LEAPFROG VALUE-BASED PURCHASING PROGRAM

2021 SCORING METHODOLOGY
## TABLE OF CONTENTS

Overview of the Leapfrog Value-Based Purchasing Program .................................................................................................................. 5

Scoring Overview ......................................................................................................................................................................................... 5

What’s New in 2021 ....................................................................................................................................................................................... 6

Updates to VBP Domains and VBP Measures ...................................................................................................................................... 6

Updates to VBP Domain Weights and VBP Measure Weights .................................................................................................................. 7

Updates to VBP Value Score ....................................................................................................................................................................... 7

VBP Measure Scores ..................................................................................................................................................................................... 7

When a VBP Measure Score Cannot Be Assigned ............................................................................................................................... 8

Medication Safety Domain Measures .................................................................................................................................................. 9

Computerized Physician Order Entry (CPOE) ........................................................................................................................................ 9

Bar Code Medication Administration (BCMA) .................................................................................................................................... 9

Medication Reconciliation ....................................................................................................................................................................... 9

Inpatient Care Management Domain Measures .................................................................................................................................. 10

ICU Physician Staffing (IPS) .................................................................................................................................................................... 10

NQF Safe Practice #1 – Culture of Safety Leadership Structures and Systems ...................................................................................... 10

NQF Safe Practice #2 - Culture Measurement, Feedback, and Intervention ............................................................................................ 10

NQF Safe Practice #9 - Nursing Workforce ........................................................................................................................................ 11

Hand Hygiene ............................................................................................................................................................................................ 11

Never Events Policy .................................................................................................................................................................................. 11

Infections Domain Measures .............................................................................................................................................................. 12

Central-line Associated Blood Stream Infections (CLABSI) .................................................................................................................. 12

Catheter-Associated Urinary Tract Infections (CAUTI) .......................................................................................................................... 12

Surgical Site Infections from Colon Surgery (SSI: Colon) ......................................................................................................................... 12

Methicillin-resistant Staphylococcus aureus (MRSA) ............................................................................................................................ 13
<table>
<thead>
<tr>
<th>Domain Measures</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient Procedures</td>
<td>14</td>
</tr>
<tr>
<td>Patient Recovery – Adult</td>
<td>14</td>
</tr>
<tr>
<td>Patient Recovery – Pediatric</td>
<td>14</td>
</tr>
<tr>
<td>Safe Surgery Checklist</td>
<td>14</td>
</tr>
<tr>
<td>Medication and Allergy Documentation</td>
<td>15</td>
</tr>
<tr>
<td>Patient Experience (OAS CAHPS)</td>
<td>15</td>
</tr>
<tr>
<td>Maternity Care Domain</td>
<td>15</td>
</tr>
<tr>
<td>Elective Deliveries</td>
<td>15</td>
</tr>
<tr>
<td>Cesarean Birth</td>
<td>16</td>
</tr>
<tr>
<td>Episiotomy</td>
<td>16</td>
</tr>
<tr>
<td>Newborn Bilirubin Screening Prior to Discharge</td>
<td>16</td>
</tr>
<tr>
<td>Appropriate DVT Prophylaxis</td>
<td>17</td>
</tr>
<tr>
<td>High-Risk Deliveries</td>
<td>17</td>
</tr>
<tr>
<td>Pediatric Care Domain</td>
<td>17</td>
</tr>
<tr>
<td>CAHPS Child Hospital Survey</td>
<td>17</td>
</tr>
<tr>
<td>Pediatric Computed Tomography (CT) Radiation Dose for Head Scans</td>
<td>17</td>
</tr>
<tr>
<td>Pediatric Computed Tomography (CT) Radiation Dose for Abdomen/Pelvis Scans</td>
<td>18</td>
</tr>
<tr>
<td>Norwood Procedures</td>
<td>18</td>
</tr>
<tr>
<td>Adult Complex Surgery Domain</td>
<td>18</td>
</tr>
<tr>
<td>Carotid Endarterectomy</td>
<td>18</td>
</tr>
<tr>
<td>Mitral Valve Repair and Replacement</td>
<td>19</td>
</tr>
<tr>
<td>Open Aortic Procedures</td>
<td>19</td>
</tr>
<tr>
<td>Lung Resection for Cancer</td>
<td>19</td>
</tr>
<tr>
<td>Esophageal Resection for Cancer</td>
<td>20</td>
</tr>
</tbody>
</table>
Pancreatic Resection for Cancer ................................................................. 20
Rectal Cancer Surgery ............................................................................. 20
Bariatric Surgery for Weight Loss .............................................................. 21
Total Hip Replacement Surgery ............................................................... 21
Total Knee Replacement Surgery ............................................................. 21
VBP Domain Scores ................................................................................ 22
VBP Value Score ..................................................................................... 22
When a VBP Value Score Cannot Be Calculated ...................................... 22
Appendix I: 2021 Standard Measure and Domain Weights .................... 23
Appendix II: Weighting Methodology ..................................................... 24
Volume Weight Factor ........................................................................... 24
Harm Weight Factor ............................................................................... 24
Resource Use Weight Factor ................................................................ 25
Appendix III: Competitive Benchmarking Reports ................................ 26
Background ............................................................................................ 26
Types of Reports .................................................................................... 26
Premium Report ..................................................................................... 26
State and Custom Cohort Availability .................................................... 26
Minimum Reporting Requirements for States and Custom Cohorts ...... 26
Information Provided ............................................................................ 27
Breakdown By Measure Page(s) .............................................................. 27
Breakdown by Domain page(s) ................................................................. 27
This Hospital’s VBP Value Score Page .................................................... 27
Past Performance Page(s) ..................................................................... 27
The Leapfrog Value-Based Purchasing (VBP) Program™ is a comprehensive hospital pay-for-performance program that creates composite scores from the measures on the Leapfrog Hospital Survey and focuses on the most important national patient safety, quality, and resource use standards. This program allows users to benchmark hospital performance nationally, state-wide, and regionally against other hospitals and with hospitals that have similar characteristics, such as bed size, teaching status, type, etc. Performance can be compared by:

- VBP Measure Scores
- VBP Domain Scores
- VBP Value Score

VBP Measure Scores, VBP Domain Scores, and the VBP Value Score are used by employers, purchasers, and health plans to inform network design, recognition programs, and value-based payment programs. VBP data are used by hospitals for internal benchmarking, board and staff engagement, and to inform quality improvement efforts.

**SCORING OVERVIEW**

Hospitals are assigned a numerical VBP Measure Score for each individual measure on the Leapfrog Hospital Survey, ranging from 0 (worst performance) to 100 (best performance). These individual VBP Measure Scores are each assigned to one of seven domains, weighted, and then used to calculate VBP Domain Scores and a VBP Value Score.

