



Orange County Health Improvement Plan 2017-19

An update to Orange County's 2014-16 health assessment and improvement plan.



www.ochealthiertogether.org

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Orange County's Healthier Together is a community-wide initiative that aligns public and private resources within the public health system to improve health for all who live, work, and play in Orange County. The initiative is administered by Orange County Health Care Agency, Public Health Services.

Acknowledgements and Partners

Orange County's Healthier Together is a community-wide initiative that aligns public and private resources within the public health system to improve health for *all* communities in Orange County. This initiative is led by the *Orange County's Healthier Together* Health Improvement Partnership.

Health Improvement Partnership (HIP)

The Health Improvement Partnership guides and leads the *Orange County Healthier Together* assessment and planning process. Member organizations include:

- ◆ 2-1-1 Orange County
- ◆ Alzheimer's Family Services Center
- ◆ CalOptima
- ◆ Children and Families Commission of Orange County
- ◆ Children's Bureau of Southern California
- ◆ Children's Hospital of Orange County
- ◆ Coalition of Orange County Community Health Centers
- ◆ California State University at Fullerton (CSUF)
- ◆ CSUF Center for Successful Aging
- ◆ Hoag Memorial Hospital
- ◆ Kaiser Permanente
- ◆ Latino Health Access (LHA)
- ◆ LGBT Center of Orange County
- ◆ March of Dimes
- ◆ MemorialCare Health System
- ◆ Mission Hospital
- ◆ MOMS Orange County
- ◆ Orange County Asian and Pacific Islander Community Alliance (OCAPICA)
- ◆ Orange County Department of Education
- ◆ Orange County Health Care Agency
- ◆ Orange County Medical Association
- ◆ Orange County Sheriff's Department
- ◆ Orange County Social Services Agency
- ◆ Orange County United Way
- ◆ Orange County Women's Health Project
- ◆ RTH Stroke Foundation
- ◆ Santa Ana City Council
- ◆ SeniorServ
- ◆ St. Joseph Health
- ◆ St. Joseph Hospital
- ◆ St. Jude Medical Center
- ◆ The Cambodian Family Community Center
- ◆ University of California at Irvine (UCI) Health
- ◆ UCI Institute for Clinical and Translational Science
- ◆ UCI Program in Public Health

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Thank you to the HIP Steering Committee for their guidance and support for this planning process:

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Acknowledgements and Partners

Health Improvement Partnership Work Groups

Thank you to the following work groups for leading assessment and planning activities in each of the identified priority areas:

Infant and Child Health	Orange County Perinatal Council (OCPC)
Older Adult Health	Orange County Healthy Aging Initiative (OCHAI)
Obesity and Diabetes	HIP Child and Adolescent Weight Work Group Orange County Diabetes Collaborative
Behavioral Health	HIP Ad-hoc Mental Health Work Group

Other Participating Agencies

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- ◆ Alzheimer's Orange County
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- ◆ American Academy of Pediatrics
- ◆ American Diabetes Association
- ◆ American Heart Association
- ◆ Asian Americans Advancing Justice
- ◆ Blue Shield of California
- ◆ Boat People SOS
- ◆ Boys and Girls Club of Garden Grove
- ◆ Boys Town
- ◆ Breastfeed LA
- ◆ Buena Park School District
- ◆ California Youth Services
- ◆ Central City Community Health Center
- ◆ Child Abuse Prevention Center
- ◆ City of Fullerton
- ◆ Comfort Connection Family Resource Center
- ◆ Community Action Partnership of Orange County (CAPOC)
- ◆ Community Perinatal Network
- ◆ Community Service Programs, Inc
- ◆ Council on Aging
- ◆ Cypress College Student Health Services
- ◆ Dairy Council of California
- ◆ Depression and Bipolar Alliance – Orange County
- ◆ Ersoylu Consulting
- ◆ Families Forward
- ◆ Family Support Network
- ◆ Fountain Valley Regional Hospital
- ◆ Fullerton College
- ◆ Generations Healthcare
- ◆ Give for a Smile
- ◆ Giving Children Hope
- ◆ Health Services Advisory Group
- ◆ Help Me Grow
- ◆ Hospital Association of Southern California
- ◆ Human Options
- ◆ Illumination Foundation
- ◆ Institute for Healthcare Foundation
- ◆ Irvine Health Foundation
- ◆ Irvine Prevention Coalition
- ◆ Korean Community Services
- ◆ La Habra Community Collaborative
- ◆ Legal Aid Society of Orange County
- ◆ Maxum Therapy
- ◆ MemorialCare Health System – Saddleback Memorial
- ◆ Mercy House
- ◆ Molina Healthcare
- ◆ Monarch Healthcare
- ◆ National Council on Alcoholism and Drug Dependence (NCADD-OC)
- ◆ Northgate Gonzalez Market
- ◆ Nutrition and Physical Activity Coalition (NuPAC)
- ◆ Oak View Renewal Partnership
- ◆ Orange County Aging Services Collaborative
- ◆ Orange County Breastfeeding Coalition
- ◆ Orange County Child Abuse Prevention Center
- ◆ Orange County Community Resources
- ◆ Orange County Food Access Coalition
- ◆ Orange County Head Start, Inc.
- ◆ Orange County Partnership to Improve Community Health
- ◆ Orange County READ
- ◆ Partners in Care
- ◆ Planned Parenthood of Orange County and San Bernardino Counties
- ◆ Planned Parenthood WIC
- ◆ Project PATH
- ◆ Prospect Medical
- ◆ Public Health Foundations Enterprises WIC
- ◆ Public Health Law Center
- ◆ Regional Perinatal Programs of California
- ◆ Rehabilitation Institute of Southern California
- ◆ Saddleback Hospital
- ◆ School Readiness
- ◆ St. Jude Neighborhood Center
- ◆ St. Jude Senior Services
- ◆ Susan G. Komen Orange County
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Executive Summary

Orange County's Healthier Together is a community-wide initiative that aligns public and private resources within the public health system to improve health for *all* communities in Orange County. This plan is an update of the Orange County Health Improvement Plan 2014-16 and highlights key areas for action to improve health in Orange County. The plan is guided by the *Orange County's Healthier Together* Health Improvement Partnership (HIP), a partnership of 35 organizations including health care providers, academic institutions, collaboratives, community-based organizations, and other government programs.

This plan was informed by a year-long community health assessment process that found that while Orange County's health as a whole, continues to fare well compared to other areas, health disparities exist between different demographic and geographic populations in the county. Based on these findings, the HIP determined to continue efforts in the four priority health areas in the Orange County Health Improvement Plan 2014-16: 1) **Infant and Child Health**; 2) **Older Adult Health**; 3) **Obesity and Diabetes**; and 4) **Behavioral Health**, and improvements for the **Orange County Public Health System**. The HIP also identified three new areas of interest for exploration in 2017-19: 1) **Access to Health Care**; 2) **Oral Health**; and 3) **Social Determinants of Health**. The following summary provides key findings, goals, objectives, and one highlighted strategy for each area.

New Areas of Interest

Access to Health Care

Key Findings: Significant changes in access to health care occurred in recent years under the Affordable Care Act (ACA); and even more significant changes may occur in the next few years under a new administration. The instability of the system, health care economics, and traditional barriers to access, call for vigilance in monitoring and responding to emerging issues.

→ **Next Step:** Develop ad-hoc group to monitor potential changes to the health care system, and explore and address barriers to access and care issues.



Oral Health

Key Findings: Oral health is an important aspect of a person's overall health and wellbeing. However, little local data exists regarding the oral health or access of oral health services in Orange County.

→ **Next Step:** Develop ad-hoc group to review existing data and resources, and determine potential next steps.



Social Determinants of Health

Key Findings: Economic stability, education, affordable housing, and safety can greatly impact health. Orange County's key indicators show disparities between different groups of people in many of these conditions; highlighting the need for collaborative work across sectors to improve the health and wellbeing of residents.

→ **Next Step:** Identify topics of interest and invite external experts to provide trainings and/or share information at Health Improvement Partnership meetings and determine potential next steps.



Executive Summary

Priority Area 1: Infant and Child Health



Key Findings: In 2014, 86.1% of mothers received early prenatal care, with lower rates among racial/ethnic minorities. Despite benefits to the mother and infant, only 1 in 4 women exclusively breastfed their babies through the first 3 months.

Goal 1: Improve **birth outcomes** in Orange County

Objectives: 1) Increase rate of pregnant women who receive **early prenatal care** to 90%; 2) Increase rates of **early prenatal care** of groups with disparities by 2%.

↳ **Highlighted Strategy:** Create targeted interventions that address barriers to prenatal care based on identified barriers for women less likely to receive early prenatal care.

Goal 2: Improve **infant and child health outcomes** in Orange County.

Objective: Increase the proportion of mothers **exclusively breastfeeding at 3 months**.

↳ **Highlighted Strategy:** Promote and support policies increasing the number of hospitals with infant feeding policy supporting breastfeeding and 'baby friendly' designation.

Priority Area 2: Older Adult Health



Key Findings: By 2040, 1 in 4 residents of Orange County will be 65 or older. The public health system is challenged to meet the needs of this growing population.

Goal 1: Improve **wellness and quality of life** of older adults in Orange County.

Objective: Increase **early identification of conditions** that commonly affect older adults by increasing utilization of the Annual Wellness Visits by 5% each year.

↳ **Highlighted Strategy:** Increase consumer outreach and education about the Annual Wellness Visit.

Objective: Reduce **complications of chronic disease** by increasing completion rates in chronic disease self-management program by 10%.

↳ **Highlighted Strategy:** Develop a lay leader recruitment program among senior/health providers.

Priority Area 3: Obesity and Diabetes



Key Findings: Almost 1 in 6 fifth-grade students in Orange County is obese, with the highest rates in Anaheim, Buena Park, La Habra, and Santa Ana. Rates of diabetes have increased by 22.4% between 2005 and 2014.

Goal 1: Increase the proportion of residents who are in a **healthy weight** category.

Objectives: Increase proportion of **children and adolescents who are in the healthy weight** category 1) by 5% in all Orange County; and 2) by 10% in Anaheim, Buena Park, La Habra, and Santa Ana.

↳ **Highlighted Strategy:** Support community specific coalitions to implement collective impact approaches that includes multi-sector interventions.

Executive Summary

Goal 2: Reverse the trend of increasing rates of **diabetes** among residents.

Objective: Stabilize the increasing rates of **diabetes** among Orange County adults.

↳ **Highlighted Strategy:** Promote and expand the availability and utilization of effective diabetes prevention and self-management programs by persons who are risk for diabetes and living with pre-diabetes, diabetes, or gestational diabetes

Priority Area 4: Behavioral Health



Key Findings: Orange County's hospitalization rates due to alcohol abuse and substance abuse were higher than the state average. Only half of Orange County adults who needed behavioral health services reports receiving them.

Goal 1: Reduce **alcohol and drug misuse** in Orange County.

Objectives: 1) Reduce **underage drinking** among 11th graders with highest need by 5%. 2) Reduce **impaired driving collisions** in cities with highest rates or collisions by 5%. 3) Reduce **opioid-overdose Emergency Department visits** by 5%. 4) Create a clearinghouse of resources for informed policy-making around implementation of **marijuana laws**.

↳ **Highlighted Strategies:** 1) Promote the use of best and promising practices for substance abuse prevention in targeted communities. 2) Promote the adoption of conditional use permit policies for targeted jurisdictions that require responsible beverage service training and other interventions that will reduce impaired driving. 3) Promote use of safe prescribing guidelines and practices by health care providers. 4) Disseminate information to the community on new marijuana laws and their potential impact on health.

Goal 2: Increase the proportion of Orange County residents who experience **emotional and mental wellbeing** through the lifespan.

Objective: Develop a **comprehensive assessment of the mental health system of care, needs, and gaps**.

↳ **Highlighted Strategy:** Working with OC Health Care Agency Behavioral Health Services, publish a comprehensive assessment of the mental health system of care, needs, and gaps.

Orange County Public Health System



Key Findings: The *Orange County's Healthier Together* Health Improvement Partnership and [OC Dashboard](#) have helped increase collaboration and capacity for community health planning. Coordination across the system and focus on social determinants of health and health disparities are still key areas for improvement.

↳ **Highlighted Strategy:** Engage community partners in sectors such as public safety, parks and recreation, transportation, and business to identify and support opportunities to promote health and other mutually beneficial goals that address social determinants of health.

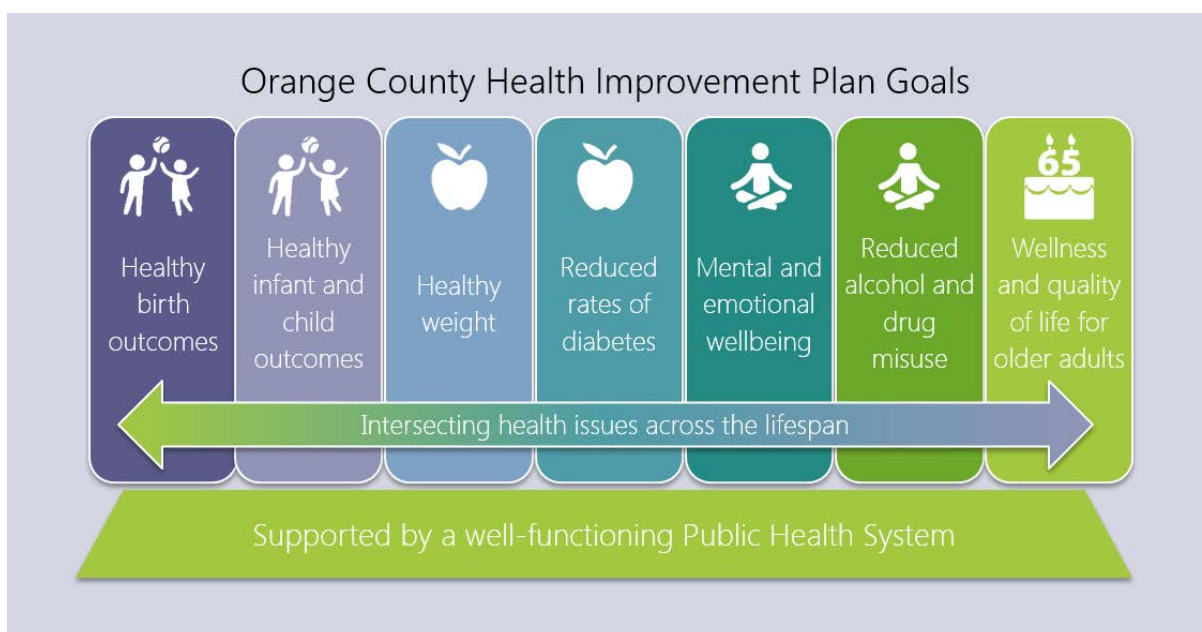
Background and Foundation

This community health improvement plan is the foundation of *Orange County's Healthier Together*, a community-wide initiative that aligns public and private resources to improve health for *all* in Orange County. This document is an update of the Orange County Health Improvement Plan 2014-16 and was led by the *Orange County's Healthier Together* Health Improvement Partnership (HIP). The HIP was formed at the end of 2014 after the OC Health Improvement Plan was published; it is composed of representatives from 35 [partner organizations](#) including health care providers, academic institutions, collaboratives, community-based organizations, and other government programs.

