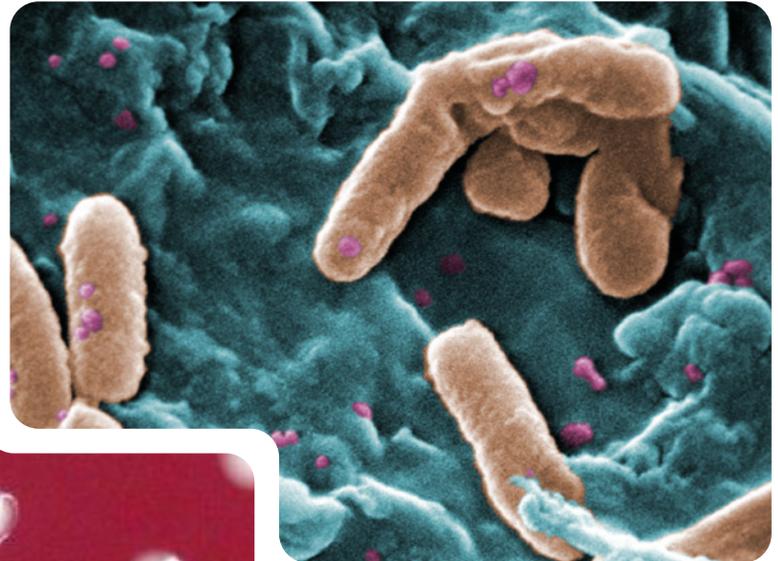
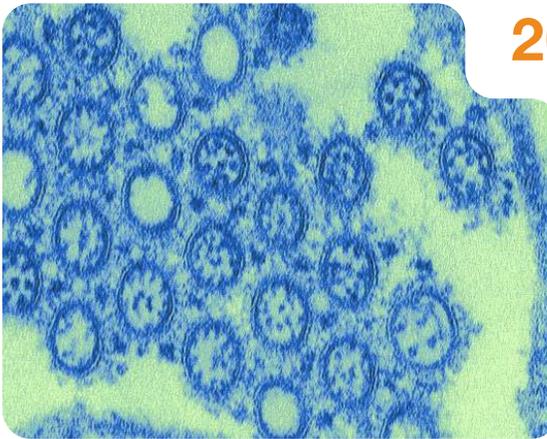


Health Care Acquired Infections

2009–2013 Oregon Report



Oregon
Health
Authority

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Executive summary



Health care-associated infections (HAIs) are potentially life threatening yet preventable infections, which strike approximately one in 20 hospitalized patients. The Centers for Disease Control and Prevention (CDC) estimates that in 2011 there were 722,000 cases and 75,000 deaths attributed to HAIs. The overall annual direct medical costs of HAIs in the U.S. hospitals range from \$28.4 to 33.8 billion.

In 2007, the Oregon Legislative Assembly passed House Bill 2524 with the aim of keeping Oregonians free of infections acquired during the administration of health care. Oregon established a mandatory HAI reporting program that would:

- Raise awareness of HAIs
- Promote transparency of health care information
- Aid hospitals in reducing and preventing HAIs

In January of 2009, the Oregon Health Authority (OHA) Health Care-Associated Infection reporting program and an associated Advisory Committee (HAIAC) were formed to support these aims. The HAIAC is a diverse group of stakeholders with relevant expertise to promote prevention of harm to individuals accessing health care. The HAI program establishes reporting rules for Oregon medical facilities, which presently include the following health care outcome and process measures:

Health care outcome measures

- Central line-associated bloodstream infections (CLABSI)
 - Adult intensive care units (reporting since 2009)
 - Neonatal intensive care units (reporting since 2011)
- Surgical site infections (SSIs) associated with the following procedures:
 - CBGB – Coronary artery bypass grafting (reporting since 2009)
 - CBGC – Coronary artery bypass grafting (reported from 2009–2010)
 - COLO – Colon surgery (reporting since 2011)
 - HPRO – Hip prosthesis (reporting since 2011)
 - HYST – Abdominal hysterectomy (reporting since 2011)
 - KPRO – Knee prosthesis (reporting since 2009)
 - LAM – Laminectomy (reporting since 2011)
- CDI LabID – *Clostridium difficile* Laboratory Identification Event (reporting since 2012)

- DE – Dialysis Event (reporting since 2013)

Health care process measures

- Health care worker influenza vaccination rate (reporting since 2009)
- Surgical Care Improvement Project measures (SCIP) (reporting since 2009)
 - SCIP1 – Prophylactic antibiotic received within one hour prior to surgical incision
 - SCIP2 – Prophylactic antibiotic selection for surgical patients
 - SCIP3 – Prophylactic antibiotics discontinued within 24 hours after surgery end
 - SCIP4 – Cardiac surgery patients with controlled 6 a.m. postoperative blood glucose
 - SCIP9 – Urinary catheter removal by postoperative day 2
 - SCIP10 – Surgery patient with perioperative temperature management
- Infection Prevention Annual Survey (reporting since 2009)

In 2013, 60 Oregon hospitals, one long-term acute care (LTAC) facility and 51 dialysis facilities reported HAI data to OHA. Also in 2013, 60 hospitals, 85 ambulatory surgical centers (ASC) and 139 long-term care facilities (LTCF) reported influenza vaccination rates. Overall, Oregon performed better than the national baseline for CLABSIs, SSIs and *C. difficile* LabID events. Oregon dialysis facilities reported fewer bloodstream infections (BSI) and fewer BSIs related to types of vascular access (ARB) than the national mean of all dialysis facilities reporting to NHSN. Health care worker influenza vaccination rates increased 8% for all facilities (hospitals, ambulatory surgical centers, long-term care facilities). All SCIP measures showed above 95% compliance. The 2013 infection prevention (IP) annual survey revealed Oregon has an average of 1 FTE per 110 hospital beds and IPs spend 40% of their time doing NHSN surveillance.

Background

Health care-associated infections (HAIs) are infections associated with treatment for other conditions in medical settings. Oregon hospitals report HAIs to OHA using the CDC National Health Safety Network (NHSN). This is an online surveillance and prevention system created to track HAIs in medical facilities across the United States. SCIP measure data are collected from the Centers for Medicare & Medicaid Services (CMS) Hospital Compare database. Additional information about NHSN and CMS Hospital Compare can be found at:

www.cdc.gov/nhsn/www.medicare.gov/hospitalcompare/search.html

In 2009, Oregon hospitals began reporting 4 NHSN-defined HAIs; CLABSIs, CBGBs (chest only and chest/donor site) and KPROs. Since that time, 8 other HAIs have been added to mandatory reporting, two of which are new to reporting in 2014. Surveillance of CBGCs for the chest incision only was dropped from reporting requirements in 2011.

Table 1. Health care-associated infections reported by Oregon hospitals by year.

Type of infections	2009	2010	2011	2012	2013	2014
Adult critical care central line-associated bloodstream infections	✓	✓	✓	✓	✓	✓
Coronary artery bypass graft surgery (chest and donor site)	✓	✓	✓	✓	✓	✓
Coronary artery bypass graft surgery (chest only)	✓	✓	--	--	--	--
Knee prosthesis surgical site infections	✓	✓	✓	✓	✓	✓
Neonatal critical care central line-associated blood stream infections			✓	✓	✓	✓
Abdominal hysterectomy surgical site infections			✓	✓	✓	✓
Hip prosthesis surgical site infections			✓	✓	✓	✓
Laminectomy surgical site infections			✓	✓	✓	✓
<i>C. difficile</i> LabID events				✓	✓	✓
Dialysis events					✓	✓
Adult and pediatric catheter-associated urinary tract infections						✓
MRSA LabID events						✓

Health care worker influenza vaccination rates have been reported since the 2009–2010 influenza season. Influenza vaccination rates are collected using a survey based on the protocols provided by the Advisory Committee on Immunization Practices (ACIP) and are reported to NHSN. Included in the vaccination report are questions regarding hospital practices to promote vaccination. Since 2013, this measure of vaccination coverage has been a CMS federal measure required for prospective payment.

The Surgical Care Improvement Project (SCIP) infection data have been collected from the CMS Hospital Compare website since 2009. Recognized nationwide as a sign of quality, these

measures were developed by CMS, a federal agency and The Joint Commission (JC), an independent, not-for-profit organization.

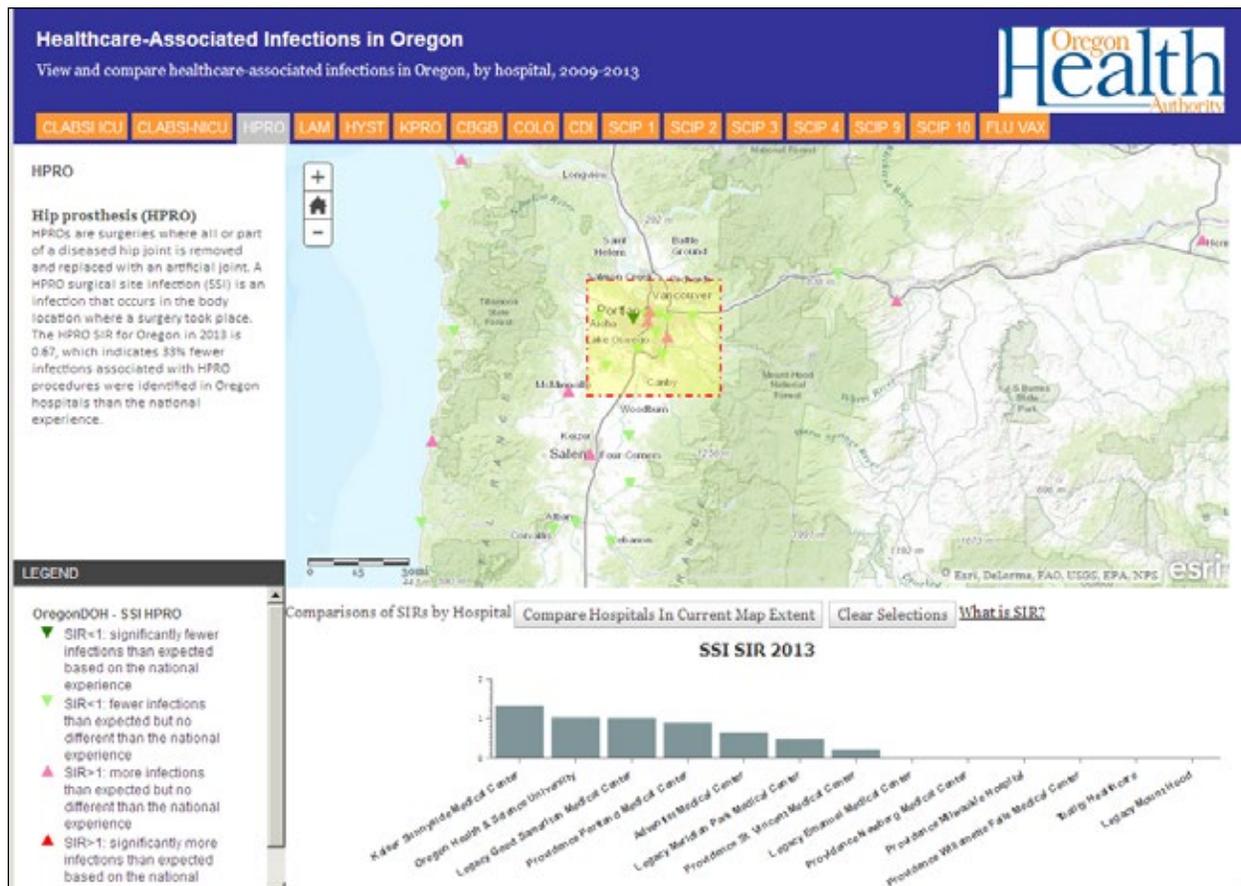
Hospitals complete the NHSN Patient Safety Annual Hospital Survey to assess the impact of mandatory HAI reporting on infection prevention personnel.

Online Department of Health hospital infection map

New to the Oregon Health Authority HAI website is an interactive map of hospitals in Oregon with their corresponding health care-associated infection information. Hospital infection information can be obtained from this website, including the hospital's number of infections, number of procedures, the rate and SIR. Another feature is the ability to compare infection information between hospitals by selecting regions of interest.

This map can be found at:

<http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/HAI/Pages/index.aspx>



Internal and external validation

Hospital review

Oregon hospitals had the opportunity to verify the accuracy of their data. The aggregate numbers of infections and denominators as well as possible data errors for SSIs were sent to each hospital to be reviewed by the chief executive officer and the lead infection prevention professional. The possible data error elements were defined as:

1. Any missing required data elements
2. Any procedure duration less than 5 minutes
3. Procedure duration greater than*:
 - a. CBGB > 846 minutes
 - b. COLO > 668 minutes
 - c. HPRO > 380 minutes
 - d. HYST > 479 minutes
 - e. KPRO > 354 minutes
 - f. LAM > 615 minutes
4. CBGB classified as anything other than “clean”
5. CBGB with an ASA score other than 1 or 2
6. CBGB classified as a trauma surgical procedure
7. Any HPRO, KPRO or LAMs with a wound class other than “clean”
8. COLO procedure classified as “clean”
9. Any surgical wound class designated as “unknown”

Facilities were given 14 days to provide any corrections prior to publication. In addition, facilities were given the opportunity to submit written comments to be included in the annual report.

* http://www.cdc.gov/nhsn/PDFs/Newsletters/NHSN_NL_OCT_2010SE_final.pdf

External validation

The Oregon Health Authority’s Public Health Division is currently validating intensive care unit (ICU) CLABSI data by retrospective chart review. This evaluation is similar to the statewide validation of ICU CLABSIs reported for 2009. In both the current and 2009 CLABSI validation, hospitals were assessed for consistency and reliability of applying NHSN definitions to patients identified with blood cultures testing positive for a microorganism.

Limitations of this report

There are two significant limitations of this report:

1. Each facility's data is self-reported. The OHA implemented both internal and external validation to maintain data integrity.
2. The ability to detect HAI cases varies between facilities. This can be due to several causes including, but not limited to:
 - a. The amount of personnel and financial resources available to facilities for surveillance;
 - b. Hospitals may use different approaches to detecting HAIs. Differences in lab reporting, diagnostic methods, post-discharge surveillance and other non-standardized methods can lead to differences in HAI detection; and
 - c. Differences in microbiologic diagnostic testing can cause differences in detection. For example, microbiology laboratories that have implemented more sensitive laboratory tests to detect *C. difficile* may report an increase in total numbers of positive specimens due to the increase in sensitivity of the test.

Future implications

Decreases in several Oregon HAIs over the past 5 years is likely due to the extraordinary efforts of infection preventionists and quality personnel to educate hospital staff and implement process improvement programs. Prevention collaboratives have been established to continue reducing HAIs in Oregon that include:

- Acumentra Health (Oregon's QIO)
- Oregon Association of Hospitals and Health Systems (OAHHS)
- Oregon Patient Safety Commission (OPSC)
- Drug Resistant Organism Coordinated Regional Epidemiology network (DROP-CRE)

The efforts of these groups are aimed at reducing:

- Central line-associated bloodstream infections
- Surgical site infections
- *Clostridium difficile* infections
- MRSA infections
- Multidrug-resistant organism infections (MDROs)

A list of some Oregon efforts can be found on the CDC website:

www.cdc.gov/HAI/stateplans/state-hai-plans/or.html

The SIR

Prior to the 2012 report, Oregon only reported simple rates that did not account for the diversity of hospital populations. For example, the rate of HAIs in a hospital that has an older population is expected to have a higher rate of infection than a hospital with a younger population because older patients are at greater risk for infection for reasons other than the type of care given. The Standardized Infection Ratio (SIR) measurement is used to account for such differences in a health care population based on national data.

How to interpret the SIR

There are two important calculations for the SIR: the ratio itself and its confidence interval.

SIR (ratio):

$$\text{SIR} = \text{Observed HAI/Expected HAI}$$

SIR = 1.0 means the number of infections observed during 2013 was the same as expected.

SIR > 1 means the number of infections observed during 2013 was higher than expected.

SIR < 1 means the number of infections observed during 2013 was lower than expected.

Confidence interval (CI):

This is a range around the SIR estimate that conveys the level of confidence in the precision of the SIR estimate. If the confidence interval includes the value 1.0 (i.e.: 0.5–1.5), then the SIR estimate is considered not to be statistically different from the national baseline. If the confidence interval does not include 1.0 (0.5–0.8), then the SIR estimate is considered to be statistically different than the national baseline.

Example of the 2013 HAI tables in this report

HAI (2013)				
Hospital Name	Observed # of CLABSIs	Expected # of CLABSIs	CLABSI SIR	
Hospital A	1.00	5.00	0.20	▼
Hospital B	1.00	2.00	0.50	▼
Hospital C	2.00	1.50	1.33	▲
Hospital D	2.00	1.00	2.00	▲

Interpretation of 2013 HAI tables

Hospital A
 ▼ SIR = 0.20
 Confidence interval = 0.1-0.3

The SIR estimate for this hospital is 0.20. This means this hospital had 80% less HAIs than the national baseline. The CI is statistically significant which means the SIR estimate is statistically different than the national baseline.

Hospital B
 ▼ SIR = 0.50
 Confidence interval = 0.20-1.02

The SIR estimate for this hospital is 0.50. This means this hospital had 50% less HAIs than the national baseline. The CI includes 1.0 and is not statically significant. This means the SIR estimate is not statistically different than the national baseline.

Hospital C
 ▲ SIR = 1.33
 Confidence interval = 0.80-3.00

The SIR estimate for this hospital is 1.33. This means this hospital had 33% more HAIs than the national baseline. The CI includes 1.0 and is not statically significant. This means the SIR estimate is not statistically different than the national baseline.

Hospital D
 ▲ SIR = 2.00
 Confidence interval = 1.5-3.5

The SIR estimate for this hospital is 2.0. This means this hospital had 100% more HAIs than the national baseline. The CI is statistically significant which means the SIR estimate is statistically different than the national baseline.

Guidelines for understanding this report

Type of measure	What are these measures?	What do the numbers mean?
Health care-associated infections	These measures show the number of infections that are acquired by patients while receiving medical care	Lower rate or SIR is better
Surgical Care Improvement Project	These measures show how well a hospital does in implementing ways to prevent surgical complications	Higher score is better
Health care worker influenza vaccination	This measure shows the number of health care workers that received influenza vaccination in an effort to prevent the spread of the disease	Higher score is better

Health care-associated infections (HAI)

Exemptions

Oregon hospitals were given the opportunity to request exemptions to reporting HAIs if they met the following criteria:

- Facilities that perform less than 20 of a given surgical procedure may request an exemption from reporting that specific surgical site infection type.
- Facilities that have less than 50 central line (CL) days per year may request an exemption from reporting CL-associated bloodstream infections.

All hospitals must report hospital-onset *C. difficile* infections, but may report quarterly instead of monthly if they received a waiver from CLABSI and SSI reporting for 2013.

The exemption forms can be found on this website:

<http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/HAI/Reporting/Pages/Mandatory-Reporting.aspx>

Table 2. Hospitals that applied and met criteria for HAI exemptions for 2013 reporting by hospital. (An “x” marks exemption status.)

NHSN ID	Name	Adult CLABSI	CBGB	COLO	HPRO	HYST	KPRO	LAM
13867	Adventist Medical Center							
11409	Asante Three Rivers Medical Center		X					X
13917	Ashland Community Hospital							
14144	Asante Rogue Regional Medical Center *							
13654	Bay Area Hospital		X					
13763	Blue Mountain Hospital	X	X	X	X	X	X	X
14061	Columbia Memorial Hospital		X					X
13834	Coquille Valley Hospital District							
21425	Cottage Grove Community Hospital	X						
14964	Curry General Hospital	X	X	X	X	X	X	X
13783	Good Samaritan Regional Medical Center							
13191	Good Shepherd Medical Center		X	X		X		X
14338	Grande Ronde Hospital							
14223	Harney District Hospital	X	X	X	X	X	X	X
10400	Kaiser Permanente Sunnyside Medical Center							
33207	Kaiser Permanente Westside Medical Center							
14573	Lake District Hospital	X	X	X	X	X	X	X
10598	Legacy Emanuel Medical Center *							
10597	Legacy Good Samaritan Medical Center							
13821	Legacy Meridian Park Medical Center							
14002	Legacy Mount Hood Medical Center							
13414	Lower Umpqua Hospital District	X	X	X	X	X	X	X
13488	McKenzie-Willamette Medical Center							
14483	Mercy Medical Center							
14173	Mid-Columbia Medical Center	X	X					X
10074	Oregon Health & Science University *							
10997	Peace Harbor Hospital		X			X		X
34079	Pioneer Memorial Hospital - Heppner	X						
13419	Pioneer Memorial Hospital - Prineville							
13382	Providence Hood River Memorial Hospital		X					X
13313	Providence Medford Medical Center							
12445	Providence Milwaukie Hospital		X					X
11121	Providence Newberg Medical Center							
13724	Providence Portland Medical Center							
13303	Providence Seaside Hospital							
10095	Providence St. Vincent Medical Center *							
13738	Providence Willamette Falls Medical Center		X					
12648	Sacred Heart Medical Center - Riverbend *							
22132	Sacred Heart University District							
13910	Salem Hospital *							
13787	Samaritan Albany General Hospital							
13720	Samaritan Lebanon Community Hospital							
13780	Samaritan North Lincoln Hospital	X	X	X	X	X		X
13722	Samaritan Pacific Community Hospital		X					X
14224	Santiam Memorial Hospital	X	X					X
13984	Shriner's	X	X	X	X	X	X	X
13685	Silverton Hospital		X					X
14288	Sky Lakes Medical Center		X					
14013	Southern Coos Hospital and Health Center							
15534	St. Alphonsus Medical Center - Baker City		X	X		X		X
13871	St. Alphonsus Medical Center - Ontario							
13618	St. Anthony Hospital		X			X		X
13402	St. Charles Medical Center - Bend *							
13856	St. Charles Medical Center - Madras							
13418	St. Charles Medical Center - Redmond							
13383	Tillamook County Hospital		X			X		X
13786	Tuality Community Hospital							
25132	Vibra Specialty Hospital of Portland	X	X	X	X	X	X	X
13796	Wallowa Memorial Hospital	X	X		X	X	X	X
14087	West Valley Hospital	X	X	X	X	X	X	X
13930	Willamette Valley Medical Center							

Facilities which perform less than 20 of a given surgical procedure may request an exemption from reporting that specific surgical site infection type.

Facilities which have less than 50 central line (CL) days per year may request an exemption from reporting CL-associated bloodstream infections.

* These 7 hospitals have neonatal ICUs and report data for CLABSIs in those units.

Central line-associated bloodstream infections (CLABSIs)

CLABSIs are bloodstream infections caused by a central vascular catheter (CVC). CVCs are used to deliver medication, withdraw blood for medical tests and monitor vital signs such as blood pressure and temperature. A bloodstream infection can occur when microorganisms such as bacteria enter and attach to the CVC tubing. In this document, CLABSI SIRs are assessed for the adult medical, surgical and medical/surgical ICUs and neonatal intensive care units (ICU).

Adult intensive care

The Oregon CLABSI SIR in adult intensive care units decreased by 65% over the last 5 years and remains statistically better than the national baseline. In 2013, there were a total of 29 adult intensive care unit CLABSIs identified in Oregon hospitals, in contrast to the 100.5 predicted for Oregon by NHSN.

The SIR for Oregon in 2013 is $29 \div 100.5 = 0.29$.

In 2013, 71% less CLABSIs were identified in Oregon's adult intensive care patients than the national experience.

Figure 1. Oregon adult ICU CLABSI SIRs for calendar years 2009 through 2013.

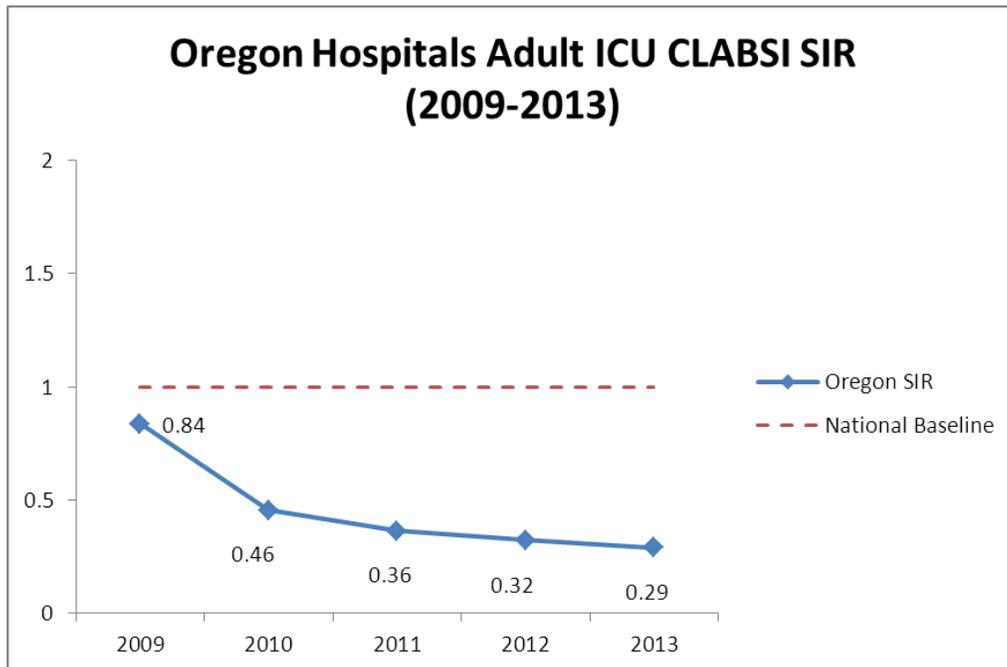


Table 3 and Figure 2 show that in 2013, 43 hospitals reported the CLABSI measurement in their hospitals adult intensive care unit. Sixteen hospitals (37%) reported at least one CLABSI in their ICUs and 27 (63%) hospitals reported zero CLABSIs. Three hospitals had an SIR statistically lower than the national baseline. Three hospitals in 2013 reported at least one CLABSI but had no SIR calculated because the expected number of CLABSIs was less than one.

Table 3. Oregon adult ICU observed and expected number of CLABSIs with associated SIR for calendar year 2013 by hospital.

Central Line-Associated Bloodstream Infection (CLABSI) 2013				
Hospital Name	Observed # of CLABSIs	Expected # of CLABSIs	CLABSI SIR	
Adventist Medical Center	1	2.75	0.36	▼
Asante Rogue Regional Medical Center	1	4.39	0.23	▼
Asante Three Rivers Medical Center	0	1.25	0.00	▼
Ashland Community Hospital	0	0.13	0.00	▼
Bay Area Hospital	0	0.80	0.00	▼
Columbia Memorial Hospital	0	0.08	0.00	▼
Coquille Valley Hospital District	0	0.05	0.00	▼
Good Samaritan Regional Medical Center	0	2.67	0.00	▼
Good Shepherd Medical Center	0	0.13	0.00	▼
Grande Ronde Hospital	0	0.21	0.00	▼
Kaiser Permanente Sunnyside Medical Center	0	2.87	0.00	▼
Legacy Emanuel Medical Center	3	10.40	0.29	▼
Legacy Good Samaritan Medical Center	1	3.98	0.25	▼
Legacy Meridian Park Medical Center	0	1.05	0.00	▼
Legacy Mount Hood Medical Center	1	1.51	0.66	▼
McKenzie-Willamette Medical Center	2	1.73	1.16	▲
Mercy Medical Center	0	2.05	0.00	▼
Oregon Health & Science University	1	21.46	0.05	▼
Peace Harbor Hospital	1	0.14	--	--
Pioneer Memorial Hospital - Prineville	0	0.07	0.00	▼
Providence Hood River Memorial Hospital	0	0.08	0.00	▼
Providence Medford Medical Center	2	3.45	0.58	▼

Central Line-Associated Bloodstream Infection (CLABSI) 2013

Hospital Name	Observed # of CLABSIs	Expected # of CLABSIs	CLABSI SIR	
Providence Milwaukie Hospital	0	0.35	0.00	▼
Providence Newberg Medical Center	0	0.51	0.00	▼
Providence Portland Medical Center	2	6.21	0.32	▼
Providence Seaside Hospital	0	0.03	0.00	▼
Providence St. Vincent Medical Center	0	3.17	0.00	▼
Providence Willamette Falls Medical Center	0	0.59	0.00	▼
Sacred Heart Medical Center - Riverbend	1	10.99	0.09	▼
Salem Hospital	3	6.77	0.44	▼
Samaritan Albany General Hospital	0	1.07	0.00	▼
Samaritan Lebanon Community Hospital	0	0.49	0.00	▼
Samaritan Pacific Communities Hospital	0	0.29	0.00	▼
Silverton Hospital	0	0.20	0.00	▼
Sky Lakes Medical Center	2	1.93	1.04	▲
St. Alphonsus Medical Center - Ontario	0	0.20	0.00	▼
St. Anthony Hospital	1	0.38	--	--
St. Charles Medical Center - Bend	6	4.16	1.44	▲
St. Charles Medical Center - Madras	0	0.02	0.00	▼
St. Charles Medical Center - Redmond	0	0.30	0.00	▼
Tillamook County Hospital	0	0.04	0.00	▼
Tuality Community Hospital	0	1.01	0.00	▼
Willamette Valley Medical Center	1	0.94	--	--

▼ SIR is < 1.0 and is less than the national baseline

▼ SIR is ≤ 1.0 and is no different than the national baseline or facility had 0 CLABSIs

▲ SIR is > 1.0 and is no different than the national baseline

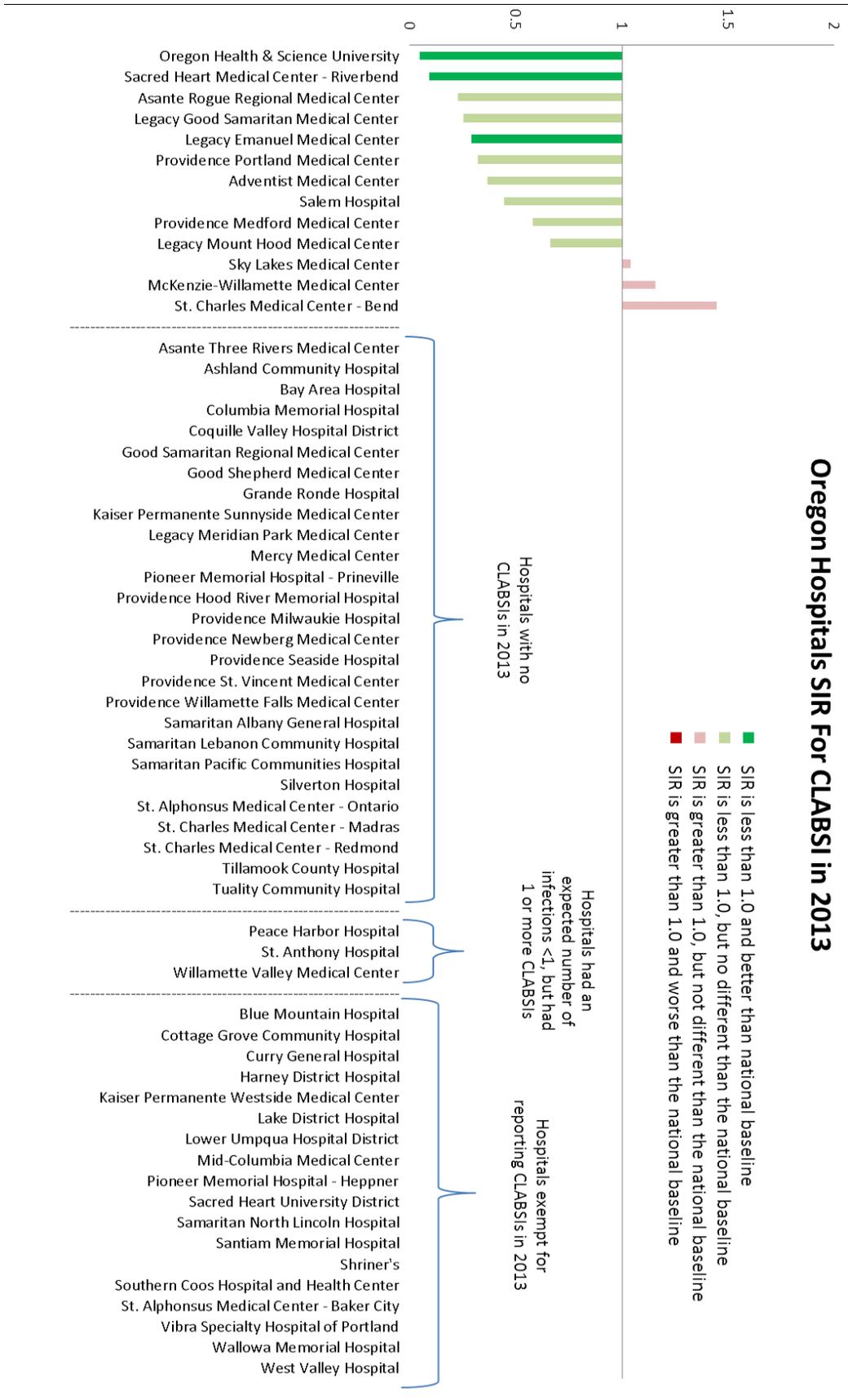
▲ SIR is > 1.0 and is greater than the national baseline

-- No SIR calculated because the expected number of infections is < 1 and facility had at least one infection in 2013

Footnote 1: The expected number of CLABSIs is a prediction based on the national HAI experience for all hospitals reporting to NHSN. The observed number is the total number of CLABSIs identified during 2013. The SIR = Observed ÷ Expected. It is better to have a lower SIR.

