Medical Audit on Problem Analysis and Implementing Changes at the Health Unit Level.

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Background: Decentralization is one of the reforms the Uganda government adopted to improve public services delivery. However, human resource numbers and capacities in local governments remain below the required level and this coupled with severe resource constraints make it increasingly difficult to deal with enormous workload in public health units. The authors responded to these human resource demands and needs in health service delivery by introducing hospital medical audit on problem analysis and implementation of changes through continuing medical education to health care workers. The main objective of this study was to introduce hospital medical audit on problem analysis and implementation of changes in health units order to reduce morbidity and mortality. Methods: A feasibility study was done to find out the effects of decentralization on the health service delivery and to assess the need for continuing medical education. Twelve problematic clinical areas were identified, modules developed, tested and eventually used to train selected health care workers on hospital medical audit to improve health service delivery.

Results: A total of 270 health care workers and 400 paramedical students were trained on hospital medical audit by identifying causes of complications associated with common clinical procedures done in their health units and then provide solutions that can be implemented. On prevention of HIV/AIDS and malaria spread, three different levels at which the two could be prevented from spreading were identified and discussed. Infection control and continuing medical education committees were formed where they did not exist.

Conclusion/Recommendation: Hospital medical audit on problem analysis and implementation of changes in health units is highly effective in stimulating and empowering health care workers and hospital administrators to analyze their own situations and provide implementable solutions to their health care problems. There is need to introduce hospital medical audit in all the districts in Uganda to improve health services delivery.

### Introduction

Decentralization is one of the reforms that Uganda government adopted to improve essential public services including health care delivery. This policy has created a vacuum in the human resource capacities especially in policy areas of making, planning, management and accounting because decisions previously taken centrally are being made at the local district levels<sup>1-5</sup>. The public servants face many challenges due to a number of constraints including; low staffing numbers, poor remuneration, inadequate facilitation at work, lack of staff orientation, further training, promotion and motivation. Workers have no opportunity for academic and professional growth because

decentralized districts have no funds for further training. This leads to our professionals leaving for greener pastures<sup>6</sup>.

Basic health sciences are the first subjects to wear off because they are taught in the first years of the training yet this knowledge is fundamental for quality general medical practice. The health care workers have to retrain themselves through continuing medical education yet they have no training on how to organize and conduct the training courses nor do they have an up to date library for refresher reading 1,5.

Thus hospital medical audit on problem analysis and implementation of changes in health units in Uganda through continuing medical education targeting medical and clinical officers, senior nursing officers and tutors in paramedical schools working in the decentralized districts was innovated and implemented. The general objective of this study was to introduce hospital medical audit on problem analysis and implementation of changes in health units in order to reduce morbidity and mortality. The specific objectives were to train health care workers on how to identify topical and common medical areas for continuing medical education and to update health care workers in applied basic health sciences in general medical practice.

## **Subjects and Methods**

Medical audit was conducted in three phases including a feasibility to identify the problems, a pilot to test the developed tools and the implementation phase. A feasibility study was done in the districts of Mityana, Masaka, Luwero, Iganga, Kabale, Mbarara, Rakai, Sironko, Tororo, Kisoro, Wakiso, Mbale and Kabarole to find out the effects of decentralisation on the health services delivery and the need for continuing medical education. It targeted medical superintendents of hospitals, top district administrators, senior nursing officers and medical and clinical officers. During meetings with health care workers, twelve topical areas were identified and modules were developed. They were piloted in Kisoro district. These modules were to be used to introduce hospital medical audit problem analysis on and implementation of changes in health units through continuing medical education. For the implementation, trainers have so far trained health care workers from Iganga, Masaka, Mubende. Rakai, Kabarole, Mbarara, Kabale, Mbale and Sironko districts.

#### **Activities**

Planning meetings were held with key informants and after the feasibility study, module were developed and later piloted.

Trainers' and Trainees' manuals were developed. Thirty health care providers per district were trained on hospital medical audit and conducting continuing medical education. Core groups of health care workers were formed to continue conducting continuing medical education at their respective centres. Hospital medical audit on problem analysis and implementation of changes in the health units was introduced to the health care workers. Trainees' manuals were given to each participant and a copy or two for each health unit they represented for the health units "libraries".

Monitoring and evaluation was done by the course participants by evaluating the course content and delivery methods used during training. The feedback was used by trainers for immediate adjustments to meet the specific needs of the trainees during subsequent presentations. Self-evaluation of the trainers was done at the end of every district to review the performance based on the feedback from the course participants and their own experiences during the training.

## **Results**

During feasibility study, we interviewed the medical superintendents of hospitals, top district administrators, senior nursing officers and medical and clinical officers who actually acted as key informants. They all agreed that there were gaps in the delivery of health and recommended continuing medical education to be carried out close to the health care workers' places of work. This was an innovation because health care workers were available for emergency work and at the same time receiving the training. The stakeholders were of the view that health care workers needed the courses for their daily medical work. District and hospital administrators cooperated with the trainers.

