Medical Homes Measures in Household Survey Data

September 29, 2014

Lisa Clemans-Cope, PhD
Victoria Lynch, MS
Urban Institute

Kathleen Call, PhD
SHADAC

You will be connected to broadcast audio through your computer.
You can also connect via telephone: 866-860-9427
Slides available at: www.shadac.org/MedicalHomesWebinar
Technical Items

• All phone lines are muted
• Submit questions using the chat feature at any time
• Troubleshooting:
  • ReadyTalk Help Line: 800-843-9166
  • Chat feature
• Slides available at www.shadac.org/MedicalHomesWebinar
Introduction & Overview
About SHARE

State Health Access Reform Evaluation (SHARE)

- National Program of the Robert Wood Johnson Foundation
- Part of the Foundation’s Coverage Team
- Operates out of the State Health Access Data Assistance Center (SHADAC)
- 33 research grants awarded since 2008
- 2014 grants to launch October 1st
Lisa Clemans-Cope, PhD
Senior Research Associate
Urban Institute

Victoria Lynch, MS
Research Associate
Urban Institute
SHARE Webinar: Concerns about the Standard Medical Home Measure for Children in Household Survey Data
September 29, 2014

Lisa Clemans-Cope, PhD
Victoria Lynch, MS
The Urban Institute
Definition: Patient Centered Medical Home (PCMH)

- A model for evaluating health care quality
  - Accessible
  - Family-centered
  - Continuous
  - Comprehensive
  - Coordinated
  - Compassionate
  - Culturally effective
History: Collaboration of health care providers and policymakers

- Concept developed over several decades
- Survey-based measure developed more recently
- In this presentation, we describe the survey-based measures for children, demonstrate our concerns about them, and offer recommendations
Current policy focus: The national goal of all children having a medical home

- Emphasis on using medical homes to evaluate health care quality is increasing
  - Healthy People 2020 objectives – “Increase the proportion of children, including those with special health care needs, who have access to a medical home”
  - Affordable Care Act (ACA)
  - Title V programs
  - Children’s Health Insurance Program Reauthorization Act (CHIPRA)
Current measurement tools: Two surveys collect data for official estimates

- **Surveys**
  - National Survey of Children’s Health (NSCH)
  - National Survey of Children with Special Health Care Needs (NS-CSHCN)

- **Endorsed by National Quality Forum (NQF)**
- **Used in federal statistics**
- **State rankings (AAP/CAHMI)**
Current measurement focus: State estimates of the percent of children with a medical home

Source Note: Map from the Data Resource Center for Child & Adolescent Health using 2011/12 data from the National Survey of Children’s Health
Current policy challenge: Many children do not have a medical home, disparities by group

- 42.5 percent of children nationally do not have a medical home
- CSHCN are less likely to be identified as having a medical home compared to children without such needs.
- Six states have below average levels
Survey-based measure for PCMH: Five domain composite

- Child as personal doctor or nurse?
- Child has a usual source of care?
- Child had no problem getting referrals when needed?
- Child’s parent/guardian gets help with care coordination when needed?
- Child has family-centered, culturally effective care?
Overview: Concerns about the standard measure

• Missing data
  – Some questions used to derive medical home status may not be applicable to children in good health

• Treatment of missing data
  – Cases that have no response on questions used to derive medical home status are skipped
    • Effectively treated as though the parent/guardian reported care that satisfied the criteria of a medical home.
Missing data: Proportion of sample children with data collected on the composite domains

- Children with no SHCN
  - USOC: 100
  - PDN: 100
  - Family Centered: 95
  - Referral: 13
  - Coordinated Care: 1

- Children with SHCN
  - USOC: 100
  - PDN: 100
  - Family Centered: 94
  - Referral: 32
  - Coordinated Care: 76
Missing data: Proportion of sample children with information collected on all domains, 2007 NSCH

- Total: 83,800
- Children with data collected on all five domains: 11,300
Treatment of missing data: How does Child 1 get coded as having a medical home?

