

# Prevention Process Measures Surveillance Protocol for Long-term Care Facilities

## Background

Healthcare-associated infections (HAIs) can be reduced with adherence to infection prevention measures. The CDC's Healthcare Infection Control Practices Advisory Committee (CDC/HICPAC) *Guidelines for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings*<sup>1</sup> recommends practices known to reduce the risk of HAIs. These practices include hand hygiene, glove use, and gown use. Despite evidence supporting these prevention measures, adherence to these practices is sub-optimal. Several facilities have found it useful to monitor adherence to these prevention practices as a method for identifying quality improvement opportunities and strategically targeting interventions. Feedback of adherence data has been a component of multifaceted interventions that have successfully reduced HAI rates<sup>2</sup>.

Participation in NHSN Prevention Process Measures Surveillance is open to all types of long-term care facilities (LTCF), including Nursing Homes/Skilled Nursing Facilities (LTC:SKILLNURS); Intermediate Care Facilities for Individuals with Intellectual Disabilities (LTC:ICF/IID); Assisted Living Facilities and Residential Care Facilities (LTC:ASSIST); Psychiatric Residential Treatment Facility (LTC:PSYCH); Skilled Nursing Facility for State Veteran's Homes (LTC:SVHSNF); and Assisted Living Facility for State Veteran's Homes (LTC:SVHALF). Participation enables facilities and the CDC to:

- Monitor practices in facilities and provide aggregate adherence data for all participating facilities.
- Facilitate quality improvement by identifying specific gaps in adherence to recommended prevention practices, thereby helping to target intervention strategies for reducing HAI rates.

### References:

1. Healthcare Infection Control Practices Advisory Committee (HICPAC) Guidelines for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Setting. Available at [www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf](http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf).
2. Smith et al. SHEA/APIC Guideline: Infection Prevention and Control in the Long-Term Care Facility. *Infection Control and Hospital Epidemiology*, vol.29, 2008, pp. 785-814.

# 1. Monitoring Adherence to Hand Hygiene

**Introduction:** This surveillance option will allow LTCFs to monitor adherence to hand hygiene (HH) after healthcare personnel (HCP) have a resident or objects/surfaces in the immediate vicinity of a resident (for example, within resident's room or equipment handled during therapy). For the purposes of monitoring, HCP include all staff members providing direct care for residents (for example: physicians, nurses, certified nursing assistants, and therapists), as well as staff members who perform services in resident care areas (for example, environmental services and meal delivery personnel). Research data suggests that improved after-contact HH is associated with reduced HAI transmission. While there are multiple opportunities for proper HH during resident care, the focus of this option is to observe and report HH adherence only after contact with a resident or the objects/surfaces in the immediate vicinity of the resident. ([www.cdc.gov/handhygiene/](http://www.cdc.gov/handhygiene/))

**Settings:** Participation in NHSN Prevention Process Measures Surveillance is open to all types of long term care facilities (LTCF), including Nursing Homes/Skilled Nursing Facilities (LTC:SKILLNURS); Intermediate Care Facilities for Individuals with Intellectual Disabilities (LTC:ICF/IID); Assisted Living Facilities and Residential Care Facilities (LTC:ASSIST); Psychiatric Residential Treatment Facility (LTC:PSYCH); Skilled Nursing Facility for State Veteran's Homes (LTC:SVHSNF); and Assisted Living Facility for State Veteran's Homes (LTC:SVHALF).

**Requirements:** Facilities must indicate their reporting for the calendar month in the *Monthly Reporting Plan for LTCF* ([CDC 57.141](https://www.cdc.gov/nhsn/ltrc/57141)). Surveillance for hand hygiene adherence in the LTCF must be reported for at least 6 consecutive months to provide meaningful measures.

Perform **at least 30** different unannounced observations after contact with residents for as many individual HCPs as possible. For example, try to observe all types of HCPs (physicians, nurses, technicians, aides, etc.) performing a variety of resident care tasks during the month. No personal identifiers will be collected or reported.

Hand hygiene process measure data are reported using the *Prevention Process Measures Monthly Monitoring for LTCF* form ([CDC 57.143](https://www.cdc.gov/nhsn/ltrc/57143)). (See [Table of Instructions](#) for instructions on how to complete this form).

## Definitions:

**Antiseptic hand rub:** Applying an antiseptic hand-rub product to all surfaces of the hands to reduce the number of organisms present.

**Antiseptic hand wash:** Washing hands with water and soap or other detergents containing an antiseptic agent.

**Hand hygiene:** A general term that applies to either: hand washing, antiseptic hand wash, antiseptic hand rub, or surgical hand antisepsis.