The domains and measures included are:

- **Medication Safety**: Computerized Physician Order Entry (CPOE), Bar Code Medication Administration (BCMA), and Medication Reconciliation
- **Inpatient Care Management**: ICU Physician Staffing (IPS), NQF Safe Practice #1 - Culture of Safety Leadership Structures and Systems, NQF Safe Practice #2 - Culture Measurement, Feedback, and Intervention, NQF Safe Practice #9 - Nursing Workforce, Hand Hygiene, and Never Events Policy
- **Infections**: Central-Line Associated Blood Stream Infections (CLABSI) in ICUs and Select Wards, Catheter-Associated Urinary Tract Infections (CAUTI) in ICUs and Select Wards, Surgical Site Infections from Colon Surgery (SSI: Colon), Facility-wide inpatient Methicillin-resistant *Staphylococcus Aureus* (MRSA) Blood Laboratory-identified Events, and Facility-wide inpatient *Clostridium difficile* (C.Diff.) Laboratory-identified Events
- **Outpatient Procedures**: Patient Recovery – Adult, Patient Recovery – Pediatric, Safe Surgery Checklist, Medication and Allergy Documentation, and Patient Experience (OAS CAHPS)
- **Maternity Care**: Elective Deliveries, Cesarean Birth, Episiotomy, Newborn Bilirubin Screening Prior to Discharge, Appropriate DVT Prophylaxis, and High-Risk Deliveries
- **Pediatric Care**: CAHPS Child Hospital Survey, Pediatric Computed Tomography (CT) Radiation Dose for Head Scans, Pediatric Computed Tomography (CT) Radiation Dose for Abdomen/Pelvis Scans, and Norwood Procedures
- **Adult Complex Surgery**: Carotid Endarterectomy, Mitral Valve Repair and Replacement, Open Aortic Procedures, Lung Resection for Cancer, Esophageal Resection for Cancer, Pancreatic Resection for Cancer,
WHAT’S NEW IN 2021

UPDATES TO VBP DOMAINS AND VBP MEASURES

Several updates have been made to the VBP Domains and included VBP Measures which are outlined below:

The Medication Safety Domain has been updated to include Medication Reconciliation. More information can be found on page 9.

For the Inpatient Care Management Domain, Antibiotic Stewardship Practices has been removed as this standard is no longer included in the 2021 Leapfrog Hospital Survey. More information can be found on pages 10-11.

The Maternity Care Domain has been updated to reflect changes to the scoring and public reporting for the two maternity care process measures: Newborn Bilirubin Screening Prior to Discharge and Appropriate DVT Prophylaxis. Previously these two measures were included as one VBP Measure (Maternity Care Processes). More information can be found on pages 16-17.

For the Pediatric Care Domain, Norwood Procedures has been added to reflect the scoring and public reporting of this new standard in the 2021 Leapfrog Hospital Survey. More information can be found on page 18.

To align with changes to the scoring and public reporting for the 2021 Leapfrog Hospital Survey, the Adult Complex Surgery Domain was renamed (previously Inpatient Surgery) and two new measures have been added: Total Hip Replacement Surgery and Total Knee Replacement Surgery. More information can be found on pages 2.

New in 2021, the Outpatient Procedures Domain has been added and is now included in the overall calculation of the VBP Value Score. This new VBP Domain, which was previewed in 2020, includes the following VBP Measures: Patient Recovery – Adult, Patient Recovery – Pediatric, Safe Surgery Checklist, Medication and Allergy Documentation, and Patient Experience (OAS CAHPS). More information can be found on pages 14-15.

Additionally, four measures included in the Leapfrog VBP Program have updated specifications and/or scoring changes in the Leapfrog Hospital Survey, which means results should not be compared with the prior year’s results. These measures include Hand Hygiene, Newborn Bilirubin Screening Prior to Discharge, Appropriate DVT Prophylaxis, and High-Risk Deliveries.

Lastly, in 2021, Leapfrog is no longer using the term “Not Available” in public reporting. This term was used temporarily for reporting 2020 Survey Results. Instead, hospitals that do not submit a complete Survey are scored and publicly reported as “Declined to Respond” for any sections that are not submitted.
Program Methodology, hospitals are assigned a VBP Measure Score of 0 (worst possible score) for any measures that are reported as “Declined to Respond.” More information can be found on page 8.

**UPDATES TO VBP DOMAIN WEIGHTS AND VBP MEASURE WEIGHTS**

As a result of the addition of the new Outpatient Procedures VBP Domain, the VBP Domain Weights for the seven included VBP Domains have been updated. The VBP Weight Factors and VBP Measure Weights have also been adjusted to reflect changes to the VBP Domains and a review of the weighting rationale by Leapfrog and its experts. The 2021 standard VBP Measure Weights and the weighting methodology for 2021 can be reviewed in Appendix I and Appendix II.

**UPDATES TO VBP VALUE SCORE**

As a result of the addition of several new VBP Measures, Leapfrog has updated the methodology for assigning a VBP Value Score. For 2021, Leapfrog is not able to calculate a VBP Value Score for hospitals that are not assigned a VBP Domain Score for at least 3 of the 7 VBP Domains (i.e., more than 4 VBP Domain Scores are not assigned). More information can be found on page 22.

**VBP MEASURE SCORES**

The Leapfrog Hospital Survey includes process, structural, and outcome measures. Process measures assess adherence to evidence-based clinical guidelines. Structural measures assess whether hospitals have certain evidence-based structures in place to improve patient safety and quality. Outcome measures represent what happens to a patient while receiving care.

For the purposes of publicly reporting Leapfrog Hospital Survey Results, performance on each measure is placed into one of four main performance categories:

- Achieved the Standard (four-filled bars)
- Considerable Achievement (three-filled bars)
- Some Achievement (two-filled bars)
- Limited Achievement (one-filled bar)

However, for the purposes of the Leapfrog VBP Program, instead of using performance categories, each measure is placed on a zero (0) to 100 scale so that all VBP Measure Scores can be combined into VBP Domain Scores and a VBP Value Score.

To convert the performance category for each of the process and structural measures to a VBP Measure Score of zero (0) to 100, Leapfrog uses two different methods:

1. **Scores Assigned by Leapfrog’s National Steering Committee** – VBP Measure Scores for each performance category are determined by Leapfrog’s national, multi-stakeholder Steering Committee.
2. **Peer Comparison Methodology** – VBP Measure Scores for each performance category represent the percentage of other hospitals that the individual hospital scored equal to or better than, based on an analysis of all Leapfrog reporting hospitals.

