

Perinatal Quality and Equity—Indicators That Address Disparities

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ABSTRACT

There is tremendous attention in maternal and neonatal disparities, particularly disparities of race and ethnicity and subsequent outcomes that continue despite calls to action. The literature has offered potential opportunities for exploring data related to racial and ethnic disparities, including the utilization of a race and ethnicity reporting dashboard. This article reviews definitions of perinatal quality and disparity and provides insight into the development of a nationally targeted race and ethnicity dashboard. This quarterly dashboard provides hospitals with specific key metric outcomes through the lens of race and ethnicity, provides a national benchmark for comparison, and creates a data platform for team exploration and comprehensive review of findings. An overview of the development of the dashboard is provided, and the selection of key maternal and neonatal metrics is reviewed. In addition, recommendations for data science strategic planning and nursing's role in metric development, analysis, and utilization are offered and key steps in accelerating disparity data into everyday clinical care are discussed.

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This article is dedicated to the NPIC Disparities Advisory Committee members and their respective organizations, without whose advisement and commitment this work would not have been realized. Their voices flow through this article and continue to foster a deeper appreciation of disparity, diversity, and cultural humility.

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Racial, ethnic, and socioeconomic disparities continue to generate widespread concern, particularly among maternal morbidity and mortality researchers. Maternal outcome disparities, particularly that of maternal mortality, warrant immediate attention and focus for ensuring a standardized care approach, rigorous quality assessment, and rapid-cycle improvement. The variation in obstetrical outcomes across hospitals, varied longitudinal performance on perinatal indicators, and the persistent racial and ethnic disparities in perinatal and neonatal outcomes require innovative strategies that tackle these challenges together.¹ Perinatal nursing teams have an outstanding opportunity to create visionary paths forward to address and advance maternal and neonatal outcomes and to positively impact the development of key outcome metrics that can measure nursing's impact on quality and outcome of care. The purpose of this article is to enhance awareness of perinatal outcome disparities in clinical care, to highlight data analytics guiding the critical conversations of perinatal care and outcome equity, and provide a foundation for perinatal nurses to lead this work.

BACKGROUND OF PERINATAL QUALITY AND RACE/ETHNICITY DATA

Definitions of overall healthcare quality

Ensuring a cogent and constructive definition of healthcare quality is essential for describing the necessary elements to define perinatal outcomes. Challenges to this occur when there are varied definitions that attempt



to point to the same construct of healthcare quality. Healthcare quality has a rich history, with the earliest discussions in 1933 by Lee² in the seminal *Fundamentals of Good Medical Care* and then in grand form by Donabedian³ in 1966 with the introduction of quality within structure, process, and outcome measures in *Evaluating the Quality of Medical Care*. In 2001, the Institute of Medicine defined healthcare quality as the degree to which healthcare provision for individuals and populations increased the likelihood of desired health outcomes and is consistent with best clinical practices.⁴ In addition, the Institute of Medicine described 6 dimensions of quality of care: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity.⁵ Perinatal healthcare quality has a more recent history within the walls of hospitals and systems; over time, these networks became more developed and emerged into state and national collaboratives that continued the evolution of defining desired quality and outcomes, many of which were and continue to focus on state- and region-specific priorities. During the past several decades, various organizations, including professional associations, quality assurance and accreditation organizations, and other national entities have committed time and resources to defining attributes of perinatal quality metrics and outcomes. Perinatal quality measure endorsement through the National Quality Forum (NQF), Agency for Healthcare Research and Quality, in conjunction with The Joint Commission (TJC), heralds the most keenly supported perinatal care metrics. During the past several years, there has been a concerted effort to build a more formalized understanding of disparities that negatively impact perinatal outcomes.

