

Research into Use Summary

- 1. Research project:** Faecal contamination of commuters' hands in public places in Dhaka city, Bangladesh
- 2. Lead researcher:** Sirajul Islam, ICDDR,B
- 3. SHARE partners:** ICDDR,B, WaterAid, LSHTM
- 4. Research budget:** £29,876
- 5. Location:** Bangladesh

Research description:

This research is intended to provide information about the levels of faecal contamination of commuters' hands in Dhaka, Bangladesh. It will assess whether these levels are any different with regard to seasons, knowledge and practice of hygiene, socioeconomic status and/or type of transportation used. This data, along with information regarding the extent of exposure to risk factors, will be collected through a set of structured questionnaires managed by field workers approaching people at the railway station, bus station, airport and launch terminals in the capital city. In addition to this, participants will be asked to rinse their hands and then the handwashing sample will be collected and transported to the Environmental Microbiology Laboratory in order to estimate the bacterial contamination using standard procedures. If samples contain faecal bacteria, the origin (whether human or animal) will be traced through species level identification of faecal streptococci.

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

This research focuses on the SHARE research theme of health, aiming to provide information regarding levels of faecal contamination on the hands of commuters. There are very few studies that have analysed faecal bacteria on the hands of general adult populations, and to date none have explored the contamination levels of commuters' hands at different seasons of the year as well as the origin of contamination in Bangladesh. Understanding these levels of contamination and the different factors that influence the presence of coliform bacteria will provide the basis for an appropriate awareness raising and education campaign regarding handwashing with soap. Promoting this practice is said to be one of the most cost-effective interventions for preventing infectious diseases such as diarrhoea and acute respiratory infections in developing countries, both of which are leading causes of death.

Who are the intended users of this research?

Targeted at policy-makers in government, soap companies and NGOs, these findings aim to guide future interventions in the public health sector so as to reduce the spread of infectious diseases. The findings from this research will be displayed in posters at stations and other busy public areas around Dhaka. Leaflets will also be distributed in the same places in order to raise awareness regarding the contamination of hands with bacteria of faecal origin and the resulting health impact. This is hoped to lead to behaviour change among residents in and around Dhaka. 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.

