

# Public Health Dashboards:

## Purpose:

To provide an executive level view of how the county is performing on indicators in major public health content areas as compared to the state, nation, peers, and available targets or goals. Icons provide quick reference to indicators of note, and how Orange County compares to these benchmarks.

## Content Areas:

Maternal and Infant Health; Tobacco and Respiratory Disease; Substance Abuse and Mental Health; Chronic Disease; Child and Family Obesity; Sexually Transmitted Infections; Communicable Diseases;

## Data Disclaimer:

These dashboards are intended to be a starting point for collecting a number of related indicators in one place. However, because these data come from a variety of different data sources, each indicator will have its own set of limitations and considerations based on the collection and analysis methodology for that data source. It is important to understand the methodology utilized for the indicators you may be interested in and incorporate corresponding limitations into any of your own reporting. References and/or more detailed information on the sources for particular data points may be provided on request.

## FAQs:

### Q: What sources do you use for your data?

These dashboards use the most recent and available data and statistics from a variety of different sources. Some of these data sources include:

American Community Survey (ACS) from the Census Bureau;  
Behavioral Risk Factor Surveillance Survey (BRFSS);  
The Cecil G. Sheps Center for Health Services Research (Sheps Center);  
Center for Disease Control and Prevention (CDC);  
Department of Health and Human Services (DHHS);  
Morbidity and Mortality Weekly Report and Statistics (MMWR);  
North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT);  
North Carolina Electronic Disease Surveillance System (NC EDSS);  
North Carolina State Center for Health Statistics (NC SCHS);  
Pediatric Nutrition Surveillance System (PedNSS);  
Small Area Health Insurance Estimates (SAHIE);  
Surveillance, Epidemiology, and End Results Program (SEER) through The National Cancer Institute;  
UNC School of Government Hunger Research;  
Youth Risk Behavior Survey (YRBS);

### Q: What years are your data from?

The data included in these dashboards are the most up to date data available for Orange County. In some cases, there may be more recent data available for peers, the state, or the US; however, benchmark values are selected from the same year as the Orange County data, for consistency of comparison. In some cases, data points from one geography may represent multiple year rates (such as 3-year or 5-year rates), whereas other geographies may show only 1-year rates. In these cases, the smaller geography (counties) uses multiple years of data to improve statistical power through a larger sample size, whereas US numbers are large enough in a single year to report a 1-year rate.

### Q: How do you determine which indicators to include in your dashboards?

The over-arching content areas selected for our dashboards are based on current county priority areas and on the topic area categories included in the Healthy People 2020 and Healthy North Carolina 2020 Objectives. In order to present a meaningful set of data that develops an executive level picture for what is happening in our county's health, we only include indicators that meet several criteria. These criteria help contextualize county measures by relating them to comparable benchmarks. Meaning, a number by itself does not give you any frame of reference unless you have other measures to compare it with.

We aim to select measures that are **meaningful** to public health and:

- 1) **annual** measures
- 2) **updated** on a regular basis
- 3) available at the **county level**
- 4) have **existing objectives, targets, or benchmarks** (such as the HP2020 or HNC2020 Objectives)
- 5) are **commonly used measures across geographies** (other counties, the state, the US)

In some cases, an indicator may meet several but not all of these criteria. In general, an indicator must meet a majority of these criteria to be included in the dashboard.

### Q: What do the circle, triangle, and square icons mean?

-  Performing better than four or more benchmarks
  -  Performing better than two or three benchmarks
  -  Performing better than one or no benchmarks
- Benchmarks include Target, Previous, Peer, NC, and US*

The performance icons serve as “at-a-glance” guides that allow the reader to scan the dashboard and identify indicators for which the county is performing either better or worse than the majority of available benchmarks (target, previous, peer, NC and US).

It is important to note that these icons serve as a starting point for conversations, but there are many stories to tell behind each indicator. For example, an indicator with a green circle may not alert the reader to health disparities for a specific demographic group within an indicator data set. The absence of disparity measures is a general limitation of this indicator set, but the department hopes to incorporate more data related to health disparities in future dashboard iterations.

## Q: How do you determine whether a trend is increasing, decreasing, or the same?

- ↑↓ Positive trend
- ↑↓ Negative trend

As most of these indicators currently only observe two data points in time, it is difficult to identify a true change in trend (a second limitation of this data set). Observing whether confidence intervals or margins of error for the two observed values overlap from one year to another represents the best method for determining if there is a statistical difference between previous and current indicator values. However, confidence intervals are not always readily available in reports.

Therefore for the purposes of this dashboard, we have adopted two “rules of thumb” for identifying a threshold for change in trend in the absence of confidence intervals or margin of error.

- **A difference of one percentage point or greater from a surveyed population (such as BRFSS/YRBS, represented by a percentage value) is deemed as a change in trend.** For example, a change from 7.0% to 8.4% would represent an increasing trend, whereas a change from 7.0% to 7.8% would be considered the same. Whether this trend is “positive” or “negative” (signified by green or red colors) depends on the nature of the indicator. If we are observing an increase in diabetes that would be a negative trend, but an increase in physical activity would be a positive trend.
- **A difference in a rate that represents a 1% increase or decrease of the previous rate value would also be deemed as a change in trend.** For example, a rate difference from 3.1 to 2.7 per 100,000 people would represent a -12.9% difference ( $(3.1-2.7) / 3.1 = .129$ ). This would represent a decrease in trend. However, a rate difference from 256.3 to 255.9 per 100,000 people would only represent a -0.2% difference (rounded), and would thus be considered the same as the previous year for the purposes of this dashboard ( $(256.3-255.9) / 256.3 = .0016$ ).

## For Additional Information:

If you have any questions or comments regarding the methodology and/or data contained in these dashboards, please contact Allison Young, Health Informatics Manager, at [ayoung@orangecountync.gov](mailto:ayoung@orangecountync.gov).