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Democracy Dies in Darkness

How the Sturgis Motorcycle Rally may have spread coronavirus across the Upper Midwest

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It had been a long ride back from Sturgis, S.D., so when he first felt an ache at the back of his throat, Kenny Cervantes figured he was just tired. He'd traveled the 400-some miles on his Harley, rumbling through wide-open farm and prairie land on his way home to Riverdale, Neb., where his girlfriend was waiting.

A lifelong motorcycle enthusiast, the 50-year-old construction worker and father of five had been determined to go to the Sturgis Motorcycle Rally, a Holy Grail for bikers. Even when his girlfriend, Angie Balcom, decided to stay back because she was worried about being around so many people during a pandemic, Cervantes was adamant about going.

"I don't think there was nothing that was going to stop me," he said.

Back home, Cervantes took Tylenol for his throat and went to bed early. But he woke up the next morning coughing so hard he struggled to catch his breath. Over the next few days, the pain in his chest made him fear that his heart might stop, and a test later confirmed he had the novel coronavirus, which causes the disease covid-19. He was admitted to the hospital 11 days later, on Aug. 27. Soon, his girlfriend and his sister were sick, and Cervantes was going over everything he did and every place he visited in Sturgis, wondering where the virus had found him.

Within weeks of the gathering, the Dakotas, along with Wyoming, Minnesota and Montana, were leading the nation in new coronavirus infections per capita. The surge was especially pronounced in North and South Dakota, where cases and hospitalization rates continued their juggernaut rise into October. Experts say they will never be able to determine how many of those cases originated at the 10-day rally, given the failure of state and local health officials to identify and monitor attendees returning home, or to trace chains of transmission after people got sick. Some, however, believe the nearly 500,000-person gathering played a role in the outbreak now consuming the Upper Midwest.

More than 330 coronavirus cases and one death were directly linked to the rally as of mid-September, according to a Washington Post survey of health departments in 23 states that provided information. But experts say that tally represents just the tip of the iceberg, since contact tracing often doesn't capture the source of an infection, and asymptomatic spread goes unnoticed.

In many ways, Sturgis is an object lesson in the patchwork U.S. response to a virus that has proved remarkably adept at exploiting such gaps to become resurgent. While some states and localities banned even relatively small groups of people, others, like South Dakota, imposed no restrictions — in this case allowing the largest gathering of people in the United States and perhaps anywhere in the world amid the pandemic and creating huge vulnerabilities as tens of thousands of attendees traveled back home to every state in the nation.

Many went unmasked to an event public health officials pleaded with them to skip, putting themselves and others at risk, because they were skeptical about the risks, or felt the entreaties infringed on their personal liberties. Rallygoers jammed bars, restaurants, tattoo parlors and concert venues; South Dakota officials later identified four such businesses as sites of potential exposure after learning that infected people had visited them.

Despite the concerns expressed by health experts ahead of the event, efforts to urge returnees to self-quarantine lacked enforcement clout and were largely unsuccessful, and the work by state and local officials to identify chains of transmission and stop them was inconsistent and uncoordinated.

Those efforts became further complicated when some suspected of having the virus refused to be tested, said Kris Ehresmann, director of infectious-disease epidemiology at the Minnesota Department of Health.

Such challenges made it all but impossible to trace the infections attendees may have spread to others after they got home. Several infections tied to a wedding in Minnesota, for instance, “linked back to someone who had gone to Sturgis,” Ehresmann said. Those were not tallied with the Sturgis outbreak because “the web just gets too complicated,” she said.

“When it comes to infectious diseases, it’s often the case that the weakest link in the chain is a risk to everybody,” said Josh Michaud, an epidemiologist and associate director for global health policy for the nonprofit Kaiser Family Foundation. "Holding a half-million-person rally in the midst of a pandemic is emblematic of a nation as a whole that maybe isn’t taking [the novel coronavirus] as seriously as we should.”

The Aug. 7-16 gathering has drawn intense interest from scientists and health officials, and will likely be studied for years to come because of its singularity. It’s not just that Sturgis went on after the pandemic sidelined most everything else. It also drew people from across the country, all of them converging on one region, packing the small city’s Main Street and the bars and restaurants along it. And in contrast with participants in the Black Lives Matter protests this summer, many Sturgis attendees spent time clustered indoors at bars, restaurants and tattoo parlors, where experts say the virus is most likely to spread, especially among those without masks.