Definition of disparity

In 2012, Centers for Disease Control and Prevention (CDC) researchers published a staggering statistic: Black women were 3 to 4 times more likely to die from pregnancy-related causes than White women.⁶ However, that statistic did not seem to gain the attention of the media or others outside of healthcare until the National Public Radio/ProPublica *Lost Mothers* series was launched in 2017⁷ . . . suddenly these “statistics” had a name, a family, newborns without a mother, and a legacy. To detail the importance of perinatal disparities in outcomes, it is critical to define disparity and its significance to perinatal care. The 2003 Institute of Medicine *Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare* defines disparity in healthcare as racial or ethnic differences in the quality and provision of healthcare that are not necessarily due to access or clinical needs, preferences, and appropriateness of intervention.⁸ In 2020, the Kaiser Family Foundation

defined disparity as differences in health and healthcare between groups that are closely linked with social, economic, and/or environmental disadvantage.⁹ More recently, *birth equity* was termed by Dr Joia Crear-Perry as the assurance of the conditions of best possible births for all birthing people with a willingness to address racial and social inequities in a sustainable effort.¹⁰ Ultimately, the goal of a perinatal program is to elevate and improve care for all women and newborns, and intentionally target those vulnerable communities that through collaboration promote equity of care and outcomes.

Definitions of perinatal quality

Perinatal quality measurement continues to generate discussion within professional organizations as well as within multidisciplinary collaborations that strive to improve outcomes for mothers and newborns. In 1999, Knox et al¹¹ introduced the concept of “high reliability” into the discussion of perinatal care and launched discussions of quality within an organizational and team construct. There had been an acceleration of these efforts with TJC sentinel event alerts in the early 2000s targeting maternal mortality, with the highest numbers of maternal mortality at the time reported in 2004, 2005, and 2006.¹² In 2016, the Society of Maternal-Fetal Medicine (SMFM) released a special report highlighting approaches to measuring quality of care in obstetrics. One of the findings of this workgroup included the need for obstetric quality and performance measures to be appropriate, scientifically sound, feasible, action-oriented, measurable, and ultimately result in improved maternal outcomes.¹³

Nursing experts, researchers, and scholars have driven conversations recently related to perinatal nursing quality and outcomes, particularly surrounding the nurse’s role and cesarean delivery,^{14–16} electronic perinatal medical record documentation,¹⁷ postpartum hemorrhage (PPH) and quantified blood loss,^{18–20} and obstetric triage.^{21–25} Development of nursing quality measures and assessment of perinatal outcomes through the lens of racial, ethnic, and socioeconomic disparities are identified as gaps that require additional research exploration. The use of high-quality and reliable data to inform this development cannot be overstated.

Reporting of race and ethnicity in electronic health records

Researchers rely more frequently on administrative data sets and claims data for healthcare outcomes and analytics.^{26,27} Ensuring accuracy of data in the medical record, including race and ethnicity data, is crucial. In 1997, the Office of Management and Budget (OMB)

developed a standardized format to collect race and ethnicity data required by federal agencies and for those who receive federal funds (Medicare/Medicaid).²⁸ Current race and ethnicity reporting structures in electronic health records (EHRs) are primarily driven by United States (US) Census guidelines and utilized to ensure accurate comparison groups for research and programmatic evaluation. Comprehensive steps toward achieving equitable perinatal care and outcomes include the systematic and accurate collection of race and ethnicity data in the medical record.²⁹ However, numerous healthcare institutions describe opportunities and challenges with race and ethnicity reporting, and this work requires a committed and multidisciplinary team to achieve a successful result. There are multiple efforts underway across the United States to ensure the highest quality and accuracy for race and ethnicity reporting, including those of self-reporting of race/ethnicity,³⁰ better understanding and affecting the fear of reporting,^{31–34} training for frontline teams in empathetic acquisition of information,³⁵ and interoperability of electronic medical record systems. Currently, there are efforts underway within the OMB and US Census departments to better capture more refined race and ethnicity data. The ability for EHRs to become more agile in demographic reporting will be essential, as will the need for healthcare researchers to better refine and report on populations within administrative and claims data.

Perinatal demographic and race/ethnicity data in quality outcome measurement

Perinatal quality dashboards and data transparency

In 2019, perinatal researchers recommended 8 steps¹ for narrowing gaps in maternal outcome disparities, including the utilization of a race and disparities dashboard. The efforts of utilizing a race and disparities dashboard not only illustrate hospital or system overall results but may also stratify these measures by race and ethnicity to understand and quantify the disparities that exist locally within an organization or system. Such dashboards are a critical snapshot of system performance, and the data contained therein can then be measured over time to monitor local quality improvement efforts.³⁶ Dedicated and coordinated inpatient team efforts to reduce disparities, including documentation of race and ethnicity at the time of admission, must be a priority for those serving increasingly diverse communities. With less than 14% of healthcare organizations using patient data to assess variation in care and outcomes, it is critical that multidisciplinary teams coordinate efforts for accurate and timely disparities evaluation.^{37,38}