Footnote 2: NHSN does not calculate an SIR for hospitals whose expected number of infections is < 1.

Figure 2. Oregon adult ICU CLABSI SIRs for calendar year 2013.



Sixteen Oregon hospitals reported a decrease in adult ICU CLABSIs from 2009–2013. Four hospitals reported increases in CLABSIs between 2009–2013. Seventeen hospitals reported no CLABSIs between 2009–2013.

Table 4. Oregon SIR values for adult ICU CLABSIs for calendar years 2009 through 2013 by hospital.

Adult ICU CLABSI Standardized Infection Ratio (2009–2013)

Hospital Name	SIR					Percent difference	Trend
	2009	2010	2011	2012	2013		
Adventist Medical Center	0.81	0.50	0.37	0.00	0.36	-55.3%	
Asante Rogue Regional Medical Center	0.81	0.30	0.27	0.00	0.23	-72.0%	
Asante Three Rivers Medical Center	0.96	0.00	0.00	*	0.00	-100.0%	
Ashland Community Hospital	0.00	0.00	0.00	*	0.00	--	
Bay Area Hospital	0.00	0.00	0.00	0.00	0.00	--	
Blue Mountain Hospital	*	*	*	Exempt	Exempt	--	
Columbia Memorial Hospital	*	0.00	0.00	0.00	0.00	--	
Coquille Valley Hospital District	*	*	*	0.00	0.00	--	
Good Samaritan Regional Medical Center	0.30	0.28	0.32	1.33	0.00	-100.0%	
Good Shepherd Medical Center	0.00	0.00	0.00	0.00	0.00	--	
Grande Ronde Hospital	0.00	0.00	0.00	0.00	0.00	--	
Harney District Hospital	Exempt	Exempt	*	Exempt	Exempt	--	
Kaiser Permanente Sunnyside Medical Center	0.63	0.35	0.00	0.00	0.00	-100.0%	
Legacy Emanuel Medical Center	0.86	0.69	0.79	0.39	0.29	-66.4%	
Legacy Good Samaritan Medical Center	0.14	0.49	0.38	0.43	0.25	85.9%	
Legacy Meridian Park Medical Center	1.88	0.00	0.00	0.77	0.00	-100.0%	
Legacy Mount Hood Medical Center	1.15	1.16	0.00	1.86	0.66	-42.1%	
McKenzie-Willamette Medical Center	2.73	0.73	0.00	0.00	1.16	-57.6%	
Mercy Medical Center	1.24	0.91	0.39	0.45	0.00	-100.0%	
Mid-Columbia Medical Center	0.00	0.00	0.00	0.00	Exempt	--	
Oregon Health & Science University	1.35	0.56	0.30	0.35	0.05	-96.5%	
Peace Harbor Hospital	*	0.00	0.00	0.00	*	--	
Pioneer Memorial Hospital - Prineville	0.00	0.00	0.00	0.00	0.00	--	
Providence Hood River Memorial Hospital	0.00	*	*	0.00	0.00	--	

Adult ICU CLABSI Standardized Infection Ratio (2009–2013)

SIR

Hospital Name	2009	2010	2011	2012	2013	Percent difference	Trend
Providence Medford Medical Center	1.85	0.85	0.31	0.30	0.58	-68.6%	
Providence Milwaukie Hospital	0.00	0.00	0.00	0.00	0.00	--	
Providence Newberg Medical Center	*	0.00	0.00	0.00	0.00	--	
Providence Portland Medical Center	1.01	0.15	0.25	0.00	0.32	-68.2%	
Providence Seaside Medical Center	0.00	0.00	*	0.00	0.00	--	
Providence St. Vincent Medical Center	0.60	0.29	0.59	0.85	0.00	-100.0%	
Providence Willamette Falls Medical Center	0.00	0.00	0.00	*	0.00	--	
Sacred Heart Medical Center - Riverbend	1.09	0.72	0.42	0.19	0.09	-91.6%	
Salem Hospital	0.21	0.00	0.24	0.00	0.44	116.1%	
Samaritan Albany General Hospital	0.00	0.80	0.00	*	0.00	--	
Samaritan Lebanon Community Hospital	0.00	0.00	0.00	0.00	0.00	--	
Samaritan North Lincoln Hospital	0.00	0.00	*	0.00	Exempt	--	
Samaritan Pacific Communities Hospital	0.00	0.00	0.00	0.00	0.00	--	
Silverton Hospital	Exempt	0.00	0.00	0.00	0.00	--	
Sky Lakes Medical Center	0.00	0.00	0.00	0.56	1.04	--	
St. Alphonsus Medical Center - Baker City	Exempt	0.00	*	Exempt	Exempt	--	
St. Alphonsus Medical Center - Ontario	Exempt	0.00	0.00	0.00	0.00	--	
St. Anthony Hospital	0.00	0.00	0.00	0.00	*	--	
St. Charles Medical Center - Bend	0.66	0.78	1.21	0.00	1.44	118.1%	
St. Charles Medical Center - Madras	0.00	0.00	0.00	0.00	0.00	--	
St. Charles Medical Center - Redmond	0.00	0.00	0.00	0.00	0.00	--	
Tillamook	0.00	0.00	0.00	0.00	0.00	--	
Tuality Community Hospital	2.00	0.00	1.77	0.00	0.00	-100.0%	
Willamette Valley Medical Center	0.00	0.00	0.93	0.00	*	--	

* Expected number of infections <1 with no SIR calculated

Neonatal intensive care (NICU)

The Oregon CLABSI SIR in neonatal ICUs decreased by 29% over the past 3 years and remains statistically better than the national baseline. In 2013, there were a total of 6 NICU CLABSIs identified in Oregon hospitals, in contrast to the 20.3 predicted by NHSN.

The SIR for Oregon in 2013 is $6 \div 20.3 = 0.30$.

In 2013, 70% less CLABSIs were identified in Oregon's neonatal intensive care patients than the national experience.

Figure 3. Oregon NICU CLABSI SIRs for calendar years 2011 through 2013.

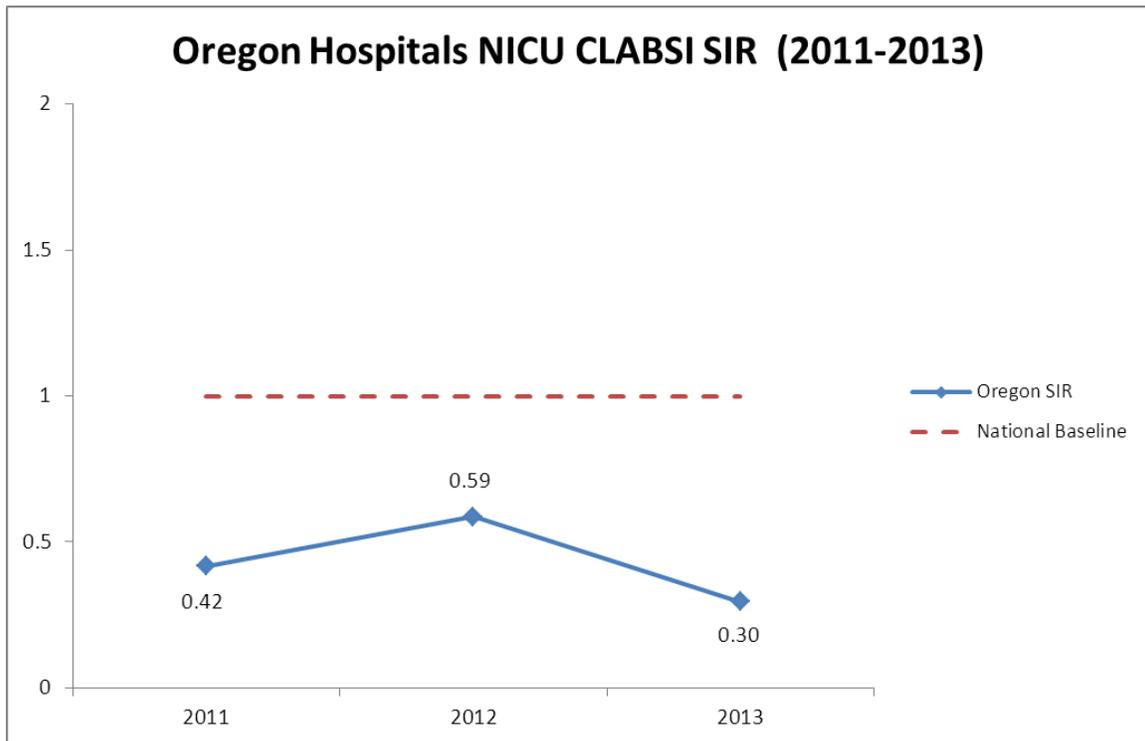


Table 5 and Figure 4 show that in 2013, 7 hospitals reported the CLABSI measurement for their neonatal intensive care unit. Five (71%) hospitals reported at least one CLABSI and 2 hospitals (29%) hospitals reported zero CLABSIs. Two hospitals had an SIR significantly lower than the national baseline. Three hospitals had no SIR calculated because the expected number of CLABSIs was less than one but did report at least on CLABSI in 2013.

Table 5. Oregon NICU observed and expected number of CLABSIs with associated SIR for calendar year 2013 by hospital.

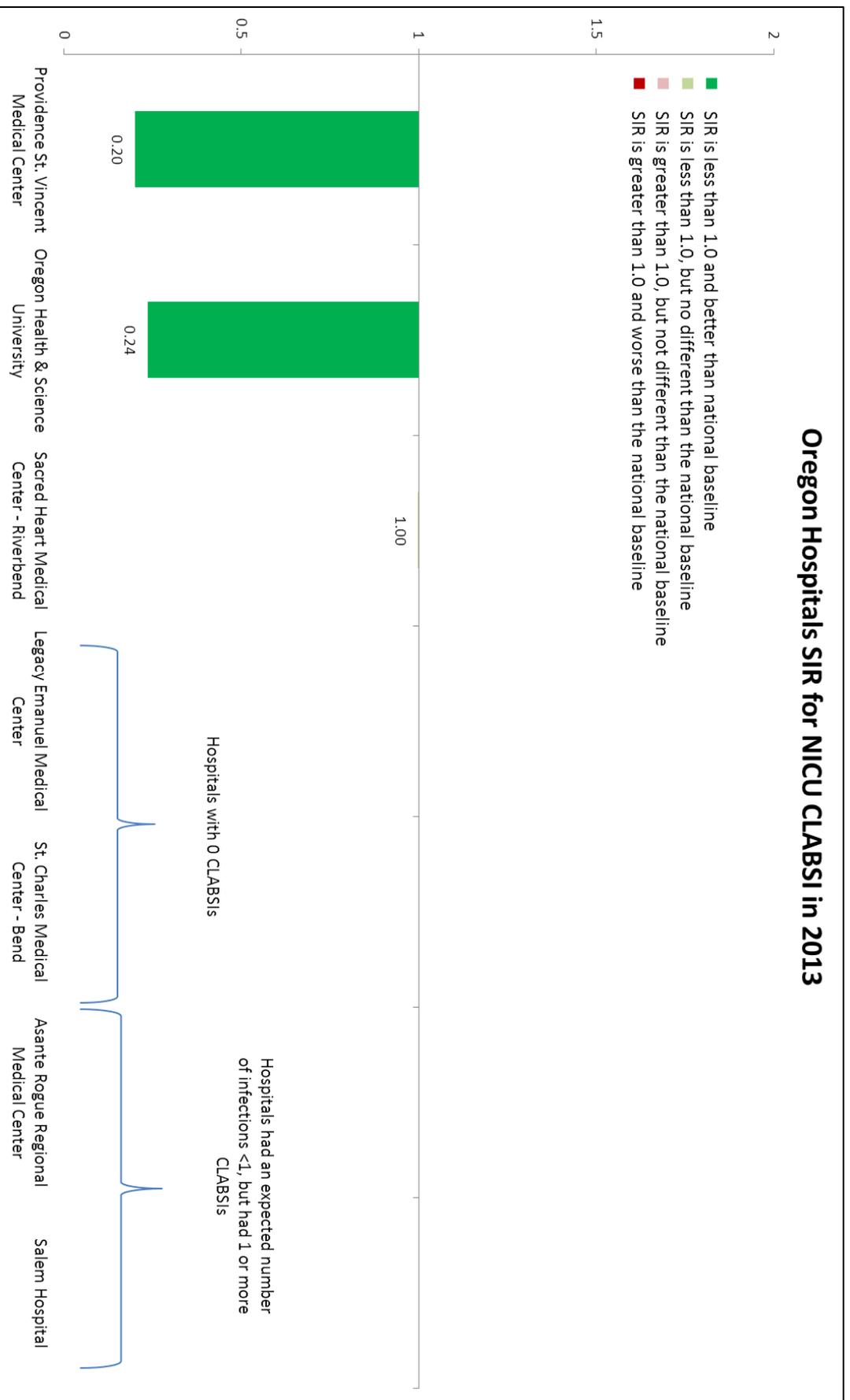
Neonatal Critical Care Central Line-Associated Bloodstream Infection (CLABSI) 2013				
Hospital Name	Observed # of CLABSIs	Expected # of CLABSIs	CLABSI SIR	
Asante Rogue Regional Medical Center	1	0.62	0.00	--
Legacy Emanuel Medical Center	0	4.41	0.00	▼
Oregon Health & Science University	2	8.46	0.24	▼
Providence St. Vincent Medical Center	1	4.99	0.20	▼
Sacred Heart Medical Center - Riverbend	1	1.00	1.00	▼
Salem Hospital	1	0.48	0.00	--
St. Charles Medical Center - Bend	0	0.34	0.00	▼

- ▼ SIR is < 1.0 and is less than the national baseline
- ▼ SIR is ≤ 1.0 and is no different than the national baseline or facility had 0 CLABSIs
- ▲ SIR is > 1.0 and is no different than the national baseline
- ▲ SIR is > 1.0 and is greater than the national baseline
- No SIR calculated because the expected number of infections is < 1 and facility had at least one infection in 2013

Footnote 1: The expected number of CLABSIs is a prediction based on the national HAI experience for all hospitals reporting to NHSN. The observed number is the total number of CLABSIs identified during 2013. The SIR = Observed ÷ Expected. It is better to have a lower SIR.

Footnote 2: NHSN does not calculate an SIR for hospitals whose expected number of infections is < 1.

Figure 4. Oregon NICU CLABSI SIRs for calendar year 2013.



For the 7 Oregon hospitals with a NICU, 2 hospitals had overall decreases in CLABSI SIRs for NICUs between 2011 and 2013. One hospital had an increase. The other 3 hospitals have had one or more years where the expected number of CLABSIs was <1.0. One hospital had no CLABSI infections between 2011–2013.

Table 6. Oregon SIR values for NICU CLABSIs for calendar years 2011 through 2013 by hospital.

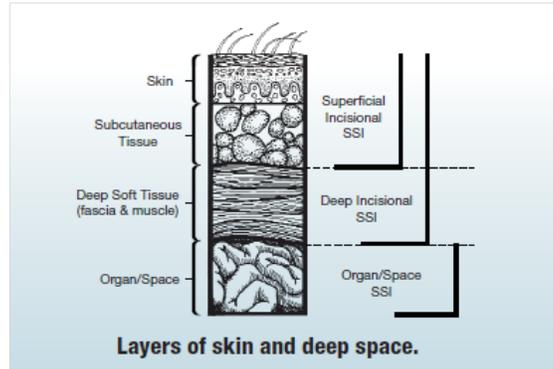
NICU CLABSI Standardized Infection Ratio (2011–2013) SIR

Hospital Name	2011	2012	2013	Percent difference	Trend
Asante Rogue Regional Medical Center	*	*	*	-	
Legacy Emanuel Medical Center	0.40	0.56	0.00	-100%	
Oregon Health & Science University	0.45	0.64	0.24	-47%	
Providence St. Vincent Medical Center	0.15	0.86	0.20	38%	
Sacred Heart Medical Center - Riverbend	*	0.00	1.00	-	
Salem Hospital	0.00	0.00	*	-	
St. Charles Medical Center - Bend	0.00	0.00	0.00	-	

* Expected number of infections <1 with no SIR calculated

Surgical site infections (SSI)

A SSI is an infection that occurs in the body location where a surgery took place. These types of infections can happen at the surface of the skin (superficial), but can also be more serious and affect the muscle (deep) or tissues in and surrounding organs in the body (organ).

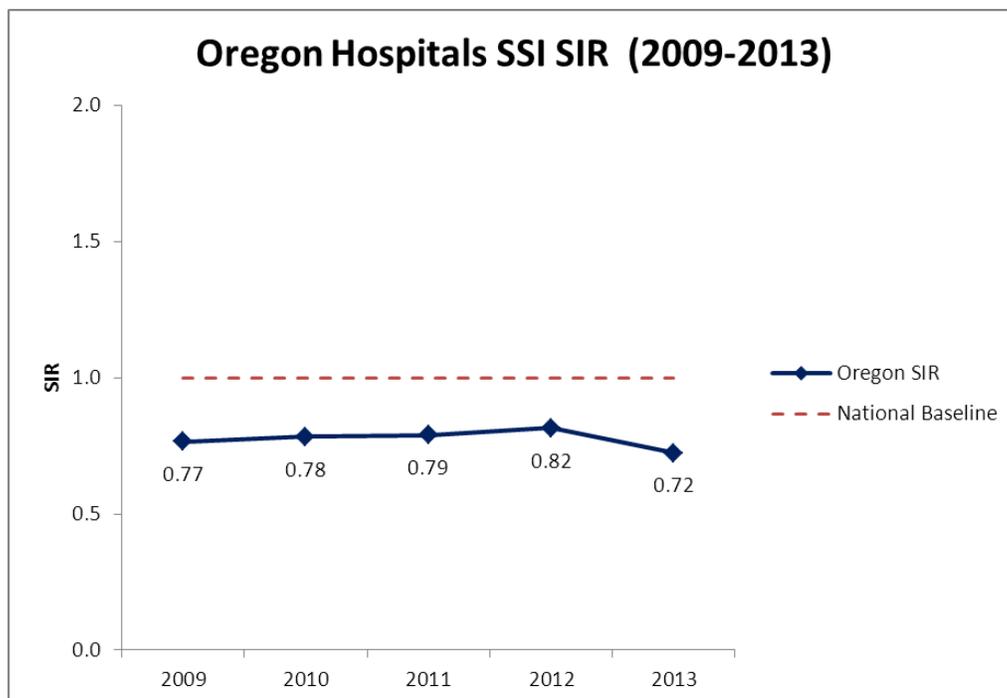


The Oregon overall SSI SIR has decreased by 7% over the past 5 years and remains statistically better than the national baseline. In 2013, there were a total of 458 SSIs identified in Oregon hospitals, in contrast to the 632.5 predicted by NHSN.

The SIR for Oregon in 2013 is $458 \div 632.5 = 0.72$.

In 2013, 28% less SSIs were identified in Oregon hospitals than the national experience.

Figure 5. Oregon overall SSI SIRs for calendar years 2009 through 2013.



For 2013, SSIs were reported for the following procedures:

- Coronary artery bypass grafting surgery
- Colon surgery
- Hip replacement surgery
- Abdominal hysterectomy surgery
- Knee replacement surgery
- Laminectomy surgery

Coronary artery bypass grafting surgery (CBGB)

CBGBs are surgeries in the heart that create new routes for blood to flow when an individual has narrowed or blocked cardiac arteries. In this specific type of surgical procedure, a vein from the patient, often from the leg, is obtained for grafting the heart vessels. CBGB SSIs are infections that occur in the chest or donor site incisions.

The Oregon SSI SIR for CBGB procedures has decreased by 14% over the past 5 years and remains statistically better than the national baseline. In 2013, there were a total of 26 CBGB SSIs identified in Oregon hospitals, in contrast to the 47.8 predicted by NHSN.

The SIR for Oregon in 2013 is $26 \div 47.8 = 0.54$.

In 2013, 46% less SSIs associated with CBGB procedures were identified in Oregon hospitals than the national experience.

Figure 6. Oregon CBGB SSI SIRs for calendar years 2009 through 2013.

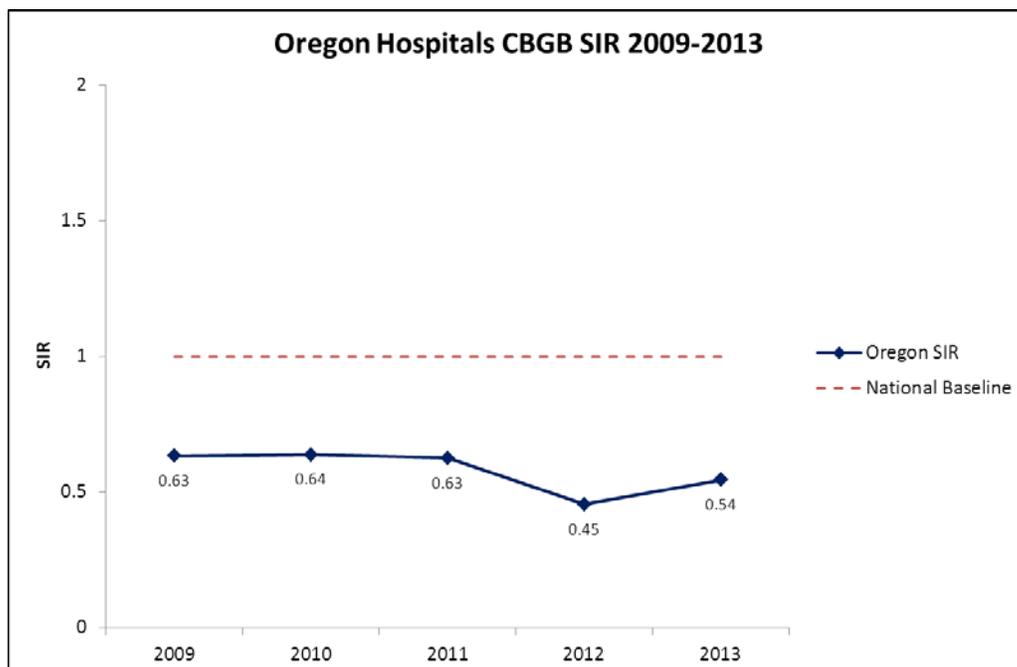


Table 7 and Figure 7 show that in 2013, 14 hospitals reported the SSI measurement for CBGB procedures. Ten (71%) hospitals reported at least one CBGB SSI and 4 (29%) hospitals reported zero CBGB SSIs. One hospital had an SIR statistically lower than the national baseline.

Table 7. Oregon CBGB observed and expected number of SSIs with associated SIR for calendar year 2013 by hospital.

Coronary Artery Bypass Graft Surgical Site Infections (CBGB) 2013				
Hospital Name	Observed # of CBGBs	Expected # of CBGBs	CBGB SIR	
Adventist Medical Center	1	1.66	0.60	▼
Asante Rogue Regional Medical Center	3	5.00	0.60	▼
Good Samaritan Regional Medical Center	0	3.11	0.00	▼
Kaiser Permanente Sunnyside Medical Center	0	3.68	0.00	▼
Legacy Emanuel Medical Center	0	1.23	0.00	▼
Legacy Good Samaritan Medical Center	1	2.37	0.42	▼
McKenzie-Willamette Medical Center	1	2.07	0.48	▼
Oregon Health & Science University	3	4.96	0.61	▼
Providence Portland Medical Center	5	2.46	2.04	▲
Providence St. Vincent Medical Center	7	7.07	0.99	▼
Sacred Heart Medical Center - Riverbend	1	5.10	0.20	▼
Salem Hospital	2	5.71	0.35	▼
St. Charles Medical Center - Bend	2	2.54	0.79	▼
Tuality Community Hospital	0	0.57	0.00	▼

- ▼ SIR is < 1.0 and is less than the national baseline
- ▼ SIR is ≤ 1.0 and is no different than the national baseline or facility had 0 CBGBs
- ▲ SIR is > 1.0 and is no different than the national baseline
- ▲ SIR is > 1.0 and is greater than the national baseline
- No SIR calculated because the expected number of infections is < 1 and facility had at least one infection in 2013

Footnote 1: The expected number of CBGBs is a prediction based on the national HAI experience for all hospitals reporting to NHSN. The observed number is the total number of CBGBs identified during 2013. The SIR = Observed ÷ Expected. It is better to have a lower SIR.

Footnote 2: NHSN does not calculate an SIR for hospitals whose expected number of infections is < 1.

Figure 7. Oregon CBGB SSI SIRs for calendar year 2013.



Oregon had 9 hospitals with CBGB SSI SIRs trending downward from 2009–2013. Five hospitals have SIRs trending upward.

Table 8. Oregon SIR values for CBGB SSIs for calendar years 2009 through 2013 by hospital.

CBGB SSI Standardized Infection Ratio (2009–2013)

SIR

Hospital Name	2009	2010	2011	2012	2013	Percent difference	Trend
Adventist Medical Center	Exempt	Exempt	0.00	0.00	0.60	--	
Asante Rogue Regional Medical Center	0.30	1.31	0.82	0.41	0.60	99%	
Good Samaritan Regional Medical Center	0.94	0.61	0.56	0.33	0.00	-100%	
Kaiser Permanente Sunnyside Medical Center	0.19	0.13	0.42	0.21	0.00	-100%	
Legacy Emanuel Medical Center	1.54	0.00	0.00	0.80	0.00	-100%	
Legacy Good Samaritan Medical Center	1.07	0.55	0.98	0.00	0.42	-60%	
McKenzie-Willamette Medical Center	1.16	0.41	0.69	0.00	0.48	-58%	
Oregon Health & Science University	1.24	1.52	1.55	1.18	0.61	-51%	
Providence Portland Medical Center	0.00	0.00	0.00	0.00	2.04	--	
Providence St. Vincent Medical Center	0.66	0.63	0.38	0.75	0.99	51%	
Sacred Heart Medical Center - Riverbend	0.30	0.59	0.92	0.19	0.20	-34%	
Salem Hospital	0.13	0.30	0.25	0.33	0.35	176%	
St. Charles Medical Center - Bend	1.45	0.77	0.00	1.17	0.79	-46%	
Tuality Community Hospital	1.84	*	*	0.00	0.00	-100%	

* Expected number of infections <1 with no SIR calculated

Colon surgery (COLO)

COLOs are surgeries of the large intestine, including incision, resection (removal) or anastomosis (reconnection).

The Oregon SSI SIR associated with COLO procedures has remained stable over the past 3 years and remains statistically better than the national baseline. In 2013, there were a total of 181 COLO SSIs identified in Oregon hospitals, in contrast to the 240.84 predicted by NHSN.

The SIR for Oregon in 2013 is $181 \div 240.84 = 0.75$.

In 2013, 25% fewer SSIs associated with COLO procedures were identified in Oregon hospitals than the national experience.

Figure 8. Oregon COLO SSI SIRs for calendar years 2011 through 2013.

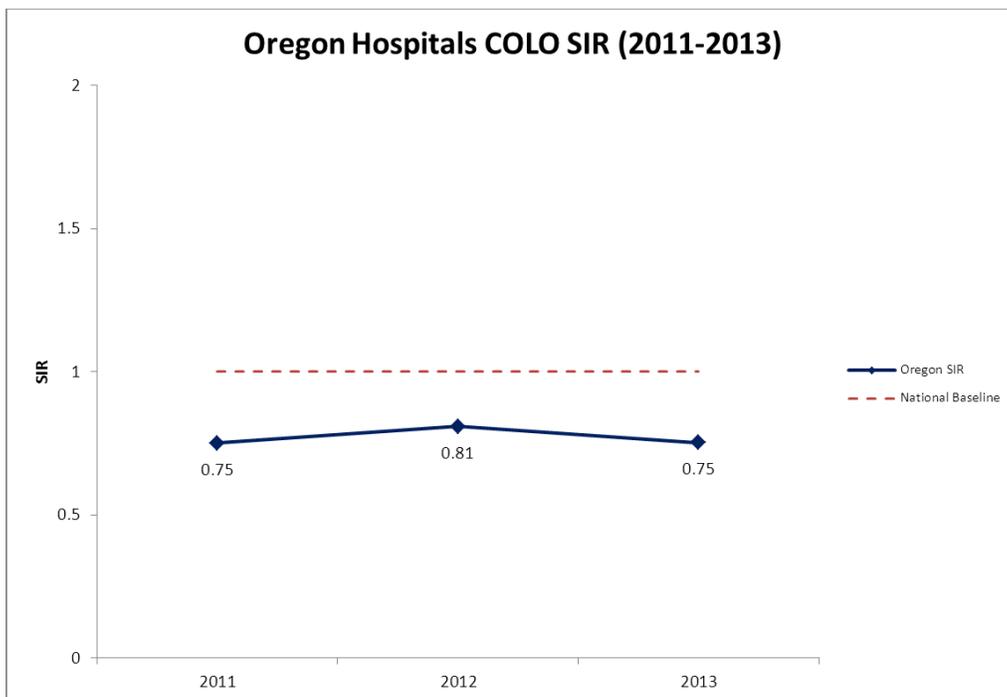


Table 9 and Figure 9 show that in 2013, 46 hospitals reported the SSI measurement for COLO procedures. Thirty (65%) hospitals reported at least one COLO SSI and 16 (35%) hospitals reported zero COLO SSIs. Four hospitals had an SIR statistically lower than the national baseline. Two hospitals had a SIR statistically higher than the national baseline. Three hospitals had at least one COLO SSI in 2013 but no SIR calculated because the expected number of COLO SSIs was less than 1.0.

