ORANGE COUNTY WOMEN'S HEALTH UPDATE

FEBRUARY 2021

INTRODUCTION

Orange County (OC) women are generally healthier than most women in California. However, there are certain instances where OC women are not as healthy as their peers in California (CA) or the United States (US), or compared with OC men. There are also instances where certain racial/ethnic groups of women and/or geographic areas are faring worse than OC women overall. To track these developments, in 2016 the Orange County Women's Health Project (OCWHP), Orange County Health Care Agency, and California State University, Fullerton created two new dashboards on the county's community health data platform (www.OCHealthierTogether.org): (1) the Women's Health Dashboard, which compares the health of OC women with women in California and the United States, and (2) the Gender Breakout Dashboard, which compares the health of OC women with OC men.

This year, the OCWHP revisited the dashboards described above and partnered with the OC Health Care Agency to analyze COVID-19 by gender and race/ethnicity over time. The result is this OC Women's Health Update (2021), which highlights key gender disparities and differences, and COVID-19 disparities by gender and race/ethnicity. **FOR AN OVERVIEW OF THESE DISPARITIES AND DIFFERENCES, SEE THE EXECUTIVE SUMMARY ON PAGES 2-3.** This Update will help stakeholders rebuild our healthcare systems to be more equitable, effective, and efficient – especially for women, low-income communities, communities of color, and other marginalized populations.

ABOUT THE DATA IN THIS UPDATE

All data presented in this Update reflect data points that were available as of February 19, 2021. Each indicator is linked to the most current data available on OC Healthier Together (OCHT). Other data sources for certain indicators have been included and cited when not available on OCHT.

On occasion, the population or sample size is too small to be able to draw reliable statistical conclusions, even though the data appear to suggest important differences. For example, the Black and Alaska Native/American Indian populations in OC are so small that they often do not have stable data available for statistical analysis. As explained by the National Center for Health Statistics, "Trend data on race and ethnicity are presented in the greatest detail possible after taking into account the quality of the data, the amount of missing data, and the number of observations. These issues significantly affect the availability of reportable data for certain populations, such as the Native Hawaiian or Other Pacific Islander population and the American Indian or Alaska Native population."[1]

Further, "When the number of events is small, the probability of such an event is small, and when the population/sample size is small, considerable caution must be observed in interpreting the conditions described by the estimates. Estimates that are unreliable because of large standard of errors or small numbers of events are noted with an asterisk (*)."[2]

HEALTHY PEOPLE 2030

Healthy People 2030 (HP 2030) is a national initiative that sets data-driven objectives to improve the health and well-being of individuals, organizations, and communities across the United States. HP 2030 objectives are included in this Update if the indicator directly corresponds to the HP 2030 objective.

LEGEND

In the chart and graphs that follow, the following colors and icons are utilized, per www.OCHealthierTogether.org:

- Significantly better than the overall value
- Significantly worse than the overall value
- No data on significance available
- No significant difference with overall value

Needle in the yellow represents the 50th to 25th percentile

Needle in the yellow represents the 50th to 25th percentile

EXECUTIVE SUMMARY

INDICATOR	STATISTICALLY SIGNIFICANT DISPARITY	OTHER DIFFERENCES (NOT STATISTICALLY SIGNIFICANT)
1. CANCER		
Breast Cancer Incidence Rate	White women in OC have significantly higher breast cancer incidence rates than OC and CA women overall.	
Age-Adjusted Death Rate due to Breast Cancer	White, Non-Hispanic women in OC have significantly higher age-adjusted breast cancer death rates than OC, CA and US women overall.	Black women in OC have higher age-adjusted breast cancer death rates than OC, CA and US women overall.
Cervical Cancer Incidence Rate	Hispanic women in OC have significantly higher cervical cancer incidence rates than OC and CA women overall.	
Age-Adjusted Death Rate due to Cervical Cancer		Pacific Islander, Black, and Hispanic women in OC have higher age-adjusted cervical cancer death rates than OC women overall.
Ovarian Cancer Incidence Rate		OC women have higher ovarian cancer incidence rates than CA women overall.
2. SEXUAL AND REPRODUCTIVE HEALTH		
Chlamydia Incidence Rate		OC women have higher chlamydia incidence rates than OC men. Native Hawaiian/Pacific Islander, Black/African American, American Indian/Alaskan Native women in OC have higher chlamydia incidence rates than OC women overall.
Syphilis and Congenital Syphilis Incidence Rates		Syphilis and congenital syphilis cases are increasing among OC women overall.
Teen Birth Rate 15-19		Sixteen cities in OC have teen birth rates higher than the OC teen birth rate.
3. BEHAVIORAL HEALTH		
Adults Who Binge Drink		OC women have higher rates of binge drinking than CA women overall. Binge drinking among OC women is increasing.
Intimate Partner Violence		OC women have higher rates of intimate partner violence than CA women overall.
Age-Adjusted ER Rate due to Adult Mental Health	OC women have significantly higher age-adjusted emergency room visit rates due to adult mental health than OC men.	

INDICATOR	STATISTICALLY SIGNIFICANT DISPARITY	OTHER DIFFERENCES (NOT STATISTICALLY SIGNIFICANT)
Age-Adjusted ER Rate due to Adolescent Suicide and Intentional Self-Inflicted Injury	OC female adolescents (10-17) have significantly higher age-adjusted emergency room visit rates due to adolescent suicide and intentional self-inflicted injury than OC male adolescents.	
4. HEART HEALTH		
Age-Adjusted Death Rate due to Coronary Heart Disease	Pacific Islander and Black women in OC have significantly higher age-adjusted death rates from coronary heart disease than OC women overall.	
Age-Adjusted ER Rate due to Hypertension	OC women have significantly higher emergency room visit rates due to hypertension than OC men.	
5. POVERTY		
People Living Below Poverty Level	There is a significantly higher percentage of OC women living under the federal poverty level than OC men.	
6. AGING		
Age-Adjusted ER Rate due to Immunization-Preventable Pneumonia and Influenza	OC women have a significantly higher age-adjusted emergency room visit rate due to immunization-preventable pneumonia and influenza than OC men.	
Age-Adjusted Death Rate due to Alzheimer's		OC women have higher age-adjusted death rates due to Alzheimer's disease than OC men.
COVID-19 IN ORANGE COUNTY (January 1, 2020 - January 7, 2021)		
Case Rate by R/E by Gender		OC women have higher rate of COVID-19 infection than OC men.
Case Trends	Hispanic women in OC have significantly higher COVID-19 cumulative cases than all other gender and race/ethnicity groups in OC.	
Mortality Rate by Gender by R/E		OC women have lower rate of COVID-19 deaths than OC men.
Death Rates	Hispanic men in OC have signficantly higher COVID-19 cumulative deaths than all the other gender and race/ethnicity groups in OC.	
Cases & Deaths by Gender by Month	See rows above.	See rows above.