To convert the performance category for each of the outcome measures to a VBP Measure Score of zero (0) to 100, Leapfrog uses a single method:

1. **Continuous Measure Methodology** - VBP measure scores are assigned based on an analysis of the rate of performance on the measure, e.g., numerical rates. Top and bottom deciles are calculated and hospitals in the bottom decile receive a VBP Measure Score of 0. Hospitals in the top decile receive a VBP Measure Score of 100. For hospitals that fall in between the top and bottom deciles, Leapfrog applies the following calculation:

   \[
   \text{VBP Measure Score} = 100 \times \frac{\text{hospital's score} - \text{bottom decile score}}{\text{top decile score} - \text{bottom decile score}}
   \]

   For measures where the rate of performance across all hospitals is clustered, the **Peer Comparison Methodology** is used to ensure that all hospitals that “Achieved the Standard” receive a VBP Measure Score of 100. This is the case for the Elective Deliveries measure.

   For measures where a measure is publicly reported as “Declined to Respond,” meaning that the hospital did not submit a particular section of the Survey, the measure receives a VBP Measure Score of zero (0) and the standard measure weight is applied to calculate the VBP Domain Score and VBP Value Score.

---

**WHEN A VBP MEASURE SCORE CANNOT BE ASSIGNED**

Sometimes performance on a Leapfrog Hospital Survey measure cannot be determined. When this occurs, results are publicly reported using one of the following terms, which are each treated differently in the Leapfrog VBP methodology.

- **Does Not Apply**: This term is used for hospitals that report not performing a particular procedure (e.g., SSI Colon), not having a particular unit (e.g., ICU), or are not applicable for a particular measure (e.g., the facility doesn’t deliver newborns). In the Leapfrog VBP Methodology, the standard weight assigned to the measure is distributed to other applicable measures in the VBP Domain.

- **Unable to Calculate Score**: This term is used for hospitals that report a sample size that does not meet Leapfrog’s minimum reporting requirements. For the healthcare-associated infections, this term is used if the hospital reported too small of a sample size to calculate their results reliably (i.e. the number of predicted infections across all locations is <1) or the number of observed MRSA or CDI infections present on admission (community-onset prevalence) was above a pre-determined cut-point. In the Leapfrog VBP Methodology, the standard weight assigned to the measure is distributed to other applicable measures in the VBP Domain.
• **Pending Leapfrog Verification**: This term is used for hospitals that have Survey responses that are undergoing Leapfrog’s standard verification process. In the Leapfrog VBP Methodology, the standard weight assigned to the measure is distributed to other applicable measures in the VBP Domain. However, a VBP Value Score is not calculated.

**MEDICATION SAFETY DOMAIN MEASURES**

### COMPUTERIZED PHYSICIAN ORDER ENTRY (CPOE)

Computerized Physician Order Entry (CPOE) measures hospitals’ use and effectiveness of CPOE systems that include electronic clinical decision support, which reduces adverse drug events.

VBP Measure Scores are assigned by Leapfrog’s National Steering Committee for each performance category:

- Achieved the Standard receives a score of 100
- Considerable Achievement receives a score of 70
- Some Achievement receives a score of 40
- Limited Achievement receives a score of 15
- Declined to Respond receives a score of 0

### BAR CODE MEDICATION ADMINISTRATION (BCMA)

Bar Code Medication Administration (BCMA) measures hospitals’ use of BCMA in inpatient units, including medical/surgical units, adult, pediatric, and/or neonatal ICUs, and labor and delivery units, which reduces medication administration errors.

VBP Measure Scores are assigned by Leapfrog’s National Steering Committee for each performance category:

- Achieved the Standard receives a score of 100
- Considerable Achievement receives a score of 75
- Some Achievement receives a score of 50
- Limited Achievement receives a score of 25
- Declined to Respond receives a score of 0

### MEDICATION RECONCILIATION

Medication Reconciliation measures whether a hospital uses a nationally endorsed protocol to collect data on the accuracy of its medication reconciliation process and its rate of unintentional medication discrepancies. Accurate medication reconciliation can help prevent medication errors.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Considerable Achievement receives a score of 65 (hospital did as well or better than 65% of all hospitals)
• Some Achievement receives a score of 49 (hospital did as well or better than 49% of all hospitals)
• Limited Achievement receives a score of 28 (hospital did as well or better than 28% of all hospitals)
• Declined to Respond receives a score of 0

INPATIENT CARE MANAGEMENT DOMAIN MEASURES

ICU PHYSICIAN STAFFING (IPS)

ICU Physician Staffing (IPS) measures the use of critical care-certified physicians to manage/co-manage critical care patients in adult and pediatric medical and/or surgical ICUs and neuro ICUs, which significantly reduces mortality.

VBP Measure Scores are assigned by Leapfrog’s National Steering Committee for each performance category:

• Achieved the Standard receives a score of 100
• Considerable Achievement receives a score of 50
• Some Achievement receives a score of 15
• Limited Achievement receives a score of 5
• Declined to Respond receives a score of 0

NQF SAFE PRACTICE #1 – CULTURE OF SAFETY LEADERSHIP STRUCTURES AND SYSTEMS

NQF Safe Practice #1 measures hospitals’ implementation of evidence-based practices for Culture of Safety Leadership Structures and Systems endorsed by the National Quality Forum, which reduce adverse events.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 23 (hospital did as well or better than 23% of all hospitals)
• Some Achievement receives a score of 3 (hospital did as well or better than 3% of all hospitals)
• Limited Achievement receives a score of 0 (hospital did as well or better than 0% of all hospitals)
• Declined to Respond receives a score of 0

NQF SAFE PRACTICE #2 - CULTURE MEASUREMENT, FEEDBACK, AND INTERVENTION

NQF Safe Practice #2 measures hospitals’ implementation of evidence-based practices for Culture Measurement, Feedback, and Intervention endorsed by the National Quality Forum, which reduce adverse events.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 16 (hospital did as well or better than 16% of all hospitals)
• Some Achievement receives a score of 4 (hospital did as well or better than 4% of all hospitals)
• Limited Achievement receives a score of 1 (hospital did as well or better than 1% of all hospitals)
• Declined to Respond receives a score of 0
NQF SAFE PRACTICE #9 - NURSING WORKFORCE

NQF Safe Practice #9 measures hospitals’ implementation of evidence-based practices for Nursing Workforce endorsed by the National Quality Forum, which reduce adverse events.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Considerable Achievement receives a score of 12 (hospital did as well or better than 12% of all hospitals)
- Some Achievement receives a score of 4 (hospital did as well or better than 4% of all hospitals)
- Limited Achievement receives a score of 1 (hospital did as well or better than 1% of all hospitals)
- Declined to Respond receives a score of 0

HAND HYGIENE

Hand Hygiene measures hospitals’ adherence to best practices for Hand Hygiene identified by Leapfrog’s National Hand Hygiene Expert Panel and adopted in part from the World Health Organization’s Hand Hygiene Self-Assessment Framework.

