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Medical Home among Colorado Children Ages 1-14, Colorado Child Health Survey, 2010-2011

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Introduction

Medical home is a model of care defined by the American Academy of Pediatrics (AAP) as "accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective."[1] Physicians are encouraged to provide a medical home for all infants, children, and adolescents, including those with special health care needs.[2] The medical home concept is being championed at national, state, and local levels, and the Patient Protection and Affordable Care Act calls for health teams to support the "patient-centered medical home" or PCMH.[3]

The medical home model of care is a partnership approach where care is both coordinated and family-centered. A trained physician who is well-known to and trusted by both the child and the family can facilitate and communicate all aspects of care in order for a medical home approach to be achieved.[1] Several studies have shown that medical home activities improve access to health care, health-related outcomes, and family functioning for children and youth with and without special health care needs.[4,5,6] Many children and youth with special health care needs (CYSHCN) have chronic conditions that require more frequent encounters with the health care system. These encounters can be better coordinated through a medical home approach resulting in improved health.

Medical home is measured on the National Survey of Children's Health (NSCH). The NSCH includes state level results, and is conducted every four years, thus with infrequent updates.[7] Additionally, data at the sub-state level are not readily available. Because Colorado has its own annual, population-based survey of children ages 1 through 14, the Colorado Child Health Survey (CHS), the medical home questions have been added to this survey in order to assess the care model in more detail. The medical home questions were first added in 2010, and have been included each subsequent year. Medical home prevalence can be measured for all children in Colorado and for children with and without special health care needs.

The purpose of this report is to provide the estimated prevalence of medical home and its components among children ages 1-14 in Colorado.

Methods

Data from the 2010-2011 Colorado Child Health Survey were used in this report. The CHS is a "call-back survey" from the Behavioral Risk Factor Surveillance System Survey (BRFSS) which monitors self-reported health status, prevalence of chronic diseases, and risk behaviors of Colorado adults through a random-digit-dial telephone survey. Through a screening process, BRFSS-participating households with children ages 1-14 are invited to participate in the CHS, and called a few days later to complete the survey. For this report, responses were weighted to represent Colorado children ages 1 through 14 years.

The presence of a medical home was established through a series of 23 questions on the Colorado CHS. These questions are identical to the questions included on the 2007 National Survey of Children's Health, which were used to measure the presence of a medical home for children and youth across the nation. The questions were analyzed separately to asses five of the seven definitional components of the medical home model as defined by the American Academy of Pediatrics: accessible, family-centered, comprehensive, coordinated, and culturally effective; continuous and compassionate were not assessed in the survey. Table 1 (page 3) presents the AAP-definitional components of medical home. All components were considered to assess the proportion of children who received care with a medical home.[8]

Children and youth with special health care needs were identified through a 14-question screening tool that reflects the Maternal and Child Health Bureau's definition of CYSHCN.[9] This is the same tool used on the NSCH. The screening tool identifies children and youth along a broad range of chronic conditions and special needs.

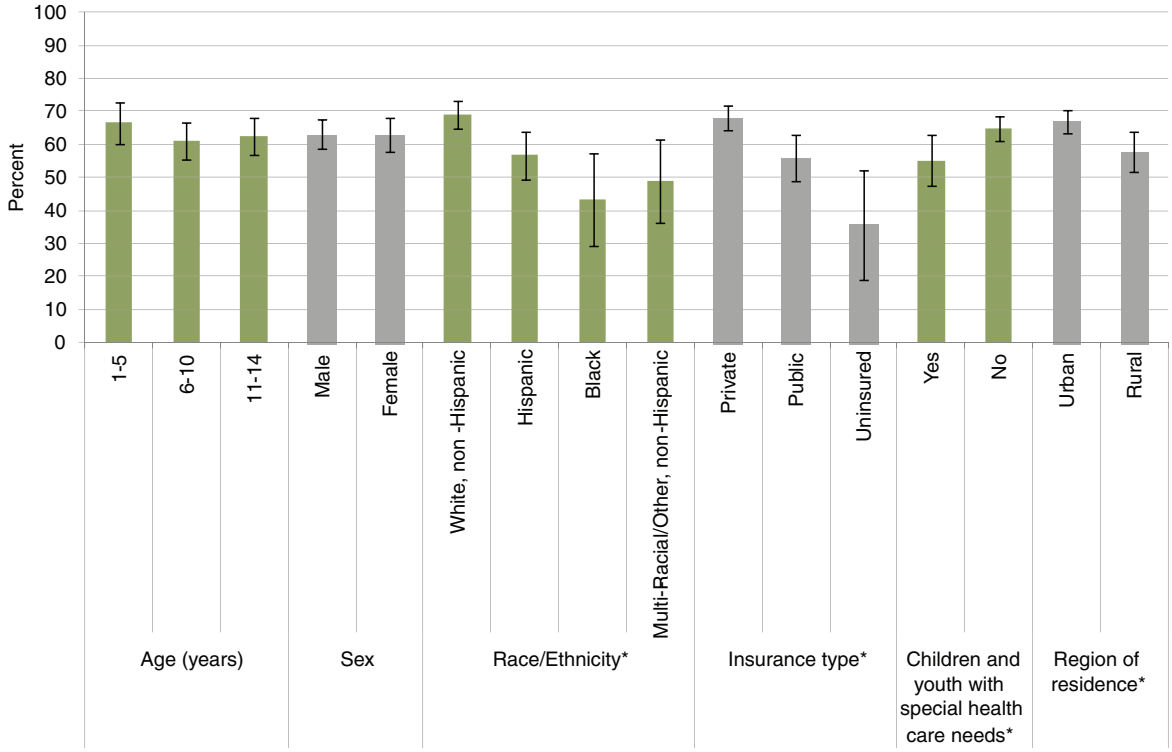
Weighted estimates for the prevalence of medical home and its components were generated with 95 percent confidence intervals. Demographics were tested to determine if significant differences existed between the responses for various groups, and significance was determined by calculating Chi-square test of independence. All differences reported here are statistically significant unless otherwise noted. Data were analyzed using SAS version 9.3.