WOMEN'S HEALTH HIGHLIGHTS FOR ORANGE COUNTY

Comparing the health of women in Orange County to the health of men in Orange County and to the health of women in California overall

1 CANCER

Breast Cancer Incidence Rate:

OC is in the second worst quartile of California counties for breast cancer incidence. From 2013-2017, breast cancer incidence rates (cases per 100,000 females) were highest among White (146.8) females in OC compared to OC females overall (125.8) and CA females overall (121.5).

HP 2030 Objective: N/A

Age-Adjusted Death Rate due to Breast Cancer:

From 2014-2018, the breast cancer mortality rate for females in OC was 18.6 deaths per 100,000 females per year. With respect to race/ethnicity, Black* females experienced the highest mortality rate (26.6) followed by White non-Hispanic females (21.6), both with values greater than CA (19.3) and US (20.1) overall values.

HP 2030 Objective: Reduce the female breast cancer death rate

Cervical Cancer Incidence Rate:

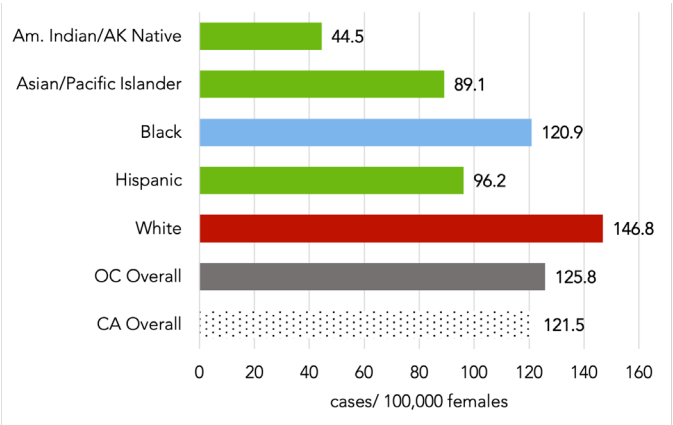
From 2013-2017, the cervical cancer incidence rate (cases per 100,000 females) was highest among Hispanic (9.0) females in OC compared to OC females overall (6.6) and CA females overall (7.2).

Data are suppressed for Black/African American females since three or fewer cases (State Cancer Profiles).

HP 2030 Objective: Increase proportion of females who get screened for cervical cancer

* Data marked with an asterisk (*) indicate that the number of cases/ deaths is too small to be statistically reliable.

Breast Cancer Incidence Rate by Race/Ethnicity
Orange County Females, 2013-2017



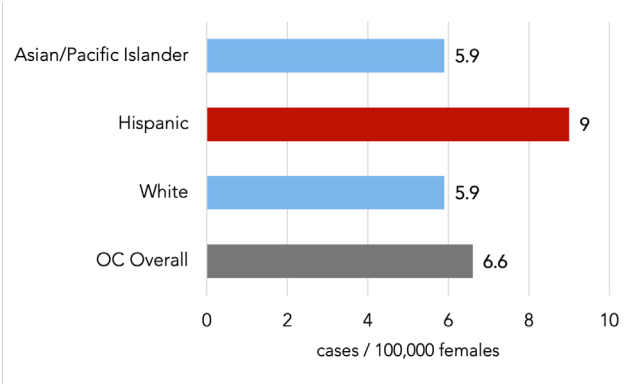
Source: OCHT.org, *citing* NCI, 2013-2017

Breast Cancer Death Rate by Race/Ethnicity
Orange County Females, 2014-2018

deaths per 100,000 females

Source: NCI, State Cancer Profiles, 2014-2018

Cervical Cancer Incidence Rate by Race/Ethnicity
Orange County, 2013-2017



Source: OCHT.org, *citing* NCI, 2013-2017

Age-Adjusted Death Rate due to Cervical Cancer:

When compared to OC's overall death rate due to cervical cancer (1.7 per 100,000 females), Pacific Islander (5.2) females in OC have the highest death rate, followed by Black (3.2) females (2015-2017).

HP 2030 Objective: N/A

Ovarian Cancer Incidence Rate:

OC's ovarian cancer incidence rate is 12.4 cases per 100,000 females (2011-2015), placing OC in the second worst quartile of CA counties. OC is faring worse than CA (11.6 in 2011-2015) and the U.S. (11.3 in 2011-2015).

HP 2030 Objective: N/A

2 SEXUAL & REPRODUCTIVE HEALTH

Chlamydia Incidence Rate:

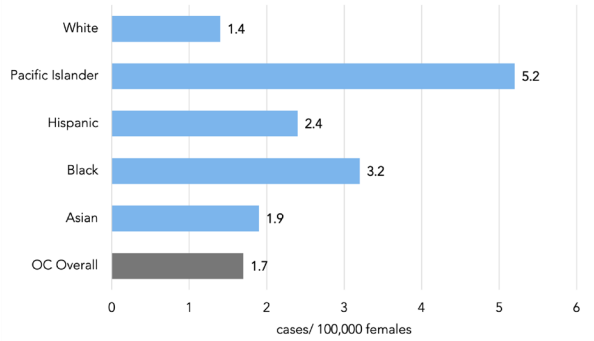
Chlamydia is a sexually transmitted infection caused by bacteria that is often symptomless but easily treated. The chlamydia incidence rate (cases per 100,000 population) in OC and CA is on the rise. In 2018, OC females (557.6) had a higher incidence rate than OC males (324.1).

In 2015, when race data were last available, the chlamydia incidence rate for OC females overall was 480.3. In comparison, Native Hawaiian or Other Pacific Islander (638.2) females had the highest rates, followed by Black or African American (577.8) females, then American Indian or Alaska Native (520.0) females.

Note: Chlamydia rates are in gray due to the lack of confidence intervals from the source and missing race/ethnicity data from CDPH STD Surveillance Reports.

HP 2030 Goal: Increase the proportion of sexually active adolescent and young females enrolled in Medicaid and commercial health plans who are screened for chlamydial infections.