In 2016, the HIP conducted another comprehensive assessment of the needs of the community utilizing the Mobilizing Action through Planning and Partnerships (MAPP) model (see [Planning Process](#)). At the end of this process, the HIP determined to continue efforts in the four original priority health areas: **1) Infant and Child Health**; **2) Older Adult Health**; **3) Obesity and Diabetes**; and **4) Behavioral Health** and improvements for the **Orange County Public Health System**. In addition, the HIP identified three new areas of interest for exploration including **1) Access to Health Care**; **2) Oral Health**; and **3) Social Determinants of Health**.

The plan considered the following foundational principles shown in the graphic below:

- ◆ **Life course approach:** The plan reflects an approach that each life stage influences the next and that social, economic, and physical environments interacting across the life course have a profound impact on individual and community health.
- ◆ **Cross-cutting health issues:** The goals for the priority areas include health issues that cut across the priority areas. As an example, efforts to improve infant and child health such as promotion of breastfeeding may also reduce rates of obesity and diabetes. In the same way, efforts to reduce alcohol and drug misuse, may also improve birth outcomes.
- ◆ **Public health system improvements:** At the foundation of these strategies is a well-functioning public health system. Improvements to the system have the potential to impact all of these priority areas; while efforts to improve systems supporting each area would contribute to improvements in the overall public health system.



Social, Economic, Technological, Political Context

On June 7, 2016, members of Orange County's public health system participated in an assessment (**Forces of Change Assessment**) to identify trends, events, or factors (forces) that affect the community's health. Stakeholders representing 26 agencies including Orange County Health Care Agency, community-based health and social service providers, health care providers, academic institutions, collaboratives, and others participated in this assessment. The following is a summary of forces that were discussed and opportunities and threats associated with them. The summary statements below include information on data gathered after the meeting to provide context to the general forces discussed (e.g. poverty, homelessness, Affordable Care Act) and were not typically part of the Forces of Change discussion. Summaries provided of opportunities and threats are based on discussions that day.

Changing Demographics: Orange County's population has grown by 43% in the last 30 years and has become increasingly diverse. Today, [no single racial/ethnic group](#) composes a majority of the population; the county's population is 41% white, 35% Hispanic or Latino, 19% Asian, and less than 2% Black or African American. Almost half (46%) of the population age 5 and over [speak a language other than English at home](#), with 27% speaking Spanish and 14% speaking an Asian or Pacific Islander language. There has also been a rise in immigration; in 2010-2014 30% of [residents were born outside of the U.S.](#) compared to 24% in 1990.

Changes in demographics based on age and generational experiences are also impacting the county. "Millennials" (those age 18-34 in 2015) are a growing segment of the population and make up one-fourth of the county's population. Orange County's older adults are the only age group that is projected to increase as a proportion of the population in the next 25 years. The number of older adults living in Orange County is expected to [nearly double by the year 2040](#) when almost one in four residents will be 65 and older.

Opportunities	Threats
<ul style="list-style-type: none">• Millennial generation may be more innovative, socially consciousness, and driven to action• Increased diversity as a result of immigration• Immigrant populations may be healthier• Potential for complementary or alternative medicine from immigrant communities	<ul style="list-style-type: none">• Increased demand and costs for healthcare and home services for growing older adults• Difficulty assuring culturally competent provider pool serving people of different backgrounds and languages• Potential to overlook populations not represented in data

Socioeconomic Climate: Concerns about the community's health are impacted by the high cost of living in Orange County and increasing unease about poverty and economic inequality. Based on the [Economic Self-Sufficiency Standard](#), a family of four with two working adults and two school-age children would need to earn \$70,285 to meet their basic needs including housing, child care, food, and medical expenses. The [median household income](#) in the county was \$75,998 in 2010-2014, which is higher than most U.S. counties. In 2016, about one in five households in Orange County had an [annual income](#) of less than \$35,000.

Driving the high cost of living in the county is housing costs. In 2010-2014, more than half (58%) of renters spent [30% or more of their household income or rent](#); this puts Orange County in the lowest quartile of all U.S. counties. The estimated number of homeless persons living in the county on any given night was 4,452 in 2015, representing 0.14% of the population. This is a 5% increase since 2013, but an overall 47% decrease since the 2009 count [1].

Social, Economic, Technological, Political Context

Opportunities	Threats
<ul style="list-style-type: none"> • Increased access to government services (SNAP, CalFresh, etc.) • Increase in number of small businesses • Increased availability of food • Increased training, awareness, and understanding about homelessness and other stigmatized groups 	<ul style="list-style-type: none"> • Poverty and under/unemployment • Cost-prohibitive child care • Poorer health associated with socioeconomic stressors • Increased housing density • Reduced funds for necessities like food, transportation, and healthcare • Increased neighborhood instability • Discrimination and/or lack of cultural competency in serving homeless and immigrant communities • Larger “sandwich generation” (females acting as caregivers to both children and parents) with increasing family responsibilities and costs

Widespread and Increasing Use of Technology in Health Care: Consumers are increasingly accessing health information and communicating with their providers through technology. Health care providers are also increasingly using technologies to provide care and monitor client health information.

Opportunities	Threats
<ul style="list-style-type: none"> • Increased consumer access to health information and services • Faster access to information and ability to disseminate information • Increased ability for providers and patients to communicate • Ability to provide state-of-the-art care • Electronic health records can increase ability to share data within a system • Ability to serve home-bound or remote patients • Increased access to data that can assist in health planning and forecasting. 	<ul style="list-style-type: none"> • Communities may be increasingly marginalized due to lower or no access to technology • Information attained from internet may be biased or lack scientific evidence • Costs of keeping up with medical technology, electronic medical records, and the security systems that support them may be prohibitive for smaller organizations • Use of electronic records to track health information can leave individuals and organizations vulnerable to cyberattacks

Economic Forces in the Healthcare System: The Patient Protection and Affordable Care Act (ACA) enacted in 2010 has shifted the economics of healthcare. The law required most U.S. citizens and legal residents to have health insurance by 2014, and mandated new approaches to reducing costs and improving quality in healthcare. This has resulted in a shift to performance and value-based payments such as capitation and “pay-for-success” models. The ACA has contributed to mergers and consolidation of healthcare systems to reduce costs [2]. There has also been subsequent increases in U.S. health care spending, which accounted for 17.5% of the nation's Gross Domestic Product (GDP) and is projected to grow 1.1% faster than the GDP per year through 2024 [3].

Social, Economic, Technological, Political Context

Opportunities	Threats
<ul style="list-style-type: none"> • Expansion of health care coverage • Potential to increase focus on prevention and preventative care • Potential increased focus on best practices • Increased focus on integration between health, behavioral health, and social services • Potential to increase focus on social determinants of health to reduce costs • Consolidation of health care providers may lower costs 	<ul style="list-style-type: none"> • Health care system may not have capacity to meet needs or may be unsustainable • Reduced funding to community-based organizations for prevention programs due to perception by funders that the ACA is already funding services • Decreased health care providers willing to accept public health insurance due to lower reimbursements and changes in payment structures – including shift to capitation and requirements to meet population health benchmarks • Prohibitive costs of implementing electronic health records (EHR) required by the ACA • Increased cost of personnel and technology • Consolidation of health care providers may increase costs

Legal and Political Forces: The 2016 elections had notable impacts on political, economic, and social climates and contribute to uncertainty about the public health system. Other key issues have included concerns about refugee crisis in Europe, rising terrorism, and their impacts on domestic safety.

In California, several legislative actions may impact public health. Senate Bill 75 made children eligible for full-scope Medi-Cal benefits regardless of immigration status as of May 1, 2016. In June 2016, the California Legislature approved the authorization of the state to seek a federal waiver to allow all Californians, regardless of immigration status, to buy health insurance through Covered California. In November, California voted to legalize marijuana and enact a 15% sales tax as well as cultivation taxes.

Opportunities	Threats
<ul style="list-style-type: none"> • Increased voter registration • Increase in citizenship • Transformation of political environment • Increased access to care • Increased outreach and education • Potential increase in revenue and funding from marijuana initiative 	<ul style="list-style-type: none"> • Repeal of benefits of Affordable Care Act • Increasing sense of partisanship and cultural, religious, and racial divides • Increased fear and hatred of immigrant communities or perceived minorities • Health care system may not have capacity to meet the increased utilization need • Increased need for prevention and treatment services due to marijuana initiative • Public perception that marijuana is safe • Increased injury and death related to increase in drivers under the influence of marijuana

Orange County Health Improvement Plan 2017-19



Priority Area 1: Infant and Child Health





INFANT AND CHILD HEALTH

Why is this a priority area?

Health begins with a healthy pregnancy (including preconception wellness, getting early prenatal care, and managing pregnancy complications) leading to healthy birth outcomes (healthy birth weight, birth at term) and continues with healthy practices such as breastfeeding, immunizations, physical activity, and proper nutrition through infancy and childhood.

What's going well

Orange County measures for **infant mortality, prenatal care, preterm births, and childhood obesity**, are all doing better than the average for California.

Measures for **infant mortality, preterm births, obesity, teen birth, low birth weight, health insurance among children, and immunizations** are all improving.

96.6% of Orange County children under 18 had **health insurance** in 2015; this is a 7.1% increase compared to 2010.

92.5% of Orange County **kindergartners were up to date with their immunizations** in 2015; this is a 3.9% increase compared to 2010.

What needs improvement

Only about **1 in 4** women who gave birth in Orange County in 2013/2014 exclusively breastfed their babies through 3 months.

There are **disparities** in Orange County:

- The percent of **children who were uninsured** was greater than 12.0% in Santa Ana, Stanton, and San Juan Capistrano compared to 5.0% in Orange County as a whole.
- Asian, Latino, and African American women had lower rates of **early prenatal care** compared to the county average.
- School districts in south Orange County had lower rates of **kindergartner immunizations** compared to the Orange County and California average.

Links to indicators on [OC Dashboard](#): [infant mortality](#), [prenatal care](#), [preterm births](#), [childhood obesity \(5th grade students who are obese\)](#), [teen birth rate](#), [children with health insurance](#), [kindergartner immunizations](#)



Early Prenatal Care

Goal 1: Improve **birth outcomes** in Orange County.

Objective 1.1: By 2020, increase rate of pregnant women in Orange County who receive **early prenatal care** to 90%.

Objective Measure: Percent of women receiving prenatal care in first 3 months of pregnancy

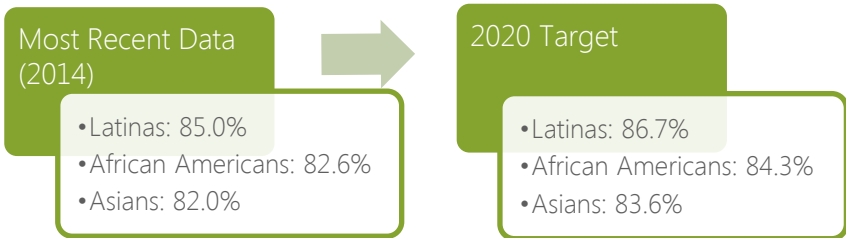
Data Source: Orange County Master Birth Files



Objective 1.2: By 2020, **reduce disparities in early prenatal care** by increasing rates by 2% in all demographic subgroups with disparities.

Objective Measure: Percent of women receiving prenatal care in first 3 months of pregnancy

Data Source: Orange County Master Birth Files



Why is this a priority?

Early prenatal care gives an excellent opportunity to detect and treat maternal medical problems [1]. It can also prevent major birth defects and increase opportunities for delivering a healthy baby [2, 3]. Mothers who receive late or no prenatal care are more likely to have babies with low birth weight, stillborn, or who die in the first year of life [1]. Increasing early prenatal care rates is a *Healthy People 2020* goal.

Key Findings:

- According to the Orange County Master Birth File, 86.1% of mothers in Orange County began prenatal care in the first trimester of pregnancy in 2014. This is 2.4% decrease from 88.2% in 2009.
- Latinas, African Americans, and Asians, have lower rates of prenatal care – 85.0%, 82.6%, and 82.0% respectively.

Key Strategies

Lead Partner: Orange County Perinatal Council (OCPC)

1. Identify **barriers to prenatal care** for women who are less likely to receive early prenatal care.
2. Improve timeliness, quality, and number of **referrals and linkages** between portals of entry for low-income women and prenatal care providers.
3. Create **targeted interventions** that address barriers to prenatal care based on identified barriers for women less likely to receive early prenatal care.

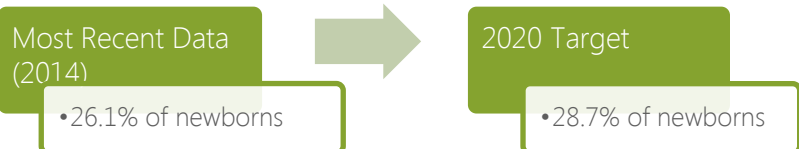
Exclusive Breastfeeding

Goal 2: Improve infant and child health outcomes in Orange County.

Objective 2.1: By 2020, increase the proportion of mothers **exclusively breastfeeding** at 3 months by 10%.