Development of a race and ethnicity reporting dashboard

The National Perinatal Information Center (NPIC) is a membership organization consisting of perinatal centers from across all geographic census divisions of the United States (as defined by the American Hospital Association) that submit clinical and financial information for participation in the Perinatal Center Database (PCDB). Within this framework, NPIC uses administrative data and supplemental data files that include patient demographics. Data are validated by hospitals before being compiled into the PCDB, which consists of both maternal and neonatal hospital discharges, the latter occurring from birth to 28 days after birth. A validation report is communicated back to respective hospitals to address inconsistencies. Hospitals examine their metrics, address potential issues or discrepancies with provider documentation, coding, or quality, and correct data submissions before being included in the database for quarterly reporting. Multiple levels of comparison are provided for every metric reported, including individual hospital, subgroup, 5-year trend database and overall NPIC database, including comparison with other national benchmarks. During the development of hospital-level data, national algorithms are incorporated including All Patient Refined Diagnosis Related Groups (APR-DRGs) version 37.1, APR-DRG Severity of Illness or Risk of Mortality Subclass, Major Diagnostic Category (MDC), and *International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM)* codes. Severe maternal morbidity (SMM) calculations are completed with nationally recognized algorithms. NPIC case-mix calculations include unadjusted and adjusted length of stay (LOS) and charge data. Case-mix adjusting is a method for removing the impact of variations in case mix across hospitals and comparing average lengths of stay (ALOSs) and average charges. NPIC uses APR-DRGs to group cases and case-mix-adjusted utilization data.

In January 2020, NPIC established a Disparities Advisory Committee from volunteer member hospitals to begin the work of identifying opportunities for the creation of a dashboard that could report on key outcome metrics through the lens of race and ethnicity. This multidisciplinary committee was selected to have broad representation of race, ethnicity, and sociodemographic and geographic organizational diversity. The NPIC Disparity Advisory Committee reviewed the final product and will continue to work with the internal team to provide feedback and advisement on continued metric inclusion and development of the dashboard. There are several metrics that will be described that provide additional support and context to current racial and ethnic perinatal disparities literature. Of note, in Table 2

Table 1. NPIC Race and Ethnicity Dashboard metrics^a

Maternal/ neonatal	Quality metric
Maternal	Cesarean delivery Postpartum hemorrhage Maternal mortality Maternal intensive care Severe maternal morbidity (overall) Severe maternal morbidity with/without transfusion Severe maternal morbidity hemorrhage with/without transfusion Severe maternal morbidity preeclampsia with/without transfusion
Neonatal	PC-06, 0-2: Unexpected complications in term newborns, overall, severe, moderate PSI-17: Birth trauma— <i>injury to neonate</i> NQI 03: Neonatal bloodstream infection Special care discharges (% of neonates) Neonatal mortality

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described, observe the frequency of “other” and “unknown” as selections for race demographics.

During initial work and review, the committee reviewed currently available metrics through NPIC reporting. Based on a review of the literature and current clinical experience of committee members, the following metrics were defined to be part of the inaugural version of the dashboard as noted in Table 1.

Once the initial metrics were agreed upon by the committee, NPIC team members with expertise in quality measures and data science began internal development of the dashboard. This inaugural dashboard was created utilizing NPIC data between July 1, 2019, and June 30, 2020, including 335 412 MDC-14 discharges (MDC 14 Pregnancy, Childbirth and Puerperium: Includes all antepartum, delivery, and postpartum discharges) and 322 592 neonatal discharges.

Overall observations from maternal and newborn discharge demographics

The maternal and newborn discharge demographics from the period July 01, 2019, to June 30, 2020, are illustrated in Table 2, with highlights detailed in the following text. These demographics provide foundational context to the overall database findings.

From the data provided, Black women during this period within the NPIC database had the highest case-mix index (CMI, 0.3236) and ALOS (3.15 days) than any other racial group and second highest Medicaid utilization (51.5%). American Indian/Alaska Native had the

highest Medicaid utilization (55.2%). It is important to note the “other” and “unknown” categories here, and how correct documentation of race and ethnicity may impact these observations. Hispanic and non-Hispanic origins were virtually identical for ALOS and CMI, but Medicaid utilization was higher in Hispanics than in non-Hispanics. “Other (7%)” and “unknown” (21%) also have a higher utilization of Medicaid, and further exploration will be warranted to better assess “other” as a selection and how corrections may impact resultant data.

