

CDC investigation finds the ancient disease leprosy may be endemic in Central Florida

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The ancient disease leprosy, also known as Hansen’s disease, named for the Norwegian physician Gerhard Henrik Armauer Hansen, who first identified the causative agent in 1873, may be endemic in Florida. A report published in the current (August) edition of *Emerging Infectious Diseases*, the journal of the Centers for Disease Control and Prevention (CDC), draws this alarming conclusion.

Although many news outlets have stated that the CDC is warning people regarding travel to Southeastern US states, the public health agency released a statement on August 2 saying it had “not issued a travel advisory for Florida, or any other state, due to Hansen’s disease.”

In an email, the CDC wrote, “[We] do not believe there is a great concern to the American public,” noting that the number of cases remain very small.

However, the endemic nature of a disease that usually affects “persons who had immigrated from leprosy-endemic areas” raises significant concerns about the general state of public health in the United States, and the outright dismissal on the part of the CDC is extremely problematic. Moreover, the concerns about leprosy come on the heels of recent reports by the CDC of endemic malaria in Florida and Texas.

Hansen’s disease is a chronic infection caused by strains of bacteria—*Mycobacterium leprae* and *Mycobacterium lepromatosis*—that continue to maim or kill hundreds of thousands in the developing world, while still very rare in Europe and the US. In 2018, there were more than 200,000 such cases, with close to 95 percent of all cases confined to 14 countries. India accounts for 60 percent of all global cases, followed by Brazil (13 percent) and Indonesia (8 percent), predominantly in poverty-stricken areas.

Previously it was thought that the disease was caused

only by the single strain of bacterium, *M. leprae*. *M. lepromatosis* is a newcomer by comparison, first identified in 2008 after having been isolated from a fatal case in a 53-year-old man from Mexico who had been admitted to a hospital in Texas for treatment of extensive leg wounds.

He died of sepsis from his infection. An autopsy revealed that he died of diffuse lepromatous leprosy. Chronic and late-stage infection can lead to peripheral nerve and vascular skin damage, which predisposes the afflicted to the risk of secondary infections and potential sepsis.

M. leprae and *M. lepromatosis* have a 9 percent overall difference in their genetic sequences, suggesting they are two distinct species that had a common ancestor almost 14 million years ago. Although both are thought to produce similar diseases, worldwide occurrences and clinical characteristics of Hansen’s disease caused by *M. lepromatosis* have not been sufficiently studied.

The number of leprosy cases in the US peaked in the mid-1980s, after which they declined until 2000, when cases began climbing, albeit slowly. However, as the report notes, the number of cases “has more than doubled in the southeastern states over the last decade.”

Of the 159 new cases in 2020 for which data is available, 110 (69 percent) were reported in seven states—Florida, California, Louisiana, Hawaii, New York, Oregon and Texas.

Specifically, leprosy cases in Florida account for 20 percent of all national cases, and 81 percent of these have been reported in central Florida. One-third of new cases between 2015 and 2020 were acquired locally. The report notes: “Several cases in central Florida demonstrate no clear evidence of zoonotic exposure or traditionally known risk factors.”

In its report, the CDC highlights the case of a 54-year-old man, landscaper by trade, who sought medical attention at a dermatology clinic with a complaint of a painful and progressive red rash involving his hands, trunk and face.

The patient reported no significant travel history, having resided in Florida his whole life. He was eventually diagnosed with leprosy, though he reported no contact with immigrants from endemic regions nor anyone with leprosy. He had never had exposure to armadillos, which are known as zoonotic sources.

He was referred to an infectious disease clinic, where he began prolonged therapy with a triple regimen of dapsone, rifampin and clofazimine, which has been the mainstay of treatment for more than four decades.

The authors of the article observed: “Our case adds to the growing body of literature suggesting that central Florida represents an endemic location for leprosy... travel to this area, even in the absence of other risk factors, should prompt consideration of leprosy in the appropriate clinical context.”

As the CDC noted, since 2002 the rate of cases in people born outside of the US has been declining.

More recent evidence indicates that the transmission of Hansen’s disease is via prolonged exposure to respiratory aerosol and droplets. Although the disease is mainly spread between people, as they are the major reservoir of the pathogen, it has a low pathogenicity. Ninety-five percent of people who contract *M. leprae* will not go on to develop the disease. Other evidence suggests a genetic predisposition and reduced immune function in the propensity to developing the disease.

Even if a person is infected, the long incubation period means it can be several years before the disease clinically manifests. Systemic disease primarily affects the skin, nerves, upper respiratory tract and eyes. The first symptoms may be patches of discolored skin that are either numb or tender due to underlying nerve damage. If left untreated, the physical deformity associated with the disease can lead to stigmatization and discrimination. Up to 30 percent may experience nerve injury, which can be reversed if treatment is initiated early.

The authors concluded that “the absence of traditional risk factors in many recent cases of leprosy in Florida, coupled with the high proportion of residents, like our patient, who spend a great deal of time outdoors,

supports the investigation into environmental reservoirs as a potential source of transmission.”

However, this requires investment in contact tracing and tracking and earnest initiatives to rebuild the public health infrastructure, which has been decimated by the ruling class’ subordination of public health to corporate profit-making, which has not excluded the CDC.

The appearance of malaria, monkeypox and leprosy underscores the international scope of all human activity, in the negative. Such diseases know no national boundaries and have, like the coronavirus, evolved out of capitalism’s disregard for the welfare of the working class in every region of the world. Indeed, globalization means that all diseases now pose an immediate and potentially existential threat to the world’s population and require a coordinated international response.



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