

# **Cost of Transformation Among Primary Care Practices Participating in a Medical Home Pilot**

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# Background

- Transforming primary care practices into medical homes is increasingly seen as a way to enhance primary care
- Transformation can require many changes, including adoption of new structural capabilities such as patient registries, care managers, and information technology
- Reliable estimates of the costs of transformation are necessary to inform payers and policymakers how to appropriately fund practice transformation
- There is little published evidence on the size of transformation-associated costs to practices

# Objective

- To estimate the costs of *transformation* among primary care practices participating in a statewide medical home intervention

# Practice Selection

- Selected primary care practices that participated in the first three years of the Pennsylvania Chronic Care Initiative (PACCI)
- Chose practices with varying levels of structural and functional transformation
- Sought to recruit two high transformers and one low transformer in each region
- \$300 incentive to participate

# Data Collection

## Semi-structured interviews

- Spoke with representatives at each practice
- Asked about changes made and the associated personnel and non-personnel costs

## Convert personnel estimates into costs

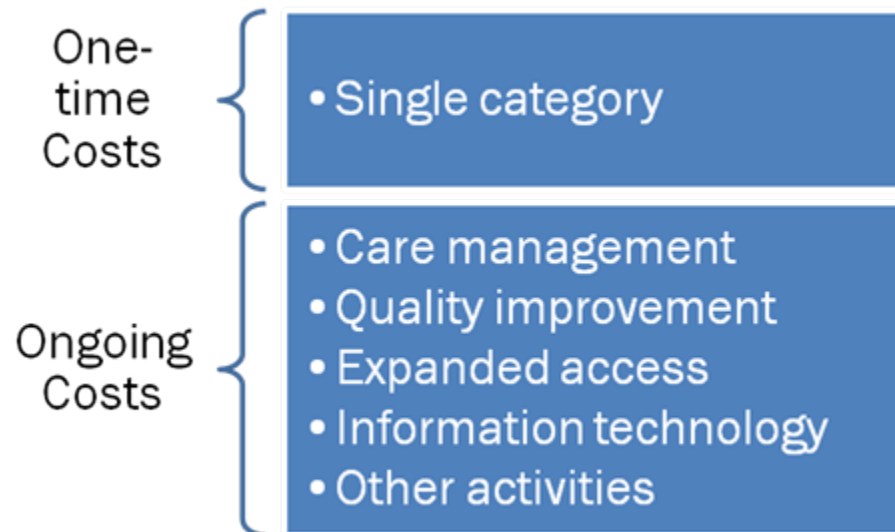
- Used state-level wage rates (Health Care Group's 2014 Staff Salary Survey and the Bureau of Labor and Statistics Wage Data)
- Added 30% to each of the wage rates to account for benefits

## Verified changes and costs

- We created a report for each practice for them to review and make any necessary changes

# Calculating Costs

- The cost reports were used to estimate the one-time and ongoing costs of transformation



- Calculated per-clinician and per-patient costs
- Compared transformation costs across various practice types

# Practice Characteristics

	Participating practices (n=12)
	Median (IQR)
Primary Care Clinicians^	3 (2-4)
Patients per clinician	1,562.5 (1,193.5-2,483.3)
Specialty	Percentage, n (%)
Family Practice or Mixed	6 (50%)
Internal Medicine Only	5 (42%)
Pediatrics Only	1 (8%)
	Median
System affiliation	Percentage, n (%)
System-affiliated	7 (58%)
Independent	5 (42%)
Region	
Northeast	3 (25%)
Southeast	3 (25%)
Southwest	3 (25%)
South central	3 (25%)
NCQA PPC-PCMH Level	
Level 1	0 (0%)
Level 2	1 (8%)
Level 3	11 (92%)
Extent of transformation	
High	8 (67%)
Moderate	1 (8%)
Low	3 (25%)



# One-time Transformation Activities

	Transformation components		Transformation costs		
	Proportion of practices participating in transformation activities	Major transformation activities	Costs per clinician (Median, Range)	Costs per patient (Median, Range)	Total costs (Median, Range)
One-time transformation activities	100% (n=10)^	<ul style="list-style-type: none"> <li>- Prepare medical home infrastructure (e.g. setting up and verifying the accuracy of patient registries, employee training sessions to use quality reporting systems, preparing internal policies and procedures for medical home transformation, medical home recognition applications) (n=10)</li> <li>- Upgrade EHR software (n=4)</li> </ul>	\$9,814 (\$1,497 - \$57,476)	\$5 (\$1 - \$77)	\$30,991 (\$7,694 - \$117,810)

# Ongoing Transformation Activities

	Transformation components		Transformation costs		
	Proportion of practices participating in transformation activities	Major transformation activities	Costs per clinician (Median, Range)	Costs per patient (Median, Range)	Total costs (Median, Range)
Care management activities	100% (n=12)	<u>New staff hiring</u> - Care manager (n=9, average of 0.87 FTEs per practice) - Other staff (e.g. medical assistant, nurse, social worker, pharmacist;) (n=5, average of 0.98 FTEs per practice) <u>New activities for current staff#</u> - Care management meetings (n=5) - Patient outreach (e.g. appointment reminders, vaccination and routine test reminders) (n=5) - Hospital and emergency room transition phone calls (n=3) - Patient education (e.g. self-management of chronic diseases) (n=2)	\$29,457 (\$11,420 - \$78,182)	\$16 (\$3 - \$110)	\$113,031 (\$41,191 - \$234,547)

