Encyclopedia of Measures

New Jersey Hospital Improvement Innovation Network

Health Research and Educational Trust of New Jersey

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Adverse Drug Events (ADE)

Adverse Drug Events by Category

Rate of adverse drug events originating during the hospital stay per 10,000 discharges by ADE cause

Measure type	Outcome
Numerator definition	Number of adverse drug events (selected ICD-10-CM codes)
Denominator definition	Total inpatient discharges
Numerator and denominator exclusions	• POA indicator value: Y/W (present on admission)
Definition of terms	• Rates measured separately for each of the three highest risk drugs measured: Opiates and Narcotics; Anticoagulants; and Glycemic Control Diagnosis codes (ICD-10-CM) include for the following: Opiates and Narcotics : F11, T40.0, T40.1, T40.2, T40.3, T40.4, T40.6 Anticoagulation- T45.5, T45.6, T45.7, T45.8, T45.9, D68.32, Y44.2 Glycemic Control : T38.3, E15, E16.0 Note: All ICD-10-CM codes beginning with these characters shall be included. For example, T45.9 would include T45.91XA.
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 10,000$
Data source	New Jersey Hospital Discharge Data Collection System (NJDDCS), inpatient only (administrative)
Baseline period	Q1 2016 – Q3 2016
Reporting period	Monthly
Goal	20% reduction by 2019

Catheter-Associated Urinary Tract Infections (CAUTI)

CAUTI SIR

CAUTI Standardized Infection Ratio (SIR)

Measure type	Outcome
Numerator definition	Number of observed CAUTI infections
Denominator definition	Number of predicted CAUTI infections (critical care units)
Numerator and denominator exclusions	Present on admission
Definition of terms	The number of predicted infections is calculated using probabilities from negative binomial models constructed from 2015 National Healthcare Safety Network (NHSN) data, which represents a standard population. The SIR is calculated only if the number of predicted infections is ≥ 1.
Rate calculation	$\left(\dfrac{Observed}{Predicted}\right) x\ 1$
Specifications/guidelines	NHSN Reporting Module for CAUTI See also FAQs including explanation for missing data when denominator is less than 1.0
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

CAUTI Rate

Rate of catheter-associated urinary tract infections per 1,000 urinary catheter days

Measure type	Outcome
Numerator definition	Number of CAUTI infections
Denominator definition	Number of urinary catheter days (critical care units)
Numerator and denominator exclusions	Present on admission
Definition of terms	CAUTI: A UTI (defined using Symptomatic Urinary Tract Infection, Asymptomatic Bacteremic UTI or Urinary System Infection criteria) where an indwelling urinary catheter was in place for > 2 calendar days on the date of event, with day of device placement being Day 1 and an indwelling urinary catheter was in place on the date of event or the day before. If an indwelling urinary catheter was in place for > 2 calendar days and then removed, the date of event for the UTI must be the day of discontinuation or the next day for the UTI to be catheter-associated.
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/guidelines	NHSN Reporting Module for CAUTI
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

Urinary Catheter Utilization Ratio

Rate of urinary catheter use per 1,000 patient days

Measure type	Process
Numerator definition	Number of urinary catheter days
Denominator definition	Number of patient days (critical care units)
Definition of terms	Indwelling catheter: A drainage tube that is inserted into the urinary bladder through the urethra, is left in place, and is connected to a drainage bag (including leg bags). These devices are also called Foley catheters. Condom or straight in-and-out catheters are not included nor are nephrostomy tubes, ileoconduits, or suprapubic catheters unless a Foley catheter is also present. Indwelling urethral catheters that are used for intermittent or continuous irrigation are included in CAUTI surveillance.
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x \ 1{,}000$
Specifications/guidelines	NHSN Reporting Module for CAUTI
Data source	NHSN (with conferred rights)
Baseline period	2014
Reporting period	Monthly
Goal	20% reduction by 2019

Central Line-Association Bloodstream Infections (CLABSI)

CLABSI SIR

CLABSI Standardized Infection Ratio

Measure type	Outcome
Numerator definition	Number of observed CLABSI infections
Denominator definition	Number of predicted CLABSI infections (critical care units)
Numerator and denominator exclusions	Present on admission
Definition of terms	The number of predicted infections is calculated using probabilities from negative binomial models constructed from 2015 NHSN data, which represents a standard population. The SIR is calculated only if the number of predicted infections is ≥ 1.
Rate calculation	$\left(\dfrac{Observed}{Predicted}\right) x\ 1$
Specifications/guidelines	NHSN Reporting Module for CLABSI See also FAQs including explanation for missing data when denominator is less than 1.0
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

