

HAND-TRANSMITTED INFECTION

Background

Hand-transmission is a critical factor in the spread of bacteria, pathogens, viruses that cause disease, food borne illness and nosocomial infections (infections acquired while in healthcare and unrelated to the original condition). While everyone is vulnerable, over one-third of the population is at high risk, including the elderly, young children, pregnant women, and those with compromised immune systems (including those with the common cold or a seasonal flu).

Food borne Illness

Food borne illness kills over 10,000 people each year. Over 70% of all outbreaks originate in foodservice operations and as many as 40% are the result of poor handwashing and cross-contamination. Each year over 80 million estimated cases of food poisoning occur in the United States alone. The US spends between \$7.6 and \$23 billion annually on health care and lost productivity resulting from food borne illness. The average incident costs the foodservice company over \$75,000 and results in significant future sales losses. (Source: FDA).

Hospital Infections

In health care, nurses and doctors wash only 30% of the required time between patient contacts and procedures. Each year, an alarming 2,400,000+ nosocomial infections occur in the US alone. They are estimated to directly cause 30,000 deaths and contribute to another 70,000 deaths each year. Nosocomial infections cost over \$2,300 per incident and \$4.5 billion annually in extended care and treatment. (Source: FDA).

Health care workers, through patient contact, are a leading cause of transmission of nosocomial infection. In the case of Hepatitis B, health care workers are between 5 and 15 times more likely to contract the virus than the general US population. (Source: Association of Infection Control Professionals) According to JAMA, The Journal of the American Medical Association, the cost of a program to control the spread of nosocomial infections is outweighed by the money saved in preventing nosocomial infections. (Source: JAMA. The Journal of the American Medical Association, p3048 (2) Dec. 2, 1992 v268 n21).

Nursing Home & Long-Term Care Facilities

Nosocomial infection is the most common immediate cause of death in nursing home patients, and the leading cause of patient hospitalization. The CDC estimates over 1.5 million cases of nosocomial infection in long-term care facilities and nursing homes occur each year, or an average of one infection a year per patient. According to the American Journal of Infection Control (June/August 1991), between 5% and 18% of all patients have an active infection at any given time.

Daycare Infections

“In spite of all the studies about the benefits of handwashing, improper or infrequent handwashing continues to be a major factor in the spread of disease in day care”, that according to a recent published in the medical journal, Infectious Diseases in Children. Researchers recovered fecal coliforms from the hands of one out of every five staff members, citing that more than 33% of daycare facilities “had poor handwashing techniques and no policy for handwashing before eating or after playing outside. In spite of all the studies about the benefits of handwashing, improper or infrequent handwashing continues to be a major factor in the spread of disease in day-care”. (Source: Infectious Diseases in Children, Volume 4, July 1991).

Clean Room, Laboratory, & Manufacturing Environments

Less threatening to human life but still very costly in manufacturing and lab environments, microscopic contaminants, particulate, and epidermal oils are routinely transferred to equipment, clothing, and work-in-process resulting in inefficiencies, redundancy and cost overruns.