Objective Measure: [Percent of infants exclusively breastfeeding through 3 months](#)

Data Source: California Maternal and Infant Health Assessment



Why is this a priority?

The American Academy of Pediatrics recommends exclusive breastfeeding for about the first 6 months of life. Human breast milk provides many benefits for healthy growth and development [4]. Breastfeeding helps protect against SIDS, respiratory infections, childhood obesity, and other conditions [5]. Mothers benefit from reduced risk of breast and other cancers [6]. *Healthy People 2020* identifies various objectives related to breastfeeding, including increasing the proportion of infants who are breastfed exclusively through 3 months from 33.6% to 46.2% by 2020.

 Breastfeeding's link to reducing childhood obesity may impact the [Obesity and Diabetes](#) priority area.



Breastfeeding is also associated with the [Behavioral Health](#) priority area's goal of increasing mental and emotional wellbeing. Research has shown that mothers with postpartum depression may be less likely to breastfeed and that breastfeeding may lead to reduced risk of developing postpartum depression [8,9].

Key Findings:

According to the California Department of Public Health, Maternal and Infant Health Assessment (MIHA), only about 1 in 4 (26.1%) women in Orange County who gave birth in 2013-14 [exclusively breastfed](#) their babies through 3 months. This proportion is slightly lower than the state average (27.4%).

Key Strategies

Lead Partner: Orange County Perinatal Council (OCPC)

1. Identify ways to promote, support, and leverage **WIC's and other health providers (e.g. hospitals, medical providers, home visiting programs) efforts** to support breastfeeding.
2. Explore **community-capacity building needs** identified to promote **workplace policies** and practices supporting lactation.
3. Maintain and disseminate a **directory** of lactation services in Orange County.
4. Promote and support **laws and policies** increasing the number of hospitals with infant feeding policy and increasing the number of 'baby friendly' hospitals.
5. Improve consistency of **exclusive breastfeeding data** collected through the Maternal and Infant Health Assessment (MIHA).
6. Educate caregivers, providers, and family members to support a **culture** that supports breastfeeding.

Orange County Health Improvement Plan 2017-19



Priority Area 2: Older Adult Health





OLDER ADULT HEALTH

Why is this a priority area?

Orange County's older adult population is projected to grow rapidly, from 13.5% of the population in 2016 to almost one in four residents in 2040. Older adults are more likely to have a range of health conditions and Orange County's public health system must be ready to respond.

What's going well

Most **leading causes of death** including heart disease, cancer, and stroke have decreased in the last 10 years.

The vast majority (98.1%) of older adults have **health insurance**.

There is **growing awareness** of the needs and increasing size of the aging population. Older adult issues, including Alzheimer's disease, were a priority in 6 of 10 of the most recent non-profit hospital Community Health Needs Assessments.

There is **increased collaboration** between agencies and organizations supporting the aging population and their caregivers.

What needs improvement

The current **physician workforce** with specific training in geriatrics is less than 25% of the recommended number.

Alzheimer's disease is now the 3rd leading cause of death and the only cause of death among the top five that has increased over the last 10 years.

As measured by the Elder Economic Security Index, 22% of couples and 44% of singles **do not have sufficient income** for basic necessities.

Prevalence of many **chronic diseases** including asthma, diabetes, high blood pressure, heart disease, and osteoporosis are higher than the California average.

In addition to the objectives stated in this plan, other areas of focus with supportive activities without measures include:

- Reducing **social isolation** among older adults
- Increasing awareness of the risk for **elder abuse and neglect**

Links to indicators on [OC Older Adult Dashboard](#): [health insurance](#), [physician workforce \(certified geriatricians\)](#), [Alzheimer's disease deaths](#), Elder Economic Security Index for [Single Elders](#) and [Elder Couples](#), [asthma](#), [diabetes](#), [high blood pressure](#), [osteoporosis](#)



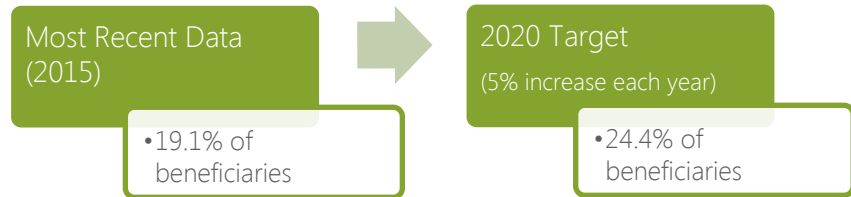
Early Identification of Conditions of Aging

Goal 1: Improve **wellness and quality of life** of older adults in Orange County.

Objective 1.1: Increase **early identification of conditions and safety risks** that commonly affect older adults by increasing utilization of the Annual Wellness Visit (AWV) by 5% each year.

Objective Measure: Percent of Medicare Part B Beneficiaries utilizing Annual Wellness Visit (AWV)

Data Source: Centers for Medicare and Medicaid Services



Why is this a priority?

Conditions and safety risks that commonly affect older adults include cognitive disorders like Alzheimer’s disease, chronic diseases like heart disease, diabetes, falls, and depression. More than 75% of our nation’s health care spending is on people with chronic conditions, many of which are preventable [1]. The Annual Wellness Visit is a covered benefit under Medicare that focuses on prevention. Providers can use the AWV to identify conditions and safety risks for older adults early, and create a personal prevention plan that includes resources and activities that can decrease disease and disability. An objective in the CDC’s *The Healthy Brain Initiative* is to increase the proportion of persons with Alzheimer’s disease and other dementias who are aware of the diagnosis.



Early identification of risks of chronic diseases such as obesity and diabetes may impact the [Obesity and Diabetes](#) priority area.



Early identification of risk of depression and substance abuse can also address the goals in the [Behavioral Health](#) priority area.

Key Findings:

- Fall-related hip fractures are an important cause of hospitalization [2]. In 2014, there were 442.1 [ER visits](#) and 153.6 [hospitalizations per 10,000 older adults due to falls](#) in Orange County. Older adult [females](#) had a higher rate of hospitalization due to hip fractures at 681.2 per 100,000 compared to 332.3 per 100,000 among [males](#).
- According to the California Health Interview Survey, only 74.6% of older adults received a [flu vaccination](#) in the past year.
- Older adults have higher rates of [age-adjusted suicide](#) compared to the overall county rate (14.5 vs. 10.1 per 100,000). With a rate of 40.0 suicide deaths per 100,000, males 85 and older are almost four times more likely to die from suicide than the overall county population [2].

Key Strategies

Lead Partner: Orange County Healthy Aging Initiative (OCHAI)

1. **Promote provider utilization** of the Annual Wellness Visit through training for primary care providers, identifying barriers to implementation, and increasing outreach.
2. Increase **consumer outreach** and education about the Annual Wellness Visit through promotional materials and educational presentations.



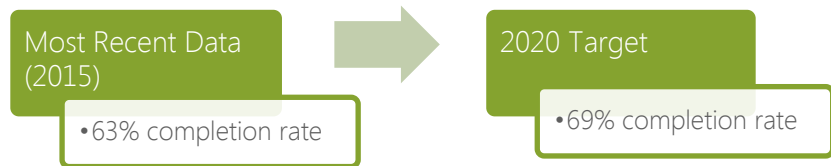
Chronic Disease Health Complications

Goal 1: Improve **wellness and quality of life** of older adults in Orange County.

Objective 1.2: By 2020, reduce **complications of chronic disease** by increasing participation and completion rates for chronic disease self-management education by 10%.

Objective Measure 1:

Completion rates in chronic disease self-management program (CDSMP)



Objective Measure 2: Percent of CDSMP classes cancelled

Data Source: Office on Aging



Why is this a priority?

Most older adults have at least one chronic condition, with many having multiple conditions. Chronic conditions are a major source of disability and death, and the cost of treatment is substantial. According to the California Health Interview Survey, 26%-45% of older adults with diabetes or heart disease do not feel “very confident” that they can manage their disease. Evidence-based Chronic Disease Self-Management Programs (CDSMP) can help older adults reduce health distress, have fewer visits to emergency rooms and physician offices, increase self-efficacy, and reduce health care costs [3].

Key Findings:

Among 2014 Medicare beneficiaries 65 and older:

- More than 1 in 4 were [treated for diabetes](#)
- More than 1 in 2 were [treated for high blood pressure](#) (hypertension)

[Hospitalization rates due to diabetes](#) and [high blood pressure](#) are higher in Orange County than the California median, and are higher among Hispanics and African Americans.

A recent review of CDSMP in Orange County found that 37% of classes were cancelled due to low enrollment. Of those who enrolled, only 63% completed the series of classes.

Key Strategies

Lead Partner: Orange County Healthy Aging Initiative (OCHAI)

1. Increase **referrals** to chronic disease self-management education.
2. Facilitate **enrollment** in chronic disease self-management education (e.g. online registration system or call center for classes, partnerships with community-based organizations).
3. Develop a **lay leader recruitment** program among senior/health providers.
4. Develop **marketing plan** to increase awareness among consumers and providers about chronic disease self-management education.

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Priority Area 3: Obesity and Diabetes



OBESITY AND DIABETES

Why is this a priority area?

Obesity and diabetes are major contributors to the leading causes of death, which include heart disease, stroke, and certain cancers. Obesity is the 2nd leading contributing factor to death in the United States. Diabetes is itself a major cause of death and the rate of those living with diabetes has been increasing in the last 30 years.

What's going well

Two new collaboratives, the **HIP Child and Adolescent Weight Work Group** and the **OC Diabetes Collaborative**, recently formed to address issues in this area.

Measures for obesity and diabetes including estimates of prevalence, physical activity, and most hospitalization rates are all doing better than the average for California.

Trends for many key obesity measures including for **child, adolescent, and adult obesity** are improving.

Overall, 18.2% of Orange County adults report being obese; this is **33% lower than California** and a **24.8% decrease in adult obesity prevalence** compared to its peak in 2011.

What needs improvement

More than **1 in 6 fifth grade students** in Orange County in 2014/15 were obese. Rates are higher among Hispanics and Native Hawaiian/Pacific Islanders.

Though lower than the California average, almost **1 in 5 adults** in Orange County report being obese.

Rates of **diabetes have increased** by 22.4% between 2005 and 2014. Asians and Hispanics have higher death rates due to diabetes. Hispanics and African Americans have higher rates of hospitalization and ER visits due to diabetes.

Non-profit hospital Community Health Needs Assessments highlight needs for **education, access, and environmental changes** that support healthy choices.

Links to indicators on [OC Dashboard](#): [adults who are obese](#), [5th grade students who are obese](#), [adults with diabetes](#)

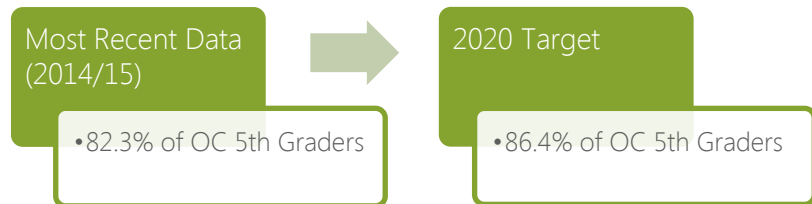
Child and Adolescent Weight

Goal 1: Increase the proportion of Orange County residents who are in a **healthy weight** category.

Objective 1.1: By 2020, increase by 5% the proportion of **children and adolescents who are in the healthy weight** category.

Objective Measure: Percent of 5th graders who are in a healthy weight category (not obese)

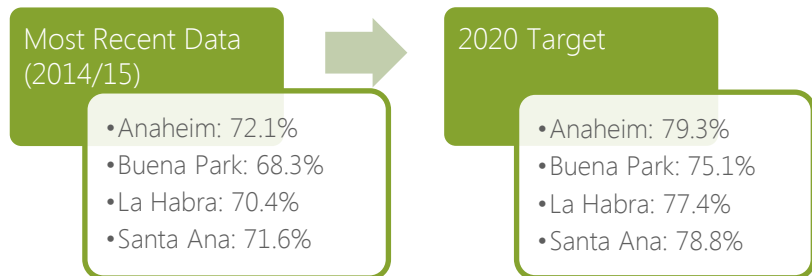
Data Source: Orange County Department of Education, California Physical Fitness Test



Objective 1.2: By 2020, increase by 10% the proportion of **children and adolescents who are in the healthy weight category in Anaheim, Buena Park, La Habra, and Santa Ana**.

Objective Measure: Percent of 5th graders who are in a healthy weight category (not obese)

Data Source: Orange County Department of Education, California Physical Fitness Test



Why is this a priority?

Obesity is the 2nd leading behavioral contributor to death in the U.S. [1]. Obese youth are at greater risk for other health problems, including type 2 diabetes, high blood pressure, and asthma [2, 3]. Exercise, nutrition, and weight were priorities in 9 of 10 of the most recent non-profit hospitals Community Health Needs Assessment in Orange County. Childhood obesity is included as a priority in *Let's Get Healthy California* and is a *CDC Winnable Battle*. Healthy eating and active living are contributing causes of obesity and are both priorities in the *National Prevention Strategy*.



Addressing child and adolescent weight may also impact on the Infant and Child Health priority area.

Key Findings:

- More than 1 in 6 (17.7%) 5th grade students in Orange County are obese (at health risk due to body composition). Rates were more than twice as high among Native Hawaiian/Pacific Islanders (39.4%) and almost 1.5 times higher among Hispanic 5th grade students (26.2%).
- Fifth grade students in school districts in Anaheim, Buena Park, La Habra, and Santa Ana have the highest rates of obesity.
- Measures of 9th grade body compositions, adult obesity prevalence, diabetes hospitalization rates, heart failure rates, and children living below federal poverty level show overlaps in increased risk and needs in the cities above.

Key Strategies

Lead Partner: HIP Child and Adolescent Weight Work Group

Countywide Strategies

1. Coordinate **consistent messages** about obesity with health care providers.
2. Provide **resident leadership academy** training.
3. Conduct **trainings** on communication and Collective Impact.
4. Provide **capacity support** to coalitions throughout Orange County.

