



## **Mental Health and Poverty Project (HD6)**

### **Case Study 2:**

### **A new mental health information system (MHIS) for Ghana**

*The purpose of the Mental Health and Poverty Project is to develop, implement and evaluate mental health policy in poor countries, in order to provide new knowledge regarding comprehensive multi-sectoral approaches to breaking the negative cycle of poverty and mental ill-health. MHaPP is based in 4 African countries: Ghana, South Africa, Uganda and Zambia.*

There is at last, a uniform mental health information system based on the ICD - 10 across the three specialist hospitals in Ghana.

#### **Summary of success:**

A new mental health information system has been set up in Ghana's three state psychiatric hospitals based on the ICD-10 diagnostic system. A new software was designed for it locally and it was based on epi-info and compatible with other statistical packages. For the first time in over thirty years, the three hospitals use the same diagnostic system, one which is internationally accepted – the ICD-10.

Through continuous training of and feedback to both clinical and records staff, capacity in diagnostic skills, data entry and analysis has been built up. Furthermore, staff numbers were increased at the records departments to aid data entry. Logistics were provided in the form of computers, arch files, external hard drives, writable CD's and perforators to aid data entry and processing.

Post intervention, the improvement in MHIS may be seen in:

- a. The data collected is comprehensive and its accuracy can be assessed objectively.
- b. National Mental health indicators may now be increased from 6 to 10 once the MHIS is expanded nationally
- c. The uniformity and clarity of definition of categories of patient data has enabled a comparison of data across the three psychiatric hospitals.
- d. Information such as employment status of patients with various diagnoses, or the catchment area of the hospitals may be easily ascertained. With further analysis, we can tell how many patients were seen rather than just how many cases. We can also see what proportion of patients received prescribed medication from the hospital, and what services they accessed.
- e. The system is simple, may be expanded as the need arises, and more importantly, it is compatible with Ghana Health Service's planned computerisation and net working of all hospitals with the IHOST and DHIS system.

#### **Who has already benefited and how?**

- The capacity of prescribers (doctors and medical assistants) and records department staff has been enhanced through training in the use of the ICD-10 and on computers.
- Hospital management capacity has also been enhanced with respect to the use of data in improving quality of care.
- New staff has been hired for the records department.
- Hospitals have received two computers each for data entry
- GHS's PPME unit is observing the MHIS as an example for standardizing the diagnostic system throughout the health system in Ghana and is planning to include the indicators from the MHIS among its dashboard of indicators to report on.

## Description of the project and main findings

The aims of the project were to study the factors which facilitate the set up of a modern, semi-computer based MHIS and secondly to identify the factors which enable the use of data in policy, planning, monitoring and evaluation (PPME). The process of extensive consultation with stakeholders - prescribers, recorders, nurses, hospital administrators and policy makers - led to agreement to use the ICD 10 as the basis for the new MHIS, and extend the national indicators from 4 to 10 categories to correspond to the major disease categories of the ICD -10 chapter 5.

Training in ICD 10 was undertaken, and a new MHIS computer based system designed for all three hospitals, enabling them to have a uniform data collection system for the first time. The system has been in operation since May 2009.

The main facilitating factors for the setting up of an MHIS are

- An empirically determined need for the change of the system, accepted by all stakeholders as such.
- The continuous involvement and buy-in of stakeholders through all the stages of implementation
- Capacity building through feedback, training workshops, on – the - job supervision for prescribers and data gatherers and entry staff as well as hiring of new staff for records departments.

The main challenges were

- The lack of internet connectivity and an IT policy
- Not having a systematic way to disseminate new learning throughout each hospital
- Untimely data entry procedures.
- Paucity of funds in hospitals to ensure sustainability once project ends.

The second aim can only be studied after the system has run for another year to see how the data is used.

### What is the actual or potential impact of the research?

The actual impact of the MHIS intervention is the fact that for the first time, all three psychiatric hospitals in Ghana have uniformly defined indicators and are using the same diagnostic system. This ensures comparability of data, validity and reliability of indicators and can therefore be a strong tool for policy, planning, monitoring, evaluation and advocacy in mental health.

