

# Facility Facts

## 2020 Flu Prevention

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PROFESSIONAL



## FLU IS COSTLY AND CAN BE EXTREMELY DETRIMENTAL

Up to 20 percent of U.S. residents are infected during flu season, [According to the Centers for Disease Control (CDC).]<sup>1</sup> When the season hits, it wreaks havoc on businesses, schools and other facilities with common areas.

These powerful statistics speak for themselves:

- Influenza is responsible for as much as **\$6.2 billion** in indirect costs, mainly from lost productivity. Each year, among adults age 18 to 64 years, **17 million workdays** are lost to flu-related illness.<sup>2</sup>
- An average of **36,000 deaths** and more than **200,000 hospitalizations** are connected with flu each year.<sup>3</sup>
- For adults 18 years old and older, the **overall national economic burden of flu-attributable illness is \$83.3 billion**. Direct medical costs for influenza in adults totaled \$8.7 billion, including \$4.5 billion for adult hospitalizations resulting from flu-related illness.<sup>4</sup>
- Despite all of the flu prevention efforts, flu cases have not declined in 12 years.<sup>5</sup>

1 Source: <http://www.cdc.gov/flu/about/qa/disease.htm>

2 Source: <http://www.cdc.gov/workplacehealthpromotion/evaluation/topics/immunization.html>

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5 Source: Centers for Disease Control, FluView2014

DID YOU KNOW?



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## TRADITIONAL PREVENTION METHODS AREN'T ENOUGH

The flu vaccine is a popular yet imperfect way to prevent the spread of the virus. Its effectiveness is limited because flu viruses change every year and mutate throughout the season.

The vaccine had only 19 percent effectiveness during the 2014/15 flu season, according to the CDC, USA Today reported that it was one of the lowest rates in the past 10 years.<sup>6</sup> For the 2017/18 flu season, experts predict an even lower effective rate than in recent years.

Keeping infected people away from work or school can prevent the spread of the virus, but it's often too late.



*People are contagious even before they have symptoms.*

### DID YOU KNOW?

During the 2014-15 flu season, the flu vaccine was only



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<sup>6</sup> Source: "Flu shot only 19% effective this winter" USA Today, June 4, 2015. Downloaded from <http://www.usatoday.com/story/news/2015/06/04/flu-shot-effective/28465601/>

# HAND WASHING & SURFACE SANITIZATION HAVE LIMITED EFFECTIVENESS



Hand washing and surface sanitization are common recommendations to prevent the spread of germs in shared spaces, but they, too, are limited.

He added, "Everyone's eager to promote hand washing, and certainly it won't do any harm, but to rely on hand washing as a way to prevent influenza is a serious mistake."<sup>1</sup>

Surface cleaning also has its critics.

*"I've looked at the data, and there just isn't good evidence that environmental surfaces have a significant role in the transmission of the virus. Instead, the flu seems to depend more on direct transmission from an infected person."*

*Trish M. Perl, MD,  
Asst. Prof. of Medicine,  
Johns Hopkins Medical  
School*

Source: <http://www.mayoclinic.org/diseases-conditions/flu/basics/definition/con-20035101>

<sup>1</sup> Source: "Some doubt hand washing stops H1N1" CNN.com. Downloaded from <http://www.cnn.com/2009/HEALTH/09/24/hand.washing.helpful/index.html?ref=24hours>

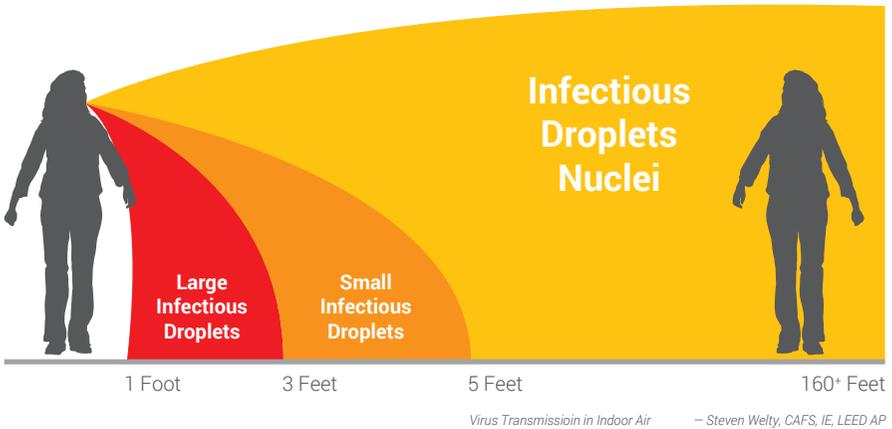




## AIRBORNE EXPOSURE IS THE MOST COMMON WAY TO CATCH THE FLU

One cough or sneeze can expel thousands of living microscopic germs into the surrounding area. Aerosol scientists and occupational health and safety professionals have found that there is a close-range infection threat through the large droplets produced by sneezes and coughs, as well as a longer-range danger because of smaller airborne particles.

### Air Impurities Can Travel Great Distances



*"You're much more exposed if you're close to an infected person than farther away, but just because you're farther away it doesn't mean you're safe."*

*Dr. William Lindsley,  
Natl. Inst. for Occupational  
Safety and Health*

Source: Interview with  
Dr. William Lindsley, June 2015

## SMALL VIRUS PARTICLES CAN TRAVEL THROUGHOUT ROOMS

The spread of small particles of the flu virus is similar to the spraying of an aerosol can. If you spray the aerosol nearby, “you can almost immediately smell or taste it. You rarely spray it toward yourself but you almost immediately smell it. That’s the small particle vapors that get generated as we inhale,” said Dr. Lisa Brosseau, a national expert on respiratory protection and infectious disease transmission and a professor at the University of Illinois-Chicago. “There’s nothing different about the aerosol generated by the aerosol can and the aerosol from a cough or sneeze—we can breathe in those small particles.”<sup>7</sup>

Studies in the last 10 years by Brosseau and others.

If an infected person coughs, scientists can detect an amount of viable influenza virus between 0.3 microns and 0.8 microns. They can stay airborne a long time—they take about a half-hour to fall a meter, which means they’ll stay and swirl around the air for a while.<sup>8</sup>

These small particles are more dangerous because they are more likely to go deep into the lung. The deeper they are in the lung, the more likely a person will become infected.<sup>9</sup>

Capturing and eliminating the airborne flu virus in shared spaces is made possible through frequent air exchanges and the targeted use of High-Efficiency Particulate Air (HEPA) filters.

“Literature clearly shows the more changes in air per hour, the lower the particle concentration is in the room, the better the air quality,” Brosseau said.<sup>10</sup>



7 Source: Interview with Dr. Lisa Brosseau, June 2015

8 Source: Interview with Dr. William Lindsley, June 2015

9 Source: Interview with Dr. William Lindsley, June 2015

10 Source: Interview with Dr. Lisa Brosseau, June 2015





# ONE TURNKEY SOLUTION



**Managers cannot rely on HVAC systems to eliminate the airborne flu virus. They are primarily designed for temperature control—not germ removal.** A targeted, room-specific air purification solution with a HEPA filter is the most effective way for facility managers to improve indoor air while addressing a wide variety of IAQ issues.

HEPA filters capture at least 99.9 percent of airborne particles that are as small as 0.3 microns. Placing an air purifier with a HEPA filter in an area where kids, workers, or elderly adults congregate is an effective way to capture airborne viruses.

When combined with other flu-prevention methods, facility managers can effectively provide a comprehensive approach to preventing the spread of common illnesses.<sup>11</sup>

## DID YOU KNOW?

HEPA filters capture at least



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