If you're torn about how worried to be about the H1N1 flu virus, you're not alone.

Consider: "I think the hysteria of H1N1 concerns me the most." That's Paul M. Bolger, medical director for emergency medicine at Trinity Regional Health System.

"Let's say it's equivalent to a seasonal flu" in terms of symptom severity and mortality, countered Louis M. Katz, the medical director of the Scott County Health Department, an infectious-diseases specialist, and the executive vice president for medical affairs of the Mississippi Valley Regional Blood Center. "Multiply 30[,000] or 40,000 [typical annual deaths in the United States from seasonal influenza] times five or six, or three or four, in terms of number of deaths. It's a big deal. It's a huge deal. Both from the standpoint of what we call morbidity and mortality - illness and death - and from the impact on societal operations and infrastructure."

This is a worst-case scenario, right? "No, it's what's going to happen," Katz said.

These aren't really contradictory; they're just different perspectives. But they express the general realities about H1N1 that appear to be in conflict: Our brief experience with this new strain of influenza suggests that its symptoms are generally less severe than the seasonal flu's and that its death rate is comparable, but because there's virtually no immunity in people under 60, it has the potential to affect a greater percentage of the population and cause widespread problems.

Put differently: On an individual level, H1N1 is no more worrisome than seasonal flu, with relatively mild symptoms and a similar mortality rate. (A study [http://tr.im/BF6X] released this week, however, found that H1N1 might be a greater health risk than seasonal flu for relatively healthy young people: "Our data suggest that severe disease and mortality in the current outbreak is concentrated in relatively healthy adolescents and adults between the ages of 10 and 60 years ... .") But on a societal level, the lack of immunity in the population could make it a serious problem because of how many people get it, possibly

making it difficult for businesses and governments to provide their normal services.

Katz is saying that because H1N1 could afflict up to 40 percent of the population in the next few months - compared to the seasonal flu's 5 to 20 percent each winter - it might kill many times more people than the typical seasonal flu, and it could seriously disrupt businesses, government, and the economy if large numbers of workers call in sick.

"Pandemics occur when the population has no immunity to the virus," he said. "No immunity means the number of susceptibles is *huge*." (The 2009 H1N1 "household secondary attack rate" - the chance that a person with the virus will transmit it to a close contact - for 2009 H1N1 has been found to be 27.3 percent. See http://tr.im/BEU8 . The 40-percent figure Katz cited is a U.S. Centers for Disease Control & Prevention planning assumption.)

Bolger is saying that people with normal flu-like symptoms shouldn't get freaked out and show up at the hospital emergency room. That would tax local hospitals and spread the virus with little or no benefit to the person seeking care. "Stay home until symptoms subside," he advised.

"We're preparing in case there's a hysteria related to H1N1, not so much because we're concerned about the severity of the illness," he added. "Nationally, there have been surges in various parts of the country where there's been an increase in emergency-department volumes related to hysteria related to H1N1, and we don't want to see the same thing happen in our community."

"I think there's a lot of overreaction to H1N1 as far as concern about how severe it is," said James Lehman, vice president of quality for Genesis Health System. "Everything so far that we know is it acts much like seasonal influenza ... . It doesn't appear to be any more lethal [than], but probably about the same as, seasonal flu, so it's nothing to be taken lightly. ...

"We're concerned that so much attention is being paid to the H1N1 that people may become fearful and act in ways that aren't in their own or the community's best health interest. ... The vast majority of people who have symptoms and who wouldn't have come to an emergency room if they had the seasonal flu ... probably don't need to come to the emergency room if they

have H1N1."

"**Not Protected at This Point"**

The H1N1 virus in the news now is labeled by the federal Centers for Disease Control & Prevention (CDC) as "novel H1N1 virus," so named because it is a new virus first detected in the United States in April. It's also called "2009 H1N1 virus." According to the CDC, "no children and very few adults younger than 60 years old have existing antibody to 2009 H1N1 flu virus; however, about one-third of adults older than 60 may have antibodies against this virus."

That's the primary reason attack rates of H1N1 are expected to be so high compared to the seasonal flu, which usually begins showing up in December. "There's not a lot of native immunity out in the community," Lehman said. "A lot of people are not protected at this point."

And while people at high risk of complications from influenza (CDC.gov/h1n1flu/highrisk.htm) are also at-risk with H1N1, one alarming trend with this virus is that younger people have become seriously ill because of it. According to the CDC, late-summer hospitalization rates for influenza had reached or exceeded the October-to-April seasonal-flu average for four different age groups covering people two to 64 years old. Only hospitalization rates for people younger than two and older than 64 remained below the seasonal-flu rates.

