

What can be done to improve food safety standards in Bangladesh?

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*In a city where over 40% of street food was found to be contaminated with diarrhoea-causing *E.coli* bacteria, ongoing research shows that a broader approach to hygiene is needed to improve food safety standards*

Hygiene standards in the street food of Dhaka city are low and food is often contaminated with diarrhoea-causing bacteria, a problem related to both a lack of understanding about food safety by the street vendors and infrastructure constraints like limited access to safe water. These were the preliminary results of an [icddr,b study](#) conducted with 1 street food vendors between December 2013 and December 2014, and presented at a recent dissemination seminar. The research team, led by Dr Aliya Naheed, Associate Scientist and Interim Head of the Chronic Noncommunicable Disease Unit within icddr,b's [Centre for Equity and Health Systems](#), used a food safety education module that was found to significantly increase the knowledge of the street vendors and improve their hand hygiene, but which did not significantly reduce bacterial contamination of the food. Members of the community present at the dissemination seminar and discussion last month said that improving consumer awareness could be the key to improving food safety.



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Street food is a primary source of food for many urban dwellers—the study found that at least 35% of the vendors primarily sold their street food in residential areas—but alarmingly more than 50% of the street food tested was contaminated with various diarrhoea-causing bacteria, and over 40% contained traces of the faecal pathogen *E.coli*. While not all strains of *E.coli* are dangerous, the bacteria can cause bloody diarrhea and, in extreme cases, kidney failure or death. Improving street food safety could therefore have important implications for public health.

In the study the team developed and implemented a food safety education module targeting 100 street vendors in one area of the city. It was aimed at improving knowledge about food safety, improving hand hygiene and increasing use of safe water. The intervention included a documentary video and a picture flipchart about bad and good practices for food preparation and personal hygiene, and the provision of safe water and hand washing agents.

“While we succeeded in making the vendors’ hands safe, by increasing the use of soap for example, we saw no significant reduction in the bacterial contamination of the food,” says Dr Naheed. “We found that this is because the vendors often do not have access to the basic infrastructure that is required to carry the quantities of safe water that need for a whole day of cooking, cleaning or serving food to the customers.”

“We are now piloting the same intervention along with a hygienic street food cart that is designed to protect the food from environmental contamination and facilitate the movement and storage of safe water during vending. If this proves successful in reducing the bacterial contamination of food by assisting the vendors in adhering to the food safety interventions, we can lobby the government to bring food safety standards under legislation. Then we may begin to see a city-wide improvement in food safety within a relatively shorter period.”

However, while vendors need to be registered so that they can be monitored and made accountable the registration should not be allowed to give way to red tape and corruption, says Porimol Palma, a senior reporter at *The Daily Star* who was a panelist during the roundtable discussion. He believes that this is not something that the poor vendors will be able to afford. “Street vendors are in constant competition with their neighbours,” he says, “And so an increase in running costs of their small business could lead to a loss in customers.” This argument extends to other ways of improving food safety, such as the added expense of hand gel or gloves, and it could be the ultimate deterrent to maintaining food safety standards.

During the discussion, Dr Naheed recognised that on the one hand they need to educate, train and monitor the vendors but on the other hand they will also need to empower the customers to demand a certain level of hygiene. While they were not able to do this in the first phases of the study, the team did survey the customers, finding that knowledge and perception about street food safety among the customers were as poor as the vendors.

The solution may be to extend the food safety communication to all, offered Mr Palma. “If we target the consumers with a media campaign, as well as the vendors, they may be willing to pay a bit more money for safer food.”

Going forward, the icddr,b team intends to monitor customer awareness as well as test the food safety interventions alongside the hygienic street food cart. The study was initially funded by a round 4 [Grand Challenges Canada Stars Global Health Award](#) and the team collaborated with RFL Plastics Ltd. and Salt Communications to design and promote the food safety interventions. The next phase of the study has been funded by the [Food and Agricultural Organization of the United Nations, Bangladesh](#).

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