Core Quality and Outcome Measures for Pediatric Health

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Overview
We call for a national effort to develop a parsimonious set of quality and outcome measures for children. The target users are health care care organizations that are accountable for large pediatric populations. These organizations need an efficient set of measures that will direct them toward meaningful health improvement efforts and that capture the health care needs of their communities.

Currently, measure sets are primarily derived from administrative data and aimed at addressing disorders or processes rather than child well-being and outcomes. Claims-based measures have their place, but they only look at what clinicians get paid for and lack sufficient clinical detail. Measures focused on specific conditions and related processes are, likewise, essential. But the proliferation of these measures has created large reporting burdens with limited benefits. To that end, we discuss: (1) why we need a parsimonious set of quality and outcome measures, (2) why a distinctively pediatric solution is needed, (3) why community health measures are needed, and (4) how to move toward identifying this measure set.

A Parsimonious Measure Set
We need to identify a core measure set because there are important shortfalls in the quality of children’s health and the care that they receive.1,2 Although safety measures in large pediatric systems are improving, other measures of health care quality have shown less progress.

There are seemingly infinite indicators, but we need a compact set of measures with a widespread consensus so that organizations can focus on a discrete set of goals. Relatedly, clinicians and organizations are burdened by too much reporting on often redundant measures. Finally, comparative studies across organizations are not possible without common, standardized measures.3

These concerns prompted the National Academy of Medicine to write their report.4 It identified high priority, standardized measures that reflect the health of individuals and communities and the costs and engagement of families and patients with health care systems. We plan to take the conceptual framework developed by the National Academy of Medicine and adapt it to identify a core measure set that captures the most important aspects of pediatric health.

Why Do We Need a Distinctively Pediatric Measure Set?
We need a measure set for children because the goals of children’s health care are different from that of adults, children face different health risks, and the context of children’s health care is different.

The goal of health care—well-being—has a different meaning across the life span. For children, it is building the physical, cognitive, and social foundations for adult capabilities in addition to enhancing their current state.5 The specific health needs of children can change rapidly as they pass through developmental stages. Thus, a pediatric measure set must find a careful compromise that is sensitive to development without excessively expanding the number of measures.

Similarly, children face different health risks. Because children are mostly healthy, subclinical precursor states of adult health problems get insufficient attention. Preventive care is therefore underemphasized, leading to health problems in adulthood. For example, adolescents being overweight and obese is strongly associated with adult cardiovascular mortality.6

Finally, children’s risks are different because many of the diseases and risks for children are environmental or neighborhood-influenced. Children are more sensitive to socioeconomic factors and depend more on support for their health and care than adults. Thus, detailed measures that capture the socioeconomic circumstances in the community are essential.7

From Community Health Measurement to Health Improvement
Population health measures have been important for developing health policies but less relevant for health improvement. The Pediatric Vital Signs project combines a focus on community outcomes with an orientation toward health improvement. However, individual health care clinicians and small practices can, acting alone, have little effect on community-wide social determinants of health. Therefore, the proposed healthy social circumstances measures are meant to be applied to health care organizations that have a community-wide scope, such as regional health care systems or accountable care organizations that are likely to become increasingly accountable for community health outcomes.

The Figure illustrates this idea by looking at the Celebrate One initiative that was developed in Franklin County, Ohio. Celebrate One seeks to reduce infant mortality, a key community health measure in the Pediatric Vital Signs core set. To reduce infant mortality, Celebrate One identified 5 key drivers of infant deaths (for example, that many mothers did not get adequate prenatal care) and corresponding initiatives or programs to address the drivers (such as expanded and improved prenatal services, especially in high-risk communities). The collaborative element is tracking performance levels on the initiatives, outcome measures for each driver, and...
monitoring infant mortality rates in the whole community. Related efforts on addressing kindergarten readiness and high school graduation are also being developed.

Successful efforts to move community measures (like infant mortality) forward will only be achieved by health care clinicians working with social services agencies, schools, and local governments to change the social determinants of health. This includes partnering on services but also on governance, shared savings, and relevant data. Data from other agencies serving children are currently stored in nonhealth silos. Linking data across different organizational contexts will be a significant political and technical challenge. Likewise, a system of community measures must not create perverse incentives to avoid serving high-risk communities. Thus, risk adjustment and/or accountability for improvement in community measures, rather than the absolute values of those measures, should be considered in incentive design.

Process to Develop a Set of Child Quality and Outcome Measures

Several important measurement efforts are helping to guide the field, but we call for a national effort to develop, test, and implement a parsimonious measure set that addresses community health care and financial cuts across all child populations. Much of the effort will be invested in constructing measures that capture whether children are on healthy life course trajectories.

We have convened a group to begin this effort, in cooperation with the Vital Directions project of the National Academy of Medicine, whose Vital Signs project helped stimulate this effort. This group is reaching out to engage other stakeholders, including families. The larger group will refine the current draft measure set for a discussion with the pediatric community, scientific vetting, and empirical testing.

ARTICLE INFORMATION


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REFERENCES


