THELEAPFROGGROUP
Giant Leaps for Patient Safety

June 10, 2024

Ms. Chiquita Brooks-LaSure, MPP
Administrator
Centers for Medicare & Medicaid Services
Department of Health and Human Services
Baltimore, MD

RE: Medicare and Medicaid Programs and the Children's Health Insurance Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System and Policy Changes and Fiscal Year 2025 Rates; Quality Programs Requirements; and Other Policy Changes

Dear Ms. Brooks-LaSure,

The Leapfrog Group, our Board of Directors, and our members collectively comprise hundreds of the leading purchaser and employer organizations across the country. We are committed to improving the safety, quality, and affordability of health care with meaningful metrics that inform consumer choice, payment, and quality improvement. We are one of the few organizations that both collects and publicly reports safety and quality data at the national level, thereby bringing a unique perspective on measures that can be effectively collected by hospitals and reported to health care consumers. In addition, we use CMS measures in the Leapfrog Hospital Safety Grade, amplifying the measures' usefulness to consumers and strengthening the alignment between private and public purchasers. We appreciate the opportunity to submit comments to the Centers for Medicare & Medicaid Services on the proposed changes to the FY 2025 Inpatient Prospective Payment System (IPPS) rule.

In the appendix to this letter, we detail our comments on items in this proposed rule. Additionally, we have recommendations on transparency that are important principles for IPPS but continue to be overlooked in rulemaking.

1. **We implore CMS to meaningfully differentiate the very real variation in hospital performance on the safety and quality measures published on the Care Compare website.** We applaud CMS for revealing variation among hospital performance in its excellent Star Ratings program, and we encourage you to extend that leadership to make Care Compare more meaningful to consumers. For the data to be valuable for health care consumers, the data has to differentiate between hospitals on safety and quality. Publicly reporting over 90% of hospitals as "no different than the national average" sends a dangerous message to consumers: All hospitals are the same. We all know that this is not the case, and the difference can mean life or death for patients.

2. **In alignment with recommendations from the Office of the National Coordinator, we implore CMS to report results from all federal hospital programs by bricks-and-mortar facility, not CMS Certification Number (CCN).** We strongly recommend that CMS align with Leapfrog and its purchaser constituency by publicly reporting data in a way that puts the needs of consumers first and foremost. Fundamental to meeting that goal is collecting and reporting data for

individual brick-and-mortar facilities (i.e., campuses and locations), not CCN as currently constructed. There are instances where up to nine hospitals several miles apart and offering very different services share a CCN. When safety and quality metrics are reported in this way, it obscures the individual performance of the hospital delivering the care and is misleading and unhelpful to patients. Patients do not seek care from a system; they seek care from individual hospitals and clinicians. Providers and administrators can also benefit from being able to discern the performance more easily at their own facility and determine where improvements are needed.

3. **Stop exempting hospitals from public reporting.** Patients who receive care in critical access hospitals, pediatric hospitals, and hospitals in U.S. territories and other exempt facilities deserve the same safety, quality, and resource use information that patients of general acute care facilities have access to. Rates of infections and hospital-acquired conditions and mortality and readmission rates are all important factors in selecting a hospital. Those in communities served by hospitals exempted from the federal reporting programs are highly disadvantaged.

In the appendix to this letter, we offer comments on the following:

- Hospital Inpatient Quality Reporting Program
- Hospital Value-Based Purchasing Program
- Medicare Promoting Interoperability Program
- Additional Requests for Comments

On behalf of The Leapfrog Group, our Board, our members, and the others who have signed in support of our letter, we appreciate the opportunity to provide comments on the proposed changes to the FY 2025 IPPS proposed rule.

