

# Hand Hygiene compliance among health care providers measured by electronic monitoring system

## Alternate Name\*

Electronic monitoring hand hygiene compliance among health care providers

## INDICATOR DESCRIPTION

---

### Description\*

This indicator measures the percentage of hand hygiene compliance by health care providers using electronic monitoring system.

### HQO Reporting tool/product

Public reporting

### Dimension\*

Effective

Safe

### Type\*

Process

## DEFINITION AND SOURCE INFORMATION

---

### Unit of Measurement\*

Percentage

### Calculation Methods\*

Extract number of hand hygiene events (numerator) divided by hand hygiene opportunities (HHO, denominator) for all units combined throughout the fiscal reporting cycle.

For public reporting purposes, hospitals using the same group electronic monitoring system are to submit total numerator and total denominator at the hospital level for the reporting year (April 1 to March 31).

### Numerator (short description i.e. not inclusions/exclusions)\*

The total hand sanitizer and soap dispenser activations via a wireless signal to a wireless hub. Sensors in alcohol and soap-based hand sanitizer dispensers are installed on the inpatient units in all locations where patient care is provided.

**Denominator (short description i.e. not inclusions/exclusions)\***

Estimated number of HHO per patient hour is based on previously validated benchmark for medical, surgical and critical care units, multiplied by patient census on the unit. This calculation is automated because the software algorithm is linked to the hospital's bed management system. The benchmark is provided by the hospital based on unit characteristics to the vendor of the group electronic monitoring system.

**Adjustment (risk, age/sex standardization)- generalized**

None

**Data Source**

Self-Reporting Initiative (SRI)

**Data provided to HQO by**

Ministry of Health

**Reported Levels of comparability /stratifications (defined)**

Province

Time

Institution

---

**OTHER RELEVANT INFORMATION**

**Caveats and Limitations**

Group electronic monitoring systems cannot distinguish the four moments of hand hygiene, which are captured in traditional direct observation. At the present time, the same group electronic monitoring system is being used across all Ontario hospitals (currently about 12 hospitals in total) that use this technology. If hospitals consider using different systems, the technical specifications should be revisited because there could be differences in the algorithm used to establish the denominator that would prevent direct comparisons. Visitors are not a significant limitation for group electronic monitoring systems because in prior validation studies visitor HHOs made up less than 10% of overall HHOs and they had extremely low compliance. Therefore, although they may contribute to the numerator if they clean their hands, visitor HHOs are not included in the benchmark.

---

**TAGS**

**TAGS\***

Acute Care/Hospital

Process

Patient Safety and Never Events

Effective

Safe

Self-Reporting Initiative (SRI)

## **PUBLISH**

---

### **PUBLISH DATETIME\***

09/05/2022 10:07:00