HCT4

KAR Programme on Disability and Healthcare Technology

DFID Department for International Development

The Global Knowledge Network Project

LOCATION
Worldwide

PARTNER
GIC LTD, UK
GIC Ltd is an international management consultancy firm specialising in project management, training and consultancy in healthcare, trade, and international funding institutions.

SUMMARY
This project aimed to improve access to, and availability of, information related to healthcare technology for healthcare delivery institutions and health professionals in developing countries. The two research assignments were the assembly and maintenance of a knowledge database, and a survey of healthcare delivery institutions to identify where information and training needs are not being met.

PERIOD OF FUNDING
February to August 2001

GRANT
£35,150

CONTACT
Andy Barraclough on
abarraclough@giclimited.com
Tel: +44 (0)20 7259 8065
Website: www.giclimited.com

BACKGROUND

Healthcare technology engineers in developing countries are familiar with situations like there being no water in the operating theatre, or no fuel for the emergency electricity generator, or leaking medical gas lines wasting oxygen, or no spare parts or service manual to repair the anaesthesia machine.

Weak administration of healthcare equipment because of a lack of local technical and managerial expertise, combined with often ill-targeted aid, results in wasted resources with little or no benefit to patients.

THE PROJECT

The **Global Knowledge Network Project,** conducted by **GIC Ltd** with extensive co-ordination and co-operation from active players in the field of healthcare technology, set out to address these problems. It compiled and updated an indexed knowledge database of individuals, institutions, publications and websites relevant to the healthcare sector. This database – produced by specialists from the healthcare technology and biomedical engineering sector, universities and the **World Health Organization (WHO)** – includes:

- organisations active in improving healthcare technology management
- useful publications and documentation
- software for functions such as planned preventive maintenance and assets control
- contacts for manufacturers and suppliers.

GIC Ltd

Parallel to this database the project undertook a survey of healthcare delivery institutions in selected developing countries in order to identify priority areas for information and training needs.

The survey's findings showed that the greatest problems facing biomedical technicians, clinicians and managers are not technical ones related to keeping the equipment working, but management and financial constraints. For example, inappropriate equipment is being ordered, and there are often no proper calculations made of the cost of future operations and maintenance.

Two direct benefits have come out of the project. Firstly, the database is providing a ready source of useful contacts for technicians and managers needing 'how to' and 'where from' information. For example, how to calculate the recurrent maintenance cost of a particular X-ray system, or which agent stocks spare parts. Secondly, the survey has provided a clearer picture of the principal areas to be addressed in order to strengthen the policy and management aspects of healthcare technology. The technology is no longer considered the prime source of perceived problems; rather it is policy and management that are now considered to be seriously deficient.

The survey's findings showed that the greatest problems facing biomedical technicians, clinicians and managers are not technical ones related to keeping the equipment working, but management and financial constraints.

The database has been converted into a format suitable for Internet publication, with integral search facilities, containing information on 80 organisations, 270 publications and 14 training courses. It will eventually be accessible via the KaR website or in hard copy. The survey is small scale but focused, and alongside the database will provide the beginnings of a rational basis for future research priorities for this KaR programme.

LESSONS LEARNED

- It was noted that many organisations that were expected to have web access had none, or at best had inadequate access.
- When considering ways in which to improve healthcare delivery, there should be a shift of emphasis from technology and technician/engineering issues to wider healthcare technology policy and management.
- Existing WHO materials should be more widely disseminated among healthcare institutions and biomedical units.
- Improved access to maintenance manuals should be provided by related industry bodies or through website publication of medical equipment technical materials.

This project is now completed.