VBP Measure Scores are assigned by Leapfrog’s National Steering Committee for each performance category:

- Achieved the Standard receives a score of 100
- Considerable Achievement receives a score of 70
- Some Achievement receives a score of 40
- Limited Achievement receives a score of 15
- Declined to Respond receives a score of 0

NEVER EVENTS POLICY

Leapfrog’s Never Events Policy measures hospitals’ commitment to nine different actions if a never event, e.g., an adverse event that experts say should never happen, were to occur.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Considerable Achievement receives a score of 24 (hospital did as well or better than 24% of all hospitals)
- Some Achievement receives a score of 21 (hospital did as well or better than 21% of all hospitals)
- Limited Achievement receives a score of 20 (hospital did as well or better than 20% of all hospitals)
- Declined to Respond receives a score of 0
INFECTIONS DOMAIN MEASURES

CENTRAL-LINE ASSOCIATED BLOOD STREAM INFECTIONS (CLABSI)

Central-Line Associated Blood Stream Infections (CLABSI) in ICUs and Select Wards is an outcome measure that compares the actual number of infections to an expected number of infections (which is based on national benchmarks), resulting in a standardized infection ratio (SIR). A lower SIR is always better.

VBP Measure Scores are assigned using a hospital’s SIR and the continuous measure methodology:

- Top decile (SIR of 0.000) receives a score of 100.
- Bottom decile (SIR of 2.177 or higher) receives a score of 0
- SIRs in between top and bottom deciles receive a score based on the following formula:

\[
\text{VBP Measure Score} = 100 \times \frac{\text{hospital's score} - \text{bottom decile score}}{\text{top decile score} - \text{bottom decile score}}
\]

- Declined to Respond receives a score of 0

CATHETER-ASSOCIATED URINARY TRACT INFECTIONS (CAUTI)

Catheter-Associated Urinary Tract Infections (CAUTI) in ICUs and Select Wards is an outcome measure that compares the actual number of infections to an expected number of infections (which is based on national benchmarks), resulting in a standardized infection ratio (SIR). A lower SIR is always better.

VBP Measure Scores are assigned using a hospital’s SIR and the continuous measure methodology:

- Top decile (SIR of 0.000) receives a score of 100
- Bottom decile (SIR of 1.619 or higher) receives a score of 0
- SIRs in between top and bottom deciles receive a score based on the following formula:

\[
\text{VBP Measure Score} = 100 \times \frac{\text{hospital's score} - \text{bottom decile score}}{\text{top decile score} - \text{bottom decile score}}
\]

- Declined to Respond receives a score of 0

SURGICAL SITE INFECTIONS FROM COLON SURGERY (SSI: COLON)

Surgical Site Infections from Colon Surgery (SSI: Colon) is an outcome measure that compares the actual number of infections to an expected number of infections (which is based on national benchmarks), resulting in a standardized infection ratio (SIR). A lower SIR is always better.

VBP Measure Scores are assigned using a hospital’s SIR and the continuous measure methodology:

- Top decile (SIR of 0.000) receives a score of 100
- Bottom decile (SIR of 1.596 or higher) receives a score of 0
- SIRs in-between top and bottom deciles receive a score based on the following formula:

\[
VBP \text{ Measure Score} = 100 \times \frac{\text{hospital's score} - \text{bottom decile score}}{\text{top decile score} - \text{bottom decile score}} 
\]

- Declined to Respond receives a score of 0

**METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)**

Facility-Wide inpatient Methicillin-Resistant Staphylococcus Aureus (MRSA) Blood Laboratory-Identified Events is an outcome measure that compares the actual number of infections to an expected number of infections (which is based on national benchmarks), resulting in a standardized infection ratio (SIR). A lower SIR is always better.

VBP Measure Scores are assigned using a hospital’s SIR and the continuous measure methodology:

- Top decile (SIR of 0.000) receives a score of 100
- Bottom decile (SIR of 2.090 or higher) receives a score of 0
- SIRs in-between top and bottom deciles receive a score based on the following formula:

\[
VBP \text{ Measure Score} = 100 \times \frac{\text{hospital's score} - \text{bottom decile score}}{\text{top decile score} - \text{bottom decile score}} 
\]

- Declined to Respond receives a score of 0

**CLOSTRIDIUM DIFFICILE INFECTION (C. DIFF.)**

Facility-Wide Inpatient Clostridium Difficile Infection (C. Diff.) Laboratory-Identified Events is an outcome measure that compares the actual number of infections to an expected number of infections (which is based on national benchmarks), resulting in a standardized infection ratio (SIR). A lower SIR is always better.

VBP Measure Scores are assigned using a hospital’s SIR and the continuous measure methodology:

- Top decile (SIR of 0.097 or lower) receives a score of 100
- Bottom decile (SIR of 0.977 or higher) receives a score of 0
- SIRs in-between top and bottom deciles receive a score based on the following formula:

\[
VBP \text{ Measure Score} = 100 \times \frac{\text{hospital's score} - \text{bottom decile score}}{\text{top decile score} - \text{bottom decile score}} 
\]

- Declined to Respond receives a score of 0
OUTPATIENT PROCEDURES DOMAIN MEASURES

PATIENT RECOVERY – ADULT

Patient Recovery – Adult assesses whether clinicians who have national certification in life-saving skills such as opening airways are present on-site while adult patients recover from surgery.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Some Achievement receives a score of 29 (hospital did as well or better than 29% of all hospitals)
- Limited Achievement receives a score of 27 (hospital did as well or better than 27% of all hospitals)
- Declined to Respond receives a score of 0

PATIENT RECOVERY – PEDIATRIC

Patient Recovery – Pediatric assesses whether clinicians who have national certification in life-saving skills such as opening airways are present on-site while pediatric patients recover from surgery.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Considerable Achievement receives a score of 36 (hospital did as well or better than 36% of all hospitals)
- Some Achievement receives a score of 29 (hospital did as well or better than 29% of all hospitals)
- Limited Achievement receives a score of 27 (hospital did as well or better than 27% of all hospitals)
- Declined to Respond receives a score of 0

SAFE SURGERY CHECKLIST

Safe Surgery Checklist assesses whether a hospital or surgery center is using a safe surgical checklist with every procedure. A Safe Surgery Checklist is a protocol that ensures the whole surgical team is engaged in performing key safety checks at every critical phase of a procedure such as confirming the surgical site and anticipating critical events.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Considerable Achievement receives a score of 36 (hospital did as well or better than 36% of all hospitals)
- Some Achievement receives a score of 30 (hospital did as well or better than 30% of all hospitals)
- Limited Achievement receives a score of 27 (hospital did as well or better than 27% of all hospitals)
- Declined to Respond receives a score of 0
MEDICATION AND ALLERGY DOCUMENTATION

