

## Acute Flaccid Myelitis (AFM)

*AFM is a [Class A Disease](#) and must be reported to the state within 24 hours*

### Epidemiology

Acute flaccid myelitis (AFM) is an uncommon but serious syndrome that affects the central nervous system (CNS) and causes severe damage in the spinal cord, resulting in limb weakness and sometimes leading to permanent paralysis. Surveillance of AFM began in 2014 in the United States. The cause of AFM is unknown, but has been associated with non-polio and polio enteroviruses, West Nile Virus (WNV), and other viral infections. Current studies are associating the global resurgence of AFM with the non-polio enterovirus D68 (EV-D68). AFM is uncommon and worldwide cases have seen similar trends as in the United States. There have been biennial spikes in cases in 2014, 2016, and 2018, mostly during the months of August through November. An increase in cases was projected for 2020, but this was not observed possibly due to impacts from the COVID-19 pandemic.

Neurologic symptoms of AFM include sudden focal limb weakness, loss of muscle tone, difficulty talking or swallowing, neck/ facial weakness, gait difficulty, and sudden loss of reflexes. Other symptoms may include pain in the arms, legs, neck, or back. A history of respiratory illness frequently precedes neurologic symptoms by one to four weeks. The most severe symptoms are respiratory failure and serious neurologic complications such as unstable blood pressure and body temperature changes.

AFM is a subset syndrome of acute flaccid paralysis (AFP), a clinical syndrome with rapid muscle weakness or paralysis caused by infectious and noninfectious means. Disorders that are included in AFP are polio, Guillain-Barré Syndrome (GBS), toxic neuropathy, and muscle disorders.

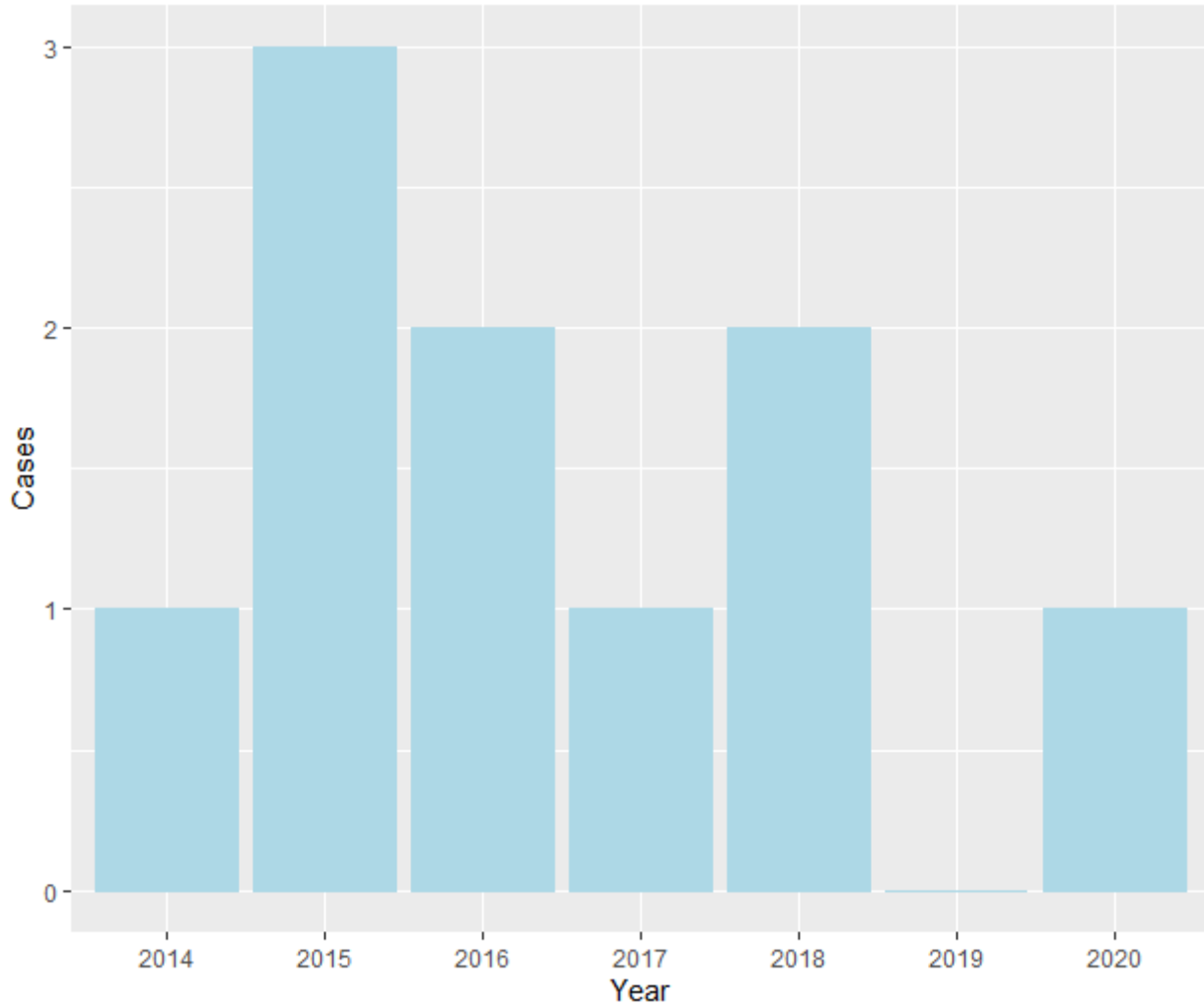
There have been 650 AFM cases reported to the Centers for Disease Control and Prevention (CDC) in the United States. A total of 33 confirmed cases were reported in 2020, which deviated from the biennial spikes previously seen. In 2018, the highest case count of 238 AFM cases were reported from 42 states. The majority of AFM cases have been in children (over 90%).

