Sustainable Funding for Asthma-Related Home Interventions

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Moderator:
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September 15, 2015
The Need for Smart Investments

- Total health spending exceeds $3 trillion
- IOM estimated $750 billion in health care that is wasteful and produces no significant positive health benefits
- Yet, we spend only 3-5% on prevention
- In our “bricks and mortar” health care system, construction cranes are plentiful even as we skimp on addressing the forces that drive people into the buildings
- Many such forces are outside of health care
Asthma Takes a Toll

- CDC estimates that 6.8 million children have asthma in US, and 18.7 million adults.
- The annual cost of asthma: $56 billion
- Patients with asthma as primary diagnosis:
  - Make 14.2 million physician visits annually
  - 1.3 million visits to hospital outpatient depts.
  - 1.8 million visits to emergency departments
  - Experience 439,000 hospital discharges
  - Poor and minority children hardest hit
New Approach to Funding

• Traditional approach: Payers reimburse only for services provided by licensed medical practitioners in a clinical setting
• CMS opened the door to new approaches
• Targeted Case Management: assessments, care plan development, referrals
  – TCM groups can be defined by disease
  – Services ordered but not delivered by clinicians are now covered under Medicaid—opens door
Other Approaches to Funding

• State Plan Amendments
  – State can seek any time; permanent if approved

• Section 1115 Waivers
  – Mass. got approval from CMS to develop new pediatric asthma program; portion of bundled payment used for mitigating triggers in homes

• CMMI Innovation Grants
  – New England collaborative assists low-income kids with severe asthma conditions with CHWs

These approaches can be blended, as in Oregon
Payment Models

• Modified fee-for-service payments
• Fixed fee per visit
• Bundled payments
• Global payments
  – States could arrange for Medicaid MCOs to add a small amount to PMPMs
  – Global payment arrangements could also be set up with ACOs and other delivery systems
Incorporating a Clinical Element

• Getting funding from Medicaid and commercial payers facilitated by ensuring some clinical element to home visits
  – Medication management
  – Checking peak flow meters
  – Review of inhaler techniques
  – Teaching patient self-management
  – Smart phone Apps that help patients check their breathing at home; results sent to clinician
The Business Case for GHHI

- Comprehensive review of 13 studies found ROIs that ranged from 5.3 to 14.0
- Study of Boston Children’s Hospital Community Asthma Initiative including home visits found that ED visits fell by 66.5% after 6 months and asthma-related hospitalization fell by 79.7% after 6 months
- Milliman study found ROI for GHHI activities was 1.11 in year 3 and 1.72 when savings beyond year 3 are incorporated
Conclusions

• GHHI is part of a critically important trend toward moving “upstream” to address the forces in the community that drive people into the health care system

• The door is open to obtaining sustainable funding for asthma home visits

• Alternative payment models enable GHHI approach to help MCOs meet their targets

• Smart investments like GHHI have a strong ROI — they reduce costs and improve health
Medicaid Potential As a Funding Stream

• Tremendous Variation in State Medicaid Programs
• Viability of Potential funding options will depend on Medicaid program structure, including state waiver authorities
• State Medicaid Focus on Value-Based Payment and Delivery System Reform
• Increased focus on patient-centered care and so-called social determinants of health
• States increasingly moving to managed care and implementing new quality improvement initiatives
Potential Partnership with Medicaid MCOs

- MCOs have more flexibility than FFS in piloting community-based approaches to improve care and lower costs, such as, asthma home visits
- MCOs have the financial incentive to implement evidence-based programs for enrollees that avoid preventable costs
- State quality framework to incentivize MCOs improvements in care, e.g. P4P, Quality Improvement Projects
- States employ national metrics (e.g. HEDIS) to hold MCOs accountable
  - reduction in ED usage, readmissions, avoidable hospital utilization, among the common metrics employed
  - Improved asthma care often a focus of state quality improvement efforts
Potential Partnership with Medicaid MCOs

• MCO flexibility not without limits
  – More flexibility in using PMPM associated with administrative costs

• Competition for MCO investment in other cost savings initiatives is strong

However, a strong business case relying on an evidence-based model, tailored to meet state quality framework should be attractive to Medicaid MCO plans, as well as other integrated delivery system models, e.g. ACOs.
Making the Connection Between Housing and Health Care

• Housing widely recognized as key social determinant of health care.

• HMA working with Stewards of Affordable Housing for the Future (SAHF), a national network of 11 social enterprise non-profits providing service-enriched housing to low-income families, elderly, people with disabilities, and homeless adults.

• HMA assisting SAHF and individual housing organizations in developing a business case for Medicaid MCO funding of services provided on site.

• Recent CMS information bulletin provides additional pathways for funding of housing-related services.
Collective Financial Burden

• Nearly 9M families live in unhealthy homes
• Billions of taxpayer dollars lost annually
  o $43.4B = lead poisoning
  o $20B = asthma-related illness
  o $19B = trip and fall injuries for seniors
• 14 million missed school days
• Low-income households spend 14% of income on energy vs. 3.5% for other households
Address Root Causes at Home

Unhealthy Home

- Treatment/Inhaler
- Asthmatic Child
- Hospital Visit
Common Home Asthma Triggers

- VOCs
- Dust Mites
- Pests
- Mold
- Tobacco Smoke
Evidence Base for Healthy Homes

- NAEPP Guidelines-based care calls for
  1) Assessment of disease severity;
  2) Medication;
  3) Patient education; and
  4) Environmental control

- HHS’s Community Preventive Services Task Force found “strong evidence of effectiveness of in-home environmental interventions” in improving asthma management and overall quality of life for asthmatics.

