DATA LIMITATIONS IN THE UDS MAPPER
### ACRONYMS USED IN THIS LESSON

<table>
<thead>
<tr>
<th>Acronym</th>
<th>What It Stands For</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACS</td>
<td>American Community Survey</td>
</tr>
<tr>
<td>HCP</td>
<td>Health Center Program</td>
</tr>
<tr>
<td>MAP for MAT</td>
<td>Mapping Areas of Priority for Medication-Assisted Treatment</td>
</tr>
<tr>
<td>UDS</td>
<td>Uniform Data System</td>
</tr>
<tr>
<td>ZCTA</td>
<td>ZIP Code Tabulation Area</td>
</tr>
</tbody>
</table>
PATIENT DATA LIMITATIONS

- Patient data come only from HCP awardees and look-alikes that report data into the UDS
  - In areas that appear underserved, people may receive service from another provider type

- Data suppression
  - Health centers are told not to report ZIP Codes where fewer than 11 of their patients reside
  - Even if a health center reports a ZIP Code with fewer than 11 patients, these patients are excluded from the aggregated ZCTA patient count shown in the UDS Mapper

- Data reported at organization level (not from each site)
INCOME LEVEL DATA LIMITATIONS (1)

- The UDS does not contain patient income information by ZIP Code.
- Therefore, all calculations comparing patient data and low-income population data are only estimates that serve as starting points for analyses.
  
  - The UDS Mapper assumes that 100% of HCP patients are low-income (in 2018 nationally 91.3% of awardee and 91.6% of look-alike patients were low-income).
  
  - For each ZCTA, the **HCP: Penetration of Low-Income (%)** percentage is estimated by dividing the number of reported UDS patients (numerator) by the low-income population number from the Census Bureau's 5-year ACS (denominator).
INCOME LEVEL DATA LIMITATIONS (2)

In some scenarios, the low-income penetration rate is overestimated, and may exceed 100%:

▪ Patients are not low-income (most often in rural areas)
▪ Patients are migrant or homeless (these populations are not well-counted in the ACS)
▪ Areas where there are multiple HCP organizations that see the same patients (one health center may offer a service that the other one does not)
GEOGRAPHY LIMITATIONS

▪ Patients are reported by ZIP Code, not by address
  • Therefore the data can only be shown at the ZCTA level; they cannot be shown at any other geography such as county or census tract

▪ Additionally, ZCTAs cross county and occasionally state lines, therefore the data cannot be precisely aligned with county or state reports

▪ See this diagram of Census Bureau-created geographies:
  https://www2.census.gov/geo/pdfs/reference/geodiagram.pdf

▪ MAP for MAT indicators data are only available by county
UDS AND POPULATION
DATA LIMITATIONS

- Patient data and population data may be from different years
- The UDS patient data and ACS population data are updated according to different schedules
  - Because patient data are updated in summer and population data are updated in winter, between the summer and winter updates when you compare patient data to population data (i.e., penetration rates) you are comparing datasets from different years
INSURANCE TYPE LIMITATIONS

- These population data are estimated for ZCTAs
- The data are limited by the population data used to break down the categories
  - The data can only break down into Uninsured; Medicaid or Other Public Insurance; and Medicare or Private Insurance
- Patient by insurance type is assumed to be based on the patient’s insurance status at last visit
ZIP CODE/ZCTA LIMITATIONS

ZIP Code boundaries change or evolve:

- ZIP Codes can be changed at any time by the U.S. Postal Service; ZCTAs are updated less frequently.
- Solution: ZIP Code data are updated annually; therefore, every reported ZIP Code in the UDS matches the ZCTA that best fits that location.
  - Data are never left out of counts or analyses because a ZIP Code is new or changes.
ESTIMATED DATA LIMITATIONS

Not all data providers publish data at the ZCTA level; therefore, some data are estimated at the ZCTA level:

- Includes Population Indicators data and population by insurance type data
- For these estimates, data at the state, county, or lower level are combined with census block population data and imputed to the ZCTA level
- Remember, these are estimates and should only be used as starting points
END OF LESSON

Proceed to the next lesson to continue learning how to use the UDS Mapper
ACKNOWLEDGEMENTS

This work is supported by the Health Resources and Services Administration under contract HHSH 250201800033G

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