Targeted Strategies for Anaheim, Buena Park, La Habra, and Santa Ana

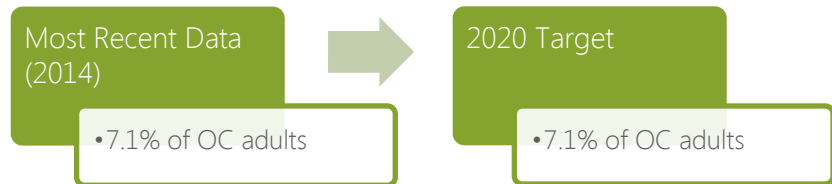
1. Support work of **community specific coalitions** to implement collective impact approaches that includes multi-sector interventions specified but not restricted to those below.
2. Work with **school districts and educators** to explore opportunities to align priorities for health and education.
3. Promote implementation of **school wellness plans** and use of Wellness Councils in pre/early childhood education
4. Provide training to help focus communities about **Wellness Councils** and school wellness plans
5. Promote and expand **community efforts** involving parents and families such as Walk to School Day, Champion Moms, and youth engagement programs.
6. Build the capacity of residents to engage in the promotion and **expansion of existing environmental efforts** such as HEAL Cities, the Wellness Corridor, and increasing joint use agreements.
7. Identify ways to retain **WIC participants** through age four to improve a “healthy start” for nutrition.
8. Build the capacity of residents to work with school districts, schools, Parent Teacher Student Associations and educators to expand **school based programmatic and policy opportunities** to improve nutrition and physical activity.

Goal 2: Reverse the trend of increasing rates of diabetes among Orange County residents.

Objective 2.1: By 2020, stabilize the rates of diabetes among Orange County adults in all demographic and city sub-groups with an overall county rate of 7.1%.


Objective Measure: [Percent of adults who report having ever been diagnosed with diabetes](#)

Data Source: California Health Interview Survey



Why is this a priority?

Diabetes is a major cause of heart disease and stroke [4], which are the leading and 3rd leading causes of death in Orange County, respectively. Diabetes is itself a leading underlying cause of death; in Orange County, diabetes is the 8th leading cause of death. Type 2 diabetes accounts for about 95% of diabetes cases and is associated with healthy eating and regular physical activity [4]. New diagnosed cases of diabetes have quadrupled since 1980. By 2050, as many as 1 in 3 adults in the U.S. could have diabetes [4]. Gestational diabetes, diabetes that develops during pregnancy, increases the likelihood of pregnancy complications and increases risks of diabetes for the mother and the child [4, 5]. Diabetes is included as a priority in *Let's Get Healthy California*. Healthy eating and active living are contributing causes of diabetes and are both priorities in the *National Prevention Strategy* and *CDC's Winnable Battles*.

 Early identification of and reducing complications of chronic diseases such as diabetes are identified as objectives in the [Older Adult Health](#) priority area.

Key Findings:

- [Adult diabetes prevalence](#) has increased by 22.4%, from 5.8% in 2005 to 7.1% in 2014.
- The [death rate due to diabetes](#) is 25% higher for Asian or Pacific Islanders and 61% higher for Hispanics compared to the overall Orange County rate of 16.1 per 100,000.
- Hospitalization rates due to diabetes ([short-term complications](#), [long-term complications](#), and [uncontrolled](#)) are higher in parts of Anaheim, Buena Park, Fullerton, Garden Grove, La Habra, Orange, Santa Ana, and Stanton.
- 6 of 10 [non-profit hospitals](#) included diabetes as a priority in their most recent Community Health Needs Assessment.

Key Strategies

Lead Partner: Orange County Diabetes Collaborative

1. Promote and expand the availability and utilization of effective **diabetes prevention and self-management programs** by persons who are risk for diabetes and living with pre-diabetes, diabetes, or gestational diabetes.
2. Improve **coordination of and communication** about diabetes screening and diabetes prevention and self-management education efforts to ensure that programs are accessible to all populations, with special emphasis on those at greatest risk.

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Priority Area 4: Behavioral Health





BEHAVIORAL HEALTH

Why is this a priority area?

A comprehensive view of health also considers mental health and use of alcohol and other substances. Alcohol and drug use are each among the top 9 leading behavioral contributors of death in the United States.

Chronic alcohol and drug use can lead to heart disease, stroke, and liver disease and can increase risks of injury, violence, and other social harms. Mental health conditions can severely impact health and quality of life.

What's going well

The implementation of the **Affordable Care Act and the Mental Health Parity and Addiction Equity Act** have expanded services and addressed some existing gaps in this area.

There are **many and varied collaboratives** working on various alcohol and drug issues in Orange County.

Most mental health and substance use measures for Orange County **are better than the California** average.

What needs improvement

Only half of Orange County adults who **needed behavioral health services indicated receiving them**, which is worse than the state average.

Non-profit hospital Community Health Needs Assessments identified **lack of knowledge and access, high costs, and stigma** as key challenges to receiving services.

Orange County's **hospitalization rates due to alcohol abuse and substance abuse** are higher than the California average.

Links to indicators on [OC Dashboard](#): [adults receiving needed behavioral health services](#), [hospitalizations due to alcohol abuse](#), [hospitalizations due to substance abuse](#)



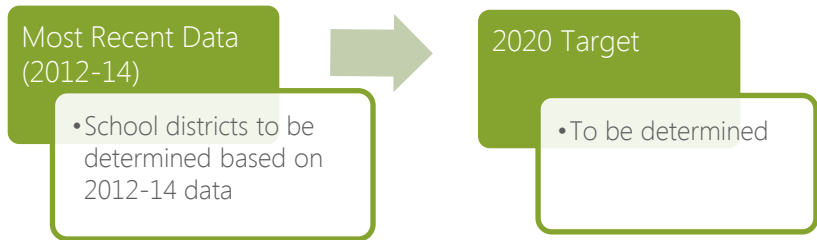
Underage Drinking

Goal 1: Reduce alcohol and drug misuse in Orange County.

Objective 1.1: By 2020, reduce **underage drinking** by decreasing the percentage of 11th grade students that report consuming alcohol in the past 30 days in high-need school districts.

Objective Measure: [Percent of 11th grade students report using alcohol within last 30 days](#)

Data Source: Orange County Department of Education, California Healthy Kids Survey



Why is this a priority?

Alcohol consumption is the 3rd leading behavioral contributor to death in the United States [2]. Studies have also shown that youth who begin drinking at an early age are at risk for negative consequences such as poor school performance, legal problems, risky sexual behavior, disruption in various physical and mental development, unintentional injuries and accidents, and a higher risk for suicide and homicide [3]. Although teens drink less frequently than adults, they consume larger quantities and engage in binge drinking more often [4]. Various *Healthy People 2020* objectives aim to decrease the proportion of adolescents engaging in underage drinking and risky behavior related to alcohol.



Addressing underage drinking also has potential positive impacts on the [Infant and Child Health](#) priority area of this plan.

Key Findings:

- According to the 2011-13 California Healthy Kids Survey, more than 1 in 4 (28.6%) of [11th grade students in Orange County reported drinking alcohol](#) within the last 30 days.
- Alcohol use is even [higher in some school districts](#). Almost half of 11th graders (47.6%) in Laguna Beach Unified High School District reported drinking alcohol within the last 30 days and more than 1 in 3 in Los Alamitos Unified and Newport-Mesa Unified reported drinking alcohol within the last 30 days.

Key Strategies

Lead Partner: Orange County Health Care Agency

1. Promote the use of **best and promising practices** for substance abuse prevention through training, forums, and information sharing in targeted communities.
2. Provide **data** that will help to target programs to places with highest need through *Orange County's Healthier Together*.
3. Disseminate information about **grants and funding opportunities** to community partners through *Orange County's Healthier Together*.



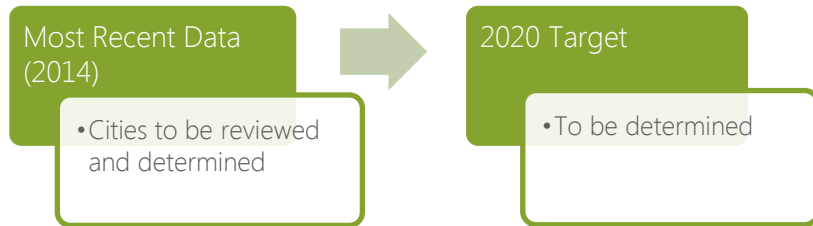
Impaired Driving Collision

Goal 1: Reduce alcohol and drug misuse in Orange County.

Objective 1.2: By 2020, reduce the rate of **impaired driving collisions** in the three cities that have the highest rate (and/or number) of impaired driving collisions in Orange County by 5%.

Objective Measure: [Alcohol and other drug-related collision involving vehicle or bicycle or per 100,000 population](#)

Data Source: California State Highway Patrol, Statewide Integrated Traffic Records System (SWITRS)



Why is this a priority?

According to the National Highway Traffic Safety Administration, every day, 28 people in the United States die in motor vehicle crashes that involve an alcohol-impaired driver; this is about one death every 53 minutes [5]. Nationally, about 1 in 5 of traffic deaths among children 14 and younger occurred in alcohol-driving crashes. The economic cost of alcohol-impaired driving crashes in the United States in 2010 was \$44 billion [5]. Drugs other than alcohol are involved in 16% of motor vehicle crashes in the United States [6]. Decreasing the rate of deaths due to alcohol-impaired driving is a *Healthy People 2020* objective.

Key Findings:

- In 2010-2014, 28.8% of motor vehicle crash deaths in Orange County [involved alcohol](#).
- In 2014, there were 2,877 [alcohol or other drug-related collisions](#) in Orange County. This is a rate of 92.0 per 100,000 population, which is 12.5% higher than the state average (81.8 per 100,000).
- Impaired driving collision rates are [particularly high in some Orange County's cities](#) including Laguna Beach, Los Alamitos, and Dana point, with rates more than two times higher than the county average. Other cities including Seal Beach, San Juan Capistrano, Costa, Mesa, and Newport Beach have rates that are more than 1.5 times higher than the county.

Key Strategies

Lead Partner: Orange County Health Care Agency

1. **Convene and support partners** that will work together to address impaired driving in the jurisdictions with the highest collision rates.
2. Promote the adoption of **conditional use permit policies** for targeted Orange County jurisdictions that require responsible beverage service training and other interventions that will reduce impaired driving.
3. Support the implementation of a **targeted social marketing campaign**.



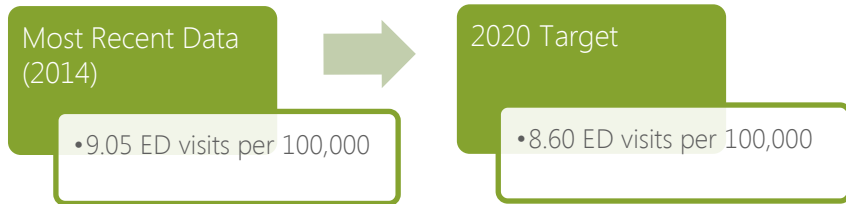
Opioid Overdoses

Goal 1: Reduce alcohol and drug misuse in Orange County.

Objective 1.3: By 2020, reduce the rate of **opioid-overdose Emergency Department (ED) visits** in Orange County by 5%.

Objective Measure: [Opioid overdose ED visits per 100,000](#)

Data Source: California Department of Public Health Vital Statistics Multiple Cause of Death Files



Why is this a priority?

In 2014, opioids killed more than 28,000 in the United States, more than any other year on record [7]. Each year in Orange County, drug and alcohol overdoses or poisonings, result in over 5,000 hospitalizations and nearly 600 deaths [8]. Of alcohol and drug-related deaths investigated by the Orange County Coroner in 2011-2013, 70% involved opioid-like substances and of all opioid-related overdose deaths in 2011-2013, 59.1% were prescription opioid medication overdoses [8].

Reducing the nonmedical use of prescription drugs a *Healthy People 2020* objective. The Centers for Disease Control and Prevention recommend improving safe prescribing practices, preventing prescription drug abuse, and providing evidence-based treatment for opioid addiction to treat and prevent death [7].

Key Findings:

- In 2014, there were 9.1 [opioid-overdose ED visits](#) per 100,000 Orange County residents. This represents a 127% increase since 2006.
- The rate of [opioid overdose deaths](#) in Orange County was 7.6 per 100,000 residents in 2014, a 39% increase since 2006 and higher than California's rate of 4.9 per 100,000.
- In 2015, there were 517.4 [opioid prescriptions](#) per 1,000 Orange County residents.
- According to the California Healthy Kids Survey, more than 1 in 6 (17.1%) of [11th grade students in Orange County reported having ever used recreational prescription drugs](#).

Key Strategies

Lead Partner: Orange County Health Care Agency

1. Promote use of **safe prescribing guidelines** and practices by Orange County health care providers.
2. Promote Drug Take Back days and other opportunities for **safe medication disposal**.
3. Implement a **social marketing campaign** across the county that motivates individuals to destroy and relinquish medications no longer needed.
4. Collaborate with the SafeRx OC and other bodies to promote **treatment and care** for substance users, including nonmedical setting opportunities such as the use of naloxone.



Marijuana Laws

Goal 1: Reduce alcohol and drug misuse in Orange County.

Objective 1.4: Create a clearinghouse of resources for informed policy making around implementation of emerging marijuana laws.

Objective Measure: Creation or identification of clearinghouse of resources for informed policy-making around implementation of emerging marijuana laws

Data Source: Orange County Health Care Agency

Why is this a priority?

Marijuana is the most commonly used illicit drug in the United States. In 2014, 22.2 million Americans aged 12 or older or 8.4% of that population used marijuana in the past month [9]. Use of marijuana has been associated with interference with cognitive and motor function [10]. According to the American College of Pediatricians, the use of marijuana can have a detrimental effect on an adolescent's brain development, such as memory impairment and response time [11].

Currently, 25 states have laws legalizing marijuana in some form. In November 2016, California voters passed a measure legalizing recreational use of marijuana. With the onset of commercial

legalization, there are still many questions about how to implement emerging marijuana laws to reduce impacts on public health, especially as they pertain to adolescents and vulnerable populations.

Key Findings:

- According to the California Healthy Kids Survey, almost 1 in 5 (19.1%) of [11th grade students in Orange County reported using marijuana](#) at least once within the last 30 days.
- Use of marijuana is [higher in Los Alamitos Unified, Laguna Beach Unified, Orange Unified, and Capistrano Unified](#) where almost 1 in 4 students in the 11th grade reported using marijuana at least once within the last 30 days.

