

## Supplemental Online Content

Hoffmann JA, Attridge MM, Carroll MS, et al. Association of youth suicides and county-level mental health professional shortage areas in the US. *JAMA Pediatr*. Published online November 21, 2022. doi:10.1001/jamapediatrics.2022.4419

**eTable 1.** Criteria Used to Designate and Score Counties as Health Professional Shortage Areas (HPSA) for Mental Health

**eTable 2.** Definitions of Economic Research Service County Typology Codes

This supplemental material has been provided by the authors to give readers additional information about their work.

**eTable 1. Criteria Used to Designate and Score Counties as Health Professional Shortage Areas (HPSA) for Mental Health**

<b>Criteria for Mental Health HPSA Designation</b>	
<p>A. The area is a rational area for the delivery of mental health services.</p> <p>B. One of the following conditions prevails within the area:</p> <p>1. The area has:</p> <p style="margin-left: 20px;">a) A population-to-core-mental-health-professional ratio greater than or equal to 6,000:1 and a population-to-psychiatrist ratio greater than or equal to 20,000:1, or</p> <p style="margin-left: 20px;">b) A population-to-core-professional ratio greater than or equal to 9,000:1, or</p> <p style="margin-left: 20px;">c) A population-to-psychiatrist ratio greater than or equal to 30,000:1</p> <p>2. The area has unusually high needs for mental services, and has:</p> <p style="margin-left: 20px;">a) A population-to-core-mental-health-professional ratio greater than or equal to 4,500:1 and a population-to-psychiatrist ratio greater than or equal to 15,000:1, or</p> <p style="margin-left: 20px;">b) A population-to-core-professional ratio greater than or equal to 6,000:1, or</p> <p style="margin-left: 20px;">c) A population-to-psychiatrist ratio greater than or equal to 20,000:1</p> <p>C. Mental health professionals in contiguous areas are over-utilized, excessively distant or inaccessible to residents of the area under consideration.</p>	
<b>Components of Mental Health HPSA Score</b>	
	<ul style="list-style-type: none"> <li>• Population-to-provider ratio [7 points max]</li> <li>• Percent of population below 100% federal poverty level [5 points max]</li> <li>• Elderly ratio (percent of people over age 65) [3 points max]</li> <li>• Youth ratio (percent of people under age 18) [3 points max]</li> <li>• Alcohol abuse prevalence [1 point max]</li> <li>• Substance abuse prevalence [1 point max]</li> <li>• Travel time to nearest source of care outside the HPSA designation area [5 points max]</li> </ul>

HPSA: Health Professional Shortage Area

**eTable 2. Definitions of Economic Research Service County Typology Codes**

<b>Economic Research Service Typology Code</b>	<b>Definition</b>
Low-education	20 percent or more of county residents age 25-64 did not have a high school diploma or equivalent, determined by the American Community Survey 5-year average data for 2008-12
Low-employment	Less than 65 percent of county residents age 25-64 were employed, determined by the American Community Survey 5-year average data for 2008-12
Persistent poverty	20 percent or more of county residents were poor, measured by the 1980, 1990, 2000 censuses, and the American Community Survey 5-year average data for 2007-11
Persistent child poverty	20 percent or more of county related children under 18 were poor, measured in the 1980, 1990, 2000 censuses, and the American Community Survey 5-year average data for 2007-11