

COVID-19 and Public Health Emergencies: What I-O Psychologists Should Know

Sylvia J. Hysong, PhD

With the continuing threat to public health emerging from the spread of the coronavirus and its ensuing disease, COVID-19, concern and misinformation abounds. I-O psychologists, like the general public, need reliable information to know how to protect themselves from the virus and what to do if they become exposed. More importantly, I-O psychologists' skills can help organizations prepare for public emergencies in unique ways beyond what is available through public health authorities. As a public service to our SIOP members, this article discusses ways in which I-O psychologists are uniquely positioned to help prepare their organizations for the growing pandemic, and provides some key facts about the current coronavirus and COVID-19 situation, as well as links to up-to-date resources.

Outbreak, Epidemic, Pandemic -- What's the difference? Isn't it all bad?

First, a little terminology. Although *outbreak*, *epidemic*, and *pandemic* all refer to a sudden increase in the confirmed number of cases of a contagious, infectious disease relative to what normally would be expected in the population (known as the baseline or *endemic* prevalence of the disease), these terms are not interchangeable; the main difference is the degree of spread of the disease. Outbreaks are bounded within a limited geographic area, such as a city or state. When an outbreak spreads to a larger geographic region, such as multiple states or an entire country, it is considered an epidemic. A pandemic is an epidemic that has spread over several countries or continents, affecting a large number of people. Each degree of spread places unique management challenges on organizations and regulatory agencies alike; nevertheless, the precipitous nature of the spread and the fear of the disease are at the root of the challenge.

Who's in charge of controlling epidemics and the spread of disease?

Epidemics and disease control are a public health concern. In the United States, the Centers for Disease Control is the principal federal government agency charged with managing disease prevention and control, environmental health, health promotion, and health education. Similarly, the World Health Organization (WHO) coordinates international health among United Nations member states. The CDC and WHO are the first lines of defense when an outbreak or an epidemic occur. In addition to these organizations, states and municipalities have public health and human services departments or similar local public health authorities that coordinate directly with the CDC on epidemics.

How do health authorities learn about new diseases?

Currently, the Global Disease Detection Program (GDD) is the CDC's principal program for identifying and containing infectious diseases threats around the world, with locations on-site in all WHO regions. Generally, the GDD picks up signals of potential epidemic threats through multiple sources, including formal (health department reporting) and informal channels (Internet, media). Signals are reviewed by a global network of health care professionals. Confirmed signals trigger an alert to CDC staff and the ministries of health in other countries, as well as to WHO. Bidirectional information exchange occurs among the GDD, local ministries of health, WHO, and other international partners to gather information about the epidemiology of the epidemic and to launch a joint response. WHO coordinates international epidemic responses using the resources and infrastructure of the Global Outbreak Alert and Response Network, a collaboration of institutions such as the Red Cross and networks such as existing surveillance initiatives. The CDC also provides accurate and timely reporting about the event and the risk it may pose to public health in the United

States.

We didn't see such drastic measures during the last outbreak -- why all the drama?

The main reason aggressive attention is being paid to the spread and patterns of the corona virus is because the coronavirus is new. The flow and spread of an epidemic varies from disease to disease; for example, diseases such as HIV, which are transmitted via sexual or blood-borne contact have different spread patterns and control strategies from airborne pathogens such as influenza or those transmitted by insect bites (such as West Nile Virus) or via fecal-oral transmission (such as *Escherichia coli*). Multiple factors can contribute to an epidemic's spreading so rapidly that public systems of disease control and containment can become overwhelmed. These factors can include the nature of the illness itself and how it spreads. For example, HIV transmission requires mucosal contact with body fluids (usually semen or blood) from an infected person, which generates a different speed of spread than Ebola or Coronavirus, which can be apparently be transmitted through contact with surfaces and materials contaminated with body fluids of an infected individual. None of these characteristics are known for certain about the coronavirus, nor are there currently vaccines or COVID-19 specific treatments. Thus, the best defense is prevention and containment. Other factors that contribute to the speed of spread include lack of trust in the health care system (thus rendering early detection and containment challenging), inadequate resources, and the existence of effective treatment or preventive or protective medication. The media can play a constructive role in focusing attention and resources on control of an outbreak, although media reports can also unintentionally trigger public fear out of proportion to the actual risk.