Key Strategies

Lead Partner: Orange County Health Care Agency

1. **Disseminate information** to the community on new marijuana laws and their potential impact on health.
2. Promote accurate information around health risks of marijuana consumption as well as the use of **best and promising practices** for substance abuse prevention.
3. Provide **data** (to the extent possible) that will help identify places and/or populations with higher marijuana-related risks, such as impaired driving.
4. Develop and maintain a **matrix of local ordinances and policies** to assist community partners in working with jurisdictions to reduce marijuana-related risks.



Mental Health Assessment

Goal 2: Increase the proportion of Orange County residents who experience **emotional and mental wellbeing** through the lifespan.

Objective 2.1: Working with mental health partners, develop a comprehensive **assessment of the local mental health system of care, community needs and gaps** that can be used for evidence-informed planning.

Objective Measure: Publication of comprehensive mental health assessment

Data Source: Orange County Health Care Agency

Why is this a priority?

Mental health issues continue to be a top priority in Orange County; mental health was a priority in all 10 of the most recent [non-profit hospital](#) Community Health Needs Assessment. Mental disorders such as depression can make common chronic conditions, such as heart disease, cancer, diabetes, and obesity, worse and result in increased work absenteeism and short-term disability [12]. Mental health issues often create significant personal barriers to seeking and staying in medical care.

The implementation of the Affordable Care Act and the Mental Health Parity and Addiction Equity Act have expanded services and addressed some gaps in mental health services. However, a

comprehensive understanding of the system, needs and gaps does not exist. As a result services are perceived as fragmented, incomplete, and not integrated with the healthcare system and public health programs and services.

Key Findings:

- According to the California Health Interview Survey (CHIS), only half of Orange County [adults who need behavioral health services indicate receiving them](#), which is worse than the state average.
- [Non-profit hospital Community Health Needs Assessments \(CHNAs\)](#) identified lack of access to resources, high costs, and stigma as themes that impact mental health.

Key Strategies

Lead Partner: Ad-Hoc Mental Health Work Group

1. Conduct an **assessment of the community-wide mental health care system**, needs, and gaps.
2. Convene an ad hoc Health Improvement Partnership work group to discuss the assessment for **identification of potential strategies that improve access to mental health services** (as it relates to public health).
3. **Strengthen the integration of public health with the mental health services** delivery system through Health Improvement Partnership representation on key mental health planning bodies.

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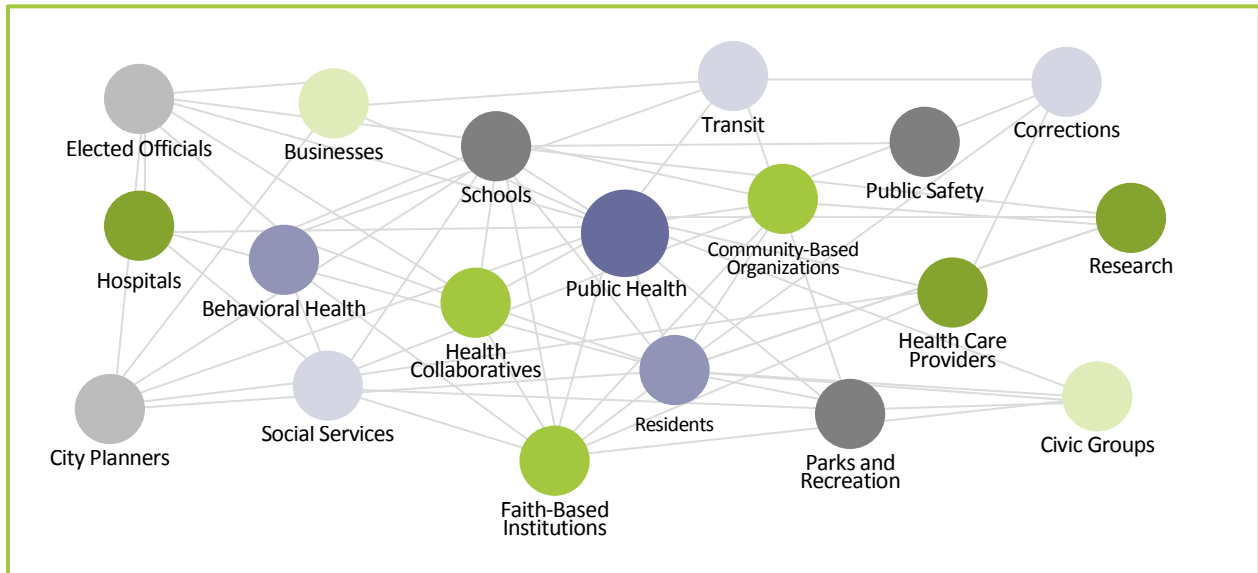


Public Health System



PUBLIC HEALTH SYSTEM

Improving the health of the community requires a well-coordinated and functioning public health system that supports efforts to provide high-quality programs and services. The **Orange County Public Health System Assessment** helped to identify strengths, weaknesses, and opportunities for improvements in the public health system. As depicted in the illustration below, the public health system is a partnership between many entities including residents, health care providers, community-based organizations, schools, businesses, and government agencies that contribute to the public's health.



The Health Improvement Partnership (HIP) created an initial vision for a public health system in 2014. This year, the HIP revised its vision for a public health system that would support a healthy Orange County (shown on right). In June 2016, the HIP held a meeting that included an assessment of the Orange County public health system.

Stakeholders representing 26 different agencies in the public health system including the Orange County Health Care Agency, social service providers, health care providers, community-based organizations, and academic institutions participated in this assessment. Participants were asked to rate how well the current system compared to the HIP's vision of Orange County's public health system on a scale of 1 (not at all) to 5 (optimal). Focus groups were then organized to engage in discussions about the **strengths, weaknesses, and opportunities for improvement** for the system. After the assessment, additional feedback for improving the system was gathered at the CalOptima Community Alliances forum.

**VISION FOR
ORANGE COUNTY PUBLIC HEALTH SYSTEM**

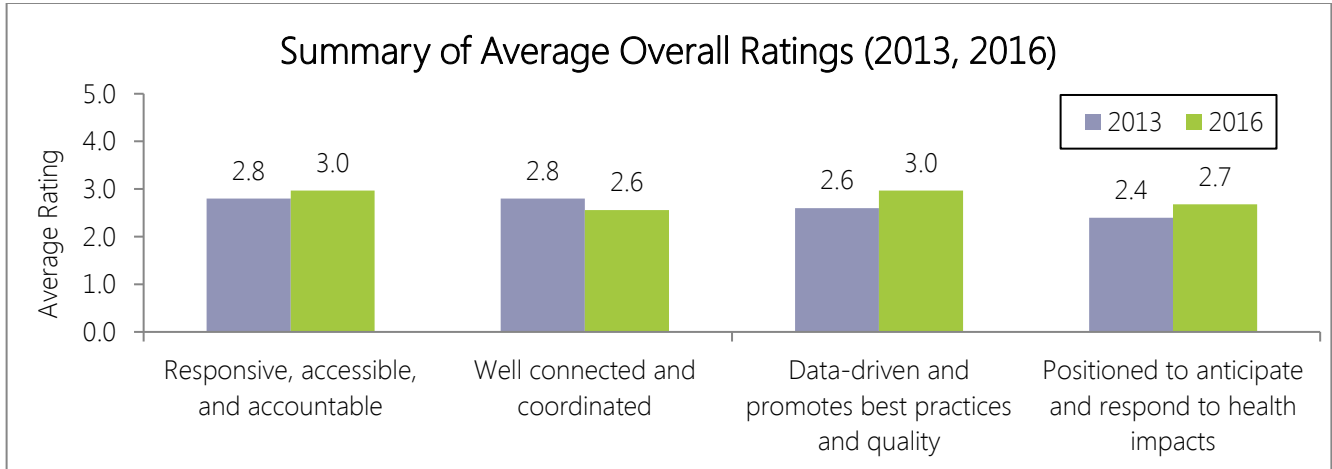
A partnership between many entities including residents, health providers, community-based organizations, schools, businesses, and government that is:

- **responsive, accessible, and accountable** to the communities it serves
- **well-connected** and **coordinated** across various sectors
- driven by **data** and seeks to promote **best practice** and **quality services**
- positioned to **anticipate** and **respond to** current and future **challenges** and **opportunities** impacting health



PUBLIC HEALTH SYSTEM

The following is a summary of the scores on a scale of 1 (not at all) to 5 (optimally) for each ideal and the number of participants who gave each rating during the Orange County Public Health System Assessment on June 2016. As shown, the assessment shows slight improvements in the ratings for three of the four ideals, with a slight decrease for the ideal related to connection and coordination.



The following is a summary of key findings regarding the strengths and areas for improvement for the public health system:

What's going well

The *Orange County's Healthier Together Health Improvement Partnership* and [OC Dashboard](#) have helped increase collaboration and capacity for community health planning.

There is a high diversity of programs, groups, and collaboratives **working together**.

There is a **wide range of data and information** available, and an increased drive toward more data-driven decisions.

There are many **high quality programs** and increased use of best practices, especially by hospitals and federally qualified health centers.

What needs improvement

There is a lack of information and investment in addressing **social determinants of health** and **health disparities**.

There is a lack of **common goals** between funders and providers.

The system can be **difficult to navigate** due to lack of information, inadequate navigation assistance, and poor health literacy in the population, especially for vulnerable populations.

Challenges exist in **sharing information** and integrating data to **measure and evaluate** community health impact.

Feedback from CalOptima Community Alliances Forum

Orange County Health Care Agency worked with CalOptima to gather more input about the system at its September Community Alliances Forum. 152 people attended the forum, including front line staff from community health centers, hospitals, social services providers, universities, and others. After learning about updates to the plan, forum attendees formed groups and discussed three ideals for the public health system including: 1) **accessibility of the system**; 2) **quality of services**; and 3) **coordination across the system**. The following is a summary of the top challenges and suggestions to the HIP indicated on submitted worksheets.

Accessibility of Services	Quality of Services	Coordination across the System
<p>Key Barriers</p> <ul style="list-style-type: none"> ◆ Transportation ◆ Language and culture ◆ Lack of knowledge and resources ◆ Patient inability to understand medical information <p>Suggestions for HIP</p> <ul style="list-style-type: none"> ◆ Take resources to community ◆ More outreach events ◆ Increase collaboration and partnerships ◆ Bus passes and transportation 	<p>Key Barriers</p> <ul style="list-style-type: none"> ◆ Lack of funding and staffing ◆ Time constraints ◆ Language barriers ◆ Appropriate patient education and cultural competency <p>Suggestions for HIP</p> <ul style="list-style-type: none"> ◆ Provide additional trainings ◆ Promote hiring of multi-lingual and multi-cultural staff ◆ Promote grants and funding opportunities 	<p>Key Barriers</p> <ul style="list-style-type: none"> ◆ Lack of knowledge about resources and how to navigate the system ◆ Lack of communication ◆ Privacy laws and HIPAA ◆ Information sharing <p>Suggestions for HIP</p> <ul style="list-style-type: none"> ◆ Increasing collaboration and organizing task-specific collaboratives ◆ Multi-agency meetings ◆ Promote standardized forms

Next Steps

Based on findings from the Public Health System Assessment, the following were identified as proposed next steps to improve Orange County’s public health system.

1. **Engage community partners** in sectors such as public safety, parks and recreation, transportation, and business to identify and support opportunities to promote health and other mutually beneficial goals that address social determinants of health.
2. Continue expanding an **inventory of services** and resources across Orange County.
3. **Disseminate community health data** and the community health improvement plan to stakeholders, staff, and funders.
4. Engage funders to ensure buy-in and funding of identified needs and priorities and use the Orange County Health Improvement Plan to **drive and leverage funding**.
5. Coordinate **access to data and encourage use of consistent definitions**, timeframes, and sources for measurement and planning.
6. Promote **access to and sharing of aggregate health data** from health providers and health plans to better inform planning efforts.
7. Ensure that **social determinants of health**, such as poverty, education, and social environment, are represented and emphasized as contributors to health in data and best practices.

Orange County Health Improvement Plan 2017-19



New Areas of Interest



New Areas of Interest

Based on its community health assessment process in 2016, the Health Improvement Partnership identified three new areas of interest for action for the Orange County Health Improvement Plan 2017-19.



Access to Health Care

Interest: Monitor access to health care under previous and potential changes to publicly-funded health care systems. In addition, identify and address other barriers to accessing care related to physical, mental, and oral health.

Why is this an area of interest?

Access to health care impacts an individual's overall health including prevention of disease and detection and treatment of health conditions [1]. Access to health care was a priority for 9 of 10 Orange County [non-profit hospitals](#). Uninsured people are less likely to get medical care and more likely to have poor health [2]. Improving access to and quality of health care are goals in *Healthy People 2020* and *Let's Get Healthy California*. The instability of the system, health care economics,

and traditional barriers to access, call for vigilance in monitoring and responding to emerging issues.

Key Findings:

- According to the American Community Survey, 16.1% of Orange County residents did not have health insurance in 2014. Rates among Hispanics were higher, with 28.2% being uninsured.
- 86.5% of Orange County residents reported having a [usual source of health care](#) (having a place to go to for health advice or when sick).

Next Step: Develop ad-hoc group to monitor potential changes to the health care system, and explore and address barriers to access and care issues.



Oral Health

Interest: Look into data gaps related to oral health. Monitor needs and gaps inclusive of barriers to access and usage of preventative oral health care.

Why is this an area of interest?

Oral health is an important aspect of a person's overall health and wellbeing; it can affect a person's diet, nutrition, sleep, psychological status, and social interactions [3]. Preventing oral health diseases and conditions, and improving access to dental care is a *Healthy People 2020* goal.

Key Findings:

- According to the California Health Interview Survey, 78.7% of [children in Orange County had a dental visit](#) in the last 12 months.
- There is little local data regarding the oral health of Orange County or access and usage of oral health services.

Next Step: Develop ad-hoc group to review existing data and resources, and determine potential next steps.

New Areas of Interest



Social Determinants of Health

Interest: Engage community partners in sectors such as education, local government, public safety, parks and recreation, transportation, and business to identify and support opportunities to promote health and other mutually beneficial goals that improve the health and wellbeing of residents.