"It's a much younger population than what we've been seeing with the seasonal flu," Lehman said. And even though media attention waned after the initial scare in the spring, "H1N1 never went away during the summer."

Trinity and Genesis emergency departments announced October 1 that they were no longer conducting H1N1 testing for people who came to the emergency room with flu-like symptoms; only patients admitted to the hospital are being tested.

There are two reasons for this. "We stopped testing people for H1N1 because it wasn't changing our management of those patients," Bolger said. "Those patients largely all went home, and they didn't require medication or any treatment."

Second, he said, because traditional flu season hasn't even begun, "at this point in time, anyone who has flu-like symptoms has H1N1." According to the CDC, "99 percent of all subtyped influenza A viruses being reported to CDC were 2009 influenza A (H1N1) viruses."

In its flu report for the week ending October 3, the CDC noted that "37 states are reporting widespread influenza activity at this time," including Illinois and Iowa. "Any reports of widespread influenza activity in September and October are very unusual."

According to an October 12 update (http://tr.im/ByLB) from the European Centre for Disease Prevention & Control, the United States has had 593 2009 H1N1-related fatalities, although that only includes lab-confirmed H1N1 deaths. Worldwide, 4,675 H1N1-related deaths have been reported.

So far, in terms of the sheer number of mortalities, that makes the H1N1 less than 2 percent as deadly as a typical seasonal flu.

The Vaccination Question

Vaccines targeting the 2009 H1N1 virus began arriving in the Quad Cities last week, with the Scott County Health Department receiving 600 doses of nasal mist. The vaccine was expected to begin arriving in Rock Island County this week.

"We anticipate very limited supplies coming in the first few weeks, with increasing amounts as we move forward," said Amy Thoreson, deputy director of the Scott County Health Department.

The Scott County Health Department is coordinating distribution of the 2009 H1N1 vaccine, while in Rock Island County the distribution is more decentralized. Scott County will be receiving approximately 5 percent of Iowa's share of the vaccine at it arrives, while in Illinois both the county health department and more than 60 other health-care providers have made separate orders. Theresa Foes, assistant administrator of the Rock Island County Health Department,

said the county has ordered 17,500 doses of the 2009 H1N1 vaccine.

She said that because the county doesn't know when it will be getting vaccine and in what quantities, the health department can't create a schedule of clinics. "We're getting tentative plans in place, but we have to wait until we have more information 'til we can actually get exact dates and times," she said. "It's very difficult to plan when there are so many unknowns."

What is known is that vaccine availability shouldn't be a problem. "There'll be plenty of vaccine for everybody over a period of weeks, a couple of months," Katz said. "That's about as detailed as I can get."

The Scott County Health Department has developed a priority list for vaccination, targeting both groups at-risk for complications and the people most likely to be in contact with them. (See sidebar.) "How can we get the biggest bang for the buck ... from limited amounts of vaccine?" Thoreson said.

Although both Trinity and Genesis require employees to get the seasonal-flu vaccine, they have only recommended that their staffs receive the 2009 H1N1 vaccine.

"We didn't know when we would be getting it and how much, and not being sure if we were going to have enough H1N1 [vaccine] in the hospital. That was part of the rationale," Genesis' Lehman said. "And, to be honest, ... it's a vaccine that hasn't been out as long as the seasonal-influenza has been, and not being absolutely certain of the safety profile." He said, however, that the seasonal-flu vaccine is "the safest and most effective vaccine we have."

That alludes to concerns about vaccinations in general and the H1N1 vaccine - particularly in light of its newness and the amount of testing that's been done on it. Those are exacerbated by memories of what happened in 1976, when the federal government pushed for vaccinations in preparation for a flu outbreak that never materialized. (See this April *Los Angeles Times* article: http://tr.im/By4c.) The vaccination was blamed for 25 deaths and 500 cases of Guillain-Barré Syndrome (GBS), while only one person died from that strain of flu.

The CDC maintains that current flu vaccines are safe (CDC.gov/FLU/about/qa/gbs.htm): "Several studies have been done to evaluate if other flu vaccines since 1976 were associated with GBS. Only one of the studies showed an association. That study suggested that one person out of 1 million vaccinated persons may be at risk of GBS associated with the vaccine."

There's a tension here between the societal benefit of mass immunizations from infectious diseases and the individual risk associated with vaccinations. Even if one subscribes to the belief that it's good for public health for a large percentage of the population to be immunized, many people don't want to be exposed to the risks, however minute.