CLABSI Rate

Rate of central line-associated blood stream infections per 1,000 central line days

Measure type	Outcome
Numerator definition	Number of CLABSI infections
Denominator definition	Number of central line days (critical care units)
Definition of terms	Primary BSI: Laboratory-confirmed bloodstream infections that are not secondary to an infection at another body site
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 1,000$
Specifications/guidelines	[NHSN Reporting Module for CLABSI](#)
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

Central Line Utilization Ratio

Rate of central line use per 1,000 patient days

Measure type	Process
Numerator definition	Number of central line days
Denominator definition	Number of patient days (critical care units)
Definition of terms	Central line: An intravascular catheter that terminates at or close to the heart or in one of the great vessels which is used for infusion, withdrawal of blood, or hemodynamic monitoring
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/guidelines	NHSN Reporting Module for CLABSI
Data source	NHSN (with conferred rights)
Baseline period	2014
Reporting period	Monthly
Goal	20% reduction by 2019

Clostridium Difficile Infections (CDI)

CDI SIR

CDI Standardized Infection Ratio

Measure type	Outcome
Numerator definition	Number of observed CDI infections
Denominator definition	Number of predicted CDI infections
Numerator and denominator exclusions	Surveillance will <u>not</u> be performed in Neonatal Intensive Care Units (NICU), Specialty Care Nurseries (SCN), babies in LDRP, or well-baby nurseries
Definition of terms	The number of predicted infections is calculated using probabilities from negative binomial models constructed from 2015 NHSN data, which represents a standard population. The SIR is calculated only if the number of predicted infections is ≥ 1.
Rate calculation	$\left(\dfrac{Observed}{Predicted}\right) x\ 1$
Specifications/guidelines	NHSN Reporting Module for CDI See also FAQs including explanation for missing data when denominator is less than 1.0
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

CDI Rate

Rate of C. difficile *infections (laboratory-identified events) per 1,000 patient days*

Measure type	Outcome
Numerator definition	Number of healthcare facility onset *C. difficile* infections (LabID Events)
Denominator definition	Number of patient days
Definition of terms	• CDI-positive laboratory assay: A positive laboratory test result for *C. difficile* toxin A and/or B, (includes molecular assays [PCR] and/or toxin assays) tested on an unformed stool specimen (must conform to the container) **or** a toxin-producing *C. difficile* organism detected by culture or other laboratory means performed on an unformed stool sample (must conform to the container). • Healthcare Facility-Onset (HO): LabID Event collected > 3 days after admission to the facility (i.e., on or after day 4).
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x \ 1,000$
Specifications/guidelines	NHSN Reporting Module for CDI
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

Multi-Drug Resistant Organisms (MDRO)

Methicillin-resistant *Staphylococcus aureus* (MRSA) SIR

MRSA Standardized Infection Ratio

Measure type	Outcome
Numerator definition	Number of observed MRSA infections
Denominator definition	Number of predicted MRSA infections
Definition of terms	The number of predicted infections is calculated using probabilities from negative binomial models constructed from 2015 NHSN data, which represents a standard population. The SIR is calculated only if the number of predicted infections is ≥ 1.
Rate calculation	$\left(\dfrac{Observed}{Predicted}\right) x\ 1$
Specifications/guidelines	NHSN Reporting Module for MDRO See also FAQs including explanation for missing data when denominator is less than 1.0
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

MRSA Rate

Rate of Methicillin-resistant Staphylococcus aureus *infections (LabID Events) per 1,000 patient days*

Measure type	Outcome
Numerator definition	Number of healthcare facility onset MRSA infections
Denominator definition	Number of patient days
Numerator and denominator exclusions	Tests related to active surveillance testing
Definition of terms	• Healthcare Facility-Onset (HO): LabID Event collected > 3 days after admission to the facility (i.e., on or after day 4).
Rate calculation	$\left(\dfrac{Numerator}{Denominator} \right) x \, 1,000$
Specifications/guidelines	NHSN Reporting Module for MDRO
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

Sepsis and Septic Shock

Sepsis Mortality

Percent of patients with severe sepsis who expire during their hospital stay

Measure type	Outcome
Numerator definition	Number of patients with a severe sepsis and/or septic shock diagnosis, paired with a septicemia code, whose discharge status is "Expired"
Denominator definition	Number of patients with a severe sepsis and/or septic shock diagnosis, paired with a septicemia code
Definition of terms	• Diagnosis codes (ICD-10-CM) must include R6520 and/or R6521, **and** at least one of the following: A400, A401, A403, A408, A409, A4101, A4102, A411, A412, A413, A414, A4150, A4151, A4152, A4153, A4159, A4181, A4189, A419, A427 • "Expired" patient discharge status code is 20
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 100$
Data source	NJDDCS, inpatient only (administrative)
Baseline period	Q1 2016 – Q3 2016
Reporting period	Monthly
Goal	20% reduction by 2019