Black and American Indian/Alaskan Native newborns discharged from Special Care/NICU (neonatal intensive care unit) environments had a higher CMI, longer ALOS, and higher Medicaid utilization than any other group. Hispanic newborns had a lower CMI, shorter LOS, and higher Medicaid utilization than non-Hispanic infants who had a longer LOS and higher CMI.

Maternal and neonatal outcomes and disparity

As described, the NPIC Disparities Advisory Committee highlighted key areas they found to be critical in evaluating outcome disparities within maternal and neonatal care. Three areas will be highlighted for this discussion: overall cesarean delivery rate, SMM hemorrhage, and special care discharges. Figure 1 illustrates the stratification of race and ethnicity within these 3 outcomes.

Cesarean delivery (overall)

The NPIC database shows a higher prevalence of cesarean delivery among Black women than any other demographic within race, but no differences in ethnicity as highlighted in some studies. The higher rate of cesarean delivery in Black women may also explain the higher CMI and ALOS found in the overall NPIC maternal discharge demographics. These data continue to support the literature that continues to highlight the disparities in cesarean delivery, particularly higher rates among Black women.^{39–41} As partners and advocates of women during the labor and delivery process, it is vital to ensure all women have a voice and an opportunity for shared decision-making related to birth experience and birth outcome. Standardized tools such as labor induction protocols and commitment to overall reductions of NTSV (nulliparous, term, singleton, vertex) cesarean deliveries can promote equity in outcome. Continuing to illustrate data that highlight racial disparities in care is essential and requisite in amplifying voices and leading changes in healthcare environments. In utilizing the data related to cesarean delivery, it will be important to also explore primary cesarean delivery as well as rate of NTSV within race and ethnicity, as well as payer source and birth outcome.

Table 2. Race/ethnicity of maternal and newborn discharges^a

	Race/ethnicity of maternal discharges Jul 1, 2019-Jun 30, 2020			
	Discharges, n (%)	ALOS	APR-DRG CMI	% Medicaid
Total NPIC database	335 412	2.93	0.3115	34.7
Race				
Asian	22 016 (7)	2.90	0.3077	17.0
Black	73 529 (22)	3.15	0.3236	51.5
AI/AN	1 827 (1)	3.10	0.3158	55.2
PI	1 300 (1)	2.74	0.3247	42.6
White	175 889 (53)	2.87	0.3069	25.7
Other	22 653 (7)	2.84	0.3144	48.3
Unknown	38 198 (10)	2.89	0.3089	45.0
Ethnicity				
Hispanic	75 662 (23)	2.93	0.3150	49.7
Non-Hispanic	253 503 (75)	2.93	0.3115	28.9
Other	6 247 (2)	2.94	0.3230	53.5
	Race/ethnicity of neonatal discharges Jul 1, 2019-Jun 30, 2020			
	Discharges, n (%)	ALOS	APR-DRG CMI	% Medicaid
Total NPIC database	322 592	4.36	0.453	37.6
Race				
Asian	18 778 (6)	3.76	0.3375	19.8
Black	60 234 (19)	5.56	0.6514	59.5
AI/AN	1 633 (1)	5.67	0.6904	58.4
PI	934 (0.8)	3.61	0.3653	45.0
White	152 738 (47)	4.18	0.4122	28.8
Other	21 185 (7)	3.92	0.3996	52.0
Unknown	67 090 (21)	3.99	0.4159	37.7
Ethnicity				
Hispanic	66 310 (21)	3.96	0.3742	54.6
Non-Hispanic	239 910 (74)	4.50	0.4753	32.6
Other	16,372 (5)	4.02	0.4579	42.8

Abbreviations: AI/AN, American Indian/Alaska Native; ALOS, average length of stay; APR-DRG CMI, All Patient Refined Diagnosis Related Group Case-Mix Index; PI, Pacific Islander.

