Retail clinics and access to care: geographic location and interaction with medical homes

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RAND Corporation
George Washington University
Outline of the talk

1. Define access and describe its components
2. Examine components with respect to retail clinics
   • Geographic accessibility for vulnerable populations
3. Implications of access
   • Utilization
   • Integration with medical homes
## Dimensions of access

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td>1. Availability</td>
<td>Adequacy of supply</td>
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<td>2. Accommodation</td>
<td>Organization of resources</td>
</tr>
<tr>
<td>3. Affordability</td>
<td>Prices related to clients’ ability to pay</td>
</tr>
<tr>
<td>4. Accessibility</td>
<td>Location of supply</td>
</tr>
<tr>
<td>5. Acceptability</td>
<td>Clients’ attitudes towards providers and vice versa</td>
</tr>
</tbody>
</table>

Why these dimensions matter

1. Satisfaction
2. Utilization
3. Practice patterns
Outline of the talk

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1. Availability

- All retail clinic operators as of June and August 2008
- List compiled using multiple data sources and checked with industry experts
- Final sample included 42 operators and 982 retail clinics
- For information not available through websites, we collected data from a random sample of 100 clinics
Estimate population within reach

- From each retail clinic, calculate the distance someone would be able to drive in 5 minutes in all directions
- Driving distance incorporates normal roadway conditions (e.g. speed limits but not traffic)
- Create a boundary loop by connecting the points
- If the center of a block group falls within the boundary, the population of the block group is counted
Population within reach

- 29.7 million people (13.4% of the US urban population) live within a 5 minute driving distance of a retail clinic
- 79.6 million people (35.8%) live within a 10 minute driving distance
- Over 85% of the populations of Nashville, Minneapolis-St.Paul, Las Vegas, Milwaukee, and Miami live within a 10 minute driving distance
2. Accommodation

• Over 95% provide care for:
  » acute infectious illnesses, minor skin conditions, immunizations, routine preventive health examinations or preventive screening, pregnancy testing, allergies

• Less common services include:
  » smoking cessation counseling (57.6% clinics), travel medicine (4.8%), HIV and/or sexually transmitted disease testing or counseling (3.0%), prescription refills (1.6%), and weight loss counseling (1.2%)
Type of store location (N=982)

- Drug store
- Grocery store
- Wal-Mart or Target
- Health facility
- Other location
Hours of operation

- All had weekday and weekend hours
- 97% had evening hours (after 6pm) on weekdays
- Walk-in appointments
3. Affordability

- Most retail clinics accepted insurance
  - 97% accepted private insurance
  - 93% accepted FFS Medicare
  - 60% accepted some form of Medicaid
- Costs of care varied widely
  - Sore throat average $78 ($35 to $254)
  - Tetanus booster average $63 ($15 to $254)
## Posted prices

<table>
<thead>
<tr>
<th>Common Illnesses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Allergies (ages 6+)</td>
<td>$59</td>
</tr>
<tr>
<td>Bladder Infections (females, ages 12-65)</td>
<td>$69</td>
</tr>
<tr>
<td>Bronchitis (ages 10-65)</td>
<td>$59</td>
</tr>
<tr>
<td>Ear Infections</td>
<td>$59</td>
</tr>
<tr>
<td>Pink Eye &amp; Styes</td>
<td>$59</td>
</tr>
<tr>
<td>Sinus Infections (ages 5+)</td>
<td>$59</td>
</tr>
<tr>
<td>Strep Throat (additional lab charges may apply)</td>
<td>$69</td>
</tr>
<tr>
<td>Swimmer's Ear</td>
<td>$59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wellness &amp; Prevention</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Camp Physicals*</td>
<td>$59</td>
</tr>
<tr>
<td>Health Screening Package*</td>
<td>$59</td>
</tr>
<tr>
<td>Cholesterol Screening*</td>
<td>$39</td>
</tr>
<tr>
<td>Diabetes Screening*</td>
<td>$39</td>
</tr>
<tr>
<td>Hypertension Screening*</td>
<td>$29</td>
</tr>
<tr>
<td>Obesity Screening*</td>
<td>$29</td>
</tr>
<tr>
<td>Smoking Cessation*</td>
<td></td>
</tr>
<tr>
<td>- Initial Visit</td>
<td>$29</td>
</tr>
<tr>
<td>- Follow Up Visits</td>
<td>$19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Services</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ear Wax Removal</td>
<td>$59</td>
</tr>
<tr>
<td>Flu Diagnosis (ages 10-65)</td>
<td>$93</td>
</tr>
<tr>
<td>Mononucleosis</td>
<td>$89</td>
</tr>
<tr>
<td>Pregnancy Testing</td>
<td>$49</td>
</tr>
<tr>
<td>Suture Removal</td>
<td>$59</td>
</tr>
<tr>
<td>TB Testing*</td>
<td>$15</td>
</tr>
</tbody>
</table>
Prices relative to other sites of care