Sepsis Readmissions

Percent of severe sepsis and septic shock related readmissions within 30 days of discharge

Measure type	Outcome
Numerator definition	Number of patients who were discharged with a severe sepsis and/or septic shock diagnosis, paired with at least one septicemia code, and were then readmitted with a severe sepsis and/or septic shock diagnosis, paired with at least one septicemia code, within 30 days of index discharge
Denominator definition	Number of patients who were discharged with a severe sepsis and/or septic shock diagnosis, paired with at least one septicemia code
Numerator and denominator exclusions	• Patient Discharge Status 02 (Transferred to other short-term general hospital for inpatient care) • Patient Discharge Status 07 (Left against medical advice or discontinued care) • Patient Discharge Status 20 (Expired) • Patients who are discharged alive (not 20) on the same day that they are admitted
Definition of terms	Diagnosis codes (ICD-10-CM) must include R6520 and/or R6521, **and** at least one of the following: A400, A401, A403, A408, A409, A4101, A4102, A411, A412, A413, A414, A4150, A4151, A4152, A4153, A4159, A4181, A4189, A419, A427
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 100$
Data source	NJDDCS, inpatient only (administrative)
Baseline period	Q1 2016 – Q3 2016
Reporting period	Monthly
Goal	20% reduction by 2019

Surgical Site Infections (SSI)

SSI SIRs

SSI Standardized Infection Ratio for COLO, HYST, KPRO

Measure type	Outcome
Numerator definition	Number of observed SSI infections
Denominator definition	Number of predicted SSI infections

Definition of terms	• The number of predicted infections is calculated using SSI probabilities estimated from multivariate logistic regression models constructed from NHSN data during a baseline time period, which represents a standard population's SSI experience
	• The SIR should be calculated only if the number of predicted infections is ≥ 1
	• Complex A/R SSI model, including only:
	    o Deep incisional primary SSIs and organ/space SSIs
	    o SSIs identified on admission/readmission to facility where procedure was performed
	    o Inpatient procedures
	    o Procedures/SSI occurring in adults

Rate calculation	$\left(\dfrac{Observed}{Predicted}\right) x\ 1$
Specifications/guidelines	NHSN Reporting Module for SSI See also FAQs including explanation for missing data when denominator is less than 1.0
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

SSI Rates

Rate of surgical site infections per 100 operative procedures (COLO, HYST, KPRO)

Measure type	Outcome
Numerator definition	Number of SSI infections
Denominator definition	Number of operative procedures
Definition of terms	Rates measured separately for selected operative procedures: Colorectal Surgery (COLO), Abdominal Hysterectomy (HYST), Total Knee Replacement Surgery (KPRO)
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 100$
Specifications/guidelines	NHSN Reporting Module for SSI
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

Ventilator-Associated Events (VAE)

IVAC Plus SIR

Infection-related ventilator-associated complications (IVAC) plus Standardized Infection Ratio

Measure type	Outcome
Numerator definition	Number of observed events meeting at least the IVAC definition
Denominator definition	Number of predicted events
Definition of terms	The number of predicted infections is calculated using probabilities from negative binomial models constructed from 2015 NHSN data, which represents a standard population. The SIR should be calculated only if the number of predicted VAEs is ≥ 1.
Rate calculation	$\left(\dfrac{Observed}{Predicted}\right) x\ 1$
Specifications/guidelines	NHSN Reporting Module for VAE
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

VAC Rate

Rate of ventilator-associated condition (VAC) events per 1,000 ventilator days

Measure type	Outcome
Numerator definition	Number of VAC events
Denominator definition	Number of ventilator days
Numerator and denominator exclusions	• Patients on high frequency ventilation or extracorporeal life support • Pediatric and neonatal units
Definition of terms	VAC: After a period of stability or improvement on the ventilator, the patient has at least one of the following indicators of worsening oxygenation: 1) Increase in daily minimum FiO_2 of ≥ 0.20 (20 points) over the daily minimum FiO_2 in the baseline period, sustained for ≥ 2 calendar days 2) Increase in daily minimum PEEP values of ≥ 3 cmH_2O over the daily minimum PEEP in the baseline period, sustained for ≥ 2 calendar days (Daily minimum defined by lowest value of FiO_2 or PEEP during a calendar day that is maintained for at least 1 hour; daily minimum PEEP values of 0-5 cmH_2O are considered equivalent for the purposes of VAE surveillance)
Rate calculation	$\left(\dfrac{Numerator}{Denominator} \right) x\ 1{,}000$
Specifications/guidelines	NHSN Reporting Module for VAE
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

