

## Final Updates to the Leapfrog Hospital Safety Grade Methodology for Spring and Fall 2023

On December 20, 2022, Leapfrog published planned updates to the Hospital Safety Grade methodology and held a public comment period through January 15, 2023. We thank commenters for their insightful feedback and suggestions that helped us finalize the methodology. This document includes responses to the comments received and summarizes the final updates that will be made to the scoring methodology. In addition, this document includes the spring 2023 Leapfrog Hospital Safety Grade measures, reporting periods, and data sources in [Appendix A](#).

### RESPONSES TO PUBLIC COMMENT

**Two commentors expressed concern that the point value assigned to hospitals with ICUs that have not completed a recent Leapfrog Hospitals Survey may not be reflective of their ICU staffing structure.**

Some hospitals that operate an adult or pediatric ICU and do not participate in the Leapfrog Hospital Survey may meet aspects of Leapfrog's national standard for ICU staffing. However, without the robust data collection required via Leapfrog's Hospital Survey, we do not have adequate information about their staffing structure to assign more points than those outlined in the planned updates below. Since ICU Physician Staffing varies considerably between facilities, we feel it would be unreliable to assign points to hospitals without the full range of data only available from the Leapfrog Hospital Survey.

More information regarding the evidence behind Leapfrog's national standard is available on our [website](#).

**Two commentors asked that Leapfrog delay adding the Nurse Staffing and Skill Mix measures to the fall 2023 Hospital Safety Grade, so hospitals have time to review the benchmarking report and understand the impact on their Grade.**

Leapfrog has [published](#) benchmarking information for all four new nurse staffing and skill mix measures. We believe this gives hospitals adequate time to understand how they compare nationally. Leapfrog will publish additional details on how these new nursing measures will be scored in the fall 2023 Hospital Safety Grade this spring/summer.

**Several commentors expressed concern about the timing of introducing Leapfrog's Nurse Staffing and Skill Mix measures to the Hospital Safety Grade methodology given the current staffing shortages and stress, such as surges in respiratory viruses, placed on healthcare providers at this time.**

We recognize that the widely reported nursing shortage can significantly impact hospital operations. However, that impact is itself why consumers and purchasers need insight about nurse staffing at each hospital. Nursing care is a core element to ensuring safe patient care in hospitals, and [national data](#) suggests variation among hospitals on the impact of the nursing shortage. As a result, as described below, Leapfrog is planning to replace Safe Practice 9 Nursing Workforce with two new measures strongly correlated with patient safety outcomes: Total Nursing Care Hours per Patient Day and RN Hours per Patient Day.

More information regarding the evidence behind these measures is available on our [website](#).

**Three commentors asked that the new Nurse Staffing and Skill Mix measures not be added to the Hospital Safety Grade since a national consensus and best measures regarding staffing standards have yet to be reached.**

All four nurse staffing and skill mix measures from the Leapfrog Hospital Survey have decades of published evidence that support their relationship with patient safety outcomes. Three of the measures, Total Nursing Care Hours per Pay Day, RN Hours per Patient Day, and Nursing Skill Mix are endorsed by the National Quality Forum for specific use in public reporting and payment programs. The fourth measure, the Percentage of RNs who are BSN-Prepared, is one of the strongest recommendations from the IOM's Future of Nursing [report](#) and includes the goal of having 80% of RNs educated to a Bachelor of Science in Nursing level or higher. Additionally, the measures have been in use by the National Database of Nursing Quality Indicators® (NDNQI®) for several years and are strongly supported by Leapfrog's [national expert panel](#).

## FINAL UPDATES

### 1. ICU PHYSICIAN STAFFING

#### A. SPRING 2023 STEP 1 IMPUTATION

The primary source of the Hospital Safety Grade ICU Physician Staffing (IPS) measure is the Leapfrog Hospital Survey. Under the current Hospital Safety Grade methodology, hospitals that do not submit a Leapfrog Hospital Survey are scored using a pre-defined imputation model. In Step 1 of the imputation model, hospitals are assigned the most recent score from the previous four rounds of Safety Grades. For the spring 2023 Safety Grade *only*, Leapfrog will adjust the model for IPS to assign the most recent score from the previous five rounds of grades (fall 2022, spring 2022, fall 2021, spring 2021, fall 2020).