Age-Adjusted Death Rate due to Cervical Cancer, by Race/Ethnicity, Orange County, 2013-2017



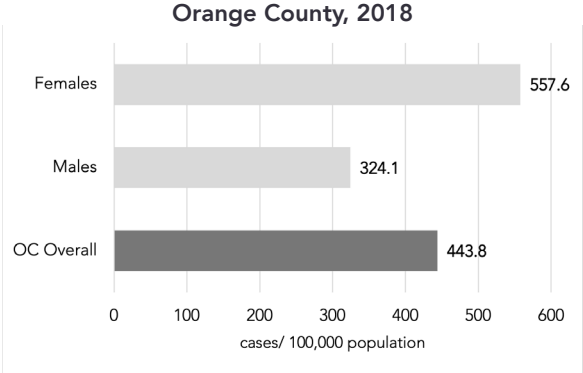
Source: OCHT.org, *citing* CDPH, 2015-2017

Ovarian Cancer Incidence Rate, 2011-2015

cases per 100,000 females

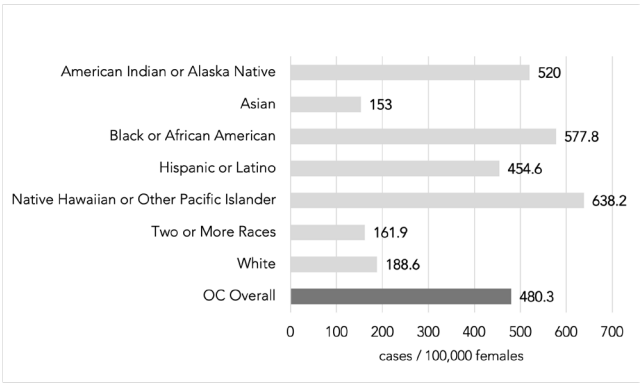
Source: OCHT.org, *citing* NCI, 2011-2015

Chlamydia Incidence Rate by Gender Orange County, 2018



Source: OCHT.org, *citing* CDPH, STD Control Branch, 2018

Chlamydia Incidence Rate among Females by Race/Ethnicity, Orange County, 2015



Source: OCHT.org, *citing* CDPH, STD Control Branch, 2018

Syphilis and Congenital Syphilis Incidence:

Syphilis:

Syphilis is a sexually transmitted infection caused by the bacterium Treponema pallidum. If untreated, the infection can lead to long-term health problems, including brain disease and increased transmission and acquisition of HIV.[3]

Since 2012, the incidence of Syphilis cases for OC females has significantly increased. There were nine cases among women of child-bearing age reported in 2012, compared with 220 cases in 2020.

HP 2030 Objective: Reduce the rate of primary and secondary syphilis in females.

Congenital Syphilis:

Congenital syphilis is an infection transmitted from pregnant person to child during pregnancy and/or delivery. Congenital syphilis can cause severe illness in infants including premature birth, low birth weight, birth defects, blindness, and hearing loss. It can also lead to stillbirth and infant death. Testing and treatment are available for pregnant people.[4]

From 2012-2020, there was a substantial increase in the incidence of congenital syphilis cases in OC (0 cases in 2012 compared with 19 in 2020 as per preliminary data). OC is in the top 10 of CA counties with the highest morbidity for congenital syphilis (CDPH STD Surveillance).

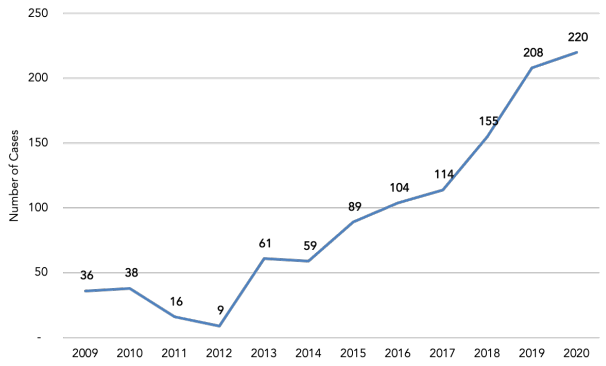
HP 2030 Objective: Reduce congenital syphilis.

Teen Birth Rate:

Teen birth rates measure births to 1,000 females ages 15-19 in a given period. Fortunately, OC's teen birth rate (8.3) is lower than the CA (13.6) and US (17.4) rates, and it has been on the decline since 2009. Unfortunately, there are 16 cities in Orange County whose teen birth rates are higher than the county's rate, and this is up from 10 cities in 2019. In other words, even though the county's teen birth rate went down from 2019 to 2020, the number of cities whose rates exceed the county's rate went up during the same period.

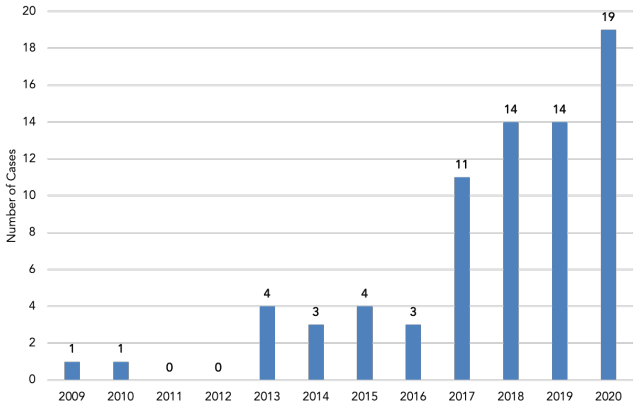
HP 2030 Objective: N/A

All Stage Syphilis Cases in Women of Child-Bearing Age 2009-2020* in Orange County



Source: Dr. Christopher Ried, OC HCA, *citing* California Reportable Disease Information Exchange (CalREDIE), *2020 Preliminary data

Congenital Syphilis Cases 2009-2020* in Orange County



Source: Dr. Christopher Ried, OC HCA, *citing* California Reportable Disease Information Exchange (CalREDIE), *2020 Preliminary data

Teen Birth Rate
Orange County Females, 2014-2018, 5 year Average
Birth rate per 1,000 females

Santa Ana	25.2
Midway City	17.9
United States	17.4
Anaheim	15.4
Orange	14.3
Laguna Hills	13.9
California	13.6
La Habra	13.2
Buena Park	13.0
Tustin	12.8
San Clemente	11.9
Placentia	11.4
Costa Mesa	11.0
Garden Grove	9.6
Stanton	9.3
Westminster	9.3
Fullerton	8.8
San Juan Capistrano	8.7
Orange County	8.3

Source: Orange County Conditions of Children Report, 2020, *citing* OC HCA, Family Health Division

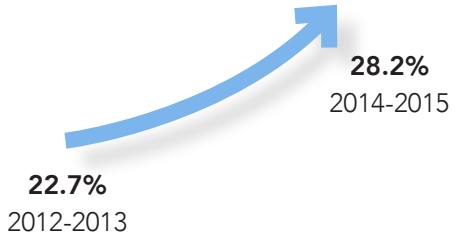
3 BEHAVIORAL HEALTH

Adults Who Binge Drink: Females

Binge drinking is defined as consuming four or more alcoholic drinks on at least one occasion in the past year for females, and five or more drinks for males. Binge drinking among OC females has been increasing since 2012. In 2014-2015, 28.2% of OC females reported binge drinking on one or more occasions in the prior year.

HP 2030 Objective: N/A

Adults Who Binge Drink: Females
Orange County, 2012-2015



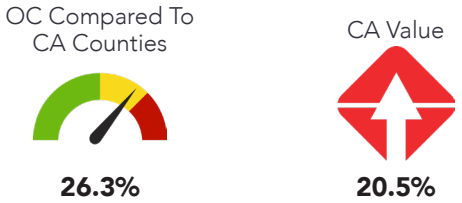
Source: OCHT.org, *citing* CHIS, 2014-2015

Intimate Partner Violence among Females:

In 2009, 26.3% of female adults in OC reported having experienced intimate partner violence since age 18, a greater percentage than CA female adults overall (20.5%).

