

# Monitoring Hospital Performance Using Potentially Preventable Severe Maternal Morbidity



Healthcare organizations aim to improve maternal health outcomes and decrease severe maternal morbidity (SMM). The Centers for Disease Control and Prevention's (CDC) measure of SMM quantifies the prevalence of SMM but is not restricted to potentially preventable SMM. As a result, the CDC SMM is not suitable for use as a quality indicator to compare hospitals or regions.




A study featured in the March 2023 issue of *The Joint Commission Journal on Quality and Patient Safety (JQPS)* proposes the use of performance SMM (pSMM), a modification of CDC SMM, as a hospital performance measure. The pSMM considers only those conditions that are hospital-acquired with a method for case mix adjustment, thereby making it appropriate for comparison across hospitals.

## THE STUDY


Defining and reporting pSMM is a step toward **shifting the emphasis from tabulating the prevalence of SMM toward focusing on SMM that is potentially preventable** from a hospital practice perspective.

- The study defined pSMM using 3 guidelines:**
- ✓ Exclusion of preexisting conditions from outcome
  - ✓ Exclusion of inconsistently documented outcomes
  - ✓ Risk adjustment for conditions that preceded hospitalization


To generate model-based expected pSMM values, the study classified California childbirth hospitals into four types:




**Community**



**Teaching**



**Integrated Delivery System (IDS)**




**IDS Teaching**

Observed-to-expected (O/E) ratios were calculated for hospitals and used to categorize them as overperforming, average performing, or underperforming using 95% confidence intervals. Performance categories were compared for pSMM vs. CDC SMM (excluding blood transfusion).

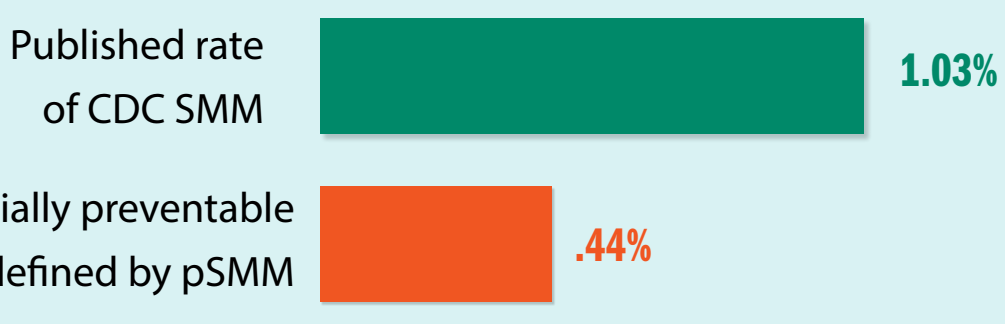


## THE RESULTS



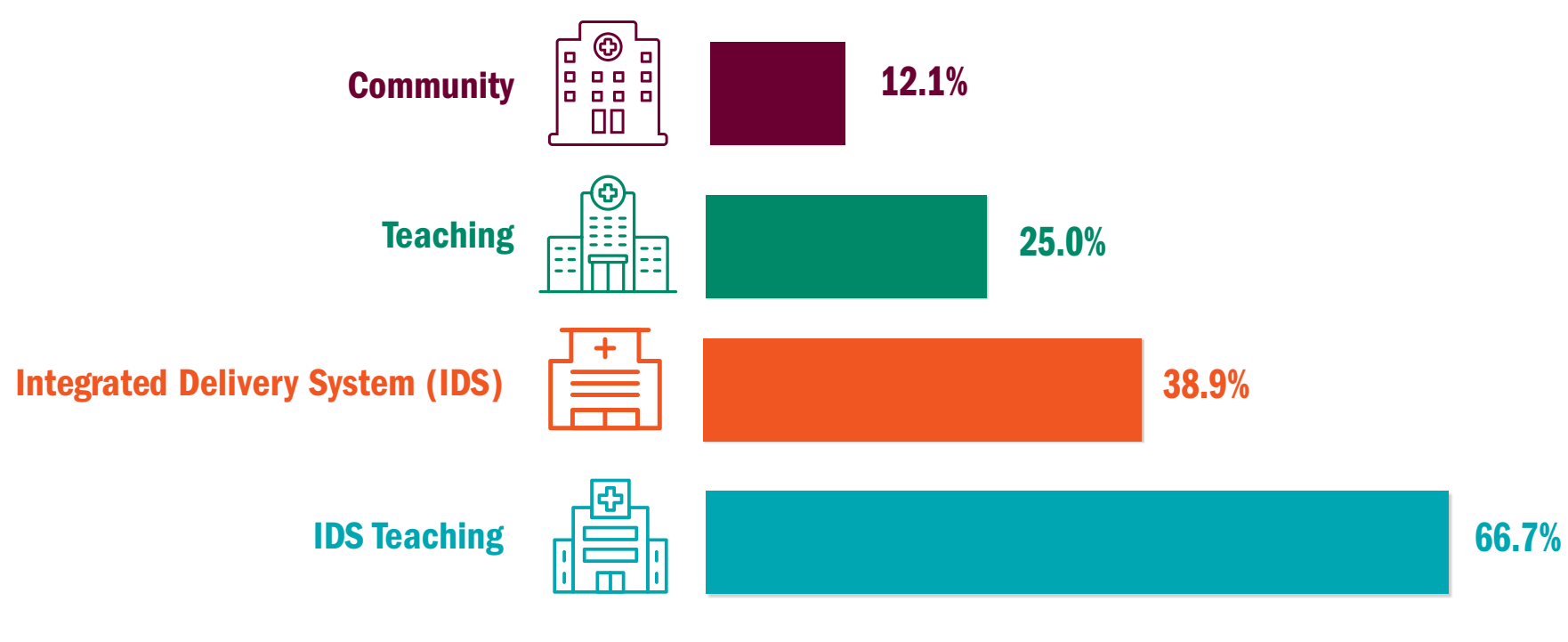
**The rate of pSMM was less than half the previously published rate of CDC SMM.**

This means that less than half of the observed cases of SMM by CDC standards have the potential to be prevented through hospital practice, and therefore are attributable to hospital performance.



Higher rates of pSMM were observed in Teaching hospitals and in IDS hospitals, compared to Community hospitals. The pSMM was also used to identify differences in performance across hospitals, identifying 24 overperformers and 20 underperformers. The pSMM rate rose by discharge year over the three-year study (2016-18).

**The pSMM and CDC SMM classified hospitals' performance differently.** The proportions of hospitals that changed performance categories when comparing pSMM to CDC SMM categorization were:



The study found that pSMM may be suitable for hospital comparisons because it identifies potentially preventable, hospital-acquired SMM that should be responsive to quality improvement (QI) activities. The use of performance categories to compare pSMM vs. CDC SMM is offered as a foundation for guiding future QI activities to lower SMM.

To learn more about this study, visit: [https://www.jointcommissionjournal.com/article/S1553-7250\(22\)00272-0/fulltext](https://www.jointcommissionjournal.com/article/S1553-7250(22)00272-0/fulltext)