Sincerely,

Leah Binder, M.A., M.G.A
President & Chief Executive Officer
The Leapfrog Group

Cosigning Individuals and Organizations Supporting these comments on the CMS FY 2025 proposed rule:

Asthma and Allergy Foundation of America
Ashley Tait-Dinger, Leapfrog Regional Leader
care.ai
Cari Marshall, OSU-CHSI / The OK Business Coalition on Health
Charlene Hope, University of Chicago Medicine
CSS/Consumers' Checkbook
DFW Business Group on Health
Donita Doubet, Leapfrog Regional Leader
The Economic Alliance for Michigan

Ehsan Abualanain, MakeDeathsCount
Florida Alliance for Health Care Value
Floridians for Accountability in Health Care Inc.
Greater Philadelphia Business Coalition on Health
Health Action Council
Healthcare Purchaser Alliance of Maine
Hendry Marine Industries
Independent Colleges and Universities Benefits Association (ICUBA)
Jair Espinoza, City of Miami
Jo-Ann Kamencik, AMNHealthcare
Kansas Business Group on Health
Karen van Caulil, Leapfrog Board Member
Kathryn Biasotti, KB Consulting
Kimberly Ramos, The Mosaic Company
Krista Hughes, Hughes Advocacy, LLC
Lehigh Valley Business Coalition on Healthcare (LVBCH)
Martin Hatlie, Project Patient Care
Miami Dade County Public Schools
Midwest Business Group on Health
North Carolina Business Coalition on Health
Orange County FL Government Human Resources
Sally Welborn, Welborn Advisory Services
SRTV Holdings LLC / Patriot Rail Company LLC
St. Louis Area Business Health Coalition
Susan Sheridan, Patients for Patient Safety US
Texas Business Group on Health

APPENDIX: THE LEAPFROG GROUP'S DETAILED COMMENTS REGARDING FY 2025 IPPS PROPOSED RULE

HOSPITAL INPATIENT QUALITY REPORTING (IQR) PROGRAM

- **Proposal: Addition of Measures to the Hospital IQR Program**

The Leapfrog Group comments to CMS on the FY 2024 IPPS Proposed Rule –p. 848 – June 10, 2024

The Leapfrog Group strongly supports the much-needed expansion of measures in the Hospital IQR Program. We support the addition of all seven proposed measures to the program. We provide the following comments and recommendations on the specific measures below:

Patient Safety Structural measure
On behalf of the purchasers and consumer advocates involved in Leapfrog, we applaud CMS for proposing this measure and strongly support its inclusion in the Hospital IQR program.

We have three primary suggestions aimed at improving this already strong measure.

First, to ensure the self-reported measure results are an accurate reflection of what is occurring in the hospital and across hospitals nationally, we suggest CMS develop a stronger audit function. Without an adequate auditing function, there is potential for inaccurate reporting, which can often be unintentional. Misreporting skews the overall quality of the data at a national level in addition to misleading the public about individual hospitals' performance.

Second, the measure name notes this is a "patient" safety measure. To stay centered on the patient, we recommend removing references to workforce safety. Workforce safety is an extremely important issue that deserves its own separate accounting.

The workforce faces very different safety challenges, and their overall rates of injury and harm are measured on an entirely different scale and platform than patient rates of injury and harm. This needs to be addressed specifically, not as a sideline of a patient safety–focused measure. We suggest CMS bundle elements of the Patient Safety Structural Measure domains that reference workforce into a dedicated measure and develop other separate elements specific to the workforce as necessary.

Such a revision would also remove some confusion presently embedded in the patient safety measure as to the population that is the focus of safety. Specifically:

-In domain #1 and #2, under the "Attestation Domain" heading, it makes no reference to workforce safety. However, the corresponding "Attestation Statements" include mentions of workforce safety (in "D" and "E").
-Conversely in domain #3, the "Attestation Domain" references "safety among staff," but under the "Attestation Statements" heading, it makes no reference to the safety of this group.

