Research into Use Summary

1. Research Project: Systematic review of WASH interventions and nutritional status in

childhood

2. Lead researcher: Dr Alan Dangour, LSHTM3. SHARE Partners: LSHTM and WaterAid

4. Research budget and duration: £50,000 (9-12 months)

5. Location: Global

Research description:

The review will, for the first time, systematically evaluate the strength of evidence linking WASH interventions with childhood nutritional status. This research will produce both a wider systematic review for publication in a peer-reviewed journal as well as a separate more restricted Cochrane Review paper. This work will help inform better policy on nutrition, health and WASH and serve as an important basis on which future research priorities can be identified. Evidence for the effectiveness of WASH interventions in preventing nutrition by the following three causal pathways will be considered: via associated repeated bouts of diarrhoea; via associated parasitic infections; and via associated subclinical disorders of the gut (for example, tropical enteropathy). This work is a major contribution to the SHARE priority theme of health.

What is the relevance of the research to national and/or global sector challenges?

An estimated 35% of all child deaths and 11% of the global disease burden are associated with poor nutritional status in children, and this issue is now a major global health priority. Moreover, the long-term consequences of chronic malnutrition, which has numerous and complicated causes, include reduced school attendance and diminished economic potential. Several reviews exist on the impact of WASH interventions on diarrhoea, but there are no published systematic reviews investigating the effect of WASH interventions on child nutritional status. This research, therefore, aims to help address this knowledge gap that is acting as a 'barrier to progress.' Understanding the impact of interventions will assist researchers, policy-makers and practitioners to scale-up what works and invest in research to fill the gaps in our understanding.

Who are the intended users of this research?

The findings will inform briefing papers to support uptake by key actors in the nutrition, health and WASH sectors (including the WHO's Department of Child and Adolescent Health and Development, and the Water, Sanitation and Health Programme; the World Bank; UNICEF; USAID; and DFID). In the SHARE focus countries, the findings will be disseminated among national policy-makers. Secondary audiences will include researchers working in this field, from both nutrition and WASH communities. In line with SHARE's global RIU strategy, this research will identify and characterise problems, including the paucity of evidence, and may also demonstrate the benefits of WASH interventions. Publication will be sought in a high-impact medical journal. A summary of the research findings will be made publicly available on the SHARE website and will be disseminated within the SHARE consortium and to a broad range of users.

