



Health Care Quality Performance (HCQP) Program

STEERING COMMITTEE

September 28, 2009, 3-4:30pm
 Department of Health, Room 401

Goals/Objectives

- Obtain Steering Committee approval and input regarding ongoing Subcommittee work and recommendations

Voting Members (Quorum = 8+ Members)

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Ted Almon (rep) | <input checked="" type="checkbox"/> David Gifford, MD, MPH | <input type="checkbox"/> Louis Pugliese |
| <input checked="" type="checkbox"/> Virginia Burke, Esq. | <input checked="" type="checkbox"/> Linda McDonald, RN | <input type="checkbox"/> Sharon Pugsley, BSN |
| <input checked="" type="checkbox"/> Ron Cotugno, RN | <input checked="" type="checkbox"/> Jim Nyberg | <input checked="" type="checkbox"/> Gina Rocha, RN, MPH |
| <input checked="" type="checkbox"/> Arthur Frazzano, MD | <input type="checkbox"/> Rhoda E. Perry | <input checked="" type="checkbox"/> Corrine Russo, MSW (rep) |
| <input type="checkbox"/> Neal Galinko, MD, MS, FACP | <input type="checkbox"/> Donna Policastro, NP, RCN | <input checked="" type="checkbox"/> Alan Tavares |

Time Topic/Votes

3:00pm **Welcome & Remarks**
 David Gifford, MD, MPH, HEALTH

HCQP Program Updates
 Samara Viner-Brown, MS, HEALTH
 Rosa Baier, MPH, Quality Partners

3:05pm **1. Administrative**

- Rosa provided an update on the FY 2009 Annual Report, which was approved by the Steering Committee and submitted by HEALTH to the legislature.

3:10pm **2. Hospital-Acquired Infections (HAI) Subcommittee**
Chairs: Leonard Mermel, DO and Samara Viner-Brown, MS

- Rosa updated the Committee on the HAI data reports:

Report	Data Period	Last Updated
Surgical Care Infection Program (SCIP)	Q2 09	Sept 09

Proposed Report	Status
Central line-related bloodstream infections (CLABSI)	Pending 1 hospital's data
Employee flu vaccination	Awaiting data
MRSA process/outcome measures	Finalizing strategy

- Rosa described the methods being used for CLABSI (and pressure ulcer incidence), the first incidence measure to be publicly reported. Based on research and recommendations from the CDC, the Subcommittee approved the following:
 - o Use of Standardized Incidence Ratios (SIRs), which are calculated by dividing the number of observed cases by the number of expected cases.
 - o For CLABSI, expected cases are determined based on the national average for that ICU type and the incidence denominator (total population). (This differs for hospital-acquired pressure ulcers, discussed below, which use a state comparison.)
 - o SIRs ~1.0 indicate that incidence is close to what is expected; scores significantly above or below 1.0 are meaningfully different (better or worse) than expected.
 - o Significance is determined using 90% Confidence Intervals (CIs), and one-, two-, and three-diamond scores assigned accordingly. Diamonds align with reporting formats in the home health and nursing home settings.
- Sam provided updates on two grant applications:
 - o CDC HAI ARRA grant (stimulus funds):
 - The submission was discussed at the August meeting, and Sam shared an update. HEALTH was awarded the planning portion of the grant (Part A) for \$200,000 over 27 months. The first deadline is an HAI plan, due 1/1/10, which will build on the Subcommittee's work and formalize it.
 - o CDC Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) grant:
 - Sam also shared information about a second grant opportunity, which was due 9/14/09. The grant is part of a larger epidemiology submission through Dr. Bandy's Center at HEALTH, but includes a 12-month, \$150,000 portion dedicated to convening an HAI Collaborative focused on MRSA and C-diff. This work would create a Collaborative modeled on the ICU Collaborative, bringing hospitals together to focus on HAI and also providing technical/clinical support for using the NHSN MDRO module to collect and monitor data.
- The HAI Subcommittee continues to discuss HAI reporting and related legislation, including efforts underway in other states—for example, NY's recent mandate for healthcare workers to receive the flu vaccine—and prioritize reporting efforts locally, balancing value with data collection burden.
- Sam and Rosa have been working to develop and release a press release covering the SCIP (released), CLABSI (pending), and pressure ulcer incidence (pending) data. A draft was shared previously with the Committee and will be updated to reflect the latter two reports, and then released as soon as possible.
- Next meeting: To be scheduled; will be longer and slightly less frequent
- **Vote:** The Committee approved the Subcommittee's recommended reporting methodology for CLABSI incidence rates (yes – 10; no – 0; abstained – 0).