• Mehrotra and colleagues (2009) found lower costs per episode of care
  » $110 at retail clinic
  » $166 at physician office
  » $156 at urgent care centers
  » $570 at emergency department visit

• Similar prescription costs
4. Accessibility

- To what extent will the location of retail clinics promote access for underserved populations?
Retail clinics as a solution?

- “Moreover, low-cost, convenient clinics offer the best solution for improving access to care for the uninsured, individuals without a primary care physician and workers in need of routine care.”¹

- “If you're uninsured and seeking stop-gap care until you find coverage, you can triage your way to better health by understanding the tradeoffs of several care options. A retail clinic or urgent-care center may be a suitable fit, depending on the severity of your medical need and personal preferences.”²

Geographic accessibility is associated with use of services

- Safety net providers $\rightarrow$ unmet medical need
- High quality/volume providers $\rightarrow$ greater use
- Food environment $\rightarrow$ rates of obesity
- Recreational resources $\rightarrow$ physical activity
Are retail clinics more or less likely to be located in a Medically Underserved Area?

- MUA is a Federal designation by the Health Resources and Services Administration based on:
  - Ratio of PCPs per 1,000 population
  - Infant Mortality Ratio
  - Percent of population with incomes below the poverty level
  - Percent of population age 65+
- 930 retail clinics in 31 states, 247 counties, and 908 census tracts
Analysis

- Limited data to counties with at least 1 retail clinic
- Compare characteristics of census tract with at least 1 clinic versus those without a clinic
- Two different modeling techniques: GEE and random effects with nesting at the county level
- Models adjust for census-tract and county characteristics (e.g. population, % race/ethnicity, and % uninsured)
Figure 2: The Locations of Retail Clinics and Medically Underserved Areas/Populations

Orange County: California

Harris County: Texas

- Retail Clinics
- Medically Underserved Areas/Populations
- Census Divisions

Scale: 0 2.5 5 10 15 20 Miles
Comparing census tracts with and without retail clinics

<table>
<thead>
<tr>
<th></th>
<th>Census tracts with retail clinics</th>
<th>Census tracts without clinics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>908 tracts</td>
<td>28,631</td>
</tr>
<tr>
<td>MUA</td>
<td>13.6%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Black</td>
<td>8.0</td>
<td>16.3</td>
</tr>
<tr>
<td>White</td>
<td>81.5</td>
<td>68.6</td>
</tr>
<tr>
<td>Hispanic</td>
<td>9.8</td>
<td>15.0</td>
</tr>
<tr>
<td>Asian</td>
<td>4.3</td>
<td>4.9</td>
</tr>
<tr>
<td>Poverty</td>
<td>7.0</td>
<td>12.4</td>
</tr>
<tr>
<td>Median Income</td>
<td>$58,544</td>
<td>50,559</td>
</tr>
</tbody>
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Is the distribution of retail clinics purely a result of the underlying distribution of chain stores?