Table 9. Oregon COLO observed and expected number of SSIs with associated SIR for calendar year 2013 by hospital.

Colon Surgical Site Infections (COLO) 2013				
Hospital Name	Observed # of COLOs	Expected # of COLOs	COLO SIR	
Adventist Medical Center	1	4.64	0.22	▼
Asante Rogue Regional Medical Center	2	8.71	0.23	▼
Asante Three Rivers Medical Center	6	6.10	0.98	▼
Ashland Community Hospital	2	1.50	1.34	▲
Bay Area Hospital	0	2.93	0.00	▼
Columbia Memorial Hospital	0	0.50	0.00	▼
Coquille Valley Hospital District	1	0.84	--	--
Good Samaritan Regional Medical Center	8	6.11	1.31	▲
Grande Ronde Hospital	0	0.54	0.00	▼
Kaiser Permanente Sunnyside Medical Center	15	14.02	1.07	▲
Kaiser Permanente Westside Medical Center	0	1.00	0.00	▼
Legacy Emanuel Medical Center	1	4.15	0.24	▼
Legacy Good Samaritan Medical Center	9	8.90	1.01	▲
Legacy Meridian Park Medical Center	5	7.16	0.70	▼
Legacy Mount Hood Medical Center	2	3.21	0.62	▼
McKenzie-Willamette Medical Center	2	5.80	0.35	▼
Mercy Medical Center	8	4.11	1.95	▲
Mid-Columbia Medical Center	0	1.15	0.00	▼
Oregon Health & Science University	24	30.67	0.78	▼
Peace Harbor Hospital	1	0.47	--	--
Pioneer Memorial Hospital - Prineville	0	0.49	0.00	▼
Providence Hood River Memorial Hospital	0	1.08	0.00	▼
Providence Medford Medical Center	4	2.31	1.73	▲

Colon Surgical Site Infections (COLO) 2013

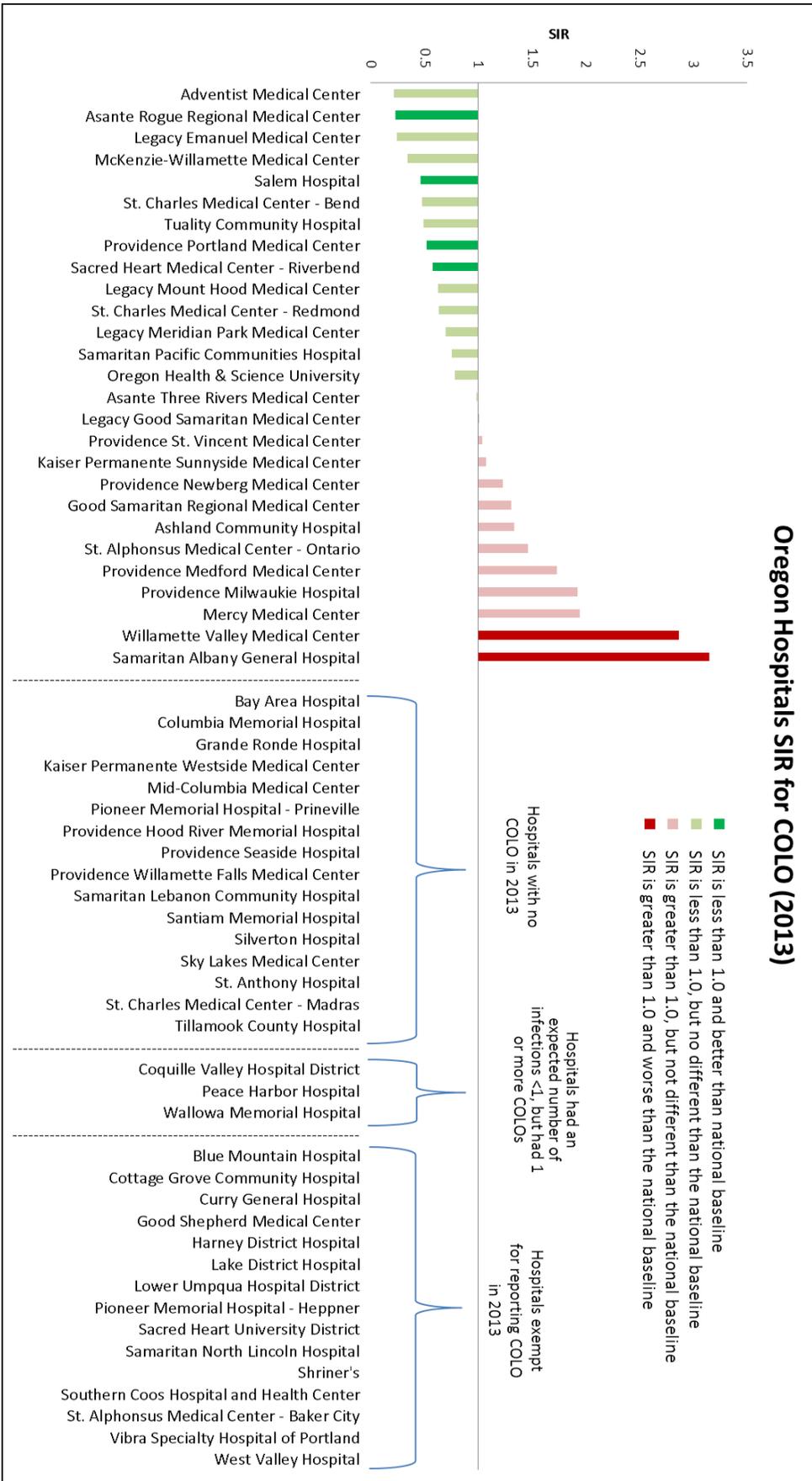
Hospital Name	Observed # of COLOs	Expected # of COLOs	COLO SIR	
Providence Milwaukie Hospital	4	2.08	1.92	▲
Providence Newberg Medical Center	2	1.63	1.23	▲
Providence Portland Medical Center	10	19.28	0.52	▼
Providence Seaside Hospital	0	0.09	0.00	▼
Providence St. Vincent Medical Center	25	24.07	1.04	▲
Providence Willamette Falls Medical Center	0	1.99	0.00	▼
Sacred Heart Medical Center - Riverbend	12	20.88	0.58	▼
Salem Hospital	10	21.75	0.46	▼
Samaritan Albany General Hospital	6	1.86	3.15	▲
Samaritan Lebanon Community Hospital	0	1.21	0.00	▼
Samaritan Pacific Communities Hospital	1	1.33	0.75	▼
Santiam Memorial Hospital	0	1.57	0.00	▼
Silverton Hospital	0	2.55	0.00	▼
Sky Lakes Medical Center	0	2.95	0.00	▼
St. Alphonsus Medical Center - Ontario	2	1.37	1.46	▲
St. Anthony Hospital	0	0.99	0.00	▼
St. Charles Medical Center - Bend	4	8.37	0.48	▼
St. Charles Medical Center - Madras	0	0.20	0.00	▼
St. Charles Medical Center - Redmond	2	3.18	0.63	▼
Tillamook County Hospital	0	0.73	0.00	▼
Tuality Community Hospital	1	2.04	0.49	▼
Wallowa Memorial Hospital	1	0.47	--	--
Willamette Valley Medical Center	6	2.09	2.87	▲

- ▼ SIR is <1.0 and is less than the national baseline
- ▼ SIR is ≤1.0 and is no different than the national baseline or facility had 0 COLOs
- ▲ SIR is >1.0 and is no different than the national baseline
- ▲ SIR is >1.0 and is greater than the national baseline
- No SIR calculated because the expected number of infections is < 1 and facility had at least one infection in 2013

Footnote 1: The expected number of COLOs is a prediction based on the national HAI experience for all hospitals reporting to NHSN. The observed number is the total number of COLOs identified during 2013. The SIR = Observed ÷ Expected. It is better to have a lower SIR.

Footnote 2: NHSN does not calculate an SIR for hospitals whose expected number of infections is < 1.

Figure 9. Oregon COLO SSI SIRs for calendar year 2013.



Oregon had 16 hospitals with COLO SSI SIRs trending downward from 2011–2013. A total of 18 hospitals have SIRs that have trended upward. Six hospitals reported zero COLO SSIs between 2011–2013.

Table 10. Oregon SIR values for COLO SSIs for calendar years 2011 through 2013 by hospital.

COLO SSI Standardized Infection Ratio (2011–2013)

SIR

Hospital Name	2011	2012	2013	Percent difference	Trend
Adventist Medical Center	0.00	0.00	0.22	--	
Asante Rogue Regional Medical Center	0.31	0.70	0.23	-24%	
Asante Three Rivers Medical Center	0.91	0.87	0.98	8%	
Ashland Community Hospital	1.41	3.72	1.34	-5%	
Bay Area Hospital	1.71	1.61	0.00	-100%	
Blue Mountain Hospital	0.00	0.00	Exempt	--	
Columbia Memorial Hospital	0.00	Exempt	0.00	--	
Coquille Valley Hospital	0.00	Exempt	*	--	
Good Samaritan Regional Medical Center	0.73	1.11	1.31	79%	
Good Shepherd Medical Center	0.00	Exempt	Exempt	--	
Grande Ronde Hospital	1.79	2.65	0.00	-100%	
Kaiser Permanente Sunnyside Medical Center	0.65	1.11	1.07	64%	
Kaiser Permanente Westside Medical Center	Exempt	Exempt	0.00	--	
Legacy Emanuel Medical Center	0.27	0.87	0.24	-11%	
Legacy Good Samaritan Medical Center	0.99	0.76	1.01	2%	
Legacy Meridian Park Medical Center	0.71	0.65	0.70	-1%	
Legacy Mount Hood Medical Center	0.24	1.24	0.62	155%	
Lower Umpqua Hospital District	0.00	Exempt	Exempt	--	
McKenzie-Willamette Medical Center	0.60	0.00	0.35	-43%	
Mercy Medical Center	0.96	2.02	1.95	102%	
Mid-Columbia Medical Center	0.66	0.00	0.00	-100%	
Oregon Health & Science University	0.68	0.79	0.78	16%	
Peace Harbor Hospital	*	4.61	*	--	
Pioneer Memorial Hospital - Prineville	0.00	Exempt	0.00	--	
Providence Hood River Memorial Hospital	*	Exempt	0.00	--	

COLO SSI Standardized Infection Ratio (2011–2013)

SIR

Hospital Name	2011	2012	2013	Percent difference	Trend
Providence Medford Medical Center	1.02	2.20	1.73	69%	
Providence Milwaukie Hospital	0.00	0.00	1.92	--	
Providence Newberg Medical Center	0.00	0.94	1.23	--	
Providence Portland Medical Center	0.26	0.45	0.52	98%	
Providence Seaside Hospital	Exempt	Exempt	0.00	--	
Providence St. Vincent Medical Center	0.46	0.64	1.04	124%	
Providence Willamette Falls Medical Center	1.86	0.82	0.00	-100%	
Sacred Heart Medical Center - Riverbend	1.36	0.62	0.58	-58%	
Salem Hospital	0.18	0.78	0.46	154%	
Samaritan Albany General Hospital	1.69	2.22	3.15	86%	
Samaritan Lebanon Community Hospital	1.84	0.65	0.00	-100%	
Samaritan Pacific Communities Hospital	0.00	Exempt	0.75	--	
Santiam Memorial Hospital	0.00	0.00	0.00	--	
Silverton Hospital	2.38	0.00	0.00	-100%	
Sky Lakes Medical Center	0.00	0.00	0.00	--	
St. Alphonsus Medical Center - Baker City	0.00	Exempt	Exempt	--	
St. Alphonsus Medical Center - Ontario	0.94	1.20	1.46	56%	
St. Anthony Hospital	0.62	0.00	0.00	-100%	
St. Charles Medical Center - Bend	1.76	1.09	0.48	-73%	
St. Charles Medical Center - Madras	0.00	Exempt	0.00	--	
St. Charles Medical Center - Redmond	0.37	0.00	0.63	70%	
Tillamook County Hospital	*	Exempt	0.00	--	
Tuality Community Hospital	2.53	1.11	0.49	-81%	
Wallowa Memorial Hospital	0.00	Exempt	*	--	
Willamette Valley Medical Center	2.97	1.32	2.87	-4%	

* Expected number of infections <1 with no SIR calculated

Hip prosthesis (HPRO)

HPROs are surgeries where all or part of a diseased hip joint is removed and replaced with an artificial joint.

The Oregon HPRO SIR has decreased by 41% over the past 3 years and is currently statistically better than the national baseline. In 2013, there were a total of 67 HPRO SSIs identified in Oregon hospitals, in contrast to the 100.4 predicted by NHSN.

The SIR for Oregon in 2013 is $67 \div 100.4 = 0.67$.

In 2013, Oregon had 33% less SSIs associated with HPRO procedures than the national experience.

Figure 10. Oregon HPRO SSI SIRs for calendar years 2011 through 2013.

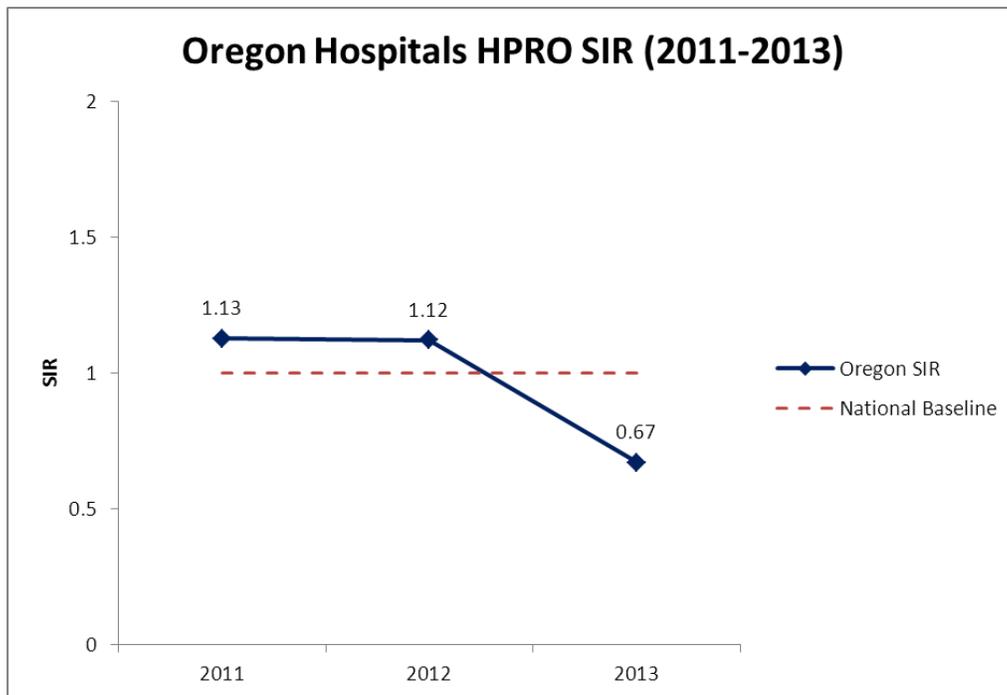


Table 11 and Figure 11 show in 2013, 47 hospitals reported the SSI measurement for HPRO procedures. Twenty-seven (57%) hospitals reported at least one HPRO SSI and 20 (43%) hospitals reported zero HPRO SSIs. One hospital had an SIR statistically lower than the national baseline. Seven hospitals had at least one HPRO SSI in 2013 but had no SIR calculated because the expected number of HPRO SSIs was less than 1.0.

Table 11. Oregon HPRO observed and expected number of SSIs with associated SIR for calendar year 2013 by hospital.

Hip Prosthesis Surgical Site Infections (HPRO) 2013				
Hospital Name	Observed # of HPROs	Expected # of HPROs	HPRO SIR	
Adventist Medical Center	2	3.17	0.63	▼
Asante Rogue Regional Medical Center	3	3.61	0.83	▼
Asante Three Rivers Medical Center	1	2.92	0.34	▼
Ashland Community Hospital	0	0.48	0.00	▼
Bay Area Hospital	1	1.70	0.59	▼
Columbia Memorial Hospital	1	0.10	--	--
Coquille Valley Hospital District	0	0.17	0.00	▼
Good Samaritan Regional Medical Center	0	3.80	0.00	▼
Good Shepherd Medical Center	1	0.88	--	--
Grande Ronde Hospital	1	0.19	--	--
Kaiser Permanente Sunnyside Medical Center	6	4.56	1.32	▲
Kaiser Permanente Westside Medical Center	2	2.78	0.72	▼
Legacy Emanuel Medical Center	1	0.80	--	--
Legacy Good Samaritan Medical Center	4	4.02	1.00	▼
Legacy Meridian Park Medical Center	2	4.30	0.47	▼
Legacy Mount Hood Medical Center	0	1.29	0.00	▼
McKenzie-Willamette Medical Center	1	1.98	0.51	▼
Mercy Medical Center	1	1.51	0.66	▼
Mid-Columbia Medical Center	1	0.52	--	--
Oregon Health & Science University	7	6.96	1.01	▲
Peace Harbor Hospital	1	0.40	--	--
Pioneer Memorial Hospital - Prineville	0	0.04	0.00	▼
Providence Hood River Memorial Hospital	0	0.52	0.00	▼
Providence Medford Medical Center	2	2.01	1.00	▼

Hip Prosthesis Surgical Site Infections (HPRO) 2013

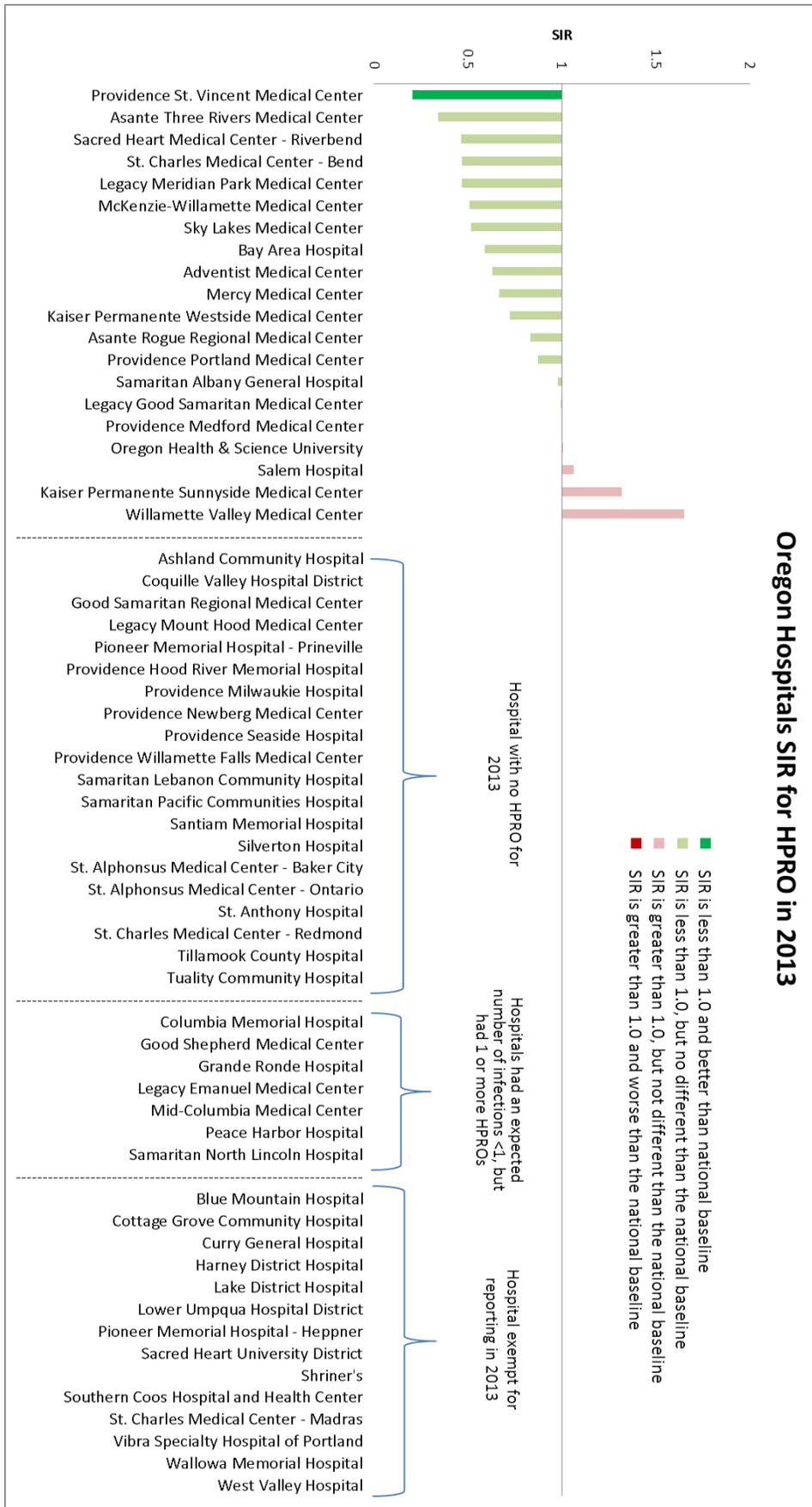
Hospital Name	Observed # of HPROs	Expected # of HPROs	HPRO SIR	
Providence Milwaukie Hospital	0	0.73	0.00	▼
Providence Newberg Medical Center	0	0.23	0.00	▼
Providence Portland Medical Center	4	4.59	0.87	▼
Providence Seaside Hospital	0	0.02	0.00	▼
Providence St. Vincent Medical Center	2	9.87	0.20	▼
Providence Willamette Falls Medical Center	0	1.91	0.00	▼
Sacred Heart Medical Center - Riverbend	5	10.77	0.46	▼
Salem Hospital	11	10.36	1.06	▲
Samaritan Albany General Hospital	1	0.98	0.98	▼
Samaritan Lebanon Community Hospital	0	0.03	0.00	▼
Samaritan North Lincoln Hospital	1	0.11	--	--
Samaritan Pacific Communities Hospital	0	0.23	0.00	▼
Santiam Memorial Hospital	0	0.16	0.00	▼
Silverton Hospital	0	0.88	0.00	▼
Sky Lakes Medical Center	1	1.94	0.52	▼
St. Alphonsus Medical Center - Baker City	0	0.18	0.00	▼
St. Alphonsus Medical Center - Ontario	0	0.93	0.00	▼
St. Anthony Hospital	0	0.31	0.00	▼
St. Charles Medical Center - Bend	2	4.27	0.47	▼
St. Charles Medical Center - Redmond	0	0.58	0.00	▼
Tillamook County Hospital	0	0.17	0.00	▼
Tuality Community Hospital	0	1.13	0.00	▼
Willamette Valley Medical Center	2	1.21	1.65	▲

- ▼ SIR is < 1.0 and is less than the national baseline
- ▼ SIR is ≤ 1.0 and is no different than the national baseline or facility had 0 HPROs
- ▲ SIR is > 1.0 and is no different than the national baseline
- ▲ SIR is > 1.0 and is greater than the national baseline
- No SIR calculated because the expected number of infections is < 1 and facility had at least one infection in 2013

Footnote 1: The expected number of HPROs is a prediction based on the national HAI experience for all hospitals reporting to NHSN. The observed number is the total number of HPROs identified during 2013. The SIR = Observed ÷ Expected. It is better to have a lower SIR.

Footnote 2: NHSN does not calculate an SIR for hospitals whose expected number of infections is < 1.

Figure 11. Oregon HPRO SSI SIRs for calendar year 2013.



Oregon had 18 hospitals with HPRO SSI SIRs trending downward from 2011–2013. Six hospitals had SIRs trending upwards. Seven hospitals reported zero SSIs associated with HPRO SSIs between 2011–2013.

Table 12. Oregon SIR values for HPRO SSIs for calendar years 2011 through 2013 by hospital.

HPRO SSI Standardized Infection Ratio (2011–2013)

Hospital Name	SIR			Percent difference	Trend
	2011	2012	2013		
Adventist Medical Center	0.46	1.48	0.63	37%	
Asante Rogue Regional Medical Center	1.74	1.82	0.83	-52%	
Asante Three Rivers Medical Center	1.46	1.89	0.34	-76%	
Ashland Community Hospital	0.00	0.00	0.00	--	
Bay Area Hospital	2.28	2.03	0.59	-74%	
Colombia Memorial Hospital	0.00	Exempt	*	--	
Coquille Valley Hospital District	0.00	0.00	0.00	--	
Good Samaritan Regional Medical Center	0.62	0.32	0.00	-100%	
Good Shepherd Medical Center	0.88	*	*	--	
Grande Ronde	0.00	Exempt	*	--	
Kaiser Permanente Sunnyside Medical Center	0.75	1.05	1.32	76%	
Kaiser Permanente Westside Medical Center	Exempt	Exempt	0.72	--	
Legacy Emanuel Medical Center	*	1.90	*	--	
Legacy Good Samaritan Medical Center	1.93	0.71	1.00	-48%	
Legacy Meridian Park Medical Center	0.32	0.57	0.47	44%	
Legacy Mount Hood Medical Center	0.83	0.73	0.00	-100%	
Lower Umpqua Hospital District	0.00	Exempt	Exempt	--	
McKenzie-Willamette Medical Center	0.92	2.07	0.51	-45%	
Mercy Medical Center	0.00	0.57	0.66	--	
Mid-Columbia Medical Center	0.00	*	*	--	
Oregon Health & Science University	1.65	0.81	1.01	-39%	
Peace Harbor Hospital	*	0.00	*	--	
Pioneer Memorial Hospital - Prineville	Exempt	Exempt	0.00	--	
Providence Hood River Memorial Hospital	*	0.00	0.00	--	

HPRO SSI Standardized Infection Ratio (2011–2013)

SIR

Hospital Name	2011	2012	2013	Percent difference	Trend
Providence Medford Medical Center	*	1.25	1.00	-20%	
Providence Milwaukie Hospital	2.43	*	0.00	-100%	
Providence Newberg Medical Center	*	0.00	0.00	--	
Providence Portland Medical Center	0.60	1.40	0.87	45%	
Providence Seaside Medical Center	0.00	Exempt	0.00	--	
Providence St. Vincent Medical Center	0.45	0.49	0.20	-55%	
Providence Willamette Falls Medical Center	1.69	2.19	0.00	-100%	
Sacred Heart Medical Center - Riverbend	0.52	1.07	0.46	-10%	
Salem Hospital	1.46	1.02	1.06	-27%	
Samaritan Albany General Hospital	0.91	0.80	0.98	7%	
Samaritan Lebanon Community Hospital	*	Exempt	0.00	--	
Samaritan North Lincoln Hospital	0.00	Exempt	*	--	
Samaritan Pacific Communities Hospital	0.00	Exempt	0.00	--	
Santiam Memorial Hospital	0.00	Exempt	0.00	--	
Silverton Hospital	*	*	0.00	--	
Sky Lakes Medical Center	0.74	1.19	0.52	-30%	
St. Alphonsus Medical Center - Baker City	0.00	*	0.00	--	
St. Alphonsus Medical Center - Ontario	*	0.00	0.00	--	
St. Anthony Hospital	0.00	0.00	0.00	--	
St. Charles Medical Center - Bend	1.28	1.70	0.47	-63%	
St. Charles Medical Center - Madras	Exempt	0.00	Exempt		
St. Charles Medical Center - Redmond	*	0.00	0.00	--	
Tillamook County Hospital	*	Exempt	0.00	--	
Tuality Community Hospital	1.65	1.50	0.00	-100%	
Willamette Valley Medical Center	2.79	0.74	1.65	-41%	

* Expected number of infections <1 with no SIR calculated

Abdominal hysterectomy (HYST)

HYSTs are surgeries in which the uterus is removed through an incision in the lower abdomen. They may include removal of one or both ovaries and fallopian tubes.

The Oregon SSI SIR associated with HYST procedures has increased 18% over the last 3 years and is currently statistically no different than the national baseline. In 2011 and 2012, the SIR for HYST SSIs was statistically better than the national baseline. In 2013, there were a total of 46 HYST SSIs identified in Oregon hospitals, in contrast to the 58.0 predicted by NHSN.

The SIR for Oregon in 2013 is $46 \div 58.0 = 0.79$.

In 2013, Oregon had 21% fewer SSIs associated with HYST procedures than the national experience.

Figure 12. Oregon HYST SSI SIRs for calendar years 2011 through 2013.

