Updating the Unmet Need Score

Stakeholder Webinar

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MITRE

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Purpose

Provide an update and receive stakeholder feedback on proposed changes to the Unmet Need Score
Outline

• Overview of the initial Unmet Need Score (UNS) – UNS 1.0
• Development of the updated UNS - UNS 2.0
  ▪ Development Focus Areas
  ▪ Proposed Changes
  ▪ Next Steps
### Unmet Need Score Overview

<table>
<thead>
<tr>
<th>Description</th>
<th>Calculation</th>
<th>Use</th>
<th>Benefit</th>
</tr>
</thead>
</table>
| Service Area Needs Assessment Methodology (SANAM) generates an UNS which quantifies need in geographically defined service areas | • Based on key measures of health determinants and health status relevant to the Health Center Program  
• Calculated for individual ZIP Codes which are aggregated to score larger service areas | • Used to quantify need in 2019 New Access Point (NAP) funding applications  
• Complements the narrative that applicants use to describe unmet need in service area | • Transparent methodology using data from reputable public sources  
• Automated calculation to reduce applicant burden |
### UNS 1.0 Measures and Weights

#### HEALTH DETERMINANTS

<table>
<thead>
<tr>
<th>Non-Access Measures</th>
<th>Access Outcome Measures</th>
<th>Access Barrier Measures</th>
<th>Proxy Measures</th>
<th>Direct Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violent Crime 2.5</td>
<td>Health Center Penetration 25.0</td>
<td>Below 200% Federal Poverty Level 10.88</td>
<td>All Cause Mortality 2.0</td>
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</tr>
<tr>
<td></td>
<td>No Dentist in Past Year 3.25</td>
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<td></td>
<td>Prev Hospital Stays 3.25</td>
<td>Single Parent Household 3.25</td>
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<td>Poor or Fair Health 1.50</td>
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<td>Chlamydia 1.67</td>
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<td></td>
<td></td>
<td>Linguistic Isolation 3.25</td>
<td>Physical Inactivity 1.67</td>
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<tr>
<td></td>
<td></td>
<td>Vehicle Access 3.25</td>
<td>Smoking 1.67</td>
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</tbody>
</table>

See the UNS Resource Guide for more on measure selection and weight specification.

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*Note: The table structure and data are placeholders for illustrative purposes.*

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**HRSA**

Health Center Program
Summary Assessment of UNS in 2019 NAP

• Provided a transparent and uniform methodology to quantify need
• Significantly reduced applicant burden
• Similar application cohorts from 2015 and 2017 NAP in terms of:
  ▪ Service area need
  ▪ Percentages of rural and special population applicants
  ▪ Service area overlap
• Number of applications and proposed sites were slightly higher than in 2015 and 2017
• NAP awardees
  ▪ Proposed service areas with greater Unmet Need Scores compared to 2015 and 2017
  ▪ Even mix of urban and rural awardees

Note that the UNS was one of many components that may have affected the application cohort and awardees.
## Summary of Feedback from Stakeholders

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Feedback from Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance use disorder</td>
<td>Include measure to directly assess mental health and substance use, especially given the opioid epidemic</td>
</tr>
<tr>
<td>Nutrition</td>
<td>Add a measure to capture the effects of nutrition on health and the issues around accessing healthy foods</td>
</tr>
<tr>
<td>Pediatric health</td>
<td>Add a measure focused on the pediatric population, which is not well-captured in UNS 1.0 (e.g., all seven direct measures of morbidity and health behaviors are focused on adults)</td>
</tr>
<tr>
<td>Immigrant populations</td>
<td>Increase the weight of <em>Linguistic Isolation</em> and/or add <em>Foreign-Born Noncitizen</em> to reflect access challenges for immigrants</td>
</tr>
<tr>
<td>Census tract UNS</td>
<td>Develop scores below the ZIP Code level, at the census tract level, to capture pockets of unmet need within a ZIP Code</td>
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</tbody>
</table>

