Norovirus in the United States

[Announcer] This program is presented by the Centers for Disease Control and Prevention.

[Reginald Tucker] Hello, I'm Reginald Tucker and today I'm talking with Dr. Aron Hall, an epidemiologist specializing in norovirus at CDC. Our conversation is based on his perspective on Norovirus in the United States, which appears in CDC's journal, *Emerging Infectious Diseases*. Welcome, Dr. Hall.

[Aron Hall] Thank you for having me.

(Reginald Tucker) Dr. Hall, is norovirus a big problem?

(Aron Hall) Absolutely. Norovirus is the leading cause of acute gastroenteritis in the United States. It's also the most common cause of foodborne-disease outbreaks in the U.S.

(Reginald Tucker) Do many people get it?

(Aron Hall) Yes. Each year, an average of 20 million people in the U.S. get infected with norovirus and develop severe vomiting and diarrhea, also known as acute gastroenteritis. We see so many cases of norovirus because it's a very contagious virus that spreads through a variety of means, including person-to-person contact, contaminated food and water, and contaminated surfaces.

(Reginald Tucker) Does it affect everyone the same or are some groups more likely to get it?

(Aron Hall) It doesn't affect everyone the same way. In fact, children are more likely to get infected and sick from norovirus. Adults over 65 and children younger than 5 years old are more likely to have severe outcomes such as dehydration, hospitalization, or death from norovirus infection.

(Reginald Tucker) So people do die from it?

(Aron Hall) Unfortunately, yes. On average, as many as 800 people in the U.S —mostly older adults—die from norovirus illness every year.

(Reginald Tucker) What are the signs and symptoms?

(Aron Hall) The most common symptoms are diarrhea, vomiting, nausea, and stomach pain. Some people may also experience fever, headache, and body aches.

(Reginald Tucker) Is there a norovirus season?

(Aron Hall) In the U.S., we see an increase in the number of reported norovirus outbreaks during November through April. Year after year, we continue to see these increases. So, we refer to this as norovirus season. However, you can get infected with norovirus at any time of the year.

(Reginald Tucker) Is there a vaccine for it?

(Aron Hall) There is currently no vaccine to prevent norovirus infection, but research is being done in this area.

(Reginald Tucker) Is it a new problem? It seems like we've only started hearing about it the last few years.

(Aron Hall) No, norovirus is not a new problem. The virus was first discovered in the early 1970s. However, in recent years, there has been more testing for norovirus as part of public health investigations. This has led to an increased number of reported outbreaks, increased recognition of the virus, and a great deal more research.

(Reginald Tucker) You did a review of the burden of norovirus in the U.S. spanning the last five years. What did you find?

(Aron Hall) We found that, in the U.S., norovirus causes on average between 570 and 800 deaths annually and up to 70,000 hospitalizations, 400,000 emergency room visits, 2 million outpatient visits, and 20 million *total* illnesses each year. We determined that someone living in the U.S. experiences on average *5 episodes* of norovirus gastroenteritis during their lifetime. We also found that people 65 years of age and older are at greatest risk for norovirus-associated death, and children less than 5 years of age have the highest rates of norovirus-associated medical care visits.

(Reginald Tucker) Are other countries experiencing the same incidence of norovirus as the United States?

(Aron Hall) Yes. When we compared estimates of norovirus in the U.S. to other countries, such as Canada and the United Kingdom, we found that the estimates were similar.

(Reginald Tucker) Dr. Hall, why is it important to know about the incidence of norovirus and who is most likely to get it?

(Aron Hall) Understanding the size and scope of a problem is the first step toward addressing it. Our study is critical for developing preventive measures, against norovirus, such as vaccines and to help better understand their potential benefits for the public's health. We concluded that for a norovirus vaccine to have the most benefit, it would need to be safe and effective in young children and the elderly—the groups at highest risk for severe norovirus illness. CDC continues research to better understand norovirus and to help prevent and control its spread in the U.S.

(Reginald Tucker) In the meantime, is there anything people can do to protect themselves?

(Aron Hall) CDC recommends proper hand-washing, rinsing fruits and vegetables thoroughly, cooking shellfish thoroughly, and cleaning and disinfecting surfaces to help prevent the spread of norovirus.

[Reginald Tucker] Thank you, Dr. Hall. I've been talking with Dr. Aron Hall about his perspective, Norovirus Disease in the United States, which appears in the August 2013 issue of CDC's journal, *Emerging Infectious Diseases*. The article is available at cdc.gov/eid.

If you'd like to comment on this podcast, send an email to eideditor@cdc.gov. I'm Reginald Tucker, for *Emerging Infectious Diseases*.

[Announcer] For the most accurate health information, visit www.cdc.gov or call 1-800-CDC-INFO.