Why is this an area of interest?

In addition to healthy behaviors and access to health care, health is also determined by social determinants such as economic stability, affordable housing, access to education, and public safety [4]. Each assessment including the [Forces of Change Assessment](#), [Public Health System Assessment](#) and assessments conducted for each priority area showed that, in Orange County, health outcomes were closely related to social determinants such as income, education, city of residence, and race/ethnicity.

Addressing social determinants of health is one of four overarching *Healthy People 2020* for the decade. *Let's Get Healthy California* goals and objectives also highlights creating healthy communities as a goal, including collaboration across sectors such as transportation, housing, and education.

Key Findings:

- A look at Orange County's key health, social, and economic indicators available by [gender, race/ethnicity, and age](#) show disparities in outcomes based on these characteristics.
- Orange County's [City Profiles](#) and [Health Disparities Report](#) highlight disparities in economic, social, and health outcomes based on where a person lives in Orange County. Cities with the lowest median household incomes in Orange County were more likely to have health indicators (obesity, diabetes, babies born with low birth weight, self-report of general health) in the bottom 25th or 50th percentile compared to California or the U.S.

Next Step: Identify topics of interest and invite external experts to provide trainings and/or share information at Health Improvement Partnership meetings and determine potential next steps.

Orange County Health Improvement Plan 2017-19

Planning Process



Planning Framework and Timeline

At the beginning of 2016, the *Orange County's Healthier Together* Health Improvement Partnership (HIP) initiated an update of the Orange County Health Improvement Plan for 2014-16. The HIP is composed of representatives from 35 [partner organizations](#) including health care providers, academic institutions, collaboratives, community-based organizations, and other government agencies. The plan is the foundation of the *Orange County's Healthier Together* initiative and seeks to align efforts by the various parts of the public health system to improve health for *all* communities in Orange County.

As it did in its original assessment, Orange County used **Mobilizing for Action through Planning and Partnerships (MAPP)** as its framework for this planning process. MAPP was developed by the National Association of City and County Health Officials (NACCHO) and the CDC as a tool to bring together stakeholders to identify community health issues and take action. Key phases of MAPP include 1) organizing and partnership development; 2) visioning; 3) conducting assessments; 4) identifying strategic issues; 5) formulating goals and strategies; and 6) acting. A distinctive feature of MAPP is the use of four coordinated assessments, each yielding important information and, taken as a whole, providing a comprehensive understanding of a community's health. The following is a summary of each assessment:

<p style="text-align: center;">Forces of Change Assessment</p> <p>Conduct stakeholder group discussions to determine:</p> <ul style="list-style-type: none"> • <i>What is occurring or might occur that affects the health of our community?</i> • <i>What are specific threats or opportunities generated by these occurrences?</i> 	<p style="text-align: center;">Community Health Status Assessment</p> <p>Review key health indicators with Health Improvement Partnership to determine:</p> <ul style="list-style-type: none"> • <i>What does the health status of Orange County look like?</i> • <i>How healthy are our residents?</i>
<p style="text-align: center;">Community Themes and Strengths Assessment</p> <p>Consider community focus groups to determine:</p> <ul style="list-style-type: none"> • <i>What are our priorities for health?</i> • <i>What is working well in how we address health?</i> • <i>What are areas for improvement?</i> 	<p style="text-align: center;">OC Public Health System Assessment</p> <p>Conduct assessment with key stakeholders to determine:</p> <ul style="list-style-type: none"> • <i>How responsive, accessible, and accountable is our system?</i> • <i>How well connected and coordinated is our system?</i> • <i>How data-driven and focused on best practices and quality is our system?</i> • <i>How well positioned to anticipate and respond to health impacts is our system?</i>

The table below shows the HIP's timeline for the completion of this plan. As shown, assessments were conducted and findings were reviewed in a series of meetings to guide the HIP in determining goals, objectives, and strategies to be published in its final plan.

Planning Activity	Mar 2016	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Nov 2016	Dec 2016	Jan 2017
Affirm foundational principles and preliminary priority areas								
Community Health Status Assessment								
Forces of Change Assessment								
OC Public Health System Assessment								
Community Themes and Strengths Assessments								
Finalize priority areas								
Determine goals, objectives, and strategies								
Disseminate assessment findings								
Approve work plans and next steps								
Disseminate Plan for public comment								
Finalize and publish OC Health Improvement Plan								

Vision for a Healthy Orange County

In 2016, the Health Improvement Partnership reviewed and revised its vision and values for a healthy Orange County and the system that would support it.

VISION

Orange County is a community where **everyone** has opportunities and resources to be **healthy** and enjoy **safety** and **optimal quality of life**.

VALUES

Our vision for a healthy Orange County is driven by the following common values:

- ◆ **Equity** - Attaining the highest level of health for all by addressing root causes of inequalities.
- ◆ **Comprehensive** - Health includes physical, mental, spiritual, economic, environmental, and educational factors that contribute to it.
- ◆ **Collaborative** - Optimal health requires a partnership between many entities including residents, health providers, community-based organizations, faith-based organizations, schools, businesses, and government.
- ◆ **Multi-dimensional** - Health must be understood at the individual, family, and neighborhood level.
- ◆ **Prevention and Health Promotion** - Optimal health starts with the prevention of disease and injury through communities that provide health promotive and protective environments, offer prevention and early intervention services, and support access to high quality care and treatment.
- ◆ **Self Sufficiency** - Health and wellness includes promotion of self-sufficiency and functional independence for those with disabilities and illness.

VISION FOR A SYSTEM THAT WILL SUPPORT A HEALTHY ORANGE COUNTY

Our vision for a healthy Orange County must be supported by a partnership between many entities including residents, health providers, community-based organizations, schools, businesses, and government that is:

- ◆ **responsive, accessible, and accountable** to the communities it serves
- ◆ **well-connected** and **coordinated** across various sectors
- ◆ driven by **data** and seeks to promote **best practice** and **quality services**
- ◆ positioned to **anticipate** and **respond to** current and future **challenges** and **opportunities** impacting health

Criteria for Selection of Priorities

On March 10, 2016, the Health Improvement Partnership met and revised the criteria used for the selection of priority issues for the Orange County Health Improvement Plan. These criteria were used to help guide the partnership in determining priority issues that indicated greatest need and opportunity for improvement through collective action as it reviewed findings from the four MAPP assessments.

The following were the criteria for selection of priority issues:

1. **Health Impact:** To what degree would action on this health issue improve overall health in Orange County?
2. **Disparity:** To what degree does addressing this health issue reduce health disparities within the county?
3. **Trends:** To what degree does addressing this health issue assist Orange County in intervening with a health indicator that is trending negatively or progressing too slowly?
4. **Root Cause:** To what degree does the health issue have a root cause that is modifiable?
5. **Efficiency:** To what degree can action on this health issue address multiple issues?
6. **Economic Impact:** To what degree would addressing this health issue decrease economic impact downstream?
7. **Prevention:** To what degree does the health issue benefit from primary prevention?
8. **Early Intervention:** To what degree does the health issue benefit from early intervention?
9. **Collaboration:** To what degree would collaborative or multi-sector approaches to address this health issue improve chances for success?
10. **Under-addressed Issue:** To what degree is this health issue not addressed or is under-addressed in Orange County?

Determining Priority Areas

At its meeting on March 10, 2016, the Health Improvement Partnership (HIP) reviewed [45 key health indicators](#) as part of the **Community Health Status Assessment**. The review included a look at comparisons of health indicators to state of national measures, trends, and disparities in Orange County. The HIP also reviewed priority areas of the 10 [non-profit hospitals](#) in their most recent Community Health Needs Assessments (CHNAs). After referring to their [criteria for selection of priorities](#), the HIP determined that it would continue work in the four priority areas in the Orange County Health Improvement Plan 2014-16:

1. Infant and Child Health
2. Older Adult Health
3. Obesity and Diabetes
4. Behavioral Health

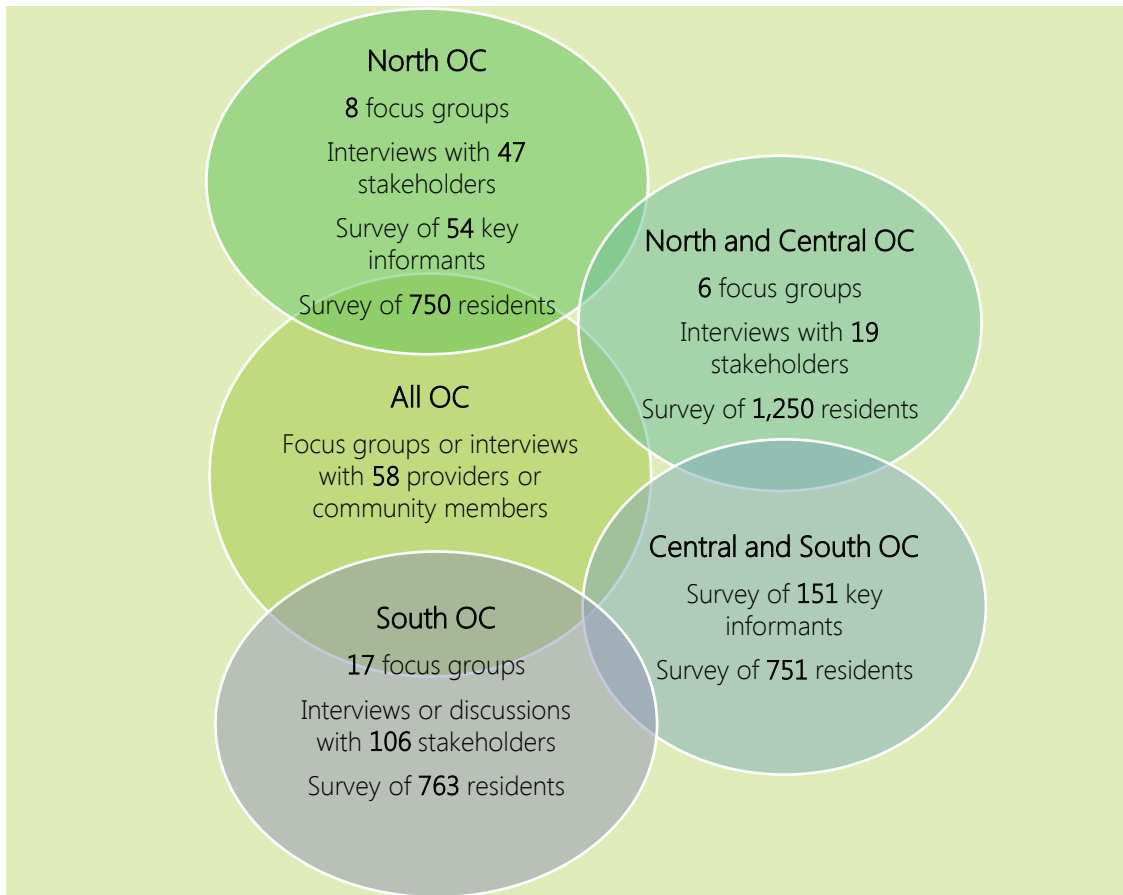
Between March and July, work groups for each priority area conducted more in-depth assessments of the priorities. This included detailed looks at health indicators, review of [community feedback](#) through findings from hospital CHNAs, and discussions on progress on existing goals and strategies. In June, the HIP conducted its [Forces of Change Assessment](#) and [Orange County Public Health System Assessment](#) to gain a better understanding of larger forces impacting community health and the public health system. Summaries of the assessment findings are provided in the section for each priority area. At its meeting on July 14, 2016, the HIP reviewed findings from these various assessments and proposed to continue work on the four priority areas for action and added three new areas of interest for exploration:

1. Access to Health Care
2. Oral Health
3. Social Determinants of Health

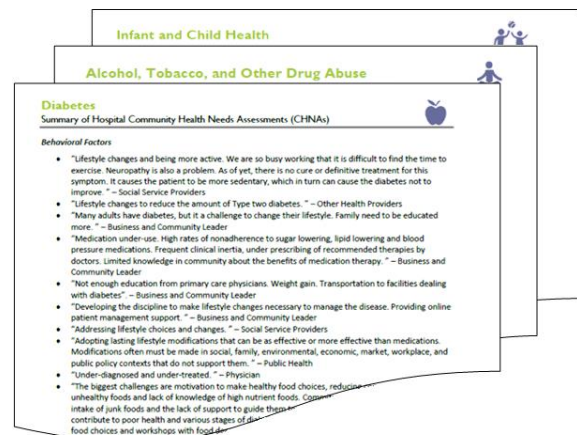
The HIP and its work groups continued work to determine goals, objectives, and key strategies for each of these areas through November 2016. Discussions on why each area was chosen as well as revised plans for existing priority areas are reflected in the plan updates for each area.

Community Voices

After affirming its four priority health areas, each priority area work group considered findings from the most recently completed hospital Community Health Needs Assessments (CHNAs) to conduct the **Community Themes and Strengths Assessment**, which considers community perspectives regarding health and health improvement. The most prioritized topics by hospitals based on their CHNAs were: mental health; access to services; exercise, nutrition, and weight; heart disease and stroke; substance abuse; oral health; older adult issues including Alzheimer’s disease; diabetes; and cancer. Below is a summary of the various assessments that were conducted between 2014 and 2016 by the 10 [non-profit hospitals](#) for their most recent CHNA. As shown, there were a total of at least 32 focus groups conducted, interviews with 230 stakeholders, surveys of 205 key informants and 3,514 residents conducted in various parts of Orange County. Stakeholders and key informants may have participated in more than one interview or survey.



As part of their planning process, work groups read through portions of the most recent CHNAs that were relevant to their priority topic. Shown at right is an excerpt from one of the documents summarizing findings from the hospital CHNAs. These documents included prioritized topics as well as direct quotes from community members and stakeholders related to priorities, concerns, challenges, and suggestions for improvement. These perspectives helped to inform the goals, objectives, and strategies for each plan.



