A feast on the meat of sea turtles is not uncommon on tiny Murilo island, home to just 250 people in the northern stretches of Chuuk, one of four states that make up the Federated States of Micronesia. So on 15 October 2010, when two brothers began to butcher a Hawksbill turtle for a feast with family and friends, nothing seemed amiss.

But then, something went terribly wrong.

Within a few hours of slurping the turtle soup late that Friday afternoon, islanders young and old started to fall ill. Some became nauseated; others began to vomit.

By Sunday afternoon, 17 October, word reached the Department of Health and Social Affairs and WHO’s Country Liaison Office of the sudden death of three children and the severe illness of at least 20 other people on Murilo.

A rapid response team left immediately to set up a field hospital to treat surviving victims. Concerns about a potential outbreak of a new or emerging disease also led to the dispatch an epidemiological investigative team with two members from the Department of Health and Social Affairs and two members from the WHO Country Office.

The International Health Regulations (2005) and the Asia Pacific Strategy for Emerging Diseases (2010) call on Member States and WHO to work closely to assess and respond to any acute public health event including disease outbreaks that might be of international concern.

By the time the investigative team arrived, six people had died—four children and the adult brothers who had prepared the turtle stew; 88 others had become ill, including a child who had been breastfed by a mother who had eaten the stew. Six dogs that had begged for leftovers also were dead.

But was the meat of the critically endangered marine reptile to blame? Could the culprit have been an environmental contaminant? The islanders recalled that just a year before a foreign vessel had been using cyanide to catch fish just off their shores.

Only the turtle’s shell and skeleton remained after the feast. WHO helped arrange laboratory tests on those samples, as well as human, canine and algae samples. But they yielded no conclusive results. And the investigative team found no evidence of acute environmental contamination.

But interviews on the island revealed that four out of every five islanders who ate turtle meat became ill.

Unfortunately, this wasn’t the first incident of turtle-meat poisoning. Just six months earlier, there were reports of poisoned turtle meat on Sapwuhfik island in Pohnpei State, and two previous incidents on the same island in 1997 had led to three deaths.

There is no antidote to counter the effects turtle-meat poisoning, also known as chelonitoxism. No medicines can treat it. All turtles, particularly Hawksbills, can be poisonous.

The investigative team shared its initial findings with the Department of Health and Social Affairs in Pohnpei and with experts in the Food Safety and the Emerging Disease Surveillance and Response units in the Division of Health Security and Emergencies at the WHO Regional Office for the Western Pacific in Manila, Philippines.

In the end, WHO found no reason to single out Murilo island for increased risk of poisoning from turtle meat, since any turtles or their eggs, anywhere, can be toxic. But the Department of Health and Social Affairs and WHO did recommend a ban on the consumption of all species of sea turtles and their eggs throughout the Federated States of Micronesia. While current laws restrict the capture of these marine reptiles, those laws need to be updated to better protect public health. And they must be enforced. Local traditions may make a total ban impossible. But a ban on Hawksbills, thought to be more toxic, and restrictions on other turtles and their eggs would be a good start.

The outbreak serves as a reminder of the importance of collaboration between WHO and Member States to assist in outbreak response and also in improved preparedness for outbreaks. Both concepts are part of the new draft Western Pacific Regional Food Safety Strategy (2011–2015).