Time	Topic/Votes
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3:25pm 3. **Home Health Measures Subcommittee**

Chair: Rosa Baier, MPH, Chair

- Rosa updated the Committee on the home health data reports:

Report	Data Period	Last Updated
Clinical measures	Q1 09	Sept 09
Satisfaction	Sept-Nov 07	May 08

- Satisfaction data collection was scheduled for September, but the Subcommittee recommended (and the Director approved) pushing it back until January 2010, in recognition of the upcoming Medicare HH CAHPS survey requirements. The survey period is currently January to March 2010, scheduled to coincide with a time period during which Medicare agencies must collect HH CAHPS for at least one month.
- The satisfaction survey plans are as follows:
 - o Medicare agencies:
 - Use the HH CAHPS survey instrument
 - Publicly report the following measures, which have been endorsed by the National Quality Forum:
 1. Care of patients
 2. Communications between providers and patients
 3. Specific care issues
 4. Care from the agency’s home health providers
 5. Recommend this agency to friends or family
 - Open the vendor selection to two vendors, Press Ganey and Fazzi Associates—those who were finalists during the RFP process. This affords agencies wider choice, but may incur additional time and cost for HEALTH to obtain and merge data sets for analysis.
 - The Committee had a brief discussion of a recent request from one agency to use a different vendor and/or to postpone the satisfaction survey time period until the HH CAHPS data are publicly reported by CMS, anticipated for late 2010 or early 2011.
 - **Recommendation:** The Committee recommended adhering to the January-March time frame, since the survey period was previously delayed from one to two years and further delays will mean three or more years between survey periods. The Committee further requested that HEALTH allow agencies to contract with multiple vendors (more than two), assuming that they build the data format and provision to HEALTH into their contracts with those vendors.
 - **Action item:** Research data HH CAHPS submission formats and communicate accordingly with the agencies (Sam & Rosa)
 - o Non-Medicare agencies:
 - Continue to use the Press Ganey instrument
 - Publicly report the same measures as included in the 2007 data report
 - Incorporate revisions to instrument (done)
- Next meeting: 8-9am, October 14, 2009, Quality Partners

Time	Topic/Votes
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- **Vote:** The Committee approved the Subcommittee's:
 - o Recommendations re: satisfaction survey time frame and (yes – 10; no – 0; abstained – 0), and
 - o Vendor choices (yes – 10; no – 0; abstained – 0).

3:40pm **4. Hospital Measures Subcommittee**

Chair: Samara Viner-Brown, MS

- Rosa updated the Committee on the Hospital data reports:

Report	Data Period	Last Updated
Clinical measures	Q4 07-Q3 08	Aug 08
Satisfaction	(link)	(link)
Pressure ulcer process measures	Oct 08, Jan 09, & Apr 09	May 09

