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# OVERVIEW

To create the Wellness Score 2020, the OKC-County Health Department (OCCHD) utilizes the Mobilizing for Action through Planning and Partnership (MAPP) tool to conduct community-wide health needs assessments. The MAPP process engages individuals, programs, and organizations across the city and county to collect qualitative and quantitative data using four distinct assessments that include:

- Wellness Score (Community Health Profile)
- Strengths & Themes
- Forces of Change
- Local Public Health System Assessment.

Each tool utilizes a distinct methodology, representing a wide cross-section of quantitative and qualitative data.

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## Wellness Score

The Wellness Score provides an overall summary of community health status. This information demonstrates the foundation of planning and program development for improving health outcomes for our community.

The OKC-County Health Department (OCCHD) consulted with representatives from numerous agencies throughout Oklahoma County to generate a representative list of determinants and outcomes of health and wellness for our community residents. For inclusion in the Wellness Score, data had to be collected at a ZIP code level and had to be available for the 2016-2018 time frame.

## Strengths & Themes

Strengths & Themes is a survey used to measure community perception of health status and quality of life of Oklahoma City and County residents. Available in both English and Spanish, this survey is administered in both paper and electronic formats in order to reach the broadest number of community members. The survey asks community members about their perceptions regarding aspects of life that enhance health and well-being and the challenges that face Oklahoma City and County residents related to achieving optimum health-related quality of life. From the results of the survey, community strengths and themes can be assessed.

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## Forces of Change

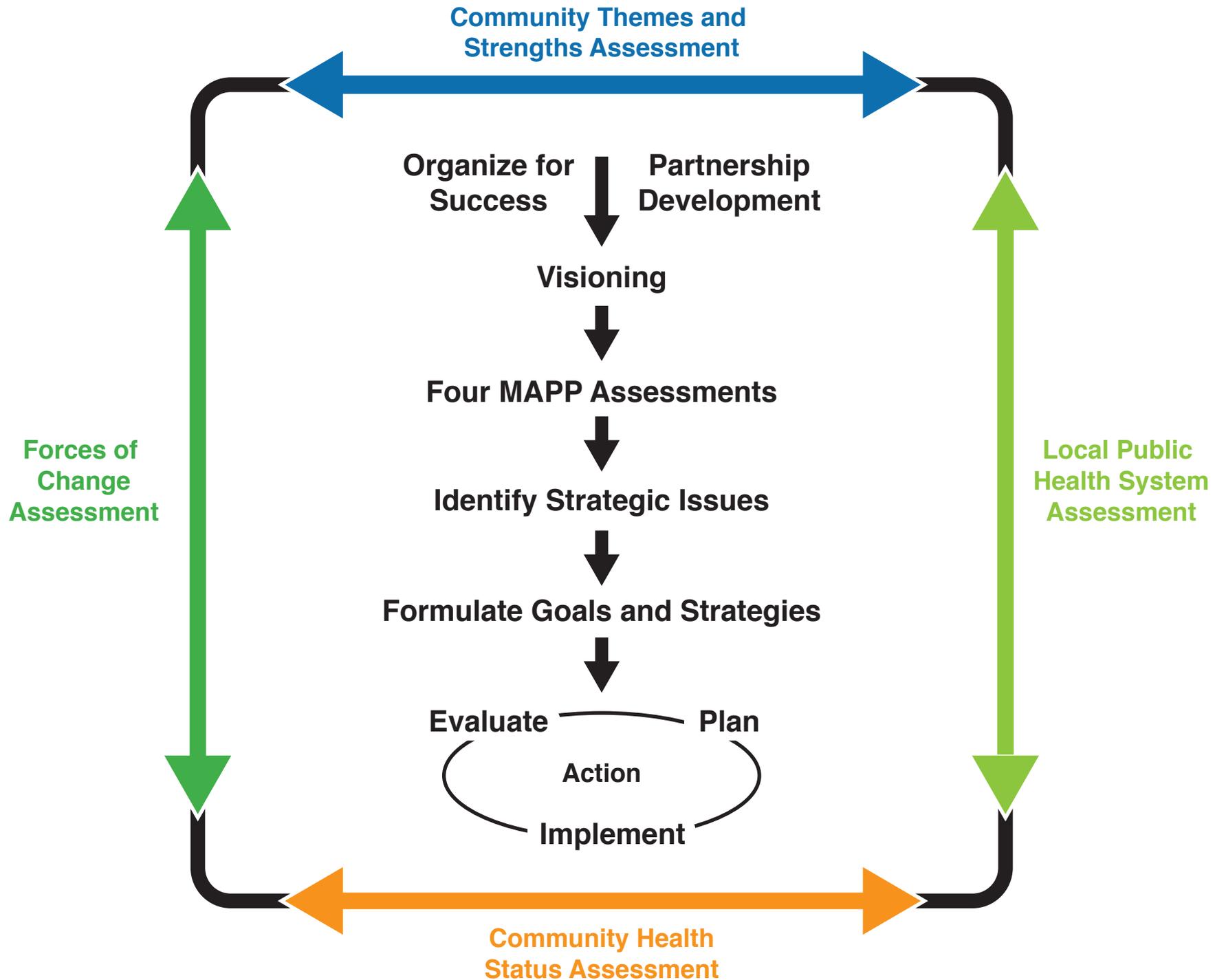
The Forces of Change assessment gathers information from community members about the various supports and barriers that exist for improving community health. Feedback was collected through a series of town hall meetings held in each quadrant of the OCCHD jurisdiction in November 2019.