Lastly, we recommend greater transparency in the public reporting of performance in the measure, beyond reporting the facility attained zero to five points. More specifically, consumers should be able to

see performance at the domain level as to whether the hospital earned a point for that domain or not. Such granularity of reporting would be aligned with the level of transparency of HCAHPS reporting. Results are reported not only by way of an overall summary question/measure but also at the sub-measure/domain level as well. HCAHPs should be seen as a guide here, and further CMS should strive for consistency in how such measures that are comprised of individually scored domains are publicly reported.

Age-Friendly Hospital measure

We are strongly supportive of this measure and applaud CMS for proposing it. In addition, we urge CMS to move with urgency toward the next step: outcome measures. This evolution of the measure is especially important given the vulnerability of the geriatric population.

To strengthen this measure, we suggest CMS develop a stronger audit function. This will ensure the self-reported measure results are an accurate reflection of what is occurring in the hospital. Especially with new measures, misreporting is often unintentional and the result of confusion about the measure. This can lead to inconsistent results within and among hospitals and reduce the usefulness of the very important measure.

CAUTI Oncology Measure and CLABSI Oncology measure

We commend the needed focus on cancer care in these two important healthcare-associated infections (HAI) measures. This fills a gap in oncology reporting of HAIs since currently such infection measures are only reported in the small set of hospitals participating in the PPS-Exempt Cancer Hospital Quality Reporting Program.

Having said that, the measure would be even more inclusive of oncology care if the denominator was based on all patients with cancer versus only those assigned to oncology wards/units. We are aware this is an NHSN limitation, and we urge CMS to work with NHSN and CDC to reconfigure the data collection model to assure that all patients with cancer who suffer an HAI are accounted for.

Hospital Harm – Falls with Injury eCQM

We applaud CMS for moving toward eCQM measures, which show promise for reducing data collection burden, improving accuracy, and reporting measurement results much more rapidly.

While we support the concept of an eCQM measure focused on falls with injury, we have a major concern with this particular measure. Our concern is that the measure excludes cases with a diagnosis present on admission of a fall with moderate or major injury. This excludes from consideration the most vulnerable patients: those who are recovering from another earlier fall. These are the patients most at risk for severe injury if another fall occurs, and hospitals should be held more accountable, not less accountable, for preventing falls among these patients. Further, excluding such cases unintentionally communicates that falls within this population are unavoidable. This is a dangerous message we want to avoid sending to hospital staff.

For these reasons, we believe it is imperative to include this population in the measure.

30-Day Risk Standardized Death Rate Among Surgical Inpatients with Complications (Failure to Rescue) measure

Leapfrog supports inclusion of this measure only if two criteria are met.

First, the measure or a parallel reported measure must account for the most vulnerable patients who are often at highest risk of death. This measure excludes much of that population, and the population included in the CMS PSI 4 measure slated for replacement with this measure has a mortality rate that is greater than three times higher than the proposed measure[1]. Without accounting for this population, tens of thousands of deaths every year could be excluded from consideration by CMS. That is unacceptable.

Leapfrog suggests that, to complement the proposed measure, CMS should add a measure to the Hospital IQR Program that gauges hospital mortality performance regarding the most vulnerable cases that are at a heightened risk of death.

Our second criteria for supporting the measure is that CMS discontinue use of the measure's "failure to rescue" nickname because it is misleading to consumers and understates the profound and significant meaning of the human tragedies underlying the data collected within this measure. Specifically, this measure accounts for patients who died, and the name or nickname of the measure should not attempt to obscure that stark fact. We urge CMS to perform consumer testing if necessary and ensure the name used is understandable to beneficiaries and the public at large. All references to the measure should focus on what matters most about it from the lens of beneficiaries, who care deeply about patient deaths and not the "failure" of providers.

In summation, Leapfrog does not support inclusion of this measure unless 1) CMS provides an alternative way to account for the most vulnerable patients and 2) CMS uses a name and/or nickname for the measure that conveys the solemn reality of what the measure is reporting.