A total of 270 health care workers and 400 paramedical students were trained on how to identify problematic clinical areas and thereafter organize and conduct continuing

medical education at their places of work. The knowledge, attitude and skills gained were essential for quality general medical practice. Introduction to these health care workers hospital medical audit on problem analysis and implementation of changes in the health units by identifying possible causes of complications associated with common clinical procedures done in their health units: analyzed them provide to implementable solutions. We managed to bridge the gaps in knowledge, attitude and practical skills.

The causes of these complications were internal weaknesses that included insufficient knowledge of applied basic health sciences; inadequate knowledge, attitude and skills among the health care workers; inability of the health care workers to maximize on the materials and equipments available in the health units; and unhealthy cultural or traditional beliefs and practices by patients and relatives. The external causes were inadequate materials and equipment in the health units, low staffing levels and lack of specialists to carry out complicated procedures.

On prevention of HIV/AIDS spread, we identified and elaborated on three different levels at which HIV/AIDS could be prevented spreading. At individual HIV/AIDS could be prevented by behavioural change, avoiding tempting situations, practicing safe sex and refraining from self inoculation etc. At community HIV/AIDS could be prevented by promoting health or sex education in the families. by discouraging schools etc, unsafe traditional practices and mobile injectors and preventing sharing sharp instruments. In the health units, we identified many areas through which HIV could be prevented from spreading. Areas include prevention of mother to child transmission; we trained on encouraged use of disinfectants: boiling/sterilization of equipment properly before use; training more health care workers; providing health education to attendants and use of protective and universal precautionary measures.

On prevention of malaria, we agreed that it could be prevented also at three levels. At individual level, by destroying parasites in use of chemotherapy chemoprophyllaxis particularly to the most vulnerable; at community level by health education and economic empowerment to the community. Vector control measures such as clearing bushes around houses and spraying those that remain, prevention of stagnant water and use of oil and where possible biologically by fish farming etc are very effective. Thirdly and the most important way of prevention is to stop mosquitoes from biting people by use of treated nets, closing doors and windows early in the evening, wearing of appropriate dress in the evening and at night, spraying with insecticides and encouraging health educators to reinforce health regulatory measures.

About prevention of both HIV/AIDS and malaria, we brainstormed with the health care workers and resolved that health care workers should be role models and lead the community by examples in order to be believed. It was also resolved that together with opinion leaders, every forum be used to talk about HIV/AIDS, malaria and other health promoting behaviours like promoting primary health care, sanitation environmental protection. The following forums were identified: weddings, funerals, local council meetings, churches, mosques, political rallies etc

Infection control and continuing medical education committees were formed at all the health units trained. We regard the formation of these committees, which are essential for modernization of medical services, as an achievement because these committees are the major tools for improving quality of medical services and reduction of morbidity and mortality in any health unit. Trainees' manuals containing the modules were given to each participant and some copies were also

given for the health units "libraries". There was at least a health care worker from each health unit in the districts involved. The knowledge, attitude and practical skills gained will percolate to the grass root levels. Trainers' manuals guided the trainers.

Because of our training courses on the importance of referring patients who can not be managed in rural settings, Regional and Referral hospitals and Specialists' clinics are getting many referred patients from the districts we visited.

### **Discussion**

The problematic clinical areas for continuing medical education were identified and discussed by the health care workers themselves. These clinical areas give them headache in their day-to-day patient management.

The importance of hospital medical audit lies in the fact that health care workers are able to identify their strengths and weaknesses by identifying causes of complications to their common clinical procedures and suggest solutions that are implementable by themselves. What is needed is to stimulate and motivate them to talk while being moderated by senior person(s). The degree of health service delivery will improve.

This is also an innovation by Makerere University faculty of medicine teachers in basic health sciences to go to the community to participate in improving health service delivery and demonstrate the relevancy of applied basic health sciences in general medical practice. Instead of bringing these health care workers to the University, the University staff went and will continue to go out to train the health care workers close to their actual places of work.

It is also capacity building for Makerere University, Faculty of Medicine with regard to its Community Based Education and Services Curriculum. There will be updated

health care workers to look after the medical students attached to the health units during undergraduate internship period in the community.

The cost of the training has been minimal and the courses have been relevant to the work in the community. Therefore, we expect improved health care and reduction in morbidity and mortality in our health units. The community health unit has a health care worker with updated knowledge and skills. This health care worker will most likely have improved morale and job satisfaction because of improved career and professional growth opportunity through this project.

## **Conclusions and Recommendations**

Hospital medical audit on problem analysis and implementation of changes in health units through continuing medical education for health care workers is very effective in stimulating and empowering health care workers to analyze their own situations and provide implementable solutions to their health care problems. Experience has so far shown that problems that they thought required specialists to solve can be solved by themselves at little cost. Development and improvement are possible only when all stakeholders at all levels are involved in continuing medical education and hospital medical audit for problem solving rather than leaving problems to be solved by outsiders. District and hospital administrators who control the finances need to provide simple but essential items to make the environment within the health units friendlier. This resulted from our discussions on prevention of hospital-acquired infection.

There is need to cover all the districts in Uganda to train as many health care workers as possible and also go back to evaluate the outcome of the trained centers. It is hoped that this project will have a big positive impact on our health service delivery.

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