### AFM Surveillance

When a healthcare provider suspects an AFM case, they should contact the Louisiana Department of Health (LDH). The healthcare provider will need to collect relevant clinical information, cerebrospinal fluid, serum, stool, and respiratory (nasopharyngeal/oropharyngeal) specimens, and magnetic resonance imaging (MRI) for the patient under investigation, for further consultation with the CDC. Early specimen collection is critical, preferably on the day of onset of limb weakness, as early collection has the best chance to yield a cause of AFM.

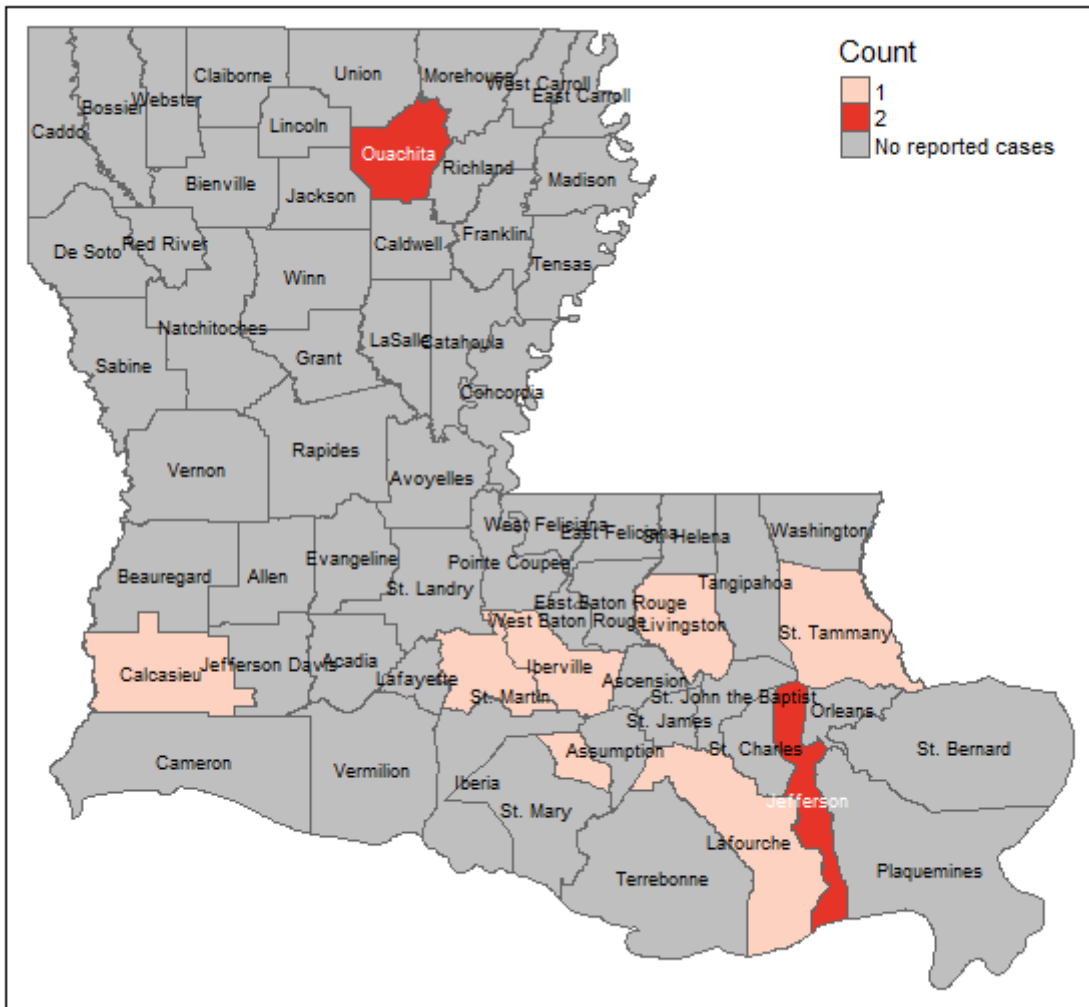
### AFM in Louisiana

Figure 1. Acute flaccid myelitis cases by year, 2014-2020.



