

1. THE QUESTION

The poor state of medical equipment is a critical barrier to delivering services in hospitals in low-income countries. How can UK institutions and individuals in partnership with their counterparts overseas help address this challenge; not only through equipment donations, but also by providing the training and support required to ensure medical equipment can be locally maintained?

2. SPEAKERS AND FACILITATORS

Dr. David Percy, THET Advisor (DP)

Shauna Mullally, THET Biomedical Engineering Consultant (SM)

Andrew Jones, THET Senior Partnerships Advisor (AJ)

Andrew Gammie, Biomedical Engineering Consultant, Fishtail Consulting (AG)

Dr. Nicolas Adjabu, Deputy Director, Clinical Engineering Department, Ghana Health Service (NA)

Dr. Boniface Fundafunda, Manager, Drug Supply Budget Line, Ministry of Health, Zambia (BF)

3. AGENDA

Workshop learning objectives	10:10 – 10:15 am	DP
Setting the context	10:15 - 10:30 am	AJ, SM
Panel discussion	10:30 - 11:30 am	AG, NA, BF (facilitated by SM)
Tea/coffee	11:30 – 11:45 am	All
Case studies	11:45 am - 12:45 pm	All (facilitated by THET staff)
Lunch	12:45 - 1:45 pm	All
Reviewing best practice guidance	1:45 – 2:55 pm	All (facilitated by THET staff)
Tea/coffee	2:55 – 3:05 pm	All
Discussion: creating a network	3:05 – 3:30 pm	All
Review of objectives	3:30 – 4:00 pm	All (facilitated by AJ, SM)

4. MINUTES

Setting the context (DP, SM, AJ)

Please visit <http://www.thet.org/> and <http://www.thet.org/health-partnership-scheme/> to learn more about THET's work and the Health Partnerships Scheme specifically.

Medical Equipment Partnerships (SM)

The aim is to build more sustainable long-term partnerships and training rather than just fixing medical equipment.

- 50-80% of medical in low income countries is out of service (WHO)
- Up to 80% equipment in some low income countries is donated (WHO)
- Only 10-30% of medical equipment is put into service at the hospitals they arrive at (WHO)

What is a medical equipment partnership?

1) Any partnership that involves medical equipment, including those that:

- Include equipment donations to meet the goals of the partnership
- Involve training of equipment operators or maintenance staff to meet the goals of the partnership

2) Any partnership whose primary goal is to:

- Improve the state of medical equipment in the low-income country partner's hospital or health system
- Build the low-income country partner's capacity to effectively maintain and manage their medical equipment
- Train medical equipment maintenance and management personnel

A paradigm shift is required:

- Relief – Development
- One way transfer of goods – partnerships
- Individual (piece of equipment, person) – system
- Equipment maintenance – equipment management

Panel Discussion (SM, NA, BF, AG)

What are good practices for medical equipment partnerships?

What has your experience been with the management of equipment in low-income countries?

BF: A lot of interest in trying to provide equipment for different health programmes. Ended up with a new supply / equipment to be shipped or new training programme to be set up year on year. Inability of the public sector to address in the long term. No planning or investment in the long term.

Stand-alone strategy for equipment only. Medical equipment not attractive for hospitals, medical equipment remains an after-thought. Need to create demands within public health system where we have focused policies about equipment. Need to recondition rather than procure new equipment. Can't have these high budgets every year. Need policy support within public health. The pharmaceutical sector, in comparison, has both a lot more policies and investment.

AG: Experience in Asia, particularly in Nepal and India and has produced several projects and documents for WHO. Saw medical equipment corruption in India. Issues of global management, supply and procurement systems. Need user maintenance of equipment. The user needs to be able to look after the equipment (don't have technicians available each day). WHO has templates, generic specifications for countries, which can be modified. Need medical equipment guidelines which should work in any environment.

NA: Medical equipment in healthcare delivery is ignored from a management point of view. No one considers what comes along with the equipment i.e. the practicalities of actually using the equipment. End up 'finding ways' to use equipment. The upshot of using over aged equipment includes difficulties looking for spare parts and high costs. Over aged equipment includes equipment which could have been procured new but not maintained. No replacement policy or funding. Old equipment as donations (i.e. equipment which has been removed from service in developed countries), we try to stop this but there are many channels for this equipment to arrive in-country. Medical equipment becomes a political issue during elections when politicians portray, use and give donated equipment as a gift, for the people and for the development of the country. Why would you bring broken equipment overseas? Multiple issues, systems have to support the maintenance and management of equipment and the crisis of human resources. Need someone to understand what the issues are and who is a point of contact. Even with the same type of equipment, training needs to be provided (i.e. software training). Conflict with local agents – if they train staff then they would lose their jobs. Local agents are often costly and poor performing. Can't get parts from the source. The manufacturers themselves don't have the same commitment responsibilities as in the UK – to provide support to low income countries (which requires overseas trips and expensive flights etc).

