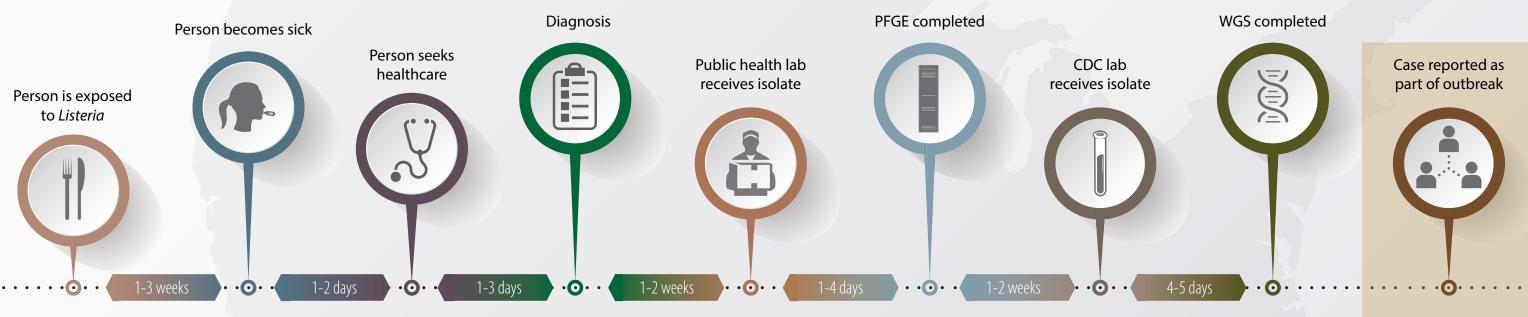
## Timeline for Linking a Case of Listeria Infection to an Outbreak



After a person eats food contaminated with *Listeria*, symptoms usually begin within a few weeks, but may not occur for up to one month. For pregnant women, it may take up to two months for symptoms to appear.

Most people who develop listeriosis seek medical care within two days of developing symptoms.

A health care provider sends a specimen of blood or spinal fluid to a clinical lab. The lab detects *Listeria* in the person's specimen one to three days after it is received. The clinical lab reports the *Listeria* infection to the local public health department.

The clinical lab ships an isolate of the person's *Listeria* to the state public health lab. This step can take a week or longer, depending on how soon the lab prepares the shipment and transportation arrangements.\*

Next, the state public health lab conducts pulsed-field gel electrophoresis (PFGE) on the *Listeria* isolate, and uploads the PFGE pattern to PulseNet's national database. This can be done in four days but can take longer if the lab has limited staff or resources or is responding to multiple emergencies. Some state public health laboratories can perform whole genome sequencing (WGS) at the same time they are completing PFGE.

Some state public health labs ship the *Listeria* isolate to CDC for WGS. Delivery can take 1 to 2 weeks.

After receiving the isolate, CDC performs WGS, which usually takes 4 to 5 days.

If a person's *Listeria* infection is linked to an outbreak, the case will be reported as part of the outbreak.



<sup>\*</sup>Not all states require clinical laboratories to forward *Listeria* isolates to public health laboratories, so some isolates are not sent.