HP 2030 Objective: N/A

Intimate Partner Violence among Females, 2009



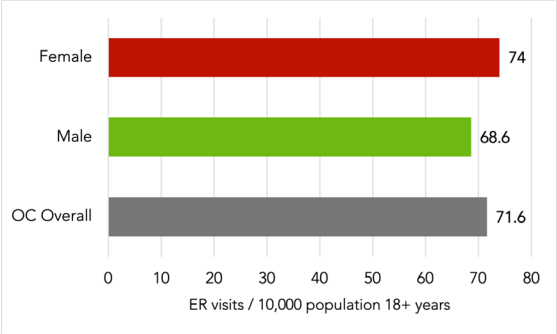
Source: OCHT.org, *citing* CHIS, 2009

Age-Adjusted ER Rate due to Adult Mental Health:

The age-adjusted rate of OC females 18+ years visiting the ER due to mental health is 74.0 (per 10,000), which is significantly higher than OC males (68.6).

HP 2030 Objective: N/A

Age-Adjusted ER Rate due to Adult Mental Health by Gender
Orange County, 2016-2018



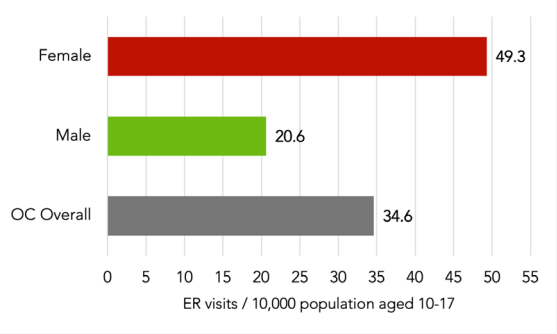
Source: OCHT.org, *citing* COSHPD, 2016-2018

Age-Adjusted ER Rate due to Adolescent Suicide and Intentional Self-inflicted Injury:

Of OC adolescents aged 10-17 years old, OC females (49.3 ER visits per 10,000 population) had a higher ER rate due to suicide or intentional self-inflicted injury than OC males (20.6) from 2016-2018.

HP 2030 Objective: Reduce suicide attempts by adolescents

Age-Adjusted ER Rate due to Adolescent Suicide and Intentional Self-inflicted Injury by Gender
Orange County, 2016-2018



Source: OCHT.org, *citing* COSHPD, 2016-2018

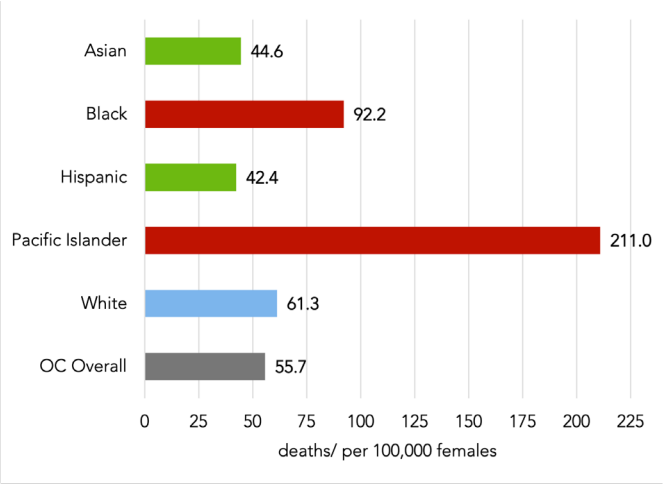
4 HEART HEALTH

Age-Adjusted Death Rate due to Coronary Heart Disease:

The age-adjusted death rate for OC females due to coronary heart disease (per 100,000 females) has been decreasing since 2011-2013, when it was 75.6. However, racial and ethnic disparities emerge among OC females with Pacific Islander (211.0) females faring the worst, followed by Black (92.2) females.

HP 2030 Objective: Reduce coronary heart disease deaths.

Age-Adjusted Death Rate due to Coronary Heart Disease among Females by Race/Ethnicity Orange County Females, 2015-2017



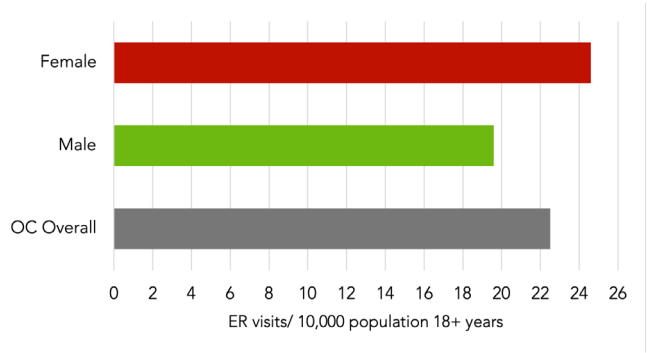
Source: OCHT.org, *citing* CDPH, 2015-2017

Age-Adjusted ER Rate due to Hypertension:

The age-adjusted ER rate due to hypertension, or high blood pressure, is higher among OC females (24.6 per 10,000 population 18+ years) than OC males (19.6).

HP 2030 Objective: Reduce the proportion of adults with hypertension.

Age-Adjusted ER Rate due to Hypertension, by Gender Orange County, 2016-2018



Source: OCHT.org, *citing* COSHPD, 2016-2018

5 POVERTY

People Living Below Poverty Level:

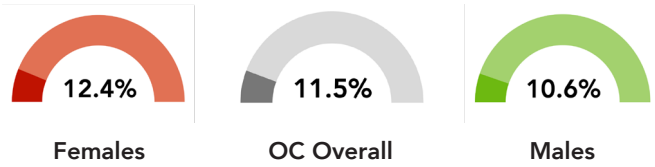
From 2014 to 2018, 11.5% of people in OC were living below the federal poverty level, as compared to 14.3% of all people in CA. OC's trend is increasing, compared with 9.6% in 2011-2015.

More OC females (12.4%) are living in poverty than OC males (10.6%).

Furthermore, 10.5% of females 65+ living in OC are living below the poverty level (which is greater than the OC and CA overall values), compared to 7.9% of males 65+.

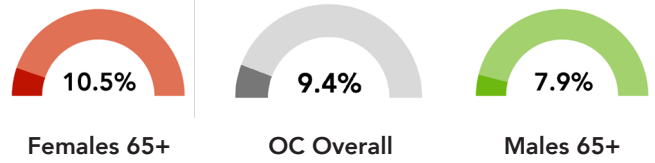
HP 2030 Objective: Reduce the proportion of persons living in poverty.

