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International Infection Control Specialist
Clorox HealthCare

Fresh Thinking needed or Else

Disclaimer

- 1. Employed by Clorox Canada as the Healthcare Sales Director and IPAC Specialist**
- 2. Past President of Greater Toronto Area - Infection Control Chapter –(Volunteer)**
- 3. Social Media Manager – Infection Prevention Control Canada–(Volunteer)**
- 4. International Infection Control Specialist – The Cdif Foundation–(Volunteer)**

AGENDA

- 1. Infection Prevention Landscape—Rates, interventions etc.**
- 2. Looming Pressure and Public Demands ---Pressure for change—Politics, Corporate business, etc.**
- 3. Look at some areas that have difficult challenges and how they succeed.**
- 4. Bringing it all together—IPAC in Mental Health Settings**
- 5. Q&A**

So how are we doing with Infections?



ANTIMICROBIAL RESISTANT ORGANISMS (ARO) SURVEILLANCE

SUMMARY REPORT FOR DATA FROM
JANUARY 1, 2009 TO DECEMBER 31, 2014

Updated July 2015



PROTECTING CANADIANS FROM ILLNESS

PICNet

PROVINCIAL INFECTION CONTROL
NETWORK OF BRITISH COLUMBIA

A program of the Provincial Health Services Authority

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Surveillance

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Latest Surveillance Reports

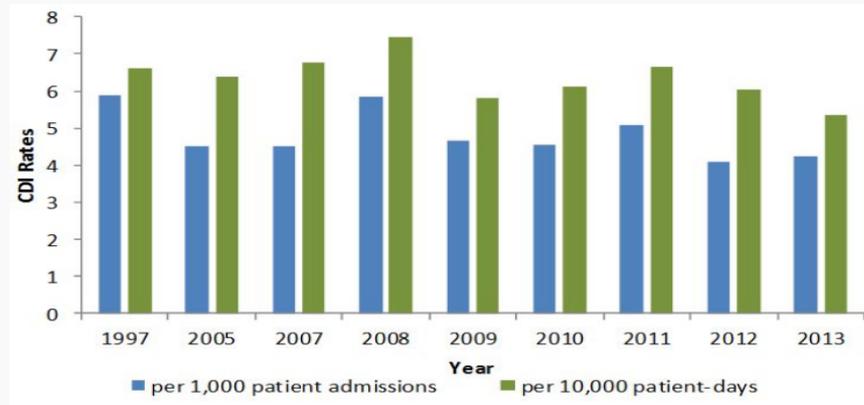
You can also view the surveillance data for the last four quarters in PICNet's [Interactive Surveillance Map](#).



Topic	Title of report	Date report posted	Date of next report
CDI	New: CDI Quarterly Update: Q2 of 2016-2017	March 1, 2017	June 2017
MRSA	New: MRSA Quarterly Update: Q2 of 2016-2017	March 1, 2017	June 2017
CPO	New: CPO Quarterly Update: Q1 & 2 of 2016-2017	March 1, 2017	June 2017
HCC	New: Hand Cleaning Compliance: Q2 of 2016-2017	March 1, 2017	June 2017
Annual HAI report	Annual Surveillance Report 2015-2016	Nov 30, 2016	Fall 2017

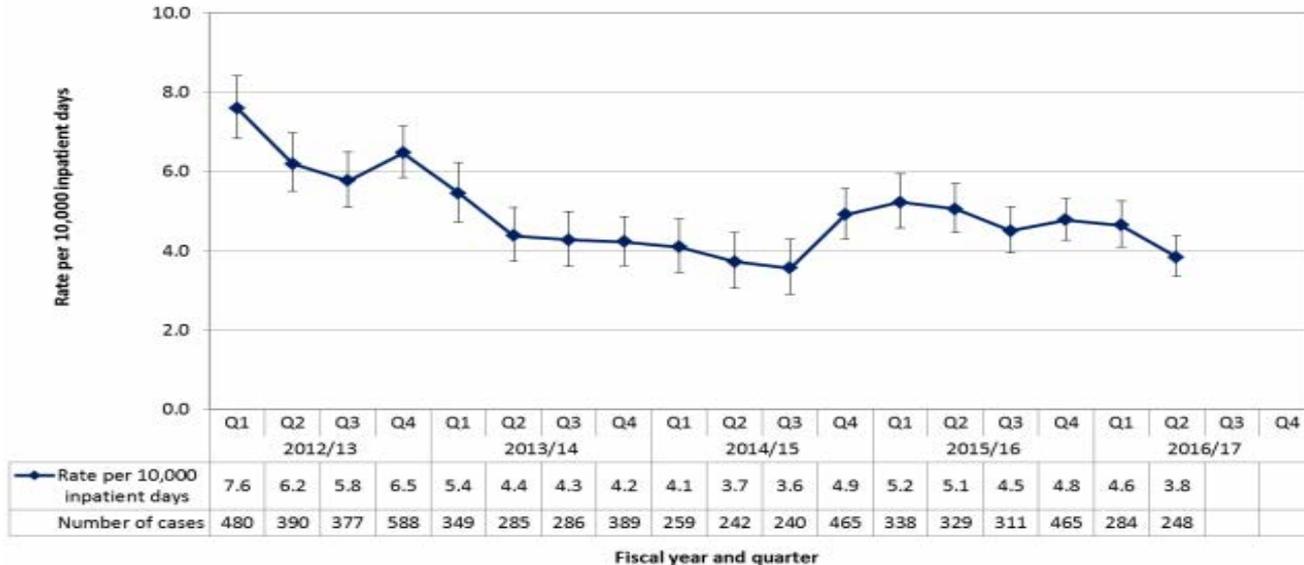
CDI Rates

Figure 9. Incidence of health care-associated *Clostridium difficile* infections per 1,000 patients admissions and per 10,000 patient-days, 1997, 2005, 2007-2013



► Incidence of health care-associated *Clostridium difficile* infections per 1,000 patients admissions and per 10,000 patient-days, 1997, 2005, 2007-2013 - Text Description

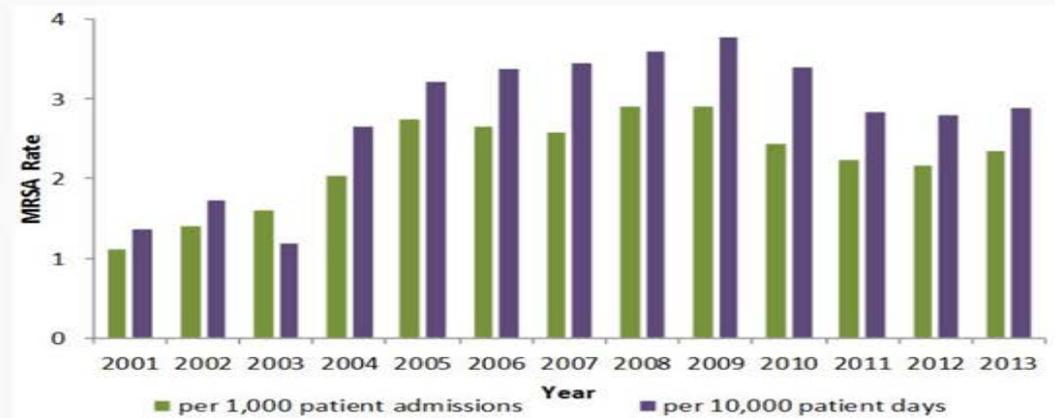
Figure 1. Provincial rate and number of new cases of CDI associated with the reporting facility, by fiscal year and quarter, 2012/13- 2016/17, British Columbia¹



Note: vertical bars on the line represent the 95% confidence interval of the rates

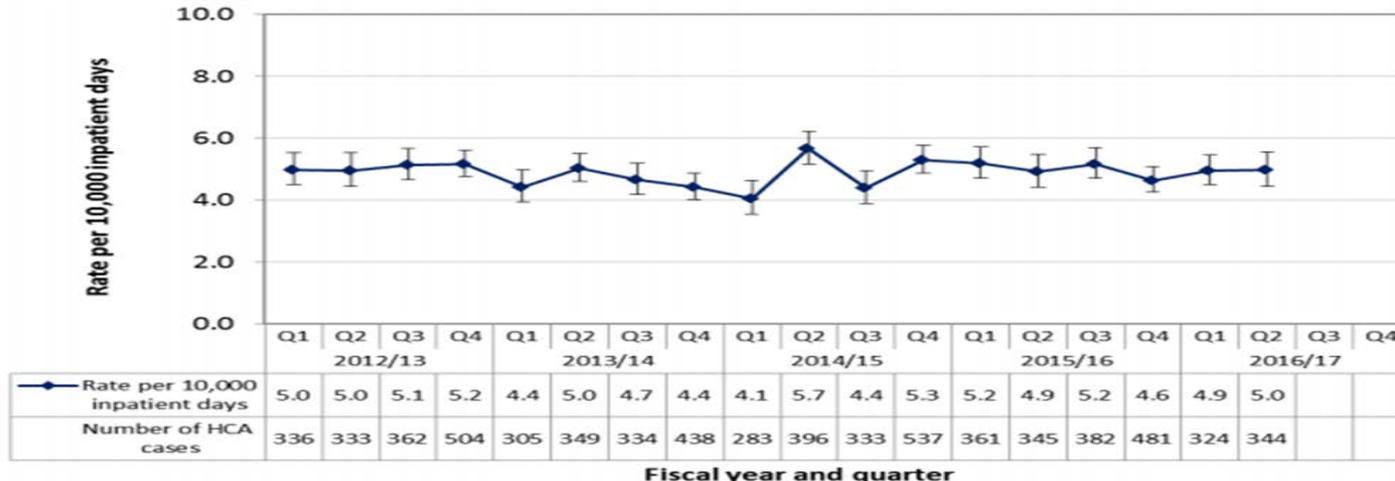
MRSA National Rates

Figure 11. Incidence of methicillin-resistant *Staphylococcus aureus* infections per 1,000 patient admissions and per 10,000 patient-days in Canada, 2001-2013



► Incidence of methicillin-resistant *Staphylococcus aureus* infections per 1,000 patient admissions and per 10,000 patient-days in Canada, 2001-2013 - Text Description

Figure 1. Provincial rate and number of new cases of MRSA associated with the reporting facility, 2012/13 - 2016/17, British Columbia¹