Feedback obtained from UNS 1.0 webinars, Service Area Considerations Request For Information, and meetings with individual stakeholders from May 2018 to the present.
Addressing Substance Use and Mental Health

• Included Poor Mental Health in UNS 1.0
• Proposal to add: Estimated Drug Poisoning Mortality to UNS 2.0
  ▪ Estimated number of drug poisoning deaths per 100,000 population
  ▪ Newly-available county-level data that is derived from CDC modeling
• Proposal to remove: Unintentional Injury Mortality from UNS 2.0
  ▪ Although Unintentional Injury Mortality includes drug poisonings, other major drivers include motor vehicle accidents and unintentional falls, which are less relevant to services provided by health centers
Capturing Effects of Nutrition and Access to Healthy Foods

• Proposal to replace: *Physical Inactivity* with *Adult Obesity* in UNS 2.0
  - *Adult Obesity* is the percent of adults that are obese and is reported in UDS Mapper
  - *Adult Obesity* is more geographically specific (ZIP Code vs county) and associated with additional future adverse health outcomes as compared to physical inactivity

• Proposal to add: *Limited Access to Healthy Foods* to UNS 2.0
  - *Limited Access to Healthy Foods* is the percent of population that is low-income and does not live close to a grocery store (reported by the United States Department of Agriculture)
  - Lack of access to healthy foods makes communities vulnerable to adverse health outcomes
  - Captures aspect of the physical environment not directly assessed by UNS 1.0 measures
Incorporating Pediatric Health

• Despite good rationale to do so, unable to find viable measure with good quality data to add as measure of pediatric health to UNS 2.0
  ▪ Evaluated measures of pediatric health for UNS 1.0 and 2.0 from CDC, National Survey of Children’s Health, National Health Interview Survey, and Brandeis University
  ▪ Measures evaluated focused on vaccinations, obesity, asthma, oral health, access to care, and other prominent pediatric health indicators

• HRSA will continue to explore the availability of a viable and appropriate pediatric measure in future updates to the UNS
Addressing Access Challenges Faced by Immigrants

- Proposal to add: *Foreign-Born Concentration Index* and *Nonwhite Concentration Index* to UNS 2.0
  - Similar to immigrants, many U.S.-born groups face access barriers
- Concentration index measures leverage the Index of Concentration at the Extremes methodology which quantifies the extent to which people in a ZIP Code are concentrated at top (privileged) vs. bottom (deprived) ends of a specified social distribution
  - Uses data from American Community Survey
  - Considers concentration of population based on demographic makeup, but also includes income in calculating area-based need
  - Concentration index is preferred over the residential segregation index, which is only valid at the county level
  - Developed by Harvard Health Disparities Geocoding Project
Foreign-Born Concentration Index and Nonwhite Concentration Index

\[
\text{Concentration Index} = \frac{(P - D)}{T}
\]

- **Foreign-born Concentration Index**
  - Privileged (P): U.S.-born with income above the 80th percentile
  - Deprived (D): Foreign-born with income below the 20th percentile
  - Foreign-born includes everyone born outside the U.S. and territories, regardless of legal status

- **Nonwhite Concentration Index**
  - Privileged (P): Non-Hispanic white with income above the 80th percentile
  - Deprived (D): Nonwhite with income below the 20th percentile
  - Nonwhite includes nonwhite and Hispanic individuals

- Concentration index scores range from -1 to +1
Census Tract UNS

- Computed UNS values for all census tracts and compared to scores based on ZIP Codes
- Among recent applicants’ proposed service areas, ZIP Code and census tract scores tended to be similar
- The census tract UNS rarely indicated substantially higher need than the related ZIP Code UNS proposed by recent applicants
- No immediate plans to utilize census tract UNS because health center service areas are delineated using ZIP Codes
Telemedicine and Broadband Access Background

