Basic Understanding of Communicable Disease and How that Relates to the Transmission of COVID19

There are many questions from the community regarding risk from contact with someone who may be monitored or quarantined because they were may have been exposed. Dr. Meyerson, Medical Director for District Health Department No. 4 says, “Although the epidemiology is not completely figured out yet, there is much we do know about the basic understanding of how respiratory viruses spread.”

Here is some basic understanding of communicable disease, and how that relates to the transmission of COVID19.

1. A person can get infected with the virus when they come in contact with respiratory secretions of someone who is contagious. Generally, this occurs through being in close contact (6 feet) with an ill individual, or through droplets when the ill person coughs or sneezes. It is also possible to get it from touching a surface or object that has viable virus on it then touching your mouth, nose, or eyes. If a person becomes infected with the virus, they may not develop disease (they may clear the infection without getting sick) or they may end up getting sick with mild or more severe illness. This process from exposure, possible infection, to possible disease, takes time and that is the incubation period. For COVID19 the incubation period is felt to be 2-14 days, with the average being 5 days, and most people who get sick showing symptoms by 9 days out.

2. If someone is exposed to a “case” (a person with disease) while that case is contagious (having symptoms), we recommend quarantine of that person (the contact) for 14 days so that if they themselves become ill, they do not infect others. Individuals who are in contact with this quarantined person (the contact) are not at immediate risk themselves and do not have to take special precautions. It takes several days for someone to be contagious once they are infected. Only if the person under quarantine develops symptoms themselves do their contacts, while they are symptomatic and contagious, need to then quarantine. It takes time between when someone is exposed to when they are infectious, if at all. To reiterate, someone who is a contact of an asymptomatic ‘contact of a case’ does not need to take any immediate action beyond what we recommend in general (see below).

With that understanding, there will be more cases, and there will be spread in our communities, and so over time it’s expected that we will all know someone (maybe ourselves) who needs to isolate or self-monitor/quarantine. Everyone needs to assume they may be exposed at some time, which is why we are implementing community wide measures.
What can we do to reduce the risk?

- Follow Michigan’s Executive Order- *Stay Home Stay Safe*. Physical separation. For those at high risk, social distancing becomes more important to protect themselves.
- If you are feeling sick, stay home.
- Good hygiene – wash your hands, cover your cough, use good sense.
- If household members or others close to you are sick, try to minimize contact as much possible and avoid sharing items.

Meyerson adds, “District Health Department No. 4 is looking at ways to accomplish these goals and maintain the essential services. Never has our community had a more acute need for public health.”

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