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SMM, hemorrhage (percentage of delivered patients with hemorrhage with 1 or more of the 21 CDC-identified maternal morbidity indicators)

Even in 2021, PPH continues to be a factor in both morbidity and mortality of women in the United States. Racial and ethnic disparities found in the NPIC Race and Ethnicity Dashboard continue to highlight the disparities that exist in practice and the literature. Researchers, through the use of retrospective analysis, have found that PPH is more prevalent in women who are Black, Native American, and Pacific Islander.^{42,43} Several studies have shown that site of delivery and location within a city or state also can have a significant impact on morbidity disparity, including PPH.⁴⁴⁻⁴⁶ In 2005, Berg et al⁴⁷ studied a population in North Carolina and found that 46% of deaths of Black women were potentially preventable compared with 33% of deaths of White

women. Ensuring the routine use of a disparities dashboard can provide the necessary data to contribute to the development of sound and consistent care and spearhead crucial conversations related to inequity in outcome that must take place to elevate equity in care. Again, higher CMI and LOS in Black women found within the NPIC database may be an indicator of greater SMM in this population of women.

Special Care discharges (neonates 0-28 days old at admission with nursery charges and/or days in intermediate care [NINT] or intensive care [NICU])

The literature continues to document the racial disparities related to preterm birth, particularly among Black women and neonates. Non-Hispanic Black women are more likely to experience adverse pregnancy outcomes, including preterm birth, small for gestational

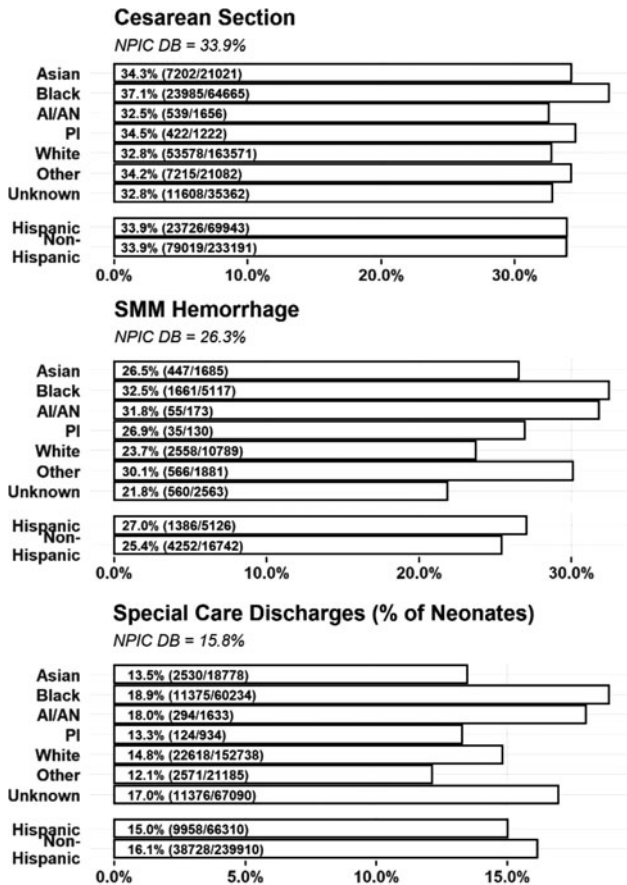


Figure 1. NPIC Race and Ethnicity Dashboard reporting, July 1, 2019, to June 30, 2020. Copyright National Perinatal Information Center, 2021. Used with permission.

age, and hypertensive disorders of pregnancy.^{45,48-51} In addition, non-Hispanic Black women are more likely than any other racial or ethnic group to have a spontaneous, preterm delivery or be medically induced, particularly with disproportionate diagnoses of diabetes and hypertension.⁵² An area of focus for future work will be enhanced documentation of comorbidities and stratification by race/ethnicity to better inform linked mother-baby outcomes.