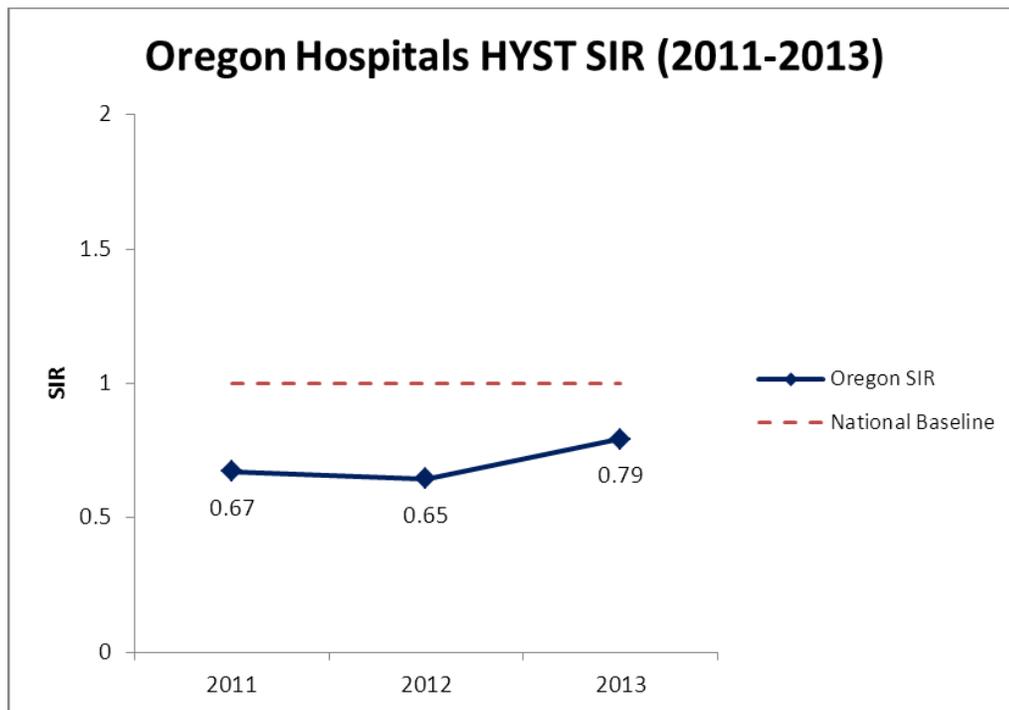


Table 13 and Figure 13 show that in 2013, 39 hospitals reported the SSI measurement for HYST procedures. Sixteen (41%) hospitals reported at least one HYST SSI and 23 (59%) hospitals reported zero HYST SSIs. One hospital had an SIR statistically lower than the national baseline and one hospital had an SIR statistically greater than the national baseline. Six hospitals had no SIR calculated because the expected number of HYST SSIs was less than 1.0, but did have at least one HYST SSI in 2013.

Table 13. Oregon HYST observed and expected number of SSIs with associated SIR for calendar year 2013 by hospital.

Abdominal Hysterectomy Surgical Site Infections (HYST) 2013				
Hospital Name	Observed # of HYSTs	Expected # of HYSTs	HYST SIR	
Adventist Medical Center	1	1.99	0.50	▼
Asante Rogue Regional Medical Center	2	1.01	1.99	▲
Asante Three Rivers Medical Center	0	0.36	0.00	▼
Bay Area Hospital	0	0.54	0.00	▼
Columbia Memorial Hospital	0	0.20	0.00	▼
Good Samaritan Regional Medical Center	0	1.36	0.00	▼
Grande Ronde Hospital	1	0.28	--	--
Kaiser Permanente Sunnyside Medical Center	14	7.83	1.79	▲
Kaiser Permanente Westside Medical Center	3	0.77	--	--
Legacy Emanuel Medical Center	1	1.76	0.57	▼
Legacy Good Samaritan Medical Center	0	3.30	0.00	▼
Legacy Meridian Park Medical Center	0	0.77	0.00	▼
Legacy Mount Hood Medical Center	1	1.29	0.78	▼
McKenzie-Willamette Medical Center	1	0.89	--	--
Mercy Medical Center	2	0.83	--	--
Mid-Columbia Medical Center	0	0.29	0.00	▼
Oregon Health & Science University	4	4.66	0.86	▼
Pioneer Memorial Hospital - Prineville	0	0.04	0.00	▼
Providence Hood River Memorial Hospital	0	0.23	0.00	▼
Providence Medford Medical Center	0	0.31	0.00	▼

Abdominal Hysterectomy Surgical Site Infections (HYST) 2013

Hospital Name	Observed # of HYSTs	Expected # of HYSTs	HYST SIR	
Providence Milwaukie Hospital	0	0.08	0.00	▼
Providence Newberg Medical Center	0	0.16	0.00	▼
Providence Portland Medical Center	4	4.75	0.84	▼
Providence Seaside Hospital	0	0.01	0.00	▼
Providence St. Vincent Medical Center	4	4.07	0.98	▼
Providence Willamette Falls Medical Center	1	0.46	--	--
Sacred Heart Medical Center - Riverbend	3	9.85	0.31	▼
Salem Hospital	0	2.53	0.00	▼
Samaritan Albany General Hospital	0	1.19	0.00	▼
Samaritan Lebanon Community Hospital	0	0.14	0.00	▼
Samaritan Pacific Communities Hospital	0	0.19	0.00	▼
Silverton Hospital	0	0.39	0.00	▼
Sky Lakes Medical Center	0	1.49	0.00	▼
St. Alphonsus Medical Center - Ontario	3	1.12	2.68	▲
St. Charles Medical Center - Bend	0	1.98	0.00	▼
St. Charles Medical Center - Madras	0	0.02	0.00	▼
St. Charles Medical Center - Redmond	0	0.52	0.00	▼
Tuality Community Hospital	0	0.52	0.00	▼
Willamette Valley Medical Center	1	0.27	--	--

- ▼ SIR is < 1.0 and is less than the national baseline
- ▼ SIR is ≤ 1.0 and is no different than the national baseline or facility had 0 HYSTs
- ▲ SIR is > 1.0 and is no different than the national baseline
- ▲ SIR is > 1.0 and is greater than the national baseline
- No SIR calculated because the expected number of infections is < 1 and facility had at least one infection in 2013

Footnote 1: The expected number of HYSTs is a prediction based on the national HAI experience for all hospitals reporting to NHSN. The observed number is the total number of HYSTs identified during 2013. The SIR = Observed ÷ Expected. It is better to have a lower SIR.

Footnote 2: NHSN does not calculate an SIR for hospitals whose expected number of infections is < 1.

Figure 13. Oregon HYST SSI SIRs for calendar year 2013.



Oregon had 8 hospitals with HYST SSI SIRs trending downward from 2011–2013. Six hospitals had SIRs trending upwards. Thirteen hospitals reported zero SSIs associated HYST SSIs between 2011–2013.

Table 14. Oregon SIR values for HYST SSIs for calendar years 2011 through 2013 by hospital.

HYST SSI Standardized Infection Ratio (2011–2013)

Hospital Name	SIR			Percent difference	Trend
	2011	2012	2013		
Adventist Medical Center	0.00	0.40	0.50	--	
Asante Rogue Regional Medical Center	0.00	0.66	1.99	--	
Asante Three Rivers Medical Center	0.00	Exempt	0.00	--	
Ashland Community Hospital	0.00	Exempt	Exempt	--	
Bay Area Hospital	0.00	*	0.00	--	
Blue Mountain Hospital	0.00	Exempt	Exempt	--	
Columbia Memorial Hospital	0.00	*	0.00	--	
Good Samaritan Regional Medical Center	1.52	0.50	0.00	-100%	
Good Shepherd Medical Center	0.00	Exempt	Exempt	--	
Grande Ronde Hospital	0.00	0.00	*	--	
Kaiser Permanente Sunnyside Medical Center	2.13	1.39	1.79	-16%	
Kaiser Permanente Westside Medical Center	Exempt	Exempt	*	--	
Legacy Emanuel Medical Center	1.28	0.50	0.57	-55%	
Legacy Good Samaritan Medical Center	1.63	0.24	0.00	-100%	
Legacy Meridian Park Medical Center	0.00	0.00	0.00	--	
Legacy Mount Hood Medical Center	0.97	0.00	0.78	-20%	
Lower Umpqua Hospital District	0.00	Exempt	Exempt	--	
McKenzie-Willamette Medical Center	0.66	*	*	--	
Mercy Medical Center	0.00	0.00	*	--	
Mid-Columbia Medical Center	0.00	*	0.00	--	
Oregon Health & Science University	0.25	1.23	0.86	248%	
Peace Harbor Hospital	0.00	Exempt	Exempt	--	
Pioneer Memorial Hospital - Prineville	0.00	Exempt	0.00	--	
Providence Hood River Memorial Hospital	*	Exempt	0.00	--	

HYST SSI Standardized Infection Ratio (2011–2013)

SIR

Hospital Name	2011	2012	2013	Percent difference	Trend
Providence Medford Medical Center	*	0.00	0.00	--	
Providence Milwaukie Hospital	0.00	Exempt	0.00	--	
Providence Newberg Medical Center	0.00	0.00	0.00	--	
Providence Portland Medical Center	0.00	0.00	0.84	--	
Providence Seaside Hospital	0.00	Exempt	0.00	--	
Providence St. Vincent Medical Center	0.44	0.00	0.98	125%	
Providence Willamette Falls Medical Center	0.00	0.00	*	--	
Sacred Heart Medical Center - Riverbend	0.52	0.37	0.31	-42%	
Salem Hospital	0.34	0.00	0.00	-100%	
Samaritan Albany General Hospital	0.00	*	0.00	--	
Samaritan Lebanon Community Hospital	0.00	Exempt	0.00	--	
Samaritan North Lincoln Hospital	0.00	Exempt	Exempt	--	
Samaritan Pacific Communities Hospital	0.00	Exempt	0.00	--	
Santiam Memorial Hospital	0.00	Exempt	Exempt	--	
Silverton Hospital	0.00	*	0.00	--	
Sky Lakes Medical Center	*	*	0.00	--	
St. Alphonsus Medical Center - Ontario	0.00	1.88	2.68	42%	
St. Anthony Hospital	0.00	Exempt	Exempt	--	
St. Charles Medical Center - Bend	0.48	0.96	0.00	-100%	
St. Charles Medical Center - Madras	0.00	Exempt	0.00	--	
St. Charles Medical Center - Redmond	0.00	Exempt	0.00	--	
Tillamook County Hospital	0.00	Exempt	Exempt	--	
Tuality Community Hospital	*	0.00	0.00	--	
Wallowa Memorial Hospital	0.00	Exempt	Exempt	--	
Willamette Valley Medical Center	0.00	0.00	*	--	

* Expected number of infections <1 and facility had at least one HYST in 2013

Knee prosthesis (KPRO)

KPROs are surgical procedures to remove damaged cartilage and bone in the knee joint and replace them with an artificial joint.

The Oregon SSI SIR associated with KPRO procedures has decreased 16% over the past 5 years and is currently statistically better than the national baseline. In 2013, there were a total of 67 KPRO SSIs identified in Oregon hospitals, in contrast to the 91.0 predicted by NHSN.

The SIR for Oregon in 2013 is $67 \div 91.0 = 0.74$.

In 2013, Oregon had 26% less SSIs associated with KPRO procedures than the national experience.

Figure 14. Oregon KPRO SSI SIRs for calendar years 2009 through 2013.

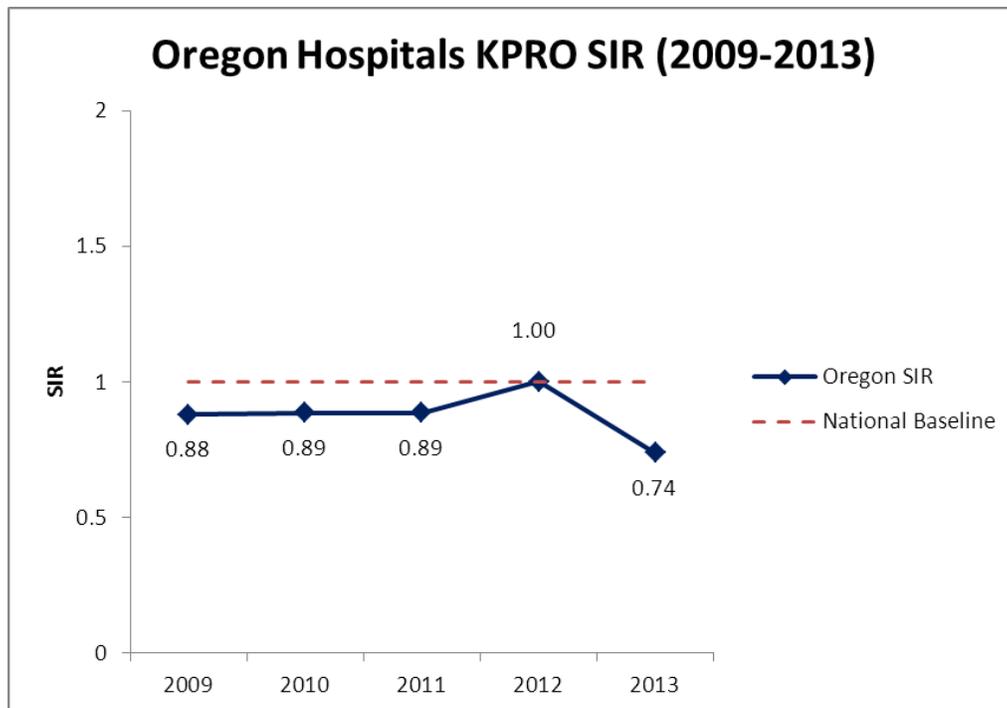


Table 15 and Figure 15 show that in 2013, 47 hospitals reported the SSI measurement for KPRO procedures. Twenty-five (53%) hospitals reported at least one KPRO SSI and 22 (47%) hospitals reported zero KPRO SSIs. Eight hospitals had at least one KPRO SSI in 2013 but no SIR calculated because the expected number of KPRO SSIs was less than 1.0.

Table 15. Oregon KPRO observed and expected number of SSIs with associated SIR for calendar year 2013 by hospital.

Knee Prosthesis Surgical Site Infections (KPRO) 2013				
Hospital Name	Observed # of KPROs	Expected # of KPROs	KPRO SIR	
Adventist Medical Center	1	3.01	0.33	▼
Asante Rogue Regional Medical Center	5	4.00	1.25	▲
Asante Three Rivers Medical Center	1	2.15	0.47	▼
Ashland Community Hospital	2	0.74	--	--
Bay Area Hospital	0	1.56	0.00	▼
Columbia Memorial Hospital	0	0.36	0.00	▼
Coquille Valley Hospital District	0	0.64	0.00	▼
Good Samaritan Regional Medical Center	0	2.40	0.00	▼
Good Shepherd Medical Center	2	1.43	1.40	▲
Grande Ronde Hospital	1	0.20	--	--
Kaiser Permanente Sunnyside Medical Center	6	4.81	1.25	▲
Kaiser Permanente Westside Medical Center	7	3.95	1.77	▲
Legacy Emanuel Medical Center	0	0.54	0.00	▼
Legacy Good Samaritan Medical Center	2	2.00	1.00	▼
Legacy Meridian Park Medical Center	2	4.88	0.41	▼
Legacy Mount Hood Medical Center	0	1.18	0.00	▼
McKenzie-Willamette Medical Center	0	3.17	0.00	▼
Mercy Medical Center	3	1.39	2.16	▲
Mid-Columbia Medical Center	0	0.59	0.00	▼
Oregon Health & Science University	2	2.85	0.70	▼
Peace Harbor Hospital	0	0.33	0.00	▼
Providence Hood River Memorial Hospital	0	0.43	0.00	▼
Providence Medford Medical Center	1	1.26	0.79	▼
Providence Milwaukie Hospital	2	0.91	--	--

Knee Prosthesis Surgical Site Infections (KPRO) 2013

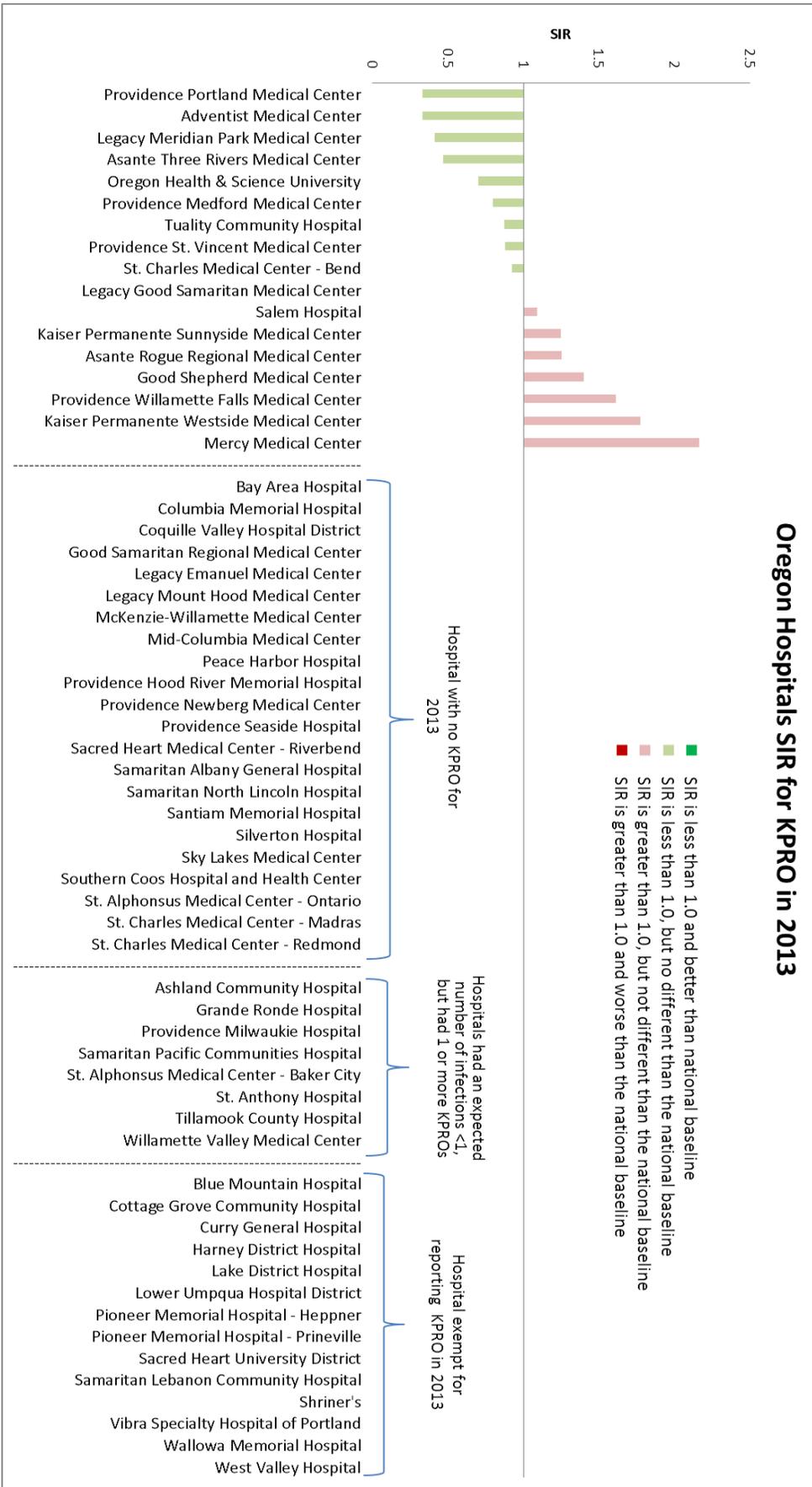
Hospital Name	Observed # of KPROs	Expected # of KPROs	KPRO SIR	
Providence Newberg Medical Center	0	0.56	0.00	▼
Providence Portland Medical Center	2	6.07	0.33	▼
Providence Seaside Hospital	0	0.17	0.00	▼
Providence St. Vincent Medical Center	4	4.55	0.88	▼
Providence Willamette Falls Medical Center	3	1.86	1.61	▲
Sacred Heart Medical Center - Riverbend	0	9.76	0.00	▼
Salem Hospital	8	7.35	1.09	▲
Samaritan Albany General Hospital	0	1.84	0.00	▼
Samaritan North Lincoln Hospital	0	0.18	0.00	▼
Samaritan Pacific Communities Hospital	1	0.15	--	--
Santiam Memorial Hospital	0	0.10	0.00	▼
Silverton Hospital	0	0.87	0.00	▼
Sky Lakes Medical Center	0	1.92	0.00	▼
Southern Coos Hospital and Health Center	0	0.01	0.00	▼
St. Alphonsus Medical Center - Baker City	1	0.17	--	--
St. Alphonsus Medical Center - Ontario	0	1.03	0.00	▼
St. Anthony Hospital	2	0.47	--	--
St. Charles Medical Center - Bend	6	6.49	0.92	▼
St. Charles Medical Center - Madras	0	0.05	0.00	▼
St. Charles Medical Center - Redmond	0	0.33	0.00	▼
Tillamook County Hospital	1	0.22	--	--
Tuality Community Hospital	1	1.15	0.87	▼
Willamette Valley Medical Center	1	0.77	--	--

- ▼ SIR is < 1.0 and is less than the national baseline
- ▼ SIR is ≤ 1.0 and is no different than the national baseline or facility had 0 KPROs
- ▲ SIR is > 1.0 and is no different than the national baseline
- ▲ SIR is > 1.0 and is greater than the national baseline
- No SIR calculated because the expected number of infections is < 1 and facility had at least one infection in 2013

Footnote 1: The expected number of KPROs is a prediction based on the national HAI experience for all hospitals reporting to NHSN. The observed number is the total number of KPROs identified during 2013. The SIR = Observed ÷ Expected. It is better to have a lower SIR.

Footnote 2: NHSN does not calculate an SIR for hospitals whose expected number of infections is < 1.

Figure 15. Oregon KPRO SSI SIRs for calendar year 2013.



Oregon had 8 hospitals with KPRO SIRs trending downward from 2009–2013. Fourteen hospitals had SIRs trending upwards. Nine hospitals reported zero KPRO SSIs between 2009–2013.

Table 16. Oregon SIR values for KPRO SSIs for calendar years 2009 through 2013 by hospital.

KPRO SSI Standardized Infection Ratio (2009–2013)

Hospital Name	SIR					Percent difference	Trend
	2009	2010	2011	2012	2013		
Adventist Medical Center	0.00	0.00	0.00	0.00	0.33	--	
Asante Rogue Regional Medical Center	2.83	2.29	0.67	0.96	1.25	-66%	
Asante Three Rivers Medical Center	0.00	0.40	0.55	0.86	0.47	--	
Ashland Community Hospital	0.00	*	*	0.00	*	--	
Bay Area Hospital	3.68	2.17	0.00	3.47	0.00	-100%	
Columbia Memorial Hospital	0.00	0.00	0.00	0.00	0.00	--	
Coquille Valley Hospital District	0.00	0.00	0.00	0.00	0.00	--	
Curry General Hospital	0.00	*	0.00	Exempt	Exempt	--	
Good Samaritan Regional Medical Center	1.31	1.73	0.44	0.42	0.00	-100%	
Good Shepherd Medical Center	*	0.76	1.56	0.91	1.40	85%	
Grande Ronde Hospital	0.00	0.00	0.00	0.00	*	--	
Kaiser Permanente Sunnyside Medical Center	0.54	1.43	1.08	1.40	1.25	132%	
Kaiser Permanente Westside Medical Center	Exempt	Exempt	Exempt	Exempt	1.77	--	
Legacy Emanuel Medical Center	0.00	0.00	*	0.00	0.00	--	
Legacy Good Samaritan Medical Center	0.62	0.62	0.54	0.00	1.00	62%	
Legacy Meridian Park Medical Center	2.37	0.84	0.23	0.00	0.41	-83%	
Legacy Mount Hood Medical Center	*	*	0.96	0.84	0.00	-100%	
Lower Umpqua Hospital District	0.00	0.00	0.00	0.00	Exempt	--	
McKenzie-Willamette Medical Center	0.48	1.36	1.17	1.89	0.00	39%	
Mercy Medical Center	0.00	0.00	0.82	0.00	2.16	--	
Mid-Columbia Medical Center	*	*	0.00	*	0.00	--	
Oregon Health & Science University	1.18	0.00	0.97	0.67	0.70	-40%	
Peace Harbor Hospital	0.00	0.00	0.00	0.00	0.00	--	
Pioneer Memorial Hospital - Prineville	0.00	Exempt	Exempt	Exempt	Exempt	--	
Providence Hood River Memorial Hospital	*	0.00	*	0.00	0.00	--	

KPRO SSI Standardized Infection Ratio (2009–2013)

SIR

Hospital Name	2009	2010	2011	2012	2013	Percent difference	Trend
Providence Medford Medical Center	0.00	*	0.00	0.80	0.79	0%	
Providence Milwaukie Hospital	0.00	*	1.78	*	*	--	
Providence Newberg Medical Center	0.00	0.00	0.00	0.00	0.00	--	
Providence Portland Medical Center	0.17	0.16	0.48	1.47	0.33	97%	
Providence Seaside Hospital	0.00	*	0.00	Exempt	0.00	--	
Providence St. Vincent Medical Center	0.76	1.11	0.79	1.33	0.88	16%	
Providence Willamette Falls Medical Center	0.00	0.00	1.44	0.53	1.61	--	
Sacred Heart Medical Center - Riverbend	0.85	1.11	1.30	0.83	0.00	-100%	
Salem Hospital	0.80	0.37	2.27	1.14	1.09	36%	
Samaritan Albany General Hospital	0.00	2.62	0.73	0.00	0.00	--	
Samaritan Lebanon Community Hospital	*	*	0.00	Exempt	ND	--	
Samaritan North Lincoln Hospital	*	0.00	0.00	0.00	0.00	--	
Samaritan Pacific Communities Hospital	0.00	0.00	0.00	Exempt	*	--	
Santiam Memorial Hospital	0.00	0.00	0.00	Exempt	0.00	--	
Silverton Hospital	0.00	*	*	1.88	0.00	--	
Sky Lakes Medical Center	0.00	0.00	0.00	0.00	0.00	--	
Southern Coos Hospital and Health Center	0.00	0.00	0.00	Exempt	0.00	--	
St. Alphonsus Medical Center - Baker City	*	0.00	*	*	*	--	
St. Alphonsus Medical Center - Ontario	0.76	0.00	0.00	2.27	0.00	-100%	
St. Anthony Hospital	0.00	0.00	0.00	0.00	*	--	
St. Charles Medical Center - Bend	0.40	0.57	0.74	1.30	0.92	130%	
St. Charles Medical Center - Madras	0.00	Exempt	Exempt	Exempt	0.00	--	
St. Charles Medical Center - Redmond	0.00	0.00	*	0.00	0.00	--	
Tillamook County Hospital	0.00	*	0.00	*	*	--	
Tuality Community Hospital	0.00	1.22	0.00	1.51	0.87	--	
Willamette Valley Medical Center	*	0.00	*	*	*	--	

* Expected number of infections <1 with no SIR calculated

Laminectomy (LAM)

LAMs are surgeries to remove the back of one or more vertebrae to relieve pressure on the spinal cord.

The Oregon SSI SIR associate with LAM procedures has slightly increased by 9% over the past 3 years and remains statistically better than the national baseline. In 2013, there were a total of 71 LAM SSIs identified in Oregon hospitals, in contrast to the 97.7 predicted by NHSN.

The SIR for Oregon in 2013 is $71 \div 97.7 = 0.73$.

In 2013, Oregon had 27% less SSIs associated with LAM procedures than the national experience.

Figure 16. Oregon LAM SSI SIRs for calendar years 2011 through 2013.

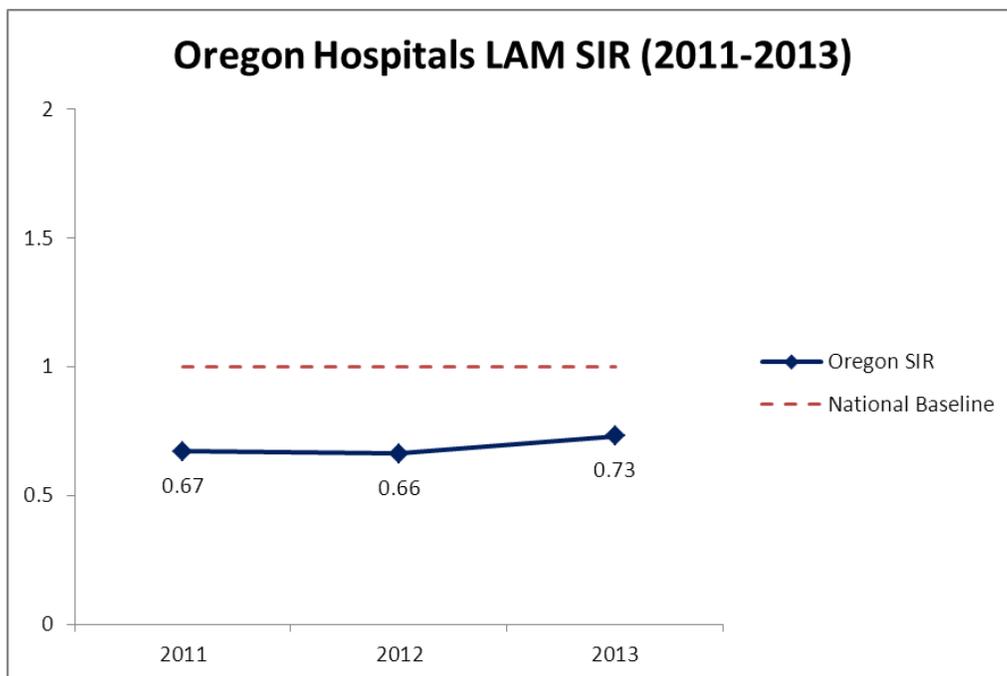


Table 17 and Figure 17 show that in 2013, 23 hospitals reported the SSI measurement for LAM procedures. Seventeen (74%) hospitals reported at least one LAM SSI and 6 (26%) hospitals reported zero LAM SSIs. One hospital had an SIR statistically lower than the national baseline. Three hospitals had at least one LAM SSI but no SIR calculated for 2013 because the expected number of LAM SSIs was less than 1.0.

Table 17. Oregon LAM observed and expected number of SSIs with associated SIR for calendar year 2013 by hospital.