**Hand washing:** Washing hands with water and plain (specifically, non-antimicrobial) soap.

**Numerator:** Hand Hygiene Performed = Total number of observed contacts during which an HCP touched either a resident or objects/surfaces in the immediate vicinity of a resident and appropriate hand hygiene was performed.

**Denominator:** Hand Hygiene Indicated = Total number of observed contacts during which an HCP touched either a resident or objects/surfaces in the immediate vicinity of a resident where appropriate hand hygiene was indicated.

**Data Analysis:** Data are stratified by time (for example, month, quarter, etc.).

Hand Hygiene Percent Adherence = Number of contacts for which hand hygiene was performed / Number of contacts for which hand hygiene was indicated X 100.

## II. Monitoring Adherence to Gown and Gloves Use as Part of Contact Precautions

**Introduction:** Transmission-based Contact Precautions are additional infection prevention measures implemented to limit the transmission of pathogens by direct or indirect contact with a resident or a resident's immediate environment. This option will allow facilities to monitor adherence to gown and glove use when an HCP has contact with a resident or objects/surfaces within a resident's room when that resident is on Transmission-based Contact Precautions. While numerous aspects of adherence to Contact Precautions could be monitored, this surveillance option is only focused on gown and glove use.

[Isolation Precautions Guideline](#) | [Infection Control](#) | [CDC](#)

**Settings:** Participation in NHSN Prevention Process Measures Surveillance is open to all types of long term care facilities (LTCF), including Nursing Homes/Skilled Nursing Facilities (LTC:SKILLNURS); Intermediate Care Facilities for Individuals with Intellectual Disabilities(LTC:ICF/IID); Assisted Living Facilities and Residential Care Facilities (LTC:ASSIST); Psychiatric Residential Treatment Facility (LTC:PSYCH); Skilled Nursing Facility for State Veteran's Homes (LTC:SVHSNF); and Assisted Living Facility for State Veteran's Homes (LTC:SVHALF).

**Requirements:** Facilities must indicate their reporting for the calendar month in the *Monthly Reporting Plan for LTCF* ([CDC 57.141](#)). Surveillance for gown and glove use adherence in the LTCF must be reported for at least 6 consecutive months to provide meaningful measures.

Perform **at least 30** different unannounced observations for as many individual HCP as possible. An observable contact would be the entry of an HCP into a room to interact with a resident on Transmission-based Contact Precautions. Try to observe all types of HCPs (physicians, nurses, therapists, aides, etc.) performing a variety of resident care tasks during the month (for example, not only nurse observations, or not only during catheter or wound care). Both gown and gloves must be donned prior to contact for compliance. No personal identifiers will be collected or reported.

Gown and glove use process measure data are reported using the *Prevention Process Measures Monthly Monitoring for LTCF* form ([CDC 57.143](#)). (See [Table of Instructions](#) for instructions on how to complete this form).

## Definitions:

**Gown and glove use:** In the context of Transmission-based Contact Precautions, the donning of both gown and gloves prior to contact with a resident or objects/surfaces within the resident's room. Both gown and gloves must be donned prior to contact for compliance.

**Numerator:** Gown and Gloves Used = Total number of observed contacts between an HCP and a resident or objects/surfaces within a resident's room, when that resident is on Transmission-based Contact Precautions, for which gown and gloves were donned prior to contact.

**Denominator:** Gown and Gloves Indicated = Total number of observed contacts between an HCP and a resident or objects/surfaces within a resident's room on Transmission-based Contact Precautions, for which gown and gloves were indicated.

**Data Analysis:** Data are stratified by time (for example, month, quarter, etc.).

Prevention Process Measure data submitted to NHSN can be analyzed. After a user generates analysis datasets in the application, all data entered for the facility up until that time are made available within the analysis reports. These data can be visualized and analyzed in various ways. For example, the LTCF Dashboard, located on the NHSN Home Page, allows users to quickly visualize data found in the rate tables and line listings in the form of interactive bar charts and line graphs.

Gown and Glove Use Percent Adherence = Number of contacts for which gown and gloves were used / Number of contacts for which gown and gloves were indicated X 100.

Facilities may choose to monitor urinary tract infections (UTIs) using healthcare-associated infection (HAI) surveillance. This surveillance method incorporates the use of laboratory data and clinical evaluation of the resident for signs and/or symptoms to monitor for catheter and non-catheter-associated urinary tract infection events. NHSN data collection forms should be used to collect all required data, using the definitions of each data field as indicated in the accompanying Table of Instructions.