• COVID-19 fueled a rapid transition to telemedicine for patients, providers, and payers; telemedicine likely to remain

• Barriers to accessing services provided via telemedicine might limit some populations’ ability to access health care

• Telemedicine accessibility barriers
  ▪ Digital literacy
    ✓ Limited sources of data and none with adequate geographic specificity
    ✓ Factors that predict literacy include age, education, unemployment, race / ethnicity, and foreign-born status, most of which are included in the UNS
  ▪ Broadband / technology access
    ✓ Multiple sources of data and some with geographic specificity
    ✓ Broadband access has also been proposed as an important social determinant of health
Addressing Telemedicine and Broadband Access Barriers

• Proposal to add *Broadband Access* to UNS 2.0
  - *Broadband Access* is the percent of households that have a subscription to broadband and is reported by the American Community Survey
  - Likelihood for continued utilization/provision of primary care services via telemedicine
  - Similar to *Vehicle Access* and other access barriers
### Proposed UNS 2.0 Weights

#### Prototype Weights and Measures (Italics Indicates Changes from UNS 1.0)

<table>
<thead>
<tr>
<th>Non-Access</th>
<th>1.0 Weight</th>
<th>2.0 Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violent Crime</td>
<td>2.5</td>
<td><strong>1.5</strong></td>
</tr>
<tr>
<td><strong>Limited Access to Healthy Foods</strong></td>
<td><strong>1.5</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Access Outcomes</th>
<th>1.0 Weight</th>
<th>2.0 Weight</th>
</tr>
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<tbody>
<tr>
<td>Health Center Penetration</td>
<td>25.0</td>
<td><strong>20.0</strong></td>
</tr>
<tr>
<td>No Dentist in Past Year</td>
<td>3.25</td>
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<td>Preventable Hospital Stays</td>
<td>3.25</td>
<td><strong>3.0</strong></td>
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<table>
<thead>
<tr>
<th>Access Barrier / Proxy</th>
<th>1.0 Weight</th>
<th>2.0 Weight</th>
</tr>
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<tbody>
<tr>
<td>Below 200% Federal Poverty Level</td>
<td>10.875</td>
<td><strong>10.0</strong></td>
</tr>
<tr>
<td>Associate Degree or Higher</td>
<td>3.25</td>
<td><strong>3.0</strong></td>
</tr>
<tr>
<td>Housing Stress</td>
<td>3.25</td>
<td><strong>3.0</strong></td>
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<tr>
<th>Direct Measures</th>
<th>1.0 Weight</th>
<th>2.0 Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Cause Mortality</td>
<td>2.0</td>
<td><strong>2.0</strong></td>
</tr>
<tr>
<td><strong>Drug Poisoning Mortality</strong></td>
<td><strong>2.0</strong></td>
<td><strong>2.0</strong></td>
</tr>
<tr>
<td>Asthma</td>
<td>1.5</td>
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<td>Smoking</td>
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Note that **Drug Poisoning Mortality** replaces **Unintentional Injury Mortality** and **Obesity** replaces **Physical Inactivity**.
Summary of Proposed Updates

- Add Limited Access to Healthy Food
- Add Broadband Access
- Add Nonwhite Concentration Index and Foreign-Born Concentration Index
- Replace Unintentional Injury Mortality with Estimated Drug Poisoning Mortality
- Replace Physical Inactivity with Obesity
Next Steps

• Prepare for future uses of UNS
  ▪ Finalize UNS measure selection and weights informed by stakeholders’ feedback
  ▪ Obtain latest available data for each measure
  ▪ Recalculate UNS
  ▪ Update UNS Resource Guide

• Explore alternatives to the Excel-based UNS Workbook to share the UNS values and underlying data with stakeholders
Thank You!

Strategic Initiatives Team
Bureau of Primary Health Care (BPHC)
Health Resources and Services Administration (HRSA)

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