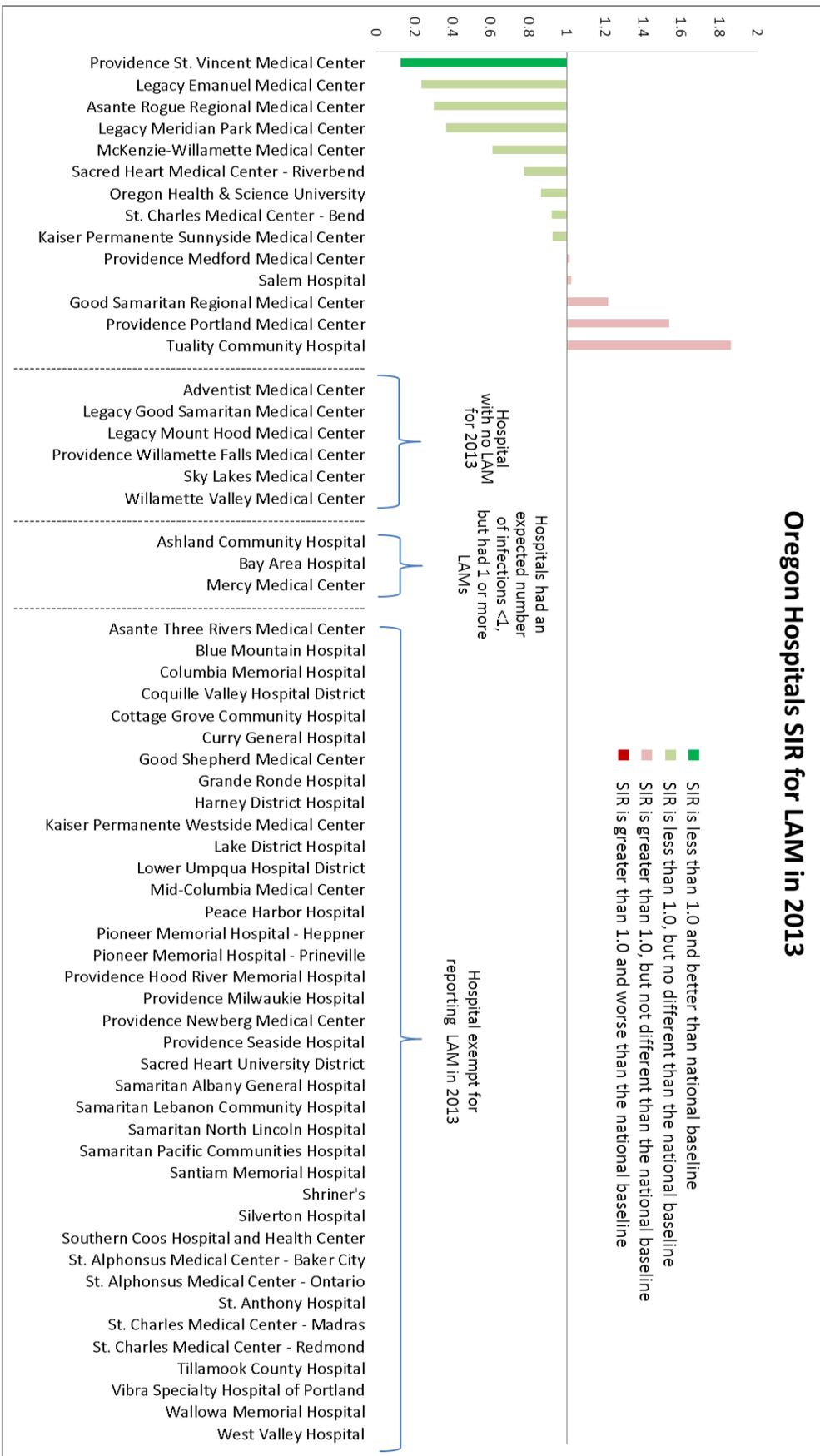
Laminectomy Surgical Site Infections (LAM) 2013				
Hospital Name	Observed # of LAMs	Expected # of LAMs	LAM SIR	
Adventist Medical Center	0	2.96	0.00	▼
Asante Rogue Regional Medical Center	1	3.30	0.30	▼
Ashland Community Hospital	1	0.53	--	--
Bay Area Hospital	1	0.82	--	--
Good Samaritan Regional Medical Center	3	2.46	1.22	▲
Kaiser Permanente Sunnyside Medical Center	7	7.58	0.92	▼
Legacy Emanuel Medical Center	1	4.23	0.24	▼
Legacy Good Samaritan Medical Center	0	2.84	0.00	▼
Legacy Meridian Park Medical Center	2	5.45	0.37	▼
Legacy Mount Hood Medical Center	0	3.34	0.00	▼
McKenzie-Willamette Medical Center	3	4.93	0.61	▼
Mercy Medical Center	1	0.28	--	--
Oregon Health & Science University	8	9.27	0.86	▼
Providence Medford Medical Center	3	2.96	1.02	▲
Providence Portland Medical Center	11	7.16	1.54	▲
Providence St. Vincent Medical Center	1	7.79	0.13	▼
Providence Willamette Falls Medical Center	0	0.40	0.00	▼
Sacred Heart Medical Center - Riverbend	11	14.19	0.78	▼
Salem Hospital	5	4.90	1.02	▲
Sky Lakes Medical Center	0	1.51	0.00	▼
St. Charles Medical Center - Bend	7	7.61	0.92	▼
Tuality Community Hospital	5	2.69	1.86	▲
Willamette Valley Medical Center	0	0.47	0.00	▼

- ▼ SIR is < 1.0 and is less than the national baseline
- ▽ SIR is ≤ 1.0 and is no different than the national baseline or facility had 0 LAMs
- ▲ SIR is > 1.0 and is no different than the national baseline
- ▲ SIR is > 1.0 and is greater than the national baseline
- No SIR calculated because the expected number of infections is < 1 and facility had at least one infection in 2013

Footnote 1: The expected number of LAMs is a prediction based on the national HAI experience for all hospitals reporting to NHSN. The observed number is the total number of LAMs identified during 2013. The SIR = Observed ÷ Expected. It is better to have a lower SIR.

Footnote 2: NHSN does not calculate an SIR for hospitals whose expected number of infections is < 1.

Figure 17. Oregon LAM SSI SIRs for calendar year 2013.



Oregon had 8 hospitals with LAM SSI SIRs trending downward from 2011–2013. Six hospitals had SIRs trending upwards. Five hospitals had zero LAM SSIs between 2011–2013.

Table 18. Oregon SIR values for LAM SSIs for calendar years 2011 through 2013 by hospital.

LAM SSI Standardized Infection Ratio (2011–2013)

Hospital Name	SIR			Percent difference	Trend
	2011	2012	2013		
Adventist Medical Center	0.00	0.00	0.00	--	
Asante Rogue Regional Medical Center	0.00	0.00	0.30	--	
Asante Three Rivers Medical Center	0.00	0.00	Exempt		
Ashland Community Hospital	0.00	0.00	*	--	
Bay Area Hospital	*	*	*	--	
Good Samaritan Regional Medical Center	0.60	0.62	1.22	103%	
Kaiser Permanente Sunnyside Medical Center	1.81	0.29	0.92	-49%	
Legacy Emanuel Medical Center	0.63	0.28	0.24	-62%	
Legacy Good Samaritan Medical Center	0.00	0.00	0.00	--	
Legacy Meridian Park Medical Center	0.60	0.62	0.37	-38%	
Legacy Mount Hood Medical Center	0.00	0.00	0.00	--	
McKenzie-Willamette Medical Center	1.78	0.24	0.61	-66%	
Mercy Medical Center	0.00	0.00	*	--	
Mid-Columbia Medical Center	0.00	Exempt	Exempt	--	
Oregon Health & Science University	0.91	1.53	0.86	-5%	
Providence Medford Medical Center	0.32	0.96	1.02	216%	
Providence Portland Medical Center	0.29	0.52	1.54	436%	
Providence St. Vincent Medical Center	0.12	0.51	0.13	6%	
Providence Willamette Falls Medical Center	0.00	0.00	0.00	--	
Sacred Heart Medical Center - Riverbend	0.43	0.18	0.78	82%	
Salem Hospital	1.30	2.45	1.02	-21%	
Sky Lakes Medical Center	0.31	1.78	0.00	-100%	
St. Charles Medical Center - Bend	1.25	0.76	0.92	-26%	
Tuality Community Hospital	0.61	1.40	1.86	206%	
Willamette Valley Medical Center	*	*	0.00	--	

* Expected number of infections <1 with no SIR calculated

Hospital-onset *Clostridium difficile* infection LabID (HO-CDI)

Hospital onset *Clostridium difficile* infections (HO-CDI) are caused when a patient acquires the *C. difficile* bacteria during their hospital stay. This type of bacterial infection can cause watery diarrhea, fever, nausea and abdominal pain. In this document, HO-CDI SIRs are assessed for the entire health care facility where a patient is housed overnight.

The Oregon HO-CDI SIR has slightly increased by 10% from 2012 to 2013 and remains statistically better than the national baseline. In 2013, there were a total of 717 HO-CDIs identified in Oregon hospitals, in contrast to the 941.8 predicted by NHSN.

The SIR for Oregon in 2013 is $717 \div 941.8 = 0.76$.

In 2013, Oregon had 24% less HO-CDIs than the national baseline.

Figure 18. Oregon HO-CDI SIRs for calendar years 2012 through 2013.

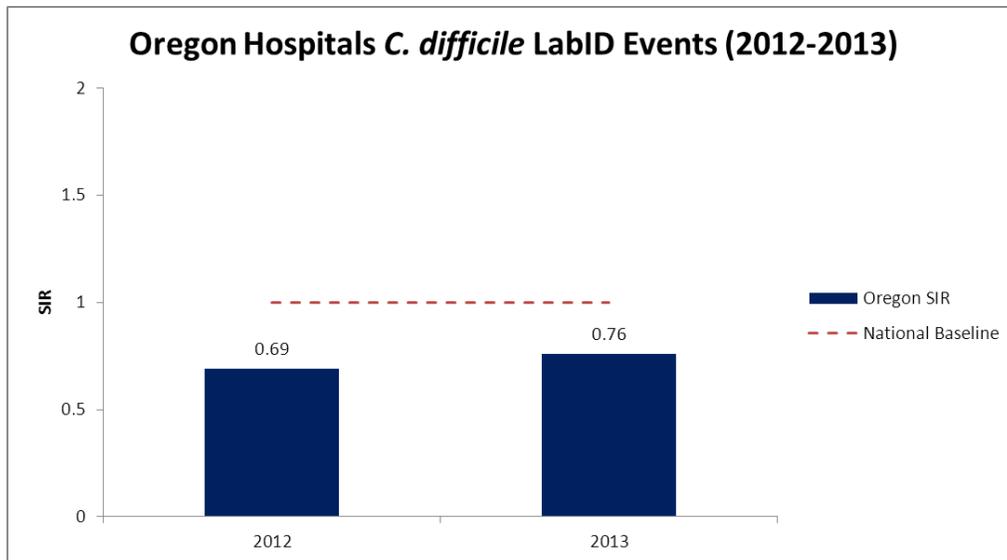


Table 19 and Figure 19 show that in 2013, 60 hospitals reported the HO-CDI measurement. Forty-two hospitals (70%) reported at least one HO-CDI and 18 (30%) hospitals reported zero HO-CDIs. Ten hospitals had an SIR statistically lower than the national baseline. Four hospitals had an SIR statistically higher than the national baseline. Two had no SIR calculated because the expected number of HO-CDIs was less than 1.0, but did have at least one HO-CDI in 2013.

Table 19. Oregon observed and expected number of HO-CDI with associated SIR for calendar year 2013 by hospital.

Hospital-Onset <i>Clostridium difficile</i> Laboratory Identification (HO-CDI) 2013				
Hospital Name	Observed # of HO-CDI	Expected # of HO-CDI	HO-CDI SIR	
Adventist Medical Center	12	27.41	0.44	▼
Asante Rogue Regional Medical Center	40	33.11	1.21	▲
Asante Three Rivers Medical Center	11	15.53	0.71	▼
Ashland Community Hospital	1	2.10	0.48	▼
Bay Area Hospital	11	15.92	0.69	▼
Blue Mountain Hospital	0	0.49	0.00	▼
Columbia Memorial Hospital	0	1.68	0.00	▼
Coquille Valley Hospital District	0	1.68	0.00	▼
Cottage Grove Community Hospital	0	0.81	0.00	▼
Curry General Hospital	0	0.15	0.00	▼
Good Samaritan Regional Medical Center	10	23.46	0.43	▼
Good Shepherd Medical Center	2	2.92	0.68	▼
Grande Ronde Hospital	1	2.61	0.38	▼
Harney District Hospital	0	0.55	0.00	▼
Kaiser Permanente Sunnyside Medical Center	46	48.36	0.95	▼
Kaiser Permanente Westside Medical Center	4	5.51	0.73	▼
Lake District Hospital	1	0.94	--	--
Legacy Emanuel Medical Center	37	72.88	0.51	▼
Legacy Good Samaritan Medical Center	15	40.73	0.37	▼
Legacy Meridian Park Medical Center	6	18.72	0.32	▼
Legacy Mount Hood Medical Center	13	9.39	1.39	▲
Lower Umpqua Hospital District	0	0.13	0.00	▼
McKenzie-Willamette Medical Center	3	10.84	0.28	▼
Mercy Medical Center	15	14.10	1.06	▲
Mid-Columbia Medical Center	0	3.27	0.00	▼
Oregon Health & Science University	146	107.88	1.35	▲
Peace Harbor Hospital	1	2.19	0.46	▼
Pioneer Memorial Hospital - Heppner *	0	--	--	--
Pioneer Memorial Hospital - Prineville	0	1.21	0.00	▼
Providence Hood River Memorial Hospital	0	2.37	0.00	▼

Hospital-Onset <i>Clostridium difficile</i> Laboratory Identification (HO-CDI) 2013				
Hospital Name	Observed # of HO-CDI	Expected # of HO-CDI	HO-CDI SIR	
Providence Medford Medical Center	21	18.84	1.11	▲
Providence Milwaukie Hospital	3	6.39	0.47	▼
Providence Newberg Medical Center	3	5.14	0.58	▼
Providence Portland Medical Center	37	84.50	0.44	▼
Providence Seaside Hospital	2	2.69	0.74	▼
Providence St. Vincent Medical Center	40	90.74	0.44	▼
Providence Willamette Falls Medical Center	3	8.02	0.37	▼
Sacred Heart Medical Center - Riverbend	45	70.83	0.64	▼
Sacred Heart University District	6	13.41	0.45	▼
Salem Hospital	62	66.79	0.93	▼
Samaritan Albany General Hospital	7	6.06	1.16	▲
Samaritan Lebanon Community Hospital	7	3.55	1.97	▲
Samaritan North Lincoln Hospital	0	1.96	0.00	▼
Samaritan Pacific Communities Hospital	1	3.27	0.31	▼
Santiam Memorial Hospital	7	2.07	3.38	▲
Shriner's	0	1.82	0.00	▼
Silverton Hospital	0	3.87	0.00	▼
Sky Lakes Medical Center	23	14.95	1.54	▲
Southern Coos Hospital and Health Center	0	0.45	0.00	▼
St. Alphonsus Medical Center - Ontario	0	4.11	0.00	▼
St. Anthony Hospital	0	1.88	0.00	▼
St. Charles Medical Center - Bend	51	36.14	1.41	▲
St. Charles Medical Center - Madras	1	1.46	0.69	▼
St. Charles Medical Center - Redmond	8	3.15	2.54	▲
Tillamook County Hospital	2	1.37	1.46	▲
Tuality Community Hospital	9	10.86	0.83	▼
Vibra Specialty Hospital of Portland **	11	--	--	--
Wallowa Memorial Hospital	0	0.62	0.00	▼
West Valley Hospital	3	0.20	--	--
Willamette Valley Medical Center	1	9.08	0.11	▼

* Pioneer Memorial Hospital (Heppner) & St. Alphonsus Medical Center (Baker City) - No information due to data entry issues

** Vibra Specialty Hospital of Portland - NHSN does not calculate an SIR for LTACs

- ▼ SIR is < 1.0 and is less than the national baseline
- ▼ SIR is ≤ 1.0 and is no different than the national baseline or facility had 0 HO-CDIs
- ▲ SIR is > 1.0 and is no different than the national baseline
- ▲ SIR is > 1.0 and is greater than the national baseline
- No SIR calculated because the expected number of infections is < 1 and facility had at least one infection in 2013

Footnote 1: The expected number of HO-CDIs is a prediction based on the national HAI experience for all hospitals reporting to NHSN. The observed number is the total number of HO-CDIs identified during 2013. The SIR = Observed ÷ Expected. It is better to have a lower SIR.

Footnote 2: NHSN does not calculate an SIR for hospitals whose expected number of infections is < 1.

Figure 19. Oregon hospital-onset CDI SIRs for calendar year 2013.



Oregon had 16 hospitals with HO-CDI SIRs that decreased from 2012–2013. Twenty-four hospitals had SIRs that increased, 14 of which continue to have an SIR below one. Twelve hospitals reported zero HO-CDI from 2012–2013.

Table 20. Oregon SIR values for HO-CDI for calendar years 2012 through 2013 by hospital.

C. difficile LabID Standardized Infection Ratio (2012–2013)

Hospital Name	SIR			Hospital Name	SIR		
	2012	2013	Percent difference		2012	2013	Percent difference
Adventist Medical Center	0.23	0.44	89%	Providence Medford Medical Center	1.05	1.11	6%
Asante Rogue Regional Medical Center	1.11	1.21	9%	Providence Milwaukie Hospital	0.35	0.47	36%
Asante Three Rivers Medical Center	0.27	0.71	167%	Providence Newberg Medical Center	0.23	0.58	153%
Ashland Community Hospital	0.50	0.48	-6%	Providence Portland Medical Center	0.49	0.44	-11%
Bay Area Hospital	0.13	0.69	444%	Providence Seaside Hospital	0.36	0.74	106%
Blue Mountain Hospital	0.00	0.00	--	Providence St. Vincent Medical Center	0.35	0.44	26%
Columbia Memorial Hospital	0.90	0.00	-100%	Providence Willamette Falls Medical Center	0.26	0.37	43%
Coquille Valley Hospital District	1.43	0.00	-100%	Sacred Heart Medical Center - Riverbend	0.47	0.64	34%
Cottage Grove Community Hospital	0.00	0.00	--	Sacred Heart University District	0.07	0.45	521%
Curry General Hospital	0.00	0.00	--	Salem Hospital	1.09	0.93	-15%
Good Samaritan Regional Medical Center	0.85	0.43	-50%	Samaritan Albany General Hospital	0.44	1.16	164%
Good Shepherd Medical Center	1.09	0.68	-37%	Samaritan Lebanon Community Hospital	0.25	1.97	686%
Grande Ronde Hospital	0.27	0.38	40%	Samaritan North Lincoln Hospital	0.00	0.00	--
Harney District Hospital	0.00	0.00	--	Samaritan Pacific Communities Hospital	1.03	0.31	-70%
Kaiser Permanente Sunnyside Medical Center	0.93	0.95	2%	Santiam Memorial Hospital	0.58	3.38	485%
Kaiser Permanente Westside Medical Center	--	0.73	--	Shriner's	0.73	0.00	-100%
Lake District Hospital	0.00	0.00	--	Silverton Hospital	0.00	0.00	--
Legacy Emanuel Medical Center	0.47	0.51	8%	Sky Lakes Medical Center	0.89	1.54	73%
Legacy Good Samaritan Medical Center	0.35	0.37	4%	Southern Coos Hospital and Health Center	0.00	0.00	--
Legacy Meridian Park Medical Center	0.45	0.32	-28%	St. Alphonsus Medical Center - Ontario	0.00	0.00	--
Legacy Mount Hood Medical Center	0.61	1.39	128%	St. Anthony Hospital	0.51	0.00	-100%
Lower Umpqua Hospital District	0.00	0.00	--	St. Charles Medical Center - Bend	0.87	1.41	62%
McKenzie-Willamette Medical Center	1.30	0.28	-79%	St. Charles Medical Center - Madras	0.00	0.69	--
Mercy Medical Center	0.66	1.06	60%	St. Charles Medical Center - Redmond	0.43	2.54	493%
Mid-Columbia Medical Center	0.00	0.00	--	Tillamook County Hospital	0.00	1.46	--
Oregon Health & Science University	1.51	1.35	-10%	Tuality Community Hospital	0.90	0.83	-8%
Peace Harbor Hospital	0.00	0.46	--	Wallowa Memorial Hospital	1.42	0.00	-100%
Pioneer Memorial Hospital - Prineville	0.00	0.00	--	West Valley Hospital	0.00	0.00	--
Providence Hood River Memorial Hospital	0.00	0.00	--	Willamette Valley Medical Center	0.48	0.11	-77%

* Expected number of infections <1 with no SIR calculated

Dialysis events

Oregon began reporting NHSN defined dialysis events (DE) in 2013. Surveillance occurs in outpatient hemodialysis centers where patients with kidney disease are treated. There are two types of measures to assess dialysis safety in this report:

- Bloodstream infections: Any positive blood culture
- Access-related bloodstream infection: Positive blood culture with the suspected source reported as the vascular access or an uncertain source.

Each of these types of DEs are further sub-divided by the type of vascular access employed for hemodialysis. The different methods of vascular access are listed below in order from lowest to highest infection risk:

- Fistula – a surgically created direct connection between an artery and a vein.
- Graft – a surgically created connection between an artery and a vein using implanted material (typically synthetic tubing).
- Tunneled central lines – a central venous catheter that travels a distance under the skin from the point of insertion before entering a vein and terminates at or close to the heart or one of the great vessels (e.g., Hickman® or Broviac®).
- Non-tunneled central line – a central venous catheter that is fixed in place at the point of insertion and travels directly from the skin entry site to a vein and terminates close to the heart or one of the great vessels, typically intended for short term use.

Tables 21, and Tables 22–29 shows bloodstream infection (BSI) and access-related bloodstream infection (ARB) dialysis event data for 2013. Stratifying by access device, Oregon facilities had a pooled mean for BSIs of 0.25 for fistula devices, 0.48 for graft devices, 1.43 for tunneled central lines and 1.67 for non-tunneled central lines. For access-related bloodstream infections, Oregon facilities had a pooled mean for ARBs of 0.14 for fistula devices, 0.33 for graft devices, 1.32 for tunneled central lines and 1.67 for non-tunneled central lines. All of Oregon pooled means for both BSIs and ARBs are below the national pooled mean for all vascular devices.

Table 21. Total number of BSIs and ARBs with associated facility and national pooled means.

	Bloodstream infections					Access-related bloodstream infections				
	Infections	Patient months	Facility pooled mean	NHSN pooled mean	Above or Below	Infections	Patient months	Facility pooled mean	NHSN pooled mean	Above or Below
Fistula	60	23690	0.25	0.48	Below ▼	33	23690	0.14	0.23	Below ▼
Graft	23	4833	0.48	0.88	Below ▼	16	4833	0.33	0.51	Below ▼
Tunneled Central Line	87	6081	1.43	3.24	Below ▼	80	6081	1.32	2.55	Below ▼
Nontunneled Central Line	1	60	1.67	2.78	Below ▼	1	60	1.67	2.18	Below ▼

Table 22. Facility bloodstream infections associated with fistulas for Oregon dialysis facilities.

Facility	Fistula				
	Bloodstream infection	Patient Months	Pooled Mean	NHSN bloodstream infection pooled mean	Above or Below ▲▼
Blue Mountain Kidney Center	1	163	0.61	0.48	▲
Coos Bay	2	676	0.30	0.48	▼
Eugene Dialysis Service	5	901	0.55	0.48	▲
FMC Maywood Dialysis	1	130	0.77	0.48	▲
FMC Milton Freewater	0	102	0.00	0.48	▼
Four Rivers Dialysis	2	406	0.49	0.48	▲
Fresenius Medical Care Dialysis Services - Oregon, LLC - Corvallis	0	0	--	0.48	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Mt. Hood	3	754	0.40	0.48	▼
Fresenius Medical Care Florence Dialysis	0	72	0.00	0.48	▼
Grants Pass II	0	24	0.00	0.48	▼
Gresham Dialysis Center	1	614	0.16	0.48	▼
Hermiston Dialysis Center	0	266	0.00	0.48	▼
Hillsboro Dialysis Center	0	84	0.00	0.48	▼
Klamath Falls Dialysis	1	411	0.24	0.48	▼
Lake Road Dialysis	0	838	0.00	0.48	▼
Lebanon Dialysis	1	451	0.22	0.48	▼
McMinnville Dialysis	0	262	0.00	0.48	▼
Meridian Park Dialysis	0	419	0.00	0.48	▼
Newport Oregon	0	373	0.00	0.48	▼
Northeast Portland Renal Center	3	726	0.41	0.48	▼
Oregon Kidney Center	0	773	0.00	0.48	▼
Pacific Northwest Dialysis Services, L.L.C. - Beaverton	0	981	0.00	0.48	▼
Pacific Northwest Renal Services, L.L.C. - Astoria	2	308	0.65	0.48	▲
Pacific Northwest Renal Services, L.L.C. - Clackamas	4	623	0.64	0.48	▲
Pacific Northwest Renal Services, L.L.C. - Hollywood	4	901	0.44	0.48	▼
Pacific Northwest Renal Services, L.L.C. - Newberg	1	166	0.60	0.48	▲
Pacific Northwest Renal Services, L.L.C. - St. Helens	0	212	0.00	0.48	▼
Pacific Northwest Renal Services, L.L.C. - Tualatin	1	622	0.16	0.48	▼
Pacific Northwest Renal Services, L.L.C. - Twin Oaks	2	607	0.33	0.48	▼
PNRS Columbia River The Dalles	0	66	0.00	0.48	▼
QCI Bend	5	587	0.85	0.48	▲
Qualicenters Salem, LLC	2	1031	0.19	0.48	▼
Qualicenters-Albany	1	495	0.20	0.48	▼
Ray Yasui Dialysis Center	0	335	0.00	0.48	▼
Redmond Dialysis	2	661	0.30	0.48	▼
Redwood Dialysis	1	626	0.16	0.48	▼
Rogue Valley Dialysis	4	1429	0.28	0.48	▼
Rose Quarter Dialysis	0	875	0.00	0.48	▼
Roseburg-Mercy	1	626	0.16	0.48	▼
Salem Dialysis	2	625	0.32	0.48	▼
Salem North Dialysis	3	392	0.77	0.48	▲
Sherwood Dialysis Center	0	160	0.00	0.48	▼
Springfield Oregon Dialysis	1	855	0.12	0.48	▼
THC/PNRS LLC - Raines	2	384	0.52	0.48	▲
Tillamook Dialysis Center	0	102	0.00	0.48	▼
Walker Road Dialysis	0	333	0.00	0.48	▼
West Linn Dialysis Center	1	142	0.70	0.48	▲
West Salem	0	214	0.00	0.48	▼
Willamette Valley Renal Center	0	308	0.00	0.48	▼
Woodburn	1	579	0.17	0.48	▼

Table 23. Facility bloodstream infections associated with grafts for Oregon dialysis facilities.

Facility	Graft				Above ▲ or Below ▼
	Bloodstream infection	Patient Months	Pooled Mean	NHSN bloodstream infection pooled mean	
Blue Mountain Kidney Center	0	27	0.00	0.88	▼
Coos Bay	1	60	1.67	0.88	▲
Eugene Dialysis Service	1	175	0.57	0.88	▼
FMC Maywood Dialysis	0	34	0.00	0.88	▼
FMC Milton Freewater	0	0	--	0.88	▼
Four Rivers Dialysis	0	88	0.00	0.88	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Corvallis	0	0	--	0.88	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Mt. Hood	0	136	0.00	0.88	▼
Fresenius Medical Care Florence Dialysis	0	0	--	0.88	▼
Grants Pass II	0	0	--	0.88	▼
Gresham Dialysis Center	1	58	1.72	0.88	▲
Hermiston Dialysis Center	0	32	0.00	0.88	▼
Hillsboro Dialysis Center	0	31	0.00	0.88	▼
Klamath Falls Dialysis	0	87	0.00	0.88	▼
Lake Road Dialysis	1	264	0.38	0.88	▼
Lebanon Dialysis	0	36	0.00	0.88	▼
McMinnville Dialysis	1	17	5.88	0.88	▲
Meridian Park Dialysis	0	117	0.00	0.88	▼
Newport Oregon	0	18	0.00	0.88	▼
Northeast Portland Renal Center	1	266	0.38	0.88	▼
Oregon Kidney Center	1	201	0.50	0.88	▼
Pacific Northwest Dialysis Services, L.L.C. - Beaverton	1	249	0.40	0.88	▼
Pacific Northwest Renal Services, L.L.C. - Astoria	1	105	0.95	0.88	▲
Pacific Northwest Renal Services, L.L.C. - Clackamas	0	130	0.00	0.88	▼
Pacific Northwest Renal Services, L.L.C. - Hollywood	0	246	0.00	0.88	▼
Pacific Northwest Renal Services, L.L.C. - Newberg	0	19	0.00	0.88	▼
Pacific Northwest Renal Services, L.L.C. - St. Helens	0	56	0.00	0.88	▼
Pacific Northwest Renal Services, L.L.C. - Tualatin	1	282	0.35	0.88	▼
Pacific Northwest Renal Services, L.L.C. - Twin Oaks	2	140	1.43	0.88	▲
PNRS Columbia River The Dalles	0	16	0.00	0.88	▼
QCI Bend	0	114	0.00	0.88	▼
Qualicenters Salem, LLC	1	113	0.88	0.88	▲
Qualicenters-Albany	1	56	1.79	0.88	▲
Ray Yasui Dialysis Center	0	85	0.00	0.88	▼
Redmond Dialysis	1	139	0.72	0.88	▼
Redwood Dialysis	0	84	0.00	0.88	▼
Rogue Valley Dialysis	0	243	0.00	0.88	▼
Rose Quarter Dialysis	2	279	0.72	0.88	▼
Roseburg-Mercy	0	61	0.00	0.88	▼
Salem Dialysis	1	78	1.28	0.88	▲
Salem North Dialysis	1	93	1.08	0.88	▲
Sherwood Dialysis Center	0	41	0.00	0.88	▼
Springfield Oregon Dialysis	1	134	0.75	0.88	▼
THC/PNRS LLC - Raines	0	78	0.00	0.88	▼
Tillamook Dialysis Center	0	57	0.00	0.88	▼
Walker Road Dialysis	1	80	1.25	0.88	▲
West Linn Dialysis Center	1	46	2.17	0.88	▲
West Salem	0	11	0.00	0.88	▼
Willamette Valley Renal Center	1	93	1.08	0.88	▲
Woodburn	0	58	0.00	0.88	▼

Table 24. Facility bloodstream infections associated with tunneled central lines for Oregon dialysis facilities.