Note: vertical bars on the line represent 95% confidence interval of the rates

VRE Rates National

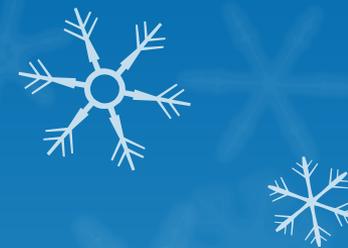
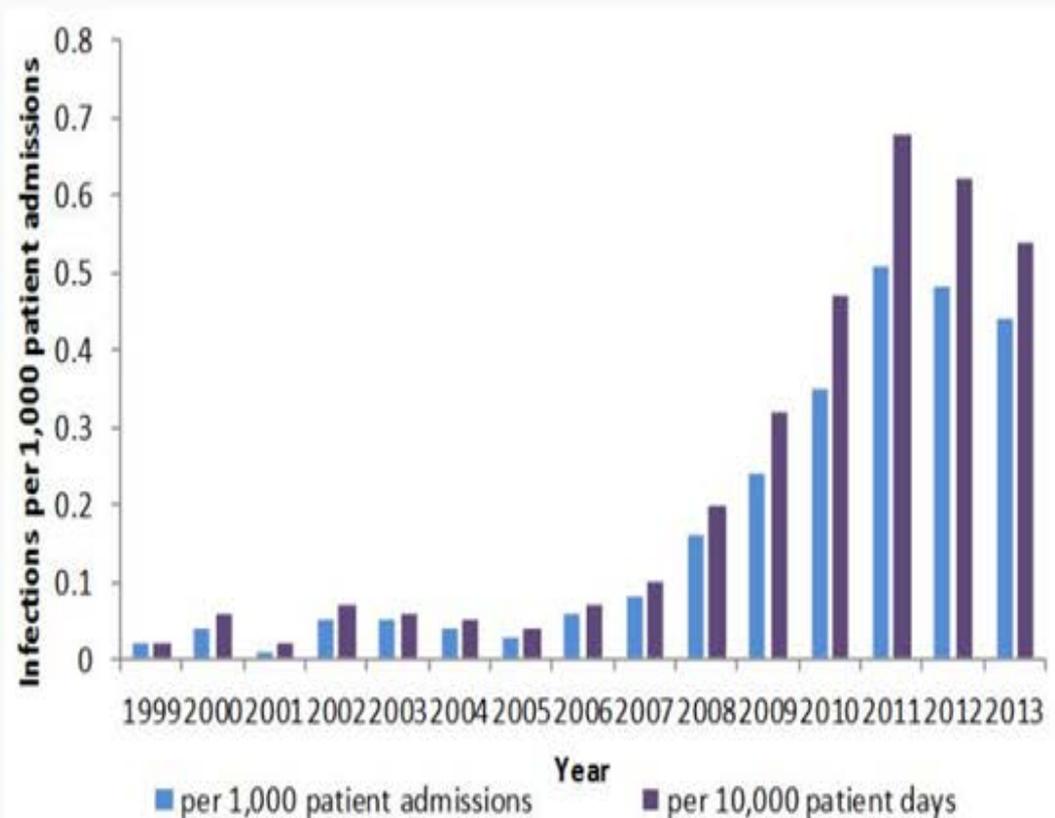


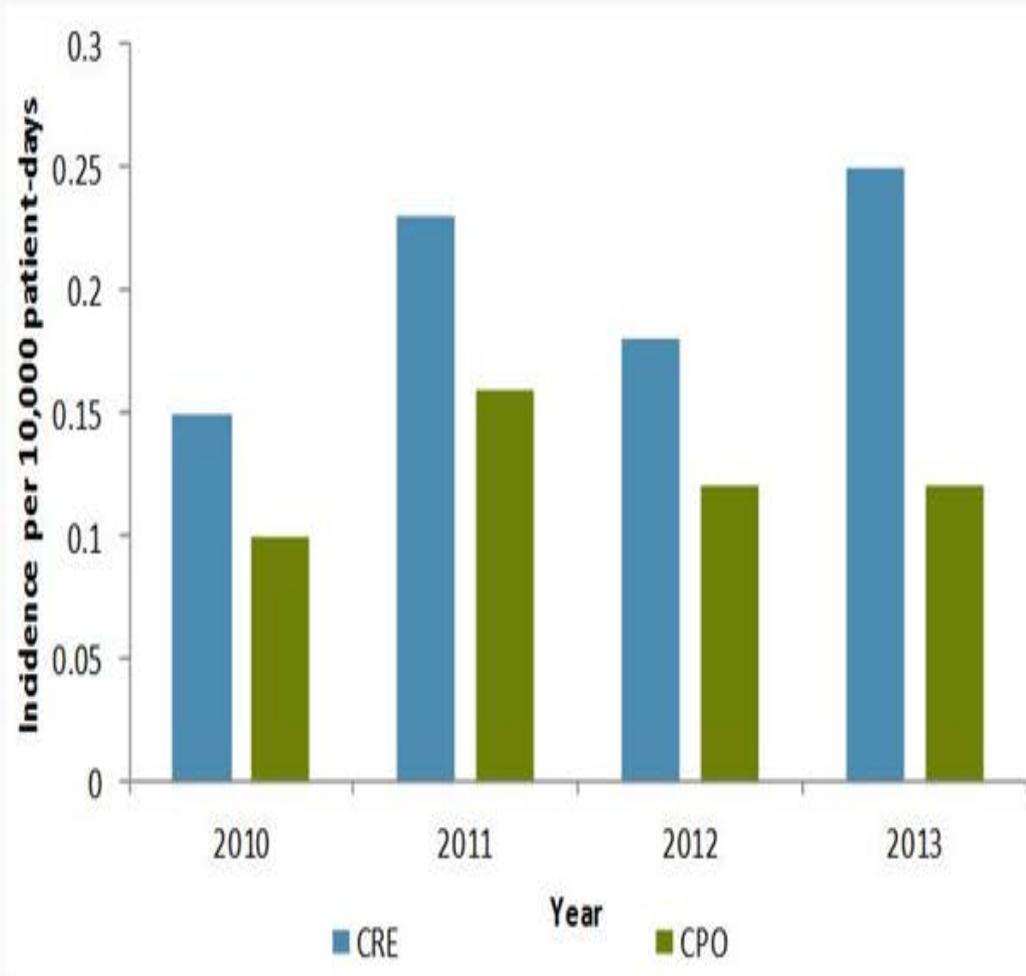
Figure 13. Incidence rates of vancomycin-resistant *Enterococcus* infections per 1,000 patient admissions and per 10,000 patient-days, 2001-2013



► Incidence rates of vancomycin-resistant *Enterococcus* infections per 1,000 patient admissions and per 10,000 patient-days, 2001-2013 - Text Description

CRE/CPO National Rates

Figure 10. Carbapenem-resistant Enterobacteriaceae (CRE) and carbapenemase-producing organisms (CPO) infection rates per 10,000 patient-days



► Carbapenem-resistant Enterobacteriaceae (CRE) and carbapenemase-producing organisms (CPO) infection rates per 10,000 patient-days - Text Description

Current State

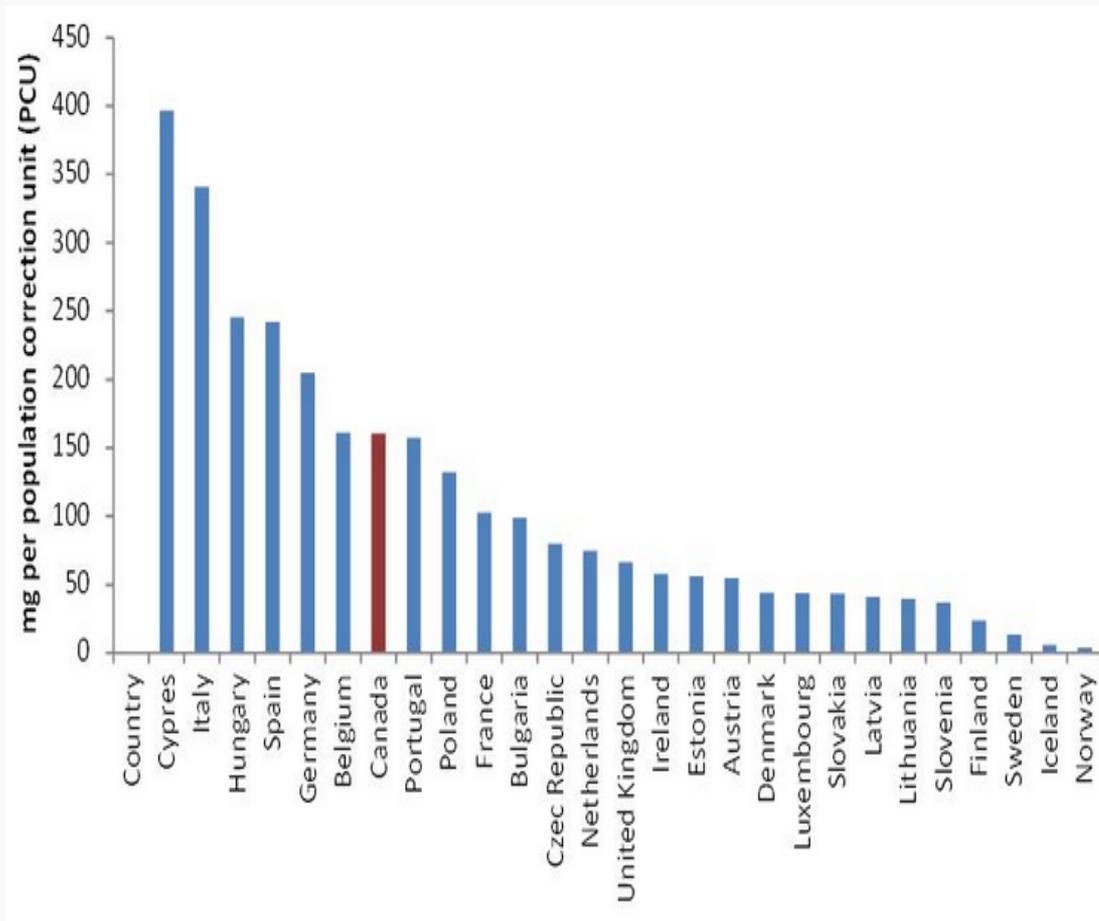


Why are we still
seeing Infections?

Antimicrobials Use in Animals



Figure 8. Antimicrobial sales for 2012 for animals (quantity adjusted by population and weight) for Canada and countries participating in the European Surveillance of Veterinary Antimicrobial Consumption network [m](#)



► Antimicrobial sales for 2012 for animals (quantity adjusted by population and weight) for Canada and countries participating in the European Surveillance of Veterinary Antimicrobial Consumption network - Text Description

Budget Cuts

Hospital cuts staff to meet budget demands

CTV
NEWSGO



Cleaning staff cuts are putting patients at risk: hospital union



ELIZABETH PAYNE, OTTAWA CITIZEN

[More from Elizabeth Payne, Ottawa Citizen](#)

Way more eyes



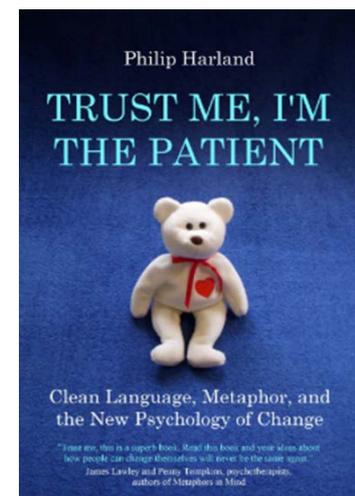
**ACCREDITATION
CANADA**

Better Quality. Better Health.



**BC PATIENT SAFETY
& QUALITY COUNCIL**

Working Together. Accelerating Improvement.