Proposed Report	Status
Pressure ulcer incidence	Pending final data

- Rosa described the methods being used for pressure ulcer incidence, which mirror the SIR and CI methods being used to assign diamonds for CLABSI, discussed above. The reports were generated the week of 9/14 and shared with both the Subcommittee and Steering Committee at that time.
- Since the report was shared, several hospitals have requested changes to their incidence numerator (which reflected hospital-verified data), which leads to a troubling precedent; future reports will hold to the 60-day period to verify numerators and will not honor further edits after data are released.
- The hospitals continue to inquire about switching to the Present on Admission (POA) methodology, which HEALTH intends to do once the POA is incorporated into the Hospital Discharge Data Set (HDDS). HARI has been working with the vendor to include it, and updates HEALTH regularly on the status. The program's goal is to incorporate the POA as quickly as possible, in order to reduce data verification burden for the hospitals, and hopes this will happen in the next few months.
- As mentioned above (see HAI Subcommittee), Sam and Rosa are working with HEALTH on a press release for the new hospital reports (SCIP, CLABSI, and pressure ulcer incidence) and will release it as soon as possible.
- Next meeting: None currently scheduled

3:55pm **5. Nursing Home Measures Subcommittee**

Chair: Gail Patry, RN

- Rosa updated the Committee on the nursing home data reports:

Report	Data Period	Last Updated
Clinical measures	Q1 09	Aug 09
Satisfaction	Oct-Nov 2008	Feb 09

- Family/resident satisfaction:
 - o My InnerView held a Webinar on 9/10, providing nursing homes with education on the upcoming satisfaction survey process and answering any questions.

Time	Topic/Votes
	<ul style="list-style-type: none"> ○ All nursing homes signed contracts with My InnerView. ○ Resident and family mailing lists were due to My InnerView on 9/21, and My InnerView is currently following up to ensure 100% compliance. <p>- Next meeting: 3-4:30pm, October 20, 2009, RIHCA</p>
4:10am	<p>Open Forum David Gifford, MD, MPH, HEALTH</p> <p>- The Committee inquired about the following:</p> <ul style="list-style-type: none"> ○ <u>Status of the program's budget.</u> As in 2007-2008, the Program's budget is likely to be affected by the state's ongoing budget crisis; if it is, the cuts are anticipated for January. The program is doing contingency planning in the meantime, looking for other funding opportunities—such as the HAI grants discussed above. The receipt of the HAI planning grant has already tripled the program's budget. ○ <u>Involvement of Eleanor Slater Hospital.</u> Because many of the previously-reported hospital clinical measures did not apply to Eleanor Slater, they have not yet been included in reporting efforts. With the program's expansion to pressure ulcers and HAI, however, the timing may be appropriate to begin to include them. Louis Pugliese also joined the Steering Committee recently, so including them is timely. ○ Action item: Follow-up with Louis (Sam & Rosa)
	<p>Next Meeting – 3-4:30pm, November 16, 2009, HEALTH</p>





Steering Committee: HCQP Program Updates

Samara Viner-Brown, MS, HEALTH

Rosa Baier, MPH, Quality Partners of Rhode Island

September 28, 2009

Administrative



- FY 2009**
- Annual Report**
- Approved by the Steering Committee
- Submitted by HEALTH to the legislature



HAI Subcommittee

Leonard Mermel, DO, ScM, and Sam Viner-Brown, MS, Co-Chairs

Goal

- To report hospital-acquired infections (HAI), beginning with easy-to-report measures and expanding over time

Update

- Reminders:
 - The HAI legislation calls for quarterly submission of data, for an annual report no later than October 2010
 - Selected four measure categories (next slides); one has already been published



HAI Subcommittee

Leonard Mermel, DO, ScM, and Sam Viner-Brown, MS, Co-Chairs

Report	Data Period	Last Updated
Surgical Care Infection Program (SCIP)	Q2 09	Sept 09

Proposed Report	Status
Central line-related bloodstream infections (CLABSI)	Pending 2 hospitals' data
Employee flu vaccination	Awaiting data
MRSA process/outcome measures	Finalizing strategy



HAI Subcommittee

Leonard Mermel, DO, ScM, and Sam Viner-Brown, MS, Co-Chairs

Update (Cont'd)