People Living Below Poverty Level by Gender Orange County, 2014-2018



Source: OCHT.org, *citing* ACS, 2014-2018

People 65+ Living Below Poverty Level by Gender Orange County, 2014-2018



Source: OCHT.org, *citing* ACS, 2014-2018

6 AGING

Age-Adjusted ER Rate due to Immunization-Preventable Pneumonia and Influenza:

The ER rate due to immunization-preventable pneumonia and influenza (per 10,000 population 18+ years) is greater among OC females (14.6) than OC males (11.1).

HP 2030 Objective: N/A

Age-Adjusted Death Rate due to Alzheimer's Disease:

The trend in OC deaths due to Alzheimer's has been increasing since 2011.

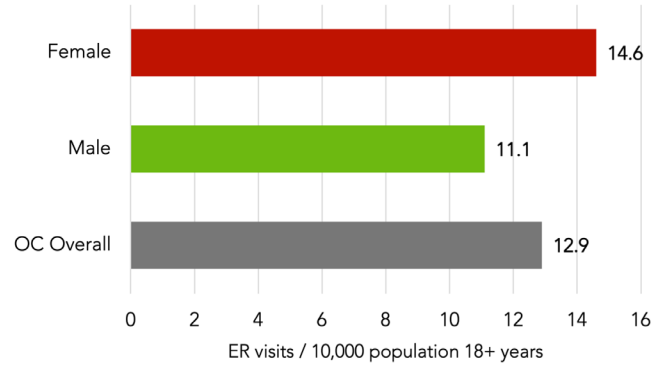
OC females (42.5 deaths per 100,000 population) have a higher death rate compared to OC males (32.3).

Black (94.1) females, Pacific Islander* (115.2) females, and White* (48.6) females have the highest rates.

HP 2030 Objective: N/A

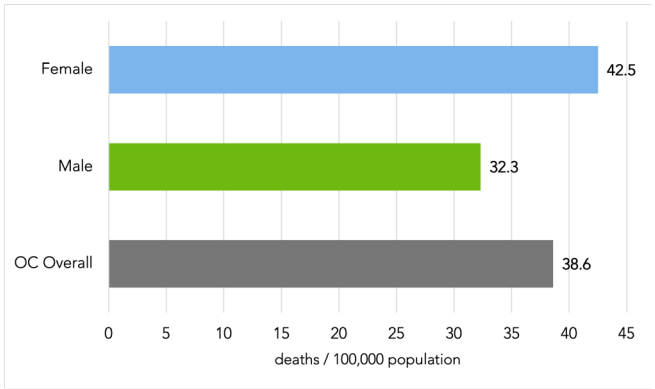
* Data marked with an asterisk (*) indicate that the number of cases/ deaths is too small to be reliable.

Age-Adjusted ER Rate due to Immunization-Preventable Pneumonia and Influenza by Gender Orange County, 2016-2018



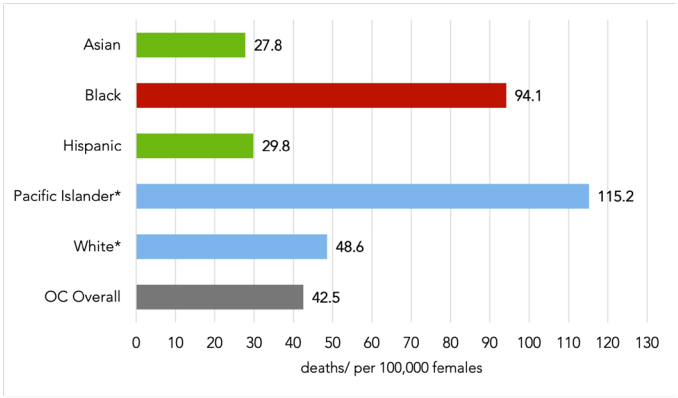
Source: OCHT.org, *citing* COSHPD, 2016-2018

Age-Adjusted Death Rate due to Alzheimer's Disease by Gender Orange County, 2015-2017



Source: OCHT.org, *citing* Orange County Master Death Files, 2015-2017

Age-Adjusted Death Rate due to Alzheimer's Disease among Females by Race/Ethnicity Orange County, 2015-2017



Source: OCHT.org, *citing* Orange County Master Death Files, 2015-2017

COVID-19 BY GENDER & RACE IN ORANGE COUNTY

An examination of COVID-19 cases and deaths by gender and race/ethnicity over time in Orange County.

Below are summaries and graphs of the cumulative number of COVID-19 cases and deaths (January 1, 2020 through January 7, 2021), analyzed by gender and race/ethnicity (where such information is known), by the OC Health Care Agency.