Attendees came from every state, with just under half hailing from the Great Plains and substantial numbers journeying from as far as California, Illinois and Arizona, according to an analysis by the Center for New Data, a nonprofit group that uses cellphone location data to tackle public issues. The analysis, shared with The Washington Post, shows just how intertwined the South Dakota rally was with the rest of the country — and how far the decisions of individual attendees could have ricocheted.

Cervantes feels certain he got the virus from his Sturgis trip, and shared that with the contact tracer from the Two Rivers Public Health Department who phoned him after his case was recorded. Nebraska borders South Dakota, and health officials there expected they might see rally-related infections.

Yet his illness was not classified as a Sturgis case, suggesting that even under the best of circumstances, infections might go uncounted. With so much still unknown, it worries him to think people might look at the rally and conclude that massive events aren’t concerning after all — that the risk is worth it.

That was how he saw it before he got sick. He recalls having a fleeting thought as he guided his motorcycle through the turns of the famed Needles Highway two months ago, taking in the sweeping views and rock formations close enough to touch: “If I catch the virus and die, I will be a happy man. I have lived.”

He hadn't imagined that within a matter of days, he would feel that death was hovering right at his door.

'No right decision'

As the coronavirus scuttled gatherings big and small, from the 2020 Olympics to birthday parties, weddings and funerals, Sturgis officials mulled postponing this year's rally. The event is synonymous with the 7,000-person city nestled amid state and national park land, where the Harley-Davidson Rally Point Plaza is a defining feature downtown.

But this year, a survey found that 60 percent of residents wanted the rally postponed. At council meetings, people lined up to argue. A nurse warned there wouldn't be enough hospital beds if the event went forward, while a business owner said she would lose her building if it didn't. Calling off this year's rally, its 80th anniversary, would mean a loss of around $2 million for the city, authorities said. It had only been done during World War II.

"There absolutely was no right decision," said city council member Terry Keszler.

Officials also knew that canceling would have been an uphill battle: South Dakota Gov. Kristi L. Noem, a Republican, was one of the few state leaders who never restricted mass gatherings, managing the pandemic by emphasizing personal responsibility over government mandates. Because the rally encompasses hundreds of miles beyond city limits, the council's authority was limited.

Another concern was that crowds would come regardless of their decision, and, Keszler said, "we had to prepare for it, or it would have been such a mess it's not even funny."

The council ultimately voted to allow the event with the understanding that "the covid thing wasn't going to stop people," as Keszler put it.

That supposition was likely correct: There is evidence that those who ventured to Sturgis were engaging in riskier behavior than most Americans in response to the pandemic, by leaving home more often and covering more ground, according to the Center for New Data analysis.

Using data from X-Mode, a company that collects location information from smartphone users who grant permission to various apps, the Covid Alliance, a project of the Center for New Data, found 11,000 probable Sturgis rallygoers. The researchers analyzed where those individuals came from and their mobility during the pandemic and extrapolated information about others from them. On average, the analysis found, attendees spent less time at home than others before and after the event, and traveled twice the daily distance of non-rally goers, underscoring concerns about the potential for virus transmission.

That was true even in states where officials asked Sturgis attendees to quarantine after returning home, including Minnesota, New York and New Jersey.

"You can see it in the data," said Steven Davenport, co-executive director of the Center for New Data. "And from a policy perspective, it's not about blaming people. It's about implementing policies that work and using data to learn from them."

The data doesn't show whether the rally attendees took other precautions, such as social distancing or wearing masks. It also doesn't offer any context for their movement — it could be they had jobs that required leaving home or driving greater distances.

In interviews with The Post, several rally attendees said they didn't deny the threat of the coronavirus but also didn't believe they needed to stay home indefinitely. Some noted that they take risks each time they get on their bikes. A number said they wore masks or made other minor concessions but were determined to go on with their lives.

Kathy Colville and Darrell Hackler said they decided two weeks before the rally that this was the year they would cross it off their bucket list. The Round Hill, Va., couple reasoned they could lower their risk by wearing masks and sleeping in their RV.

"I believe that we're going to be living with covid for a year, maybe more," said Colville, 61. "And I personally would be stir-crazy nuts and divorced if I tried to quarantine in my house for that amount of time."

Balcom, Cervantes's girlfriend, made a different calculation. She had been excited to go to Sturgis with Cervantes, her brother and her dad. But her work as an occupational therapy assistant made the virus's threat real to her, and she worried about the prospect of infecting clients. In the end, she and her family members canceled, leaving Cervantes to travel with friends.