Pressure on EVS/Healthcare workers/IPAC



Outbreaks

Home > news > Local > Jo Brant hospital settles C. diff suit for \$9 million

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Oct 15, 2012 | Vote 0

Jo Brant hospital settles C. diff suit for \$9 million

Hamilton Spectator

A class-action lawsuit launched by patients and families after a deadly



C Difficile Outbreak Niagara

Page: 1

Ontario Calls In Federal Expert On C. Difficile

CP | Posted 09.06.2011 | Canada

Read more about Public Health, Antibiotic Resistance, C. Difficile, Public Health An...
*break, Canada News

OTTAWA The federal

may 23, 2006 | vote 0

C. diff blamed for deaths in Oakville

Hamilton Spectator

Comment on this issue. [Click here.](#)

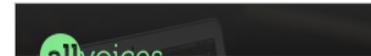
CBCnews | Health

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Health Rate My Hospital

C. difficile superbug tied to 17th Niagara death

CBC News Posted: Jul 07, 2011 1:32 PM ET | Last Updated: Jul 08, 2011 10:11 AM ET



IN THE NEWS

- Target closes stores
- Cool cars

Stay Connected with



Hospital-Acquired Infections Cost \$10 Billion a Year: Study

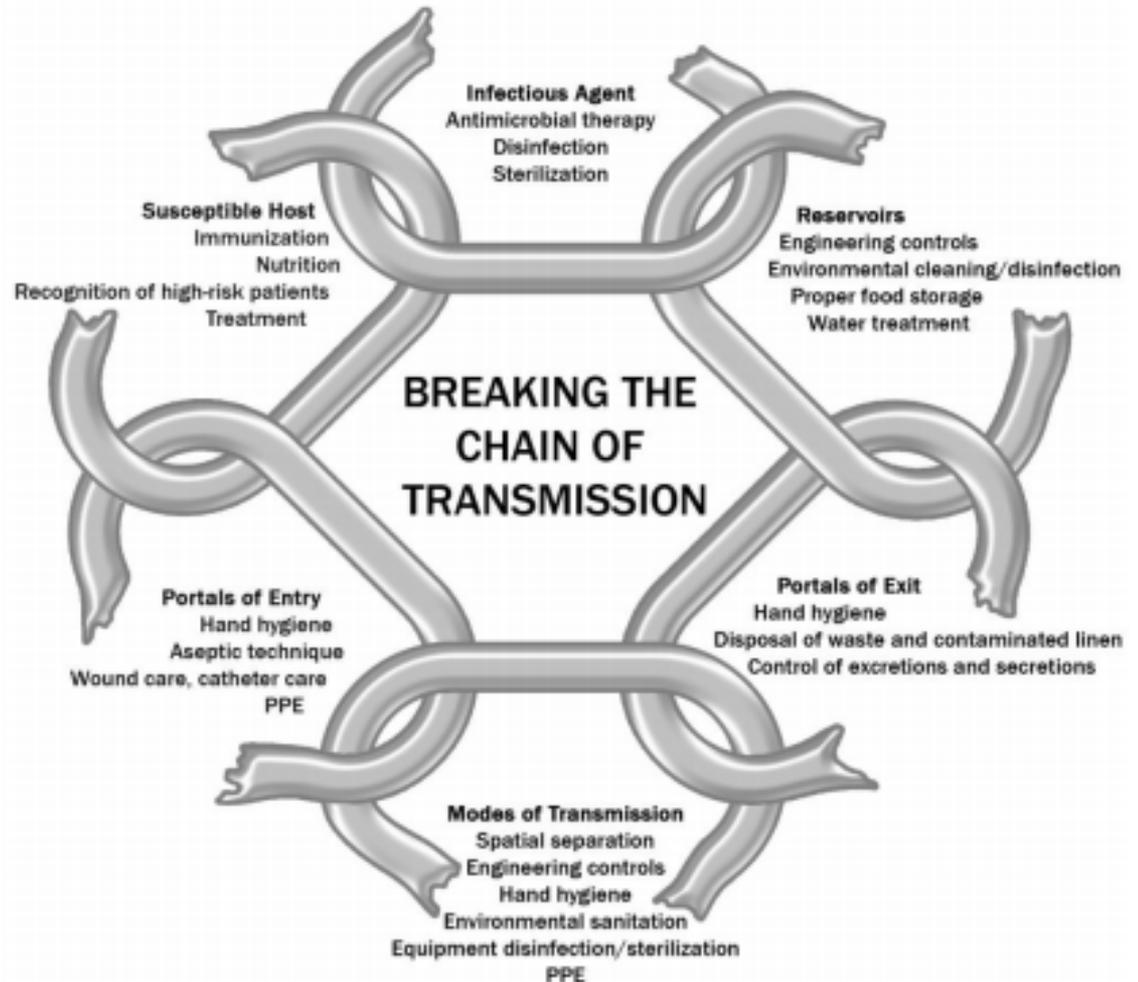
Five most common health care-associated infections strike 440,000 U.S. patients each year

Do we know how to fight infections??

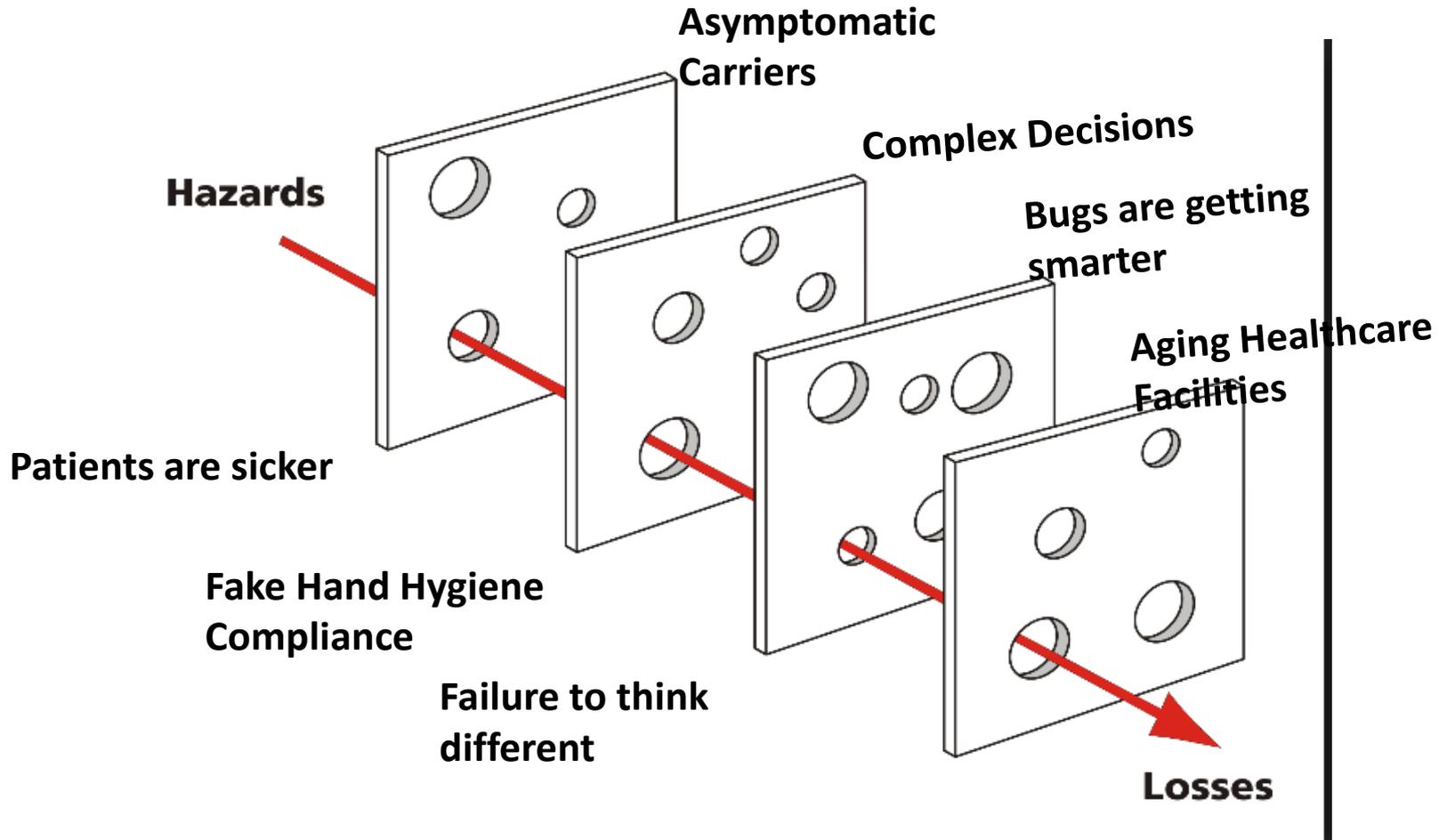


Chain of Infection--Gaps

1. *Hand hygiene --*
2. *Contact
Precautions*
3. *Prompt
Identification of
cases*
4. *Appropriate use
of antibiotics*
5. *Environmental
disinfection*



Challenges in IPAC



**THINGS
NEED
TO
CHANGE**

Lessons from Failed Corporate Businesses

SEARS



Don't benefit from punishing error(late fees)



1. 1985 Blockbuster was founded by David Cook
2. 1987 he had sold Blockbuster to a trio of investors for \$18.5 million.
3. 2002 Blockbuster bought by Viacom for \$8.4 BILLION. Steady cash flow from late fees.
4. After obtaining a \$40 late fee for Apollo 13, Reed Hastings founded Netflix.
5. 2010 the company was worth just \$24 million with \$1.1 billion in revenue losses. Knocked out.

Pay attention to needs and address concerns

Blackberry



1. **1984: Research In Motion is founded by two University of Waterloo engineering students**
2. **1997: RIM goes public on the Toronto Stock Exchange**
3. **2005: RIM hits four million subscribers, Balsillie and Lazaridis are named among Time magazine's 100 most influential people**
4. **2007: RIM becomes the most valuable company on the TSX with a market capitalization surpassing \$67 billion.**
5. **2012: Lazaridis and Balsillie step down as co-CEOs**

