Background

Hospitals submit healthcare associated infection (HAI) data to the department using CDC's National Healthcare Safety Network (NHSN) protocols. Central line associated bloodstream infection (CLABSI) data is reported by NHSN defined location designations (right column below). The department combines the reported data from similar NHSN unit designations into 13 distinct inpatient location categories, excluding intensive care units (ICU) (blue bars, left column below). These categories combine NHSN units which provide similar types of care to similar types of patients, and have similar risk of CLABSI based on published U.S. CLABSI rates. NHSN locations are also combined to provide a more robust statistical assessment of Washington State hospitals.

Hospital reported inpatient unit locations in NHSN are determined by hospital type (black bars, right column), acuity level (grey bars, right column), and unit services. Choosing an acuity level requires patient care areas be comprised of at least 80% of patients at the same acuity level. Acuity levels include critical care (ICUs), specialty care areas (such as oncology), adult wards, pediatric wards, neonatal wards, step down units, and mixed acuity units. Services for a location are either specific or general. Specific service types require at least 80% of patients receiving the same service (i.e. rehabilitation or neurosurgical care). General services wards must have a patient mix of at least 60% medical or surgical, or 50% of each (for medical/surgical).

NHSN location mapping instructions require a high percentage of patients in a calendar year meet the selected location acuity level and service description. However, sometimes individual patients not meeting the unit description can be included in surveillance for that unit. For example a post-surgical patient receiving care on a medical ward, or a women's health ward taking "overflow" patients from a general ward during cold-and-flu season. Changes to patient mix (e.g. merging of units, taking on a new service) may require hospitals to reassess and reclassify the location acuity and service type, which may occur mid-year.

Washington State is using a similar unit categorization strategy to that used by the California Department of Public Health.⁴ Categorization options for non-ICU CLABSI reporting were discussed with the state <u>HAI Advisory Committee</u>.

http://www.cdph.ca.gov/programs/hai/Pages/CentralLineAssociatedBloodstreamInfections-CLABSI-Reports.aspx

¹ NHSN location mapping instructions: http://www.cdc.gov/nhsn/PDFs/psc/MappingPatientCareLocations.pdf

² NHSN location descriptions: http://www.cdc.gov/nhsn/PDFs/pscManual/15LocationsDescriptions current.pdf

³ See CDC/NHSN Device-Associated Module Reports: http://www.cdc.gov/nhsn/datastat/index.html

⁴ See CDPH CLABSI Reports Technical Notes:

The following table describes the Washington State Department of Health Healthcare Associated Infection Program's hospital inpatient unit categorizations, which is used for comparing central line-associated bloodstream infection (CLABSI) rates between hospitals.

Washington State non-ICU Categories

NHSN Location Designations

Adult Categories

Medical Wards	Acute Care Hospitals
Hospital areas for the evaluation,	Adult General Wards
stabilization and treatment of patients with	Medical*
medical (non-surgical) conditions or	Adult Specific Wards
disorders, such as patients who have non- critical burns, experienced an acute stroke,	Burn
have neurological or respiratory system	Neurology
disorders, or require continuous cardiac monitoring.	Pulmonary
	Stroke (Acute)
	Telemetry

Surgical Wards	Acute Care Hospitals
Hospital areas for evaluation and treatment	Adult General Wards
of patients who have undergone a surgical	Surgical*
procedure. This can include units	Adult Specific Wards
specializing in care of patients who are primarily admitted for neurosurgery or be	Neurosurgical
cared for by a neurosurgeon after head or	Orthopedic
spinal trauma, or surgery on bones, joints, and associated structures by an orthopedist.	Vascular Surgery

Medical / Surgical Wards	Acute Care Hospitals
Hospital area for the evaluation and treatment of patients with medical and/or surgical conditions. To be considered a medical/surgical ward, approximately half of patients should be medical and half surgical. For more details about medical or surgical descriptions, see above categories.	Adult General Wards Medical / Surgical*

Washington State non-ICU Categories

NHSN Location Designations

Adult Categories (continued) Adult Post Critical Cara (Stan Down) Units

Adult Post Critical Care (Step Down) Units	Acute Care Hospitals
Hospital area for adult patients who are	Step Down Units
hemodynamically stable and can benefit	Adult Step Dov
from close supervision and monitoring.	
Many of these patients typically receive	
care in ICUs to stabilize them, and then	
move to step down units for monitoring.	
They may require a higher level of care	
than patients in general ward locations.	

Down Units Adult Step Down

Mixed Acuity Units

Hospital areas for the evaluation and treatment of patients with varying levels of acuity (e.g., critical care, ward-level care, step down type care, etc.). Such a unit may provide a variety of hospital services (e.g., coronary, medical, surgical, etc.). This unit type may or may not include "acuity adaptable", "swing" or "universal" beds (i.e., this model of patient care allows a patient to stay in the same bed during all phases of care, from critical care through lower levels of care).

Acute Care Hospitals

Mixed Acuity

All Adult Mixed Acuity Mixed Age Mixed Acuity

Washington State non-ICU Categories

Dahabilitation Words

NHSN Location Designations

Adult Categories (continued)

Renadilitation wards	F
Hospital areas for evaluation, treatment,	I
and restoration of function to patients who	
have lost function due to acute or chronic	F
pain, musculoskeletal problems, stroke,	
brain or spinal cord dysfunction, or	
catastrophic events resulting in complete or	
partial paralysis.	