Facility	Tunneled Central Line				
	Bloodstream infection	Patient Months	Pooled Mean	NHSN bloodstream infection pooled mean	Above or Below
Blue Mountain Kidney Center	0	22	0.00	3.24	▼
Coos Bay	4	257	1.56	3.24	▼
Eugene Dialysis Service	3	341	0.88	3.24	▼
FMC Maywood Dialysis	0	76	0.00	3.24	▼
FMC Milton Freewater	0	36	0.00	3.24	▼
Four Rivers Dialysis	2	66	3.03	3.24	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Corvallis	0	0	--	3.24	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Mt. Hood	3	104	2.88	3.24	▼
Fresenius Medical Care Florence Dialysis	0	18	0.00	3.24	▼
Grants Pass II	0	7	0.00	3.24	▼
Gresham Dialysis Center	7	188	3.72	3.24	▲
Hermiston Dialysis Center	0	50	0.00	3.24	▼
Hillsboro Dialysis Center	1	44	2.27	3.24	▼
Klamath Falls Dialysis	0	87	0.00	3.24	▼
Lake Road Dialysis	0	104	0.00	3.24	▼
Lebanon Dialysis	0	72	0.00	3.24	▼
McMinnville Dialysis	0	90	0.00	3.24	▼
Meridian Park Dialysis	0	80	0.00	3.24	▼
Newport Oregon	0	37	0.00	3.24	▼
Northeast Portland Renal Center	2	100	2.00	3.24	▼
Oregon Kidney Center	1	169	0.59	3.24	▼
Pacific Northwest Dialysis Services, L.L.C. - Beaverton	0	250	0.00	3.24	▼
Pacific Northwest Renal Services, L.L.C. - Astoria	2	49	4.08	3.24	▲
Pacific Northwest Renal Services, L.L.C. - Clackamas	6	184	3.26	3.24	▲
Pacific Northwest Renal Services, L.L.C. - Hollywood	7	214	3.27	3.24	▲
Pacific Northwest Renal Services, L.L.C. - Newberg	2	54	3.70	3.24	▲
Pacific Northwest Renal Services, L.L.C. - St. Helens	1	55	1.82	3.24	▼
Pacific Northwest Renal Services, L.L.C. - Tualatin	5	145	3.45	3.24	▲
Pacific Northwest Renal Services, L.L.C. - Twin Oaks	4	133	3.01	3.24	▼
PNRS Columbia River The Dalles	0	10	0.00	3.24	▼
QCI Bend	1	113	0.88	3.24	▼
Qualicenters Salem, LLC	7	323	2.17	3.24	▼
Qualicenters-Albany	0	85	0.00	3.24	▼
Ray Yasui Dialysis Center	0	61	0.00	3.24	▼
Redmond Dialysis	1	68	1.47	3.24	▼
Redwood Dialysis	0	136	0.00	3.24	▼
Rogue Valley Dialysis	1	382	0.26	3.24	▼
Rose Quarter Dialysis	5	232	2.16	3.24	▼
Roseburg-Mercy	1	247	0.40	3.24	▼
Salem Dialysis	2	196	1.02	3.24	▼
Salem North Dialysis	0	147	0.00	3.24	▼
Sherwood Dialysis Center	1	45	2.22	3.24	▼
Springfield Oregon Dialysis	7	405	1.73	3.24	▼
THC/PNRS LLC - Raines	5	205	2.44	3.24	▼
Tillamook Dialysis Center	0	26	0.00	3.24	▼
Walker Road Dialysis	0	54	0.00	3.24	▼
West Linn Dialysis Center	1	53	1.89	3.24	▼
West Salem	2	124	1.61	3.24	▼
Willamette Valley Renal Center	3	34	8.82	3.24	▲
Woodburn	0	103	0.00	3.24	▼

Table 25. Facility bloodstream infections associated with non-tunneled central lines for Oregon dialysis facilities.

Facility	Nontunneled Central Line				
	Bloodstream infection	Patient Months	Pooled Mean	NHSN bloodstream infection pooled mean	Above or Below ▲ ▼
Blue Mountain Kidney Center	0	1	0.00	2.78	▼
Coos Bay	0	0	--	2.78	▼
Eugene Dialysis Service	0	0	--	2.78	▼
FMC Maywood Dialysis	0	0	--	2.78	▼
FMC Milton Freewater	0	0	--	2.78	▼
Four Rivers Dialysis	0	0	--	2.78	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Corvallis	0	0	--	2.78	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Mt. Hood	0	14	0.00	2.78	▼
Fresenius Medical Care Florence Dialysis	0	0	--	2.78	▼
Grants Pass II	0	0	--	2.78	▼
Gresham Dialysis Center	0	0	--	2.78	▼
Hermiston Dialysis Center	0	0	--	2.78	▼
Hillsboro Dialysis Center	0	0	--	2.78	▼
Klamath Falls Dialysis	0	0	--	2.78	▼
Lake Road Dialysis	0	0	--	2.78	▼
Lebanon Dialysis	0	0	--	2.78	▼
McMinnville Dialysis	0	0	--	2.78	▼
Meridian Park Dialysis	0	0	--	2.78	▼
Newport Oregon	0	0	--	2.78	▼
Northeast Portland Renal Center	0	1	0.00	2.78	▼
Oregon Kidney Center	0	0	--	2.78	▼
Pacific Northwest Dialysis Services, L.L.C. - Beaverton	0	3	0.00	2.78	▼
Pacific Northwest Renal Services, L.L.C. - Astoria	0	0	--	2.78	▼
Pacific Northwest Renal Services, L.L.C. - Clackamas	0	0	--	2.78	▼
Pacific Northwest Renal Services, L.L.C. - Hollywood	0	0	--	2.78	▼
Pacific Northwest Renal Services, L.L.C. - Newberg	0	0	--	2.78	▼
Pacific Northwest Renal Services, L.L.C. - St. Helens	0	0	--	2.78	▼
Pacific Northwest Renal Services, L.L.C. - Tualatin	1	0	--	2.78	▼
Pacific Northwest Renal Services, L.L.C. - Twin Oaks	0	0	--	2.78	▼
PNRS Columbia River The Dalles	0	0	--	2.78	▼
QCI Bend	0	0	--	2.78	▼
Qualicenters Salem, LLC	0	0	--	2.78	▼
Qualicenters-Albany	0	20	0.00	2.78	▼
Ray Yasui Dialysis Center	0	0	--	2.78	▼
Redmond Dialysis	0	9	0.00	2.78	▼
Redwood Dialysis	0	0	--	2.78	▼
Rogue Valley Dialysis	0	0	--	2.78	▼
Rose Quarter Dialysis	0	0	--	2.78	▼
Roseburg-Mercy	0	0	--	2.78	▼
Salem Dialysis	0	0	--	2.78	▼
Salem North Dialysis	0	0	--	2.78	▼
Sherwood Dialysis Center	0	0	--	2.78	▼
Springfield Oregon Dialysis	0	0	--	2.78	▼
THC/PNRS LLC - Raines	0	7	0.00	2.78	▼
Tillamook Dialysis Center	0	0	--	2.78	▼
Walker Road Dialysis	0	0	--	2.78	▼
West Linn Dialysis Center	0	0	--	2.78	▼
West Salem	0	0	--	2.78	▼
Willamette Valley Renal Center	0	4	0.00	2.78	▼
Woodburn	0	1	0.00	2.78	▼

Table 26. Facility access-related bloodstream infections associated with fistulas for Oregon dialysis facilities.

Facility	Fistula				
	Bloodstream infection	Patient Months	Pooled Mean	NHSN bloodstream infection pooled mean	Above or Below ▲ ▼
Blue Mountain Kidney Center	1	163	0.61	0.23	▲
Coos Bay	1	676	0.15	0.23	▼
Eugene Dialysis Service	1	901	0.11	0.23	▼
FMC Maywood Dialysis	1	130	0.77	0.23	▲
FMC Milton Freewater	0	102	0.00	0.23	▼
Four Rivers Dialysis	2	406	0.49	0.23	▲
Fresenius Medical Care Dialysis Services - Oregon, LLC - Corvallis	0	0	--	0.23	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Mt. Hood	1	754	0.13	0.23	▼
Fresenius Medical Care Florence Dialysis	0	72	0.00	0.23	▼
Grants Pass II	0	24	0.00	0.23	▼
Gresham Dialysis Center	1	614	0.16	0.23	▼
Hermiston Dialysis Center	0	266	0.00	0.23	▼
Hillsboro Dialysis Center	0	84	0.00	0.23	▼
Klamath Falls Dialysis	1	411	0.24	0.23	▲
Lake Road Dialysis	0	838	0.00	0.23	▼
Lebanon Dialysis	0	451	0.00	0.23	▼
McMinnville Dialysis	0	262	0.00	0.23	▼
Meridian Park Dialysis	0	419	0.00	0.23	▼
Newport Oregon	0	373	0.00	0.23	▼
Northeast Portland Renal Center	3	726	0.41	0.23	▲
Oregon Kidney Center	0	773	0.00	0.23	▼
Pacific Northwest Dialysis Services, L.L.C. - Beaverton	0	981	0.00	0.23	▼
Pacific Northwest Renal Services, L.L.C. - Astoria	1	308	0.32	0.23	▲
Pacific Northwest Renal Services, L.L.C. - Clackamas	2	623	0.32	0.23	▲
Pacific Northwest Renal Services, L.L.C. - Hollywood	3	901	0.33	0.23	▲
Pacific Northwest Renal Services, L.L.C. - Newberg	0	166	0.00	0.23	▼
Pacific Northwest Renal Services, L.L.C. - St. Helens	0	212	0.00	0.23	▼
Pacific Northwest Renal Services, L.L.C. - Tualatin	0	622	0.00	0.23	▼
Pacific Northwest Renal Services, L.L.C. - Twin Oaks	0	607	0.00	0.23	▼
PNRS Columbia River The Dalles	0	66	0.00	0.23	▼
QCI Bend	4	587	0.68	0.23	▲
Qualicenters Salem, LLC	1	1031	0.10	0.23	▼
Qualicenters-Albany	0	495	0.00	0.23	▼
Ray Yasui Dialysis Center	0	335	0.00	0.23	▼
Redmond Dialysis	1	661	0.15	0.23	▼
Redwood Dialysis	1	626	0.16	0.23	▼
Rogue Valley Dialysis	2	1429	0.14	0.23	▼
Rose Quarter Dialysis	0	875	0.00	0.23	▼
Roseburg-Mercy	0	626	0.00	0.23	▼
Salem Dialysis	2	625	0.32	0.23	▲
Salem North Dialysis	3	392	0.77	0.23	▲
Sherwood Dialysis Center	0	160	0.00	0.23	▼
Springfield Oregon Dialysis	0	855	0.00	0.23	▼
THC/PNRS LLC - Raines	1	384	0.26	0.23	▲
Tillamook Dialysis Center	0	102	0.00	0.23	▼
Walker Road Dialysis	0	333	0.00	0.23	▼
West Linn Dialysis Center	0	142	0.00	0.23	▼
West Salem	0	214	0.00	0.23	▼
Willamette Valley Renal Center	0	308	0.00	0.23	▼
Woodburn	0	579	0.00	0.23	▼

Table 27. Facility access-related bloodstream infections associated with grafts for Oregon dialysis facilities.

Facility	Graft				
	Bloodstream infection	Patient Months	Pooled Mean	NHSN bloodstream infection pooled mean	Above or Below ▲ ▼
Blue Mountain Kidney Center	0	27	0.88	0.51	▲
Coos Bay	0	60	0.00	0.51	▼
Eugene Dialysis Service	1	175	0.57	0.51	▲
FMC Maywood Dialysis	0	34	0.00	0.51	▼
FMC Milton Freewater	0	0	--	0.51	▼
Four Rivers Dialysis	0	88	0.00	0.51	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Corvallis	0	0	--	0.51	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Mt. Hood	0	136	0.00	0.51	▼
Fresenius Medical Care Florence Dialysis	0	0	--	0.51	▼
Grants Pass II	0	0	--	0.51	▼
Gresham Dialysis Center	1	58	1.72	0.51	▲
Hermiston Dialysis Center	0	32	0.00	0.51	▼
Hillsboro Dialysis Center	0	31	0.00	0.51	▼
Klamath Falls Dialysis	0	87	0.00	0.51	▼
Lake Road Dialysis	1	264	0.38	0.51	▼
Lebanon Dialysis	0	36	0.00	0.51	▼
McMinnville Dialysis	1	17	5.88	0.51	▲
Meridian Park Dialysis	0	117	0.00	0.51	▼
Newport Oregon	0	18	0.00	0.51	▼
Northeast Portland Renal Center	1	266	0.38	0.51	▼
Oregon Kidney Center	1	201	0.50	0.51	▼
Pacific Northwest Dialysis Services, L.L.C. - Beaverton	1	249	0.40	0.51	▼
Pacific Northwest Renal Services, L.L.C. - Astoria	0	105	0.00	0.51	▼
Pacific Northwest Renal Services, L.L.C. - Clackamas	0	130	0.00	0.51	▼
Pacific Northwest Renal Services, L.L.C. - Hollywood	0	246	0.00	0.51	▼
Pacific Northwest Renal Services, L.L.C. - Newberg	0	19	0.00	0.51	▼
Pacific Northwest Renal Services, L.L.C. - St. Helens	0	56	0.00	0.51	▼
Pacific Northwest Renal Services, L.L.C. - Tualatin	0	282	0.00	0.51	▼
Pacific Northwest Renal Services, L.L.C. - Twin Oaks	1	140	0.71	0.51	▲
PNRS Columbia River The Dalles	0	16	0.00	0.51	▼
QCI Bend	0	114	0.00	0.51	▼
Qualicenters Salem, LLC	0	113	0.00	0.51	▼
Qualicenters-Albany	0	56	0.00	0.51	▼
Ray Yasui Dialysis Center	0	85	0.00	0.51	▼
Redmond Dialysis	0	139	0.00	0.51	▼
Redwood Dialysis	0	84	0.00	0.51	▼
Rogue Valley Dialysis	0	243	0.00	0.51	▼
Rose Quarter Dialysis	2	279	0.72	0.51	▲
Roseburg-Mercy	0	61	0.00	0.51	▼
Salem Dialysis	1	78	1.28	0.51	▲
Salem North Dialysis	1	93	1.08	0.51	▲
Sherwood Dialysis Center	0	41	0.00	0.51	▼
Springfield Oregon Dialysis	1	134	0.75	0.51	▲
THC/PNRS LLC - Raines	0	78	0.00	0.51	▼
Tillamook Dialysis Center	0	57	0.00	0.51	▼
Walker Road Dialysis	1	80	1.25	0.51	▲
West Linn Dialysis Center	1	46	2.17	0.51	▲
West Salem	0	11	0.00	0.51	▼
Willamette Valley Renal Center	1	93	1.08	0.51	▲
Woodburn	0	58	0.00	0.51	▼

Table 28. Facility access-related bloodstream infections associated with tunneled central lines for Oregon dialysis facilities.

Facility	Tunneled Central Line				
	Bloodstream infection	Patient Months	Pooled Mean	NHSN bloodstream infection pooled mean	Above or Below ▲ ▼
Blue Mountain Kidney Center	0	22	0.00	2.55	▼
Coos Bay	4	257	1.56	2.55	▼
Eugene Dialysis Service	2	341	0.59	2.55	▼
FMC Maywood Dialysis	0	76	0.00	2.55	▼
FMC Milton Freewater	0	36	0.00	2.55	▼
Four Rivers Dialysis	2	66	3.03	2.55	▲
Fresenius Medical Care Dialysis Services - Oregon, LLC - Corvallis	0	0	--	2.55	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Mt. Hood	3	104	2.88	2.55	▲
Fresenius Medical Care Florence Dialysis	0	18	0.00	2.55	▼
Grants Pass II	0	7	0.00	2.55	▼
Gresham Dialysis Center	7	188	3.72	2.55	▲
Hermiston Dialysis Center	0	50	0.00	2.55	▼
Hillsboro Dialysis Center	1	44	2.27	2.55	▼
Klamath Falls Dialysis	0	87	0.00	2.55	▼
Lake Road Dialysis	0	104	0.00	2.55	▼
Lebanon Dialysis	0	72	0.00	2.55	▼
McMinnville Dialysis	0	90	0.00	2.55	▼
Meridian Park Dialysis	0	80	0.00	2.55	▼
Newport Oregon	0	37	0.00	2.55	▼
Northeast Portland Renal Center	2	100	2.00	2.55	▼
Oregon Kidney Center	0	169	0.00	2.55	▼
Pacific Northwest Dialysis Services, L.L.C. - Beaverton	0	250	0.00	2.55	▼
Pacific Northwest Renal Services, L.L.C. - Astoria	2	49	4.08	2.55	▲
Pacific Northwest Renal Services, L.L.C. - Clackamas	6	184	3.26	2.55	▲
Pacific Northwest Renal Services, L.L.C. - Hollywood	7	214	3.27	2.55	▲
Pacific Northwest Renal Services, L.L.C. - Newberg	2	54	3.70	2.55	▲
Pacific Northwest Renal Services, L.L.C. - St. Helens	1	55	1.82	2.55	▼
Pacific Northwest Renal Services, L.L.C. - Tualatin	5	145	3.45	2.55	▲
Pacific Northwest Renal Services, L.L.C. - Twin Oaks	4	133	3.01	2.55	▲
PNRS Columbia River The Dalles	0	10	0.00	2.55	▼
QCI Bend	0	113	0.00	2.55	▼
Qualicenters Salem, LLC	7	323	2.17	2.55	▼
Qualicenters-Albany	0	85	0.00	2.55	▼
Ray Yasui Dialysis Center	0	61	0.00	2.55	▼
Redmond Dialysis	1	68	1.47	2.55	▼
Redwood Dialysis	0	136	0.00	2.55	▼
Rogue Valley Dialysis	1	382	0.26	2.55	▼
Rose Quarter Dialysis	5	232	2.16	2.55	▼
Roseburg-Mercy	1	247	0.40	2.55	▼
Salem Dialysis	2	196	1.02	2.55	▼
Salem North Dialysis	0	147	0.00	2.55	▼
Sherwood Dialysis Center	0	45	0.00	2.55	▼
Springfield Oregon Dialysis	6	405	1.48	2.55	▼
THC/PNRS LLC - Raines	5	205	2.44	2.55	▼
Tillamook Dialysis Center	0	26	0.00	2.55	▼
Walker Road Dialysis	0	54	0.00	2.55	▼
West Linn Dialysis Center	0	53	0.00	2.55	▼
West Salem	1	124	0.81	2.55	▼
Willamette Valley Renal Center	3	34	8.82	2.55	▲
Woodburn	0	103	0.00	2.55	▼

Table 29. Facility access-related bloodstream infections associated with non-tunneled central lines for Oregon dialysis facilities.

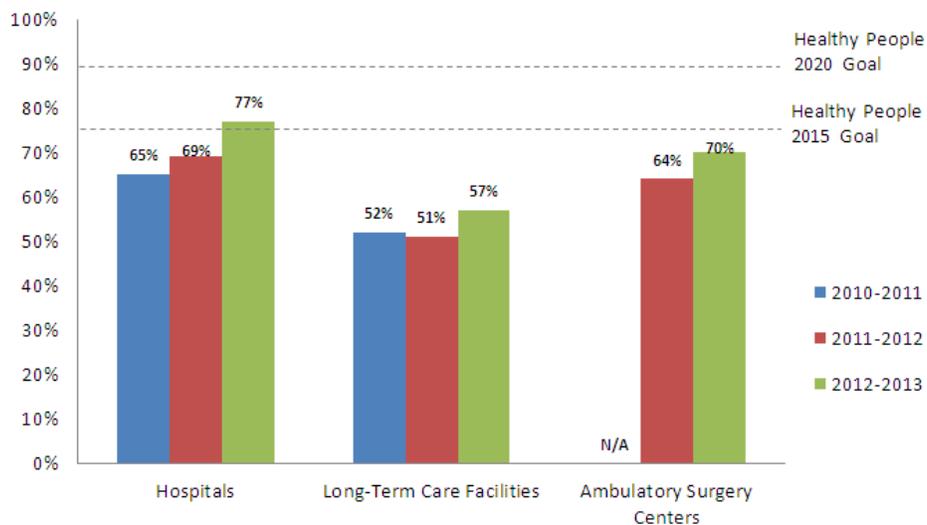
Facility	Nontunneled Central Line				
	Bloodstream infection	Patient Months	Pooled Mean	NHSN bloodstream infection pooled mean	Above or Below
Blue Mountain Kidney Center	0	1	0.00	2.18	▼
Coos Bay	0	0	--	2.18	▼
Eugene Dialysis Service	0	0	--	2.18	▼
FMC Maywood Dialysis	0	0	--	2.18	▼
FMC Milton Freewater	0	0	--	2.18	▼
Four Rivers Dialysis	0	0	--	2.18	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Corvallis	0	0	--	2.18	▼
Fresenius Medical Care Dialysis Services - Oregon, LLC - Mt. Hood	0	14	0.00	2.18	▼
Fresenius Medical Care Florence Dialysis	0	0	--	2.18	▼
Grants Pass II	0	0	--	2.18	▼
Gresham Dialysis Center	0	0	--	2.18	▼
Hermiston Dialysis Center	0	0	--	2.18	▼
Hillsboro Dialysis Center	0	0	--	2.18	▼
Klamath Falls Dialysis	0	0	--	2.18	▼
Lake Road Dialysis	0	0	--	2.18	▼
Lebanon Dialysis	0	0	--	2.18	▼
McMinnville Dialysis	0	0	--	2.18	▼
Meridian Park Dialysis	0	0	--	2.18	▼
Newport Oregon	0	0	--	2.18	▼
Northeast Portland Renal Center	0	1	0.00	2.18	▼
Oregon Kidney Center	0	0	--	2.18	▼
Pacific Northwest Dialysis Services, L.L.C. - Beaverton	0	3	0.00	2.18	▼
Pacific Northwest Renal Services, L.L.C. - Astoria	0	0	--	2.18	▼
Pacific Northwest Renal Services, L.L.C. - Clackamas	0	0	--	2.18	▼
Pacific Northwest Renal Services, L.L.C. - Hollywood	0	0	--	2.18	▼
Pacific Northwest Renal Services, L.L.C. - Newberg	0	0	--	2.18	▼
Pacific Northwest Renal Services, L.L.C. - St. Helens	0	0	--	2.18	▼
Pacific Northwest Renal Services, L.L.C. - Tualatin	1	0	--	2.18	▼
Pacific Northwest Renal Services, L.L.C. - Twin Oaks	0	0	--	2.18	▼
PNRS Columbia River The Dalles	0	0	--	2.18	▼
QCI Bend	0	0	--	2.18	▼
Qualicenters Salem, LLC	0	0	--	2.18	▼
Qualicenters-Albany	0	20	0.00	2.18	▼
Ray Yasui Dialysis Center	0	0	--	2.18	▼
Redmond Dialysis	0	9	0.00	2.18	▼
Redwood Dialysis	0	0	--	2.18	▼
Rogue Valley Dialysis	0	0	--	2.18	▼
Rose Quarter Dialysis	0	0	--	2.18	▼
Roseburg-Mercy	0	0	--	2.18	▼
Salem Dialysis	0	0	--	2.18	▼
Salem North Dialysis	0	0	--	2.18	▼
Sherwood Dialysis Center	0	0	--	2.18	▼
Springfield Oregon Dialysis	0	0	--	2.18	▼
THC/PNRS LLC - Raines	0	7	0.00	2.18	▼
Tillamook Dialysis Center	0	0	--	2.18	▼
Walker Road Dialysis	0	0	--	2.18	▼
West Linn Dialysis Center	0	0	--	2.18	▼
West Salem	0	0	--	2.18	▼
Willamette Valley Renal Center	0	4	0.00	2.18	▼
Woodburn	0	1	0.00	2.18	▼

Health care worker influenza vaccination

The number of health care workers receiving an influenza vaccine is recorded in each health care facility. This information is important because influenza vaccinations are highly effective in preventing influenza-related respiratory illnesses such as pneumonia. Patients aged 50 years or more are particularly vulnerable to severe disease. Vaccination during the influenza season protects them from severe and sometimes deadly lung disease. Knowing vaccination counts and rates helps health care facilities to determine strategies and set goals to improve influenza vaccination. Higher numbers and rates are better when looking at vaccination.

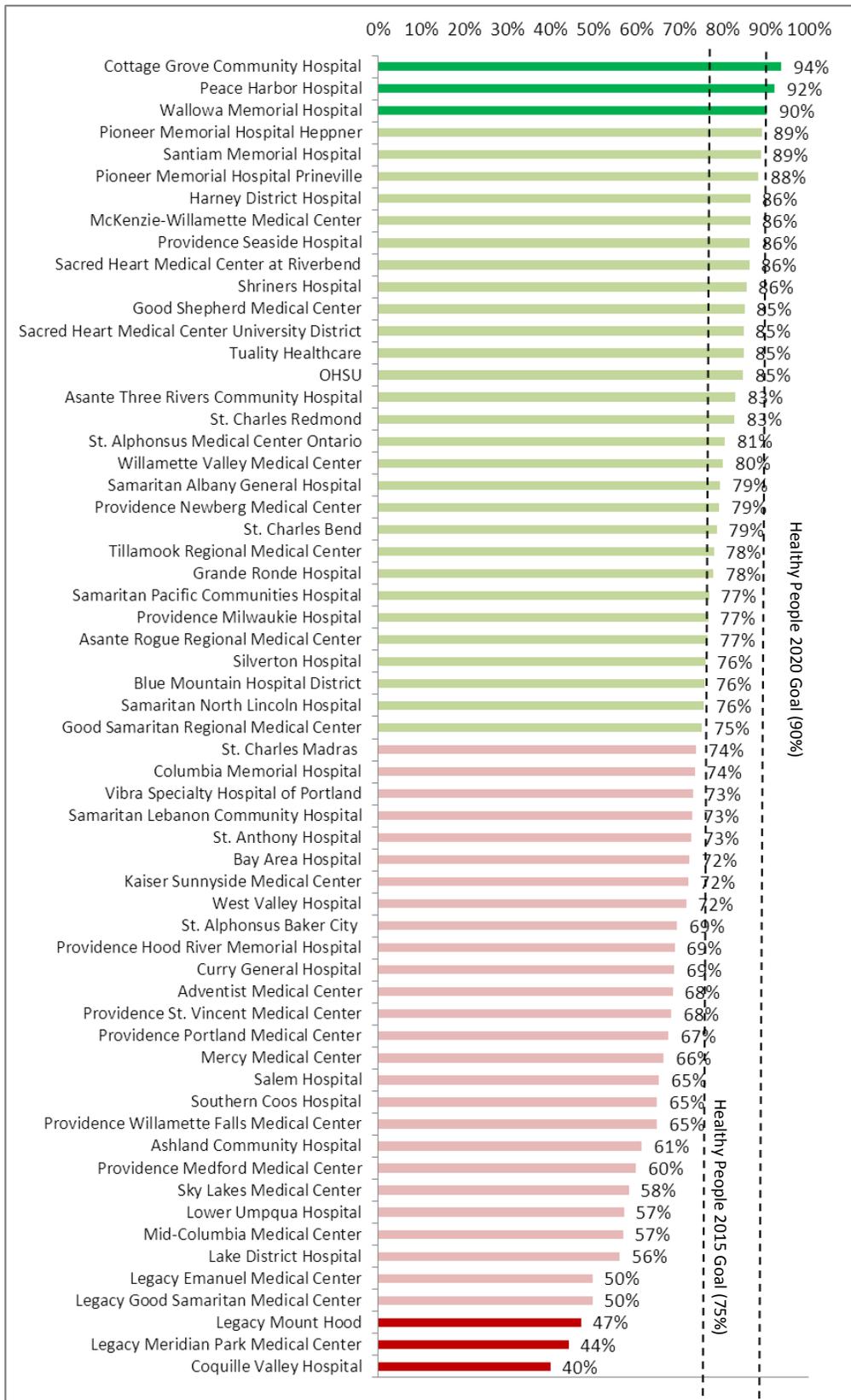
Sixty hospitals, 139 long-term care facilities and 84 ambulatory surgical centers reported vaccination rates in 2013. Vaccination rates in hospitals ranged from 40–94% and <5%–100% in LTCFs and ASCs. Vaccination rates increased in all three types of health care facilities from the 2010–2011 to the 2012–2013 Influenza season.

Figure 20. Percentage of health care workers that received the influenza vaccine between the 2010–2011 and 2012–2013 influenza season.



The Healthy People initiative of the U.S. Department of Health and Human Services (HHS) has set a national objective for health care worker Influenza vaccination at 90% by the year 2020. For the 2012–2013 influenza season, 3 hospitals have already met this goal.

Figure 21: Hospital overall influenza vaccination percentages, 2012–2013 season.



Fifty-two percent (31/60) of hospitals met the 75% overall vaccination goal for Healthy People 2015 (Figure 21). In addition, 5% (3/60) of hospitals met the 90% overall vaccination goal for 2020.

- Facility with percent of healthcare workers vaccinated above 90%
- Facility with percent of healthcare workers vaccinated above 75%
- Facility with percent of healthcare workers vaccinated above 50%
- Facility with percent of healthcare workers vaccinated below 50%

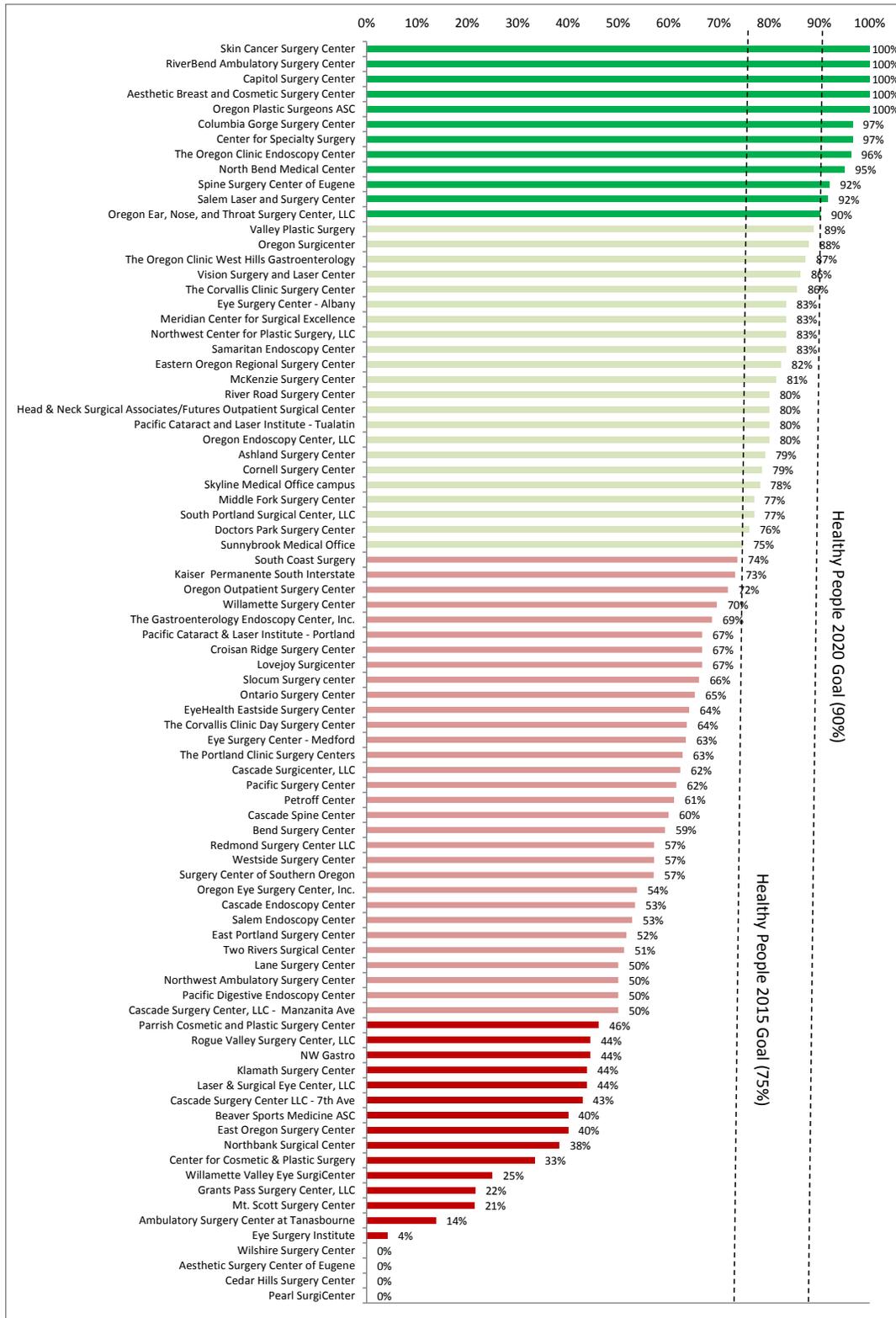
During the 2012–2013 respiratory season, Oregon hospitals implemented several strategies to improve their health care worker vaccination rates including no cost immunizations, reminders sent by email, mail, or pager, providing vaccination in congregate areas or mobile carts, and campaigning with flyers, posters, buttons and fact sheets. All hospitals participating in reporting influenza vaccination offered vaccine at no cost to their employees. Only 3 hospitals had no formal promotional activities for influenza vaccination.

