Identifying Racial Disparities Based on PA-PSRS Maternal Complication Reports: Limited Demographic Data Results in Inconclusive Findings

By **Rebecca Jones**, MBA, RN[1]

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[1]Patient Safety Authority

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Data from the National Vital Statistics System reflect a maternal mortality rate for non-Hispanic Black or African American mothers that is 2.6 times higher than for non-Hispanic White mothers.[1] Although the definition upon which the maternal mortality statistics are based differs in many ways from the definitions of reportable patient safety events in Pennsylvania, the Patient Safety Authority (PSA) sought to determine whether reports of maternal complications in the Pennsylvania Patient Safety Reporting System (PA-PSRS)[a] suggest a similar disparity.

We queried PA-PSRS for reports submitted between 1/1/2023 and 6/7/2024 under the event type/subtype *Complication of Procedure/Treatment/Test – Maternal Complication* ("maternal complications"). We also used the most current year of live birth statistical data available from the Pennsylvania Department of Health (DOH)[3] for comparison[b]. After excluding data with an unknown race from both datasets, we calculated the distribution of live births and maternal complications by race. Compared to the proportion of live births by Black[c] mothers, we found that the distribution of maternal complications was higher than expected for Black/African American mothers across all reports (incidents and serious events) and lower than expected when looking at serious event reports only.

[a]PA-PSRS is a secure, web-based system through which Pennsylvania hospitals, ambulatory surgical facilities, abortion facilities, and birthing centers submit reports of patient safety–related incidents and serious events in accordance with mandatory reporting laws outlined in the Medical Care Availability and Reduction of Error (MCARE) Act (Act 13 of 2002).[2] All reports submitted through PA-PSRS are confidential and no information about individual facilities or providers is made public.

[b]These data were provided by the Pennsylvania DOH. The DOH specifically disclaims responsibility for any analyses, interpretations, or conclusions. Although the most current year of available live birth data, from 2022, does not align with the time frame of PA-PSRS reports in this analysis, the live birth distribution by race has been relatively consistent over the past five years.

[c]The Pennsylvania DOH lists the race category as *Black*; PA-PSRS lists the race category as *Black/African American*.

We also calculated rates[d] based on maternal complications per 1,000 live births for Black/African American mothers and White mothers. Across all reports (incidents and serious events), the rate was 1.36 times higher for Black/African American mothers than for White mothers; however, for serious event reports only, the rate was 1.29 times higher for White mothers than for Black/African American mothers.

Although we did not find the level of disparity in maternal complications for Black/African American mothers that might be expected based on maternal mortality statistics, we cannot be fully confident in these results for several reasons. One noteworthy limitation relates to the PA-PSRS reports that were excluded due to an unknown race (i.e., responses of *Not asked* or *Patient declined to answer*); excluded data accounted for 17.7% of all reports (incidents and serious events) and 10.7% of serious event reports. Many of the excluded reports identified patient ZIP codes in areas with higher proportions of live births by Black mothers; therefore, the distribution and rates for Black/African American mothers may have been higher if race had been specified in those reports.

While we have seen major progress in the reporting of race data to PA-PSRS since 2022, there is still room for improvement. PSA encourages all acute care facilities in Pennsylvania to ensure that accurate and complete demographic data are being captured in your internal event reporting systems and provided in your reports to PA-PSRS. Continued improvements in reporting will lead to higher confidence in our findings.

[d] Rates were calculated solely for a point of comparison; they do not reflect a true rate of maternal complication events in Pennsylvania.

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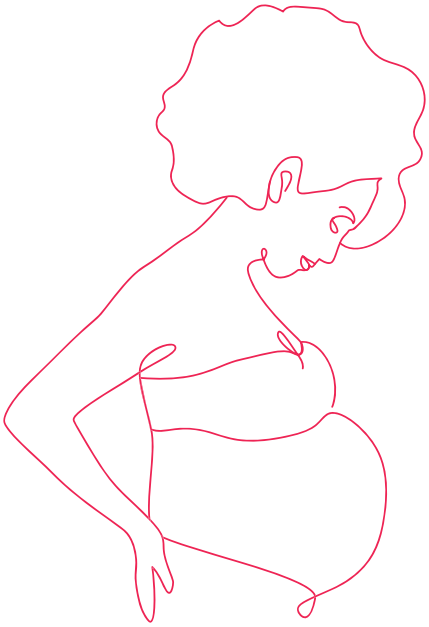

About the Author

Rebecca Jones (rebejones@pa.gov) is director of Data Science & Research at the Patient Safety Authority.