Orange County Health Improvement Plan 2017-19

Reference Documents

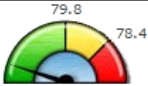

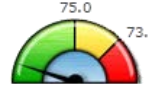




Summary of Key Health Indicators




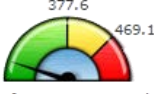
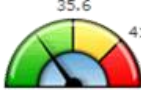

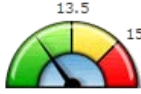





The table below provides an overview of key health indicators for Orange County reviewed by the Health Improvement Partnership as part of the **Community Health Status Assessment** at meeting on March 10, 2016 based on data retrieved from the [OC Dashboard](#) as of March 1, 2016. A full and current account of these and other key health indicators are available on the [OC Dashboard](#).

Notes

- ❖ **Indicator** column: [LHI] indicates *Healthy People 2020* leading health indicator.
- ❖ **Orange County** column: Gauge shows comparison to California or U.S. Counties. Gauge is at **green** when Orange County is in the top 50%, **yellow** when Orange County is between 25-50%, and **red** when Orange County is in the lowest 25%.
- ❖ **Trend** column: The Mann-Kendall statistical test for trend was used to determine trending. **Dark green** arrow indicates trending in good direction. **Dark red** arrow indicates trending in bad direction. Orange and lighter green indicate less statistically significant trends.
 - ◆ Percent in the top line indicates the average **percentage** change per period.
 - ◆ Number in the second line indicates the **numeric** increase (+) or decrease (-) in the indicator over the period shown.
- ❖ **Sub-Group Disparities** column: Groups shown are sub-groups with rates or proportions **at least 10% worse** than Orange County as a whole. Sub-groups shown in **red** would be in the lowest 25% compared to California or U.S. based (see Orange County column).

Indicator	Orange County (compared to Calif. or US)	Trend	Sub-Group Disparities (10% worse than OC average)
Summary Measures of Health			
Life expectancy for females Average life expectancy at birth of residents in 2010 per CDPH	 <p>Comparison: U.S. Counties ⓘ</p> <p>83.8 years</p>	 +0.3% per year +0.8 (2007-2010)	Not available on OC Dashboard
Life expectancy for males Average life expectancy at birth of residents in 2010 per CDPH	 <p>Comparison: U.S. Counties ⓘ</p> <p>80.1 years</p>	 +0.5% per year +1.1 (2007-2010)	Not available on OC Dashboard
Health Care Access and Utilization			
Adults with health insurance % of adults 18-64 years who reported having any type of health insurance per 2010/14 ACS	 <p>Comparison: U.S. Counties ⓘ</p> <p>78.0 percent</p>	Trend not available +0.7% per period +1.1 (2008/12-2010/14)	Santa Ana: 58.1% Stanton: 64.6% Buena Park - 90621: 68.1% Stanton - 90680: 65.6% Sunset Beach - 90742: 68.7% Costa Mesa - 92627: 66.0% Santa Ana - 92701: 49.1%, 92703: 51.4%, 92704: 62.8%, 92706: 61.4%, 92707: 60.4% Anaheim - 92801: 66.4%, 92802: 65.4%, 92805: 62.5% Fullerton - 92832: 69.3% Orange - 92866: 66.2%












Summary of Key Health Indicators

Indicator	Orange County (compared to Calif. or US)	Trend	Sub-Group Disparities (10% worse than OC average)
Health Care Access and Utilization (continued)			
Children with health insurance [LHI]  % of children 0-17 years who reported having any health insurance per 2014 ACS	 <p>Comparison: U.S. Counties ⓘ</p> <p>95.0 percent</p>	 +1.3% per year +4.8 (2010-2014)	American Indian / Alaska Native: 73.3%
Preventable ER visits Average annual age-adjusted ER visit rate for avoidable diagnoses per 10,000 people, per 2011/13 OSHPD	 <p>Comparison: CA Counties ⓘ</p> <p>233.0 ER visits/10,000 population</p>	Trend not available +3.0% per period +13.1 (2009/11-2011/13)	20-24 year old: 272.6 85+ year old: 506.8 Females: 292.6 Black or African American: 477.7 White, non-Hispanic: 262.7
Cancer			
Death rate due to Lung Cancer [LHI] Age-adjusted rate of deaths per 100,000 population due to lung cancer 2011/13 CDPH Death File	 <p>Comparison: CA Counties ⓘ</p> <p>31.6 deaths/100,000 population</p>	 -2.9% per period -4.2 (2007/09-2011/13)	Not available on OC Dashboard
Death rate due to Colorectal Cancer [LHI] Age-adjusted rate of deaths per 100,000 population due to colorectal cancer per 2011/13 CDPH Death File	 <p>Comparison: CA Counties ⓘ</p> <p>12.2 deaths/100,000 population</p>	 -1.5% per period -0.8 (2007/09-2011/13)	Not available on OC Dashboard
Death rate due to Breast Cancer [LHI] Age-adjusted rate of deaths per 100,000 female population due to breast cancer per 2011/13 CDPH Death File	 <p>Comparison: CA Counties ⓘ</p> <p>18.4 deaths/100,000 females</p>	 -2.1% per period -1.7 (2007/09-2011/13)	Not available on OC Dashboard
Death rate due to Prostate Cancer [LHI] Age-adjusted rate of deaths per 100,000 male population due to prostate cancer per 2011/13 CDPH Death File	 <p>Comparison: CA Counties ⓘ</p> <p>19.2 deaths/100,000 males</p>	 -2.1% per period -1.8 (2007/09-2011/13)	Not available on OC Dashboard


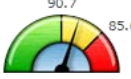


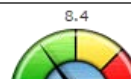


Summary of Key Health Indicators

Indicator	Orange County (compared to Calif. or US)	Trend	Sub-Group Disparities (10% worse than OC average)
Diabetes 🍏			
Adults with Diabetes % adults reporting having diabetes per 2014 CHIS	<p>Comparison: CA Counties ⓘ</p> <p>7.1 percent</p>	<p>+2.5% per year +1.3 (2005-2014)</p>	45-64 years old: 8.3% 65+ years old: 23.8% Anaheim: 8.2% Buena Park: 8.0% Garden Grove: 8.8% La Habra: 8.3% Santa Ana: 10.0% Seal Beach: 7.9% Stanton: 8.4% Westminster: 8.7%
Exercise, Nutrition, and Weight 🍏			
Adults who are sedentary [LHI] % adults (ages 20+) reporting no leisure-time activity in last 30 days per 2012 Centers for Disease Control	<p>Comparison: U.S. Counties ⓘ</p> <p>15.4 percent</p>	Trend not available -2.5% per year -0.4 (2011-2012) Change in methodology between 2010-2011	Female: 16.9%
5th grade students who are at a healthy weight or underweight % 5 th graders within HealthyFitness Zone for body composition per 2013/14 OCDE	<p>Comparison: CA Counties ⓘ</p> <p>63.4 percent</p>	<p>+3.0% per period +5.3 (2010/11-2013/14)</p>	Native Hawaiian/Pacific Islander: 47.4% Hispanic: 51.1%
9th grade students who are at a healthy weight or underweight % 9 th graders within Healthy Fitness Zone for body composition per 2013/14 OCDE	<p>Comparison: CA Counties ⓘ</p> <p>70.8 percent</p>	<p>+1.7% per period +3.5 (2010/11-2013/14)</p>	Native Hawaiian/Pacific Islander: 58.4% Hispanic: 60.7%
Adults who are obese [LHI] % adults reporting being obese per 2014 CHIS	<p>Comparison: CA Counties ⓘ</p> <p>18.2 percent</p>	<p>+0.6% per year +0.9 (2005-2014)</p>	45-64 years old: 30.2% Latino: 24.1% White: 20.4%


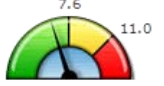



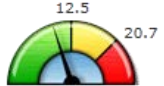




Summary of Key Health Indicators

Indicator	Orange County (compared to Calif. or US)	Trend	Sub-Group Disparities (10% worse than OC average)
Heart Disease and Stroke 			
High blood pressure prevalence [LHI] % adults reporting having been diagnosed with hypertension per 2014 CHIS	 <p>Comparison: CA Counties ⓘ</p> <p>27.8 percent</p>	 +2.2% increase +4.6 (2005-2014)	25-64 years old: 38.3% 65+ years old: 65.2% White: 32.6%
Coronary heart disease deaths [LHI] Age-adjusted rate of deaths per 100,000 population due to coronary heart disease per 2011/13 CDPH Death File	 <p>Comparison: CA Counties ⓘ</p> <p>98.8 deaths/100,000 population</p>	 -8.8% per period -21.0 (2007/09-2011/13)	Not available on OC Dashboard
Cerebrovascular Disease (Stroke) deaths [LHI] Age-adjusted rate of deaths per 100,000 population due to cerebrovascular disease per 2011/13 CDPH Death File	 <p>Comparison: CA Counties ⓘ</p> <p>34.7 deaths/100,000 population</p>	 -1.6% per period -2.4 (2007/09-2011/13)	Not available on OC Dashboard
Immunization & Infectious Diseases			
Chlamydia incidence rate Rate of diagnosed Chlamydia infection per 100,000 population per 2014 CDPH STD Control Branch	 <p>Comparison: CA Counties ⓘ</p> <p>296.6 cases/100,000 population</p>	 +3.4% per year +42.9 (2009-2014)	Female: 396.1 Black or African American: 385.1 Native Hawaiian/Pacific Islander: 408.0
HIV/AIDS prevalence Number of individuals living with HIV per 100,000 population per 2014 OCHCA Disease Control & Epidemiology	 <p>Comparison: Prior Value ⓘ</p> <p>183.9 cases/100,000 population</p>	 +4.1% per year +20.1 (2011-2014)	Black or African American: 610.1 Hispanic or Latino: 249.0





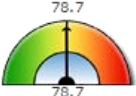
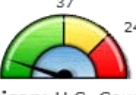





Summary of Key Health Indicators

Indicator	Orange County (compared to Calif. or US)	Trend	Sub-Group Disparities (10% worse than OC average)
<p><u>Kindergartners with required immunizations</u> </p> <p>% of kindergartners with up-to-date immunizations per Kindergarten Assessment Results per 2014 CDPH Immunizations Branch</p>	 <p>Comparison: CA Counties ⓘ</p> <p>90.1 percent</p>	<p>=</p> <p>+0.3% per year +1.1 (2010-2014)</p>	<p>Capistrano: 79.1% Laguna Beach Unified: 79.9% Saddleback Valley Unified: 80.5%</p>
<p>Maternal, Fetal, and Infant Health </p>			
<p><u>Infant mortality</u> [LHI]</p> <p>Rate of deaths of infants under one year of age per 1,000 per 2013 CDPH Death File</p>	 <p>Comparison: CA Counties ⓘ</p> <p>3.3 deaths/1,000 live births</p>	<p>↓</p> <p>-4.9% per year -0.8 (2009-2013)</p>	<p>Anaheim: 4.0 Fullerton: 3.9 Huntington Beach: 4.2 Santa Ana: 3.6 Tustin: 5.4 Westminster: 6.3</p>
<p><u>Preterm births</u> [LHI]</p> <p>% infants born less than 37 weeks gestational age per 2013 Lucille Packard Foundation for Children's Health</p>	 <p>Comparison: CA Counties ⓘ</p> <p>7.8 percent</p>	<p>↓</p> <p>-4.3% per year -1.6 (2009-2013)</p>	<p>Costa Mesa: 8.8% Cypress: 9.0% Laguna Hills: 8.7% Lake Forest: 9.8% Mission Viejo: 9.6% Rancho Santa Margarita: 8.8% Santa Ana: 8.8%</p>
<p><u>Low birth weight</u> [LHI]</p> <p>% infants weighing less than 5 pounds, 8 ounces (2500 grams) per 2013 CDPH</p>	 <p>Comparison: CA Counties ⓘ</p> <p>6.3 percent</p>	<p>↓</p> <p>-1.1% per year -0.3 (2009-2013)</p>	<p><15 years old: 22.2% 15-17 years old: 7.4% 35-39 years old: 7.3% 40-44 years old: 9.7% 45+ years old: 17.9% Asian: 7.2% Black: 9.5% Two or more races: 7.0% Cypress: 7.1% Huntington Beach: 6.9% Lake Forest: 7.9% Mission Viejo: 7.3% Stanton: 7.1% Westminster: 7.8%</p>
<p><u>Infants exclusively breastfed</u></p> <p>% infants exclusively breastfed for first three months of life per 2012 MIHA CDPH</p>	 <p>Comparison: CA State Value ⓘ</p> <p>31.5 percent</p>	<p>Trend not available</p> <p>-6.5% per year -4.7 (2010-2012)</p>	<p>Not available on OC Dashboard</p>


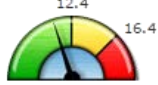







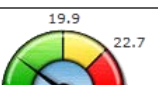
Summary of Key Health Indicators

Indicator	Orange County (compared to Calif. or US)	Trend	Sub-Group Disparities (10% worse than OC average)
Maternal, Fetal, and Infant Health (continued) 			
Pediatric asthma hospitalization rate Rate of average annual age-adjusted hospitalizations under 18 years per 10,000 per 2011/13 OSHPD	 <p>Comparison: CA Counties ⓘ</p> <p>6.8 hospitalizations/10,000 population under 18 years</p>	Trend not available -9.0% per period -1.5 (2009/11-2011/13)	0-4 years old: 13.5 5-9 years old: 7.8 Male: 8.5 Black or African American: 16.4
Teen birth rate Rate of births to teens 15-19 years of age per 1,000 per 2011/13 CDPH	 <p>Comparison: CA Counties ⓘ</p> <p>18.6 live births/1,000 females aged 15-19</p>	 -6.9% per period -7.1 (2007/09-2011/13)	Anaheim: 28.6 Costa Mesa: 20.5 La Habra: 23.9 Santa Ana: 39.0
Mental Health 			
Death rate due to suicide [LHI] Age-adjusted death rate per 100,000 due to suicide per 2011/13 CDPH	 <p>Comparison: CA Counties ⓘ</p> <p>9.6 deaths/100,000 population</p>	 +2.9% per period +1.0 (2007/09-2011/13)	Not available on OC Dashboard
Age-adjusted hospitalization rate due to mental health Age-adjusted hospitalization rate adults 18+ years due to mental health per 10,000 per 2011/13 OSHPD	 <p>Comparison: CA Counties ⓘ</p> <p>38.1 hospitalizations/10,000 population 18+ years</p>	Trend not available -0.3% per period -0.2 (2009/11-2011/13)	18-24 years old: 48.9 85+ years old: 58.8 Black or African American: 77.5 White, non-Hispanic: 55.6 Anaheim- 92802: 42.4, 92804: 89.3, 92805: 133.6
Adults needing help with behavioral health issues % of adults that felt there was a time in the past 12 months when they needed to see a professional because of problems with their mental health emotions or use of drugs/alcohol per 2014 CHIS	 <p>Comparison: CA Counties ⓘ</p> <p>14.9 percent</p>	 +5.5% per year +2.7 (2009-2014)	Female: 17.0% Latino: 18.2%

