

## WHO to help countries estimate foodborne diseases

By [Joe Whitworth](#) on May 1, 2019

**GENEVA** — The World Health Organization’s leaders say it will help countries estimate their respective foodborne disease burdens.

Kazuaki Miyagishima, director of food safety and zoonoses and foodborne diseases at the international organization, said there are plans to equip countries with a tool to provide national estimates. It is expected to be available later this year.

He said nations need to demonstrate and estimate the burden of foodborne diseases to make a strong case to invite investors to come to food safety. Estimates will allow countries to make the point for sustained investments in the area.

“They need to have figures to present to the finance minister. With this much money we can reduce foodborne disease by X amount. Indicators are also needed to measure progress you are making,” said the food safety director from the World Health Organization (WHO).

Miyagishima was speaking to attendees of the International Forum on Food Safety and Trade at the World Trade Organization (WTO) headquarters in Geneva last week.

The WHO published global burden of foodborne disease estimates in 2015. The figures showed that almost one in 10 people fall ill every year and 420,000 die from unsafe food. Children younger than 5 years old carried one-third of the disease burden.



*Photo by Joe Whitworth*

### **A personal story**

Barbara Kowalczyk, an assistant professor at Ohio State University, told attendees of how her child died because of a foodborne illness. Her son, Kevin Michael Kowalczyk, was 2 and a half years old when he died in 2001 after developing hemolytic uremic syndrome (HUS) and only 12 days after falling sick.

She also shared the stories of other children including Grayson, aged 2, who died in August 2016, and Reese, aged 5, who died in May 2015. They were both diagnosed with E. coli O157:H7 infections and HUS. Her presentation also listed Abby, aged 7, Ruby aged 81, Kevin aged 2 and Joseph aged 8 as having died because of E. coli O157:H7 infections and Kayla because of an E. coli O111 infection.

Kowalczyk said long-term health outcomes of foodborne diseases are a growing area of importance. She shared the story of Ryan, who was 15 when he contracted Salmonella during a tomato pepper outbreak from eating pizza and spent one year in wheelchair.

One patient, Mariah, has epilepsy and cannot drive after getting HUS. Another, Ashley, developed HUS during an outbreak traced to spinach and needed a kidney transplant. Chris was also affected by E. coli O157, while Tammy and Jake were infected by Salmonella.

In 2015, the Foodborne Disease Burden Epidemiology Reference Group (FERG) helped pilot national burden of foodborne disease studies in Albania, Uganda, Thailand and Japan.

Lindita Molla, head of food safety and nutrition at the National Public Health Institute of Albania, presented findings from her country.

There is an increasing number of gastro enteric illnesses, specified as unknown gastroenteritis with 56,000 cases per year.

The work found there are no community level studies, and for cases of gastro enteric illness and food poisoning, etiological information is missing. Data on prevalence of hazards in the food supply are limited.

The legal framework and regulatory infrastructure for the food safety and surveillance system are in place but resourcing to support existing laboratories to undertake diagnostic testing is an issue.

Official monitoring programs for shellfish (algal toxins and E. coli) have been in place since 2005 to support exports to the European Union.

Development of capacity for typing pathogens and potential sources that would assist in attribution is a long term goal.

Molla added the country is in the process of reorganizing the national structure of the food safety system.

### **Changing food systems**

Delia Grace, from the International Livestock Research Institute, said food systems are changing in low and middle income countries.

It is estimated that the foodborne disease burden in India will rise from 100 million to 170 million in 2030 – increasing from one out of 12 to one of nine people falling sick on average.

Grace said culture can have big effect on risk as milk may be popular in many places but some communities boil it, some drink it raw and some use fermentation so it is not enough to know what is being eaten but how it is consumed is also important.

She said rapid diagnostics and tests such as a filter paper in milk that turns black if it is positive for fecal bacteria and white meaning it is safe to drink are becoming more popular but economic evidence of burden is needed to ensure progress.

Dr. Angela Parry-Hanson Kunadu, of the University of Ghana, said 1.2 million Ghanaians are food insecure and another two million are vulnerable to food insecurity with large discrepancies between rural and urban populations.

The main food safety hazards in Ghana are microbiological, such as Salmonella, E. coli, Shigella, Clostridium perfringens, and chemical, which includes pesticide residues, heavy metals, mycotoxins and adulterants.

Some issues are hygiene and sanitation in the informal food sector resulting in microbiological contamination, adulterant use in food processing such as DDT in fermented fish, Sudan Red dye in palm oil, or parathion in imported vegetables, and processing toxins such as lead and Polycyclic Aromatic Hydrocarbons.

Accumulation of mycotoxins including aflatoxin, fumonisin and ochratoxin due to poor harvesting, drying and storage systems of maize and peanuts is another problem.

### **Trade and Codex role**



*Photo by Joe Whitworth*

José Graziano da Silva, FAO director general, said many countries depend heavily on imports to guarantee availability of food for their people.

“Food safety standards are also important for ensuring fair trade practices and stable food supplies and prices. If every government applied different food standards, trade would be more costly.

And it would be much more difficult to ensure that the traded food is safe, nutritious and meets consumers’ expectations,” he said.

“The Codex Alimentarius is the single most relevant international reference point for food standards. Codex has worked on food safety and trade for over 50 years. It has developed hundreds of internationally agreed standards, norms and codes of practice.”

Officials at the Bangladesh Food Safety Authority (BFSA), academia, students, the food industry and officials from FAO met in Dhaka in April on the national strategy for harmonization of food standards with Codex.

“This meeting was important to explain the purpose of harmonization, the process involved, how to participate and the benefits on a national level,” said Sanjay Dave, former chairperson of the Codex Alimentarius Commission.

The BFSA was created in 2015, under the Food Safety Act of 2013, to ensure food safety for the 160 million citizens of Bangladesh and to regulate and monitor the production, processing, storage, sale and import of food products. These activities are currently fragmented between different ministries.

The Food Safety Act of Bangladesh requires BFSA to align its food standards with international rules and requirements under WTO agreements. Participants learnt the importance of being able to work with risk assessments carried out for Codex and benefits in facilitating trade with other countries.

Sridhar Dharmapuri, senior food safety and nutrition officer for the Asia-Pacific region, said Bangladesh is making strides in modernizing its food control system and implementation of internationally accepted standards and best practices.