- **Proposal: Removal of Measures From the IQR Program**

The Leapfrog Group comments to CMS on the FY 2024 IPPS Proposed Rule –p. 954 – June 10, 2024

Leapfrog's comments on the measures proposed for removal are as follows:

Death Among Surgical Inpatients with Serious Treatable Complications (CMS PSI 04) measure
Leapfrog strongly opposes removal of this measure unless and until two criteria are in place.

First there must be an alternative measure that accounts for the most vulnerable patients, since the proposed replacement measure, 30 Day Risk Standardized Death Rate Among Surgical Inpatients with Complications, excludes these patients from consideration.

Second, there must be no gap in publicly reporting performance between this measure and the proposed 30-Day Risk Standardized Death Rate Among Surgical Inpatients with Complications (Failure to Rescue) measure. Given that over 500 people die every day due to hospital errors[2], it is critical that no day goes by without CMS reporting on hospital mortality.

Hospital-level, Risk Standardized Payment Associated with a 30-Day Episode-of-Care for Acute Myocardial Infarction (AMI) measure; Hospital-level, Risk-Standardized Payment Associated with a 30-Day Episode-of-Care for Heart Failure measure; Hospital-level, Risk Standardized Payment Associated with a 30-Day Episode-of-Care for Pneumonia measure; Hospital-level, Risk-Standardized Payment Associated with a 30-Day Episode-of-Care for Elective Primary Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (TKA) measure

Leapfrog strongly opposes removing the four condition and procedure specific measures from the Hospital IQR Program for public reporting purposes. The above four measures are proposed to be retired based on measure removal factor #3: A more broadly applicable measure is available (e.g. Medicare Spending Per Beneficiary [MSPB] measure) in the Hospital VBP Program. MSPB is not applicable for beneficiaries, public and private sector purchasers, and the public at large, nor is it an adequate substitute for the critical information gained from situation-specific measures.

People with these specific conditions and undergoing specific procedures—and purchasers who support their care—want to know measure results for people similar to them. A hospital's performance in these four measures is useful to such people, whereas the MSPB measure results do not necessarily reflect hospitals' performance for their situation: AMI, heart failure, pneumonia, or a hip or knee replacement procedure. Therefore, we recommend retaining these four measures in the Hospital IQR as they provide valuable information for consumers in these clinical situations when making an informed decision selecting a hospital.

- **Proposal: Modify Existing HCAHPS Measure**

The Leapfrog Group comments to CMS on the FY 2024 IPPS Proposed Rule –p. 868 – June 10, 2024

We support and applaud the proposed modifications to the HCAHPS measure as they result in improvements, especially regarding the Care Coordination sub-measure. We have two suggestions for further strengthening the proposed modifications.

First, we suggest adding a medication reconciliation question to HCAHPS (and other CAHPS instruments). Medication errors are estimated to be the most common error made in hospitals, and the sixth-highest cause of death in the United States[3]. Yet to date CMS has not measured this major safety problem at all. HCAHPS is an opportunity to begin to address the problem with patient reports.

Second, we recommend that hospitals be required to offer the survey in the language preferred by the patient or family member completing it. In the IPPS FY24 rule, CMS made one step in this direction by making this a requirement only for Spanish, but there are a diverse range of languages spoken by patients, and their voices should not be excluded.

Lastly, without adding any additional questions or content to the survey instrument, CMS can report results by race and ethnicity. The existence of racial and ethnic disparities in health outcomes is well documented, and those disparities have also been documented in aggregate analyses of HCAHPS results[4,5]. A requisite step in making strides in disparities is to measure and be transparent as to the extent of the occurrence, where it is occurring, and for what groups of individuals. Through using data already available in the survey instrument, HCAHPS can aid in making progress in reducing disparities.

- **Proposal: Modify Existing Global Malnutrition Composite Score (GMCS) eCQM**

The Leapfrog Group comments to CMS on the FY 2024 IPPS Proposed Rule –p. 963 – June 10, 2024

The Leapfrog Group supports the proposed modification to the GMCS eCQM. The revised measure will become relevant to more people in the change from a denominator of age 65 and over to age 18 and over. As with other eCQMs, it is commendable that CMS continues to expand the population measured beyond Medicare beneficiaries.