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## Local Public Health System Assessment (LPHSA)

The Local Public Health System Assessment is a systematic review of our community's capacity to meet the health needs of our residents. Traditional and non-traditional providers of services that impact health outcomes are brought together for a one-day, intensive program where they complete the National Public Health Performance Standards Program (NPHPSP).

OCCHD facilitated the NPHPSP in November 2019 with more than 50 individuals present representing more than 30 individual agencies and communities. The Centers for Disease Control and Prevention (CDC) calculates the assessment results and generates a profile report enabling the local public health system to identify gaps in capacity and strengths



# METHODOLOGY

## Data Overview

In order to gather data for the Wellness Score 2020 report, the Oklahoma City-County Health Department (OCCHD) consulted with representatives across multiple agencies in Oklahoma County to obtain data variables. Data analysis was divided into 10 different categories as outlined in this report, including both determinants and outcomes to assess the health and wellness of our communities.

## ZIP Code Level

Many health indicators in this assessment are defined at the ZIP code level and are presented for the 63 ZIP codes located in Oklahoma County. However, maps and tables in the profile show only 56 ZIP codes since data for two sparsely populated ZIP codes have been combined with adjacent ZIP codes, and five other ZIP codes had less than 25% of their population living within Oklahoma City-County jurisdiction (see the below section for more information on this topic). Combining ZIP codes in this manner creates a map where identifying health concerns within the county is easier and helps OCCHD target programs, resources, and necessary interventions where they are most needed.

## ZIP Code Visualization

The maps represent the ZIP codes of Oklahoma City-County Health Department's jurisdiction, which includes all of Oklahoma City and all of Oklahoma County. The ZIP code

boundaries were obtained using the 2018 Environmental Systems Research Institute (ESRI) USA ZIP code level feature layer. To accurately represent the Wellness Score data, some ZIP codes were graphically combined into one. Minor stretching or skewing of the original maps may have occurred. Some ZIP code boundaries were smoothed or clipped to aid in printing and to make the maps more visually appealing and easier to read. Because of these minor adjustments, the maps are meant for a general visual representation of data only and are not meant for cartographical (map-making) purposes. These maps are meant to be viewed and displayed as printed.

## Border/Combined ZIP Codes

Oklahoma County has 9 ZIP codes that are shared with neighboring counties but are primarily in Oklahoma County. These ZIP codes are: 73007, 73025, 73034, 73045, 73054, 73099, 73165, 73170 and 74857. There are two ZIP codes that lie entirely within Oklahoma County, but because each has such a small population, these two ZIP codes have been combined with adjacent ZIP codes to help improve the accuracy of data calculations. These ZIP codes are 73066 and 73097, and when viewed on the maps throughout the profile they will be combined with and represented as 73020 and 73169, respectively.

Oklahoma County also includes small proportions (less than 25% population) of five ZIP codes that are shared but lie primarily in adjacent counties. The data

for these partial ZIP codes (73026, 73064, 73071, 73078 and 73160) are not included in this study because of the relatively low number of events from the partial ZIP codes.