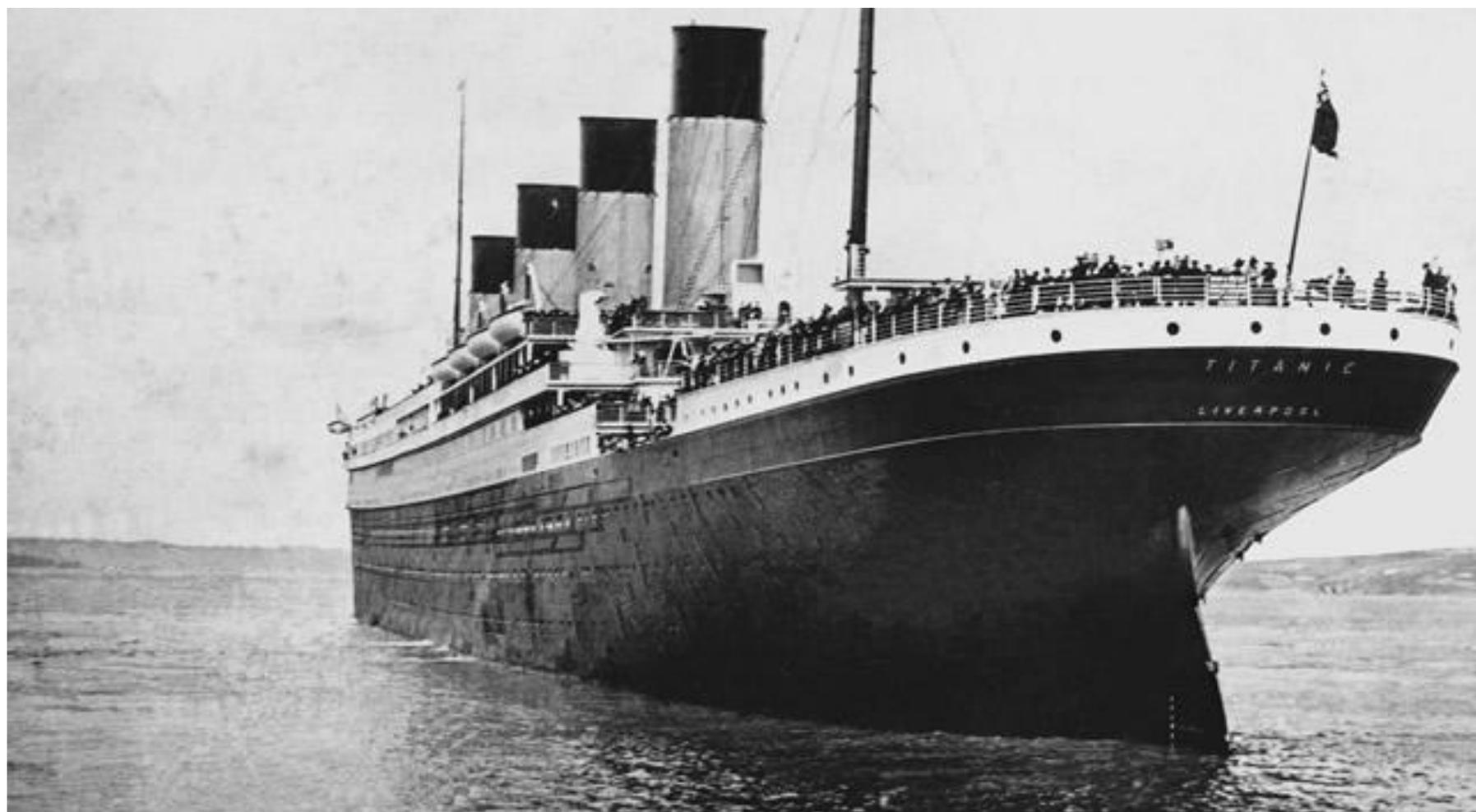
Ignoring change is not good

- 1984 Sears Canada Inc. is born
- 1991 — 1996 A quarter of the workforce focused on catalogue stores.
- 2000 Continued to open stores and ignored Walmart stores coming with discounts
- Now —Stores closing daily

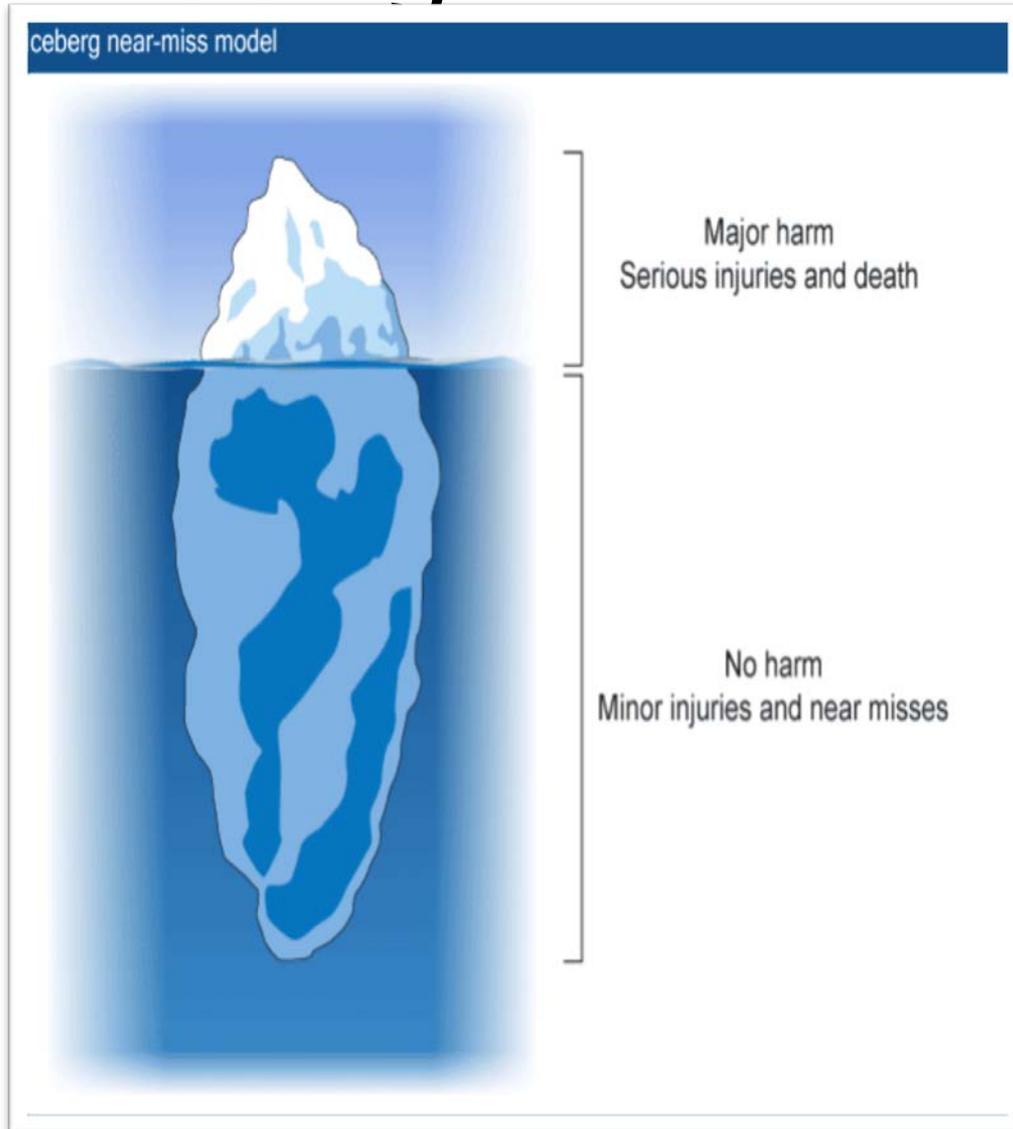


SO WHAT?





Here is the Iceberg we are facing



Evident:

1. Infections still present
2. Emerging MDRO Threats
3. Failure to SELL ideas

Not Evident:

1. High Levels of Dissatisfaction—Patients Involved
2. Public Distrust of Government and Institutions—More Audit Folks
3. Healthcare Burn Out, frustration & Inefficiencies
4. Failure to collaborate

What is Infection
Control Most
Known for?

Hand Hygiene History and impact to now



Dr. Ignaz Semmelweis



Study Tracks How Superbugs Splash Out of Hospital Sink Drains

by MAGGIE FOX

Antibiotic-resistant superbug bacteria grow up hospital drains and can splash out into sinks and onto counters, researchers reported Friday.

advertisement

PUBLIC SENTIMENT





HILLARY
CLINTON
2016

TRUMP
2016

Public perception and the social and microbiological significance of uniforms in the prevention and control of healthcare-associated infections: an evidence review

HP Loveday,¹ JA Wilson,² PN Hoffman,³ RJ Pratt⁴

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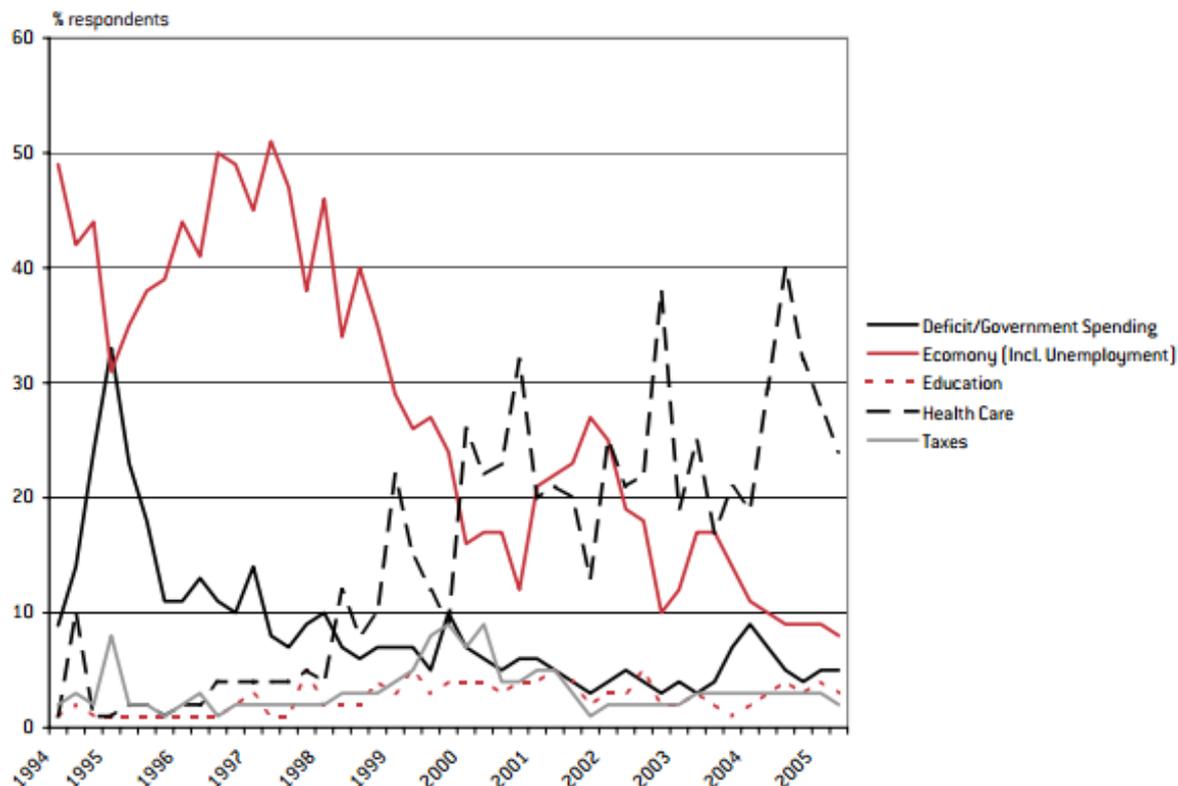
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3. Clinical Scientist, Laboratory of Healthcare-associated Infection, Centre for Infections, Health Protection Agency, London

4. Professor of Nursing, Director, Richard Wells Research Centre, Thames Valley University London

The Importance of Health Care

In your opinion, what is the single most important problem facing Canada today?