Social determinants of health

During the development of the dashboard, discussions arose related to social determinants of health, and if there was the option of reporting these in addition to outcome metrics to better inform the dashboard. In *ICD-10*, there is a category known as Z codes, in this case specifically Z codes 55 to 65 *Persons With Potential Health Hazards Related to Socioeconomic and Psychosocial Circumstances*. Recognition of community and social influencers on care is a starting point, but

only if those influencers are identified during care, and ideally during well-woman, pregnancy, and inter-conception care. Of late, there has been tremendous emphasis on social determinants of health, particularly from a research standpoint. However, to best research and identify social determinants and actual/potential disparities, accuracy of data is crucial. There are varied tools currently in use that hospitals and organizations utilize to screen for social determinants, and nurses have a critical role in providing feedback in ease of use and experiences of patient engagement with the selected tool. In addition to an intentional focus on accuracy of race and ethnicity data, NPIC has begun evaluating the utilization of social determinants of health, specifically Z codes 55 to 65 *Persons With Potential Health Hazards Related to Socioeconomic and Psychosocial Circumstances*. It is important to note that the American Hospital Association in 2019 clarified that all coding professionals could use documentation from providers and clinicians (nurses, case managers, discharge planners, etc) to facilitate documentation of social determinants.⁵³ This is an opportunity for perinatal nurses that cannot be overlooked and must be accepted to ensure the best possible discharge into the community for mother and newborn. Adequate screening during pregnancy, admission to Labor and Delivery, during the immediate postpartum period, and newborn care can ensure social needs are identified and addressed prior to discharge.

Upon review of social determinants documented during the July 1, 2019, to June 30, 2020, period, it was quickly recognized there were not yet enough reported data to report globally. However, it is important to note 2 of the areas most identified in documentation during this period: (1) homelessness (*n* = 577) and (2) personal history of physical or sexual abuse in childhood (*n* = 422). These 2 social determinants are important for several reasons. Homelessness during pregnancy has been found to be associated with low birth weight and preterm birth^{54,55} and is more likely to be the result of intimate partner violence.⁵⁶ Identification of reasons for homelessness is essential, as homelessness is a multifaceted situation that tends to be blamed on the individual. Addressing external conditions that resulted in this situation in a neutral and compassionate way is key to gaining trust and minimizing additional risks to mother and newborn. The identification of personal history of physical or sexual abuse in childhood was unexpected but embraced. Women who have gained trust of their caregivers are more likely to share intimate details of their lives and therefore provide additional insight into how to provide patient-centric, compassionate care through the lens of trauma. A history of childhood

abuse together with posttraumatic stress disorder (PTSD) has been shown to result in lower breastfeeding rates⁵⁷ than those without PTSD, as well as other facets surrounding comfort of the birth process and bonding with the newborn. The effects of childhood abuse can be multifaceted and include a woman's reluctance to address her healthcare needs, distrustful relationships with caregivers, as well as further trauma from the birth experience itself.⁵⁸ Recognizing the importance of this as well as other social determinants on pregnancy and transition to well-woman care is essential.

A strategy to screen for social determinants of health requires a multidisciplinary approach that includes fundamental knowledge, training, and a strategy for responding to the determinants discerned. Without a strategy to adequately respond to those determinants prior to use, such as housing, food security, or trauma, the program then creates an untenable challenge to support new mothers and their newborns in the community and, in fact, only compounds the structural determinants that present themselves against those same individuals. The ability to stratify social determinants

Table 3. Perinatal quality and equity framework^a

Perinatal quality and equity framework	
Voices of the community	Provide a public platform for those most impacted by perinatal inequity and disparity to provide guidance and insight for data quality, birth experience, and nurse-sensitive metrics. Listen and then act intentionally.
Recognition	Recognize the power behind data and information, and the importance of data accuracy and reliability. Routine multidisciplinary team review of patient case lists meeting certain clinical, outcome, or disparity criteria to facilitate "deep-dive" discussions should be part of normal clinical operations.
Patient safety operations	<i>Perinatal Safety Nurse:</i> These roles focus on promotion of patient safety within the inpatient continuum of perinatal care, and the importance of minimizing risk and preventable harm to women and their newborns. This role includes collecting, analyzing, and translating clinical and outcome data to care teams. Making the case from a financial, clinical, and outcome-based approach for this role provides a solid foundation to patient safety.
Race/ethnicity data accuracy	Providing feedback to inpatient data teams on frequency of "other" and "unknown" can assist in developing a more robust and representative admissions process and support patient autonomy and inclusion. Being able to illustrate true trends and results is dependent upon the trust and efforts of inpatient teams to assist patients in their comfort of sharing data. This includes understanding the historical context of the fear of sharing data by those communities who are most impacted.
Nurse-sensitive equity indicators	Identification of quality and nurse-sensitive indicators that can address and identify disparities and inequity in care is urgent for perinatal and neonatal providers and clinicians. These indicators must not only be achievable but also sustainable over time, measurable, and benchmarkable. Utilization of those closest to care including patients and bedside teams for development of these metrics cannot be overstated.
Patient-reported outcome metrics (PROM)	The use of PROM related to experiences in care, including respectful care, racism, marginalization, mistreatment, and other key observations of care, must be evaluated, supported, and reported. Several states now use national survey methodologies related to delivery experience that can highlight these areas of interest. These data need to be shared back with facilities and additional opportunities for engagement in and learning from the data.
Social determinants of health	Lead education efforts related to social and structural determinants and function as thought leaders for organizations. Blaming and shaming women for circumstances beyond their control creates additional distrust and perpetuates trauma and harm within the health system they have engaged. Provide a voice for connections between data and community resource availability. Leading conversations that support women and how to best assist them navigating their options and community resources is requisite and part of the nurse's contract to elevate community health.