Table 30. Number and percent of Oregon hospitals that participated in strategies to improve health care worker vaccination rates.

Influenza vaccination strategy	# participated	% participated
No cost vaccine	60	100%
Reminders by mail, email, or pager.	56	93%
Mobile carts	50	83%
Provided vaccination in congregate areas (e.g., conferences/meetings or cafeteria)	50	83%
Peer vaccinators	49	82%
Campaign including posters, flyers, buttons, fact sheets	49	82%
Required declination form	46	77%
Centralized mass vaccination fairs	44	73%
Provided vaccination at occupational health clinic	43	72%
Incentives	26	43%
Coordination of vaccination with other annual programs (e.g., tuberculin skin testing)	21	35%
Required vaccination or wearing of mask during influenza season	13	22%
Required receipt of vaccination for credentialing (if no contraindications)	10	17%
No formal promotional activities were conducted	3	5%

N = 60 hospitals reported influenza vaccination data.

Figure 22: Ambulatory ssurgery centers overall influenza vaccination percentages, 2012–2013 season.



Forty percent (34/85) of ambulatory surgery centers met the 75% overall vaccination goal for Healthy People 2015 (Figure 22). In addition, 14% (12/85) of facilities met the 90% overall vaccination goal for 2020.

- Facility with percent of healthcare workers vaccinated above 90%
- Facility with percent of healthcare workers vaccinated above 75%
- Facility with percent of healthcare workers vaccinated above 50%
- Facility with percent of healthcare workers vaccinated below 50%

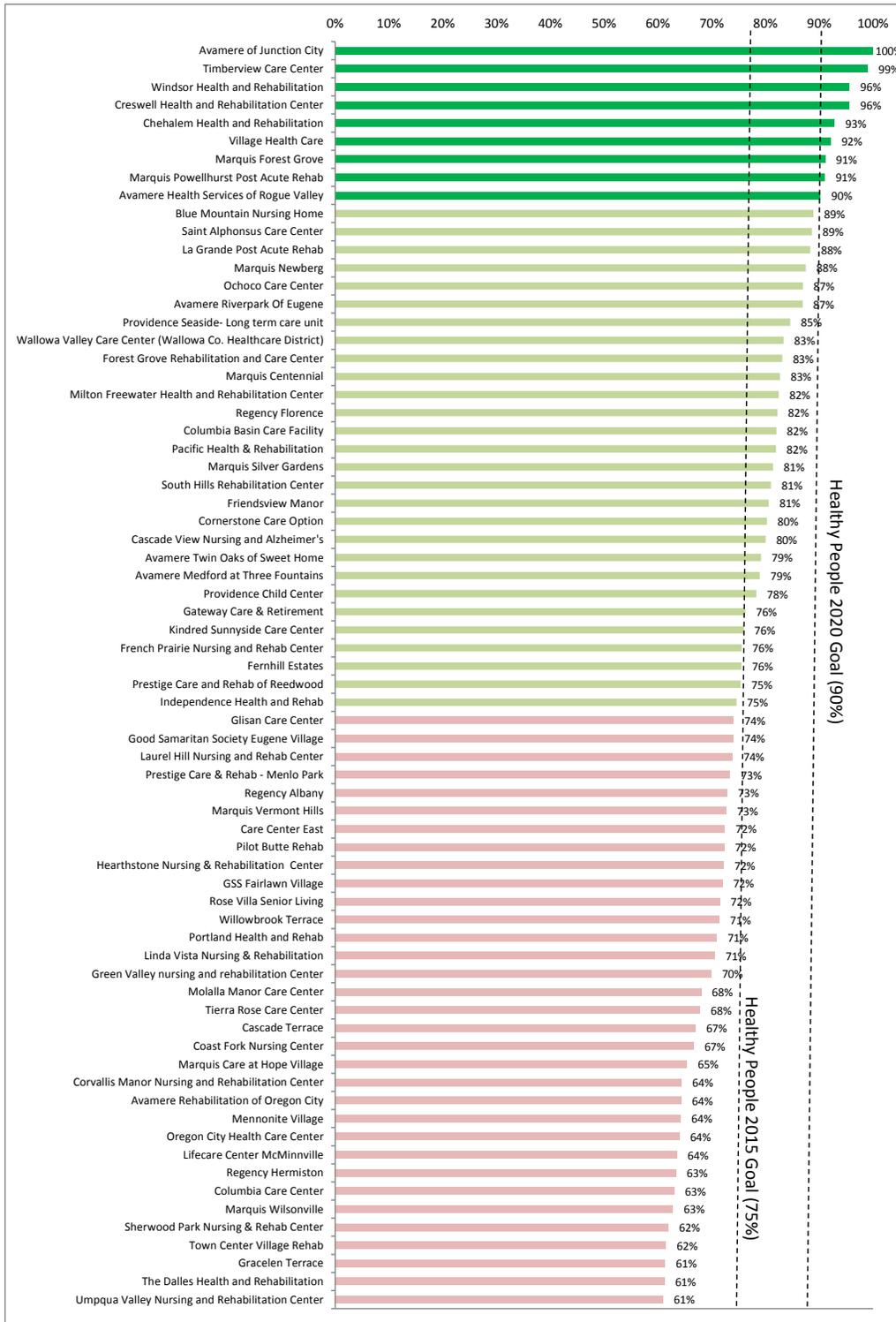
During the 2012–2013 respiratory season, Oregon ambulatory surgery centers implemented several strategies to improve their health care worker vaccination rates, including required declination forms, reminders sent by email, mail or pager, peer vaccinators, campaigning with flyers, buttons and fact sheets, and provided vaccination in congregate areas. Seventy-three percent of ambulatory surgery centers participating in reporting influenza vaccination offered vaccine at no cost to their employees. Only 4 ambulatory surgery centers offered any type of incentive.

Table 31. Number and percent of Oregon ambulatory surgery centers that participated in strategies to improve health care worker vaccination rates.

Influenza vaccination strategy	# participated	% participated
No cost vaccine	62	73%
Required declination form	49	58%
Reminders by mail, email, or pager.	40	47%
Peer vaccinators	36	42%
Campaign including posters, flyers, buttons, fact sheets	31	36%
Provided vaccination in congregate areas (e.g., conferences/meetings or cafeteria)	23	27%
No formal promotional activities were conducted	18	21%
Mobile carts	14	16%
Provided vaccination at occupational health clinic	11	13%
Centralized mass vaccination fairs	10	12%
Coordination of vaccination with other annual programs (e.g., tuberculin skin testing)	9	11%
Required vaccination or wearing of mask during influenza season	5	6%
Required receipt of vaccination for credentialing (if no contraindications)	5	6%
Incentives	4	5%

N = 85 ambulatory surgical centers reported influenza vaccination data.

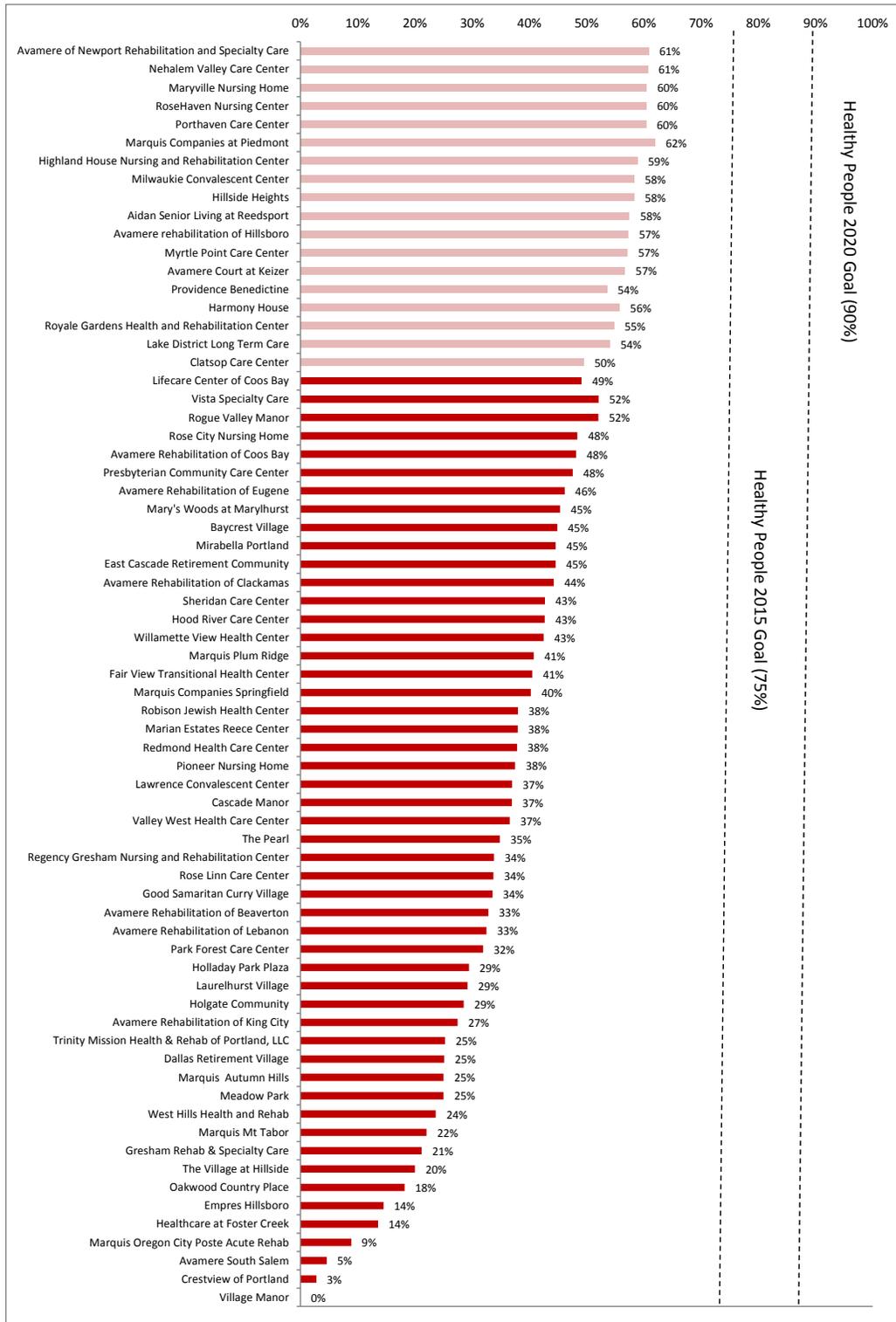
Figure 23: Long-term care facility overall influenza vaccination percentages, 2012–2013 season.



Twenty-seven percent (37/139) of long-term care facilities met the 75% overall vaccination goal for Healthy People 2015 (Figure 23). In addition, 6.5% (9/139) of facilities met the 90% overall vaccination goal for 2020.

- Facility with percent of healthcare workers vaccinated above 90%
- Facility with percent of healthcare workers vaccinated above 75%
- Facility with percent of healthcare workers vaccinated above 50%
- Facility with percent of healthcare workers vaccinated below 50%

Figure 23 cont.: Long-term care facility overall influenza vaccination percentages, 2012–2013 season.



- Facility with percent of healthcare workers vaccinated above 90%
- Facility with percent of healthcare workers vaccinated above 75%
- Facility with percent of healthcare workers vaccinated above 50%
- Facility with percent of healthcare workers vaccinated below 50%

During the 2012–2013 respiratory season, Oregon long-term care facilities implemented several strategies to improve their health care worker vaccination rates, including campaigning, providing vaccination in congregate areas, requiring declination forms and peer vaccinators. Ninety-three percent of long-term care facilities participating in reporting influenza vaccination offered vaccine at no cost to their employees. Only 4 long-term care facilities required receipt of vaccination for credentialing.

Table 32. Number and percent of Oregon long-term care facilities that participated in strategies to improve health care worker vaccination rates.

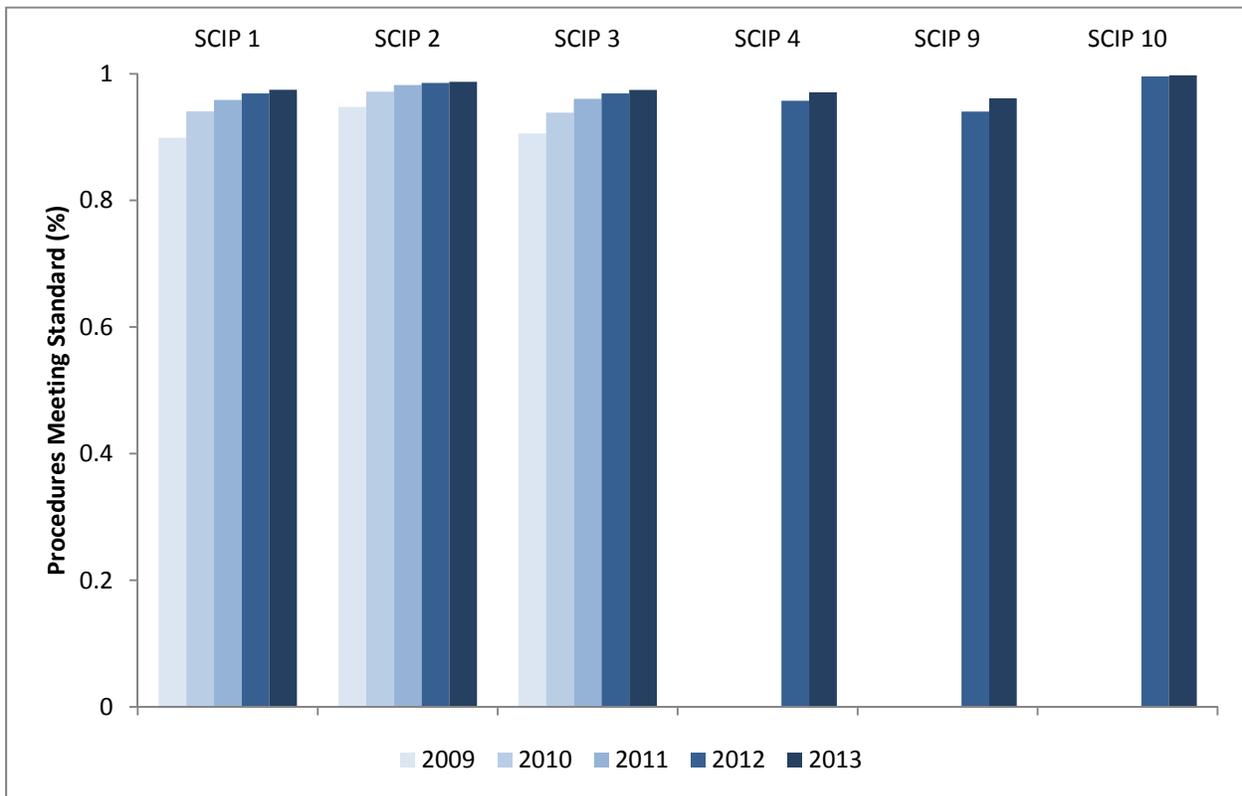
Influenza vaccination strategy	# participated	% participated
No cost vaccine	129	93%
Campaign including posters, flyers, buttons, fact sheets	98	71%
Provided vaccination in congregate areas (e.g., conferences/meetings or cafeteria)	82	59%
Required declination form	80	58%
Peer vaccinators	77	55%
Reminders by mail, email, or pager.	50	36%
Centralized mass vaccination fairs	40	29%
Coordination of vaccination with other annual programs (e.g., tuberculin skin testing)	28	20%
No formal promotional activities were conducted	23	17%
Mobile carts	21	15%
Incentives	21	15%
Required vaccination or wearing of mask during influenza season	9	6%
Provided vaccination at occupational health clinic	7	5%
Required receipt of vaccination for credentialing (if no contraindications)	4	3%

N = 139 long-term care facilities reported influenza vaccination data.

Surgical Care Improvement Project (SCIP)

Hospitals that perform surgical procedures identified by CMS for mandatory reporting must submit data for Recommended Care Measures. These measures examine the number of times a patient receives appropriate care before, during and after a surgical procedure. Information is collected from patient medical records and is reviewed by CMS for consistency. The percentage of eligible patients receiving recommended treatment is reported in this document. Higher percentages are better.

Figure 24. Surgical Care Improvement Project (SCIP) Process of Care Measures 2009–2013



SCIP 1 (Prophylactic antibiotic received within one hour prior to surgical incision)

- This measures the percent of eligible surgical patients who receive prophylactic antibiotics within one hour prior to surgical incision. Patients who receive antibiotics at the appropriate time prior to surgery are less likely to get wound infections. In 2013, 97.5% of eligible surgical patients received antibiotics within one hour prior to surgical incision. This is 7% higher than in 2009.

SCIP 2 (Prophylactic antibiotic selection for surgical patients)

- This measures the percent of eligible surgical patients who receive appropriate antibiotics specific to each type of surgical procedure. Patients who receive surgery specific preventative antibiotics reduce their risk of infection. In 2013, 98.7% of eligible surgical patients received appropriate antibiotics specific to their type of surgical procedure. This is 4% higher than in 2009.

SCIP 3 (Prophylactic antibiotic discontinued within 24 hours after surgery end time)

- This measures the percent of eligible surgical patients whose antibiotics were discontinued within 24 hours after a surgical procedure. Patients whose antibiotics are discontinued within 24 hours reduce their risk of side effects including stomach aches and serious diarrhea. Also, continual use of unnecessary antibiotics can lead to bacterial resistance and antibiotics not working as well. In 2013, 97.4% of eligible surgical patients had their antibiotics discontinued within 24 hours after surgery end time. This is 7% higher than in 2009.

SCIP 4 (Cardiac surgery patients with controlled 6 a.m. postoperative blood glucose)

- This measures the percent of eligible surgical patients whose blood sugar is kept within normal range in the days following a surgery. Patients who have uncontrolled blood glucose levels have a higher risk of infection. In 2013, 97.1% of eligible surgical patients had blood sugar levels within a normal range in the days following surgery. Reporting for this measure began in 2012 and has increased 2% since then.

SCIP 9 (Urinary catheter removed on postoperative day 1 or postoperative day 2 with the day of surgery being day zero)

- This measures the percent of eligible surgical patients who had a urinary catheter removed on the first or second day after surgery. The risk for a urinary tract infection increases with longer durations of indwelling urinary catheters. In 2013, 96.1% of eligible surgical patients had their urinary catheter removed on postoperative day 1 or 2. Reporting for this measure began in 2012 and has increased by 2% since then.

SCIP 10 (Surgery patients with perioperative temperature management)

- This measures the percent of eligible surgical patients who required active warming in the operating room or those whose body temperature was normal within 30 minutes immediately before and 15 minutes immediately after anesthesia end time. Patients that have normal body temperatures before, during and after an operation have a decreased risk of infection and decreased

risk of delayed wound closures. In 2013, 99.8% of eligible surgical patients had normal temperatures before and after their surgical procedure. Reporting for this measure began in 2012 and has increased 0.2% since then.

Table 33. Oregon hospitals SCIP scores by percent achieved.

Surgical Care Improvement Project (SCIP) Scores

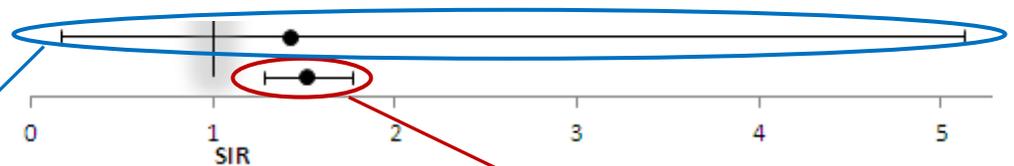
The SCIP scores summarize the percent of times that a hospital gave patients the correct care for preventing infection in surgical patients in 2013. The overall score is a composite of the six surgical care improvement

Hospital Name	Overall %	Prophylactic antibiotic started %	Appropriate antibiotic received %	Prophylactic antibiotic stopped %	Controlled blood sugar %	Urinary catheter removed %	Temp. managed %
Mercy Medical Center	100%	100%	100%	100%	--	100%	100%
McKenzie-Willamette Medical Center	100%	100%	100%	100%	100%	100%	100%
Willamette Valley Medical Center	100%	100%	100%	100%	--	99%	100%
Kaiser Permanente Sunnyside Medical Center	99%	99%	99%	99%	100%	100%	100%
Ashland Community Hospital	99%	100%	100%	98%	--	98%	100%
Providence Hood River Memorial Hospital	99%	100%	100%	98%	--	95%	100%
Legacy Good Samaritan Medical Center	99%	97%	100%	99%	98%	99%	100%
Tillamook County Hospital	99%	97%	98%	100%	--	100%	100%
Providence Newberg Medical Center	99%	98%	98%	100%	--	98%	100%
Asante Three Rivers Medical Center	99%	100%	98%	99%	--	94%	100%
Peace Harbor Hospital	99%	96%	100%	100%	--	96%	100%
Sky Lakes Medical Center	99%	99%	100%	98%	--	98%	99%
Adventist Medical Center	99%	99%	99%	97%	97%	99%	100%
Legacy Meridian Park Medical Center	99%	97%	100%	98%	--	96%	100%
Providence Willamette Falls Medical Center	99%	97%	99%	99%	--	93%	100%
Providence Portland Medical Center	98%	99%	99%	98%	97%	96%	100%
Asante Rogue Regional Medical Center	98%	99%	100%	99%	97%	91%	100%
Providence Medford Medical Center	98%	98%	98%	100%	--	91%	99%
Samaritan Albany General Hospital	98%	95%	100%	98%	--	98%	100%
Tuality Community Hospital	98%	96%	99%	98%	93%	99%	100%
Salem Hospital	98%	98%	100%	98%	100%	94%	100%
Good Samaritan Regional Medical Center	98%	97%	99%	98%	93%	98%	100%
Providence St. Vincent Medical Center	98%	97%	99%	99%	98%	94%	100%
Providence Milwaukie Hospital	98%	99%	99%	99%	--	93%	100%
Samaritan North Lincoln Hospital	98%	100%	98%	97%	--	95%	100%
Legacy Mount Hood Medical Center	98%	97%	98%	98%	--	96%	100%
Mid-Columbia Medical Center	98%	98%	99%	99%	--	90%	100%
St. Alphonsus Medical Center - Ontario	98%	100%	97%	93%	--	100%	99%
Oregon Health & Science University	98%	97%	99%	97%	95%	97%	99%
St. Alphonsus Medical Center - Baker City	98%	95%	100%	98%	--	--	--
Sacred Heart Medical Center - Riverbend	98%	99%	99%	97%	95%	90%	100%
Providence Seaside Hospital	97%	100%	100%	93%	--	91%	100%
Legacy Emanuel Medical Center	97%	96%	100%	97%	86%	94%	100%
Coquille Valley Hospital District	97%	94%	100%	95%	--	100%	97%
St. Charles Medical Center - Bend	97%	96%	99%	95%	99%	96%	99%
Bay Area Hospital	96%	95%	97%	93%	--	95%	100%
Good Shepherd Medical Center	96%	94%	96%	97%	--	95%	99%
Columbia Memorial Hospital	96%	97%	90%	95%	--	98%	100%
Silverton Hospital	96%	93%	94%	97%	--	93%	100%
St. Anthony Hospital	96%	97%	96%	94%	--	--	--
St. Charles Medical Center - Redmond	95%	97%	97%	90%	--	91%	99%
Samaritan Pacific Communities Hospital	95%	97%	83%	93%	--	94%	100%
Samaritan Lebanon Community Hospital	93%	97%	97%	85%	--	64%	100%
Grande Ronde Hospital	92%	83%	95%	88%	--	87%	100%
Santiam Memorial Hospital	91%	76%	91%	94%	--	84%	100%

Appendices: HAI forest plots and hospital responses.

HAI forest plots

The HAI forest plot is a graphical display that shows the SIR value of each hospital with corresponding confidence intervals. The example below shows how to interpret information in the HAI forest plots.



SIR = 1.41
Confidence interval = 0.2–1.4

The SIR estimate for this hospital is 1.41. This means this hospital had 41% more HAIs than the national baseline. However, the confidence interval is not statistically significant which means the SIR estimate should be interpreted as no different than the national baseline.

SIR = 1.51
Confidence interval = 1.29–1.76

The SIR estimate for this hospital is 1.51. This means this hospital has 51% more HAIs than the national baseline. The confidence interval is statistically significant which means the SIR estimate is different than the national baseline.

Figure 25. Oregon hospital's SIR with confidence intervals for adult ICU CLABSIs in 2013.

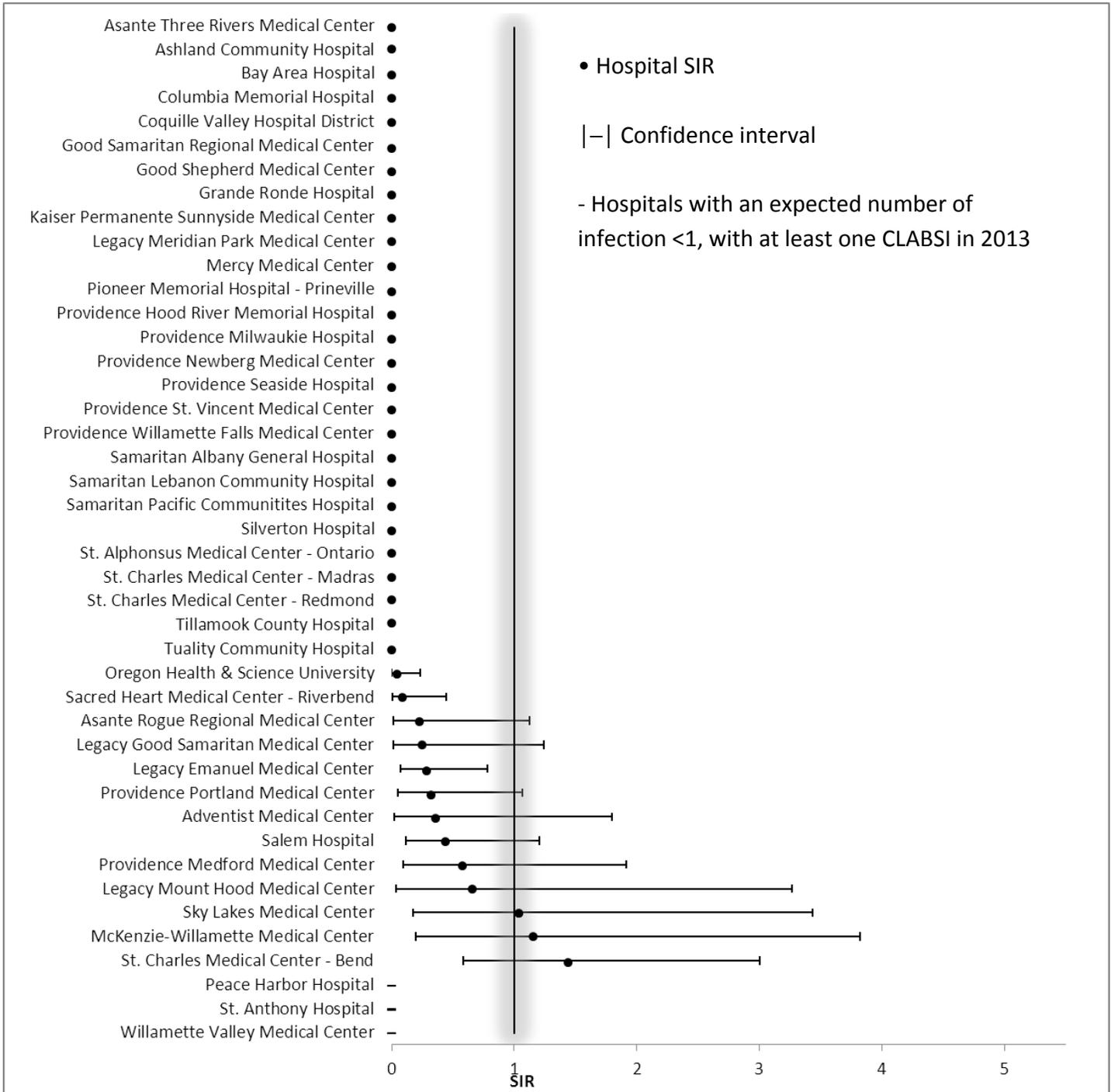


Figure 26. Oregon hospital's SIR with confidence intervals for neonatal ICU CLABSIs in 2013.

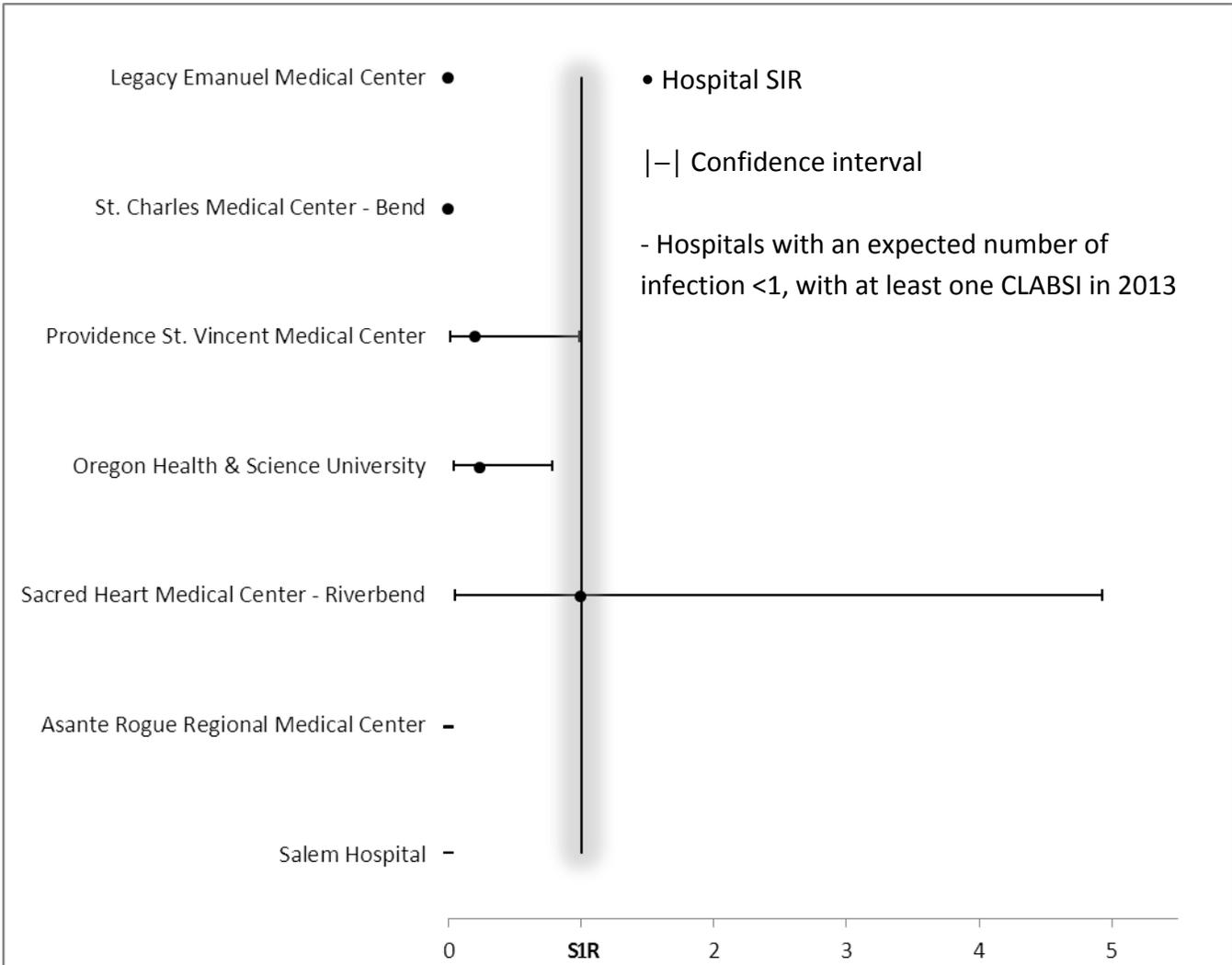


Figure 27. Oregon hospital's SIR with confidence intervals for CBGB SSIs in 2013.