<table>
<thead>
<tr>
<th></th>
<th>Child 1</th>
<th>Child 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal doctor or nurse</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Has usual source of care</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No problem getting needed referrals</td>
<td>Legitimate skip</td>
<td>Yes</td>
</tr>
<tr>
<td>Providers help coordinate care when needed</td>
<td>Legitimate skip</td>
<td>No</td>
</tr>
<tr>
<td>Family centered care</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Coded as having a medical home?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
Treatment of missing data: Legitimate skips are treated the same as a “Yes”

<table>
<thead>
<tr>
<th></th>
<th>Child 1</th>
<th>Child 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal doctor or nurse</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Has usual source of care</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No problem getting needed referrals</td>
<td>Legitimate skip → Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Providers help coordinate care when needed</td>
<td>Legitimate skip → Yes</td>
<td>No</td>
</tr>
<tr>
<td>Family centered care</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Coded as having a medical home?</td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>
Possible overstated estimates: Children with data on all the domains less likely to be identified as having a medical home

![Bar chart showing comparison between CSHCN and No SHCN categories.](chart.png)

- **CSHCN**
  - All Children: 51.9%
  - Children with data collected on all domains: 38.7%

- **No SHCN**
  - All Children: 61.1%
  - Children with data collected on all domains: 53.5%
Possible bias: CSHCN have more data collected, thus more opportunity to be identified as not having a medical home.

<table>
<thead>
<tr>
<th>Share with responses on all 5 PCMH domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSHCN</td>
</tr>
<tr>
<td>No SHCN</td>
</tr>
</tbody>
</table>

URBAN INSTITUTE
Test alternative treatment: Assume some with missing data would not get care that satisfies the domain criteria.
Test: Impact on prevalence of children with medical home of simulating different rates of domain data collection

<table>
<thead>
<tr>
<th>States with Relatively High Rates of Response</th>
<th>Unadjusted</th>
<th>Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia</td>
<td>68.8</td>
<td>75.4</td>
</tr>
<tr>
<td>Maine</td>
<td>67.8</td>
<td>73.6</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>66.2</td>
<td>72.1</td>
</tr>
<tr>
<td>Delaware</td>
<td>50.2</td>
<td>56.3</td>
</tr>
<tr>
<td>New Jersey</td>
<td>69.7</td>
<td>76.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>States with Relatively Low Rates of Response</th>
<th>Unadjusted</th>
<th>Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utah</td>
<td>65.3</td>
<td>62.7</td>
</tr>
<tr>
<td>Montana</td>
<td>64.1</td>
<td>60.4</td>
</tr>
<tr>
<td>Nevada</td>
<td>65.2</td>
<td>63</td>
</tr>
<tr>
<td>Illinois</td>
<td>57.2</td>
<td>53.2</td>
</tr>
<tr>
<td>Wyoming</td>
<td>61.1</td>
<td>58.5</td>
</tr>
</tbody>
</table>
Conclusions

• There is often not enough information available to actually know whether a sample child has a medical home.

• Children who need less care are more likely to get coded as having a medical home.

• Subgroup estimates depend on the rate of needing domain services which could distort comparisons across groups.
## Recommendations

1. Recognize possible overstated estimates of the prevalence of children with medical homes

2. Recognize possible bias due to differences in the need for services

3. Reinterpret as measuring whether the medical care that children received conformed to the PCMH model as far as it could be measured given the range of care received

4. Innovate on the measure
Research underway

We seek to develop a more valid medical home measure that comports with the following qualities:

- Minimizes assumptions about values for domains when no data are collected.
- Avoids the built-in dependency on rate of needing domain services.
- Covers the same domains as the current measure at the same time it can be used to evaluate the experience of most types of children, including those who do not receive many services.
- Prevents domains measured on relatively few children from being obscured in the construction of a composite due to sample size limitations.
- Prevents the experience of the children who need the full range of services covered by the domains from being obscured due to sample size limitations.
- Is intuitive
### Contact Us