Medication and Allergy Documentation assesses whether clinicians document all medications and allergies to reduce medication errors and adverse drug events. Practices and procedures ensuring medication safety can help ensure a safer procedure.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Considerable Achievement receives a score of 71 (hospital did as well or better than 71% of all hospitals)
- Some Achievement receives a score of 59 (hospital did as well or better than 59% of all hospitals)
- Limited Achievement receives a score of 54 (hospital did as well or better than 54% of all hospitals)
- Declined to Respond receives a score of 0

PATIENT EXPERIENCE (OAS CAHPS)

Patient Experience (OAS CAHPS) rates hospitals and surgery centers based on the feedback from adult patients about their routine surgery including the patients’ willingness to recommend the facility. Hospitals and surgery centers that perform outpatient procedures should survey patients on important issues including communication about the procedure, the patient’s rating of the facility and staff, and whether the patient would recommend the facility. Leapfrog asks hospitals to survey patients using a nationally standardized survey called the OAS CAHPS.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Considerable Achievement receives a score of 95 (hospital did as well or better than 95% of all hospitals)
- Some Achievement receives a score of 89 (hospital did as well or better than 89% of all hospitals)
- Limited Achievement receives a score of 81 (hospital did as well or better than 81% of all hospitals)
- Declined to Respond receives a score of 0

MATERNITY CARE DOMAIN MEASURES

ELECTIVE DELIVERIES

Elective Deliveries measures the rate of patients with elective vaginal deliveries or elective cesarean births at >= 37 and < 39 weeks of gestation completed, which can carry risks to both babies and mothers.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Considerable Achievement receives a score of 9 (hospital did as well or better than 9% of all hospitals)
- Some Achievement receives a score of 2 (hospital did as well or better than 2% of all hospitals)
- Limited Achievement receives a score of 1 (hospital did as well or better than 1% of all hospitals)
- Declined to Respond receives a score of 0
CESAREAN BIRTH

Cesarean Birth measures the rate of first time mothers having C-sections when delivering a single newborn who is full term and in the vertex position, which can carry risks to both babies and mothers.

VBP Measure Scores are assigned to each decile using a hospital’s cesarean birth rate and the continuous measure methodology:

- Top decile (rate of 16.3% or lower) receives a score of 100
- Bottom decile (rate of 33.5% or higher) receives a score of 0
- Rates in-between top and bottom deciles receive a score based on the following formula:

  \[
  \text{VBP Measure Score} = 100 \times \frac{\text{hospital's score} - \text{bottom decile score}}{\text{top decile score} - \text{bottom decile score}}
  \]

- Declined to Respond receives a score of 0

EPISIOTOMY

Episiotomy measures the rate of episiotomy in vaginal deliveries, which can cause long-term complications among mothers.

VBP Measure Scores are assigned to each decile using a hospital’s episiotomy rate and the continuous measure methodology:

- Top decile (rate of 1.0% or lower) receives a score of 100
- Bottom decile (rate of 11.2% or higher) receives a score of 0
- Rates in-between top and bottom deciles receive a score based on the following formula:

  \[
  \text{VBP Measure Score} = 100 \times \frac{\text{hospital's score} - \text{bottom decile score}}{\text{top decile score} - \text{bottom decile score}}
  \]

- Declined to Respond receives a score of 0

NEWBORN BILIRUBIN SCREENING PRIOR TO DISCHARGE

Newborn bilirubin screening prior to discharge measures the rate at which hospitals screen newborns for jaundice prior to discharge, which when detected early, can reduce serious complications in newborns.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Limited Achievement receives a score of 7 (hospital did as well or better than 7% of all hospitals)
- Declined to Respond receives a score of 0
APPROPRIATE DVT PROPHYLAXIS

Appropriate DVT Prophylaxis measures the rate at which hospitals provide treatment to prevent blood clots in women undergoing cesarean sections, which can reduce serious complications among mothers.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Limited Achievement receives a score of 14 (hospital did as well or better than 14% of all hospitals)
- Declined to Respond receives a score of 0

HIGH-RISK DELIVERIES

High-Risk Deliveries measures the volume or outcome of very-low-birth-weight deliveries at hospitals with neonatal intensive care units (NICUs), which is related to improved outcomes for these newborns.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Considerable Achievement receives a score of 74 (hospital did as well or better than 74% of all hospitals)
- Some Achievement receives a score of 28 (hospital did as well or better than 28% of all hospitals)
- Limited Achievement receives a score of 12 (hospital did as well or better than 12% of all hospitals)
- Declined to Respond receives a score of 0

PEDIATRIC CARE DOMAIN MEASURES

CAHPS CHILD HOSPITAL SURVEY

The CAHPS Child Hospital Survey measures patient experience among children and their parents at each hospital.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

- Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
- Considerable Achievement receives a score of 99 (hospital did as well or better than 99% of all hospitals)
- Some Achievement receives a score of 96 (hospital did as well or better than 96% of all hospitals)
- Limited Achievement receives a score of 94 (hospital did as well or better than 94% of all hospitals)
- Declined to Respond receives a score of 0

PEDIATRIC COMPUTED TOMOGRAPHY (CT) RADIATION DOSE FOR HEAD SCANS

Pediatric Computed Tomography (CT) Radiation Dose for Head Scans measures hospitals’ radiation doses for CT scans of the head among pediatric patients and compares those doses to national benchmarks.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:
• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 70 (hospital did as well or better than 70% of all hospitals)
• Some Achievement receives a score of 56 (hospital did as well or better than 56% of all hospitals)
• Limited Achievement receives a score of 47 (hospital did as well or better than 47% of all hospitals)
• Declined to Respond receives a score of 0

PEDIATRIC COMPUTED TOMOGRAPHY (CT) RADIATION DOSE FOR ABDOMEN/PELVIS SCANS

Pediatric Computed Tomography (CT) Radiation Dose for Abdomen/Pelvis Scans measures hospitals’ radiation doses for CT scan of the abdomen and pelvis among pediatric patients and compares those doses to national benchmarks.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 65 (hospital did as well or better than 65% of all hospitals)
• Some Achievement receives a score of 47 (hospital did as well or better than 47% of all hospitals)
• Limited Achievement receives a score of 42 (hospital did as well or better than 42% of all hospitals)
• Declined to Respond receives a score of 0

NORWOOD PROCEDURES

Norwood Procedures measures whether or not hospitals are meeting Leapfrog’s minimum hospital volume standard for the procedure and including Leapfrog’s minimum surgeon volume standard in their process for privileging surgeons, which have been associated with better outcomes.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 99 (hospital did as well or better than 99% of all hospitals)
• Some Achievement receives a score of 97 (hospital did as well or better than 97% of all hospitals)
• Limited Achievement receives a score of 95 (hospital did as well or better than 95% of all hospitals)
• Declined to Respond receives a score of 0

