Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are collected through CDC’s National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.

**CLABSIs**

**CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS**

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- U.S. hospitals reported a significant decrease in CLABSIs between 2012 and 2013.
- Among the 2,389 hospitals in U.S. with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.54.

**CAUTIs**

**CATHETER-ASSOCIATED URINARY TRACT INFECTIONS**

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

- U.S. hospitals reported a significant increase in CAUTIs between 2012 and 2013.
- Among the 2,781 U.S. hospitals with enough data to calculate an SIR, 12% had an SIR significantly worse than the national SIR of 1.06.

**MRSA Bacteremia**

**LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS**

Methicillin-resistant Staphylococcus aureus (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

- U.S. hospitals reported a significant decrease in MRSA Bacteremia between 2012 and 2013.
- Among the 2,002 U.S. hospitals with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.92.

**SSIs**

**SURGICAL SITE INFECTIONS**

See page 3 for additional procedures

When germs get into an area where surgery is or was performed, patients can get a surgical site infection. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

**SSI: Abdominal Hysterectomy**

- U.S. hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2012 and 2013.
- Among the 765 U.S. hospitals with enough data to calculate an SIR, 6% had an SIR significantly worse than the national SIR of 0.86.

**SSI: Colon Surgery**

- U.S. hospitals reported a significant increase in SSIs related to colon surgery between 2012 and 2013.
- Several changes to the NHSN 2013 SSI protocol likely contributed to an increase in the national and some state-specific colon surgery SIRs compared to 2012.
- Among the 2,030 U.S. hospitals with enough data to calculate an SIR, 7% had an SIR significantly worse than the national SIR of 0.92.

**C. difficile Infections**

**LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS**

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from Clostridium difficile (C. difficile), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

- U.S. hospitals reported a significant decrease in C. difficile infections between 2012 and 2013.
- Among the 3,557 U.S. hospitals with enough data to calculate an SIR, 13% had an SIR significantly worse than the national SIR of 0.90.
HEALTHCARE-ASSOCIATED INFECTION (HAI) DATA give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

**Legend**
- 2013 Nat’l SIR is significantly lower (better) than comparison group in column header.
- Change in 2013 Nat’l SIR compared to group in column header is not statistically significant.
- 2013 Nat’l SIR is significantly higher (worse) than comparison group in column header.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLABSI</strong> Nat’l Baseline: 2008</td>
<td>3,578</td>
<td>4%</td>
<td>46%</td>
<td>0.54</td>
</tr>
<tr>
<td><strong>CAUTI</strong> Nat’l Baseline: 2009</td>
<td>3,640</td>
<td>3%</td>
<td>6%</td>
<td>1.06</td>
</tr>
<tr>
<td><strong>SSI, Abdominal Hysterectomy</strong> Nat’l Baseline: 2008</td>
<td>3,182</td>
<td>4%</td>
<td>14%</td>
<td>0.86</td>
</tr>
<tr>
<td><strong>SSI, Colon Surgery</strong> Nat’l Baseline: 2008</td>
<td>3,348</td>
<td>14%</td>
<td>8%</td>
<td>0.92</td>
</tr>
<tr>
<td><strong>MRSA Bacteremia</strong> Nat’l Baseline: 2011</td>
<td>3,827</td>
<td>5%</td>
<td>8%</td>
<td>0.92</td>
</tr>
<tr>
<td><strong>C. difficile Infections</strong> Nat’l Baseline: 2011</td>
<td>3,924</td>
<td>6%</td>
<td>10%</td>
<td>0.90</td>
</tr>
</tbody>
</table>

*The number of hospitals reporting for each HAI type may differ because some hospitals do not use central lines or urinary catheters, or do not perform colon or abdominal hysterectomy surgeries.

‡The 2012 Nat’l SIRs can be found in the data tables of this report.

§Nat’l baseline time period varies by infection type. See first column of this table for specifics.

**WHAT DOES THE STANDARDIZED INFECTION RATIO (SIR) MEAN?**

**IF THE NATIONAL SIR IS:**
- **MORE THAN 1**
  - There was an increase in the number of infections reported in the nation in 2013 compared to the national baseline.
- **LESS THAN 1**
  - There was a decrease in the number of infections reported in the nation in 2013 compared to the national baseline.
- **1**
  - There were about the same number of infections reported in the nation in 2013 compared to the national baseline.
U.S. hospitals reported no significant change in SSIs from 10 select procedures between 2012 and 2013. Among the 2,543 U.S. hospitals with enough data to calculate an SIR, 9% had an SIR significantly worse than the national SIR of 0.81.

Almost all U.S. hospitals report SSI data following colon surgeries and abdominal hysterectomies to NHSN.

### Table: Surgeon Site Infections by Procedure Type

<table>
<thead>
<tr>
<th>Procedure Category</th>
<th># Facilities Reporting</th>
<th># Procedures Reported</th>
<th>2013 Nat'L SIR vs. Nat'L Baseline</th>
<th>2013 Nat'L SIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hip arthroplasty</td>
<td>1,761</td>
<td>261,809</td>
<td>27%</td>
<td>0.73</td>
</tr>
<tr>
<td>Knee arthroplasty</td>
<td>1,750</td>
<td>378,846</td>
<td>40%</td>
<td>0.60</td>
</tr>
<tr>
<td>Colon surgery</td>
<td>3,348</td>
<td>296,623</td>
<td>8%</td>
<td>0.92</td>
</tr>
<tr>
<td>Rectal surgery</td>
<td>322</td>
<td>6,633</td>
<td>21%</td>
<td>0.79</td>
</tr>
<tr>
<td>Abdominal hysterectomy</td>
<td>3,182</td>
<td>302,250</td>
<td>14%</td>
<td>0.86</td>
</tr>
<tr>
<td>Vaginal hysterectomy</td>
<td>826</td>
<td>35,488</td>
<td>19%</td>
<td>0.81</td>
</tr>
<tr>
<td>Coronary artery bypass graft</td>
<td>742</td>
<td>116,105</td>
<td>40%</td>
<td>0.60</td>
</tr>
<tr>
<td>Other cardiac surgery</td>
<td>371</td>
<td>43,409</td>
<td>44%</td>
<td>0.56</td>
</tr>
<tr>
<td>Peripheral vascular bypass surgery</td>
<td>288</td>
<td>8,856</td>
<td>43%</td>
<td>0.57</td>
</tr>
<tr>
<td>Abdominal aortic aneurysm repair</td>
<td>302</td>
<td>2,462</td>
<td>70%</td>
<td>0.30</td>
</tr>
<tr>
<td>These 10 procedures combined</td>
<td>3,581</td>
<td>1,452,481</td>
<td>19%</td>
<td>0.81</td>
</tr>
</tbody>
</table>

**Legend**
- [Green Down Arrow] 2013 national SIR is significantly lower (better) than the 2008 SSI national baseline
- [Red Down Arrow] 2013 national SIR is significantly higher (worse) than 2008 SSI national baseline
- [Red Up Arrow] Change in 2013 national SIR compared to the 2008 SSI national baseline is not statistically significant

*Statistically significant.

Learn how your hospital is performing: [www.medicare.gov/hospitalcompare](http://www.medicare.gov/hospitalcompare)

For additional information:
- NHSN: [www.cdc.gov/nhsn](http://www.cdc.gov/nhsn)
- Preventing HAIs: [www.cdc.gov/hai](http://www.cdc.gov/hai)

THIS REPORT IS BASED ON 2013 DATA, PUBLISHED JANUARY 2015