



Staff from the Mundubi Rural Health Centre in one of the study districts

PROJECT BRIEF

A study of community case management of pneumonia in Zambia

This study aimed to provide valuable evidence on the rational use of antibiotics at the community level to inform future implementation of integrated community case management, helping to ensure that hard-to-reach and remote populations continue to have access to lifesaving treatments and to preserve the utility of medicines worldwide.

Project outline

Pneumonia accounts for approximately 15 percent of all childhood deaths and kills more children than any other infectious disease globally. With an estimated 935,000 deaths of children under five per year attributable to pneumonia, its prevention and control is a global priority essential to achieving Millennium Development Goal 4 – to reduce child mortality by two-thirds by 2015. The World Health Organization and UNICEF estimate that a considerable proportion of childhood pneumonia deaths could be averted through implementation of a number of key interventions.

Community-level interventions have a key role to play in ensuring the availability, uptake and appropriate use of health services, especially for poor and marginalised populations. One such intervention is the integrated community case management (iCCM) strategy for malaria, pneumonia, diarrhoea and newborn health, which is currently being rolled out across sub-Saharan Africa, Asia and South America. The overall aim is to support and strengthen community-based case management of malaria,

Country

Zambia

Donor

UK aid from the UK government

Length of project

January 2012 - August 2014

Partners

Nuffield Centre for International Health and Development, University of Leeds





A CHW in Luapula province attends to a sick child

pneumonia and diarrhoea by providing free diagnostics and treatment to children under five, training, job aids and supervision to community health workers (CHWs), as well as communication for behavioural change to the community as a whole.

Although interventions such as iCCM have great potential to reduce the burden of pneumonia, especially in hard-to-reach populations, concerns remain regarding the use of antibiotics at community level and the development of antibiotic resistance. With training, supervision and the use of effective job aids, CHWs offer a valuable opportunity to improve the rational use of antibiotics in resource-poor settings. However, evidence on current practice by CHWs and adherence to treatment by caregivers is limited.

Through COMDIS-HSD, a research programme consortium funded by the UK government, Malaria Consortium explored this issue in Zambia to inform action to prevent the development of resistance while continuing to provide community-level treatment for marginalised populations for a major cause of childhood mortality. The project was built upon Malaria Consortium's implementation of iCCM in Luapula province, which was funded by the Canadian International Development Agency (now known as DFATD).

The cross-sectional study took place in two districts of Luapula province and had three main components:

- » Observation of community health worker consultations to determine if CHWs were able to correctly diagnose

and prescribe treatment for children with suspected pneumonia, including innovative methodology to assess the accuracy of respiratory rate assessment.

- » Follow-up visits with caregivers of children who were prescribed antibiotics to determine adherence to treatment, through questionnaires and pill counts.
- » Focus group discussions and key informant interviews with CHWs and caregivers to supplement quantitative findings and explore behaviours, attitudes and possible influences on the rational use of antibiotics at the community level.

Key findings

- » CHWs are capable of measuring respiratory rates and prescribing treatment according to the guidelines.
- » Greater accuracy in the diagnosis of suspected pneumonia and increased rational use of antibiotics could be achieved through the development of more user-friendly and refined diagnostic tools appropriate for use by CHWs in resource-poor settings.
- » In terms of caregiver adherence, it is likely that this would be improved through a three-day rather than five-day course of antibiotics, reducing cost and minimising the development of antibiotic resistance. However, further research is needed to determine if this would be effective in contexts such as Zambia.
- » Community engagement is key to ensuring the effectiveness of community-level interventions.