1. Central Line-Associated Bloodstream Infections (CLABSI)

- Data from two sources:
 - Adult ICUs via the Collaborative
 - NICU and PICU data submitted directly to HEALTH
- Recommended methodology (discussed previously):
 - Standardized Incidence Ratios (SIRs) = observed cases/ expected cases
 - Expected cases based on the national average and each hospital's denominator
 - Diamonds assigned based on SIR score AND 90% Confidence Intervals (CIs):
 - ◆◆◆ = Better than expected
 - ◆◆ = About the same as expected
 - ◆ = Worse than expected



HAI Subcommittee

Leonard Mermel, DO, ScM, and Sam Viner-Brown, MS, Co-Chairs

Update (Cont'd)

- **Vote:** Approve the incidence reporting methodology
 - Recommended by the HAI (CLABSI) and Hospital Subcommittees (pressure ulcers)
 - Sets precedence for future incidence reports

- 2. Grant applications
 - CDC HAI ARRA grant (stimulus funds)
 - CDC Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) grant



HAI Subcommittee

Leonard Mermel, DO, ScM, and Sam Viner-Brown, MS, Co-Chairs

Update (Cont'd)

3. Press Release

- SCIP (released),
- CLABSI (pending), and
- Pressure ulcer incidence (pending) reports.

Next steps ▪ To be scheduled



Home Health Subcommittee

Rosa Baier, MPH, Chair

Goal

- To collect and report patient satisfaction every two years; the next survey period is Sept-Nov 2009

Report	Data Period	Last Updated
Clinical measures	Q1 09	Sept 09
Satisfaction	Sept-Nov 07	May 08



Home Health Subcommittee

Rosa Baier, MPH, Chair

Update

- Vendor discussions & non-Medicare agency tool revisions
- Data collection schedule:
 - Originally Sept-Nov 2009
 - Recommended Jan-Mar 2009
- Time frame considerations:
 - Alignment with HH CAHPS
 - Frequency of reporting
 - Vendors (number, cost, etc.)



Home Health Subcommittee

Rosa Baier, MPH, Chair

Update (Cont'd)

- **Vote:** Approve the Subcommittee's:
 - Recommendations re: satisfaction survey time frame
 - Vendor choices

Next steps

- Prepare agencies for data collection
- Subcommittee meeting: 8-9am on 10/14, Quality Partners



Hospital Subcommittee

Samara Viner-Brown, MS, Chair

Goal ■ Collect and report pressure ulcer (PU) incidence

Report	Data Period	Last Updated
Clinical measures	Q4 07-Q3 08	Aug 08
Satisfaction	(link)	(link)
Pressure ulcer process measures	Oct 08, Jan 09, & Apr 09	May 09

Proposed Report	Status
Pressure ulcer incidence	Pending final data



Hospital Subcommittee (Cont'd)

Samara Viner-Brown, MS, Chair

Updates

1. Pressure ulcer incidence

○ Recommended methodology (same as CLABSI):

- Use of SIRs and 90% CIs to assign diamonds

◆◆◆ = Better than expected

◆◆ = About the same as expected

◆ = Worse than expected

- Process:

- 60-day preview period

- Confirmation of cases (self-report)

- Pending report

- Temporary process, awaiting inclusion of Present on Admission (POA) indicator into the Hospital Discharge Data Set (HDDS)



Hospital Subcommittee (Cont'd)

Samara Viner-Brown, MS, Chair

Updates (Cont'd)

2. Press Release

- SCIP (released),
- CLABSI (pending), and
- Pressure ulcer incidence (pending) reports.

Next steps

- Subcommittee meeting: None currently scheduled



Nursing Home Subcommittee

Gail Patry, RN, Chair

Goal

- Review 2008 nursing home satisfaction data/process, and begin to prepare for 2009 satisfaction reporting

Report	Data Period	Last Updated
Clinical measures	Q1 09	Aug 09
Satisfaction	Oct-Nov 2008	Feb 09



Nursing Home Subcommittee

Gail Patry, RN, Chair

Update

1. Family/resident satisfaction
 - My InnerView Webinar
 - Signed contracts
 - Mailing lists

Next steps

- Subcommittee meeting: 10/20, 3-4:30pm, RIHCA



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Health Care Quality Performance (HCQP) Program

CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS (CLABSI)

Data Report
April-June 2009

Hospital-acquired CLABSIs for Intensive Care Units (ICUs) are [reported on the Department of Health’s \(HEALTH’s\) Web site](#) as part of the HCQP Program’s hospital reporting work. You can learn more about the measures—including their data source, how the rates and diamonds are calculated, and why this information is important—by reading the [Technical Page](#). With questions about a hospital’s performance, please contact the hospital directly by clicking on each hospital’s name.