I'm in a leadership role in my organization – how can I protect my employees and customers?

In the presence of an epidemic, organizations must make critical decisions to protect their customers and employees against the spread of disease and to ensure a healthy workplace. Organizations can take preventive measures to protect employees via the policies they implement, including policies regarding vaccination, alternative work arrangements, and implementing protective measures in the workplace.

Often required of employees of hospitals and other health care facilities, vaccination against specific diseases is a common and effective strategy for prevention of diseases with potential respiratory or airborne transmission, such as influenza, measles, mumps, rubella, varicella, and pertussis. Such a strategy can even help lessen the spread of diseases for which a vaccine is unavailable by promoting a generally healthy immune system, as often those most vulnerable to disease are those with existing chronic conditions or with suppressed or weak immune systems, such as the elderly. Mandatory vaccination is controversial because it weighs patient safety against employee autonomy, though it is reportedly successful at increasing employee vaccination rates. A more palatable, yet effective alternative is a benefits campaign— for example, every fall many organizations provide benefits to their employees for free influenza vaccinations. Compared to the cost of lost productivity, free vaccinations can be a cost-effective alternative.

Flexible sick leave and telecommuting policies can be adopted and encouraged by leadership so that when employees become ill they feel empowered to stay home and prevent the spread of disease to coworkers. Providing hand sanitizer in common, high-traffic areas such as entrances and exits, break rooms, and lavatories can encourage a culture of hygiene for disease prevention, *even when no outbreak or public health emergency exists*. For instance, many supermarkets now provide sanitizing wipes at all entrances to enable customers to sanitize the handles on their shopping carts before each use, and at cash

registers for disinfecting after interfacing with the point-of-sale terminal.

How can my organization be ready for this pandemic and future emergencies?

Readiness planning for a variety of emergencies, including epidemics, is an effective strategy to position organizations for action once faced with an epidemic. Ready.gov, a Web site maintained by the CDC, provides many resources for organizations to improve their readiness for epidemics, such as guides for emergency planning, checklists for employees and organizations, and points of contact for reporting cases. Other readiness strategies include ensuring that phone trees and emergency notification systems are in place and up to date so that the organization can provide regular updates during an epidemic. Continued messaging from the organization and encouragement of preventive measures can help direct employees, squelch rumors, and calm employee anxieties over an existing epidemic. During disease outbreaks and epidemics, several organizations also make backup child and/or elder care services available to employees, relax telecommuting policies, and actively encourage employees to stay home if their duties allow.

“Dammit, Jim, I’m an I-O psychologist, not a health professional!” What can I do?

Industrial and organizational (I-O) psychologists are equipped with knowledge and skills in several areas that can prove useful to organizations in managing an epidemic, including selection and placement, training, managing employee burnout, and promoting culture and behavior change.

Selection and Placement. In the face of a fast-spreading pandemic, such as Coronavirus, resources with the right skill sets must be deployed quickly to the areas of highest need. Selection and placement is a traditional area of competency for I-O psychologists. I-O psychologists can help organizations identify, for example, employees most likely to work well in an expatriate setting (in the event that sick employees need to be replaced temporarily) or employees with the needed resilience to manage epidemic-related activities.

Training. In an epidemic, immediate needs include training for epidemic workers, such as training in communicable disease surveillance and outbreak investigation procedures as well as proper use of biohazard equipment. I-O psychologists can develop and design training that is effective, that allows for easy assessment of uptake of knowledge and behaviors, and that can be deployed quickly to the trainees who need it. Beyond the normal and episodic training needs of public health personnel, organizations also benefit from training their employees on what to do in the face of an epidemic. I-O psychologists can help incorporate readiness materials (such as those available from Ready.gov) into existing training programs or adapt content from those materials to design more tailored training modules for their organizations.

Burnout. Burnout is common not only in health workers in the face of an epidemic, but also in employees continuously exposed to high stress communications ensuing from managing the epidemic. I-O psychology research on job burnout, hardiness, and resilience can help organizations adopt a preventive approach to burnout by enhancing employee engagement (as opposed to trying to mitigate burnout), building resilience, and developing strategies for managing stress.