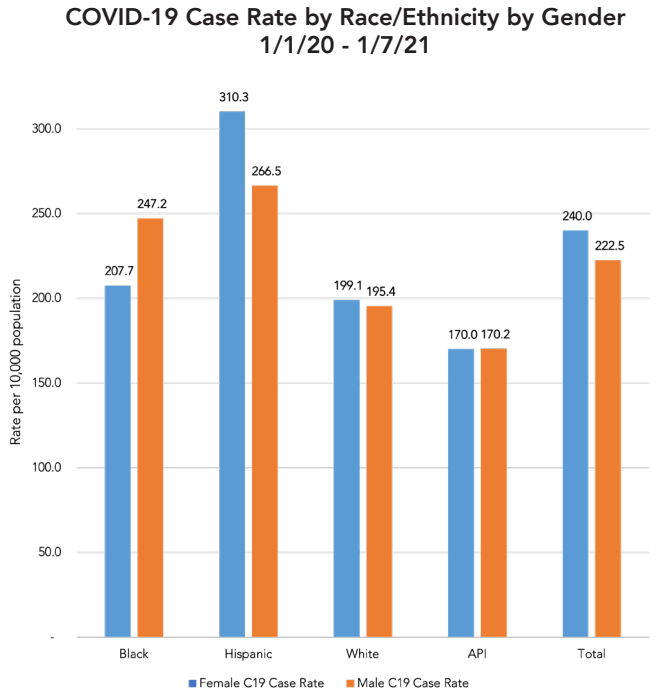
COVID-19 CASE TRENDS

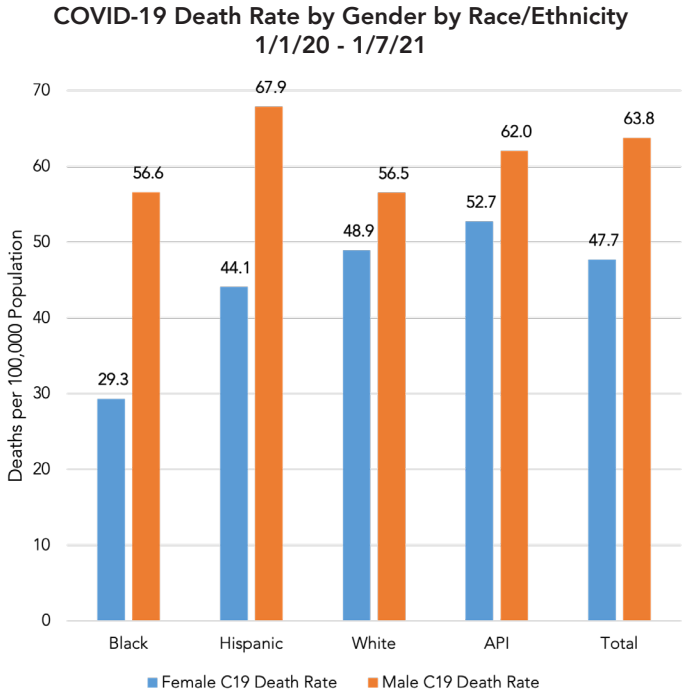
- Overall, females have a higher rate of COVID-19 infection (240 per 10k) compared to males (222.5 per 10k).
- Hispanic females' infection rate (310.3 per 10k) is significantly higher than all other gender and race/ethnicity groups.
- Asian/Pacific Islanders (both genders) have significantly lower infection rate (API females 170 & API males 170.2 per 10k) compared to all other race/ethnicity and gender groups.
- Black males' infection rate (247.2 per 10k) is significantly higher than black females (207.7 per 10k).

COVID-19 DEATH TRENDS

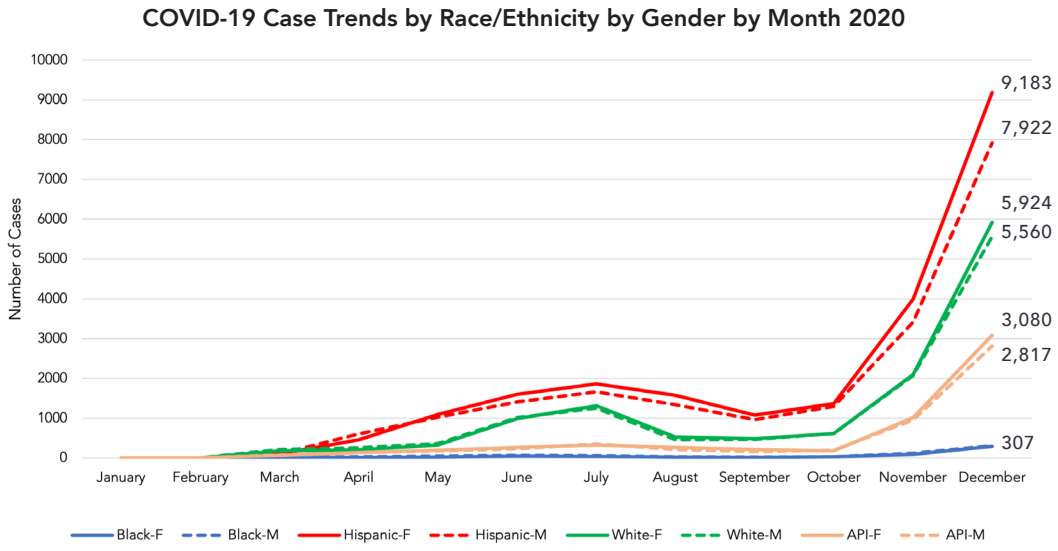
- Overall, males have a higher rate of COVID-19 deaths (65.6 per 100k) compared to females (49.1 per 100k).
- Hispanic males' death rate (67.9 per 100k) is significantly higher than all other gender and race/ethnicity groups.
- There are no significant differences between genders within each race/ethnic pair (except Hispanics).
- While Black males have a higher death rate compared to Black females, the difference is not statistically significant given the large variance in the 95% confidence interval, which is due to the relatively low number of deaths.

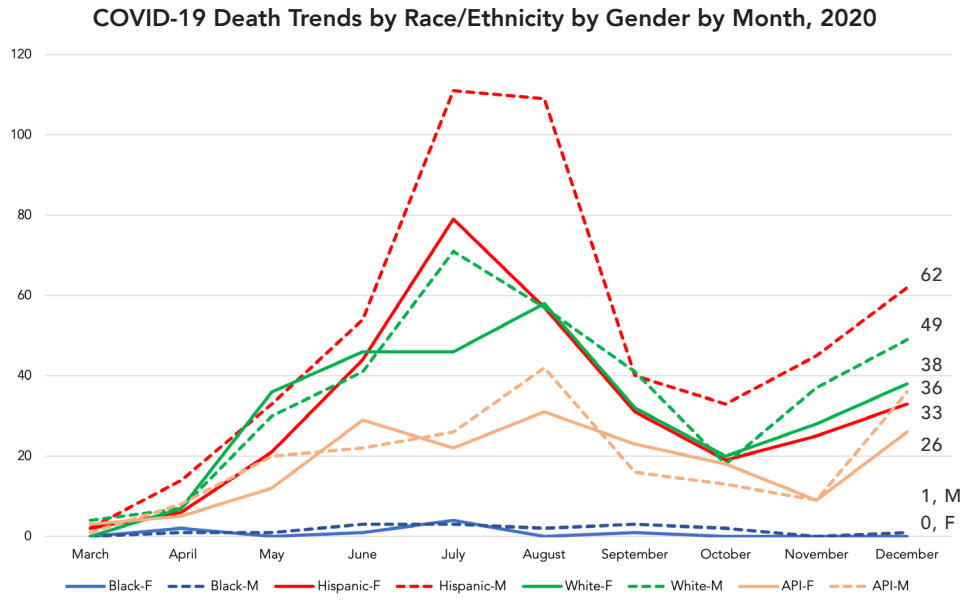
In sum, while women have higher case rates for COVID-19 than men in OC, men are dying from COVID-19 at higher rates than women in OC. Notably, Hispanic women have the highest COVID-19 case rates and Hispanic men have the highest COVID-19 mortality rates in OC.

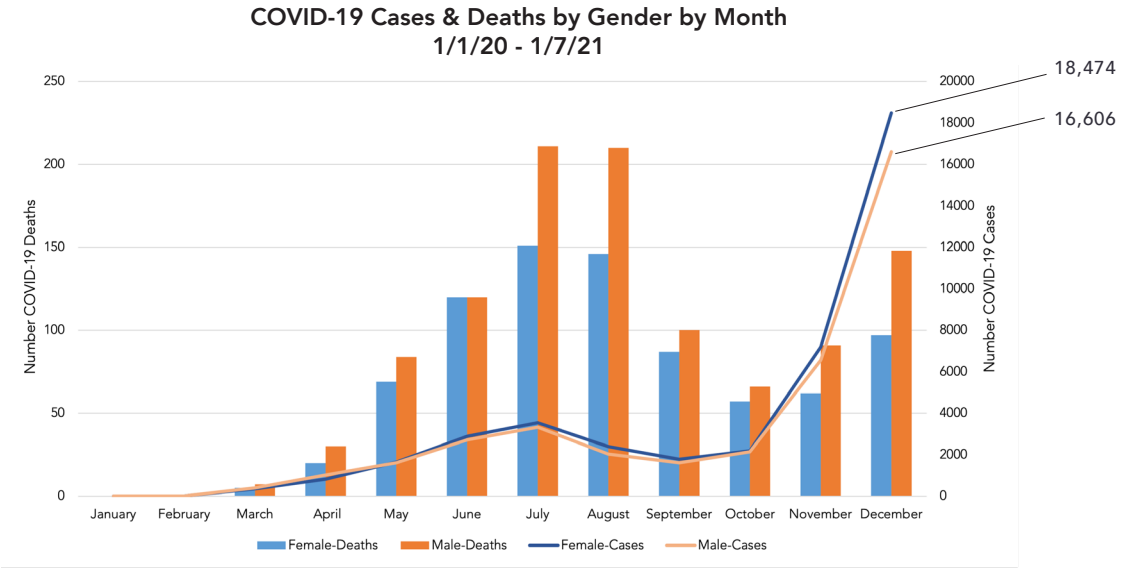




Source: OC Health Care Agency Office of Strategy and Special Projects - Research, created January 7, 2021.