The diamonds show you how hospitals compare to one another

Figure X: CLABSI Rate Among [Type of ICU]

Hospital ICU (Alphabetical)	CLABSI (Number)	Rate* (Percent)	Standardized Incidence Ratio (SIR) [†]	Diamonds [§]
Hospital A	X	X%	X.X	◆◆
Hospital B	X	X%	X.X	◆◆
Hospital C	X	X%	X.X	◆◆
Hospital D	X	X%	X.X	◆◆

* Incidence for the 3-month time frame included in this report

† Compares the number of CLABSI to what is mathematically “expected.” Scores below 1.0 are less (better) than expected and scores above 1.0 are higher (worse) than expected.

§ Assigned based on how different each hospital’s SIR is from 1.0, which is what is “expected”:

- ◆◆◆ Better than expected
- ◆◆ About the same as expected
- ◆ Worse than expected

The statistical methods are described in the [Technical Page](#).



Health Care Quality Performance (HCQP) Program

CENTRAL LINE ASSOCIATED BLOODSTREAM INFECTIONS (CLABSI) RATES

Technical Page

The CLABSI rates are [reported on the Department of Health's \(HEALTH's\) Web site](#) as part of the HCQP Program's Hospital-Acquired Infections work. The information on this page provides additional details about the measure, including its data source, how it is calculated, and why it is important.

Data Source

Rhode Island hospitals collect information about their CLABSI rates for each intensive care unit (ICU) and share it with the Department of Health for reporting. Many Rhode Island hospitals have been collecting this information for several years as part of Rhode Island's ICU Collaborative. The rates are based on bloodstream infections that occur in the intensive care unit (ICU). For CLABSI rates, *lower* numbers are better.

Measure Calculation

The information in this section is for people who want details about the data calculations. For each hospital, two numbers are calculated: (1) CLABSI incidence, and (2) a Standardized Incidence Ratio (SIR). Only the SIR is included in the public report, but incidence is needed to calculate each hospital's SIR.

1. **CLABSI incidence** is calculated as follows:

$$\text{Rate} = \frac{(\text{number of line infections})}{(\text{number of central line days})}$$

The number of line infections is the **numerator**. The number of central line days (the number of days when patients could have developed an infection) is the **denominator**. The **incidence rate** is the numerator divided by the denominator multiplied by 1,000. Each hospital's rate is compared to the rates of other ICUs nationally that provide similar care using SIRs (below and p. 2). If there are too few central line days in the denominator, no rate is calculated for that ICU.

2. If there is a national comparison for a hospital ICU type, incidence rates are used to calculate **SIRs**, which are:

$$\text{SIR} = \frac{(\text{observed cases})}{(\text{expected cases})}$$

The **observed cases** are the number of line infections (incidence rate numerator) and the **expected cases** are the number we expect to see if the average national CLABSI incidence rate for that ICU type is applied to each hospital ICU's patient population (the incidence rate's denominator). *Lower* scores are better. A SIR score less than 1.0 means the incidence is better than expected.

For hospitals with SIRs calculated, each hospital's SIR is included in the public report and helps to determine its diamond category (see p. 2).

Diamond Categories

The diamond categories help you understand how each hospital's incidence (SIR score) compares to its expected incidence (which is determined based on the average performance of ICUs nationally that provide similar care):

- ◆ Worse than expected
- ◆◆ About the same as expected
- ◆◆◆ Better than expected

These categories are determined mathematically to ensure that the differences are meaningful. In detailed terms, this means that hospitals with either one diamond (◆) or three diamonds (◆◆◆) have CLABSI incidence rates that are “statistically significantly different” from their expected rates.