- **Proposal: Increase in the Number of Mandatory eCQMs Reported**

The Leapfrog Group comments to CMS on the FY 2024 IPPS Proposed Rule –p. 980 – June 10, 2024

We applaud CMS' proposal to increase the number and percent of mandatory eCQMs reported by hospitals. Further, we strongly support the specific eCQM measures proposed, as they are all patient safety outcome eCQMs. Mandatory reporting is the only way to ensure the data collected is useful to beneficiaries and the public, and we recommend that all future patient safety outcome eCQMs finalized for the Hospital IQR Program become mandatory reported measures.

HOSPITAL VALUE-BASED PURCHASING (VBP) PROGRAM

- **Proposal: Modification of VBP Program Scoring Based on HCAHPS Revisions**

The Leapfrog Group comments to CMS on the FY 2024 IPPS Proposed Rule –p. 886 – June 10, 2024

Leapfrog supports the proposed revisions to the Hospital VBP Program regarding HCAHPS scoring. We recognize that the changes to HCAHPS proposed in this rule will necessitate a commensurate adjustment to the Hospital VBP Program scoring.

MEDICARE PROMOTING INTEROPERABILITY PROGRAM

- **Proposal: Modify the Antimicrobial Use & Resistance (AUR) Surveillance Measure in the Medicare Promoting Interoperability Program**

The Leapfrog Group comments to CMS on the FY 2024 IPPS Proposed Rule –p. 1020 – June 10, 2024

We support the proposal to create two measures from the current AUR Surveillance measure. The change will reduce the number of facilities that are excluded from reporting the existing measure. As presently specified, the AUR Surveillance measure allows a hospital to be excluded from reporting if it does not qualify to report antimicrobial use (AU) or resistance (AR). Creating separate AU and AR measures will allow reporting of AU in the absence of AR results and vice versa. This is particularly important given the advent of COVID, which has demonstrated increased antimicrobial resistance[9].

- **Proposal: Increase the Minimum Threshold Amount of Points to Meet Requirements to Report on the Objectives and Measures of Meaningful Use**

The Leapfrog Group comments to CMS on the FY 2024 IPPS Proposed Rule –p. 1043 – June 10, 2024

Leapfrog aligns with the intention behind the proposal to raise the required points from 60 to 80, but that threshold still leaves significant room for patient harm. Leapfrog strongly recommends that the required points be raised to 100 instead of 80. A threshold of 80 points would mean that a hospital could ignore both standards for medication safety and still achieve the meaningful use incentives. We know that medication errors are the cause of almost half of preventable errors[3], and we feel that raising the bar to 100 points would have a much greater impact on patient safety. The American public cherishes the U.S. health care system and invests heavily in it, and we expect it to be the best in the world, not a B-minus student.

ADDITIONAL REQUESTS FOR COMMENTS

- **Request for comment: Advancing Patient Safety & Outcomes Across the Hospital Quality Programs**

The Leapfrog Group comments to CMS on the FY 2024 IPPS Proposed Rule –p. 896 – June 10, 2024

The Leapfrog Group appreciates CMS' careful examination of this important topic and call for input. We offer the following comments with the aim of improving patient safety post-discharge and during emergency department (ED) services.

Regarding the emergency department, our members have repeatedly brought to our attention the growing crisis with ED "boarding," which the American College of Emergency Physicians (ACEP) defines as admitted patients that are held in the ED when there are no inpatient beds available[6].

This is an area that needs to be measured and results need to be publicly reported due to serious patient safety implications. In a recent published literature review, several studies evidenced a relationship between ED boarding and inpatient hospital mortality[7].