Source: OC Health Care Agency Office of Strategy and Special Projects - Research, created January 7, 2021.

IMPLICATIONS FOR ADVANCING WOMEN'S HEALTH IN ORANGE COUNTY

The OCWHP has historically used a data-informed approach to shine a spotlight on women's health issues and disparities as they emerge, bringing attention and resources to bear on these problems and informing long-term, sustainable, and cross-sectoral solutions. As depicted in this Women's Health Update, a variety of gender and racial/ethnic differences exist and impact women's health in Orange County (OC). The COVID-19 pandemic has further exacerbated these differences and raised awareness of the economic and environmental conditions that impact women's health and well-being.

DATA GAPS

1. COVID-19 Data Gaps

Unfortunately there are notable data gaps concerning COVID-19 and its impact on specific populations. As stated by the Society for Women's Health Research, "The lack of a unified, nationwide process for reporting health information has implications beyond the COVID-19 response and can exacerbate racial and gender biases across the health care system. While groups are working to fill in these data gaps and there have been improvements to demographic data collection throughout the pandemic, COVID-19 data gaps impede our ability to enact a quick, effective response that adequately accounts for racial and gender disparities."[5]

The COVID-19 pandemic will have far-reaching and long-term impacts on our healthcare system, economic well-being, and physical/mental/emotional health. There have been preliminary studies conducted at the national and state levels, however, **we must assess the local impact of COVID-19 across gender and race/ethnicity** in order to optimize recovery and effectively tackle disparities at the systems level, and address the following COVID-19 related challenges.

COVID-19 and Preventive Health Visits and Screening Rates: Recent research indicates a significant decline in breast cancer diagnoses (by as much as 51.8%) in the U.S. from March 1 to April 18, 2020.[6] Alarmingly, and as stated by the Kaiser Family Foundation, "Even with an increase in telehealth utilization, in May 2020 more than half of women reported they or a family member delayed or skipped medical care due to the coronavirus outbreak. Within reproductive health, large declines in patient encounters have been observed, particularly for preventive health services, infertility care, contraception and sexually transmitted infections. While many of these conditions are not life-threatening, they can result in significant morbidity and poor quality of life if delayed."[7] **We must therefore determine the drop in preventive health care visits locally** so we can restore preventive health utilization to its pre-pandemic level.

COVID-19 and Pregnancy: Recent research from the CDC COVID-19 Response Team indicates that pregnant women are at significantly higher risk for severe COVID-19-associated outcomes than non-pregnant women, demonstrating significant increases in morbidity and mortality.[8] Additionally, pregnant women with COVID-19 might have an increased risk of adverse pregnancy outcomes, such as preterm birth. However, pregnant women and lactating women have been excluded from ongoing late-stage vaccine clinical trials, even though COVID-19 may cause severe illness in pregnant women.[9] The CDC is therefore supporting **multiple efforts to understand the impact of COVID-19 on pregnant women and infants.** Data collected as part of these efforts can help direct public health action and inform clinical guidance for the care of affected pregnant women and their infants.[10]

COVID-19, Unemployment Status and Pay Gap for Women: Nationally, women are leaving the workforce at nearly four times the rate of men due to COVID-19, and as a result the wage gap is drastically widening.[11] The unemployment status of women is associated with being laid off or the need to stay home to manage remote schooling or take care of their families.[12] In California, women are slightly more likely to work in the industries most affected by the recession (16% of women and 14% of men worked in these industries in February 2020). This is one factor that has created a gap in the labor market standing of men and women.[13]

Further, the Institute for Women's Policy Research (IWPR) compared national payroll data from February and March

2020 and estimated that women suffered approximately 60% of pandemic-related job losses. Black and Latinx/Hispanic women are being disproportionately impacted by unemployment during the pandemic.[14] Across the United States, racial and ethnic minorities had relatively high unemployment rates in April 2020 (16.7% for Black workers compared to 14.2% for White workers, and 18.9% for Hispanic workers compared to 13.6% for non-Hispanic workers); these gaps persisted in December 2020.[15] **We need better data on these trends in OC in order to understand the impact these economic dynamics will have on local women's and family health.**

For example, the California Health Interview Survey (CHIS) conducted a telephonic survey about the impact of COVID-19 in May-August 2020 and found that more OC females (11.3%) experienced financial difficulties with rent/mortgage than OC males (7.8%) and CA females (10.8%). Data also show that more OC residents (19.4%) experienced reduced hours/income from May to August 2020 due to COVID-19 than CA residents (18.6%), with OC females (22.9%) experiencing more reduced hours/income than CA females (21.6%).[16] **Therefore, we must continue to collect data about unemployment among local women so we can redress these job losses more equitably post-pandemic.**

COVID-19 and the LGBTQ Community: LGBTQ individuals may be at higher risk of COVID-19 complications because they use tobacco at 50% higher rates than the general population, have higher rates of HIV and cancer that compromise the immune system, and experience discrimination in the healthcare system.[17] Nevertheless, public health departments have not been required to track gender identity and sexual orientation for new COVID-19 cases until September 2020, over six months into the pandemic, when California passed a law requiring this information to be collected and reported for new cases of COVID-19 and other reportable communicable diseases (SB 932).[18] **To comply with this mandate, and to address LGBTQ health inequities, OC providers should collect, and the county should report, COVID-19 data by sexual orientation in addition to gender.**

2. Other Local Data Gaps

In addition to data gaps relevant to COVID-19, several other local data gaps were identified and are highlighted below.

