The Centers for Disease Control and Prevention (CDC) has a respected reputation as the leading source of accurate information on disease. In order to preserve that reputation, we feel it is critical that information should be presented on CDC web pages in a manner that does not mislead the public and members of the media, or in ways that do not accurately depict the risks or causes of illnesses.

In the summer of 2023, following the deaths of three individuals attributed to *Vibrio vulnificus* wound infections (acquired from exposure to seawater) in New England, at least 47 articles on "flesh-eating bacteria" were published, quoting CDC data reflecting a projected 80,000 Vibriosis cases and making reference to oyster consumption. We understand that this number is extrapolated from 2,470 confirmed cases of all *Vibrio* infections (both foodborne and wound infections and from many species of *Vibrio* bacteria), and is based on assumptions about underreporting and mis-diagnoses.

However, we think it is important that the CDC separate foodborne infections from wound infections, since the causes of these illnesses are very different, and each type of illness requires very different precautionary measures. It is especially concerning in the case of *Vibrio vulnificus*, since the CDC's own data shows that only 10% (15 cases in 2019¹) of these infections are related to seafood consumption, while over 65% (104 cases in 2019¹) are related to wound infections.

We also believe that the CDC needs to clarify and properly emphasize the extreme rarity of septic *Vibrio vulnificus* infections attributed to seafood consumption. Since only a few of these infections occur nationally each year, it is important to put the risk of acquiring this disease in proper perspective to avoid confusing members of the media and the public about the hazards of eating shellfish. The relatively high mortality rate and gruesome nature of septic Vibriosis infections attracts a lot of interest from the media, and it is important to recognize how many millions of shellfish meals are eaten safely each year. We ask that CDC be more careful on its website to distinguish between relatively common "Vibriosis" and extremely rare foodborne illnesses stemming from infection with *Vibrio vulnificus*.

We understand that there are many varieties of *Vibrio*, and that *V. parahaemolyticus* is implicated in several hundred confirmed foodborne cases related to seafood each year. We also understand that these infections are usually self-limiting, with fewer than 20% resulting in hospitalization. We wonder whether the recommendation of cooking all shellfish is warranted when the CDC does not make similar recommendations for raw vegetables, which are implicated in 46% of foodborne illnesses².

We are not asking that the CDC alter or hide any facts. We simply ask that the CDC review its public-facing data to ensure that appropriate risks are properly represented, that wound infections are not conflated with foodborne infections, and that consumers and members of the media are not confused by the relative risks of eating various foods.

References:

¹ https://www.cdc.gov/vibrio/annual-summary-2019.html (most recent data)

² https://www.cdc.gov/foodborneburden/attribution-image.html#foodborne-illnesses

Below we offer some examples of information that the CDC presents on its web pages that could mislead the public or the media, with suggested alterations and edits that could avoid misconceptions and confusion.

On the page: https://www.cdc.gov/vibrio/vibrio-oysters.html

"You can get very sick from eating raw oysters.

Most *Vibrio* infections from oysters result in only diarrhea and vomiting. However, some infections, such as those caused by *Vibrio vulnificus*, can cause more severe illness, including bloodstream infections and severe blistering skin lesions. Many people with *V. vulnificus* infections require intensive care or limb amputations, and 15-30% of infections are fatal."

(Note the embedded link takes you to the page on Vibrio and wounds!) A more accurate and less misleading way to say this might be:

Most *Vibrio* infections from oysters result in only diarrhea and vomiting and are rarely fatal. However, infections caused by the extremely rare *Vibrio vulnificus*, (about 150 infections a year) can result in more severe illness, including bloodstream infections and severe blistering skin lesions. *V. vulnificus* can cause serious infections requiring intensive care or limb amputations, and 15-30% of those infections are fatal. Only about 10% of *V. vulnificus* infections are associated with oyster or seafood consumption.

On the web page https://www.cdc.gov/vibrio/food.html

The title of this page is: "Vibrio and Food"

The picture of the oysters up front may be warranted by the fact that oysters appear to be implicated in about 45% of foodborne cases of *V. parahaemolyticus*. However, under the heading, "How many people get a *Vibrio* illness (vibriosis) from food each year?" the first sentences citing 80,000 total vibriosis cases includes an estimated 28,000 cases from wound infections that are likely <u>not</u> food-related. Why mention wound infection data when discussing foodborne illnesses? Conflating foodborne illness and wound infections is bound to create confusion.

On the web page: https://www.cdc.gov/vibrio/wounds.html

The heading reads, "Vibrio vulnificus & Wounds," and yet the first sentence is: "You may have heard that you can get Vibrio infection from eating raw or undercooked oysters and other seafood."

If it is important to note that some *V. vulnificus* infections are food-related, the page would be accurate and could do far less damage to the industry by noting that in 2019¹ only 10% of *V.v.* illnesses implicated oyster or seafood consumption (an estimated total of 15 foodborne cases).

Nowhere on the page is the extreme rarity of *V.v.* wound infections noted (with only 157 cases reported in 2019¹). It's likely that the tourism industry would appreciate including this simple fact as well.