ADULT COMPLEX SURGERY DOMAIN MEASURES

CAROTID ENDARTERECTOMY

Carotid Endarterectomy measures whether or not hospitals are meeting Leapfrog’s minimum hospital volume standard for the procedure and including Leapfrog’s minimum surgeon volume standard in their process for privileging surgeons, which have been associated with better outcomes.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:
• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 84 (hospital did as well or better than 84% of all hospitals)
• Some Achievement receives a score of 60 (hospital did as well or better than 60% of all hospitals)
• Limited Achievement receives a score of 50 (hospital did as well or better than 50% of all hospitals)
• Declined to Respond receives a score of 0

MITRAL VALVE REPAIR AND REPLACEMENT

Mitrval Valve Repair and Replacement measures whether or not hospitals are meeting Leapfrog’s minimum hospital volume standard for the procedure and including Leapfrog’s minimum surgeon volume standard in their process for privileging surgeons, which have been associated with better outcomes. In addition, it measures hospitals’ participation in a national clinical registry and their reported outcomes on the procedure.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 86 (hospital did as well or better than 86% of all hospitals)
• Some Achievement receives a score of 76 (hospital did as well or better than 76% of all hospitals)
• Limited Achievement receives a score of 53 (hospital did as well or better than 53% of all hospitals)
• Declined to Respond receives a score of 0

OPEN AORTIC PROCEDURES

Open Aortic Procedures measures whether or not hospitals are meeting Leapfrog’s minimum hospital volume standard for the procedure and including Leapfrog’s minimum surgeon volume standard in their process for privileging surgeons, which have been associated with better outcomes.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 92 (hospital did as well or better than 92% of all hospitals)
• Some Achievement receives a score of 79 (hospital did as well or better than 79% of all hospitals)
• Limited Achievement receives a score of 69 (hospital did as well or better than 69% of all hospitals)
• Declined to Respond receives a score of 0

LUNG RESECTION FOR CANCER

Lung Resection for Cancer measures whether or not hospitals are meeting Leapfrog’s minimum hospital volume standard for the procedure and including Leapfrog’s minimum surgeon volume standard in their process for privileging surgeons, which have been associated with better outcomes.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 94 (hospital did as well or better than 94% of all hospitals)
• Some Achievement receives a score of 84 (hospital did as well or better than 84% of all hospitals)
• Limited Achievement receives a score of 72 (hospital did as well or better than 72% of all hospitals)
• Declined to Respond receives a score of 0

ESOPHAGEAL RESECTION FOR CANCER

Esophageal Resection for Cancer measures whether or not hospitals are meeting Leapfrog’s minimum hospital volume standard for the procedure and including Leapfrog’s minimum surgeon volume standard in their process for privileging surgeons, which have been associated with better outcomes.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 99 (hospital did as well or better than 99% of all hospitals)
• Some Achievement receives a score of 96 (hospital did as well or better than 96% of all hospitals)
• Limited Achievement receives a score of 85 (hospital did as well or better than 85% of all hospitals)
• Declined to Respond receives a score of 0

PANCREATIC RESECTION FOR CANCER

Pancreatic Resection for Cancer measures whether or not hospitals are meeting Leapfrog’s minimum hospital volume standard for the procedure and including Leapfrog’s minimum surgeon volume standard in their process for privileging surgeons, which have been associated with better outcomes.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 95 (hospital did as well or better than 95% of all hospitals)
• Some Achievement receives a score of 86 (hospital did as well or better than 86% of all hospitals)
• Limited Achievement receives a score of 78 (hospital did as well or better than 78% of all hospitals)
• Declined to Respond receives a score of 0

RECTAL CANCER SURGERY

Rectal Cancer Surgery measures whether or not hospitals are meeting Leapfrog’s minimum hospital volume standard for the procedure and including Leapfrog’s minimum surgeon volume standard in their process for privileging surgeons, which have been associated with better outcomes.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 93 (hospital did as well or better than 93% of all hospitals)
• Some Achievement receives a score of 82 (hospital did as well or better than 82% of all hospitals)
• Limited Achievement receives a score of 70 (hospital did as well or better than 70% of all hospitals)
• Declined to Respond receives a score of 0

BARIATRIC SURGERY FOR WEIGHT LOSS

Bariatric Surgery for Weight Loss measures whether or not hospitals are meeting Leapfrog’s minimum hospital volume standard for the procedure and including Leapfrog’s minimum surgeon volume standard in their process for privileging surgeons, which have been associated with better outcomes.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 71 (hospital did as well or better than 71% of all hospitals)
• Some Achievement receives a score of 57 (hospital did as well or better than 57% of all hospitals)
• Limited Achievement receives a score of 48 (hospital did as well or better than 48% of all hospitals)
• Declined to Respond receives a score of 0

TOTAL HIP REPLACEMENT SURGERY

Total Hip Replacement Surgery measures whether or not hospitals are meeting Leapfrog’s minimum hospital volume standard for the procedure and including Leapfrog’s minimum surgeon volume standard in their process for privileging surgeons, which have been associated with better outcomes.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 79 (hospital did as well or better than 79% of all hospitals)
• Some Achievement receives a score of 43 (hospital did as well or better than 43% of all hospitals)
• Limited Achievement receives a score of 37 (hospital did as well or better than 37% of all hospitals)
• Declined to Respond receives a score of 0

TOTAL KNEE REPLACEMENT SURGERY

Total Knee Replacement Surgery measures whether or not hospitals are meeting Leapfrog’s minimum hospital volume standard for the procedure and including Leapfrog’s minimum surgeon volume standard in their process for privileging surgeons, which have been associated with better outcomes.

VBP Measure Scores are assigned using the peer comparison methodology for each performance category:

• Achieved the Standard receives a score of 100 (hospital did as well or better than 100% of all hospitals)
• Considerable Achievement receives a score of 79 (hospital did as well or better than 79% of all hospitals)
• Some Achievement receives a score of 43 (hospital did as well or better than 43% of all hospitals)
• Limited Achievement receives a score of 37 (hospital did as well or better than 37% of all hospitals)
• Declined to Respond receives a score of 0
**VBP DOMAIN SCORES**

In order to provide employers, purchasers, health plans, and hospitals opportunities for benchmarking, ranking, and comparisons, Leapfrog calculates VBP Domain Scores which provide summary level performance scores across seven domains: Medication Safety, Inpatient Care Management, Infections, Outpatient Procedures, Maternity Care, Pediatric Care, and Adult Complex Surgery.

