Dear Dr. Costard,

A recent study published in the June issue of *Emerging Infectious Diseases*, authored by you, Luis Espejo, Huybert Groenendaal, and Francisco J. Zagmutt, and funded in part by a United States Department of Agriculture Special Research Grant and the Pennsylvania Agricultural Experiment Station, draws misleading conclusions by conflating outbreaks linked to fluid raw milk with outbreaks linked to cheese produced from raw milk. The study, “Outbreak-Related Disease Burden Associated with Consumption of Unpasteurized Cow’s Milk and Cheese, United States, 2009–2014,” also fails to distinguish between those products produced legally and aged properly, and those produced at home and/or in unlicensed facilities.

The American Cheese Society (ACS) finds that this misrepresentation of data leads the authors of the study to draw inaccurate conclusions about the safety of legally-produced and properly aged raw milk cheeses. The authors of the study:

- inaccurately group data for fluid milk and cheese together, creating the false assumption that the risk is similarly associated with each of the grouped items
- lump together the few outbreaks linked to cheese with outbreaks linked to fluid milk, which make up the overwhelming majority of the outbreaks in the data set
- use selection criteria for outbreaks that group together cheese and milk as ingredients and "cheese," "milk," and "dairy" as food vehicles
- base conclusions on the grouped data, failing to consider that the components (fluid milk and cheese) are not equally represented
- fail to distinguish between those products produced legally and aged properly, and those produced at home and/or in unlicensed facilities

It is important to note that the authors of other peer-reviewed studies, including *Increased Outbreaks Associated with Nonpasteurized Milk, United States, 2007-2012* (cited in S. Costard et al.) and *Outbreaks Attributed to Cheese: Differences Between Outbreaks Caused by Unpasteurized and Pasteurized Dairy Products, United States, 1998-2011*, analyzed much of the same data, yet clearly differentiated between fluid milk and cheese. They also distinguished between those products produced legally and aged properly, and those imported illegally, produced at home, and/or produced in unlicensed facilities. As a result, they were able to come to more accurate conclusions.

ACS called attention to similarly misleading language conflating fluid raw milk and raw milk cheese in 2012, when ACS responded to a CDC Study on *Nonpasteurized Dairy Products, Disease Outbreaks, and State Laws.*
An article recently published in STAT, “Raw milk and cheese cause 840 times more illnesses than pasteurized products,” furthers the misleading conclusions of your study. Its author, Helen Branswell, begins by stating that “[u]npasteurized milk and cheeses made from it are responsible for nearly all foodborne illnesses caused by contaminated dairy products.” She goes on to state that it “has been thought that cheese made from raw milk was safe to eat if it is aged for 60 days; the aging is thought to kill harmful bacteria. But the FDA is currently reviewing the scientific basis for that position.”

ACS has been in contact with FDA regarding this statement, and has been assured that there are currently no pending changes to the 60 day aging rule. In fact, from 2014 to 2016, FDA conducted a very thorough assignment testing legally produced and aged raw milk cheeses for the presence of the pathogens Salmonella, Listeria monocytogenes, E. coli O157:H7, and Shiga toxin-producing E. coli. The overall contamination rate for each of the pathogens was found to be less than one percent.

ACS has issued a Statement on the Safety of Raw Milk Cheese and endorses current FDA raw milk cheese guidelines for manufacturers, including:

- producing cheese in licensed facilities that are routinely inspected on the local, regional, and federal level
- producing cheese under the oversight of licensed dairy handlers
- aging cheese for a minimum of 60 days before it is sold

In addition, FDA has reviewed ACS’s Best Practices Guide for Cheesemakers which further advocates producers:

- take part in ongoing food safety education
- regularly conduct product and environmental testing
- maintain accurate and up-to-date records
- seek third party certification
- build relationships with local, regional, and federal inspectors
- adhere to all state and federal regulations and industry standards

Please see our websites www.cheesesociety.org and www.safecheesemaking.org for complete, thorough, and up-to-date information on safe cheesemaking, and accurate facts about the industry.

Nora Weiser
Executive Director

Cc: Editors, Emerging Infectious Diseases
Helen Branswell, Infectious Diseases and Public Health reporter, STAT
Editors, STAT

About the American Cheese Society
Founded in 1983, the American Cheese Society (ACS) is the leader in promoting and supporting American cheeses, representing over 1,700 cheese industry professionals. ACS provides the cheese community with educational resources and networking opportunities while encouraging the highest standards of cheesemaking focused on safety and sustainability.