Source: CRIC, as reported in Portraits of Canada, 2005 (N=1000)

From: **Trust and Sources of Health Information: The Impact of the Internet and Its Implications for Health Care Providers: Findings From the First Health Information National Trends Survey**

Arch Intern Med. 2005;165(22):2618-2624. doi:10.1001/archinte.165.22.2618

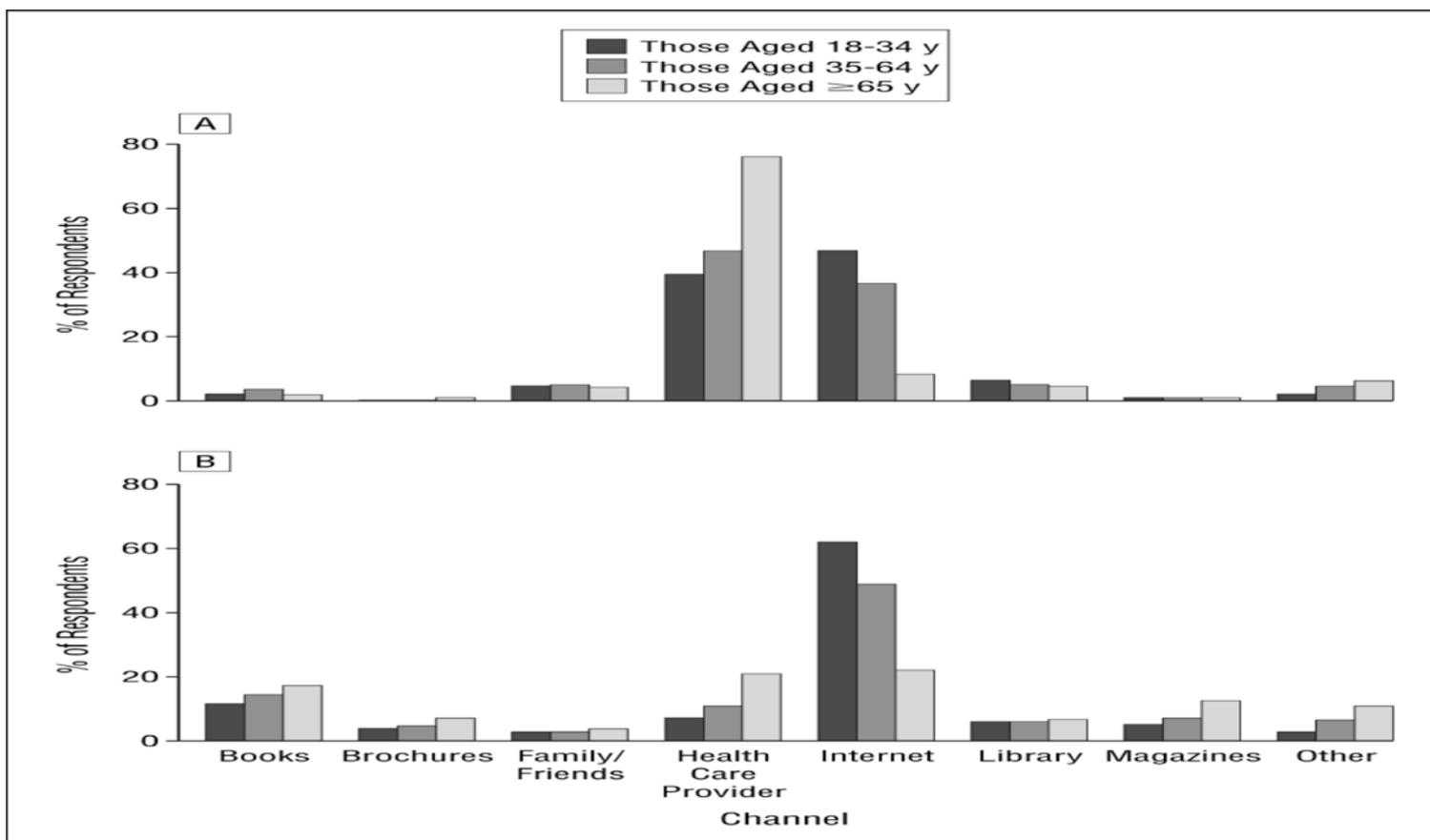
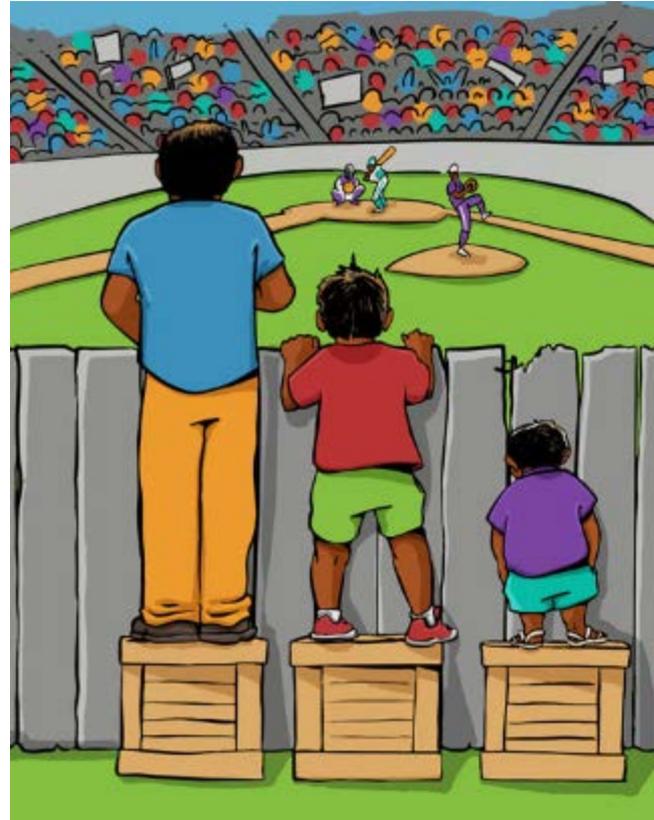
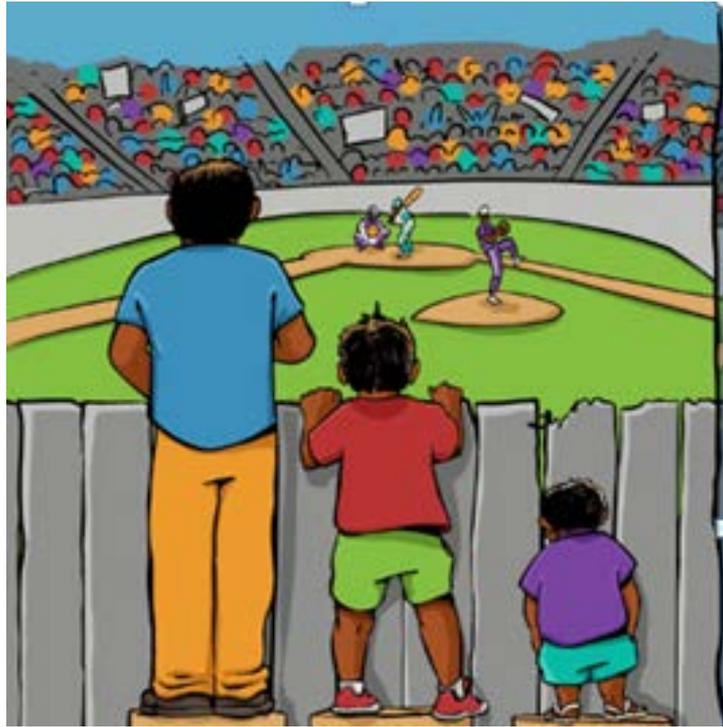


Figure Legend:

Indications of where respondents would go first when seeking information about cancer (A) and reports of where respondents actually went first when looking for information about cancer (B).

THERE IS HOPE THOUGH



BRINGING IT ALL TOGETHER

- Infection Control challenges in Mental Health(MH) settings
- Describe iGAS Outbreak
- Molecular Epidemiology
- Lessons Learned

Setting

- **Large Urban Community Hospital**
- **40 Bed In-patient Mental Health Setting**
- **“Medically cleared” patients**

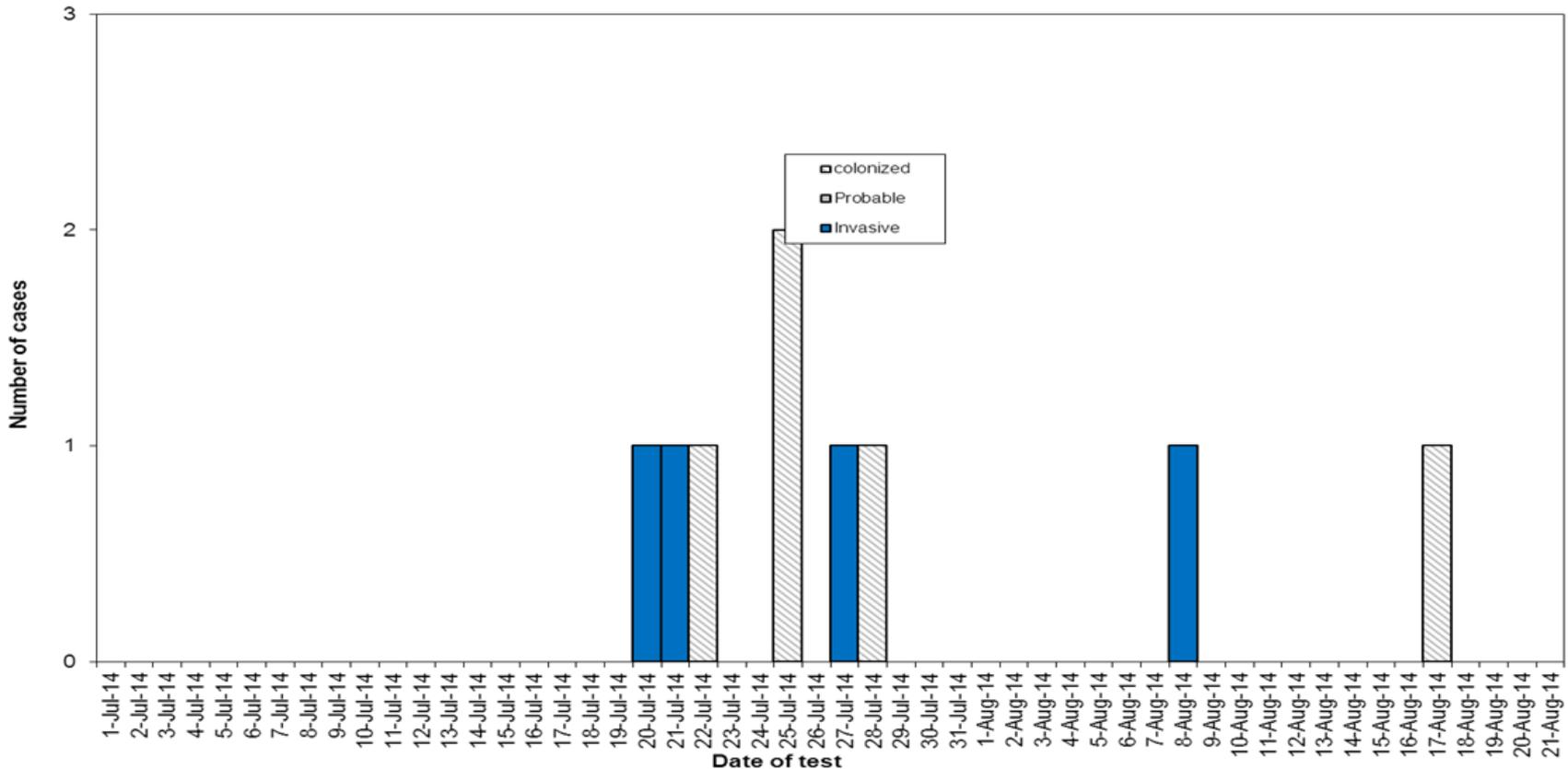
Mental Health Settings Ignored...