Safety Culture. A culture of safety in an organization can encourage safety and health behaviors to help prevent the spread of disease. Several tools exist for assessing safety culture in organizations, such as the Safety Attitudes Questionnaire and the Safety Climate Assessment Toolkit. I-O psychologists can use these tools to “take the temperature” of an organization with respect to safety, work with the organization’s leaders to promote a safety culture appropriate to the organization’s current level of receptiveness, and implement change

interventions to help improve the organization's culture of safety.

Thank you for the general primer -- What do I need to know right now about COVID-19?

Below are five things to know right now about how to protect yourself from COVID-19 and what to do should you get sick, courtesy of the [Centers for Disease Control](#) (CDC) website:

1. *There is no publicly available vaccine for COVID-19.* According to National Institute of Allergy and Infectious Diseases director Anthony Fauci, "It will take at least a year and a half to have a vaccine we can use."
2. *Practice the healthy behaviors you already know.* In the absence of a vaccine, your best defense against COVID-19 is good hygiene: Wash your hands often with soap and water for at least 20 seconds or use a hand sanitizer with at least 60% alcohol, especially after you have been in a public place, or after blowing your nose, coughing, or sneezing. How long is 20 seconds? Sing the song "Happy Birthday" as you wash your hands, and that'll be about right. Avoid touching your face with unwashed hands. Avoid close contact (minimum of 3 feet) with people who are sick. We all learned this growing up, now it's time to practice it diligently as adults! Lastly, leave the masks for those who need it most – the health professionals taking care of us who are trained to use them correctly.
3. *Social distancing works.* If your organization allows it, work from home (as an I/O psychologist perhaps you can help educate your leadership about it), and limit your contact with other people according to the [CDC guidelines](#) (e.g., have your groceries and medications delivered. For those of you who appreciate data, the *Washington Post* has a wonderful series of [simulations](#) showing the spread of the virus over time under multiple conditions, including social distancing, clearly showing how effectively the spread can be slowed through this means.
4. *If you think you may be sick – **stay home** and call your doctor.* Current symptoms reported for patients with COVID-19 have included mild to severe respiratory illness with fever (100.4 or greater), cough, and difficulty breathing (shortness of breath). If you develop the above symptoms AND have been in close contact with someone known to have COVID-19, OR if you have recently traveled from an area with widespread of COVID-19, call your doctor before visiting in person. This is important for two reasons: (1) so they can report your case to the public health authorities and keep accurate and up-to-date information about the spread of the disease, and (2) so they can take steps to keep others from getting infected or exposed. More importantly, except for going to get medical care, stay home – this is no time for presenteeism at work. As much as possible, also stay away from others in your household.
5. *Stay up to date through the CDC and your local authorities.* The CDC and your local public health agencies have the most reliable and up-to-date information on the spread of the Coronavirus and COVID-19 in your area. The CDC also maintains a [list of state and local public health authorities](#) to help you find the most current local information.

An expanded version of this article (not specific to COVID-19) is available: Hysong, S. J. and Trautner, B.W. (2017). Epidemics: Implications for Organizations. In Rogelberg, S. (ed). *SAGE Encyclopedia of Industrial and Organizational Psychology, 2nd edition*. Thousand Oaks, CA: Sage. Pp. 411-415. DOI: 10.4135/9781483386874.n139

The author would like to thank Barbara Trautner, MD for her helpful edits in the preparation of this article.

Resources and Further Readings:

COVID-19 Resources and statistics from the CDC:

<https://www.cdc.gov/coronavirus/2019-nCoV/index.html>

COVID-19 updates and resources from the WHO:

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

List of accredited state and local public health departments:

<https://www.cdc.gov/publichealthgateway/accreditation/departments.html>

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2012). *Principles of epidemiology in public health practice* (3rd ed.). *An introduction to applied epidemiology and biostatistics*. Retrieved from:

<http://www.cdc.gov/ophss/csels/dsepd/ss1978/lesson1/section11.html>