- 6 counties with the highest number of retail clinics
  - Orange County, CA; Harris County, TX; Los Angeles County, CA; Palm Beach County, FL; San Diego County, CA; Cook County, IL

- Identify the chain stores with retail clinics
- Perform searches to obtain addresses of chain stores without retail clinics
- 135 retail clinics and 1293 without retail clinics
Figure 2: The Locations of Retail Clinics and Medically Underserved Areas/Populations

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Miles

0 2.5 5 10 15 20
Figure 3: The Locations of Retail Clinics, Chain Stores and Medically Underserved Areas/Populations

Orange County: California

Harris County: Texas

- Retail Clinics
- Chain Stores without Clinics
- Medically Underserved Areas/Populations
- Census Divisions

Distance: 0 2.5 5 10 15 20 Miles
Comparing stores with and without retail clinics

<table>
<thead>
<tr>
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<th>Stores without retail clinics</th>
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<tr>
<td>Number</td>
<td>135 stores</td>
<td>1293</td>
</tr>
<tr>
<td>MUA</td>
<td>15.6%</td>
<td>31.6%</td>
</tr>
<tr>
<td>Black</td>
<td>5.4</td>
<td>12.5</td>
</tr>
<tr>
<td>White</td>
<td>76.7</td>
<td>63.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>15.9</td>
<td>25.9</td>
</tr>
<tr>
<td>Asian</td>
<td>7.6</td>
<td>8.0</td>
</tr>
<tr>
<td>Poverty</td>
<td>8.0</td>
<td>12.3</td>
</tr>
<tr>
<td>Median Income</td>
<td>$59,884</td>
<td>50,893</td>
</tr>
</tbody>
</table>
5. Acceptability

- “relationship of clients’ attitudes about personal and practice characteristics of providers to the actual characteristics of existing providers, as well as to provider attitudes about acceptable personal characteristics of clients”
- Perceptions among low income parents (Coker, 2009) and among retail clinic users (Wang, 2010)
## Retail clinics and access to care

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<td>Prices related to clients’ ability to pay</td>
<td>Insurance, posted prices, cheaper per episode of care</td>
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<td>4. Accessibility</td>
<td>Location of supply</td>
<td>Distribution</td>
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<td>Willingness to use and to use again</td>
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3. Implications of access
   - Utilization
   - Integration with medical homes
Utilization

• Estimates of the percent who use retail clinics vary widely
• Users of retail clinics are more likely to:
  » Pay out-of-pocket for their care
  » Be uninsured
  » Live in poorer neighborhoods
  » Lack a usual source of care
Access and utilization

- To the extent that location correlates with access, the current distribution of clinics may not facilitate access for vulnerable populations.
- Current utilization may underestimate actual demand among vulnerable populations and the uninsured.
Practice patterns

• “[I]nadequate supply causes physicians to curtail preventive services or devote less than appropriate amounts of tie to each of their patients or use the hospital as a substitute for their short supply”
Principles of the Primary Care Medical Home

- “continuous and coordinated care throughout a patient’s lifetime”
  - improved access through open scheduling and enhanced hours
  - team of providers
  - focus on coordination among providers
  - Electronic medical records (EMRs) integral
  - changes to the payment system
Can retail clinics be integrated with medical homes?

- May depend on the type of the retail clinic
  - Integrated—medical home and retail clinic owned and operated by same organization
  - Hybrid—‘co-branded’
  - Independent—separate organizations
What characteristics promote integration and/or conflict?

- Staffing
- EHRs
- Coordination
- Financing
Future directions for integration

- Expanded scope of practice
- EHRs
- PCP shortage
- Health reform?
Summary

• Access to care is multifaceted
• Distribution of retail clinics is skewed towards wealthier populations which may present missed opportunities
• Integration with medical homes may promote access and coordination, though the feasibility may depend on the underlying model of care
Acknowledgements

• Ateev Mehrotra, RAND Corporation
• Katrina Armstrong, University of Pennsylvania
• Rena Rudavsky, RAND Corporation
• Courtney Gidengil, RAND Corporation

• Funding: Robert Wood Johnson Foundation Clinical Scholars Program at the University of Pennsylvania and the Leonard Davis Institute of Health Economics