Infection Control Stats and Facts

DID YOU KNOW?

Infection prevention and control is required to prevent the transmission of communicable diseases in all health care settings. Infection prevention and control demands a basic understanding of the epidemiology of diseases; risk factors that increase patient susceptibility to infection; and the practices, procedures and treatments that may result in infections.

There are limited recent data on infectious illness impacts in the workplace; however, those sources that are available indicate that employers have become increasingly aware of the cost burden of employee absenteeism and presenteeism. Absenteeism is defined as missed work days while attending work while ill is termed presenteeism estimated that 50–60% of all workplace absenteeism was caused by respiratory disorders or gastroenteritis. Globally, annual influenza incidence rates have been estimated at 5–10% in adults. In workplaces, influenza incidence rates have been in the range of 12–23.7% depending on the timeframe being audited. Approximately 70% of employees with influenza are absent from work during their infection, which can result in an average loss of 3% of annual work hours.

According to the Centers for Disease Control and Prevention (CDC) and Bureau of Labor Statistics (BLS), almost 26 million employees in the United States of America (USA) were infected with H1N1 during the 2009 pandemic peak 8 million took sick leave, eight million did not. As each employee with influenza who attends work is estimated to infect an additional 0.9 co-workers an estimated seven million H1N1 infections occurred due to presenteeism. Approximately 16% of influenza transmission is estimated to occur in the workplace.

Annually, approximately 500 million non-influenza viral

respiratory tract infections occur in the USA, resulting in 70 million lost workdays while in the Netherlands, the incidence rate over three years was 50% and almost 30% of these took sick leave. There is considerably less literature regarding gastroenteritis as a specific cause of absence. In the Netherlands, the gastroenteritis incidence rate was 10.1% during 1998–2001 and the absence rate was 45.3%.

Infectious illnesses have considerable impacts on workplace productivity and costs. For example, in France and Germany, lost productivity related to infectious illnesses in the workplace cost an estimated $US10–15 billion per year. Associated costs due to influenza were $87.1 billion in the USA in 2003; $6.2 billion were attributed to productivity losses: Lost productivity due to acute respiratory illness (ARI) in the USA accounts for as much as 75% of the total economic burden. A 2003 study estimated that non-influenza viral respiratory illness resulted in an economic impact of $40 billion in the USA annually each influenza-like illness (ILI) episode, an average of 23.6 and 23.9 work hours were lost during the 2007/2008 and 2008/2009 influenza seasons, respectively.

Associated costs of preventable illnesses typically exceed treatment costs. In the USA in 2003, the direct healthcare costs associated with influenza were $10.4 million, while the costs due to lost earnings and employee deaths were $16.3 million. For the common cold in the USA during 1997, healthcare costs were $17 billion while economic costs were $22.5 billion.

The impact of, and costs associated with, presenteeism are also significant. Sick employees demonstrate decreased reaction times and alertness, and increased anxiety, which decrease their efficiency at work. Ill employees assess their own efficiency at up to 45% lower than usual. The consequences of presenteeism include later serious and chronic illness, which could subsequently increase absenteeism. A study by that the work hours lost and costs due to presenteeism exceeded those due to absenteeism and every cold resulted in an average loss of 8.7 h, 5.9 of which were due to presenteeism; costs related to the common

cold for employers in the USA were $25 billion annually, $16.6 billion due to presenteeism.

Health-related workplaces such as hospitals are aware of the potential consequences of infectious illnesses, both to employees and patients, follow strict guidelines to prevent infection and have robust evidence-based infection prevention and control programs. Non-health workplaces are not bound by such guidelines and are less well informed on workplace infection prevention the clear impacts of infectious illness on workplaces, this review aimed to investigate the international literature on the effectiveness and cost-benefit of the strategies non-healthcare workplaces use to prevent and control infectious illnesses in these workplaces.

A University of Washington researcher calculates that 14.4 million workers face exposure to infection once a week and 26.7 million at least once a month in the workplace, pointing to an important population needing protection as the novel coronavirus disease, COVID-19, continues to break out across the U.S.

An epidemiologic investigation in the workplace is important because it helps to better define the characteristics of workers who contracted COVID-19; it can offer insight into risk factors for transmission, prevalence, and incidence of disease within the workplace. A workplace epidemiologic investigation may include:

- **Defining the worker population at risk.**
    - Minimally, investigators should consider obtaining a list/s of all workers present at the workplace or in the work environment (e.g., construction site) during a defined time period (i.e., contact elicitation window as defined in the outbreak case definition).
    - At some workplaces, this may include workers employed by multiple companies (e.g., contractors, sub-contractors), workers who are responsible for performing a variety of tasks (e.g., production, transportation, customer service, food preparation, cleaning), and workers who may not be employed by the company but may have been physically present at the

company during the defined period of interest (e.g., transportation and delivery services).
- Collecting information about key variables such as department/area of work, shift, and job tasks/titles, is helpful so that attack rates for specific groups of workers can be calculated to determine the need for additional control measures.

In all, OSHA officials are reviewing workplaces in two dozen states with a total of 96,000 employees, according to USA TODAY's analysis.

OSHA has been under fire for not doing enough to protect workers amid the pandemic. State and federal OSHA offices have fielded thousands of coronavirus-related complaints since January, according to records released last week.

In recent weeks OSHA also has uploaded data detailing inspections that were launched by federal and state officials and refer to COVID-19. They reveal which inspections are being conducted at what companies.

A total of 192 COVID-19-related inspections were launched between Feb. 19 and April 23. Many were triggered by complaints that employees were in danger, had been hospitalized or died. Five cases have since been closed; the rest were open, according to data released Tuesday.