This change to Step 1 of the imputation model will only apply to the ICU Physician Staffing (IPS) measure (not to CPOE, BCMA or Hand Hygiene) and only for this one round (spring 2023) of the Hospital Safety Grade. The purpose of this one-time change is to give hospitals adequate notice before Leapfrog adopts a new secondary data source that will be used to determine scores on the ICU Physician Staffing measure for hospitals that do not submit a Leapfrog Hospital Survey, beginning with the fall 2023 Hospital Safety Grade.

#### B. FALL 2023 NEW STEP 2 IMPUTATION MODEL USING A NEW SECONDARY DATA SOURCE FOR ICU PHYSICIAN STAFFING

Beginning with the fall 2023 Hospital Safety Grade, for hospitals that do not submit a 2023 Leapfrog Hospital Survey, the standard Step 1 imputation methodology will apply, meaning they will be assigned the most recent score from the most recent four rounds of the Hospital Safety Grade (spring 2023, fall 2022, spring 2022, or fall 2021). For hospitals without a score from the previous four rounds of the Hospital Safety Grade, Leapfrog will use a new methodology for Step 2 of the Imputation model.

This new methodology will use the most recent CMS cost report to identify if a hospital has an ICU and then assign a point value for the IPS measure.

ICU designation (i.e., operating a medical ICU, surgical ICU, or pediatric ICU) will be determined by Leapfrog based on the number of medical, surgical and/or pediatric ICU beds reported in Worksheet S-3 Part 1 of the hospital's most recent CMS cost report. Hospitals that share a CCN with another facility will be carefully reviewed to determine if a medical, surgical, and/or pediatric ICU is present at their physical location.

Hospitals that are determined to have one or more medical, surgical, and/or pediatric ICU beds will be assigned the same point value (5 points) as those hospitals that earned Limited Achievement on Leapfrog's IPS Standard in the fall 2023 Safety Grade. The point value is equivalent to hospitals that report via the Leapfrog Hospital Survey that they operate an adult or pediatric medical and/or surgical ICU or neuro ICU but do not meet other aspects of Leapfrog's [national standard for ICU staffing](#). This approach is consistent with how Leapfrog has scored hospitals on this measure using prior secondary data sources.

We are announcing this update early to give hospitals adequate time to consider completing the 2023 Leapfrog Hospital Survey if they wish to report a higher level of achievement on the IPS measure prior to the fall 2023 Data Snapshot Date of **August 31, 2023**. The 2023 Leapfrog Hospital Survey will open on April 1, 2023. More information is available on our website at [www.leapfroggroup.org/hospital](http://www.leapfroggroup.org/hospital) or by contacting the [Help Desk](#).

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## 2. NURSING WORKFORCE

### A. SPRING 2023

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For the spring 2023 Hospital Safety Grade, Leapfrog will continue to use NQF Safe Practice 9: Nursing Workforce from the 2022 Leapfrog Hospital Survey to calculate Hospital Safety Grades.

### B. FALL 2023

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Beginning in fall 2023, Leapfrog will replace NQF Safe Practice 9: Nursing Workforce with two nurse staffing measures from the 2023 Leapfrog Hospital Survey: Total Nursing Care Hours per Patient Day and RN Hours per Patient Day.

Scoring for the new nurse staffing measures will be finalized for the fall 2023 Safety Grade by Leapfrog's Hospital Safety Grade national expert panel and published in spring/summer 2023.

Leapfrog will publicly report all four nurse staffing and skill mix measures from the 2023 Leapfrog Hospital Survey, including Total Nursing Care Hours per Patient Day, RN Hours per Patient Day, Nursing Skill Mix, and Percentage of RNs who are BSN-Prepared, on its public reporting website at [rating.leapfroggroup.org](https://rating.leapfroggroup.org) beginning July 2023.