- Cost benefit studies show a return of $5 to $14 per $1.
Healing a Fractured Delivery System
A Model That Benefits Families

- Single Intake System
- Comprehensive Assessment
- Coordinated Services
- Integrated Interventions
- Cross-Trained Workers
- Shared Data

✓ Lead Hazard Reduction
✓ Asthma Trigger Control
✓ Fall/Injury Prevention
✓ Energy Efficiency
✓ Weatherization
GHHI Comprehensive Assessment

Combine comprehensive environmental assessment with an energy audit for the following benefits:

• Cost effective approach by completing combined activities during a single visit using a single inspector
• Less contact lost between visits, and fewer visits needed
• Fewer clients drop-out and/or miss appointments
• One integrated scope of work is produced
• Better alignment and leveraging of resources
• Allows for lessons and best practices to be analyzed, evaluated and documented
# Coordinated Interventions Sample

<table>
<thead>
<tr>
<th>Green</th>
<th>Health &amp; Safety</th>
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<tbody>
<tr>
<td>Energy Audit</td>
<td>Health &amp; Safety Assessment</td>
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<td>Weatherization</td>
<td>Lead Hazard Reduction</td>
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<td>Insulation</td>
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<td>Reducing Air Infiltration &amp; Leakage</td>
<td>Integrated Pest Management</td>
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<td>Remediating Gas Leaks &amp; CO</td>
<td>Fire &amp; Injury Prevention Measures</td>
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<tr>
<td>Energy Efficiency Education</td>
<td>Health &amp; Safety Education</td>
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</table>
Post-Remediation Education

• Post remediation education with occupants to enhance intervention (Behavioral change – ETS, food and water sources for pests)

• Behavioral training component to educate occupants on energy efficiency and reduction of energy usage

• Post remediation education with owners on how to sustain the intervention (lead safe work practices, ongoing maintenance, household injury prevention, asthma trigger reduction)
Impact: Building a Business Case

Green & Healthy Homes Initiative: Improving Health, Economic and Social Outcomes Through Integrated Housing Intervention

- 66% reduction in asthma-related client hospitalizations
- 28% reduction in asthma ER visits
- 50% increase in participants never having to visit the doctor’s office due to asthma episodes
- 62% increase in participants reporting asthma-related perfect attendance for their child (0 school absences due to asthma episodes)
- 88% increase in participants reporting never having to miss a day of work due to their child’s asthma episodes

*Environmental Justice, Vol 7. Number 6, 2014*
Reduced Costs = Cashable Savings

• Reduction in asthma-related client hospitalizations – 1 hospital stay on average costs $7,506 in Baltimore City. Reductions in hospitalizations produces cashable savings

• Reduction in asthma-related emergency room visits - 1 emergency room visit on average costs $820 in Baltimore City. Reduction in ER visits produces cashable savings
GHHI Baltimore PFS Model

Other Investors

Risk mitigation

Other Guarantors (Baltimore foundations)

Upfront capital

Repayment

Evaluation

Target setting

Service delivery funding

Success payments

Social Finance

Green & Healthy Homes Initiative™

Milliman

Covington

Johns Hopkins Medicine

Calvert Foundation

Kresge Foundation

Robert Wood Johnson Foundation

The Hilltop Institute

Success payments
## Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Draws</th>
<th>Intervention</th>
<th>Evaluation</th>
<th>Savings &amp; Success</th>
<th>Payments</th>
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<tr>
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**Guarantee**

- Year 1: 1 star
- Year 2: 2 stars
- Year 3: 3 stars
- Year 4: 4 stars
- Year 5: 5 stars
- Year 6: 6 stars
- Year 7: 7 stars
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<tr>
<th>Healthcare Organization</th>
<th>Service Provider</th>
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<tr>
<td>Baystate Health (Springfield, MA)</td>
<td>Partners for a Healthier Community</td>
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<tr>
<td>Le Bonheur Children’s Hospital (Memphis, TN)</td>
<td>Habitat of Humanity of Greater Memphis</td>
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<td>Monroe Plan for Medical Care (Buffalo, NY)</td>
<td>Heart of the City Neighborhoods, Inc. &amp; Community Foundation of Greater Buffalo</td>
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<tr>
<td>Spectrum Health (Grand Rapids, MI)</td>
<td>Health Net, Healthy Homes Coalition &amp; Asthma Network of West Michigan</td>
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<tr>
<td>University of Utah Health Plans (Salt Lake, UT)</td>
<td>Salt Lake County Office of Regional Development</td>
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Policy Goals

• Physicians commonly writing prescriptions for healthy homes services
• Housing professionals being a new front line for healthcare
• CMS and other health payers increasing investment in preventive and population health
• Hospitals utilizing community benefits to keep people healthier, rather than paying for undercompensated care
• Increased data around the broad impact of healthy homes
Q & A

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September 15, 2015