VBP Domain Scores are calculated for each domain based on the performance and relative weights (See Appendix I and Appendix II) of the measures within the domain using the following formula:

\[
\text{VBP Domain Score} = \frac{(\text{VBP Measure 1 Score} \times \text{VBP Measure 1 Weight}) + (\text{VBP Measure 2 Score} \times \text{VBP Measures 2 Weight}) + \ldots}{\text{VBP Domain Weight}}
\]

If VBP Measure Scores are not available for all measures within a domain, a VBP Domain Score is not assigned and the weight from that domain is redistributed to the other domains.

**VBP VALUE SCORE**

Leapfrog also calculates a VBP Value Score which summarizes performance on up to 39 national measures of safety, quality, and efficiency from the Leapfrog Hospital Survey.

The VBP Value Score is calculated as the sum of the weighted (see Appendix I and Appendix II) VBP Measure Scores for all available measures using the following formula:

\[
\text{VBP Value Score} = \text{CPOE VBP Measure Score x CPOE VBP Measure Weight} + (\text{BCMA VBP Measure Score x BCMA VBP Measure Weight}) + \ldots + (\text{Total Knee Replacement Surgery VBP Measure Score x Total Knee Replacement Surgery VBP Measure Weight})
\]

**WHEN A VBP VALUE SCORE CANNOT BE CALCULATED**

Leapfrog is not able to calculate a VBP Value Score for hospitals that are not assigned a VBP Domain Score for at least 3 of the 7 VBP Domains (i.e., more than 4 VBP Domain Scores are not assigned).

In addition, Leapfrog does not calculate a VBP Value Score for any hospital with one or more measures that are publicly reported as “Pending Leapfrog Verification.”
### APPENDIX I: 2021 STANDARD MEASURE AND DOMAIN WEIGHTS

The 2021 weight factors, VBP Domain Weights, and VBP Measure Weights (assuming all domains and weights are applicable) are displayed in the table below. Weights and weight factors are determined using the Weighting Methodology outlined in Appendix II.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Measures</th>
<th>Volume Weight Factor</th>
<th>Harm Weight Factor</th>
<th>Resource Use Weight Factor</th>
<th>Weight Factor (Total)</th>
<th>VBP Domain Weight</th>
<th>VBP Measure Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medication Safety</td>
<td>CPOE</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>9</td>
<td>15%</td>
<td>5.87%</td>
</tr>
<tr>
<td></td>
<td>BCMA</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>15%</td>
<td>5.22%</td>
</tr>
<tr>
<td></td>
<td>Medication Reconciliation</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>15%</td>
<td>3.91%</td>
</tr>
<tr>
<td>Inpatient Care Management</td>
<td>ICU Physician Staffing</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>17%</td>
<td>3.97%</td>
</tr>
<tr>
<td></td>
<td>NQF Safe Practice #1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>17%</td>
<td>2.83%</td>
</tr>
<tr>
<td></td>
<td>NQF Safe Practice #2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>17%</td>
<td>2.83%</td>
</tr>
<tr>
<td></td>
<td>NQF Safe Practice #9</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>17%</td>
<td>2.83%</td>
</tr>
<tr>
<td></td>
<td>Hand Hygiene</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>17%</td>
<td>2.83%</td>
</tr>
<tr>
<td></td>
<td>Never Events Policy</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>17%</td>
<td>1.70%</td>
</tr>
<tr>
<td>Infections</td>
<td>CLABSI</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>22%</td>
<td>4.89%</td>
</tr>
<tr>
<td></td>
<td>CAUTI</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>22%</td>
<td>4.28%</td>
</tr>
<tr>
<td></td>
<td>SSI Colon</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>22%</td>
<td>2.83%</td>
</tr>
<tr>
<td></td>
<td>MRSA</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>22%</td>
<td>4.89%</td>
</tr>
<tr>
<td></td>
<td>C. Diff.</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>22%</td>
<td>4.89%</td>
</tr>
<tr>
<td>Outpatient Procedures</td>
<td>Patient Recovery - Adult</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>8%</td>
<td>1.67%</td>
</tr>
<tr>
<td></td>
<td>Patient Recovery - Pediatric</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>8%</td>
<td>1.67%</td>
</tr>
<tr>
<td></td>
<td>Safe Surgery Checklist</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>8%</td>
<td>2.00%</td>
</tr>
<tr>
<td></td>
<td>Medication and Allergy Doc.</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>8%</td>
<td>1.33%</td>
</tr>
<tr>
<td></td>
<td>Patient Experience (OAS CAHPS)</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>8%</td>
<td>1.33%</td>
</tr>
<tr>
<td>Maternity Care</td>
<td>Elective Deliveries</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>2.26%</td>
</tr>
<tr>
<td></td>
<td>Cesarean Birth</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>14%</td>
<td>2.71%</td>
</tr>
<tr>
<td></td>
<td>Episiotomy</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>2.26%</td>
</tr>
<tr>
<td></td>
<td>Bilirubin Screening</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>2.26%</td>
</tr>
<tr>
<td></td>
<td>Appropriate DVT Prophylaxis</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>14%</td>
<td>2.26%</td>
</tr>
<tr>
<td></td>
<td>High-Risk Deliveries</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>2.26%</td>
</tr>
<tr>
<td>Pediatric Care</td>
<td>CAHPS Child Survey</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>10%</td>
<td>2.35%</td>
</tr>
<tr>
<td></td>
<td>CT Dose Head</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>10%</td>
<td>2.35%</td>
</tr>
<tr>
<td></td>
<td>CT Dose Abdomen/Pelvis</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>10%</td>
<td>2.35%</td>
</tr>
<tr>
<td></td>
<td>Norwood Procedures</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>10%</td>
<td>2.94%</td>
</tr>
<tr>
<td>Adult Complex Surgery</td>
<td>Carotid Endarterectomy</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>1.40%</td>
</tr>
<tr>
<td></td>
<td>Mitral Valve Repair and Repl.</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>1.40%</td>
</tr>
<tr>
<td></td>
<td>Open Aortic Procedures</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>1.40%</td>
</tr>
<tr>
<td></td>
<td>Lung Resection for Cancer</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>1.40%</td>
</tr>
<tr>
<td></td>
<td>Esophageal Resection for Cancer</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>1.40%</td>
</tr>
<tr>
<td></td>
<td>Pancreatic Resection for Cancer</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>1.40%</td>
</tr>
<tr>
<td></td>
<td>Rectal Cancer Surgery</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>1.40%</td>
</tr>
<tr>
<td></td>
<td>Bariatric Surgery for Weight Loss</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>1.40%</td>
</tr>
<tr>
<td></td>
<td>Total Knee Replacement</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>1.40%</td>
</tr>
<tr>
<td></td>
<td>Total Hip Replacement</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>14%</td>
<td>1.40%</td>
</tr>
</tbody>
</table>
APPENDIX II: WEIGHTING METHODOLOGY

Each measure included in the Leapfrog VBP Program is assigned to one of seven domains, which are each weighted based on recommendations from Leapfrog’s national, multi-stakeholder Steering Committee (see Appendix I). If all VBP Measure Scores within a domain are missing, the weight from that domain is redistributed to the other domains.

