

Using Existing Population-Based Data Sets to Measure the American Academy of Pediatrics Definition of Medical Home for All Children and Children With Special Health Care Needs

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Objective. National health goals include ensuring that all children have a medical home. Historically, medical home has been determined by the presence of a usual or primary source of care, such as a pediatrician or a family physician. More recent definitions expand on this simplistic notion of medical home. A definition of medical home set forth by the American Academy of Pediatrics (AAP) includes 7 dimensions and 37 discrete concepts for determining the presence of a medical home for a child. Standardized methods to operationalize these definitions for purposes of national, state, health plan, or medical practice level reporting on the presence of medical homes for children are essential to assessing and improving health care system performance in this area. The objective of this study was to identify methods to measure the presence of medical homes for all children and for children with special health care needs (CSHCN) using existing population-based data sets.

Methods. Methods were developed for using existing population-based data sets to assess the presence of medical homes, as defined by the AAP, for children with and without special health care needs. Data sets evaluated included the National Survey of Children With Special Health Care Needs, the National Medical Expenditures Panel Survey, the Consumer Assessment of Health Plans Study Child Survey (CAHPS), and the Consumer Assessment of Health Plans Study Child Survey—Children With Chronic Conditions (CAHPS-CCC2.0H). Alternative methods for constructing measures using existing data were compared and results used to inform the design of a new method for use in the upcoming National Survey of Children's Health. Data from CAHPS-CCC2.0H are used to illustrate measurement options and variations in the overall presence of medical homes for children across managed health care plans as well as to evaluate in which areas of the AAP definition of medical home improvements may be most needed for all CSHCN.

Results. Existing surveys vary in their coverage of concepts included in the AAP definition of medical home and, therefore, in their capacity to evaluate medical home for

children with and without special health care needs. Using data from CAHPS-CCC2.0H, the overall proportion of children who were enrolled in managed care health plans and met criteria for having a medical home varied from 43.9% to 74% depending on the specific scoring method selected for these items. Wide variations across health plans were observed and were most prominent in the areas of “accessible care” and “comprehensive care.” Performance was uniformly poorest in the area of “coordinated care” and for CSHCN. Although children with a personal doctor or nurse were more likely to meet the AAP criteria for having a medical home, simply having a personal doctor or nurse was not highly predictive of whether a child experienced the other core qualities of a medical home (positive predictive value: .50; negative predictive value: .59).

Conclusions. Despite differences across existing surveys and gaps in concepts represented, we believe that the AAP definition of medical home can be well represented by the small subset of concepts represented in the National Survey of Children With Special Health Care Needs and the CAHPS-CCC2.0H. A less comprehensive yet still worthwhile measure is possible using the Medical Expenditures Panel Survey. The varying degrees of empirical evidence and consensus for each of the AAP definition domains for medical home suggest the need for constructing measures that also vary in terms of criteria for determining that a child does or does not have a medical home. In addition to a simple “yes or no,” or rate-based, measure, a continuous medical “homeness” score that places a child or group of children on a continuum of medical “homeness” is also valuable. Findings indicate that health plans have an important role to play in ensuring medical homes for children in addition to medical practices and those who set policies that guide the design and delivery of health care for children. Overall, using existing population-based data, a measure of medical home that is aligned with the AAP definition is feasible to include in the annual National Healthcare Quality Report, in state reports on the quality of Medicaid, State Children's Health Insurance Program, and Title V programs as well as to evaluate

performance on the Healthy People 2010 objectives and the President's New Freedom Initiative.