Results

Demographics

Overall, 63.0 percent of Colorado children and youth ages 1 through 14 received care within a medical home. The prevalence of medical home did not differ by age or sex of the child. The prevalence was higher among White, non-Hispanic children (69.0 %) compared to Hispanic children (56.7 %), Black children (43.4 %), and multi-racial children and children of other races (48.8 %). For children with private insurance (68.1 %), the medical home prevalence was higher compared to children with public insurance (56.0 %) and uninsured children (35.6 %). Among non-CYSHCN, the prevalence of medical home (64.9 %) was higher compared to CYSHCN (55.2 %). Medical home prevalence was higher among children living in urban areas (67.0 %) compared to rural areas (57.7 %) (Figure 1).

Figure 1. Prevalence of medical home by select demographics, children ages 1-14 years, Colorado Child Health Survey, 2010-2011



Error bars represent the 95% confidence interval.
Source: Health Statistics Section, Colorado Department of Public Health and Environment.
*Statistically significant differences exist between demographic categories.

Medical Home Components

The prevalence estimates for the medical home components are presented in Table 1.

Table 1. Prevalence of medical home components, children ages 1-14 years, Colorado Child Health Survey, 2010-2011

Component	Percent	95% CI*
Accessible		
Has a personal doctor or nurse	92.8	91.0-94.5
Family-centered (percent who report “usually” or “always”)		
Doctor spends enough time	87.1	84.9-89.4
Doctor listens carefully	93.4	91.6-95.1
Doctor provides specific needed information	85.6	83.2-88.1
Doctor helps parent feel like partner in care	87.8	85.6-90.0
Comprehensive		
Has a problem getting referrals when needed	14.9	8.5-21.3
Has a usual source for both sick and well care	94.6	93.0-96.3
Coordinated (percent among children receiving two or more types of services)		
Received any help arranging or coordinating care	21.6	11.8-31.5
Reported getting all help needed arranging care for child	67.5	60.8-74.1
Very satisfied with communication between doctors, when needed	62.5	51.8-73.3
Very satisfied with communication between doctors and school, when needed	68.0	60.4-75.6
Culturally Effective (percent who report “usually” or “always”)		
Doctor is sensitive to family customs and values	91.8	89.9-93.8
Availability of interpreter, when needed	84.9	69.6-100.0

*Confidence Interval

Source: Health Statistics Section, Colorado Department of Public Health and Environment.

Accessible

The prevalence of children with a personal doctor or nurse who knew the child well and was familiar with the child's health history was 92.8 percent.

Family-centered

A doctor or nurse spent enough time with 87.1 percent of the children. The prevalence of families reporting that doctors and other health care providers listened carefully to them was 93.4 percent. A lower proportion of families reported that they received the specific information they needed about the child's health or health care (85.6 %). Likewise, 87.8 percent of families reported that doctors or other health care providers made them feel like a partner in their child's care.

Comprehensive

Among children who needed referrals to see a doctor or receive services, 14.9 percent had a problem getting referrals. The prevalence of having a place to go for care when the child was sick or needed health advice was 94.6 percent.

Coordinated

The prevalence of families that received any help arranging or coordinating care for the child was 21.6 percent. Among families that needed extra help arranging or coordinating care for the child, 67.5 percent reported receiving all the help they needed. Among families who needed doctors and other health care providers to communicate, 62.5 percent were very satisfied with that communication. Among families who needed doctors and health care providers to communicate with child's school or other programs, 68.0 percent were very satisfied with that communication.

Culturally Effective Care

The prevalence of families reporting that doctors and other health care providers were sensitive to their customs and values was 91.8 percent. Among families who needed an interpreter, 84.9 percent were able to obtain someone other than a family member to help speak with the doctors or other health care providers.

Discussion

Sixty-three percent of all children in Colorado ages 1 through 14 years received care within a medical home. Disparities in medical home exist based on race/ethnicity, health insurance type, CYSHCN status, and region of residence. The U.S. Department of Health and Human Services Healthy People 2020 initiative includes two medical home objectives: 1) increase the proportion of children who have access to a medical home to 63.3 percent, and 2) increase the proportion of children with special health care needs who have access to a medical home to 51.8 percent.[10] Colorado is very near the target for all children and youth, and exceeds the target for children and youth with special health care needs. CYSHCN are less likely than non-CYSHCN to receive care within a medical home. Work to improve each of the components will be needed to increase the prevalence of medical home and to improve the health of all children and youth in Colorado.

This report serves as the baseline for medical home prevalence among Colorado children ages 1 through 14 years. Colorado will continue to monitor the prevalence of medical home among children and youth in the state using the Child Health Survey. When additional years of data become available, medical home prevalence will be assessed among the different geographic regions in Colorado. Further analysis on medical home among children and youth with and without special health care needs will also be conducted.

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