



PLAYBOOK

FOR ENHANCING INDIANA'S MENTAL
& BEHAVIORAL HEALTH WORKFORCE

County-Level Workforce Needs Assessment

Methodology
May 2024

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Overview

Access to critical mental and behavioral health treatment depends upon a workforce available and accessible to serve those in need of care. Understanding the current supply and demand for the mental and behavioral health workforce is crucial for informing state initiatives aimed at expanding access to mental and behavioral health services. [The Playbook for Enhancing Indiana’s Mental and Behavioral Health Workforce](#) is focused on understanding Indiana’s postsecondary pipeline to practice for mental and behavioral health professionals ([selected professionals](#)) and identifying opportunities to strengthen the workforce by stopping “leaks” in the pipeline. This document provides a summary of the methods used for evaluating the county-level supply and demand of the Indiana mental and behavioral health workforce. The results from the [County-level Needs Assessment](#) can be viewed online and should only be used for informing workforce initiatives and policies.

Methodology

Data Collection

The strategy used for this needs assessment was derived from the Mental Health Professional Shortage Area (Mental HPSA) assessment criteria, established by the Health Resources and Services Administration. For more information on the Mental HPSA assessment in Indiana, see the [Indiana Department of Health Office of Primary Care](#).

Data points used in this assessment fell under two major domains: population data and Indiana behavioral health workforce data. Population data included county-level estimates of total population, poverty prevalence, elderly and youth ratios, and rates of alcohol and substance abuse. These data points served as indicators of population demand and need for mental and behavioral health services. Indiana mental and behavioral health workforce data included the total number of licensed behavioral health and human services (BHHS) professionals¹, psychologists, psychiatrists, and psychiatric advanced practice registered nurses (APRNs). Workforce data also included the average of community mental health center sites, which offer a wide range of mental and behavioral health services to adults and children.

All Indiana mental and behavioral health workforce data are maintained by the Indiana Professional Licensing Agency. Data from Indiana-licensed health professionals are collected every two years during license renewal. After license renewal periods have been completed, data are exported and securely transferred to the Bowen Center for Health Workforce Research and Policy for ongoing data management and storage in the Indiana Health Professions Database (IHPD). All data were aggregated at the county level. Additional details regarding the data points and their respective sources can be found in Table 1.

Domain	Data Element	Description	Data Source
Population Statistics	Total Population	The estimated county-level population.	County Population Totals: 2020-2022 (census.gov)

¹ BHHS Professionals include all of the licenses issued by the Indiana BHHS Board. A list is available at [https://www.in.gov/pla/professions/behavioral-health-and-human-services/behavioral-health-and-human-services-licensing-board-board/#License Types Granted by the Board](https://www.in.gov/pla/professions/behavioral-health-and-human-services/behavioral-health-and-human-services-licensing-board-board/#License%20Types%20Granted%20by%20the%20Board)

Table 1. Summary of data points included in the County-Level Needs Assessment

Domain	Data Element	Description	Data Source
	Poverty Prevalence	The percentage of the population at or below the federal poverty line.	U.S Census: https://www.census.gov/data/datasets/2021/demo/saipe/2021-state-and-county.html
	Elderly Ratio	The percentage of the population aged 65 and over, divided by the percent below 65.	County Population by Characteristics: 2020-2022 (census.gov)
	Youth Ratio	The percentage of the population under the age of 18, divided by the percent of the population aged 18 to 64.	County Population by Characteristics: 2020-2022 (census.gov)
	Alcohol Abuse Prevalence	The percentage of adults who report binge or heavy drinking.	CDC: PLACES: Local Data for Better Health, County Data 2023 release
	Substance Abuse Prevalence	The rate of non-fatal emergency department visits involving any drug.	Indiana Stats Explorer – Hospital Discharge data https://gis.in.gov/apps/isdh/meta/stats_layers.htm
Workforce Estimates	Total BHHS Professionals FTE	The reported full-time equivalency for all BHHS licenses by county.	IHPD, 2022
	Total Psychologists FTE	The reported full-time equivalency for psychologists by county.	IHPD, 2020
	Total Psychiatrists FTE	The reported full-time equivalency for psychiatrists by county.	IHPD, 2021
	Total Psychiatric APRNs FTE	The reported full-time equivalency for psychiatric APRNs by county.	IHPD, 2022
	Average Number of Community Mental Health Center Sites	The total number of Community Mental Health Center sites, divided by the total number of counties in Indiana.	Indiana Family & Social Services Administration: https://www.in.gov/fssa/dmha/files/CMHC_Outpatient_Mental_Health_Service_Locations.pdf

Scoring

Each data point was scored using z-scoring. This strategy calculates the total standard deviations the county-level data point is from the state average. The formula used is included in the figure below. In cases where values greater than the state average indicated a high prevalence of negative outcomes (such as youth ratio, elderly ratio, poverty prevalence, substance abuse prevalence, and alcohol abuse prevalence), the formula was multiplied by -1. Missing values were replaced with the means of each data point to ensure that these values received a z-score of zero.

$$z = \frac{(\text{county value} - \text{state average})}{\text{standard deviation}}$$

For the workforce estimates data, total FTE for each profession in each county was used. The total FTE for BHHS professionals, psychologists, psychiatrists, and psychiatric APRNs were first summed into total behavioral health FTE. Next, the supply and capacity of the workforce was

standardized by calculating the population-to-total-behavioral-health-FTE ratio. The z-scores for behavioral health workforce capacity and all population statistics were combined to formulate an overall county score.

Acknowledgements

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Recommended Citation

Playbook Project County Level Needs
Assessment Methodology (2024). Bowen
Center for Health Workforce Research and
Policy. Indiana University School of
Medicine.

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