- Traditionally low rates of MDRO
- Not your typical “acute care patient”
 - Low rates of antimicrobial utilization
 - No medical devices

Pants down.....

N=3 Clinically Severe
N=2 HCW Colonized
N=3 Patients Colonized

Epi Curve H6 GAS Cluster July- Aug 2014



GAS Guidance Documents

Recommendations on Public Health Management of Invasive Group A Streptococcal (iGAS) Disease

Provincial Infectious Diseases Advisory Committee (PIDAC)

GROUP A STREPTOCOCCAL (GAS) DISEASE SURVEILLANCE PROTOCOL FOR ONTARIO HOSPITALS

Developed by the Ontario Hospital Association and the Ontario Medical Association
Joint Communicable Diseases Surveillance Protocols Committee

Approved by
The OHA and the OMA Board of Directors
The Ministry of Health and Long-Term Care –
The Minister of Health and Long-Term Care

Published and Distributed by the Ontario Hospital Association
Published September 2004
Last Reviewed and Revised November 2014

CCDR

Canada Communicable Disease Report

ISSN 1188-4169

Volume 3252

October 2006

Supplement

Guidelines for the Prevention and Control of Invasive Group A Streptococcal Disease

September 2014

Observations During the Outbreak

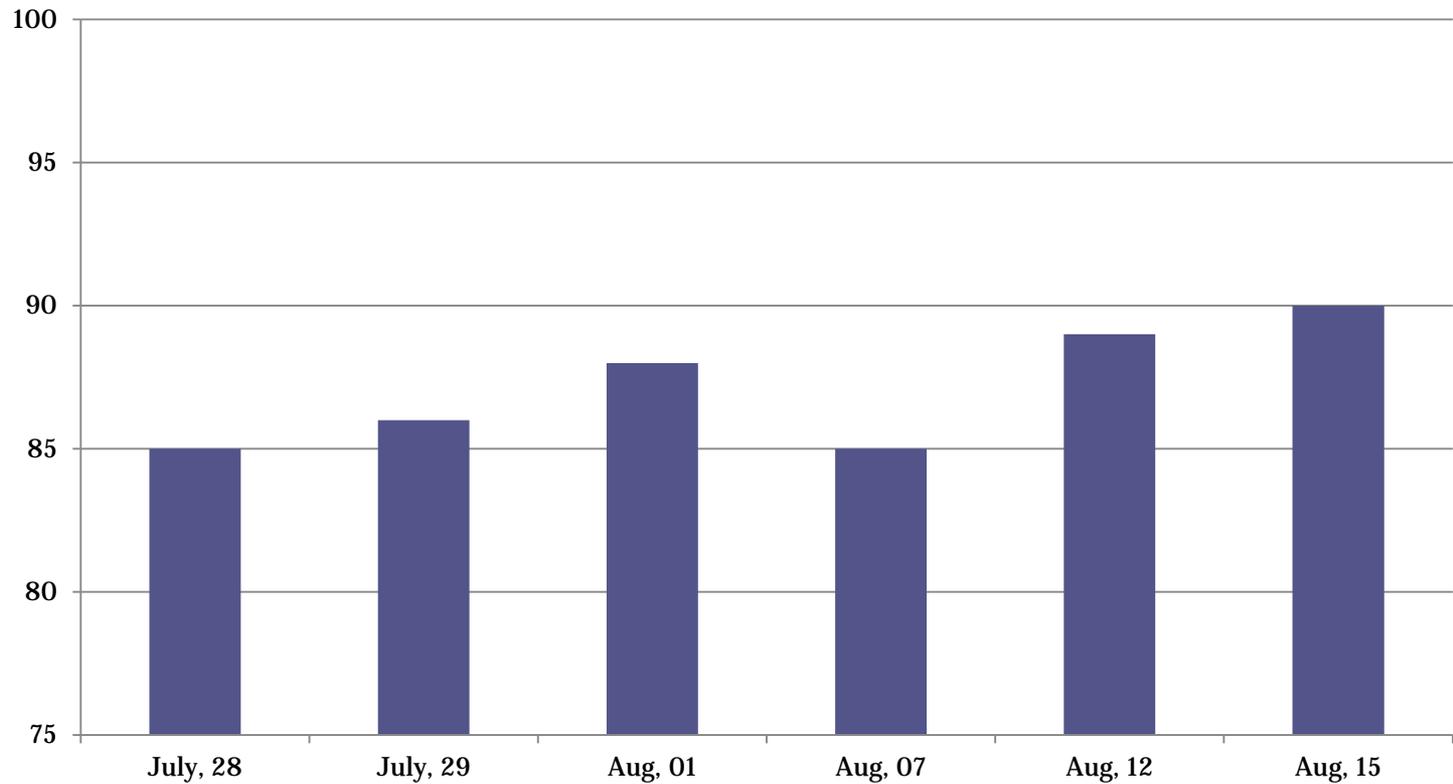
- **Clinical assessment and documentation**
- **Principles of MH care include co-habitation**
 - **Group therapy**
 - **Smoking**
 - **Shared food**
- **Unique aspects related to MH diagnosis**
 - **Hand sanitization**
 - **Non adherence**

Observations During the Outbreak

- **Poor IPAC presence**
 - Little education
 - No monitoring
 - No HH program
 - Refusal to observe additional precautions
- **Little literature providing guidance**

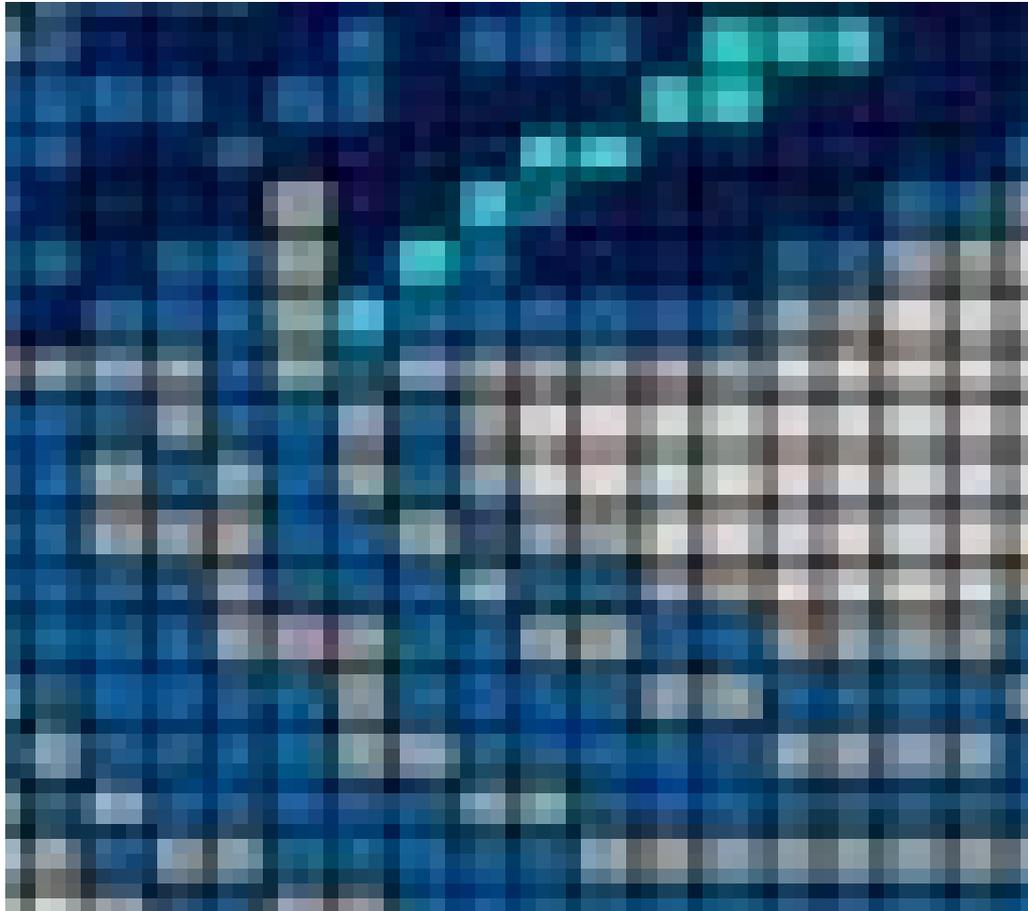
It's not them it's us!