## Rates

The data presented throughout most of this report is in the form of rates. Rates make comparisons of events or groups of individuals to other populations and geographic areas much simpler. Rates are developed by taking the total number of events and dividing it by the total population (or population at risk of the event) in the same specific area. Rates in this profile are computed per 1,000 or 100,000 population. This report also contains both crude and age-adjusted death rates (see glossary for definitions).

In general, the larger the population, the more reliable rate calculations are likely to be. Throughout the data reported in this Wellness Score, there are some ZIP codes with populations of fewer than 5,000 residents. These ZIP codes are 73007, 73054, 73102, 73103, 73104, 73121, 73128, 73131, 73141, 73145, 73150, 73151, 73169, and 73173. Interpreting data for these less populated areas needs to be done with caution since comparing low-population ZIP codes with high-population ZIP codes may result in misleading results. In addition, the calculation of rates is not recommended when there are fewer than five indicator events (e.g., births or deaths) because confidentiality and reliability could be compromised.

### Data Breaks

All tables and maps have data grouped for presentation using natural breaks in the data set. 'Natural breaks' is a process that groups data into subsets using a software system that examines where natural groupings occur based on ESRI geographic information system software or ArcGIS. All maps in this report were created using this system—a system designed by cartographer George Jenks. This approach to creating maps of the data is preferred because it creates a user-friendly geographic distribution of risk factors and outcomes in Oklahoma City-County. With the exception of the "Life Expectancy" indicator, data groups are represented by shading with the lightest color indicating the best outcome for each health determinant and the darkest indicating the worst from available data. All data is compared from best to worst within the Oklahoma City-County jurisdiction and is not compared against any standard.

### Data availability

ZIP codes are shown without shading when there is data missing or unavailable for the specific ZIP code or when the number of events in the ZIP code is less than five. Each table provides an explanation of the data that are displayed.

### Descriptive Statistics

The Wellness profile uses tables, graphs, charts, maps, and narrative to describe the factors that affect the health of the Oklahoma City-County community. The information presented includes both risk factors and health outcomes of our communities. The

ZIP code level data help provide information about geographic and demographic areas of public health concerns across the city-county community to best help target concerns, make improvements where necessary, and allocate resources.

### Time Period

Data throughout the profile are generally included for the years 2016-2018, depending on the availability of data for the specific topic. Therefore, most data are average annual rates over a three-year period.

All ZIP code-level population data is based on 2016-2018 estimates.

### Health Index Calculation

As the two largest metropolitan areas in Oklahoma, Tulsa Health Department and the Oklahoma City-County Health Department partnered to develop a health index formula to allow for comparisons within and between both City-County jurisdictions. This formula was adapted from both the County Health Rankings and Urban Hardship Index and finalized in collaboration with the City of Oklahoma City and Tulsa. See Health Index Profile on pages 158-159.

The health index formula standardizes each of the component variables so they are all given equal weight in the composite index. The index represents the average of the standardized ratios of all 9 component variables. The index ranges from 0 to 100 with a higher number indicating greater hardships.

### Formula:

- $X = ((Y - Y_{min}) / (Y_{max} - Y_{min})) * 100$
- X= Standardized value of component variable (for each ZIP to be computed)
- Y= Unstandardized value of component variable for each ZIP
- Ymin= Minimum value for Y across all ZIPs
- Ymax= Maximum value for Y across all ZIPs

### Scale:

0 to 100 with a higher number indicating greater health burden.

The 9 factors that contribute to the health index are:

#### 1. Education

Percent of population with less than a high school education

#### 2. Income

Percent of population below poverty

#### 3. Maternal & Child Health

Infant mortality rate (Infant deaths/1,000 live births)

#### 4. Mental Health

Age-adjusted suicide deaths/100,000 population

#### 5. Mortality

Life expectancy at age 0-4

#### 6. Healthcare Access

ER visits/hospital utilization

#### 7. Crime

Gun related deaths/100,000 population

#### 8. Infectious Disease

Respiratory, flu related hospitalizations, enteric, bloodborne, mosquito borne and sexually transmitted infections