# Ongoing Transformation Activities

	Transformation components		Transformation costs		
	Proportion of practices participating in transformation activities	Major transformation activities	Costs per clinician (Median, Range)	Costs per patient (Median, Range)	Total costs (Median, Range)
General QI activities	92% (n=11)	<ul style="list-style-type: none"> <li>- Quality measurement, reporting, and tracking (n=10)</li> <li>- Physician care reminders (n=8)</li> <li>- Team meetings (n=6)</li> </ul>	<p>All practices: \$5,765 (\$0 - \$29,924)</p> <p>Among those making investment: \$6,390 (\$1,250 - \$29,924)</p>	<p>All practices: \$3 (\$0 - 26)</p> <p>Among those making investment: \$4 (\$1 - 26)</p>	<p>All practices: \$23,734 (\$0 - \$63,905)</p> <p>Among those making investment: \$29,994 (\$2,500 - \$63,905)</p>

# Ongoing Transformation Activities

	Transformation components		Transformation costs		
	Proportion of practices participating in transformation activities	Major transformation activities	Costs per clinician (Median, Range)	Costs per patient (Median, Range)	Total costs (Median, Range)
Expanded access	33% (n=4)	- Increased office hours (n=4)	<p>All practices: \$0.00 (\$0.00 - \$28,151)</p> <p>Among those making investment: \$26,637 (\$2,382 - \$28,151)</p>	<p>All practices: \$0 (\$0 - \$18)</p> <p>Among those making investment: \$14 (\$1 - \$18)</p>	<p>All practices: \$0 (\$0 - \$168,905)</p> <p>Among those making investment: \$79,561 (\$11,910 - \$168,905)</p>

# Ongoing Transformation Activities

	Transformation components		Transformation costs		
	Proportion of practices participating in transformation activities	Major transformation activities	Costs per clinician (Median, Range)	Costs per patient (Median, Range)	Total costs (Median, Range)
Expanding IT	33% (n=4)	-Yearly maintenance and updates of EHRs+ (n=4)	<p>All practices: \$0 (\$0 - \$20,069)</p> <p>Among those making investment: \$3,339 (\$173 - \$20,069)</p>	<p>All practices: \$0 (\$0 - \$10)</p> <p>Among those making investment: \$7 (\$4 - \$10)</p>	<p>All practices: \$0 (\$0 - \$40,138)</p> <p>Among those making investment: \$19,190 (\$1,733 - \$40,138)</p>

# Ongoing Transformation Activities

	Transformation components		Transformation costs		
	Proportion of practices participating in transformation activities	Major transformation activities	Costs per clinician (Median, Range)	Costs per patient (Median, Range)	Total costs (Median, Range)
Other costs	42% (n=5)	<ul style="list-style-type: none"> <li>- Hire other staff (e.g. consultants, accounting services, increasing physician work hours ) (n=3, average of 0.55 FTEs)</li> <li>- Staff training (n=2)</li> </ul>	<p>All practices: \$0 (\$0 - \$55,467)</p> <p>Among those making investment: \$2,459 (\$601 - \$55,467)</p>	<p>All practices: \$0 (\$0 - \$22)</p> <p>Among those making investment: \$2 (\$1 - \$22)</p>	<p>All practices: \$0 (\$0 - \$83,200)</p> <p>Among those making investment: \$9,000 (\$6,013 - \$83,200)</p>

# Total Median Yearly Ongoing Costs

Transformation costs		
Costs per clinician (Median, Range)	Costs per patient (Median, Range)	Total costs (Median, Range)
\$64,768 (\$18,585 - \$93,856)	\$30 (\$8 - \$135)	\$147,573 (\$83,829 - \$346,603)

# Costs Incurred by Different Types of Practices

	Practice affiliation	
	System-affiliated (n=7 practices)	Independent (n=5 practices)
<b>One-time costs</b>		
Per Clinician	\$3,165 (\$1,498 - \$12,599)	\$19,635 (\$7,030 - \$57,476)
Per Patient	\$2 (\$1 - \$9)	\$16 (\$7 - \$30)
<b>Ongoing costs</b>		
Per Clinician	\$41,914 (\$18,585 - \$91,025)	\$71,769 (\$24,668 - \$93,856)
Per Patient	\$24 (\$8 - \$66)	\$38 (\$25 - \$136)
	Number of primary care clinicians	
	Fewer than 4 primary care clinicians (n=6 practices)	4 or more primary care clinicians (n=6 practices)
<b>One-time costs</b>		
Per Clinician	\$14,249 (\$2,565 - \$57,476)	\$5,990 (\$1,497 - \$23,542)
Per Patient	\$16 (\$1 - \$30)	\$5 (\$1 - \$16)
<b>Ongoing costs</b>		
Per Clinician	\$78,929 (\$41,914 - \$93,856)	\$28,730 (\$18,585 - \$78,749)
Per Patient	\$35.88 (\$21 - \$136)	\$24.17 (\$8 - \$53)

- All costs were greater for independent practices, except for ongoing per patient costs

- Costs were greater for smaller practices



# Conclusions

- Practices can incur substantial transformation costs as they participate in medical home pilots
- These costs can pose challenges for their transformation efforts
- Costs are highly variable across practices
  - Small and independent practices incurred substantially higher per-clinician total costs of transformation
- A uniform per-clinician or per-patient subsidy may not be appropriate