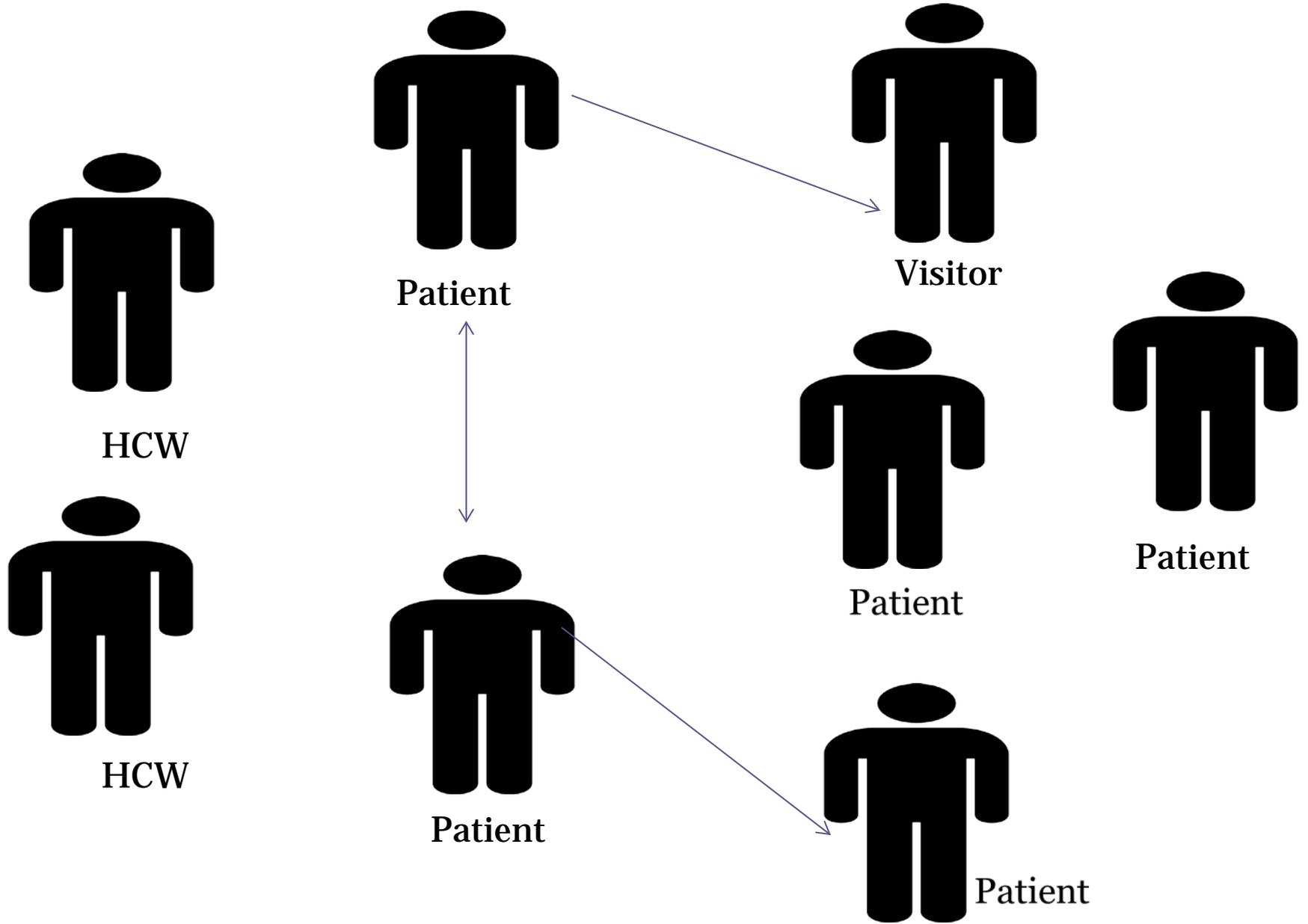
Hand Hygiene Compliance Rate



Molecular epidemiology

Opinion after Antibigram and Epi







ELSEVIER

Contents lists available at ScienceDirect

American Journal of Infection Control

journal homepage: www.ajicjournal.org



Practice Forum

A model for choosing an automated ultraviolet-C disinfection system and building a case for the C-suite: Two case reports

Maureen Spencer RN, MEd, CIC ^a, Michelle Vignari RN, CIC ^b, Elizabeth Bryce MD ^c, Helen Boehm Johnson MD ^{d,*}, Loretta Fauerbach MS, CIC ^e, Denise Graham BS ^f

^a Universal Health Services, King of Prussia, PA

^b Thompson Health and the University of Rochester Medical Center, Rochester, NY

^c Vancouver General Hospital and the University of British Columbia, Vancouver, British Columbia, Canada

^d Freelance medical writer, Vero Beach, FL

^e Retired infection preventionist, Gainesville, FL

^f Public health and government relations consultant, Marietta, GA

1. Business Case

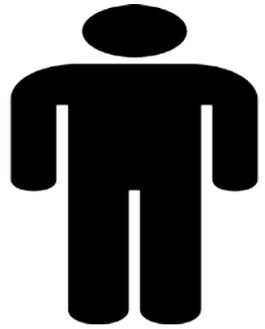
2. Persuade

3. Convince

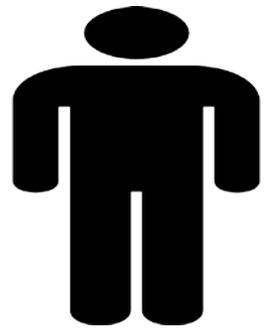
4. Challenge

Opinion After PFGE and *emm* Typing

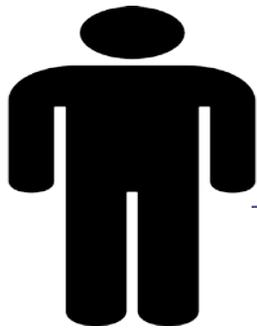




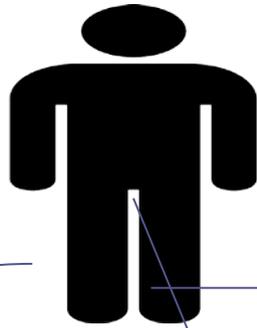
HCW



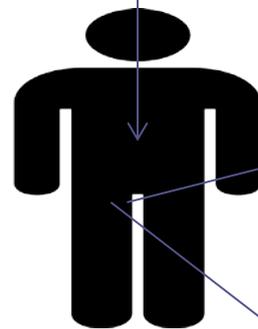
HCW



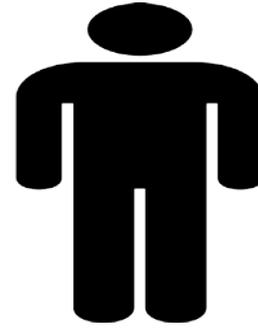
Patient



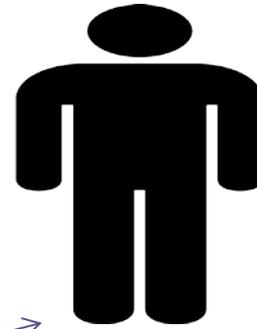
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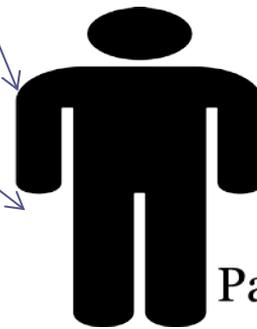
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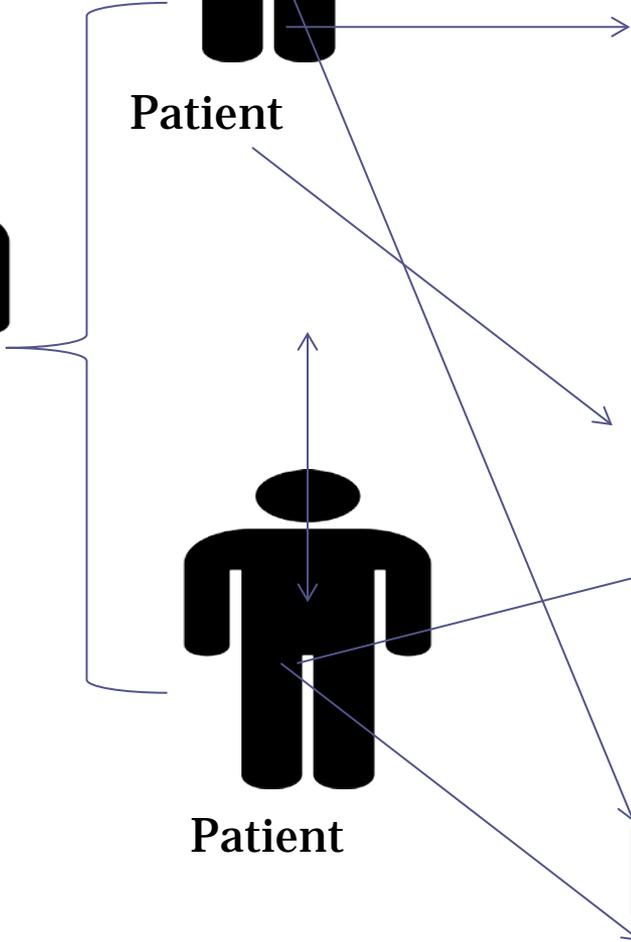
Visitor



Patient

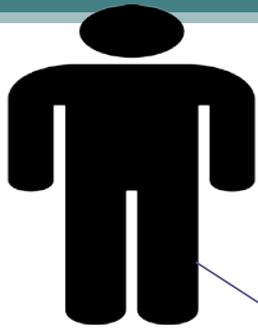


Patient

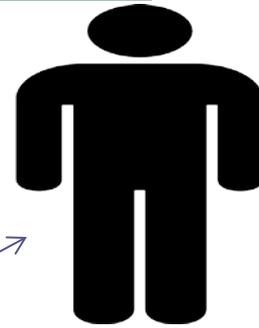


Opinion After WGS and Epi





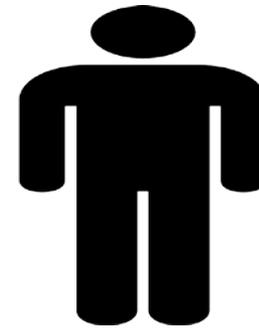
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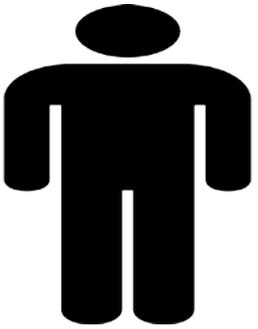
Visitor



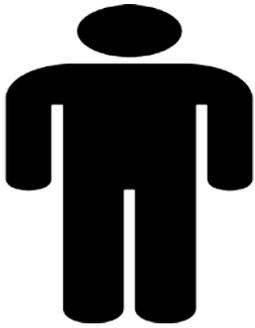
Patient



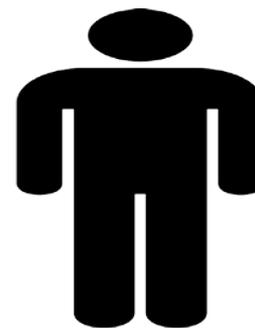
Patient



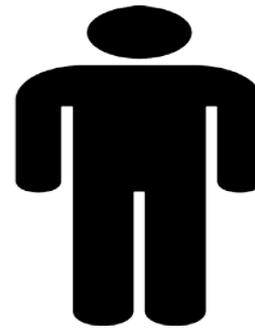
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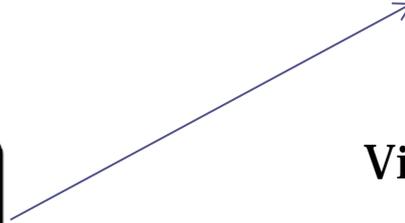
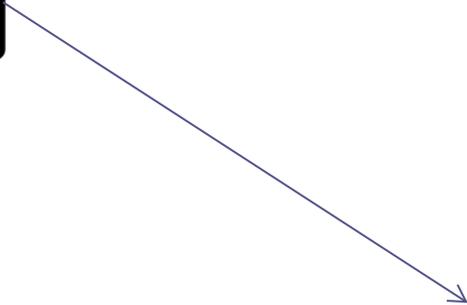
HCW