#### 9. Built Environment

Positive land use, negative land use, transportation security, housing security

# METHODOLOGY CONTINUED

<b>Mortality Rates - Measure</b>	<b>ICD-10 Codes</b>
Age-adjusted Cardiovascular Disease Mortality Rate	I00-I78
Age-adjusted Heart Disease Mortality Rate	I00-I09, I11, I13, I20-I51
Age-adjusted Stroke Mortality Rate	I60-I69
Age-adjusted Hypertension Mortality Rate	I10, I11.0, I11.9, I12.0, I12.9, I13.0, I13.1, I13.11, I13.2
Age-adjusted Heart Attack Mortality Rate	I214, I219, I22
Age-adjusted Diabetes Mortality Rate	E10-E14
Age-adjusted Chronic Lower Respiratory Disease Mortality Rate	J40-J47
Age-adjusted Chronic Liver Disease Mortality Rate	K70, K73-K74
Age-adjusted Cancer Mortality Rate	C00-C97
Age-adjusted Breast Cancer Mortality Rate	C50
Age-adjusted Lung Cancer Mortality Rate	C34
Age-adjusted Prostate Cancer Mortality Rate	C61
Age-adjusted Alzheimer Mortality Rate	G30
Age-adjusted Influenza and Pneumonia Mortality Rate	J09-J18
Age-adjusted Unintentional Injury Mortality Rate	V01-X59, Y85-Y86
Age-adjusted Suicide Mortality Rate	X60-X84, Y87.0
Age-adjusted Homicide Mortality Rate	X85-Y09, Y87.1
Age-adjusted Firearm-related Mortality Rate	W32-W34, X72-X74, X93-X95, Y22-Y24, Y35

# Changes from 2017

There were 2 major changes/replacements to the 2020 Wellness Score compared to previous health profiles:

1. Food Safety and Environmental Health: Percent of inspections with a foodborne illness risk factor violation at the ZIP code level is presented in this publication. The previous Wellness Score presented average number of food establishment violations.
2. A chapter is dedicated to the ongoing Coronavirus disease (COVID-19) pandemic in this publication. As at the time of the publication, incidence and prevalence rates continue to change, and thus, the indicator is not used in the overall health index calculation.

Outcome	All Races	Caucasian	Black/ African American	American Indian/ Alaska Native	Asian/ Pacific Islander	Hispanic
		Change from 2017 WS	Change from 2017 WS	Change from 2017 WS	Change from 2017 WS	Change from 2017 WS
All Cause Mortality	2.2% ↓	3.7% ↓	1.5% ↓	5.4% ↓	8.6% ↑	3.2% ↑
Cardiovascular Disease (CVD) Moratilty	3.0% ↓	2.8% ↓	9.7% ↓	0.9% ↑	1.1% ↓	8.8% ↑
Stroke Mortality	1.7% ↓	0.0% →	11.5% ↓	12.1% ↑	39.7% ↓	8.5% ↓
Heart Disease Mortality	4.0% ↓	3.9% ↓	12.1% ↓	3.4% ↓	11.9% ↑	18.5% ↑
Diabetes Mortality	8.5% ↑	5.1% ↑	12.0% ↑	36.3% ↑	6.7% ↑	1.0% ↑
All Cancer Mortality	3.4% ↓	4.4% ↓	2.5% ↓	9.5% ↓	23.2% ↑	2.6% ↑
Lung Cancer Mortality	14.3% ↓	13.0% ↓	20.8% ↓	46.3% ↓	47.5% ↑	36.7% ↓
Breast Cancer Mortality	3.4% ↓	2.9% ↓	9.5% ↓	3.0% ↑	2.3% ↑	33.6% ↓
Prostate Cancer Mortality	8.8% ↑	6.3% ↑	35.1% ↑	9.0% ↓	Insufficient Data	69.0% ↓
Chronic Lower Respiratory Disease Mortality	8.9% ↓	10.1% ↓	12.9% ↑	21.9% ↓	85.3% ↑	4.3% ↓
Unintentional Injury Mortality	5.1% ↑	0.3% ↓	35.6% ↑	0.5% ↓	88.0% ↑	8.9% ↓
Suicide Mortality	4.0% ↑	3.4% ↓	29.9% ↑	25.1% ↑	24.7% ↑	78.7% ↑
Homicide Mortality	8.2% ↑	6.5% ↓	1.6% ↑	70.7% ↑	Insufficient Data	45.1% ↑
Alzheimer Mortality	18.8% ↑	18.2% ↑	9.9% ↑	69.0% ↑	12.2% ↓	91.5% ↑
Infant Mortality	4.3% ↑	20.7% ↓	3.9% ↑	104.5% ↑	Insufficient Data	20.3% ↑