

Primary Care in Texas – County Profiles

Methodology and Data Sources

Overview

To develop a better understanding of geographic variations and their impact on primary health needs, the report team identified and obtained data for over 50 indicators at the state and county levels. As described in the report, “Making Primary Care Primary: A Prescription for the Health of All Texans”, these indicators were categorized in six categories. This classification will help communities answer the following questions:

1. Why do we need primary care and transformation?
2. What is the current state of primary care transformation in Texas?
3. What is advancing or impeding primary care and transformation efforts in Texas?
4. Where is Texas’s capacity and infrastructure to advance primary care and transformation?
5. Can Texas be at the forefront of primary care and health system transformation efforts?

Data Description and Methodology

Data for county profiles were obtained from a combination of publicly available national and state data sources. Indicator names, definitions, data source, year, and geography levels for each indicator are included in tables 1 to 6 (See below). Local data for several indicators were requested from relevant state agencies. Technical notes and methodology (where calculated differently from primary data source) for these indicators have been described below.

Demographics

To develop a better understanding of community residents and how demographic factors might be affecting primary health outcomes, demographic data were obtained from the U.S. Census Bureau American Community Survey (ACS), Census Bureau’s Population Estimates Program, and Annie E. Casey Kids Count. All data besides total population, median age, and median household income are reported in percentages. Of note, U.S. Census Bureau American Community Survey utilized 2018 5-year estimate data.

Health Needs and Factors

Adult mortality measures utilized CDC Wonder data from a five-year time span, 2014-2018 to account for long-term trends. Deaths for persons of unknown age are included in counts and crude rates but are not included in age-adjusted rates.

Heart disease hospitalization, flu vaccinations and preventable hospital conditions indicators all account for Medicare populations (65+) and obtained through the Centers for Medicare and Medicaid services.

COVID-19 cases and death were obtained from the Department of State Health Services and represent cases from the 3/4/20-10/12/20 and deaths from the 3/7/20-10/11/20. Case counts do not include probable cases

Top causes of emergency department utilization were obtained from the Texas Health Care Information Collection (THCIC) Hospital Emergency Department Public Use Data File for the year 2016. Emergency department utilizations represent the top three primary diagnosis ICD codes. Data are suppressed for counties that reported 50 or fewer visits for top three causes combined.

Facilities and Quality Measures

Mental health treatment facilities and CMS innovation models utilized federal data from SAMSHA and CMS, respectively. Additionally, school-based health centers and chemical dependency treatment facilities utilized data from Texas Association of School-Based Health Centers and Texas Health and Human Services Commission, respectively. Rates per 100,000 of total population were calculated for all four indicators to allow for county and state-level comparisons.

Mental health treatment facilities as denoted by SAMSHA utilize the following data 1) facilities that provide mental health treatment services and are funded by the state mental health agency (SMHA) or other state agency or department 2) mental health treatment facilities administered by the U.S. Department of Veterans Affairs and 3) private for-profit and non-profit facilities that are licensed by a state agency to provide mental health treatment services, or that are accredited by a national treatment accreditation organization (e.g., The Joint Commission, NCQA, etc.)

Workforce

The health professions data received from DSHS are based on the licensure files DSHS receives from respective licensing boards. Only those providers with a valid Texas address are included in these analyses.

Health Behaviors

Data for excessive alcohol consumption and smoking are collected from the County Health Rankings website which in turn uses Behavioral Risk Factor Surveillance System (BRFSS) data which is a state-based random digit dial (RDD) telephone survey that is conducted annually in all states, the District of Columbia, and U.S. territories.

Social Determinants of Health

No changes or modifications were made to any of the indicators included in this domain. However, it is important to note that Texas introduced a new birth certificate in 2005, changing the categorization of the inadequate prenatal care data. Now, inadequate prenatal care is defined as receiving no prenatal care or only receiving prenatal care after the first trimester. Data from 2005 or later cannot be compared to earlier prenatal care data.

Also, in reference to the child abuse indicator, when a child is identified as a confirmed victim, it does not mean that the child will receive ongoing services from DFPS. The decision about whether to provide the family ongoing services or to remove the child into DFPS custody is based on an assessment of whether there is an ongoing risk to the child.

Strength and Limitations

BRFSS

BRFSS is the world's largest annual population-based telephone survey and research has shown to be both valid and reliable. However, as with any survey data there are multiple sources of potential error. For example, BRFSS relies on self-reported information that has not been verified by medical or dental records. The wording of questions may affect the responses given and can result in measurement error. Similarly, the survey relies on the ability of respondents to recall details accurately, an ability that varies by person and how much time has passed since the event they are trying to recall, which can result in response error.

