

LOCATION

The Gambia

PARTNER

ECHO INTERNATIONAL HEALTH SERVICES, UK

SUMMARY

Established in 1966, ECHO International Health Services is a UK charity specialising in the supply of quality assured pharmaceuticals and medical equipment to governments and the humanitarian sector worldwide. Over the years ECHO has developed expertise in training, technical and advisory support to health facilities.

PERIOD OF FUNDING

February to November 2001

GRANT

£32,600

CONTACT

ECHO is currently reorganising. Visit www.echohealth.org.uk for further information.

Maintaining medical equipment in developing countries

BACKGROUND

In its report, *Primary Healthcare Concepts and Challenges in a Changing World* (1997), the **World Health Organization** estimated that “less than half of the medical equipment in developing countries is useable”. It concluded that there was a major and urgent need to address equipment maintenance in order to improve the quality and provision of healthcare. **ECHO** has been looking at how this problem can be tackled through fostering a culture of maintenance for medical equipment in the developing world.

THE PROJECT

ECHO chose to locate the project in **The Gambia**, not only because of the strong links that it enjoys with the **Department of State for Health** and the **Medical Research Council** there, but also because the small size and logistics of the country made it relatively easy to include staff from a wide range of healthcare establishments.



ECHO

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The project combined an element of field-based training, hosted by the **Royal Victoria and Bansang Hospitals**, with longer-term support covering areas such as tools, spare parts, consulting and networking. The three-week training component was carried out by ECHO's Senior Biomedical Engineer, Andrew McDowell. There were 34 participants from 11 hospitals and health centres throughout The Gambia.

While training can help to boost the skills and confidence of technical maintenance staff (as well as immediately repairing a selection of equipment for the organisation hosting the training) ECHO believed that the second element of the

project – longer-term support – would be crucial in establishing a lasting shift towards a culture of maintenance. Improved morale and the right tools for the job are essential if health facilities are to retain higher calibre staff in technical maintenance roles. In turn, health facilities with a successful maintenance programme will reduce their need for new equipment and can better use their resources for patient benefit.

A key objective was to promote awareness about the importance of maintenance work, so the first week of the training course was largely based around discussion of the principles and philosophy of maintenance, along with the benefits of effective management. Participants were able to air their views, frustrations and ideas, and in this way assess ECHO's own proposals for the

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continued assistance it should provide in the future. The latter two weeks concentrated on hands-on maintenance work, servicing and maintaining equipment at the Royal Victoria and Bansang Hospitals.

Participants were encouraged to work together on a wide range of medical equipment and on tasks that were not only challenging but also appropriate to their level of skills.

The education and experience of candidates varied enormously. Some had done long training courses overseas, while around 25% needed considerable help to complete the pre-course questionnaires. Despite the diversity of backgrounds and skills, a strong bond developed between participants. All were keen to join in the discussions and ask questions, and all united in their enthusiasm to improve their skills and work together on common problems. Issues such as lack of resources, spares and basic tools cropped up repeatedly, along with problems of isolation and low status often felt by those doing maintenance work.

On a follow-up visit in November 2001 it became apparent that preventive maintenance as a concept had become well understood through the course.

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For laboratory staff, who would be classed as users of equipment, this had resulted in a greater awareness of and responsibility for taking care of laboratory equipment. For maintenance staff, there was an increased awareness of the importance of checking equipment while in use rather than waiting for it to be reported as faulty.

LESSONS LEARNED

- The provision of training in combination with the provision of tools, spares and ongoing support is an important combination – one without the other would not be so beneficial.

- Bringing together an educationally and regionally diverse group of people to share ideas and frustrations is of benefit.

- Short-duration, basic courses can have a significant impact, boosting levels of confidence and awareness and effecting a change in attitude. Through this project, a culture of replacement has been transformed into a more sustainable one of maintenance.

This project is now completed.