IVAC Rate

Rate of infection-related ventilator-associated complications (IVAC) per 1,000 ventilator days

Measure type	Outcome
Numerator definition	Number of IVAC events
Denominator definition	Number of ventilator days
Numerator and denominator exclusions	• Patients on high frequency ventilation or extracorporeal life support • Pediatric and neonatal units
Definition of terms	IVAC: VAE meets VAC criteria plus on or after calendar day 3 of mechanical ventilation and within 2 calendar days before or after the onset of worsening oxygenation, the patient meets both of the following criteria: 1) Temperature > 38 °C or < 36°C, OR white blood cell count ≥ 12,000 cells/mm^3 or ≤ 4,000 cells/mm^3 **and** 2) A new antimicrobial agent(s) (see Appendix for eligible antimicrobial agents) is started, and is continued for ≥ 4 calendar days
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/guidelines	NHSN Reporting Module for VAE
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

PVAP Rate

Rate of possible ventilator-associated pneumonia (PVAP) infections per 1,000 ventilator days

Measure type	Outcome
Numerator definition	Number of PVAP infections
Denominator definition	Number of ventilator days
Numerator and denominator exclusions	• Patients on high frequency ventilation or extracorporeal life support • Pediatric and neonatal units • Some organisms and culture results

Definition of terms	PVAP: VAE meets IVAC criteria plus on or after calendar day 3 of mechanical ventilation and within 2 calendar days before or after the onset of worsening oxygenation, **one** of the following criteria is met (taking into account organism exclusions specified in the protocol):
	1) Criterion 1: Positive culture of one of the following specimens, meeting quantitative or semi-quantitative thresholds as outlined in protocol, without requirement for purulent respiratory secretions:
	   o Endotracheal aspirate, ≥ 105 CFU/ml or corresponding semi-quantitative result
	   o Bronchoalveolar lavage, ≥ 104 CFU/ml or corresponding semi-quantitative result
	   o Lung tissue, ≥ 104 CFU/g or corresponding semi-quantitative result
	   o Protected specimen brush, ≥ 103 CFU/ml or corresponding semi-quantitative result
	2) Criterion 2: Purulent respiratory secretions (defined as secretions from the lungs, bronchi, or trachea that contain >25 neutrophils and <10 squamous epithelial cells per low power field [lpf, x100]) plus organism identified from one of the following specimens (to include qualitative culture, or quantitative/semi-quantitative culture without sufficient growth to meet criterion #1): sputum; endotracheal aspirate; bronchoalveolar lavage; lung tissue; protected specimen brush
	3) Criterion 3: One of the following positive tests:
	   o Organism identified from pleural fluid (where specimen was obtained during thoracentesis or initial placement of chest tube and not from an indwelling chest tube)
	   o Lung histopathology, defined as: 1) abscess formation or foci of consolidation with intense neutrophil accumulation in bronchioles and alveoli; 2) evidence of lung parenchyma invasion by fungi (hyphae, pseudohyphae or yeast forms); 3) evidence of infection with the viral pathogens listed below based on results of immunohistochemical assays, cytology, or microscopy performed on lung tissue
	   o Diagnostic test for Legionella species
	   o Diagnostic test on respiratory secretions for influenza virus, respiratory syncytial virus, adenovirus, parainfluenza virus,

	rhinovirus, human metapneumovirus, coronavirus
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 1,000$
Specifications/guidelines	NHSN Reporting Module for VAE
Data source	NHSN (with conferred rights)
Baseline period	2015
Reporting period	Monthly
Goal	20% reduction by 2019

Ventilator Utilization Ratio

Rate of ventilator use per 1,000 patient days

Measure type	Process
Numerator definition	Number of ventilator days
Denominator definition	Number of patient days
Definition of terms	Ventilator: A device to assist or control respiration, inclusive of the weaning period, through a tracheostomy or by endotracheal intubation
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 1,000$
Specifications/guidelines	[NHSN Reporting Module for VAE](#)
Data source	NHSN (with conferred rights)
Baseline period	2014
Reporting period	Monthly
Goal	20% reduction by 2019

Injuries from Falls and Immobility

Total Falls (NQF 0141)

Rate of documented falls, with or without injury, experienced by patients on eligible unit types per 1,000 patient days