Concerns include potential side effects from ingredients (such as thimerosal) in vaccines (NaturalNews.com/011764.html), the approval process for vaccines (http://tr.im/BG46), and the indemnification of vaccine manufacturers (http://tr.im/BG3s).

Recent surveys have noted that the public still has concerns, either about vaccine safety or the necessity of the H1N1 vaccine. Earlier this month, the *Washington Post* reported (http://tr.im/By5T) that "a nationally representative poll ... found that only 40 percent were sure they would receive the [H1N1] vaccine and that about half were certain their children would. Recent research by the University of Michigan and by *Consumer Reports* yielded similar results."

Foes said it remains to be seen how many people want the vaccine in the Quad Cities. "What is the demand out there in the public?" she said. "We really don't know. Is there going to be a great demand, or are people just not that worried about it?"

Health officials are trying to encourage vaccination.

"All people eligible for vaccination should be vaccinated," Bolger said.

"The entire population should get it," Katz said. "Why would you risk an illness that'll put you down for seven to 14 days when there's a vaccine that's very effective? ... Influenza immunization is one of the safest, most valuable public-health and personal-health interventions out there. It is effective. It is safe. It works. And we need to do more of it, not less of it."

Katz said that studies have shown that mass immunization of children is the best way to protect the whole community from a disease. "So you protect high-risk people by both immunizing them and preventing spread in the community," he said. But "in order to have the desired impact on mitigating spread in the community, you really need to get up into the 70-, 80-percent range of uptake in the kids," he continued. "That's a big number. That's a huge number. ...

"We have to be sensitive to people who don't like to get vaccines, but while we're being sensitive, we need to be clear about the data," Katz said. "Vaccine skepticism, once the vaccine supply becomes robust, concerns us."

Basic Measures

Although vaccines and deaths are the focus of most media coverage, those interviewed for this article emphasized common sense: cover your cough, wash your hands, and stay home if you're ill.

"Some of the most basic measures can keep the incidence low," said Foes of the Rock Island County Health Department. "It feels like nobody wants to hear this."

She added that she hopes all the attention given to H1N1 pays dividends - perhaps even by making dire predictions about H1N1's impact look foolish.

"If H1N1 ends up being a much lower incidence than was maybe projected initially and if it

continues to be less severe than was feared last spring, that's really a good thing if it made everybody get more prepared, more planning, and work out these processes ... ," she said. "If something really serious were to occur in the future, all this will really help us ... ."

And although Katz cautioned against predicting the course of 2009 H1N1 - "When you've seen one pandemic, you've seen one pandemic," he said - he added that he expects far fewer fatalities than the grimmest estimates.

"With the availability of a pandemic vaccine relatively early, and the availability of effective antivirals for people at high risk of complications, I think the death toll will be smaller. Considerably smaller than that.

"But talk to me when it's over, and then we'll know."

For more information, see the Scott County Health Department Web site (ScottCountyIowa.com/health/flu_h1n1.php) and the Rock Island County Health Department Web site (RICHD.org).

Sidebar: When to Go to the Emergency Room

The Centers for Disease Control recommends (CDC.gov/H1N1flu/qa.htm) seeking immediate medical care in the following situations.

In children:

- Fast breathing or trouble breathing
- Bluish skin color

- Not drinking enough fluids
- Not waking up or not interacting
- Being so irritable that the child does not want to be held
- Flu-like symptoms improve but then return with fever and worse cough
- Fever with a rash

In adults:

- Difficulty breathing or shortness of breath
- Pain or pressure in the chest or abdomen
- Sudden dizziness
- Confusion
- Severe or persistent vomiting

Sidebar: Priority Groups

The Scott County Health Department has prioritized people who should receive vaccines in the following order. It estimates that there are 69,000 people in priority groups A through D.

Group A: Pregnant Women; health-care workers and emergency-medical-services personnel who have direct contact with patients or infectious material (includes school nurses/health aides); children and adolescents age five to 18 years old who have medical conditions that put them at higher risk for influenza-related complications.

Group B: Persons who live with or provide care for infants aged less than six months; children aged six months to four years.

Group C: Persons five years to 24 years old; persons 25 to 64 years old who have medical conditions that put them at higher risk for influenza-related complications; K-12 school staff.

Group D: Corrections officers; police officers; child-care-provider staff who do not care for infants less than six months old.

Group E: Anyone 25 to 64 years old.

Group F: Anyone 65 years or older.

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