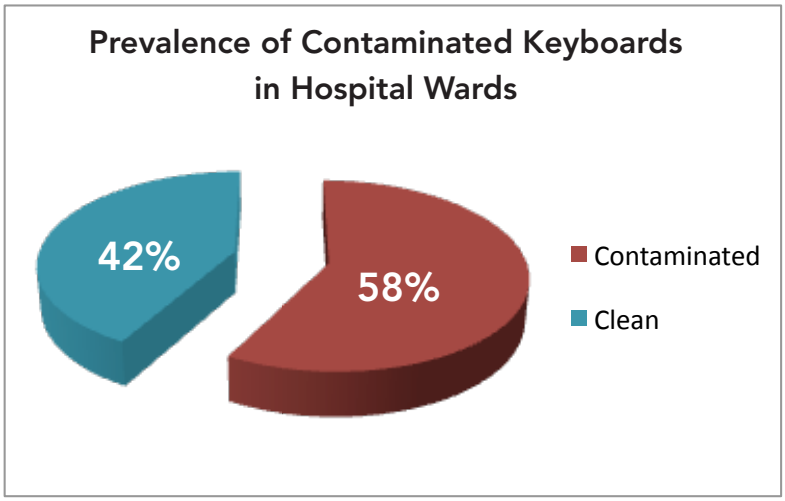
The Dirty Truth: Keyboards in Clinical Facilities

cleankeys®

Prevalence of Contaminated Keyboards:

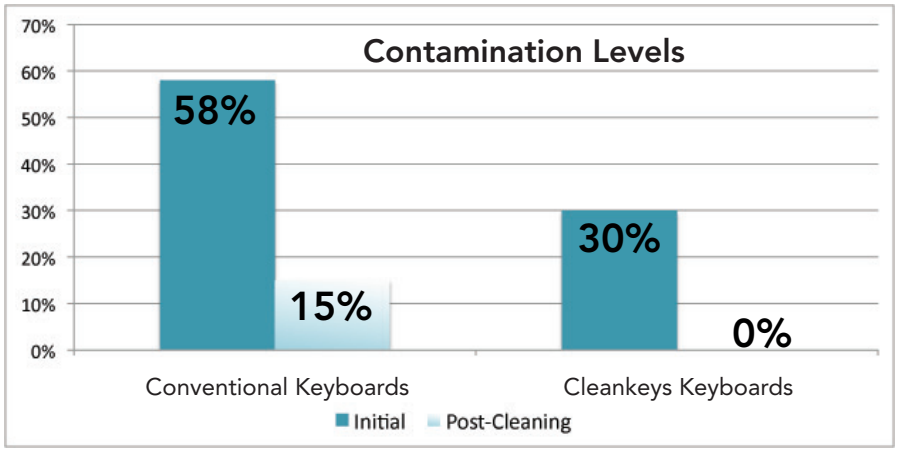
In the largest study of its kind to date, an investigation of the extent of contamination of computer keyboards in hospitals has shown that 58% are contaminated with harmful bacteria. The study, conducted under the direction of Dr. John Conly at the Ward of the 21st Century in Calgary[1], sampled 230 keyboards across 3 different ward types in 4 separate hospitals. The swabs from the keyboards were cultured and tested and found to contain harmful organisms including antibiotic-resistant strains of bacteria. When these bacteria were analyzed, they were found to be closely related to strains that cause potentially-life threatening infections in hospital patients.



Effectiveness of Decontamination:

Keyboards in use on hospital wards were tested pre and post cleaning. After cleaning, 15% of conventional keyboards were found to still be contaminated. The good news? 100% of Cleankeys keyboards tested were found to be free of pathogenic contaminants after cleaning. Keyboards were cleaned by the standard hospital disinfection protocol: 15 second multi-directional wiping with a CaviWipe™ and a 15 second contact period.

Pathogens examined included: MSSA, MRSA, Enterococcus VRE, Enterococcus non VRE, gram negative bacilli-enteric, gram negative bacilli-non fermenters.



Effectiveness Against *C. difficile*:

One particularly dangerous pathogen in hospitals is the *C. diffiicile* bacteria, which cannot be removed by the standard cleaning agent (CaviWipe™). *C. difficile* is the leading cause of hospital-acquired diarrhoea and it is very difficult to eradicate in clinical settings. In laboratory testing, this group found that *C. difficile* could effectively be removed from Cleankeys keyboards with all 3 cleaning methods tested. For conventional keyboards, the *C. difficile* could not be removed by any of these methods.

Effectiveness* of three disinfection protocols on removing *C. difficile* contamination from keyboards:

	Bleach wipe	Bleach wipe + mechanical friction	Soap & water
Conventional	X	X	N/A
Cleankeys	✓	✓	✓

* Red = contaminated, Green = Clean

Similar levels of contamination have been found in hospitals elsewhere. The proliferation of computer technology in healthcare introduces keyboards throughout the hospital care environment. Keyboards pose a significant challenge for clinical settings as multiple studies have revealed that they are highly contaminated and likely contribute to the spread of infection. Having a keyboard that is easily cleaned and effectively decontaminated is a valuable first step toward a healthier environment for patient care.

1. De Grood, J., et al. Can. J. Infect. Dis. Med. Microbiol., vol. 23, Suppl B, Spring 2012, p.13B