Measure type	Outcome
Numerator definition	Number of patient falls (with or without injury to the patient and whether or not assisted by a staff member) by hospital unit
Denominator definition	Number of patient days by hospital unit
Definition of terms	• A patient fall is an unplanned descent to the floor with or without injury to the patient; includes falls when a patient lands on a surface where you wouldn't expect to find a patient; includes all unassisted and assisted falls whether they result from physiological reasons (fainting) or environmental reasons (slippery floor); includes patients that roll off a low bed onto a mat • The NDNQI data contain the number of falls in a unit during the month, including multiple falls by the same patient in the same month • Target population is adult acute care inpatient and adult rehabilitation patients • Eligible unit types include adult critical care, adult step-down, adult medical, adult surgical, adult medical-surgical combined, critical access, adult rehabilitation in-patient A patient day is defined as 24 hours beginning the day of admission and excluding the day of discharge
Rate calculation	• $\left(\frac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/guidelines	[National Quality Form (NQF) Worksheet #0141](#)
Data source	National Database on Nursing Quality Indicators (NDNQI) (with signed consent waiver)
Baseline period	2014
Reporting period	Monthly
Goal	20% reduction by 2019

Falls with Injury (NQF 0202)

Rate of documented patient falls with injury per 1,000 patient days

Measure type	Outcome
Numerator definition	Number of patient falls, of injury level minor or greater (whether or not assisted by a staff member) by hospital unit
Denominator definition	Number of patient days by hospital unit
Definition of terms	Injury types: • None – patient had no injuries (no signs or symptoms) resulting from the fall, if an x-ray, CT scan or other post fall evaluation results in a finding of no injury • Minor – resulted in application of a dressing, ice, cleaning of a wound, limb elevation, topical medication, bruise or abrasion • Moderate – resulted in suturing, application of steri-strips/skin glue, splinting or muscle/joint strain • Major – resulted in surgery, casting, traction, required consultation for neurological (basilar skull fracture, small subdural hematoma) or internal injury (rib fracture, small liver laceration) or patients with coagulopathy who receive blood products as a result of the fall • Death – the patient died as a result of injuries sustained from the fall (not from physiologic events causing the fall)
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/guidelines	NQF Worksheet #0202
Data source	NDNQI (with signed consent waiver)
Baseline period	2014
Reporting period	Monthly
Goal	20% reduction by 2019

Fall Risk Assessment

Percent of patient falls where patient was assessed for fall risk within previous 24 hours

Measure type	Process
Numerator definition	Number of patients with fall risk assessment performed within previous 24 hours of documented fall
Denominator definition	Number of patient falls
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 100$
Data source	NDNQI (with signed consent waiver)
Baseline period	2014
Reporting period	Monthly
Goal	100% compliance

Pressure Ulcers

Pressure Ulcer Rate, Stage 3+ (AHRQ PSI 03)

Rate of stage III or IV pressure ulcers or unstageable (secondary diagnosis) per 1,000 discharges among surgical or medical patients ages 18 years and older

Measure type	Outcome
Numerator definition	Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-10-CM diagnosis codes for pressure ulcer and any secondary ICD-10-CM diagnosis codes for pressure ulcer stage III or IV (or unstageable)
Denominator definition	Surgical or medical discharges, for patients ages 18 years and older
Numerator and denominator exclusions	- Length of stay of less than 3 days - Principal ICD-10-CM diagnosis code for pressure ulcer - Any secondary ICD-10-CM diagnosis codes for pressure ulcer present on admission and any secondary ICD-10-CM diagnosis codes for pressure ulcer stage III or IV (or unstageable) present on admission - Any-listed ICD-10-CM diagnosis codes for: - hemiplegia, paraplegia, or quadriplegia - spina bifida or anoxic brain damage - debridement or pedicle graft before or on the same day as the major operating room procedure (surgical cases only) - debridement or pedicle graft as the only major operating room procedure (surgical cases only) - Transfer from a hospital (different acute care facility), from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF), or from another health care facility - Principal or any secondary ICD-10-CM diagnosis codes present on admission for major skin disorders - MDC 14 (pregnancy, childbirth, and puerperium) - Cases with missing gender, age, quarter, year, or principal diagnosis
Definition of terms	Surgical and medical discharges are defined by specific DRG or MS-DRG codes
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/guidelines	AHRQ Patient Safety Indicator (PSI) 03 Technical Specifications, accompanied by ICD-10-CM Code Update
Data source	Administrative
Baseline period	Q1 2016 – Q3 2016
Reporting period	Monthly
Goal	20% reduction by 2019

Pressure Ulcer Risk and Skin Assessment

Percent of surveyed patients with skin assessment and pressure ulcer risk assessment completed within 24 hours of admission