**APPENDIX A: SPRING 2023 LEAPFROG SAFETY GRADE MEASURES, DATA SOURCES, AND ANTICIPATED REPORTING PERIODS**

<b>PROCESS/STRUCTURAL MEASURES (12)</b>				
<b>Measure Name</b>	<b>Primary Data Source</b>	<b>Anticipated Reporting Period</b>	<b>Secondary Data Source</b>	<b>Reporting Period</b>
<b>Computerized Physician Order Entry (CPOE)</b>	2022 Leapfrog Hospital Survey	2022	Imputation Model Applied	N/A
<b>Bar Code Medication Administration (BCMA)</b>	2022 Leapfrog Hospital Survey	2022	Imputation Model Applied	N/A
<b>ICU Physician Staffing (IPS)</b>	2022 Leapfrog Hospital Survey	2022	Imputation Model Applied	N/A
<b>Safe Practice 1: Culture of Leadership Structures and Systems</b>	2022 Leapfrog Hospital Survey	2022	N/A	N/A
<b>Safe Practice 2: Culture Measurement, Feedback &amp; Intervention</b>	2022 Leapfrog Hospital Survey	2022	N/A	N/A
<b>Safe Practice 9: Nursing Workforce</b>	2022 Leapfrog Hospital Survey	2022	N/A	N/A
<b>Hand Hygiene</b>	2022 Leapfrog Hospital Survey	2022	Imputation Model Applied	N/A
<b>H-COMP-1: Nurse Communication</b>	CMS	04/01/2021 - 03/31/2022	N/A	N/A
<b>H-COMP-2: Doctor Communication</b>	CMS	04/01/2021 - 03/31/2022	N/A	N/A
<b>H-COMP-3: Staff Responsiveness</b>	CMS	04/01/2021 - 03/31/2022	N/A	N/A
<b>H-COMP-5: Communication about Medicines</b>	CMS	04/01/2021 - 03/31/2022	N/A	N/A
<b>H-COMP-6: Discharge Information</b>	CMS	04/01/2021 - 03/31/2022	N/A	N/A

<b>OUTCOME MEASURES (10)</b>				
<b>Measure Name</b>	<b>Primary Data Source</b>	<b>Reporting Period</b>	<b>Secondary Data Source</b>	<b>Reporting Period</b>
<b>Foreign Object Retained</b>	CMS	07/01/2019 - 12/31/2019 AND 07/01/2020 - 6/30/2021	N/A	N/A
<b>Air Embolism</b>	CMS	07/01/2019 - 12/31/2019 AND 07/01/2020 - 6/30/2021	N/A	N/A
<b>Falls and Trauma</b>	CMS	07/01/2019 - 12/31/2019 AND 07/01/2020 - 6/30/2021	N/A	N/A
<b>CLABSI</b>	2022 Leapfrog Hospital Survey	07/01/2021 - 06/30/2022	CMS	04/01/2021 - 03/31/2022
<b>CAUTI</b>	2022 Leapfrog Hospital Survey	07/01/2021 - 06/30/2022	CMS	04/01/2021 - 03/31/2022
<b>SSI: Colon</b>	2022 Leapfrog Hospital Survey	07/01/2021 - 06/30/2022	CMS	04/01/2021 - 03/31/2022
<b>MRSA</b>	2022 Leapfrog Hospital Survey	07/01/2021 - 06/30/2022	CMS	04/01/2021 - 03/31/2022
<b>C. Diff.</b>	2022 Leapfrog Hospital Survey	07/01/2021 - 06/30/2022	CMS	04/01/2021 - 03/31/2022
<b>PSI 4: Death rate among surgical inpatients with serious treatable conditions</b>	CMS	07/01/2019 - 12/31/2019 AND 07/01/2020 - 6/30/2021	N/A	N/A
<b>CMS Medicare PSI 90: Patient safety and adverse events composite*</b>	CMS	07/01/2019 - 12/31/2019 AND 07/01/2020 - 6/30/2021	N/A	N/A

\*Note: CMS calculates PSI 90 using the ten (10) component PSIs listed above. While scores for each of the 10 component PSIs will NOT be used to calculate spring 2023 Hospital Safety Grades, they will be publicly reported on the Hospital Safety Grade [website](#).