Summary of Key Health Indicators

Indicator	Orange County (compared to Calif. or US)	Trend	Sub-Group Disparities (10% worse than OC average)
Mental Health (continued) 			
Adults needing and receiving behavioral health care services % of adults needing care for emotional or mental health or substance abuse issues who stated that they did obtain help for those issues in the past year per 2013/14 CHIS	 <p>Comparison: CA State Value ⓘ</p> <p>50.6 percent</p>	 -1.4% per year -5.3 (2007-2014)	None
Oral Health			
Children who visited a dentist  % of children who had seen a dentist in the last year per 2013-2014 CHIS	 <p>Comparison: CA State Value ⓘ</p> <p>78.7 percent</p>	Trend not available	Data indeterminate
Dentist rate Rate of dentists per 100,000 population per 2013 County Health Rankings	 <p>Comparison: U.S. Counties ⓘ</p> <p>101 dentists/100,000 population</p>	Trend not available +4.3% per year +8.0 (2010-2013)	Not available on OC Dashboard
Older Adult Issues 			
Alzheimer's Disease or dementia among older adults Percentage of Medicare beneficiaries 65 and older treated for Alzheimer's disease or dementia per 2014 CMS	 <p>Comparison: U.S. Counties ⓘ</p> <p>11.7 percent</p>	 +0.1% per year +0.1 (2008-2014)	Not available on OC Dashboard
Prevention and Safety			
Death rate due to unintentional injuries [LHI] Age-adjusted rate of deaths due to unintentional injury per 100,000 population per 2011/13 CDPH Death File	 <p>Comparison: CA Counties ⓘ</p> <p>22.0 deaths/100,000 population</p>	 -1.1% per period -1.0 (2007/09-2011/13)	Not available on OC Dashboard

Summary of Key Health Indicators

Indicator	Orange County (compared to Calif. or US)	Trend	Sub-Group Disparities (10% worse than OC average)
Substance Abuse 			
Adults who smoke [LHI] % adults who currently smoke per 2014 CHIS	 <p>Comparison: CA Counties ⓘ</p> <p>10.8 percent</p>	 -2.6% per year -2.8 (2005-2014)	25-44 years old: 18% Male: 14.3% White: 14.4%
Adult binge drinking % adults binge drinking on one or more occasions in the past year per 2014 CHIS (male binge drinking is defined as 5+ drinks on one occasion, female binge drinking is 4+ on one occasion)	 <p>Comparison: CA Counties ⓘ</p> <p>33.5 percent</p>	 +2.4% increase +1.1 (2007-2014)	18-24 years old: 43.8% 25-44 years old: 41.7% Male: 40.7% Latino: 40.2%
Adolescent alcohol use % 11 th graders reporting alcohol use in past month per 2011/13 CHKS	 <p>Comparison: CA Counties ⓘ</p> <p>28.6 percent</p>	Not available on OC Dashboard	Capistrano Unified: 33.7% Huntington Beach Union High: 32.4% Laguna Beach Union High: 47.6% Los Alamitos Unified: 39.0% Newport-Mesa Unified: 36.4% Orange Unified: 31.6%
Death rate due to drug use [LHI] Age-adjusted death rate due to drug use per 100,000 population per 2011/13 CDPH Death File	 <p>Comparison: CA Counties ⓘ</p> <p>10.4 deaths/100,000 population</p>	 +1.8% per period +0.7 (2007/09-2011/13)	Not available on OC Dashboard
Adolescent smoking Proportion of 11 th graders who report having smoked a cigarette in the past 30 days per 2011/13 CHKS	 <p>Comparison: CA Counties ⓘ</p> <p>10.4 percent</p>	Not available on OC Dashboard	Capistrano Unified: 13.6% Huntington Beach Union High: 11.5% Laguna Beach Unified: 21.3% Newport-Mesa Unified: 11.6% Orange Unified: 14.5% Saddleback Valley Unified: 13.1%
11th graders who have ever used recreational prescription drugs % of 11 th grade students who have reported ever using prescription drugs for recreational purposes per the 2011/13 CHKS	 <p>Comparison: CA Counties ⓘ</p> <p>17.1 percent</p>	Not available on OC Dashboard	Capistrano Unified: 19.9% Laguna Beach Unified: 22.5% Los Alamitos: 19.3% Orange Unified: 21.8% Placentia-Yorba Linda Unified: 20.0% Saddleback Valley Unified: 22.1%

Summary of Key Health Indicators

Indicator	Orange County (compared to Calif. or US)	Trend	Sub-Group Disparities (10% worse than OC average)
11th graders who use marijuana % of 11 th grade students who used marijuana one or more times during the past 30 days per the 2011/13 CHKS	<p>Comparison: CA Counties</p> <p>19.1 percent</p>	Not available on OC Dashboard	Capistrano Unified: 23.7% Huntington Beach Union High: 21.1% Laguna Beach Unified: 24.2% Los Alamitos Unified: 24.9% Orange Unified: 24.0% Saddleback Valley Unified: 21.1%
Social and Economic Indicators			
People living below poverty level % of population living below the federal poverty level per 2010/14 ACS	<p>Comparison: U.S. Counties</p> <p>12.8 percent</p>	<p>+6.7% per period +3.2 (2005/09-2010/14)</p>	Under 24 years old: 16.8-19.8% American Indian / Alaska Native: 18.8% Black or African American: 15.0% Hispanic or Latino: 20.4% Anaheim: 16.9% Costa Mesa: 15.1% Fullerton: 17.3% Garden Grove: 16.9% San Juan Capistrano: 14.6% Santa Ana: 22.1% Stanton: 21.8% Westminster: 17.8%
High school diploma % of individuals 25 and older who had a high school diploma or equivalent per 2010/14 ACS	<p>Comparison: U.S. Counties</p> <p>84.0 percent</p>	<p>+0.2% per period +0.7 (2006/10-2010/14)</p>	Hispanic or Latino: 59.9% Anaheim: 75.5% Garden Grove: 73.8% Santa Ana: 54.1% Stanton: 66.7% Westminster: 75.3%
Severe housing problems % of households with overcrowding, high housing costs, lack of kitchen, or lack of plumbing per 2007/11 County Health Rankings	<p>Comparison: U.S. Counties</p> <p>28.8 percent</p>	Trend not available +1.1% per period +0.3 (2006/10-2007/11)	Not available on OC Dashboard
Violent crime rate Rate of violent crimes per 100,000 per 2013 California Department of Justice	<p>Comparison: CA Counties</p> <p>194.9 crimes/100,000 population</p>	<p>-4.4% per year -88.1 (2006-2013)</p>	Not available on OC Dashboard

Data retrieved from [OC Dashboard](#) as of March 1, 2016

Acronyms and Abbreviations

ACS – American Community Survey
 AIDS – Acquired Immune Deficiency Syndrome
 CDPH – California Department of Public Health
 CHIS – California Health Interview Survey
 CHKS – California Healthy Kids Survey
 CMS – Centers for Medicare and Medicaid Services
 HIV – Human Immunodeficiency Virus

LHI – *Healthy People 2020* Leading Health Indicator
 MIHA – Maternal and Infant Health Assessment
 OC – Orange County
 OCDE – Orange County Department of Education
 OCHCA – Orange County Health Care Agency
 OSHPD – Office of Statewide Health Planning and Development
 US – United States

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OC Healthier Together (www.ohealthiertogether.org) Hyperlinks

- Race/ethnicity: Nielsen Claritas (2016)
- Speak a language other than English at home: Nielsen Claritas (2016)
- Residents born outside of U.S.: American Community Survey (2010-2014)
- Projected older adult population in 2040: California Department of Finance (2016)
- Economic self-sufficiency standard: Center for Community Economic Development (2014)
- Median household income: American Community Survey (2010-2014)
- Annual income: Nielsen Claritas (2016)
- Households spending 30% or more of household income on rent: American Community Survey (2010-2014)

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OC Dashboard (www.ohealthiertogether.org/communitydashboard) Hyperlinks

- Infant mortality: California Department of Public Health
- Early prenatal care: Orange County Master Birth Files (2014). California Department of Public Health (2009-2013)
- Preterm births: Lucile Packard Foundation for Children's Health (2013)

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- 5th graders who are obese: California Department of Education (2014-2015)
- Teen birth rate: California Department of Public Health (2013)
- Children with health insurance: American Community Survey (2016)
- Kindergartners with required immunizations: California Department of Public Health, Immunization Branch (2015)
- Exclusive breastfeeding through 3 months: California Department of Public Health, Maternal Infant Health Assessment (MIHA)

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OC Older Adult Dashboard (www.ochealthiertogether.org/olderadulddashboard) Hyperlinks

- Health insurance 65+: American Community Survey (2010-2014)
- Certified geriatricians in Orange County: Geriatric Medicine Certification (2015)
- Alzheimer's disease deaths among 65+: California Department of Public Health (2013)
- Single elders living below the Elder Economic Security Index: UCLA Center for Health Policy Research (2011)
- Elder couples living below the Elder Economic Security Index: UCLA Center for Health Policy Research (2011)
- Asthma prevalence 65+: Centers for Medicare and Medicaid (2014)
- Diabetes prevalence 65+: Centers for Medicare and Medicaid (2014)
- High blood pressure (hypertension) prevalence 65+: Centers for Medicare and Medicaid (2014)
- Osteoporosis prevalence 65+: Centers for Medicare and Medicaid (2014)
- ER visits due to falls 65+: California Department of Public Health (2014)
- Hospitalizations due to falls 65+: California Department of Public Health (2014)
- Hospitalizations due to hip fractures males 65+: California Office of Statewide Health Planning and Development (2012-2014)
- Hospitalizations due to hip fractures females 65+: California Office of Statewide Health Planning and Development (2012-2014)
- Flu vaccinations 65+: California Health Interview Survey (2014)
- Age-adjusted suicide 65+: California Department of Public Health (2013)
- Hospitalizations due to diabetes 65+: California Office of Statewide Health Planning and Development (2011-13)
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OC Dashboard (www.ochealthiertogether.org/communitydashboard) Hyperlinks

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- 5th grade students who are obese: California Department of Education (2014-2015)
- Adults with diabetes: California Health Interview Survey (2014)
- 9th grade students body composition: California Department of Education (2014-2015)
- Hospitalizations due to diabetes: California Office of Statewide Health Planning and Development (2012-14)
- Heart failure rate: California Office of Statewide Health Planning and Development (2012-2014)
- Children living below federal poverty level: American Community Survey (2010–2014)
- Deaths due to diabetes: Orange County Master Death Files (2013)
- Hospitalizations due to short-term complications of diabetes: California Office of Statewide Health Planning and Development (2012-2014)
- Hospitalizations due to long-term complications of diabetes: California Office of Statewide Health Planning and Development (2012-2014)
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OC Dashboard (www.ochealthiertogether.org/communitydashboard) Hyperlinks

- Adults needing and receiving behavioral health care services: California Health Interview Survey (2014)
- Hospitalizations due to alcohol abuse: California Office of Statewide Health Planning and Development (2012-2014)
- Hospitalizations due to substance abuse: California Office of Statewide Health Planning and Development (2012-2014)
- 11th grade students reporting alcohol use within last 30 days: California Healthy Kids Survey (2011-2013)
- Alcohol impaired driving deaths: County Health Rankings (2010-2014)
- Opioid overdose ED visits: California Department of Public Health (2014)
- Deaths due to opioid overdose: California Department of Public Health (2014)
- Opioid prescriptions rate: California Department of Public Health (2014)
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OC Healthier Together (www.ohealthiertogether.org) Hyperlinks

- People with usual source of health care: California Health Interview Survey (2014)
- Children who visited a dentist: California Health Interview Survey (2014)
- Age, Gender, Race/Ethnicity Breakout Dashboard: www.ohealthiertogether.org/breakoutdashboard
- *Orange County's Healthier Together* City Profiles (July 2016): www.ohealthiertogether.org/cityprofiles
- Orange County Health Disparities Report (June 2016): Wilkins J, Tanjasiri S, Ross B. Available at: http://www.ohealthiertogether.org/content/sites/ochca/OC_Health_Disparities_Report_June_2016.pdf

Acronyms and Abbreviations

Where possible, acronyms and abbreviations are defined on each page of this report where it appears. Due to space limitations, the following acronyms and abbreviations may not have been defined on the page of the report where it appears.

- < – Less than
- + – Before a number indicates increase
- + – After a number indicates age group equal to and older than the number
- - – Before a number indicates decrease
- ACA – Patient Protection and Affordable Care Act
- ACS – American Community Survey
- AIDS – Acquired Immune Deficiency Syndrome
- Calif. – California
- CBO – Community Based Organization
- CDC – Centers for Disease Control and Prevention
- CDPH – California Department of Public Health
- CHIS – California Health Interview Survey
- CHKS – California Healthy Kids Survey
- CMS – Centers for Medicare and Medicaid Services
- CSUF – California State University at Fullerton
- ED – Emergency Department
- ER – Emergency Room
- HIP – Health Improvement Partnership
- HIV – Human Immunodeficiency Virus
- LHI – Indicates *Healthy People 2020* Leading Health Indicator
- MAPP – Mobilizing for Action through Planning and Partnerships
- MIHA – Maternal and Infant Health Assessment
- OC – Orange County
- OCDE – Orange County Department of Education
- OCHCA – Orange County Health Care Agency
- OSHPD – Office of Statewide Health Planning and Development
- SWITRS – Statewide Integrated Traffic Records System
- UCI – University of California at Irvine
- UCLA – University of California at Los Angeles
- US – United States
- USD – Unified School District



Orange County Health Improvement Plan 2017-19

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