"I said, 'I'm not going to tell you you can't go, because you wouldn't do that to me," Balcom recalled telling him. "But I think it's asinine. I don't think it's a good idea. And he was like, 'I'm going to go.' "

'A risk that they accepted'

The rally unfolded in August as it always had. Bikers revved their engines on Main Street and filled highways leading to sites like Custer State Park and Devils Tower. Bands played to shoulder-to-shoulder audiences, and bikini-wearing bartenders sold beer by the bucket. Hardly anyone wore a mask.

Among T-shirts hawked by vendors were ones that made mention of the virus keeping many Americans at home: "Screw covid-19, I went to Sturgis."

In the run-up to the rally, officials estimated that 250,000 people would come. The actual number, according to the South Dakota Transportation Department, was over 460,000 — down just 7 percent from 2019.

They came in the greatest numbers from South Dakota, source of an estimated 93,000 attendees, or a fifth of the total, according to calculations by the Center for New Data. Minnesota ranked second, with an estimated 31,000 people, followed by Colorado with 29,000. Many traveled hundreds of miles: 21,000 rallygoers are believed to have come from Texas, and 20,800 from California.

Cervantes was one of an estimated 16,700 from Nebraska, which had the seventh-highest number of rallygoers. After a six-hour ride, he reached Sturgis before sunset on Thursday, almost a week into the rally.

"It was just exhilarating," he said. "And then pulling down into Sturgis that Thursday night just blew me away."

From the beginning, Cervantes recalled being struck by the lack of masks. On his ride from Nebraska, Balcom had chided him on a call after he acknowledged he hadn't worn one at a gas station. He mostly kept one on after that — "Angie really drilled it into my head," he said — and wondered whether everyone else would get sick.

Andrew Crerar of Ashburn, Va., said he wore a bandanna — "uniform 101 for people riding motorcycles" — but "you go into the grocery store and you could tell who was local and who wasn't by who was wearing masks."

Still, there were reminders of the pandemic: Hand sanitizing stations stood downtown, and Cervantes carved "2020: The Year of the Virus" into a table at his campground. The lead singer of Smash Mouth, a headliner in a year when Willie Nelson and ZZ Top canceled, shouted "F--- that covid s---!"

"No one that I spoke to there wasn't aware of coronavirus, and wasn't aware that there was a risk of them being there," Crerar said. "It was just a risk that they accepted."

Cervantes spent much of his time on scenic rides, feeling moved when he went through a tunnel and Mount Rushmore came into view. He and his friends stopped at several stores and, on the final night of the rally, took a bus downtown to "party it up a little bit because it was our last night there."

The next day, bikers began disappearing as quickly as they had rolled in. Sturgis leaders began offering free coronavirus testing to residents — and waiting.

"I can say that there's probably been a collective holding of breath," Keszler, the city council member, said in early September. "This was my big concern, honestly, was what's going to happen after."

Virus's uncertain path

What happened afterward was, in certain respects, very clear.

South Dakota, which had the most attendees, saw coronavirus cases surge within weeks of the rally's Aug. 16 close, with the seven-day rolling average going from 84 on Aug. 6 to 214 on Aug. 27. The numbers remained elevated into October: The first day of the month, the seven-day rolling average was 434. The state is second in the nation in cases per capita behind North Dakota, with numbers high enough for the Harvard Global Health Institute to recommend stay-at-home orders.

But precisely how that outbreak unfolded remains shrouded in uncertainty.

Because symptoms of the coronavirus can take days to surface, rally attendees were unlikely to know they had been infected until returning home. Without a nationally coordinated contact-tracing strategy, the job of identifying chains of transmission was left to a patchwork of local and state health departments with varying approaches, leadership and staffing. Typically, such efforts focus on determining a person's contacts after they became infectious — and stopping those people from spreading the virus — rather than on pinpointing the source of an infection.

Genomic sequencing, which other countries have harnessed to determine the path of an outbreak, has been underused in the United States. And because it requires culturing and sequencing active virus, the rally is too far in the past for it to be of service now, said Michaud, the Kaiser Family Foundation epidemiologist.

So even as the Dakotas and the Upper Midwest began seeing infections climb, it is impossible to say precisely how many of those cases originated at the rally — or how many of those might have ignited additional clusters elsewhere.

"This motorcycle rally was and is such a big thing that people come from miles and miles away and they come from right next door. And it's not reported anywhere who they are, where they live," said Benjamin Aaker, president of the South Dakota State Medical Association.