<table>
<thead>
<tr>
<th>Lisa Clemans-Cope, PhD</th>
<th>Victoria Lynch, MA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Senior Research Associate</strong></td>
<td><strong>Research Associate</strong></td>
</tr>
<tr>
<td><strong>Health Economist</strong></td>
<td><strong>Survey Methodologist</strong></td>
</tr>
<tr>
<td><em>The Urban Institute</em></td>
<td><em>The Urban Institute</em></td>
</tr>
<tr>
<td><em>Health Policy Center</em></td>
<td><em>Health Policy Center</em></td>
</tr>
<tr>
<td>2100 M St NW</td>
<td>2100 M St NW</td>
</tr>
<tr>
<td>Washington DC 20037</td>
<td>Washington DC 20037</td>
</tr>
<tr>
<td>202-261-5580</td>
<td>202-261-5580</td>
</tr>
<tr>
<td><a href="mailto:lclemans@urban.org">lclemans@urban.org</a></td>
<td><a href="mailto:vlynch@urban.org">vlynch@urban.org</a></td>
</tr>
<tr>
<td><a href="https://twitter.com/LisaClemansCope">@LisaClemansCope</a></td>
<td></td>
</tr>
</tbody>
</table>
Kathleen Call

Kathleen Call, PhD
SHADAC Investigator & Professor
Division of Health Policy & Management
University of Minnesota, School of Public Health
Opening comments

- Importance of careful exploration of data
- Transparency in data documentation is critical
- Access to data is essential to evaluate validity and improved measurement
State Reform Survey Workgroup

• June 2011 Report (13 States)
  – Two states include multi-dimensional medical home series in their population health surveys
  – Five states indicated medical home is a priority area and likely to be included in their surveys to evaluate health reform
    • Hampered by lack of measurement items at the time
    • Concerns about ability to dedicate survey space
State Example: Iowa

- 2010 Iowa Household Health Survey (IHHS)
  - Used 17 survey questions from the 2005-2006 NS-CSHCN and the 2007 NSCH
  - 71% of CSHCN had medical home; 82% of those without special health care need (contrary to national survey results)

"Medical Homes for Children in Iowa: Results from the 2010 Iowa Child and Family Household Health Survey"

http://ir.uiowa.edu/cgi/viewcontent.cgi?article=1084&context=ppc_health
State Example: California

- 2011-2012 California Health Interview Survey (CHIS)
  - Included five medical home constructs:
    - Continuous care – usual source of care, personal doctor
    - Patient/family-centeredness – communication, shared decision-making
    - Accessibility – telephone/e-mail contact, timely appt
    - Care coordination – by someone at doctor’s office
    - Cultural effectiveness – language
  - Analysis of results not yet complete

“Measuring Medical Home in CHIS 2011-2012”
CAHPS – Patient Centered Medical Home Item Set (AHRQ)

- Released in October 2011
- Expanded version of the Clinician & Group 12-Month Survey includes the CAHPS PCMH Item Set
  - Lit review; technical expert panel input; stakeholder input; focus group input; cognitive testing; field testing; psychometric analysis
  - Part of the NCQA’s updated specs for its PCMH recognition program
Submit questions using the chat feature on the left-hand side of the screen.

Lisa Clemans-Cope  Victoria Lynch  Kathleen Call
“Issues with the Survey-based Measure for Patient Centered Medical Homes for Children”
- Victoria Lynch & Lisa Clemans-Cope

Medical Homes Measures in Household Survey Data

- Direct inquiries to Carrie Au-Yeung at butle180@umn.edu
- Webinar slides and recording available at www.shadac.org/MedicalHomesWebinar
- Learn more about SHARE and join our mailing list at www.shadac.org/share

www.facebook.com/shadac4states

SHADAC

@shadac

Supported by a grant from the Robert Wood Johnson Foundation