# Single-use vs Reusable
## Sharps Containers

**Proper disposal of sharps waste containers**
is key to infection control in a clinical setting.

Research suggests that reprocessed, reusable medical and infectious waste containers are potential sources of microorganisms that can be harmful to patients with weakened immune systems[1]

According to Health.gov and the CDC
in the United States, incidents of healthcare-associated infections (HAIs)

affects **1 MILLION** people[2]

contributes to **75,000** deaths in hospitals[3]

results in **$28 – $33 BILLION** in potentially preventable healthcare expenditures annually[2]

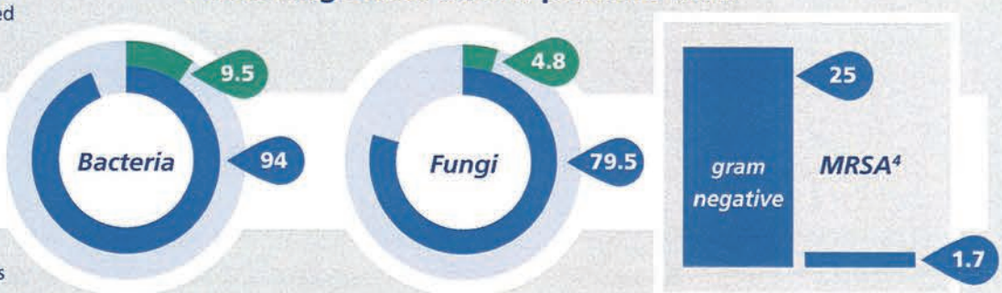
## Concerns about reusable sharps collectors are not new!

### Stoker, 2006

A Cincinnati, Ohio, hospital conducted a comparison study on reusable plastic vs single-use cardboard infectious waste containers after receiving soiled reusable containers[4]

**380** single-use and reusable infectious waste containers were swabbed monthly

**Percentage that tested positive for...**




● Reusable containers ● Single-use containers

**These startling results led to procedural changes**

Reusable containers were **removed from operating rooms,** and spray disinfectants were used to clean all reusable containers upon arrival

Healthcare-associated infections were monitored for **2.5 years** to see if these procedural changes would bring positive results

Mean patient infection rate dropped from


**The potential issues of an unclean reusable product are clear.**

Decreased infection rate suggests that the contaminated containers may contribute to the rate of infection[4]

## Runner, 2007

*Evaluation of* **130-bed community New England area hospital**

**30** newly processed, reusable sharps disposal containers were swabbed upon arrival for the presence of bacteria and viruses

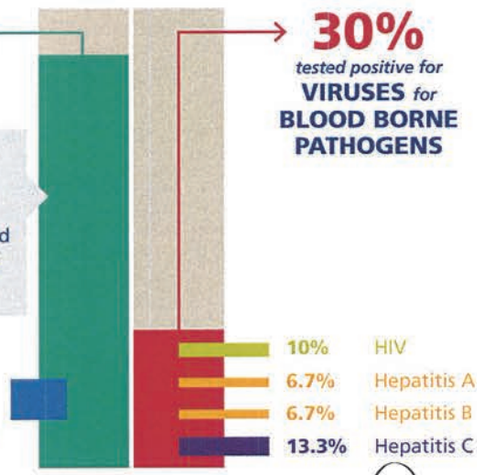
A pilot study conducted by Jack C. Runner was a single-center, prospective, hospital-based, microbiologic evaluation of reusable sharps disposal containers returned to the hospital from a reprocessing company[1]

**90%** *tested positive for* **BACTERIA**

This was not unexpected because of normal skin and environmental factors

Though **10%** of the recovered isolates contained gram-negative rods

**30%** *tested positive for* **VIRUSES** *for* **BLOOD BORNE PATHOGENS**




These findings call into question the efficacy of the emptying and decontamination process of reusable sharp containers[1]

**Reusable sharps containers could aid in the transmission of viruses** from the container to immunocompromised patients and/or patients and healthcare workers with exposed skin[1]

# *Clostridium difficile*

*C. diff* is an anaerobic, gram-positive, spore-forming bacillus

- *C. diff* is the primary cause of pseudomembranous colitis[5]
- Produces life threatening diarrhea and other serious intestinal conditions[6]

### Transmission

- *C. diff* can live on hard surfaces for as long as **5 months**[7]
- *C. diff* proliferates in a patient who has been exposed to antibiotics[5]
- Evidence indicates patients remain at elevated risk for 3 or more months after they have stopped antibiotic treatment[8]

### Impact

Annually in the U.S. *C. diff* causes

**500,000** infections[9]

**29,000** deaths[10]

more than **$3 BILLION**[11] estimated annual cost burden for the healthcare system

## BD, 2015

BD conducted an internal statistical analysis of **817** hospitals and found:

**REUSABLE** customers have **21% GREATER RATES** of *C. diff* than single-use customers[12]

Two leading single-use collector brands were compared **NO STATISTICAL DIFFERENCE WAS FOUND**[12]

Statistical difference **A TYPICAL 300-BED HOSPITAL** can see approximately **$100,000** annual impact on savings to treat *C. diff* when using single-use containers[13]

## Want to know more?

The story continues... **June 2015**

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***References:***

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