Health Professions Data

The health professions data received from DSHS include only persons who are licensed with their Texas board and are actively working in their profession. Tables exclude persons who are licensed by their Texas board but have indicated to the board that they are retired, inactive, working out-of-state (or living out-of-state if table is based on residence address), and, in some cases, military. Therefore, the total number of

licensees in the professions that we report may be different from the number that the boards report if they do not exclude certain categories of licensees (e.g., those who are retired).

Glossary

NA means not available, suppressed or unreliable

Demographics:

Indicator Name	Definition and Methodology	Source	Age Group	Geographic level	
Total Population	The number of residents in a county	U.S. Census Bureau, American Community Survey, 2018	All ages	State and County	
Race and Ethnicity	Percent of population by race and ethnicity	U.S. Census Bureau, American Community Survey, 2018	All ages	State and County	
Gender	Percent of population by female and male	U.S. Census Bureau, American Community Survey, 2018	All ages	State and County	
Educational Status	Educational status by less than high school, high school, some college, and college +	U.S. Census Bureau, American Community Survey, 2018	25+ years	State and County	
Uninsured Adults	Percent of adults age 18 to 64 without health insurance coverage	U.S. Census Bureau, American Community Survey, 2018	18-64 years	State and County	
Uninsured Children	Percent of children under age 19 without health insurance coverage	The Annie E. Casey Foundation, Kids Count, 2018	0-18 years	State and County	
Rurality	Percentage of population living in a rural area	County Health Rankings, U.S. Census Bureau's Population Estimates Program, 2010	All ages	State and County	
Poverty	Percentage of families and people whose income in the past 12 months is below the poverty level	U.S. Census Bureau, American Community Survey, 2018	All ages	State and County	
Median Household Income	Median household income in 2018 inflation-adjusted dollars	U.S. Census Bureau, American Community Survey, 2018	All ages	State and County	

Health Needs & Factors:

Indicator Name	Definition and Methodology	Source	Age Group	Geographic level
Diabetes	Percentage of adult population with diagnosed diabetes cases	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2016-17	20+ years	State and County
HIV	Number of persons aged 13 years and older living with a diagnosis of human immunodeficiency virus (HIV) infection per 100,000 population	Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2018	13+ years	State and County
Obesity	Percentage of adults that report a BMI of 30 or more	Centers for Medicare & Medicaid Services, Behavioral Risk Factor Surveillance System, 2017	18+ years	State and County
Heart Disease	Hospitalization heart disease rate per 1,000 Medicare beneficiaries	Centers for Disease Control and Prevention, Interactive Atlas of Heart Disease and Stroke, 2015-2017	65+ years	State and County
Flu Vaccinations	Percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination	Center for Medicare & Medicaid Services, Mapping Medicare Disparities Tool, 2018	65+ years	State and County
Top Causes of ED Utilization	Top three cause of emergency department utilization by Primary Diagnosis ICD code	Texas Health Care Information Collection (THCIC) Hospital Emergency Department Public Use Data File, 2016	18+ years	State and County
COVID-19 Cases and Deaths	Case count from 3/4/20-10/12/20; Fatality count from 3/7/20-10/11/20	Texas Department of State Health Services	All ages	State and County
Preventable Hospital Conditions	Prevention Quality Indicators (PQI) overall composite per 100,000 population. Includes admissions for one of the following conditions: diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes without complications, diabetes with lower-extremity amputation, chronic obstructive pulmonary disease, asthma, hypertension, heart failure, angina without a cardiac procedure, dehydration, bacterial pneumonia, or urinary tract infection.	Center for Medicare & Medicaid Services, Mapping Medicare Disparities Tool, 2018	65+ years	State and County
All-Cause Mortality	The age-adjusted deaths per 100,000 population	CDC Wonder, Community Commons, 2014-2018	All ages	State and County
Cancer Mortality	The age-adjusted deaths due to malignant neoplasm (cancer) per 100,000 population	CDC Wonder, Community Commons, 2014-2018	All ages	State and County
Heart Disease Mortality	The age-adjusted deaths due to heart disease per 100,000 population	CDC Wonder, Community Commons, 2014-2018	All ages	State and County
Drug and Alcohol Poisoning Mortality	The age-adjusted deaths due to drug/alcohol overdose per 100,000 population	CDC Wonder, Community Commons, 2014-2018	All ages	State and County
Stroke Mortality	The age-adjusted deaths due to cerebrovascular disease (stroke) per 100,000 population	CDC Wonder, Community Commons, 2014-2018	All ages	State and County
Chronic Lower Respiratory Disease Mortality	The age-adjusted deaths due to chronic lower respiratory disease per 100,000 population	CDC Wonder, Community Commons, 2014-2018	All ages	State and County
Suicide	The age-adjusted deaths due to intentional self-harm (suicide) per 100,000 population	CDC Wonder, Community Commons, 2014-2018	All ages	State and County
Infant Mortality Rate	Number of all infant deaths (within 1 year), per 1,000 live births	CDC Wonder, Community Commons, 2017-2018	0-1 years	State and County