“Contact tracing on something like that is even harder than it is during normal circumstances,” he added.

But other countries offer examples of more robust and coordinated contact-tracing efforts, Michaud said. Japan uses what’s called retrospective contact tracing — working backward to determine where a person was infected and who else may have gotten the virus there, he said. It’s particularly effective in dealing with the coronavirus, which is often transmitted by a small number of people infecting many others in clusters.

It was “fairly obvious” that a gathering the size of the motorcycle rally represented a risk, Michaud said — and more rigorous contact tracing could have revealed the actual impact. It might also have prevented some of the secondary and tertiary spread.

Hospitals have seen the effects. David Basel, vice president of clinical quality at Avera Medical Group, which has locations on the east side of the state, said on Sept. 30 that facilities had been “busy, and we’re feeling it.” Covid-19 cases make up 10 percent of patients, he said.

“The thing that quite honestly scares us most is personnel,” he said. “If we started to lose personnel to them coming down with covid, that would be probably the biggest risk to us.”

Three of the four South Dakota counties estimated to have the highest share of Sturgis attendees also saw cases spike post-rally. The increase was most pronounced in Pennington County, which is just outside Sturgis. Its seven-day rolling average of new cases leaped from eight on Aug. 6 to 34 on Aug. 27.

State health officials, who linked 125 cases to Sturgis, have not tied the surge to the rally, however. They note it overlapped with school openings and end-of-summer restlessness.

“Anytime you’re bringing individuals together, you’re going to have times where you’re having covid-19 transmission,” state epidemiologist Joshua Clayton said last month. “That’s a risk whether you’re in South Dakota, or in other states.”

Noem, the governor, attributed the rise in cases to increases in testing, echoing President Trump’s explanation of growing U.S. infections. “That’s normal, that’s natural, that’s expected,” she told the Associated Press. She did not explain how extra testing could have accounted for the rise in hospitalizations in the state, which hit record highs in October.

And the increases in coronavirus infections spread beyond South Dakota, post-rally. In Crook County, Wyoming, Corinne Hoard started feeling sick a week afterward but isn’t sure whether she was infected there — or whether health officials counted her case as Sturgis-related.

Hoard, who said motorcycle riding is “kind of in my blood,” was mostly avoiding crowds but kept her annual tradition of going to Sturgis and attended a concert there, viewing it as safe because she sat outdoors. She started feeling sick a week afterward and went to the hospital after waking up one morning feeling like “death had crawled in the bed with me.”

“I was crying because I was like, ‘Oh, my God, I hope this isn’t corona,’” she said. “And it ended up being corona.”

‘It ain’t worth it’

The day Cervantes sat up from the couch and asked Balcom to take him to the emergency room, doctors put him on oxygen. He had been worried about the tightness in his chest, but he hadn’t grasped how bad it

was. Only when he was being hooked up to the oxygen machine did he realize he hadn't said goodbye to his children.

"I was just laying there thinking, 'This could be it. This could be it,'" Cervantes said. "And, am I going to get another chance?"

He spent eight days in the hospital before being discharged Sept. 4. He was still sick when he left, but the doctors said he could recuperate at home. Walking across the hospital parking lot, though, he was so winded he had to take a moment to sit down.

Balcom, whose case was mild, cried in the car, relieved he was coming home. She never said "I told you so," or got angry with him. She was upset, though, when she found out Cervantes's case wasn't included in covid-19 tallies linked to Sturgis.

"If we had an accurate representation of what's going on, then people might say, 'Maybe it's not a good idea to go to the concert or go to the gathering,'" she said. "Everyone is just muddling through this because no one knows what the hell is going on."

Cervantes now looks at things differently. Watching football, he worried how many of the thousands of fans admitted to a recent Kansas City Chiefs game might become infected, even as he noticed they sat apart. He once put on a mask to humor Balcom; now he says he has to resist the urge to yell at strangers to wear them.

After weeks of missed work, his stint in the hospital and a return visit to the ER over a blood clot concern, he's come to deeply regret his decision.

"I was naive," he said. "I was dumb, you know? I shouldn't have went. I did; I can't change that, so I just got to move forward. But sitting here just the past few days, that's all I keep thinking about. I'm like, Jesus, look at the hell I'm going through, the hell I put everybody through. It ain't worth it. It wasn't. It really wasn't."

Jacqueline Dupree contributed to this report.