Defining Service Areas for Federally Funded Community Health Centers in the United States

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Acknowledgements

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Context

- Federally-funded community health centers receive funding to provide primary medical, dental, and behavioral health services for
  - a self-defined* service area
  - within a Medically Underserved Area and
  - perhaps within a Health Professional Shortage Area
- Program administrators attempt to minimize service area overlap
- But which area? And how do these pre-defined areas compare to where patients are actually coming from?
Context, cont.

- HCP started collecting data on patient utilization in 2005 via the Uniform Data System (UDS) annual report that funded health centers complete.

- Contractor John Snow, Inc. does desktop service area overlap analyses on demand.

- In 2010, we launched the UDS Mapper that allows users to look at where patients come from for the Health Center Program as a whole, not for individual HCP Grantees.
Objective

- To construct Community Health Center Service Areas (CHCSAs) based on actual utilization and compare them to the self-defined service areas.
Study Design

- UDS data for all HCP Grantees providing services at anytime during 2011
  - Data are for the calendar year
  - Only using Patients by ZIP Code Table and Patient Demographics (race ethnicity and income level)

- Modified Griffith Commitment Index to create “actual” service area

- Compared “actual” to “funded” service area constructed using all ZIP codes included in the HCP Grantee’s scope of project profile in HRSA EHB (snapshot July 2012)
Study Design

- All ZIP Code data were converted to ZIP Code Tabulation Areas

- ZCTAs that had fewer than 11 patients from a single grantee were eliminated for that grantee

- Population data from the American Community Survey 2006-2010 and Census 2010 estimated to the 2010 ZCTA geographies
Comparisons

- Total Funded vs. Total Actual
- What of the Funded is Actually Served?

- Total Population
- Low-Income Population
- Non-White Population
- Black Population
- Hispanic Population

- Health Center patient demographics to Actual Service Area
## Findings

<table>
<thead>
<tr>
<th></th>
<th>Funded Service Area</th>
<th></th>
<th>Patient Origin Service Area</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Min</td>
<td>Max</td>
<td>Mean</td>
</tr>
<tr>
<td>Number of ZCTAs</td>
<td>30</td>
<td>1</td>
<td>715</td>
<td>49</td>
</tr>
<tr>
<td>Total Population</td>
<td>499,951</td>
<td>581</td>
<td>8,315,457</td>
<td>989,893</td>
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<tr>
<td>Poverty Population</td>
<td>81,133</td>
<td>28</td>
<td>1,504,074</td>
<td>157,948</td>
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<tr>
<td>Low-Income Population</td>
<td>178,798</td>
<td>155</td>
<td>3,527,482</td>
<td>349,454</td>
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<td>Non-white Population</td>
<td>236,858</td>
<td>0</td>
<td>6,519,961</td>
<td>490,556</td>
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<td>Black Population</td>
<td>77,887</td>
<td>0</td>
<td>1,751,360</td>
<td>163,255</td>
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<tr>
<td>Hispanic Population</td>
<td>113,897</td>
<td>0</td>
<td>4,550,490</td>
<td>234,453</td>
</tr>
</tbody>
</table>
Findings

- HCP grantees serve 87.7% of their funded service area ZCTAs
- 490/1128 HCP grantees serve all ZCTAs in their funded service area
  - Only 12 health centers are serving at least 11 patients in each of the ZCTAs that they are funded to serve and no other ZCTAs
- On average, HCP grantees serve 18 more ZCTAs than they are funded to serve
  - There is a wide range from serving 644 fewer ZCTAs to serving 262 more
- 83.1% of HCP grantee patients come from ZCTAs that were funded
Sites for HCP Grantee 2

- Core Service Area ZCTA
- Funded ZCTAs that are Served
- Served ZCTAs that are not Funded
- Funded ZCTAs that are not Served
- ZCTA Boundaries
Limitations

- HCP Grantee data are collected at the grantee-level, not site-level

- Comparing apples to oranges
  - Urban vs Rural
  - New vs established
  - Community Health Center vs Migrant Health Center vs Healthcare for the Homeless vs Public Housing Primary Care

- Is one year of data really appropriate or do we need to consider patient origin over several years?
Next Steps

- Original goal of research was to persuade BPHC to change how they funded service areas— from self-defined to being based on actual usage...

- Craft a typology of health centers to better compare them and understand these service areas and what they mean for future funding decisions
Questions

- More information about the UDS Mapper:
  - www.udsmapper.org

- In general:
  - jrankin@aafp.org

- Thank you!