



# Updating the Unmet Need Score

Stakeholder Webinar

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**Vision: Healthy Communities, Healthy People**



# Purpose

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



# Outline

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- 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

Description	Calculation	Use	Benefit
Service Area Needs Assessment Methodology (SANAM) generates an UNS which quantifies need in geographically defined service areas	<ul style="list-style-type: none"><li>• Based on key measures of health determinants and health status relevant to the Health Center Program</li><li>• Calculated for individual ZIP Codes which are aggregated to score larger service areas</li></ul>	<ul style="list-style-type: none"><li>• Used to quantify need in 2019 New Access Point (NAP) funding applications</li><li>• Complements the narrative that applicants use to describe unmet need in service area</li></ul>	<ul style="list-style-type: none"><li>• Transparent methodology using data from reputable public sources</li><li>• Automated calculation to reduce applicant burden</li></ul>

# UNS 1.0 Measures and Weights

HEALTH DETERMINANTS			HEALTH STATUS	
NON-ACCESS MEASURES	ACCESS OUTCOME MEASURES	ACCESS BARRIER MEASURES	PROXY MEASURES	DIRECT MEASURES
Violent Crime <b>2.5</b>	Health Center Penetration <b>25.0</b>	Below 200% Federal Poverty Level <b>10.88</b>		All Cause Mortality <b>2.0</b>
	No Dentist in Past Year <b>3.25</b>	Associate Degree of Higher <b>3.25</b>		Unintentional Injury Mortality <b>2.0</b>
	Pap Smear Screening <b>3.25</b>	Housing Stress <b>3.25</b>		Asthma <b>1.50</b>
	Pre-term Birth <b>3.25</b>	No High School Diploma <b>3.25</b>		Diabetes <b>1.50</b>
	Prev Hospital Stays <b>3.25</b>	Single Parent Household <b>3.25</b>		Poor Mental Health <b>1.50</b>
		Unemployment <b>3.25</b>		Poor or Fair Health <b>1.50</b>
		Uninsured <b>10.88</b>		Chlamydia <b>1.67</b>
		Linguistic Isolation <b>3.25</b>		Physical Inactivity <b>1.67</b>
		Vehicle Access <b>3.25</b>		Smoking <b>1.67</b>

Socioeconomic Status Measure
  Measure Weight

See the [UNS Resource Guide](#) for more on measure selection and weight specification.



# 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

Focus Area	Feedback from Stakeholders
Substance use disorder	Include measure to directly assess mental health and substance use, especially given the opioid epidemic
Nutrition	Add a measure to capture the effects of nutrition on health and the issues around accessing healthy foods
Pediatric health	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)
Immigrant populations	Increase the weight of <i>Linguistic Isolation</i> and/or add <i>Foreign-Born Noncitizen</i> to reflect access challenges for immigrants
Census tract UNS	Develop scores below the ZIP Code level, at the census tract level, to capture pockets of unmet need within a ZIP Code

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 80<sup>th</sup> percentile
  - Deprived (D): Foreign-born with income below the 20<sup>th</sup> 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 80<sup>th</sup> percentile
  - Deprived (D): Nonwhite with income below the 20<sup>th</sup> percentile
  - Nonwhite includes nonwhite and Hispanic individuals
- Concentration index scores range from -1 to +1



# Census Tract UNS

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- 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)

Non-Access	1.0 Weight	2.0 Weight	Access Barrier / Proxy	1.0 Weight	2.0 Weight	Direct Measures	1.0 Weight	2.0 Weight
Violent Crime	2.5	<i>1.5</i>	Below 200% Federal Poverty Level	10.875	<i>10.0</i>	All Cause Mortality	2.0	2.0
<i>Limited Access to Healthy Foods</i>		<i>1.5</i>	Associate Degree or Higher	3.25	<i>3.0</i>	<i>Drug Poisoning Mortality</i>	2.0	2.0
			Housing Stress	3.25	<i>3.0</i>	Asthma	1.5	1.5
<b>Access Outcomes</b>	<b>1.0 Weight</b>	<b>2.0 Weight</b>	No High School Diploma	3.25	<i>3.0</i>	Diabetes	1.5	1.5
Health Center Penetration	25.0	<i>20.0</i>	Single Parent Household	3.25	<i>3.0</i>	Poor Mental Health	1.5	1.5
No Dentist in Past Year	3.25	<i>3.0</i>	Unemployment	3.25	<i>3.0</i>	Poor or Fair Health	1.5	1.5
Pap Smear Screening	3.25	<i>3.0</i>	Uninsured	10.875	<i>10.0</i>	Chlamydia	1.67	1.67
Pre-term Birth	3.25	<i>3.0</i>	Linguistic Isolation	3.25	<i>3.0</i>	<i>Obesity</i>	1.67	1.67
Preventable Hospital Stays	3.25	<i>3.0</i>	Vehicle Access	3.25	<i>3.0</i>	Smoking	1.67	1.67
			<i>Broadband Access</i>	3.25	<i>3.0</i>			
			<i>Foreign-Born Concentration Index</i>	3.25	<i>3.0</i>			
			<i>Nonwhite Concentration Index</i>	3.25	<i>3.0</i>			

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*

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Violent Crime <b>1.5</b>	Health Center Penetration <b>20</b>	Below 200% Federal Poverty Level <b>10</b>		All Cause Mortality <b>2</b>
Limited Access to Healthy Foods <i>(Proposed)</i> <b>1.5</b>	No Dentist in Past Year <b>3</b>	Associate Degree of Higher <b>3</b>		Drug Poisoning Mortality <i>(Proposed)</i> <b>2</b>
	Pap Smear Screening <b>3</b>	Housing Stress <b>3</b>		Asthma <b>1.5</b>
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		Vehicle Access <b>3</b>		Smoking <b>1.67</b>
		Broadband Access <i>(Proposed)</i> <b>3</b>		
		Foreign-Born Index <i>(Proposed)</i> <b>3</b>		
		Nonwhite Index <i>(Proposed)</i> <b>3</b>		

Socioeconomic Status Measure  
 Measure Weight



# Next Steps

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- 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!

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## Strategic Initiatives Team

Bureau of Primary Health Care (BPHC)

Health Resources and Services Administration (HRSA)



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