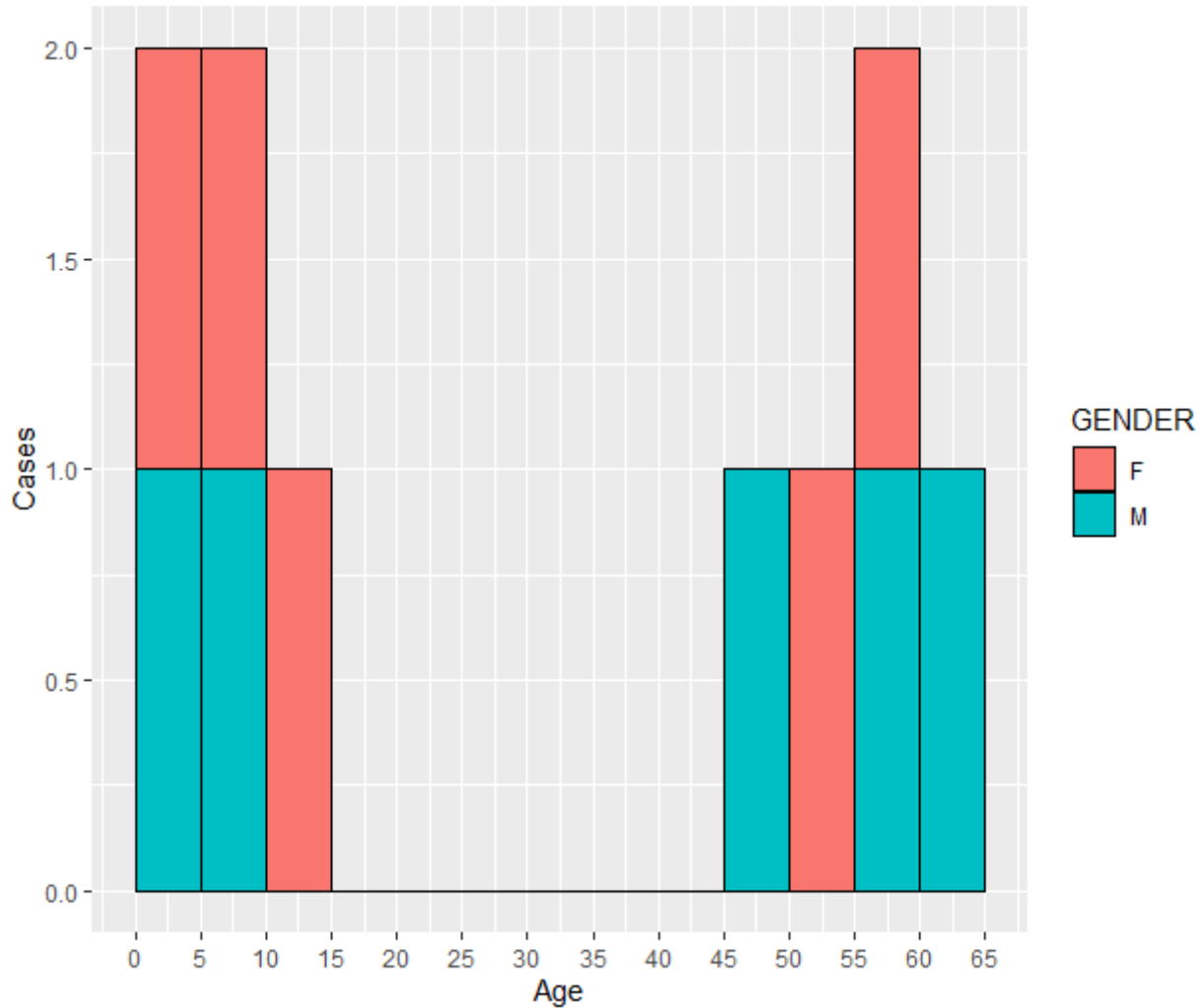
A total of 10 AFM cases have been reported in Louisiana from 2014-2020. The maximum number of cases reported in one year was in 2015 with three cases.