Acute Care Hospitals Adult Specific Wards Rehabilitation

Inpatient Rehabilitation Facilities 5

Rehabilitation Ward

Long Term Care Wards Long Term Acute Care Hospitals ⁶ Hospital area for the evaluation and Long Term Acute Care Ward treatment of patients who require an extended stay in an acute care environment for nursing, rehabilitative or custodial services. Long term acute care hospitals receive patients from other hospitals, suffering medically complex conditions or who have suffered recent catastrophic illness or injury. These patients need an acute level of care below critical care but above skilled nursing levels, which is anticipated to last more than 25 days.

⁵ There is only one inpatient rehabilitation facility (IRF) in the state, which has an acute care hospital license. All of this facility's patients with central lines are included in this non-ICU category, compared to other acute care hospitals' smaller volume rehabilitation units within their facilities.

⁶ Long term acute care hospitals report all of their non-ICU level patients for their whole facility in this category.

Washington State non-ICU Categories

NHSN Location Designations

Mixed Age Categories

Perinatal / Women's Health Units	Acute Care Hospitals
Hospital areas for observation, evaluation,	Adult Specific Wards
treatment or surgery of low- and high-risk	Antenatal Care
pregnancy patients and female patients with reproductive tract disorders. This category	Gynecology
also includes suites used for labor, delivery,	Labor & Delivery
recovery from childbirth (including post- partum care) and postnatal care of healthy	Labor, Delivery, Recovery, Postpartum
newborns. Well baby nurseries may	Postpartum
include neonatal resuscitation and	Infant/Neonatal Units
stabilization of ill newborns until transfer to a facility at which specialty neonatal care is provided.	Well Baby Nursery (Level I)

Behavioral / Psychological Wards	Acute Care Hospitals
Hospital area for the evaluation and	Adult Specific Wards
treatment of patients with acute psychiatric	Behavioral Health / Psych
or behavioral disorders. This may include	Pediatric Wards
those units identified as chemical dependency units.	Behavioral Health / Psych

Oncology Units ⁷	Acute Care Hospitals
Hospital areas for the evaluation, treatment	Specialty Care Areas
and care of patients with cancer or who undergo stem cell transplant for the treatment of cancers and/or blood or	General Hematology/Oncology Hematopoietic Stem Cell Transplant
immune system disorders.	Pediatric General Oncology

⁷ Oncology units (both non-ICU and ICU level) may have patients with central-line infections reported as "mucosal barrier injury" (MBI) infections. These infections are excluded from Washington State reports per <u>HICPAC</u> recommendations. MBI infections may also occur outside oncology units among immunocompromised patients.

Washington State non-ICU Categories

NHSN Location Designations

Mixed Age Categories (continued)

Critical Access Hospitals Inpatient Areas

Critical Access Hospitals are small rural hospitals with fewer than 25 acute care beds. These hospitals may provide their communities with many health services in addition to acute inpatient care, (such as primary care, long-term care, physical therapy and emergent care), which are not included in CLABSI inpatient surveillance.

Patients who are critically ill are often transferred to higher acuity regional hospitals after stabilization.

Many critical access hospitals include flexible "swing" beds. ⁹ "Swing" beds may be classified in NHSN as areas where a patient may stay in the same bed during all phases of care, or as chronic care areas where patients have long-term recovery needs.

All reported critical access hospital units are combined and compared against other critical access hospitals for consistency. Because the total number of line-days in these hospitals tends to be low, even one infection can produce a seemingly high rate.

Critical Access Hospitals 8 Adult General Wards

Medical

Medical / Surgical

Adult Specific Wards

Labor, Delivery, Recovery, Postpartum Rehabilitation

Mixed Acuity

All Adult Mixed Acuity

Infant/Neonatal Units

Well Baby Nursery (Level I)

⁸ For NHSN Device-Associated Model reports, CDC separates critical access hospital data and combines all units not identified as critical care (e.g. inpatient wards, step-down units) within critical access hospitals. See 2013: http://www.sciencedirect.com/science/article/pii/S0196655314013546

⁹ NHSN issued clarification in Spring 2015 on how to categorize "swing" locations. See 2015 location FAQs: http://www.cdc.gov/nhsn/PDFs/faqs/psc/FAQs Locations.pdf

Washington State non-ICU Categories

NHSN Location Designations

Pediatric and Infant Categories

Pediatric Wards	Acute Care Hospitals
Hospital area for the evaluation,	Pediatric General Wards
stabilization, and treatment of patients ≤18	Medical*
years of old with medical conditions or disorders and/or those who have undergone	Medical / Surgical*
surgical procedures. In addition to routine	Pediatric Specific Wards
medical/surgical care, this category includes units specializing in care for	Orthopedic
pediatric orthopedic injuries or disorders	Rehabilitation
and rehabilitation due to acute or chronic pain, musculoskeletal problems, stroke, or	Mixed Acuity
catastrophic events resulting in complete or partial paralysis. This category excludes pediatric behavioral and pediatric oncology units (classified under Behavioral and Oncology units, respectively).	Pediatric Mixed Acuity

Neonatal Post Critical Care (Step Down) Units	Acute Care Hospitals Infant/Neonatal Units
Hospital area for evaluation and postnatal care of immature or moderately ill newborns and stabilization of very immature neonates until transfer to a neonatal intensive care unit (NICU).	Neonatal Nursery Step Down (Level II)

^{*}For purposes of comparison with Washington State HAI reporting, these unit types report CLABSI data from hospitals participating in Centers for Medicare and Medicaid Services (CMS) Inpatient Prospective Payment System (IPPS), Inpatient Quality Reporting (IQR) program (beginning January 2015).