ED boarding has dire consequences for the patient and is occurring all too frequently. In a study by ACEP of its members, 97% reported ED boarding times of more than 24 hours, and 33% were aware of boarding times extending over one week[6]. This stands in stark contrast to The Joint Commission (TJC) stating that due to patient safety risks, ED boarding time should not exceed four hours[8]. Facilities need to be held accountable for such egregious violations of TJC's standard. Consumers also deserve to be made aware of a facility's performance regarding to ED boarding as their selection of ED may be a matter of life or death.

A second suggestion is to capture patient reported outcomes post-discharge (e.g., 5 to 10 days after discharge). In existing patient experience surveys, the limited post-discharge related questions are not about outcomes they experience but about the process. The clear national direction is to shift the attention from process and structure measures to outcomes. We recommend examining possible means to transform patient experience tools to capture patient outcomes verses process measures.

A final recommendation is regarding one of the types of measures cited in the IPPS request for comment, which is Excessive Days in Acute Care (EDAC). We concur with CMS' statement that the EDAC measures are a more comprehensive picture 30 days post-discharge compared to current readmission measures as they also capture observations stays and ED visits. Given the value of the EDAC measures, we suggest exploring integrating these measures into the Hospital Readmissions Reduction Program (HRRP). If the statutory language does not allow for the inclusion of EDAC measures, then we urge CMS to pursue modifying the language to allow for the broader measurement of such post-discharge outcomes.

- **Request for information: Creating Obstetrical Service Conditions of Participation Standards for Hospitals, CAHS and REHs**

The Leapfrog Group comments to CMS on the FY 2024 IPPS Proposed Rule –p. 1410 – June 10, 2024

Purchasers and consumers involved with The Leapfrog Group strongly support developing COPs for obstetrical care and urge CMS to move as rapidly as possible in this direction. Over our history of more

than two decades, Leapfrog has witnessed time and again the remarkable impact of transparency in galvanizing change. We believe that advancing public reporting of maternity care data will advance critically needed improvement that will save lives and improve the outcomes for mothers and newborns.

We urge CMS to align measures it uses to identify whether a facility meets the minimum COPs standards with Hospital IQR measures. If an area is important enough to create a given COP and specify a minimum performance standard, it is also significant enough to create a related measure to be used to inform consumers of obstetrical quality per the Hospital IQR Program.

Despite the fact that childbirth is the most common reason for hospital admissions, the Hospital IQR maternity measures are very thin and made even more so with CMS' very unfortunate finalized rule to retire the Elective Delivery or Early Induction Without Medical Indication at < 39 Weeks measure. We strongly encourage CMS to use this measure in its future obstetrical care COPs and reinstate the measure in the Hospital IQR Program. As stated in our IPPS FY24 comments opposing removal of the measure from the IQR, it is not a time to remove a measure when rates are increasing, and thousands of births occur outside of the recommended guidelines. Specifically, rates of early elective delivery have increased 43% in the past two years per CMS' figures. At a minimum, there needs to be a Hospital IQR measure and a COP that a hospital must have an evidence-based policy in place to eliminate such early elective deliveries.

Leapfrog supports the development of standards for managing pregnant, birthing, and postpartum patients with or at risk for obstetric hemorrhage and severe hypertension. Outcomes measures are always preferred, but process measures are a good starting point until outcomes measures can be developed.

The dire issue of maternal mortality is strongly related to these measures and cannot be ignored. More women die in the United States from maternal mortality than in any other developed nation, and Black pregnant patients are three times more likely to die than white patients[10].

To advance health equity, we urge CMS to report maternity measures by race, ethnicity, and other factors. Leapfrog will begin publicly reporting stratified NTSV C-section rates starting in July 2024. This is a good start, but we hope all maternity care data will soon be stratified to account better target health inequity.