Figure 2. Acute flaccid myelitis cases by parish, 2014-2020.



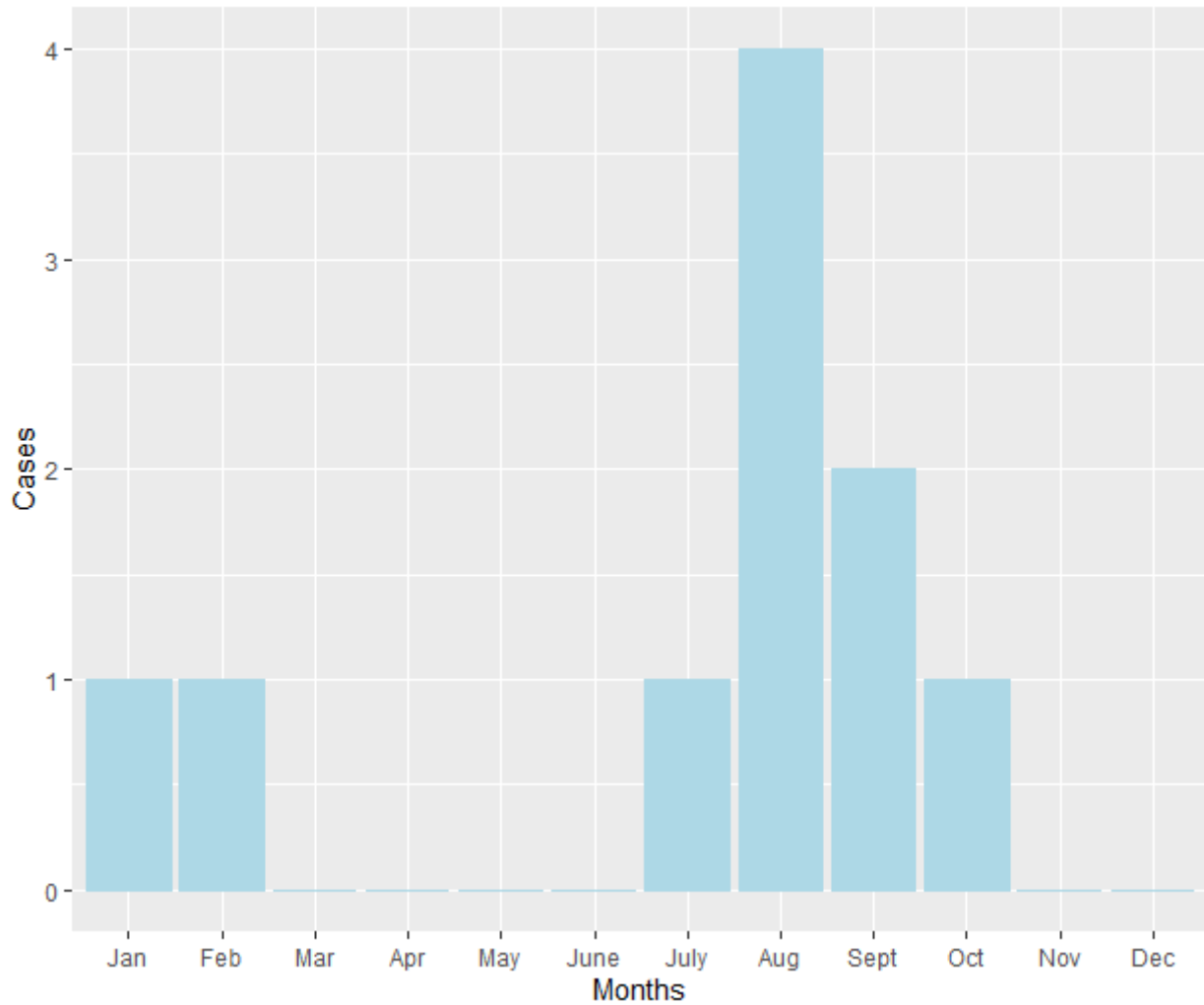
A total of eight parishes in Louisiana have reported AFM cases. Two parishes have reported more than one case (Ouachita and Jefferson).

Figure 3. Age distribution of acute flaccid myelitis cases by gender, 2014-2020



The age range for AFM cases in Louisiana spans one to 61 years. Cases have mainly been in children and those above 40 years. When differentiating by gender, five cases have been in males and five cases have been in females.

Figure 4. Acute flaccid myelitis cases by month of symptom onset, 2014-2020.



Cases of AFM in Louisiana have seen a rise at the end of summer, peaking in August with cases being seen into October. This is consistent with national and international trends in seasonality.