If there is no national comparison for a hospital ICU type, then neither a SIR nor diamonds are calculated.

Diamond Calculation

The information in this section is for people who want statistical details about the diamond calculations. The diamond categories are determined based on hospitals’ SIRs (see p. 1). A SIR less than 1.0 means the hospital’s rate is lower (better) than expected; a SIR greater than 1.0 is higher (worse) than expected. The margin of error, or “90% confidence interval,” determines whether each SIR is meaningfully different from 1.0. Diamonds are assigned as follows:

- One diamond (◆): If the SIR falls above 1.0 (is worse than expected) AND its margin of error, or “90% confidence interval,” does not include 1.0, then the hospital has one diamond.
- Two diamonds (◆◆): If the 90% confidence interval for the score includes the Rhode Island average, then the hospital’s score is not accurate enough to categorize it as better or worse than other hospitals. The hospital has two diamonds.
- Three diamonds (◆◆◆): If the SIR falls below 1.0 (is better than expected) AND its margin of error, or “90% confidence interval,” does not include 1.0, then the hospital has three diamonds. **Note:** The exception is when the hospital does not have any CLABSIs (where 0 is the best performance). When this occurs, a hospital is automatically given three diamonds.

Measure Information ([adapted from the National Healthcare Safety Network](#))

Measure	Why is this information important?
Central Line Associated Bloodstream Infection (CLABSI) Incidence and SIR score	This measures primary bloodstream infections in patients that had a central line in place within 48 hours before the development of the infection. Central line infections are important because they are the most common bloodstream infections. These infections can harm patients and also because CLABSIs are considered reasonably preventable with proper care of patients’ central lines. For the CLABSI SIR, which compares actual incidence to what is “expected,” <i>lower</i> scores are better. A SIR score less than 1.0 means the incidence is better than expected.

Definitions

Word or Phrase	What does this mean?
Bloodstream infection	A bloodstream infection occurs when bacteria enter patients’ blood, for example through their central line.
Central line	A “central line” is a special kind of IV or flexible tube that connects directly to a patient’s heart or a major blood vessel. It can be used to draw blood or give patients medication or nutrition.
Intensive Care Unit (ICU)	A hospital unit that cares for critically ill patients.
Rate	A score that reflects new (hospital-acquired) infections over a period of time; for the CLABSI infection rates, three months.



Health Care Quality Performance (HCQP) Program
HOSPITAL-ACQUIRED PRESSURE ULCERS

Data Report
 October-December 2008

Hospital-acquired [pressure ulcers](#) (sometimes called pressure sores or bed sores) are [reported on the Department of Health’s \(HEALTH’s\) Web site](#) as part of the HCQP Program’s hospital reporting work. For pressure ulcers, *lower* numbers are better. You can learn more about the hospital-acquired pressure ulcer measure—including its data source, how the rates and diamonds are calculated, and why this information is important—by reading the [Technical Page](#). With questions about a hospital’s performance, please contact the hospital directly by clicking on each hospital’s name.

The diamonds show you how hospitals compare to one another

Hospital (<i>Alphabetical</i>)	Hospital- Acquired Pressure Ulcers*	Patients	Standardized Incidence Ratio (SIR) [†]	Diamonds [§]
Kent County Memorial Hospital	1	1,250	0.807	◆◆
Landmark Medical Center	0	635	0.000	◆◆◆
Memorial Hospital	1	483	2.088	◆◆
Miriam Hospital	1	1,092	0.924	◆◆
Newport Hospital	0	422	0.000	◆◆◆
Rhode Island Hospital	1	2,317	0.435	◆◆
Roger Williams Medical Center	2	581	3.472	◆◆
South County Hospital	1	308	3.274	◆◆
St. Joseph’s Hospital	0	1,105	0.000	◆◆◆
Westerly Hospital	0	267	0.000	◆◆◆
Women and Infants Hospital	0	350	0.000	◆◆◆

* Advanced pressure ulcers, which are deep wounds, are included.

