

Quick Scans/Outbreak Cost Analysis

IFIC/IPAC Canada Conference Highlights

September 2019



Saskatchewan
Health Authority

- A Cheap, Fast, Adaptable, and User-Friendly Way of Motivating Health Care Workers To Improve Basic Infection Control Measures Using Quick Scans and Quality Marks

The Netherlands



Infection Control Measures

- Bare below the elbow
- No jewelry on hands and wrists
- Medical doctor's coat with short sleeves

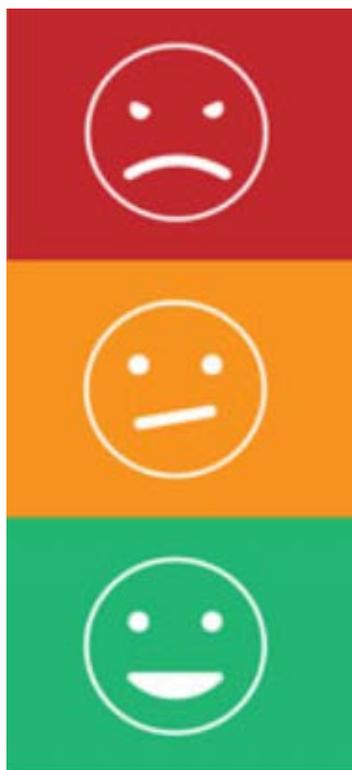




Audits

- Frequency: 1 per month
- 15 employees observed
- Direct feedback

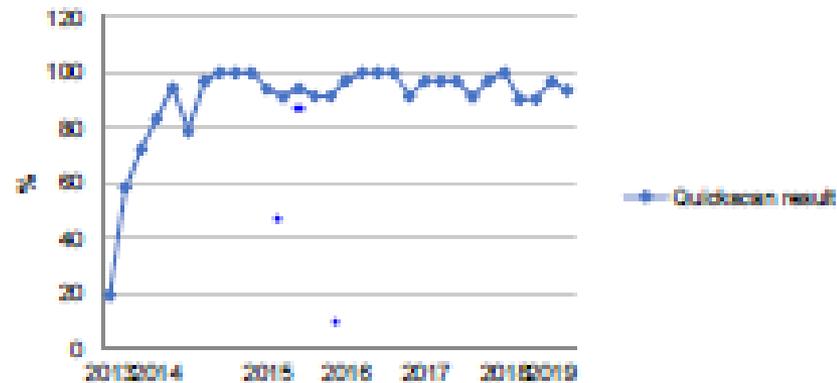
Quick Scan



- Jewelry
- Incorrect wearing of lab coat
- OK

Compliance

Adherence to bare below the elbow



19.4% (7/36) to 90.3% (28/31)
($p=0.0001$).

- **19.4 % to 90.3 %**



Lessons Learned

- Direct feedback works
- Change gives temporary decline in adherence
- Not everything written down is feasible
- Enough supplies
- Strict definitions



Outbreak cost analysis development in an acute care facility

St. Joseph's Health Centre -
Unity Health Toronto



Saskatchewan
Health Authority

Direct Costs

- VRE Point Prevalence
 - Positive Test – Cost per test: \$27.96
 - Negative Test – Cost per test: \$5.40
- Oseltamivir Prophylaxis
 - Patients – Cost per day: \$2.84
 - Staff – Cost per course (10 days/course): \$28.35
- PPE (per isolated patient per day)
 - Contact Precautions: \$15.60
 - Droplet/Contact Precautions: \$29.76

Revenue Loss

- Bed Closures
- Loss of private room accommodation revenue
- Decreased census impact on budget



Productivity Costs

- Outbreak Management Team (OMT)
 - \$1007 per meeting
- CDI: 2 per week
- Influenza: 3 per week

VRE Outbreak Costs

Rectangular Snip

Item	Quantity	Cost	Unit of Measurement	Cost
Additional RN	11	\$ 509.74	12-hour shift	\$ 5,607.11
Additional RPN	13	\$ 330.73	12-hour shift	\$ 4,299.46
Additional HCA	29	\$ 181.40	8-hour shift	\$ 5,260.67
Additional EVS staff	31	\$ 165.74	8-hour shift	\$ 5,138.02
OMT Meeting	2.5	\$ 1,007.00	1-hour meeting	\$ 2,517.50
Point Prevalence – Positive	11	\$ 27.96	Positive result	\$ 307.56
Point Prevalence – Negative	74	\$ 5.40	Negative result	\$ 399.60
Terminal Cleaning	105	\$ 5.00	Extra Cleaning	\$ 525.00
Additional PPE	105	\$ 15.60	Isolation Days	\$ 1,638.00
Private Revenue Loss	28	\$ 310.00	Private Room Isolation Day	\$ 8,680.00
Total Number of Days	18		Outbreak Total Cost	\$ 34,372.92

Influenza A Outbreak Costs

Actual Outbreak Costs – Influenza A

Item	Quantity	Cost	Unit of Measurement	Cost
Additional RN	2	\$ 509.74	12-hour shift	\$ 1,019.48
Additional RPN	5	\$ 330.73	12-hour shift	\$ 1,653.64
Additional HCA	6	\$ 181.40	8-hour shift	\$ 1,088.42
Additional EVS staff	13	\$ 165.74	8-hour shift	\$ 2,154.65
OMT Meeting	3	\$ 1,007.00	1-hour meeting	\$ 3,021.00
Tamiflu - Staff	26	\$ 28.35	Positive result	\$ 737.10
Tamiflu - Patients	147	\$ 2.84	Negative result	\$ 417.48
Terminal Cleaning	42	\$ 5.00	Extra Cleaning	\$ 210.00
Additional PPE	42	\$ 29.76	Isolation Days	\$ 1,249.92
Closed Medicine Beds	67	\$ 450.00		\$ 30,150.00
Total Number of Days	8		Outbreak Total Cost	\$ 41,701.68



Norovirus Outbreak Costs

Actual Outbreak Costs – Norovirus

Item	Quantity	Cost	Unit of Measurement	Cost
Additional RN	19	\$ 509.74	12-hour shift	\$ 9,685.01
Additional RPN	21	\$ 330.73	12-hour shift	\$ 6,945.28
Additional HCA	38	\$ 181.40	8-hour shift	\$ 6,893.30
Additional EVS staff	43	\$ 165.74	8-hour shift	\$ 7,126.93
OMT Meeting	9	\$ 1,007.00	1-hour meeting	\$ 9,063.00
Terminal Cleaning	92	\$ 5.00	Extra Cleaning	\$ 460.00
Additional PPE	92	\$ 29.76	Isolation Days	\$ 2,737.92
Closed Medicine Beds	145	\$ 450.00		\$ 65,250.00
Total Number of Days	20		Outbreak Total Cost	\$108,161.43





What Next?

- Incorporate cost into routine meetings
- Real time information
- Facilitate the conversation towards prevention strategies
- Investment to prevent outbreaks

THANK YOU!



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For more information, visit
saskhealthauthority.ca.



**Saskatchewan
Health Authority**