Zhu et al reported outcomes of 8514 infants born extremely preterm who were admitted to 68 neonatal intensive care units (ICUs) in 7 regions of China between 2010 and 2019. They used a dedicated database with standardized categorization of interventions and definitions of morbidities. For infants born at 24 to 27 weeks' gestational age, survival increased from 56.4% in 2010 to 68.0% in 2019; however, survival without major morbidity decreased from 21.5% in 2010 to 5.6% in 2019. The authors are to be congratulated for the remarkable achievement of bringing 68 units under a single umbrella with the purpose of collaborative learning.

Extremely preterm birth at less than 28 weeks' gestation accounts for approximately 0.5% of all births; however, it is the leading cause of neonatal mortality worldwide (31%). With advances in perinatal-neonatal care, mortality among infants admitted to the neonatal ICU has decreased in most settings, with rates less than 20% in most high-income countries. Improved survival of infants born extremely preterm could translate into higher risks of short-term complications (ie, morbidities) because most survival improvement occurs among neonates with lower gestational age. Short-term neonatal morbidities need to be reported, as they could be precursors to lifelong health problems and neurodevelopment impairment. Most high-income countries systematically monitor demographic characteristics, interventions, and outcomes of infants born extremely preterm via local, regional, or national registries or collaborative networks. These networks are important for benchmarking, trend evaluation, and quality improvement, and can be used as platforms for comparative effectiveness research. As low- and middle-income countries increase their investments in improving perinatal-neonatal care, it is critical to establish a similar framework. These endeavors are necessary to guide and harmonize clinical approaches, manage administrative needs, develop policies and procedures, counsel families, and identify gaps.

There are interesting features about the study by Zhu et al that need to be highlighted. The number of infants born at less than 28 weeks' gestation who received active delivery room care and were subsequently admitted to participating neonatal ICUs increased 7-fold during the study period, suggesting a gradual and impressive change in the approach to this infant population in the participating hospitals in China. The authors also report an increase in the rate of prenatal steroid use (≥1 dose prior to delivery) from 24.2% to 58.0%, which is encouraging because of its association with lower mortality and morbidity among infants born preterm. However, there is room for improvement, as rates in high-income countries range between 70% and 90%. The rate of cesarean delivery was approximately 20% throughout the study period, which may be reflective of a noninterventionist approach; in high-income countries, the rate of cesarian delivery at these gestational ages is approximately 50%, provided there is plan for resuscitation of the infant. However, whether outcomes differ based on the mode of birth is a contentious issue. Other perinatal interventions associated with lower odds of neonatal mortality and morbidity include prenatal magnesium sulfate and deferred cord clamping. Data on these interventions were not reported and would be good quality improvement initiatives for this consortium to consider.

The authors speculated that the decrease in survival without major morbidity may be in part attributable to more immature and higher-risk infants receiving active care and surviving. However, we feel authors have been too critical of this outcome, given the following factors: (1) after an initial decrease, survival without major morbidity remained unchanged in the last 5 years of the study.
period (despite continuous improvement in survival) and (2) the definition of bronchopulmonary dysplasia, the most common morbidity, used by the authors identifies significantly more neonates with this diagnosis than other traditional definitions of bronchopulmonary dysplasia.\(^5\) Notwithstanding these caveats, there is a real possibility for improvement for this consortium. Two targets, which the authors correctly identified, are bronchopulmonary dysplasia (55.7% in 2010 to 79.9% in 2019) and sepsis (24.7% in 2010 to 46.0% in 2019) in coming years. The commonly used quality improvement initiatives in neonatal ICUs for these morbidities include improving hand hygiene compliance, creating guidelines for central line management, and developing strategies to improve respiratory support at birth and in the postnatal period.\(^6\) Countries and regions where units are participating in neonatal quality improvement programs focusing on implementing interdisciplinary bundles of best practices aimed to reduce specific morbidities have ongoing reductions in neonatal morbidities compared with those that are not.\(^3\) The challenge for Zhu et al\(^1\) will be to develop next steps from these data.

Another important result was that the mortality rate varied from 23.1% to 60.3% among the 7 health regions. This is not uncommon in a large country like China; however, these data can help to identify and improve factors that contribute to these variations, including regionalization of care and infrastructure to enhance regional resources and tackle economic disparities between regions.\(^7\)

As survival of infants born extremely preterm is increasing worldwide, monitoring the interventions and morbidities of this population in the neonatal ICU using harmonized databases is crucial. Reports of outcomes of infants born extremely preterm, such as that by Zhu et al,\(^1\) remind us that if you are not counted, then you are not accounted. Advancement in health outcomes will only occur if data are systematically collected on a routine basis, every newborn is counted (including those who die in the birthing unit), and data are converted to information that is then used by the community of care in a collaborative way to generate new, actionable knowledge. Zhu et al\(^1\) have embarked on the first step of the journey, which can only do good for the neonatal community in China.