Measure type	Process
Numerator definition	Patients with skin assessment and pressure ulcer risk assessment completed within 24 hours of admission
Denominator definition	Number of patients surveyed for the measurement episode
Numerator and denominator exclusions	• Patients who refuse to be assessed • Patients who are off the unit at the time of the prevalence measurement, i.e., surgery, x-ray, physical therapy, etc. • Patients who are medically unstable at the time of the measurement for whom assessment would be contraindicated at the time of the measurement, i.e., unstable blood pressure, uncontrolled pain, or fracture waiting repair • Patients who are actively dying and pressure ulcer prevention is no longer a treatment goal
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 100$
Data source	NDNQI (with signed consent waiver)
Baseline period	2014
Reporting period	Monthly
Goal	100% compliance

Pressure Ulcer Preventive Care for At-Risk Patients

Percent of at-risk patients receiving pressure ulcer prevention strategies

Measure type	Process
Numerator definition	At risk patients receiving at least three out of five pressure ulcer prevention strategies within previous 24 hours
Denominator definition	Patients at risk based on last risk assessment
Numerator and denominator exclusions	- Patients who refuse to be assessed - Patients who are off the unit at the time of the prevalence measurement, i.e., surgery, x-ray, physical therapy, etc. - Patients who are medically unstable at the time of the measurement for whom assessment would be contraindicated at the time of the measurement, i.e., unstable blood pressure, uncontrolled pain, or fracture waiting repair - Patients who are actively dying and pressure ulcer prevention is no longer a treatment goal
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 100$
Data source	NDNQI (with signed consent waiver)
Baseline period	2014
Reporting period	Monthly
Goal	100% compliance

Hospital-Acquired Pressure Ulcer Rate, All Stages (NQF 0201)

Percent of patients that have hospital-acquired (nosocomial) category/stage II or greater pressure ulcers on the day of the prevalence measurement episode

Measure type	Outcome
Numerator definition	Number of patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence measurement episode
Denominator definition	Number of patients surveyed for pressure ulcers for the measurement episode
Numerator and denominator exclusions	• Patients who refuse to be assessed • Patients who are off the unit at the time of the prevalence measurement, i.e., surgery, x-ray, physical therapy, etc. • Patients who are medically unstable at the time of the measurement for whom assessment would be contraindicated at the time of the measurement, i.e., unstable blood pressure, uncontrolled pain, or fracture waiting repair • Patients who are actively dying and pressure ulcer prevention is no longer a treatment goal
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 100$
Specifications/guidelines	NQF Worksheet #0201
Data source	NDNQI (with signed consent waiver)
Baseline period	2014
Reporting period	Monthly
Goal	20% reduction by 2019

Venous Thromboembolism (VTE)

Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate (PSI 12)

Rate of perioperative pulmonary embolism or deep vein thrombosis (secondary diagnosis) per 1,000 surgical discharges for patients ages 18 years and older

Measure type	Outcome
Numerator definition	Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with a secondary ICD-10-CM diagnosis code for deep vein thrombosis or a secondary ICD-10-CM diagnosis code for pulmonary embolism
Denominator definition	Surgical discharges, for patients ages 18 years and older, with any-listed ICD-10-CM procedure codes for an operating room procedure
Numerator and denominator exclusions	- Principal ICD-10-CM diagnosis code (or secondary diagnosis present on admission) for deep vein thrombosis - Principal ICD-10-CM diagnosis code (or secondary diagnosis present on admission) for pulmonary embolism - Cases where a procedure for interruption of vena cava occurs before or on the same day as the first operating room procedure - Any procedure code for extracorporeal membrane oxygenation (ECMO) - MDC 14 (pregnancy, childbirth, and puerperium) - Cases with missing gender, age, quarter, year, or principal diagnosis
Definition of terms	Surgical discharges are defined by specific DRG or MS-DRG codes
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 1,000$
Specifications/guidelines	AHRQ PSI-12 Technical Specifications, accompanied by ICD-10-CM Code Update
Data source	Administrative
Baseline period	Q1 2016 – Q3 2016
Reporting period	Monthly
Goal	20% reduction by 2019

Undue Exposure to Radiation

Pediatric Head CT Scans for Minor Head Injuries

Percent of pediatric patients discharged from the ED (emergency department) with a minor head injury diagnosis who received a head CT scan