SM: The joint Donor Coordinating Committee in Laos, Thailand and Cambodia requires a 10% per year budget for any medical equipment

Floor Question: "How can best practices at national and international level be transferred to local hospitals and NGOs and how can efforts be harmonised"?

BF: Charities need to understand the market or source rather than destination. Countries have national health strategies. Not sure to the extent institutions and government use the guidelines available (i.e. WHO*). There is an issue with coordination between different actors and at different levels. Aid can create divisions between public health and a ministry of health and aid creates pressure to deal with the various demands of donor agendas. In Zambia as many partners as possible agreed to form working groups and have a roundtable approach, which is working. This allows decisions to be made about who or which actor is doing what. Coordination is a challenge for donors, government and institutions. A coordinated approach would solve many problems.

*WHO Department of Essential Health Technology – Best practice document / template.

AG: Finding out what's going on and relationship building (or networking) is so important. But often, this important stage is hard to justify. Need to understand the culture and relationships. Need a shift – the network as best practice. Continuity of relationships is so valuable.

NA: Maintenance contract mean that whoever delivers the equipment has the contract. The problem is once the 'insurance' period is over that is when the equipment is most in need of servicing. If country is organised, they can plan the equipment needs, timespans, support and training etc. A partnership is needed to define what is required, to get the right support, so buying for the hospital is sustained and well-run.

SM: Donors fund for the life span of their project rather than for the life span of the equipment.

Floor Question: "Standardised equipment – how can we educate people? Coordination, how will it work? How are we going to do the standardisation of all these things we're talking about? WHO or on a country basis? What is the big picture"?

BF: Need more coordination at ministerial level. Wider than simply procurement. WHO has standardised guides for use in country. Certain things can be standardised but some of the manufacturers want to protect their business. Most things at the moment are not standardised, if set standardisation was done, could create a leap forward.

Floor Comment: What happens with equipment between and within countries, without the right infrastructure? Need appropriate technology. Clinical staff and technicians need to work together in partnerships, to trust each other.

AG: Need respect for technicians and engineers within hospitals. Having a permanent post in hospital helps this. Need to encourage this respect locally (foreign engineers are often respected more so get asked to fix the equipment, rather than local engineers). This socio-cultural perception can change, at least on a local level.

Floor Question: "Do you have any statistics – that the old equipment donated is cheaper than the new equipment, say from China"?

NA: Don't have those statistics to hand.

- The equipment we receive in our country is appropriate. All types of patients you need to deal with. Safety. It is the government's responsibility to reduce the financial barriers to accessing healthcare.
- Is the cost of maintenance is higher or lower? Some equipment you can buy very cheap, but the duration and reliability of the equipment is not good. Both very good and very bad equipment comes from China. Would prefer to have equipment that lasts the stated duration and which will do what it says over cost. Issues in quality and safety come from medical equipment providers not being licensed.

Floor Question: How do we link very specifically equipment to patient pathways?

Panel: Need to present medical equipment functionality within the wider health service delivery / goals. Accept used equipment under certain conditions only. Need to ask questions such as; why did the original user abandon that equipment (which can be confirmed with the original hospital). If the equipment will be useful for a period of time, then yes, equipment can be accepted. What is required are best practice guidelines. Need to get to the point where the participant says what support they need (regarding equipment and timescales).

Discussion about forming a network and next steps

- People in the room want to stay connected
- Suggestion from the floor to look at www.goingoverseasnetwork.org for useful documents
- Useful to have a list of biomedical engineering links – **these will be posted over the coming months on the HPS site**
- Possibility of creating a new forum on the THET website? The mix of people from different professions would distinguish the forum from others – **this is being explored**
- The forum could be used to get people together to apply for funding
- What would be useful on the forum? Something country specific, something showing where people are working, a biomedical section?
- Toolkit for best practice – **this will be uploaded onto the HPS website**
- Powerpoints from the workshop will also be put up
- Distribution of participant list – **this is being distributed**