There are resources in place at many hospitals that can help protect pregnant, birthing, and postpartum patients. This includes doulas, midwives, and lactation services. Last year Leapfrog began collecting and publicly reporting data on hospitals that make these services available for patients. We encourage CMS to report this information as well as affordable access to services where evidence demonstrates their effectiveness improving outcomes and reducing mortality. Leapfrog also strongly encourages CMS to pursue measures addressing maternal mental health.

Leapfrog is aware that smaller hospitals, particularly in rural areas, face unique challenges delivering maternal health care and may find quality reporting to be burdensome. Nonetheless, people in rural communities are just as deserving of high-quality maternity care as people in other regions of the country, and all hospitals should be held to high standards of accountability for that care. Nonetheless, with many rural hospitals closing their labor and delivery units or even closing down the entire hospital due to financial strain, it is important for CMS to plan special levels of support for rural hospitals to achieve the quality results their communities deserve. In addition, because so many rural and community hospitals are now part of larger hospital systems, CMS needs to develop COP policies that

hold systems accountable for high quality, accessible hospital care and public reporting on quality for the rural communities they serve. In other words, CMS should not exempt rural and/or other challenged hospitals from quality standards and public reporting but instead promote policies that provide more support for the most challenged hospitals.

CITATIONS

1. American Institutes for Research. Summary of Patient Safety Indicators Technical Expert Panel (TEP) Evaluation of Measures: Patient Safety Measure Development and Maintenance. May 2023. Accessed 4/30/24 at https://mmshub.cms.gov/sites/default/files/4-3-MIDS-Patient-Safety-PSI-TEP-Summary-Report-508-Dec2023.pdf

2. Makary, M. A. Medical error: The third leading cause of death in the US. BMJ. 2016;353:i2139.

3. Dirik, H. F., Samur, M., Intepeler, S. S., Hewison, A. Nurses' identification and reporting of medication errors. Journal of Clinical Nursing. 2018. Volume 28, issue 5-6, 981:938.

4. Nguygen, K. H., Wilson, I. B., Wallack, A. R., Trivedi, A. N. Racial and ethnic disparities in patient experience of care among nonelderly Medicaid managed care enrollees. Health Affairs. 2022;41(2):256-264.

5. Beckett, M. K., Elliott, M. N., Hambarsoomian, K., Tamayo, L., Lehrman, W. G., Agniel, D., Khau, M., Goldstein, E., Giordano, L. A., Ng., J. H., Martina, S. C. Do hospital characteristics predict racial and ethnic disparities in patient experience? National results from the HCAHPS survey. Medical Care. 2024;62(1):37-43.

6. American College of Emergency Physicians. Emergency department boarding crisis sign on letter. 2022. Accessed 5/1/24 at https://www.acep.org/siteassets/new-pdfs/advocacy/emergency-department-boarding-crisis-sign-on-letter-11.07.22.pdf

7. Boudi, Z., Lauque, D., Alsabri, M., Ostlundh, L., Oneyji, C., Khalemsky, A., Rial, C. L., Liu, S. W., Carargo Jr.,, C. A., Aburawi, E., Moeckel, M., Slagman, A., Christ, M. Association between boarding in the emergency department ad in-hospital mortality: A systematic review. 2020. PLOS ONE 15(4): e0231253.

8. The Joint Commission. Patient flow through the emergency department. R3 report: Requirement, Rationale, Reference. 2012. Issue 4. Accessed 5/1/24 at https://www.jointcommission.org/-/media/tjc/documents/%20standards/r3-reports/r3_report_issue_4.pdf

9. Lai, C.C., Chen, S.Y., Ko, W.C., Hsueh, P.R. Increased antimicrobial resistance during the COVID-19 pandemic. International Journal of Antimicrobial Agents. 2021;57:106324.

10. Joseph, K.S., Lisonkova, S., Boutin, A., Brandt, J, Schisterman, E., Ananth, C. Maternal mortality in the United States: are the high and rising rates due to changes in obstetrical factors, maternal medical conditions, or maternal mortality surveillance? 2024. AJOG. Volume 230: Issue 4. P440.