Patient



Patient



Lessons from the unit

- 1. Food**
- 2. Cigarettes**
- 3. Hand Hygiene**
- 4. Isolation**

Takeaways from Mental Health/Behavioural settings

- 1) Collaborate
- 2) Be creative
- 3) Challenge status Quo

RATE MY PROFESSORS



**Rate My
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from **irishhealth.com**

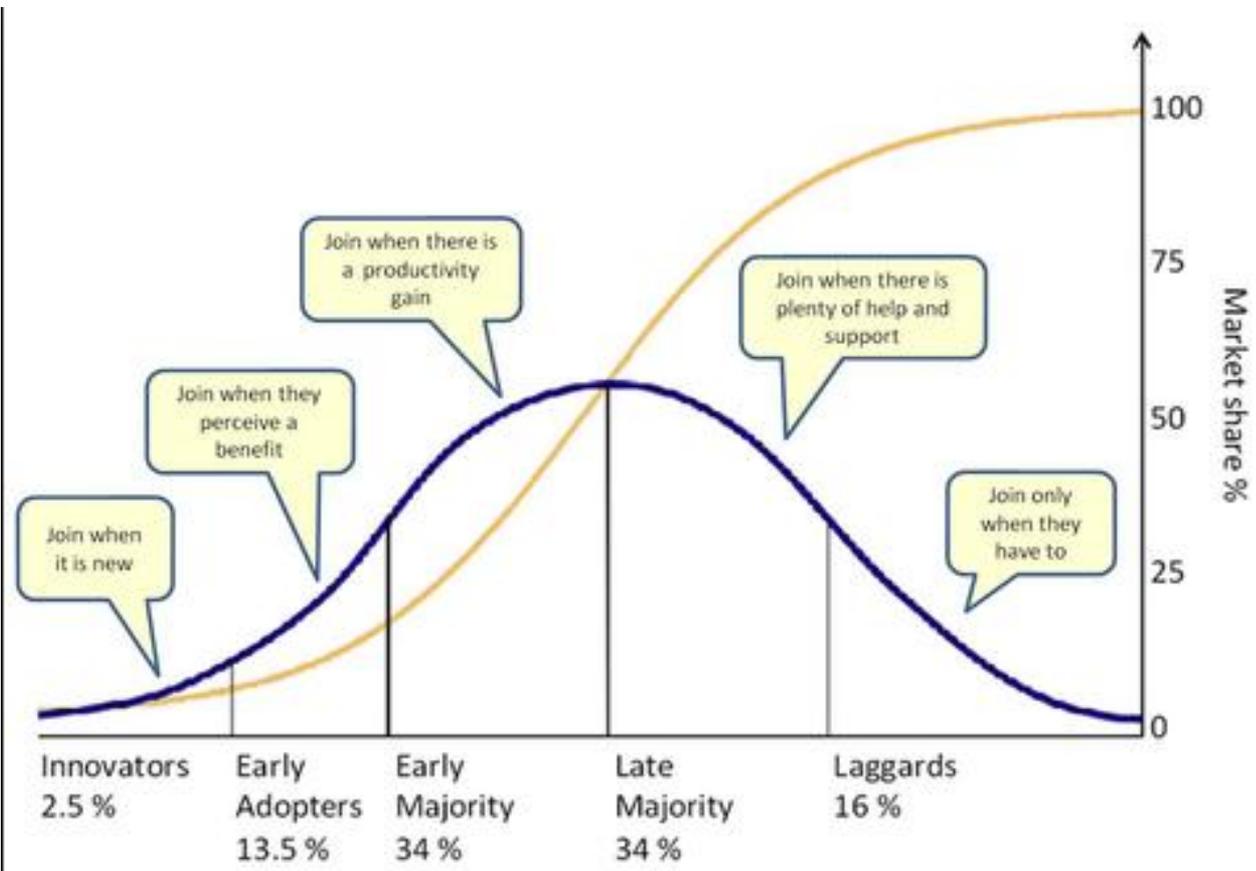


Canadian National Survey Findings

1. Greater cooperation between IPAC and Environmental Services was associated with lower rates of infection
2. Frequent collaboration regarding cleaning protocols was associated with lower infection rates

Working relationships of infection prevention and control programs and environmental services and associations with antibiotic-resistant organisms in Canadian acute care hospitals

[Dick E. Zoutman, MD, FRCPC](#)  [B. Douglas Ford, MA](#), [Keith Sopha, CEM](#)



What can we do

1. Collaborate
2. Think outside the box
3. Involve patients and others
4. Buy-in and get skilled in selling ideas- 16yrs to adopt ideas is too long
5. Guidance documents alone not enough
6. Learn from mistakes and evolve

Summary..

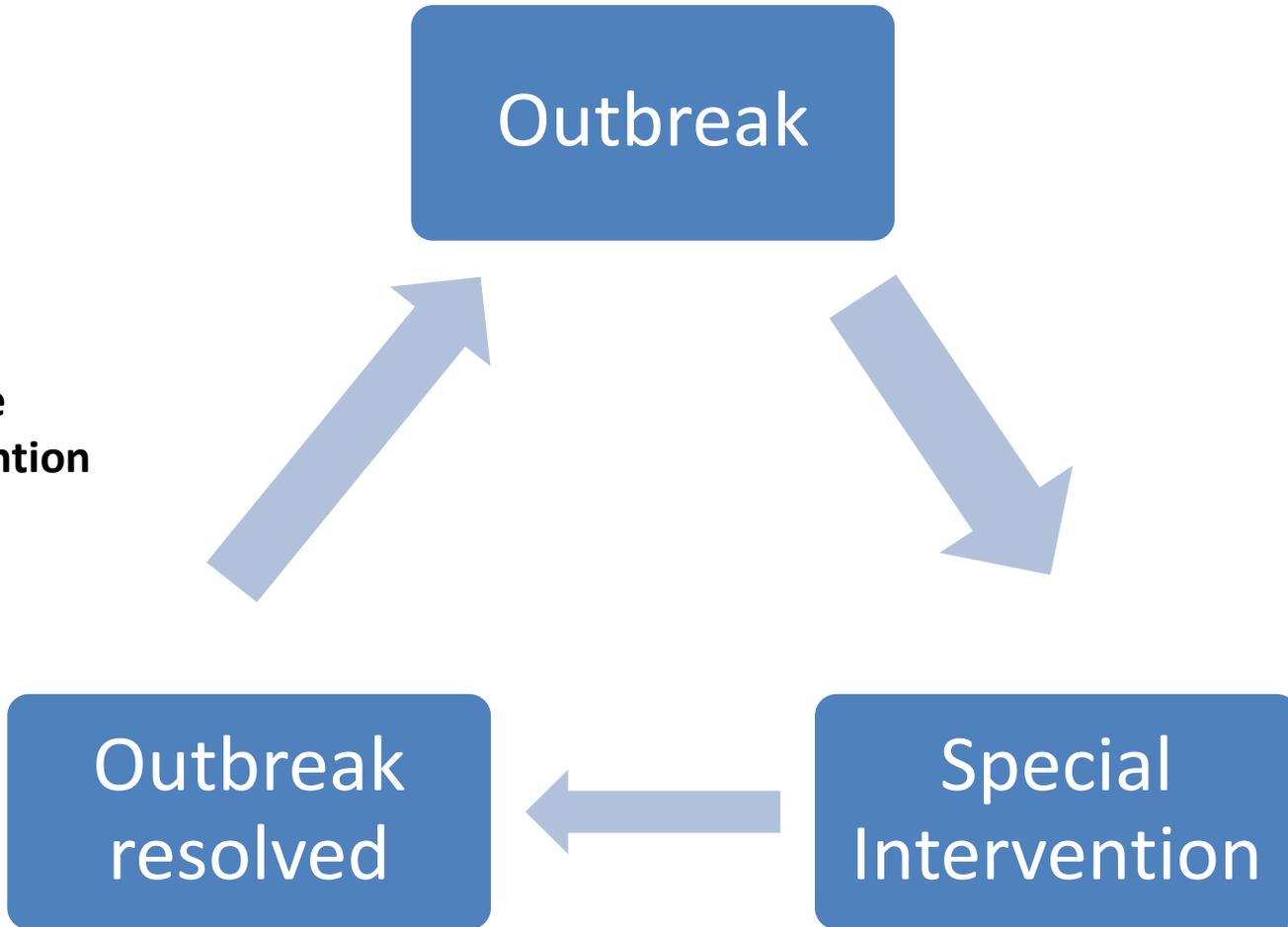
1. Infections continue to climb
2. We need to evolve and its easy to learn from businesses
3. Greater collaboration needed
4. Lets learn from our mistakes
5. Lets Evolve and not stay rigid

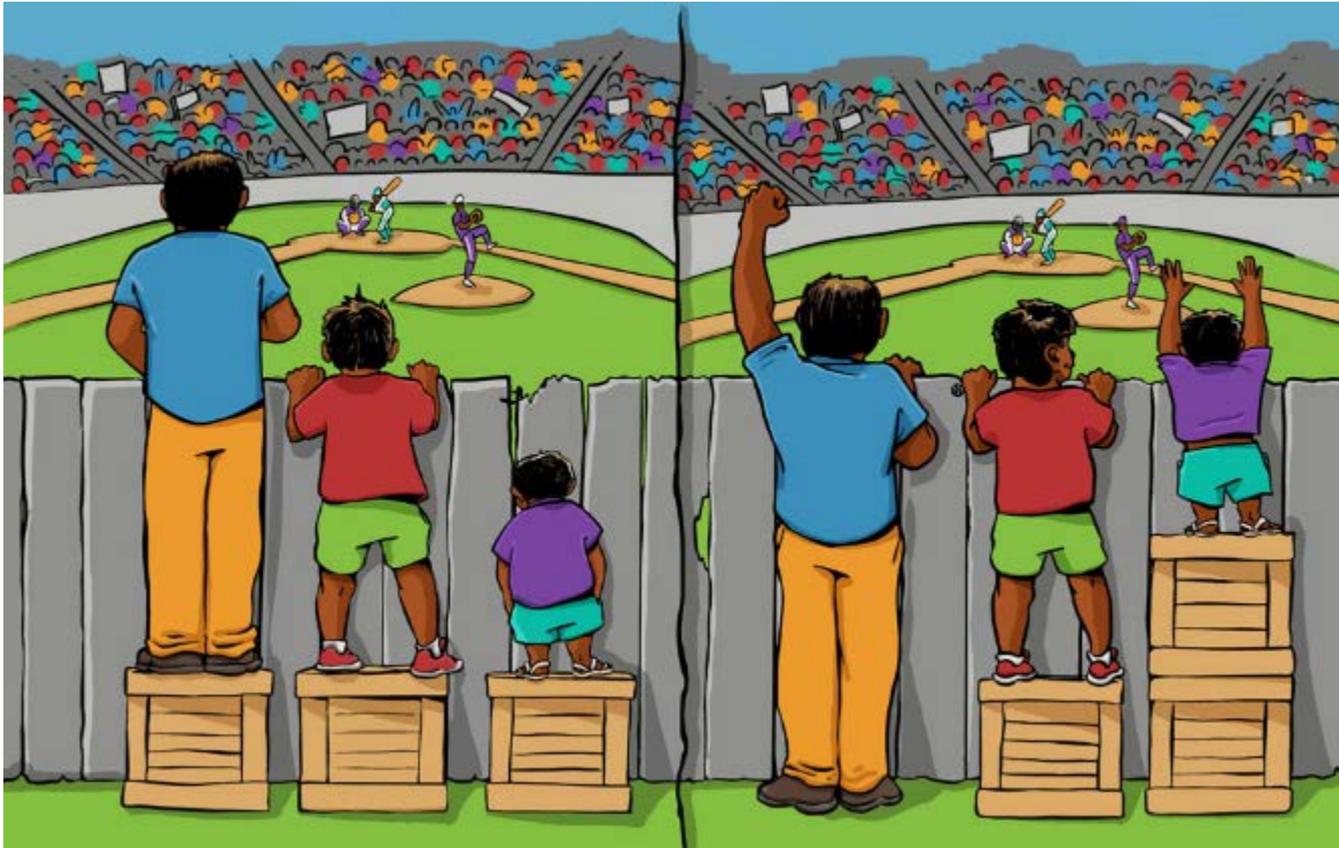
Outbreak

Remove
Intervention

Outbreak
resolved

Special
Intervention





Thank You



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