Measure type	Process
Numerator definition	Number of pediatric ED patients with a minor head injury diagnosis who received a computed tomography (CT) scan of the head, with or without contrast
Denominator definition	Number of pediatric patients discharged from the ED with a minor head injury diagnosis
Numerator and denominator exclusions	• Patients who are more than 17 years of age • Patient Type 1 (Same Day Surgery) • Patient Type 3 (Other Patient)
Definition of terms	• Pediatric patients are those aged 0 to 17 • ED discharges include treat-and-release visits for Patient Type 2 (ER Outpatient) • Diagnosis codes (ICD-10-CM) include G44319, S0093XA, S0191XA, S060X1A, S0990XA • CPT code for head CT without contrast is 70450, and for head CT with contrast is 70460
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 100$
Data source	NJDDCS, ED outpatient only (administrative)
Baseline period	Q1 2016 – Q3 2016
Reporting period	Monthly
Goal	20% reduction by 2019

Potentially-Preventable Readmissions

All-Cause Readmissions within 30 Days of Hospital Discharge

Percent of discharged patients who were readmitted to the same hospital within 30 days

Measure type	Outcome
Numerator definition	Number of all-cause readmissions to the same hospital within 30 days
Denominator definition	Total discharges (index admissions)
Numerator and denominator exclusions	• Patient Discharge Status 02 (Transferred to other short-term general hospital for inpatient care) • Patient Discharge Status 07 (Left against medical advice or discontinued care) • Patient Discharge Status 20 (Expired) • Patients who are discharged alive (not 20) on the same day that they are admitted
Definition of terms	Each admission is categorized as an index admission from which a 30-day readmission can be measured. If more than one additional admission occurs within the same 30-day window, only one is counted per index admission. The readmission outcome time frame starts on the day the patient is discharged from the index admission and extends for 30 days after that. (Example: For a patient who is discharged from an index admission on January 1, the readmission measures assess the readmission outcome between January 1 and 31.)
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 100$
Data source	NJDDCS, inpatient only (administrative)
Baseline period	2014
Reporting period	Monthly
Goal	12% reduction by 2019

All-Cause ED Return Visits within 30 Days of Hospital Discharge

Percent of discharged patients who returned to the same hospital for an ED visit within 30 days

Measure type	Outcome
Numerator definition	Number of all-cause ED treat-and-release visits to the same hospital within 30 days
Denominator definition	Total discharges (index admissions)
Numerator and denominator exclusions	- Patient Discharge Status 02 (Transferred to other short-term general hospital for inpatient care) - Patient Discharge Status 07 (Left against medical advice or discontinued care) - Patient Discharge Status 20 (Expired) - Patients who are discharged alive (not 20) on the same day that they are admitted
Definition of terms	- ED treat-and-release discharges are indicated by Patient Type 2 - Only count the first ED outpatient visit within 30 days of the date of discharge from the most recent "index" admission
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 100$
Data source	NJDDCS (administrative)
Baseline period	2014
Reporting period	Monthly
Goal	12% reduction by 2019

ACS Hospitalizations

Percent of hospitalizations for primary or ambulatory-care sensitive (ACS) diagnoses

Measure type	Outcome
Numerator definition	Number of inpatient discharges with primary care or ACS diagnoses (selected ICD-10-CM codes) in the primary or first four secondary positions
Denominator definition	Total discharges
Numerator and denominator exclusions	• Patient Discharge Status Code: 02 (Transferred to other short-term general hospital for inpatient care) • Patient Discharge Status Code: 07 (Left against medical advice or discontinued care) • Patients who are discharged alive (not 20) on the same day that they are admitted
Definition of terms	See Appendix for selected ICD-10-CM codes
Rate calculation	$\left(\dfrac{Numerator}{Denominator} \right) x\ 100$
Data source	NJDDCS, inpatient only (administrative)
Baseline period	Q1 2016 – Q3 2016
Reporting period	Monthly
Goal	20% reduction by 2019

ACS ED Visits

Percent of ED visits for primary or ACS diagnoses

Measure type	Outcome
Numerator definition	Number of ED discharges with primary care or ACS diagnoses (selected ICD-10-CM codes) in the primary or first four secondary positions
Denominator definition	Total ED treat-and-release discharges
Numerator and denominator exclusions	• Patient Type: 1 (Same Day Surgery) • Patient Type: 3 (Other Patient)
Definition of terms	• ED treat-and-release discharges are indicated by Patient Type 2 • See Appendix for selected ICD-10-CM codes
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 100$
Data source	NJDDCS, ED outpatient only (administrative)
Baseline period	Q1 2016 – Q3 2016
Reporting period	Monthly
Goal	20% reduction by 2019

