infection than the general population and the disease causes higher mortality in children under five due to their low immunity.

The CHAK Malaria project

CHAK Secretariat presented a proposal to the Global Fund to Fight HIV, TB and Malaria in 2005 (Round 4). The proposal was funded in March 2007 and implementation started in April 2007. The areas of covered were training in Malaria case management and community mobilization for prevention.

The proposal also covered laboratory logistics support including reagents and related supplies to CHAK health units, purchase of office computers and LCDs for training, monitoring and evaluation. Other aspects were distribution of anti malarials to be carried out by MEDS and distribution of 32,000 LLIN bed nets.
Trainings carried out in 2007

<table>
<thead>
<tr>
<th>Trainings</th>
<th>Number of health workers trained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaria case management</td>
<td>360</td>
</tr>
<tr>
<td>Malaria TOT course</td>
<td>50</td>
</tr>
<tr>
<td>Malaria M&amp;E</td>
<td>50</td>
</tr>
<tr>
<td>Focused Antenatal Care/ Malaria in Pregnancy</td>
<td>74</td>
</tr>
<tr>
<td><strong>Total health workers trained</strong></td>
<td><strong>514</strong></td>
</tr>
</tbody>
</table>

Training materials

The Ministry of Health DOMC provided the training materials which included:
- Training modules covering all topics
- Rapid test kits for demonstration
- National Malaria treatment policy guidelines
- Relevant IEC and job aids

All the facilitators were initially provided by the MOH – DOMC and supported CHAK to train 50 TOTs. Subsequent trainings were done by the CHAK facilitators with minimal supervision by a trainer from MOH- DOMC. This ensured standardization and quality of trainings.

ITN / LLIN bed nets

- Proper consistent use of insecticide treated net prevents mosquito bites.
- CHAK received 32,000 nets from the Global Fund and distributed them to MHUs.
- The nets are available commercially and at subsidized prices from malaria programs with the main distributors being PSI, MOH and Global Fund.

Participants practice use of rapid diagnostic tests at a training held at Kapsowar Hospital
**M&E in malaria management**

**Division of Malaria Control - DOMC**

A key aspect of M&E is documentation. It is important to realize that use of funds cannot be justified unless M&E is done.

**What is monitoring?**
It is the regular follow up of the implementation of planned activities, their effect and impact in a programme. It can also be defined as a systematic and continuous process of following and keeping trace of indicators in order to ensure a programme is proceeding as planned and modify it if necessary. Monitoring is a continuous process and helps in establishing whether activities have been implemented as planned, ensure accountability, detect problems and helps in refining planning (WHO (2004) Global Malaria Programme). Data is collected at all levels.

**Questions answered through monitoring**
- Are programme outputs being met?
- Are we heading in the right direction?
- Are we in good time?
- Are the indicators appropriate?
- Are we addressing the correct problem?
- Are the interventions and strategies appropriate for the target the population?
- What can be improved in the programme?

It shows the strengths and the weakness of a programme.

**Importance of monitoring**
- Assesses progress on set objectives and outputs
- Supervises implementation
- Assesses effectiveness of implementation strategies
- Identifies and documents critical milestones
- Identifies new issues and/or unforeseen circumstances that may pose obstacles to achieving the programme objectives

**What is evaluation?**
Evaluation is the systematic assessment of the effectiveness and efficiency of programme or project achievement based on set objectives. It can also be said to be a process used to determine the extent to which programme needs and results have been or being achieved and analyse the reasons for any discrepancy. Evaluation is done at a point in time while monitoring is done continuously.

**Questions answered through evaluation**
- Have the outcomes or objectives been met?
- What systems were actually in place?
- How effective were the strategies used to implement the programme activities?
- Were the needs met?
- Have the needs changed?
- What is the level of participation of various stakeholders?
- What lessons have been learned?
Importance of evaluation

- It is a means of problem verification
- It helps a project to maximize utilization of resources
- It identifies strengths and weakness in programme implementation
- It provide information to aid in planning and re-planning

Evaluation is impact-based. It may measure, for example, the evolution of mortality, morbidity or even the economic losses caused by malaria. It also makes use of outcome indicators e.g. KAP of malaria interventions at community level.

Indicators for evaluation

- When formulated, indicators have to be as specific as possible with the denominator and numerator well defined.
- Data is usually collected through surveys which could be community or health facility-based.
- Best practice advises that such surveys be carried out every two to three years.

Among the indicators in evaluation are:

- Input which is the measure of resources available for programme implementation.
- Process which verifies that programme implementation is running as planned.
- Output is the measure of programme level performance.
- Outcome is the measure of medium term population model results.
- Impact refers to overall long term goals of a programme.

Some selected targets by 2008

- 80 per cent of GoK facilities to have continuous and adequate supplies of drugs essential for the management of malaria
- 80 per cent of fever cases which are treated at home by family members/care takers will be managed appropriately
- 80 per cent of pregnant women will have two IPT of SP in the second and third trimesters
- 80 per cent of the at risk population will sleep under an insecticide treated mosquito net
- 80 per cent of epidemic-prone districts will have an early warning and detection system for malaria epidemics

Partners in M&E

- CHAK
- KEC
- HMIS
- Donors
- Central Bureau of Statistics

Way forward

1. The malaria indicator survey 2007
2. House hold survey in all provinces
3. Launch and dissemination of an indicators report
4. Actualization of MIAS
5. Logistic Mx Unit for tracking malaria commodities data
Questions and discussions

- Training of health workers seems to have favoured MOH. Why?
  Although the actual numbers may seem disproportionate, about 50 per cent of health workers have been trained in both MOH and CHAK health facilities. Funding for MOH and FBHS health workers was provided separately with MOH being funded by DFID and Global Fund. There is need to provide MOH with the actual numbers of health workers who have not yet been trained to enable scaling up. This can be done through the DHMTs to who CHAK health facilities can present their training needs. Here, CHAK facilities may need to work with the Regional Coordinating Committees to be recognized by the DHMT. In addition, on the job training can be done although MOH does not issue certificates for health workers trained on the job. Only those who undergo the three-and-a-half day training get certificates.

- Private practitioners
  Training started in referral hospitals but is yet to reach private practitioners. Private practitioners are supposed to be trained through a request to MOH and there is also need for additional funding to reach rural health facilities.

- Sustainability
  Single sourcing, which initially made the malaria drugs quite expensive, has been replaced by competitive bidding to ensure the Government continues to supply free Coartem to health facilities even after the end of Global Fund support.

- Data collection from facilities
  Facility should connect with DHMTs who collect the data used in M&E. The DOMC has no capacity to contact any facility. Surveys are conducted by the Central Bureau of Standards.

- Reports
  Reporting has been poor. To address this, the division intends to re-train health facility staff and also talk to them on the importance of reporting.

- Manpower to undertake M&E is present at the district and provincial levels. However, data collection has remained poor.