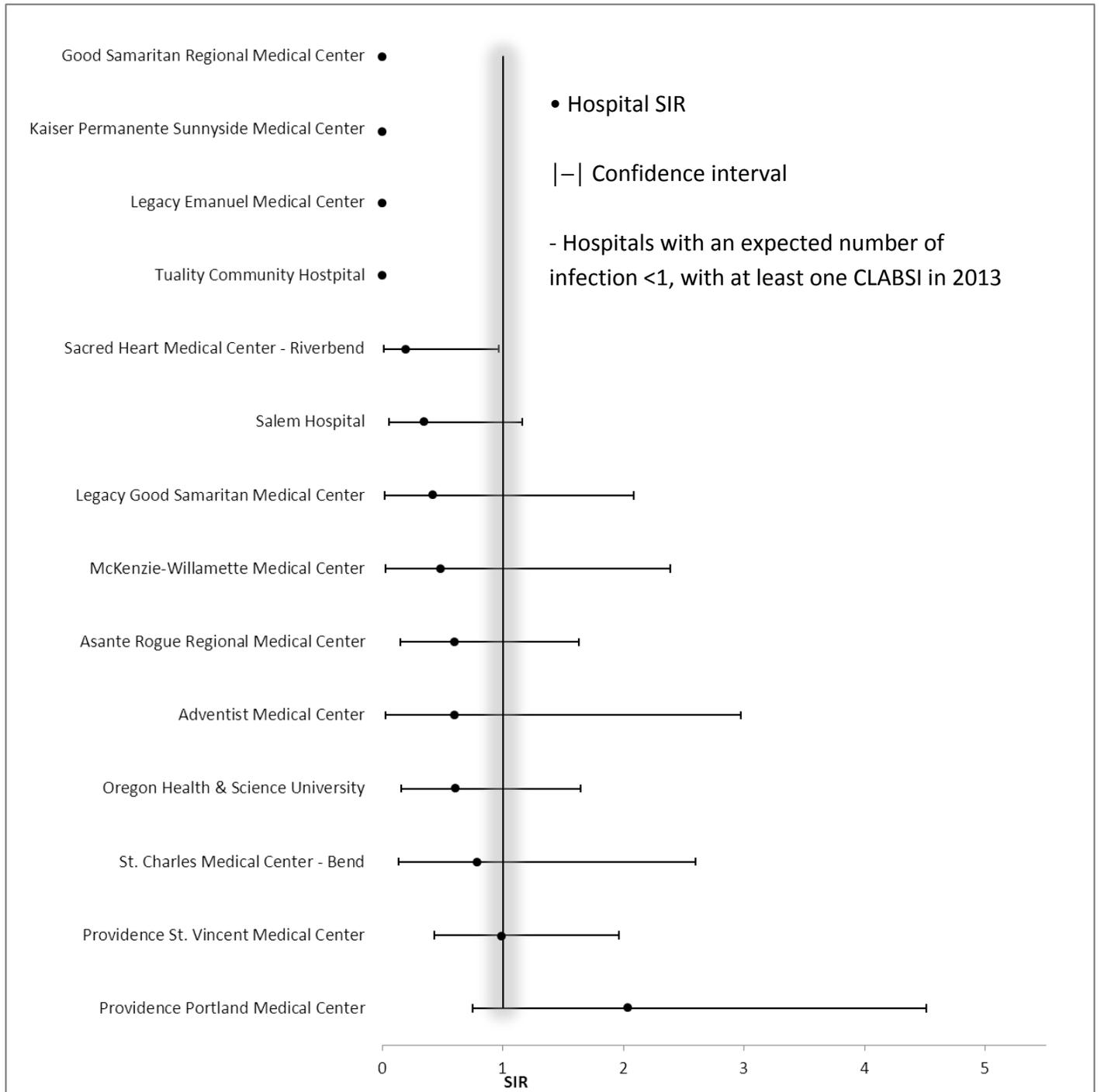


Figure 28. Oregon hospital's SIR with confidence intervals for COLO SSIs in 2013.

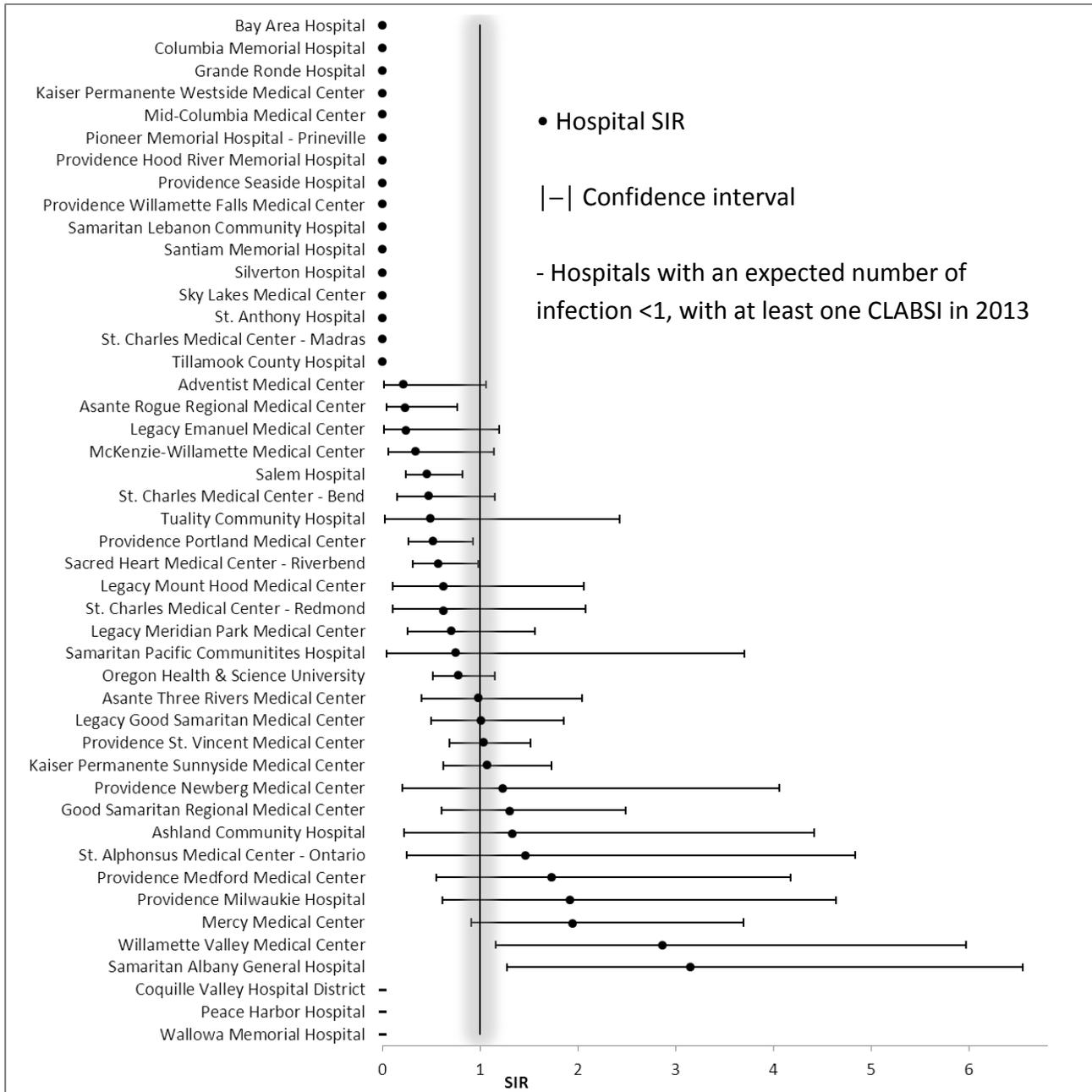
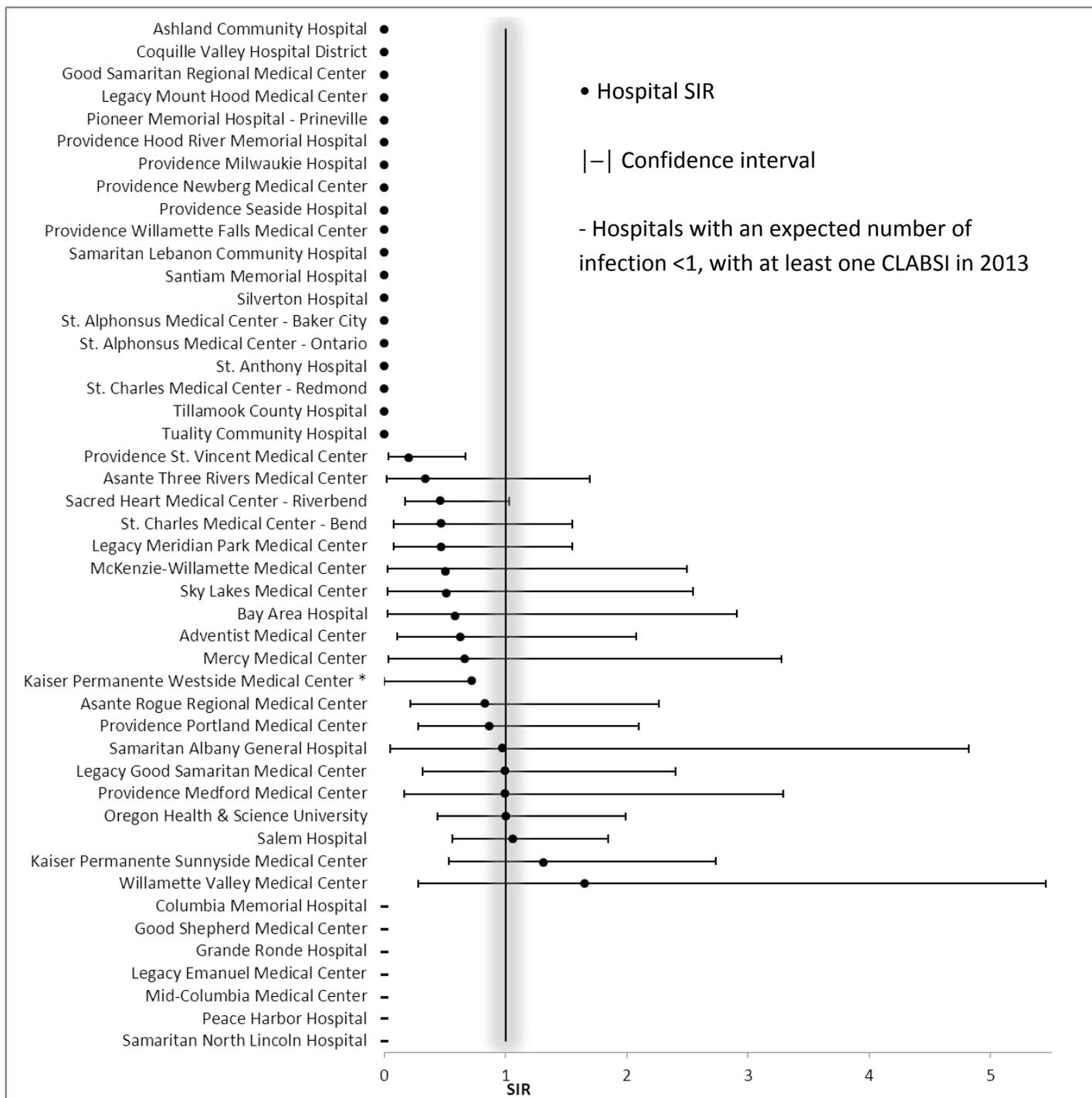


Figure 29. Oregon hospital's SIR with confidence intervals for HPRO SSIs in 2013.



* Facility began reporting mid-year and CI are not reported.

Figure 30. Oregon hospital's SIR with confidence intervals for HYST SSIs in 2013.

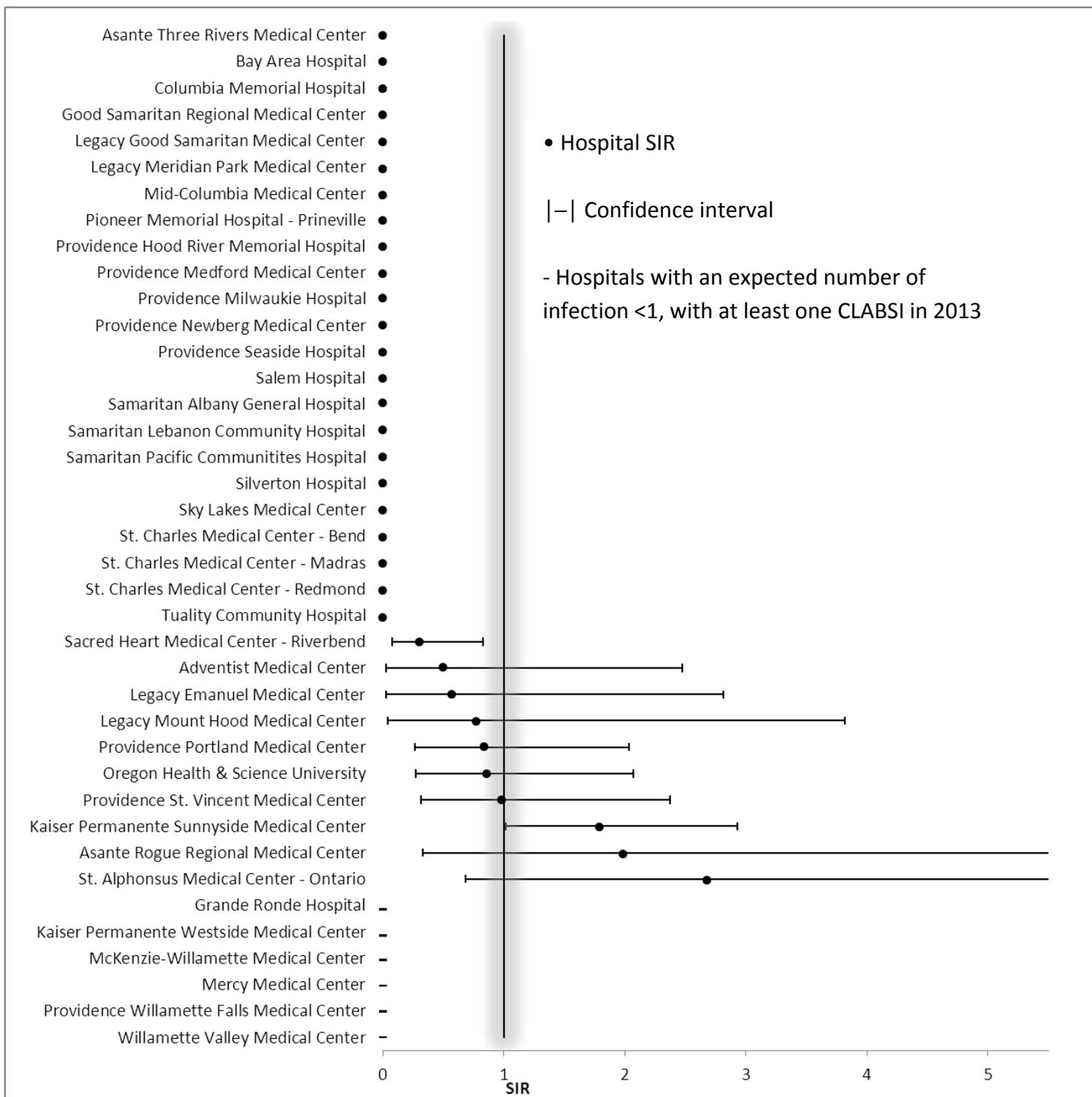
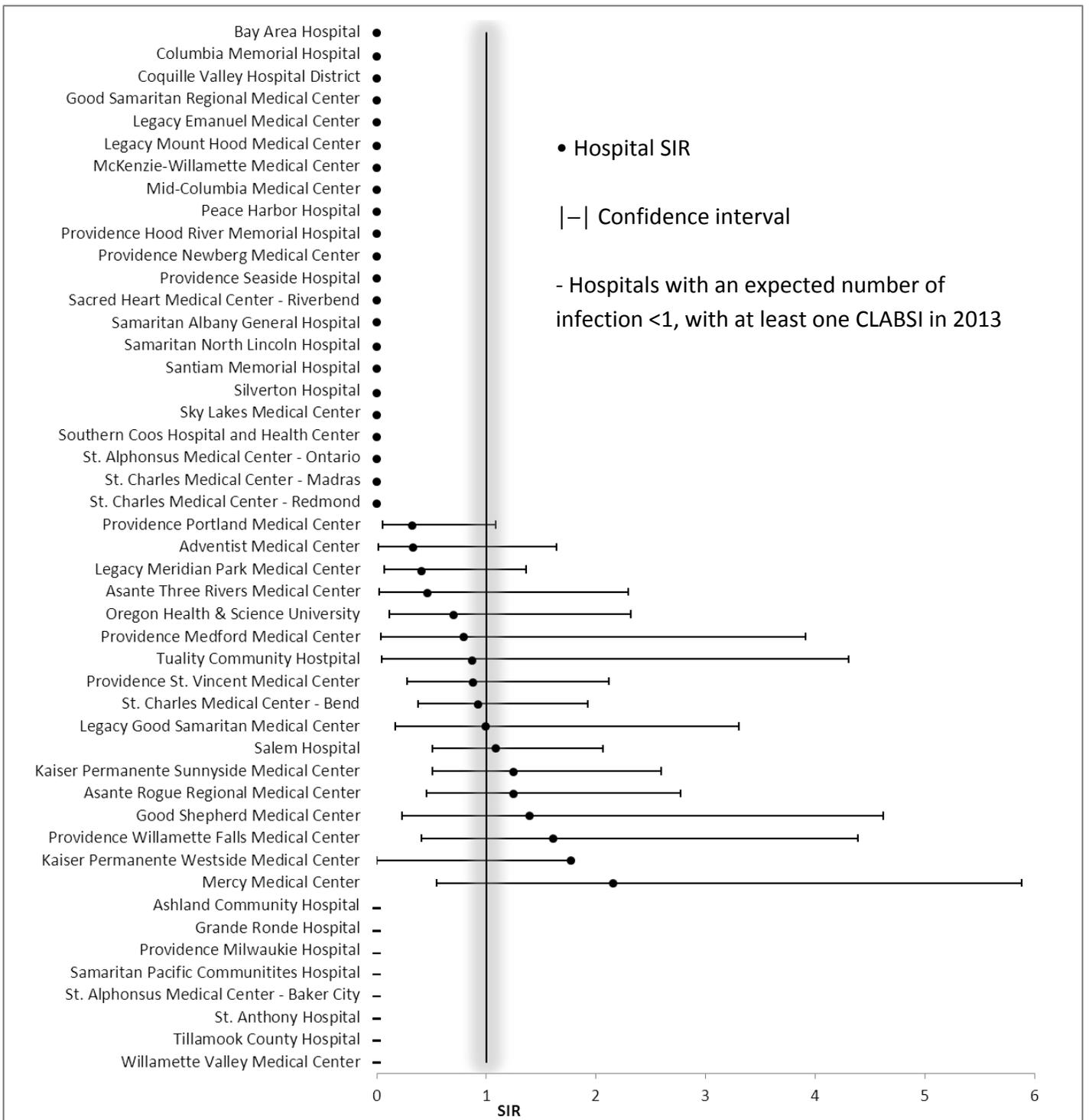


Figure 31. Oregon hospital's SIR with confidence intervals for KPRO SSIs in 2013.



* Facility began reporting mid-year and CI are not reported.

Figure 32. Oregon hospital's SIR with confidence intervals for LAM SSIs in 2013.

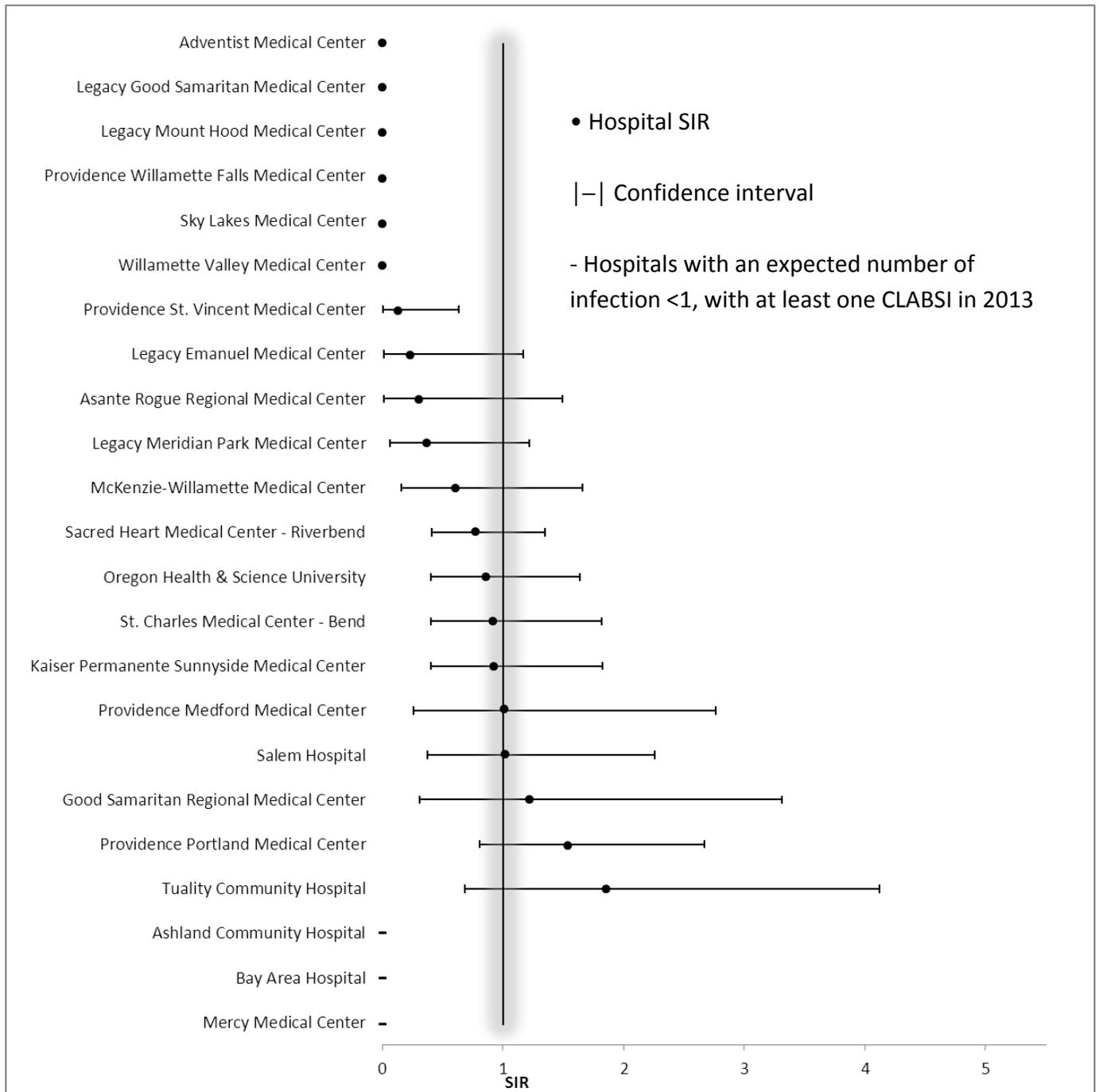
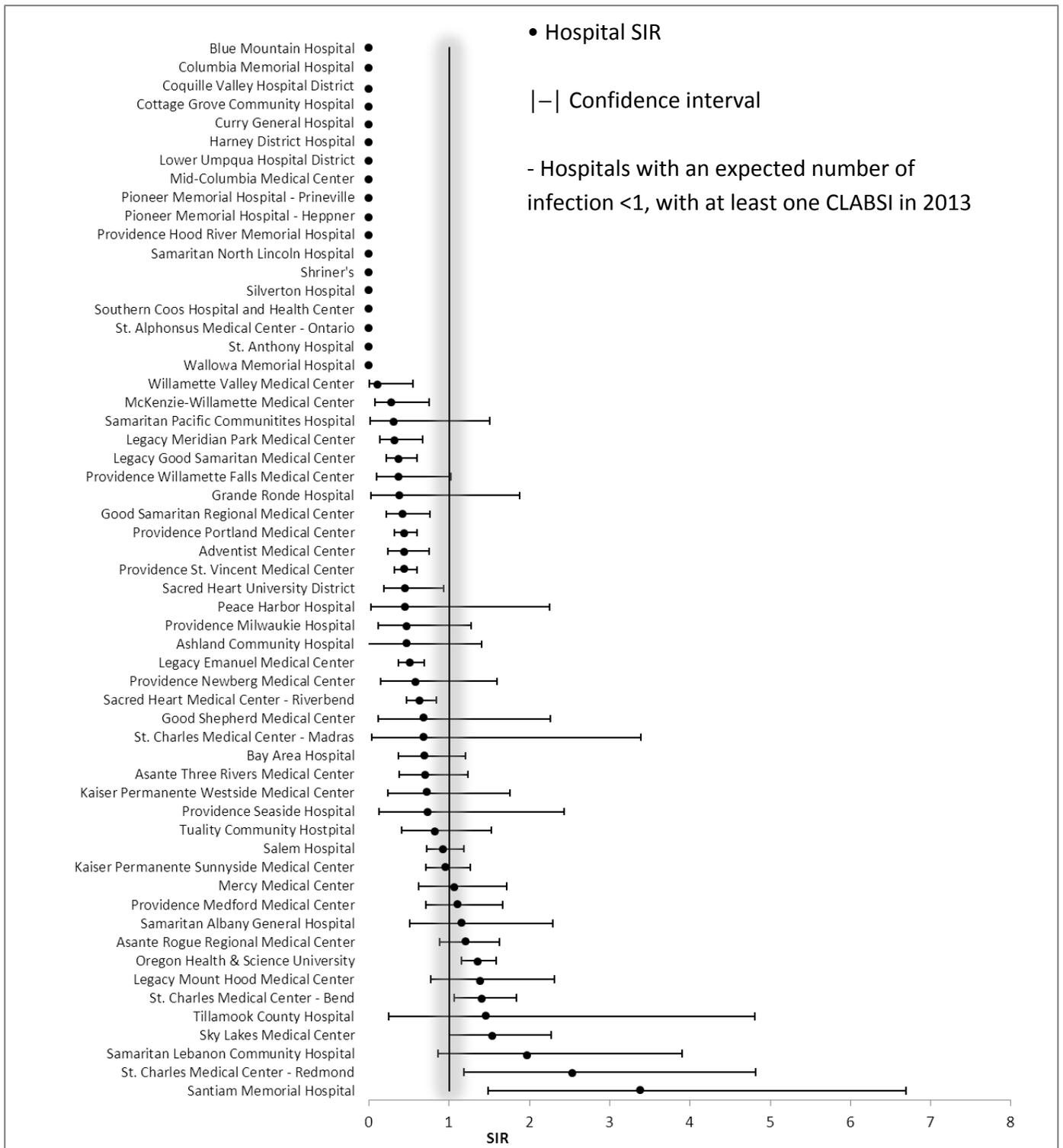


Figure 33. Oregon hospital's SIR with confidence intervals for HO-CDI in 2013.



Hospital comments

Good Samaritan Regional Medical Center

Good Samaritan Regional Medical Center performs many laminectomies as outpatients. The numbers reported to OHA only include inpatient surgeries and their outcomes. The overall case count for laminectomies, including both inpatient and outpatient procedures, was 440 with a SSI number of 4. This number of infections was lower than what was expected by the CDC.

Legacy Good Samaritan Medical Center

Legacy Good Samaritan Medical Center surgeons frequently perform necessary revisions to hip prosthesis implants that have been recalled due to adverse local tissue reactions. These procedures pose a higher risk of infection than primary hip replacement procedures.

Salem Health

Salem Health uses lean methodology to continuously improve processes in order to improve the care provided to patients. This work includes preventing infections.

In 2013 there was a significant reduction in surgical site infections for patients undergoing laminectomy and colon surgery. This was a result of strategies implemented collaboratively with the medical staff and hospital teams.

In Q 1 2014 there has been a 54% reduction in hospital onset *C. difficile* infections compared to Q 1 2013. This is a result of the organization's focus on reducing patient harms through the prevention of hospital acquired infections.

Asante Rogue Regional Medical Center

Asante Rogue Regional Medical Center (ARRMC) is dedicated to providing outstanding customer service and medical excellence by reducing the risk of HAIs at our facility. By following evidence-based recommendations, we have made significant gains at reducing HAI rates in our surgical populations as well as in patients with central venous catheters and multi-drug resistant organisms (MDROs) in our in-patient population.

ARRMC's Infection Prevention & Control Program is staffed by 6 specially trained infection control professionals, 2 of these are board certified infection preventionists (CIC). Program oversight is provided by the medical director with nearly 30 years of experience in infection control. The medical director is board certified in internal medicine, infectious disease and trained in health care epidemiology through CDC/SHEA.

Antibiotics are the most powerful tool in combating life-threatening bacterial diseases yet their effectiveness is compromised when they are used inappropriately. Our robust Antibiotic Stewardship Program, led by the medical director of infection control, has been working with the CDC/IHI Pilot Program for Antibiotic Stewardship on a national level.



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