All-Cause Harm

Measure Coming Soon

Description

Measure type	Outcome
Numerator definition	
Denominator definition	
Numerator and denominator exclusions	• •
Definition of terms	
Rate calculation	$\left(\dfrac{Numerator}{Denominator}\right) x\ 10{,}000$
Specifications/guidelines	New Jersey Hospital Discharge Data System
Data source	Administrative
Baseline period	Q1 2016 – Q3 2016
Reporting period	Monthly
Goal	20% reduction by 2019

Appendix

Selected ICD-10 Codes for Primary Care/ACS Measures

ICD-10-CM Codes	Diagnosis
A15.xx - A19.xx	Tuberculosis
B20	Human immunodeficiency virus [HIV] disease
B97.89	Unspecified viral infection, in conditions classified elsewhere and of unspecified site
A50.xx - A64.xx; M02.3xx; N34.1	Syphilis and other sexually transmitted diseases
C50.xxx; C79.81; D05.xx; R92.x	Abnormal breast findings, female
C53.x; C79.82; D06.x; R84.61x; R87.810; R87.820	Abnormal cervical findings
E10.xxx - E13.xxx; P70.2; R73.xx	Diabetes mellitus
E40 - E64.x; M83.x; P92.xx; R62.0 - R62.5x; R63.3	Lack of expected normal physiological developments (such as delayed milestone; failure to gain weight; failure to thrive) -- does not include sexual or mental development; nutritional deficiencies
E86.x	Dehydration
F01.xx - F06.8; F20.xx - F29; F40.9; F44.xx - F45.29; F45.8; F45.9; F48.1; F48.8; F48.9; F52.0 - F52.4; F52.6; F52.8; F52.9; F53; F60.xx; F64.x - F69; F84.0; F84.3 - F84.9; F99; R37; R45.2; R45.5; R45.6; Z87.890	Other mental disorders, excluding drug or alcohol dependence (includes mental retardation)
F10.xxx; G62.1	Alcohol dependence
F11.10 - F11.18x; F11.20 - F11.92x; F11.94 - F11.98x; F12.10 - F12.18.18x; F12.20 - F12.98x; F13.10 - F13.18x; F13.20 - F13.92x; F13.94 - F13.98x; F14.10 - F14.18x; F14.20 - F14.98x; F15.10 - F15.18x; F15.20 - F15.92x; F15.94 - F15.98x; F16.10 - F16.18x; F16.20 - F16.98x; F18.10 - F18.18x; F18.20 - F18.98x; F19.10 - F19.18x; F19.20 - F19.92x; F19.94 - F19.98x; F55.x; G62.0; O99.32x	Drug dependence
F30.xx - F39	Depression and other mood disorders
F40.xx - 40.8; F41.x - F43.1x	Anxiety disorders including PTSD
F90.x - F91.x	Attention deficit and disruptive behavior disorders
H65.xxx - H69.xx	Otitis media and eustachian tube disorders
I01.x - I02.x; I20.x - I52; I97.0 - I97.1xx; M32.11; M32.12; R00.1	Heart disease (selected)
I10 - I15.x; N26.2	Hypertension
J02.8; J02.9	Acute pharyngitis
J06.9	Acute upper respiratory infections of unspecified site
J20.x	Acute bronchitis

ICD-10-CM Codes	Diagnosis
J44.x - J45.xxx	Asthma
K52.89; K52.9	Other and unspecified noninfectious gastroenteritis and colitis
N39.0	Urinary tract infection, site not specified
A33; P22.1 - P29.2; P29.4 - P39.x; P53; P55.x - P91.5; P91.8; P91.9; P93.x - P96.5; P96.82 - P96.9	Selected perinatal medical conditions
M54.5	Lumbago
R50.9	Fever
G44.1; R51	Headache
R07.9	Unspecified chest pain
R07.82; R07.89	Other chest pain
R10.0; R10.9	Abdominal pain, unspecified site
S93401A; S93402A; S93409A; S96919A *	Unspecified site of ankle sprain and strain
S13.4XXA; S13.8XXA; S16.1XXA *	Neck sprain and strain
S61.001A - S61.039A; S61.051A - S61.139A; S61.151A - S61.239A; S61.250A - S61.339A; S61.350A - S61.359A *	Open wound of finger(s), without mention of complication
S0003XA; S0033XA; S00431A; S00432A; S00439A; S00531A; S00532A; S0083XA; S0093XA; S100XXA; S1083XA; S1093XA *	Contusion of face, scalp, and neck except eye(s)
S0910XA; S0911XA; S0919XA; S098XXA; S0990XA *	Head injury, unspecified
T33.xxxA; T34.xxxA; T67.xXXA; T68.XXXA; T69.xxxA *	Exposure to heat or cold
Z48.00 - Z48.02	Attention to surgical dressings and sutures