Facilities & Quality Measures:

Indicator Name	Definition and Methodology	Source	Age Group	Geographic level
School Based Health Centers (SBHCs)	Number of SBHC sites per 100,000 population	Human Resources and Service Administration	Not applicable	State and County
Substance Use Treatment Facilities	Number of substance use treatment facilities per 100,000 population	Texas Association of School Based Health Centers	Not applicable	State and County
Mental Health Treatment Facilities	Number of mental health treatment facilities per 100,000 population	Substance Abuse and Mental Health Service Administration	Not applicable	State and County
CMS Innovation Models	Number of CMS Innovation Models per 100,000 population	Center for Medicare & Medicaid Services, CMS Innovation Center	Not applicable	State and County

Workforce:

Indicator Name	Definition and Methodology	Source	Age Group	Geographic level
Primary Care Physicians	The number of primary care physicians per 100,000 population	Texas Department of State Health Services, 2019	Not applicable	State and County
Direct Patient Care Physicians	The number of direct patient care physicians per 100,000 population	Texas Department of State Health Services, 2019	Not applicable	State and County
Nurse practitioner	The number of nurse practitioners per 100,000 population	Texas Department of State Health Services, 2019	Not applicable	State and County
Physician Assistant	The number of nurse practitioners per 100,000 population	Texas Department of State Health Services, 2019	Not applicable	State and County
Registered Nurse	The number of registered nurses per 100,000 population	Texas Department of State Health Services, 2019	Not applicable	State and County
Community Health Workers (CHWs)	The number of CHWs per 100,000 population	Texas Department of State Health Services, 2019	Not applicable	State and County
Psychiatrist	The number of psychiatrists per 100,000 population	Texas Department of State Health Services, 2019	Not applicable	State and County
Psychologists	The number of psychologists per 100,000 population	Texas Department of State Health Services, 2019	Not applicable	State and County
Licensed Professional Counselor (LPC)	The number of LPCs per 100,000 population	Texas Department of State Health Services, 2019	Not applicable	State and County
Licensed Chemical Dependency Counselor (LCDCs)	The number of LCDCs per 100,000 population	Texas Department of State Health Services, 2019	Not applicable	State and County
Dentists	The number of dentists per 100,000 population	Texas Department of State Health Services, 2019	Not applicable	State and County

Health Behaviors

Indicator Name	Definition and Methodology	Source	Age Group	Geographic level
Smoking	Percentage of adults who are current smokers	County Health Rankings, Behavioral Risk Factor Surveillance System, 2017	18+ years	State and County
Alcohol consumption	Percentage of adults reporting binge or heavy drinking	County Health Rankings, Behavioral Risk Factor Surveillance System, 2017	18+ years	State and County
Physical inactivity	Percentage of adults age 20 and over reporting no leisure-time physical activity	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2017	20+ years	State and County

Social Determinants of Health

Indicator Name	Definition and Methodology	Source	Age Group	Geographic level
Air Quality Index	Annual average ambient concentrations of pm 2.5 in micrograms per cubic meter (monitor + modeled)	Centers for Disease Control and Prevention, National Environmental Public Health Tracking Program, 2016	All ages	State and County
Internet Access	Households with a broadband Internet subscription	U.S. Census Bureau, American Community Survey, 2018	All ages	State and County
Food Insecurity	Households with food stamps/SNAP benefits in the past 12 months	U.S. Census Bureau, American Community Survey, 2018	All ages	State and County
Transportation	Mean travel time taken to work in minutes	U.S. Census Bureau, American Community Survey, 2018	16+ years	State and County
Overcrowded Housing	Percentage of housing units with more than one occupant per room	U.S. Census Bureau, American Community Survey, 2018	All ages	State and County
Median Rent	Median gross rent	U.S. Census Bureau, American Community Survey, 2018	All ages	State and County
Violent Crime	Number of reported violent crime offenses per 100,000 population.	County Health Rankings, Uniform Crime Reporting-FBI, 2014&2016	All ages	State and County
Child Abuse	Rate per 1,000 of children ages 0-17 confirmed as victims of child abuse	The Annie E. Casey Foundation, Kids Count, 2018	0-18 years	State and County