[†] Compares the number of hospital-acquired pressure ulcers to what is mathematically “expected” based on the state’s average incidence of 0.00099. Scores below 1.0 are less (better) than expected and scores above 1.0 are higher (worse) than expected.

[§] Assigned based on how different each hospital’s SIR is from 1.0, which is what is “expected”:

- ◆◆◆ Better than expected
- ◆◆ About the same as expected
- ◆ Worse than expected

The statistical methods are described in the [Technical Page](#).



Health Care Quality Performance (HCQP) Program

HOSPITAL-ACQUIRED PRESSURE ULCERS

Technical Page

Hospital-acquired, or incident, pressure ulcers (sometimes called pressure sores or bed sores) are [reported on the Department of Health's \(HEALTH's\) Web site](#) as part of the HCQP Program's hospital reporting work. The information on this page provides additional details about the information reported, including its data source, how scores and diamonds are calculated, and why it is important.

Data Source

Rhode Island hospitals submit patient-level information to the Department of Health as part of the Hospital Discharge Data Set (HDDS). The HDDS includes patient information, including patients' diagnoses, how long they were hospitalized, and what care the hospital provided. The Department of Health uses these data to report hospital-acquired pressure ulcers. For pressure ulcers, *lower* numbers are better.

Measure Calculation

The information in this section is for people who want details about the data calculations. For each hospital, two numbers are calculated: (1) pressure ulcer incidence, and (2) a Standardized Incidence Ratio (SIR). Only the SIR is included in the public report, but incidence is needed to calculate each hospital's SIR.

1. **Pressure ulcer incidence** is calculated as follows:

$$\text{Rate} = \frac{\text{(patients who develop a pressure ulcer)}}{\text{(number of patients aged 18 years and older who were hospitalized 5+ days)}}$$

The number of patients who develop an advanced pressure ulcer (Stage III, Stage IV, or their clinical equivalent among unstageable pressure ulcers) is the **numerator**. The number of patients that had a central line placed in the 48-hour period before the development of the bloodstream infection is the **denominator**. The denominator also excludes some patients; these details are on page 2. The **incidence rate** is the numerator divided by the denominator multiplied by 1,000. Each hospital's rate is compared to the rates of other hospitals in Rhode Island using SIRs (below and p. 2).

2. Incidence rates are used to calculate **SIRs**, which are:

$$\text{SIR} = \frac{\text{(observed cases)}}{\text{(expected cases)}}$$

The **observed cases** are the number of hospital-acquired pressure ulcers (incidence rate numerator) and the **expected cases** are the number we expect to see if the average Rhode Island pressure ulcer incidence rate is applied to each hospital's patient population (the incidence rate's denominator). *Lower* scores are better. A SIR score less than 1.0 means the incidence is better than expected.

Each hospital's SIR is included in the public report and helps to determine its diamond category (see p. 2).

Measure Exclusions

The information in this section is for people, often clinicians, who want detailed information about which patients are excluded from the data. The incidence rate denominator excludes certain patients, such as those:

- Hospitalized fewer than five days
- Who already had a pressure ulcer when admitted to the hospital
- MDC 9 (Skin, Subcutaneous Tissue, and Breast)
- MDC 14 (pregnancy, childbirth, and puerperium)
- With any diagnosis of hemiplegia, paraplegia, or quadriplegia
- With ICD-9-CM code of spina bifida or anoxic brain damage
- With an ICD-9-CM procedure code for debridement or pedicle graft before or on the same day as the major operating room procedure (surgical cases only)
- Admitted from a long-term care facility (SID Admission Source=3)
- Transferred from an acute-care facility (SID Admission Source=2)

The number of patients who meet these criteria is listed on the public report.