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by race, ethnicity, and SMM outcomes is possible with accurate and timely data collection and could provide additional depth to an essential conversation.

DISCUSSION

The inaugural NPIC Race and Ethnicity Dashboard revealed similar findings to those in the literature, including disparities related to demographics and clinical outcomes, such as overall cesarean delivery rate, SMM (hemorrhage), and special care discharges. In addition, exploration of “other” and “unknown” within race and ethnicity reporting will require a consistent and sustained approach to support hospitals in improving the accuracy of race and ethnicity reporting. This work continues to evolve, and efforts to improve race and ethnicity reporting are growing, including perinatal quality collaboratives that are engaging with state agencies to improve reporting in both administrative data sets and birth certificate registries. The accuracy and timeliness of administrative data continue to be a concern, particularly for those utilizing race and ethnicity data for policy creation, healthcare utilization, and outcomes research. In addition, future development of this dashboard will include selected social determinants of health (SDOH) that can be stratified by race and ethnicity once more robust SDOH reporting is achieved.

Perinatal and neonatal nurses within multidisciplinary care teams have an outstanding opportunity to create and lead innovative and visionary quality improvement initiatives that can elevate obstetric and neonatal equity and outcomes. Utilization of this dashboard in practice includes tracking improvements in outcome equity; measuring improvements in diversity, equity, and inclusion initiatives; addressing accuracy of race and ethnicity reporting by reductions in “other” and “unknown” responses to admission interviews; utilization by healthcare leadership and patients/families to address outcomes; and development of nursing-specific metrics related to outcome disparity. Facilitating knowledge and understanding of the importance of demographic and social determinants data to research outcomes is a priority that must be quickly accelerated and achieved. Collaborative efforts between clinicians, informaticists, patient and family advocates, utilization specialists, and quality and regulatory team members are but a few of the experts required for this work. Table 3 notes several key framework recommendations resulting from the data and contributions by committee members to best position perinatal nurses to lead data efforts within a disparities and equity lens. These consist of specialized areas critical to patient outcomes and experience, including Voice of the Patient, Patient Safety Operations, and SDOH. Combining the rigor of

a race and ethnicity dashboard, a care team committed to cultural humility, and centering the voice and experience of the patient are vital aspects of a resilient and sustainable perinatal service line.

Limitations

While recognizing that administrative data sets can provide broad, geographically diverse, and multicenter cohorts that may be impossible to achieve in other formats,²⁷ administrative data can be impacted by incorrect coding, as well as lack of specific clinical variables that could support and/or refute coding accuracy. In addition, a certain level of bias may be introduced as these hospitals are current members of NPIC, were not randomly selected out of the national hospital population, and as such may inherently have additional measures of quality improvement in which they engage. Future study and analysis by researchers should include both administrative data and linked birth certificate data to ensure the most accurate reporting of race and ethnicity within perinatal care.

CONCLUSION

Nurses are uniquely positioned to function as trusted leaders, allies, advocates, and supporters of data analytics initiatives within healthcare organizations. Data, albeit a substantial component of any diversity and inclusion initiative, are but one part of a greater whole. Dashboards, such as the NPIC Race and Ethnicity Dashboard, provide a valuable mechanism as part of a larger respectful care model that can be incorporated into quality and equity improvement.

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