Each measure included in the Leapfrog VBP Program is also assigned a standard weight based on three criteria:

1. **Volume** - the number of patients impacted by the measure
2. **Harm** – the severity of harm being measured or resulting from hospitals not adhering to the clinical guidelines being measured
3. **Resource Use** – the avoidance of costs related to the measure

The three criteria, along with the overall VBP Domain Weight, are combined in the following way to result in a VBP Measure Weight:

\[
\text{VBP Measure Weight} = \frac{\text{VBP Domain Weight} \times (\text{Volume Weight Factor} + \text{Harm Weight Factor} + \text{Resource Use Weight Factor})}{\text{Sum of Weight Factors for Available Measures in VBP Domain}}
\]

If a VBP Measure Score is not available for one or more measures within a domain (e.g., measures that are publicly reported as “Does Not Apply,” “Unable to Calculate Score,” or “Pending Leapfrog Verification”) then the weight for that measure is redistributed to the other measures within that domain using the formula noted above.

See Appendix I for a list of 2021 weight factors and standard VBP Domain Weights and VBP Measure Weights.

VOLUME WEIGHT FACTOR

Measures that affect larger populations of patients are weighted more heavily than those for smaller, specific populations.

- 3= Measure assesses outcomes, processes, or structures that potentially benefit most patients (e.g. applies to the whole inpatient or outpatient hospital setting)
- 2= Measure assesses outcomes, processes, or structures that apply to a hospital department or large population in the hospital, or the measure assesses a topic that may apply throughout the hospital but only a subset of the population is actually assessed by the measure
- 1= Measure only applies to relatively small populations or rare occurrences

HARM WEIGHT FACTOR

Measures that protect patients against more severe harm are weighted more heavily than those that do not directly address patient harm.

- 3= Measure assesses or directly prevents mortality or severe physical injury
• 2 = Measures of patient harm not including mortality or severe physical injury, or that assess aspects of care that are meant to help avoid mortality or severe physical injury but either (a) do not assess harm directly or (b) for which assessment is optional/not universally applicable to those reporting on the measure
• 1 = Measure does not directly assess patient harm

**RESOURCE USE WEIGHT FACTOR**

Measures that correlate with cost avoidance are weighted more heavily than those that do not.

• 3 = Measures that have significant resource use implications, either because they assess procedures or health events directly connected to resource use,¹ or they assess structures/systems intended to avoid costly health events.²
• 2 = Measures that have moderate or indirect resource use implications.³
• 1 = Measures that have minimal resource use implications, either because they assess policies or procedures with no direct connection to resource use,⁴ or they assess processes that are part of larger care episodes for which resource use is dependent on multiple processes within the episode.⁵

¹ Examples: Cesarean Birth, CLABSI
² Example: CPOE
³ Example: Episiotomy
⁴ Example: Never Events Policy
⁵ Example: DVT Prophylaxis
APPENDIX III: COMPETITIVE BENCHMARKING REPORTS

BACKGROUND

Individual hospital data and comparative data from the Leapfrog VBP Program are provided in Competitive Benchmarking Reports. Competitive Benchmarking Reports include each hospital’s VBP Measure Scores, VBP Domain Scores, and VBP Value Score, along with benchmarks and comparisons to put the scores in context. Users of the reports can benchmark hospital performance nationally, state-wide, and regionally against other hospitals and with hospitals that have similar characteristics, such as bed size, teaching status, type, etc.

TYPES OF REPORTS

All hospitals that complete a Survey by the July 31 Submission Deadline are eligible to receive a Free Summary Report with their VBP Domain Scores and VBP Value Score compared to national averages. Free Summary Reports are e-mailed to all hospital CEOs in September/October.

Premium Competitive Benchmarking Reports are available for hospitals that are interested in using their Leapfrog Hospital Survey Results for targeted quality improvement and for engaging with their hospital leadership and staff.

PREMIUM REPORT

The Premium Report includes:

- An overview of the Leapfrog VBP Program
- VBP Measure Scores compared to national and state benchmarks
- VBP Domain Scores compared to national and state benchmarks
- VBP Value Score compared to national and state benchmarks
- VBP Measure Scores compared to custom cohort (e.g., bed size cohort, hospital type cohort, region cohort, etc.) benchmarks
- VBP Domain Scores compared to custom cohort (e.g., bed size cohort, hospital type cohort, region cohort, etc.) benchmarks
- VBP Value Score compared to custom cohort (e.g., bed size cohort, hospital type cohort, region cohort, etc.) benchmarks
- 2021 VBP Measure Scores compared to VBP Measure Scores from the previous year

STATE AND CUSTOM COHORT AVAILABILITY

MINIMUM REPORTING REQUIREMENTS FOR STATES AND CUSTOM COHORTS

For state or custom cohort data to be available for benchmarking in the report, there must be a minimum of 7 or more hospitals included for comparison.
INFORMATION PROVIDED

BREAKDOWN BY MEASURE PAGE(S)
Displays the VBP Measure Scores and benchmarks (national, state, and custom cohort, where applicable), as well as the VBP Measure Weights and VBP Domain Weights. VBP Measure Scores, VBP Measure Weights, and VBP Domain Weights are rounded for display purposes only. Note: For children’s hospitals, some domains may not appear on this report if the hospital indicated that they are not applicable.

BREAKDOWN BY DOMAIN PAGE(S)
Displays VBP Domain Scores and benchmarks (national, state, and custom cohort), by quartile and by average. VBP Domain Scores are rounded for display purposes only. Note: For children’s hospitals, some domains may not appear on this report if the hospital indicated that they are not applicable.

THIS HOSPITAL’S VBP VALUE SCORE PAGE
Displays the VBP Value Score along with national, state, and custom cohort benchmarks. The VBP Value Score is also displayed as a histogram curve of all the VBP Value Scores in the nation, with the hospital’s VBP Value Score and national benchmarks indicated on the curve. VBP Value Scores are rounded to the nearest whole number.

A national decile ranking is also shown. Decile thresholds are calculated using unrounded VBP Value Scores for all hospitals receiving a VBP Value Score nationally and then are rounded based on standard rounding rules (deciles >=.50 rounded up, <.50 rounded down).

Note: Some hospitals may not receive a VBP Value Score if they are missing too much data or if they have any measures that are publicly reported as “Pending Leapfrog Verification.”

PAST PERFORMANCE PAGE(S)
Current VBP Measure Scores are shown compared to VBP Measures Scores from the previous year.

Note: Comparisons are not made for measures that are new to the Leapfrog Hospital Survey or for measures that had a significant change to their specifications and/or scoring.