

Understanding more about mpox in the DRC

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(Photo from DRC research workshop, 2022)

Mpox cases are rising in the Democratic Republic of Congo (DRC), [raising alarm among many experts](#) that the world should be on higher alert about the possibility of spread in other nations.

[Per the CDC](#), symptoms of the monkeypox virus include fever, rash, headache, muscle aches, and swollen lymph nodes. Lesions often develop at the same time, and the mpox disease is potentially fatal.

Infection often occurs through contact with the skin lesions or bodily fluids of the previously infected. Respiratory droplets can be enough to spread mpox on their own, and transmission also occurs through intimate contact, including sex, with an infected person.

“A decline of cases in the US may have produced a false sense of security here,” said Dr. [Ronald Blanton](#), Chair of Tropical Medicine at the Tulane School of Public Health and Tropical Medicine. “Events over the last 200 years should have taught us that no one is safe today from infections unless we are all safe.”

Fortunately, [mpox vaccines have proven highly effective](#) at halting the disease. But getting vaccines to the people who truly need them represents a logistical problem.

Concern has been sparked by not only the increase in the number of cases in the DRC, but also the nature of the infected – children have been burdened with a greater share of infection this spring, and the death toll has risen, raising even more alarm.

[According to the journal Science](#), the DRC currently has a more deadly strain of mpox than the one that circulated globally in 2022.

Specific conditions are present in the DRC that are contributing to the spread, but one of the first questions on many audience’s minds when looking at an endemic like mpox – especially in the wake of COVID-19 -- is often, “What about here?”

SPHTM continues to do significant work in the DRC, building partnerships and relationships to advance research and also assist vulnerable populations. As a result, members of SPHTM’s faculty are uniquely positioned to lend their expertise to the discussion.

Dr. [Julie Hernandez](#) is an associate professor in the International Health and Sustainable Development department, whose work focuses on improving access to sexual and reproductive health programs in the DRC, and she sees mpox as a noteworthy problem ... but one of several.

“There are currently something like five or six different outbreaks going on – at various levels – in the DRC,” Hernandez said. “There's plague, there’s typhus, there's cholera ... Ebola is endemic. I think it's interesting because people tend to care about specific epidemic outbreaks in DRC when they're afraid they’re going to

go global.”

“The mpox outbreak we had in the US a couple of years ago, that came out of West Africa, and that was a different strain. It's the same virus, but a different strain of it. And I think because people see the higher mortality of this one in Congo, they're worried that if that one goes global, we might be facing additional issues.”

Blanton, an expert in genetic epidemiology, agrees about some of the reasoning behind the increase in attention.

And from his perspective, the potential for genetic variance going forward is worth monitoring ... especially with an increase in mortality.

“At a recent meeting of the African CDC, outbreaks were increasingly being reported in nine countries, but especially in the DRC,” Blanton said. “There is a potential change in presentation to include sexual transmission and a new genetic variant. Mpox is not totally benign with 4-13% mortality depending on the age group.”

Still, the primary context to be aware of, according to Hernandez, is that conditions differ from place to place. What might make mpox a larger concern in the DRC might not be entirely applicable in the United States.

For example, in the northeastern, heavily forested part of the DRC where most of the outbreak is concentrated, health care facilities are very far away from one another. Rains can impact road accessibility, but so can militia and other military groups -- so getting treatment and even information to people can be difficult.

In addition, factors like population displacement (affecting data gathering), vaccine hesitancy in the wake of disinformation campaigns following COVID-19, and other conditions beyond vaccination status (such as nutrition and water access) change outcomes as well.

“One of the reasons why the mortality is so high in that part of the world, is because there's malnutrition, there's poor access to water and sanitation, which compound local vulnerability,” Hernandez said. “We have access to clean water most of the time in New Orleans, and we have access to decent nutrition, both being crucial to fighting any disease. Many of us have been vaccinated against smallpox, which is also going to provide some immunity to that effect.”

“So, we are already not on the same starting line. Somebody being infected by mpox in the US is absolutely not on the same starting line as a kid in South Kivu, who gets infected by monkey pox ... in terms of their basic determinants of health.”

Are the people affiliated with SPHTM at any additional risk as they attempt to address these and other issues in the DRC? Hernandez doesn't think so.

The geography involved makes the spread of the disease into the western half of the country -- where most activities are centered in the capital city of Kinshasa - or even back to this country much less likely. And there are also countermeasures, such as vaccines and general expertise, to consider as well.

“First of all, remember there is a vaccine for adults living in the US, that works really well,” Hernandez points out. “The thing is, with Tulane, the people we work with in DRC are incredibly experienced at managing epidemic outbreaks, Congo has been facing dozens of outbreaks in the past 30 years. And that's one of the things that they do really well. They probably understand field epidemiology better than we do and they know how to do infection prevention in this type of setting.”

“So, there are a lot of extremely experienced people we can learn from.”