Intimate Partner Violence: The most recent intimate partner violence (IPV) data collected by CHIS for OC date back to 2009. It is difficult to plan for prevention and early intervention strategies using such old data, especially given the increase in domestic violence nationwide during the pandemic; **we must resume collecting local IPV data and analyzing by age, gender, geographic regions, sexual orientation, and race/ethnicity of the respondent.**

Teen Dating Violence: Teen dating violence (TDV) is a new Healthy People 2030 objective but there is no coordinated and consistent data collection in OC that would allow local comparison with this national objective. According to the nationwide 2019 Youth Risk Behavior Survey (YRBS), 8.2% of students in grades 9-12 in the U.S. have experienced some form of physical or sexual dating violence in the past year.[19] However, students in OC public schools do not participate significantly in the YRBS survey.[20] To address data gaps regarding local teen dating violence, **OC public schools should participate in future YRBS surveys, and any other future IPV data collection should collect and disaggregate information from teens in addition to adults.**

Pap Test Screening: As noted earlier, cervical cancer death rates in OC are high for certain racial groups. However, there are no county-level data available for pap screening rates or quantifiable pap-testing. **OC should collect these pap test data to help distinguish applicable interventions, such as determining whether populations with high cervical cancer death rates are getting screened.**

Healthy People 2030: OC's community health data platform, OCHealthierTogether.org (OCHT), lists Healthy People 2030 (HP 2030) objectives when they correspond to OCHT's indicators. They do not always come from the

same data source or align perfectly but they can overlap. Still, it is difficult to conclude how OC is doing compared to the HP 2030 objectives on all of the indicators since the metrics might be different or missing. Following is a list of indicators from OCHT that are included in this Update but are missing HP 2030 objectives:

- Breast Cancer Incidence
- Age-Adjusted Death Rate due to Cervical Cancer
- Ovarian Cancer Incidence
- Teen Birth Rate
- Adults Who Binge Drink
- Intimate Partner Violence
- Age-Adjusted ER Rate due to Adult Mental Health
- Age-Adjusted ER Rate due to Immunization-Preventable Pneumonia and Influenza
- Age-Adjusted Death Rate due to Alzheimer's Disease

RECOMMENDATIONS FOR ADVANCING WOMEN'S HEALTH IN ORANGE COUNTY

Need for Targeted Interventions: The data gaps described above exemplify the **need to focus prevention and early intervention efforts on certain communities of color in OC.** For example, in order to address differences in cervical cancer, we must find ways to effectively reach the Pacific Islander and Black populations with culturally sensitive and accessible prevention and early intervention programs, such as pap-testing and HPV vaccination. We also need to better understand why certain groups of women are not getting screened for cervical cancer, and to ensure COVID-19 testing, vaccination and resources are accessible to the Latinx/Hispanic communities where the COVID-19 case and death rates are highest in OC.

The OC Latino Health Equity Initiative and the OC API Task Force are two new collaboratives working to reduce COVID-19 disparities by conducting neighborhood-level outreach and education about COVID-19, testing and vaccination, as well as navigating residents to health insurance and health care services. For more information about COVID-19 equity initiatives in OC, click here.

Sexual Health: Certain cities in OC have higher teen birth rates than the county and state. Teen birth may lead to poor health outcomes for both the mother and the child, and can impact the teen's social and educational development. **This calls for targeted comprehensive sexual health education and navigation to low-cost sexual and reproductive health resources for teens.**

Also, according to the CDC, after reaching an all-time low in 2000, cases of primary and secondary (infectious) syphilis are on the rise in the United States. Syphilis can be passed from mother to infant during pregnancy causing a disease called congenital syphilis. Pregnant women with untreated early syphilis experience perinatal infant death in up to 40% of cases.[21] Congenital syphilis cases in OC have increased from 0 in 2012 to 19 in 2020.[22] **We must therefore track these cases, identify trends, and use this information to provide prevention and early intervention for syphilis and congenital syphilis in OC.**

Mental Health disorders are one of the leading causes of disability and suicide in the United States. In any given year, approximately 13 million American adults have a seriously debilitating mental illness.[23] The COVID-19 pandemic is compounding the behavioral health of women and families, especially with the need for social distancing resulting in isolation. Moreover, the increase in binge drinking is a common trend throughout the United States. Alcohol and drug abuse can lead to an array of negative health and safety outcomes including alcohol-related traffic accidents and other injuries, employment problems, legal difficulties, financial loss, family disputes and other interpersonal problems.[24,25] Not surprisingly, hospital admissions for alcoholic liver disease have increased 30-50% at certain hospitals in the U.S. during the pandemic.[26] **We therefore need to collectively reduce stigma associated with behavioral health and find ways to encourage early treatment in order to reduce the severity of mental illness and substance abuse.** We must also invest in workforce development to increase the number of psychiatrists and strengthen the capacity of general practitioners (such as internal medicine and family medicine physicians, physician assistants, and advanced practice nurses) to support the provision of psychiatric care in OC.

Economic Indicators, such as living under the federal poverty level, are correlated with poor health outcomes and inform which communities need greater assistance. As described in the Orange County Equity Profile, people of color in OC are more likely to be struggling with poverty. Those most impacted by living below the poverty level include Native Americans (19.5%) and Latinos (18.7%), compared with Whites (7.3%).[27] Latinos are much more likely to be defined as the working poor (i.e. working full-time with an income below 150% of the federal poverty level) with a working poverty rate of 11.7%, almost eight times higher than Whites (1.5%).[28] The 2020 Conditions

of Children in Orange County Report states that between 2011 and 2020, there was a 7% increase among OC students eligible for the Free and Reduced Price Lunch program, which is higher than the 4.6% increase among students throughout California.[29] To improve health outcomes, **we must address poverty as a primary social determinant of health in OC.**

Poverty, Domestic Violence & Homelessness. A high poverty rate is associated with food insecurity, poor health outcomes, and an increase in interpersonal violence. Women from socio-economically disadvantaged backgrounds are twice as likely to experience domestic violence, and violence against women is a leading cause of homelessness.[30] According to Homeless Information Management System (HMIS) data collected by 211OC, the total number of female enrollments in homelessness services in OC increased nearly 10% between 2015-2019, and in 2019, 42% of total enrollments in homelessness services were female. The percent of homeless women in OC who ever experienced domestic violence also increased over time: 2015 (39%), 2017 (43%), 2019 (46%) as well as the percent of homeless women fleeing from domestic violence: 2015 (10%), 2017 (16%), 2019 (23%).[31] **We must therefore address the intersection of domestic violence with behavioral health and homelessness to advance policies that reduce severe health outcomes in OC.**

Education & Wages: In general, higher educational attainment results in higher wages and lower unemployment. According to the OC Equity Profile, among full-time wage and salary workers in OC, there are racial gaps in median hourly wages at all education levels, with Whites earning substantially higher wages than all other groups. Among college graduates with a BA or higher, Asian Americans/Pacific Islanders earn $3/hour less than their White counterparts in OC, while African Americans earn $9/hour less and Latinos earn $11/hour less in OC.[32] Across the board, women of color have the lowest median hourly wages. For example, college-educated women of color with a BA degree or higher earn $16 an hour less than their White male counterparts in OC.[33] **These racial and gender wage inequities must be addressed at the policy level in OC.**

Seniors: According the 2020 Orange County Community Indicators Report, the older population is set to expand in Orange County. