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Committee on World Food Security (CFS)

Research Report

Topic 2: Creating a framework to prevent the spread of foodborne diseases.

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Introduction:

Foodborne diseases cause hundreds of thousands of deaths each year. It will take international cooperation and action to combat this. Primary problems are a lack of standards, recording and connectivity between national medical associations.

Definition of Key Terms:

Foodborne Illness: Foodborne diseases are caused by contamination of food and occur at any stage of the food production, delivery, and consumption chain.

Background Information:

While the first confirmed documented case of foodborne disease goes back to Alexander the Great it is very likely that foodborne diseases originated before the evolution of humans. Given that "foodborne illness" is just a term to describe how the illness is spread, the live form which causes the symptom varies greatly with bacteria, parasites and viruses being the most widespread but toxins as well as prions are also known to cause foodborne illness.

The pathogens for foodborne illness can contaminate food at any point of the production chain, however, is most likely due to improper storage or handling. In an effort to improve the current situation the WHO has put out the "five keys to safer food" manual aimed to be simple to understand but general so that it is easy to adjust given the audience and circumstance.[2]

Foodborne illnesses cause roughly 420000 deaths every year with children under the age of 5 being especially disproportionally affected.[1] Foodborne illnesses are particularly dangerous in areas without the necessary infrastructure to treat them. As the most common illnesses are often highly treatable, serious issues occur from a lack of basic medical infrastructure which then might increase the chance of death indirectly due to, for example dehydration in the case of salmonella.[3]

The currently most relevant outbreaks of foodborne illnesses are Salmonella and E.coli as well as parasites like tapeworm.

[1] https://www.who.int/news/item/03-12-2015-who-s-first-ever-global-estimates-of-foodborne-diseases-find-children-under-5-account-for-almost-one-third-of-deaths

[2] https://www.who.int/publications/i/item/9789241594639

[3] https://www.cdc.gov/salmonella/general/diag-testing-salmonella.html

Major Countries and Organizations Involved:

Given the lack of quality in the data recorded in most countries in the world there is no specific country which plays a major role in this case.

Major organizations involved:

World Food Program: The WFP would be responsible for providing relief to areas in which major sources of food have been contaminated or are otherwise unavailable.

United Nations Office for Disaster Risk Reduction: The UNDRR would try to gain funding to finance projects by the WHO.

World Health Organization: The WHO would try to increase the size of their preexisting operations, perchance increasing INFOSAN in an effort to spread information about foodborne diseases.

Relevant UN Resolutions:

The Sixty-third World Health Assembly (2010)
https://apps.who.int/gb/ebwha/pdf_files/WHA63-REC1/WHA63_REC1-P2-en.pdf

Resolution adopted by the General Assembly on 13 December 2018
https://documents-dds-ny.un.org/doc/UNDOC/GEN/N18/439/86/PDF/N1843986.pdf?OpenElement

Forty-sixth Session (14-18 October 2019)
https://www.fao.org/3/na633en/na633en.pdf

Resolution to research, and investigation of the association of foodborne hazards with acute and chronic
https://www.fao.org/news/story/pt/item/1175295/icode/

Previous Attempts to Solve the Issue:

Attempt 1: Simon and Winslow

Most industrialized nations have adopted the preventive principles that Simon and Winslow aimed to change. By completing the following, we can adapt Dr. Winslow's approach to the public health issues of his day and bring foodborne illness prevention into the present day, by embracing, addressing, educating, and utilizing.

Attempt 2: Meat-related foodborne illness
The USDA designated E. Coli O157:H7 as an adulterant in ground beef in 1994. These developments led to the 1906 Federal Meat Inspection Act's thorough overhaul being passed in 1996 (USDA, 1997). Therefore meat-related foodborne illness, particularly those associated with E. coli strains that produce the toxin Shiga, has dramatically decreased as a result of the Federal Meat Inspection Act's reform, particularly the emphasis on HACCP and the application of microbiological performance requirements.

Possible Solutions:

Solution 1: Keeping food clean

Cleanliness is a crucial element in preventing foodborne. It is the responsibility of the producers and consumers to ensure that food is handled safely, even in facilities run by the federal, state, and municipal governments that are subject to inspection and supervision for food safety. Food-contact surfaces should all be kept clean.

Solution 2: Supporting

By supporting the development of Member States' capacities to identify, prevent, and control foodborne illness hazards. Food safety initiatives include foodborne illness awareness campaigns, independent scientific evaluations of food-related risks, and support for food safety through federal health care.

Bibliography:

WHO: foodborne illnesses

https://www.who.int/europe/news-room/fact-sheets/item/foodborne-diseases