The unexpected impact is that it is now seen as a model for how to get doctors to use one diagnostic system throughout the health care system.

### Why is our research novel?

- It was triggered by an urgent need for reform of the existing MHIS
- There are few studies on MHIS in Africa, and none in Ghana.
- The choice of intervention was based on research evidence about the state of mental health care in Ghana, and even as the intervention proceeded, so did the research aspect.
- The research is operational research, and uses the Participatory Action Research approach, which incorporates both intervention and evaluation components and involves all stakeholders of the MHIS.
- The results are yielding useful lessons for expansion to the national health information system and implementation of MHIS in other settings.

## Partners

### Ghana:

Kintampo Health Research Centre  
University of Ghana Medical School  
Ministry of Health

### South Africa:

University of Cape Town  
University of Kwazulu Natal  
Human Sciences Research Council  
Department of Health

### Uganda:

Makerere University/Butabika  
National Mental Hospital  
Ministry of Health

### Zambia:

University of Zambia  
Ministry of Health

### Lead partners:

UCT  
UKZN/HSRC  
WHO (Geneva)  
WHO (AFRO)  
University of Leeds (Nuffield Centre for Health and International Development)

Prior to the advent of the project, record-keeping for mental health care in Ghana was limited. This meant that there was no consistent system of diagnosis, no agreement between the psychiatric hospitals on the age definitions for children and adults, and no data collected regarding large categories of disorders, such as the Mood disorders. Essential data such as numbers of patients seen, average number or re-admissions, length of admissions, and number of cases secluded or re-strained were not collected routinely and therefore did not allow for auditing of systems to inform mental health plans, policy and quality of care.

It has thus been difficult to convince policy makers at the highest levels to invest more resources in mental health care. Now policy makers know that close to 60% of patients maintain some kind of employment as they undergo treatment. This information is important for reducing stigma towards the mentally ill. The new MHIS also shows that approximately equal numbers of women as men use the outpatient departments (OPD's) and therefore dispels the view that women are more prone to serious mental illness than men as is the commonly held belief here. The data also suggest that these OPD's help keep the 60% of working patients on the job with access to medication. This is information which is important for advocacy to keep the hospitals from being moved to less accessible areas as the pressure for land increases in the cities and around the hospitals. Finally, close to 10% of patients seen have seizure disorders and would be better followed up in OPD's of general hospitals where they would have access to a variety of other services.

These initial outputs are important for improving quality of care to patients.

## What has made our research successful?

- Choice of intervention was based on a rigorous situation analysis of the mental health system in Ghana.<sup>1</sup>
- Extensive stakeholder involvement and participation.
- Technical support from the GHS.
- Funding from MHAPP

## Lead researchers and organisations

**Project Director:** Prof Alan J. Flisher; **Project Coordinator:** Dr Crick Lund, UCT

Dr. Angela Ofori-Atta, Principal Investigator MHIS, Ghana  
Dr. Akwasi Osei – Ministry of Health Partner, Ghana  
Dr Tolib Mirzoev and Dr. Omar Mayeh, – Leeds University, U.K. – Lead Partners for the MHIS intervention

**Lead partners:** Dr Michelle Funk, WHO (Geneva); Dr Therese Agossou, WHO (AFRO); Prof Andrew Green, Dr Mayeh Omar, Dr Tolib Mirzoev, University of Leeds (Nuffield Centre for Health and International Development).

## DFID Involvement

<b>Dates of RPC:</b>	2005-2010 (Note: Phase 2 Interventions are from August 2008 to July 2010)
<b>Financial spend to date:</b>	£2,198,552 (2005/6-2010/11) – total RPC budget, across the four countries.

## Assumptions/Additional Information

Detailed protocol of the intervention study is available on request.

Reference:

- (1) Doku, V., Ofori-Atta, A., Akpalu, B., Read, U., Osei, A., Ae-Ngibise, K., Awenva, D., Lund, C., Flisher, A. J., Petersen, I., Bhana, A., Bird, P., Drew, N., Faydi, E., Funk, M., Green, A., and Omar, M. A situation analysis of mental health policy development and implementation in Ghana. Phase 1 Country Report. Accra: Mental Health and Poverty Project; 2008.