Diamond Categories

The diamond categories help you understand how each hospital's incidence (SIR score) compares to its expected incidence (which is determined based on the average performance of Rhode Island hospitals):

- ◆ Worse than expected
- ◆◆ About the same as expected
- ◆◆◆ Better than expected

These categories are determined mathematically to ensure that the differences are meaningful. In detailed terms, this means that hospitals with either one diamond (◆) or three diamonds (◆◆◆) have pressure ulcer incidence rates that are “statistically significantly different” from their expected rates.

Diamond Calculation

The information in this section is for people who want statistical details about the diamond calculations. The diamond categories are determined based on hospitals' SIRs (see p. 1). A SIR less than 1.0 means the hospital's rate is lower (better) than expected; a SIR greater than 1.0 is higher (worse) than expected. The margin of error, or “90% confidence interval,” determines whether each SIR is meaningfully different from 1.0. Diamonds are assigned as follows:

- One diamond (◆): If the SIR falls above 1.0 (is worse than expected) AND its margin of error, or “90% confidence interval,” does not include 1.0, then the hospital has one diamond.
- Two diamonds (◆◆): If the 90% confidence interval for the score includes the Rhode Island average, then the hospital's score is not accurate enough to categorize it as better or worse than other hospitals. The hospital has two diamonds.
- Three diamonds (◆◆◆): If the SIR falls below 1.0 (is better than expected) AND its margin of error, or “90% confidence interval,” does not include 1.0, then the hospital has three diamonds. **Note:** The exception is when the hospital does not have any hospital-acquired pressure ulcers (where 0 is the best performance). When this occurs, a hospital is automatically given three diamonds.

Measure Information (adapted from the Agency for Healthcare Research and Quality)

Measure	Why is this information important?
<p>Pressure Ulcer Incidence and SIR score</p>	<p>This measures hospital-acquired, or incident, pressure ulcers in patients aged 18 and older who were hospitalized for five days or more. Pressure ulcers, sometimes called bed sores or pressure sores, are skin wounds that can be painful, take a long time to heal, and cause other complications, such as skin and bone infections.</p> <p>There are several things that hospitals can do to prevent pressure ulcers, such as frequently changing the patient’s position, ensuring proper nutrition, and using soft padding to reduce pressure on the skin. However, some patients may get pressure ulcers even when the hospital provides good preventive care.</p> <p>For the pressure ulcer SIR, which compares actual incidence to what is “expected,” <i>lower</i> scores are better. A SIR score less than 1.0 means the incidence is better than expected.</p>

Definitions (adapted from the Pressure Ulcer Advisory Panel)

Word or Phrase	What does this mean?
<p>Pressure Ulcer</p>	<p>Pressure ulcers, sometimes called bed sores or pressure sores, are skin wounds that can be painful, take a long time to heal, and cause other complications, such as skin and bone infections. Pressure ulcers are “staged” I-IV according to their depth. Only Stage III, Stage IV, and unstageable pressure ulcers are included in the public report.</p> <p>There are several things that hospitals can do to prevent pressure ulcers, such as frequently changing the patient’s position, ensuring proper nutrition, and using soft padding to reduce pressure on the skin. However, some patients may get pressure ulcers even when the hospital provides good preventive care.</p>
<p>Rate</p>	<p>A score that reflects new (hospital-acquired) pressure ulcers over a period of time; for pressure ulcer incidence, three months.</p>
<p>Stage III Pressure Ulcer</p>	<p>Stage III pressure ulcers are deep enough to go through the skin, and may expose the fat that is under the skin. However, bone, tendon, and muscle are not exposed.</p>
<p>Stage IV Pressure Ulcer</p>	<p>Stage IV pressure ulcers are deep enough to go through the skin <u>and</u> expose bone, tendon, or muscle.</p>
<p>Unstageable Pressure Ulcer</p>	<p>Unstageable pressure ulcers are deep enough to go through the skin, but are covered by debris so it is not possible to determine whether or not bone, tendon, or muscle are exposed.</p>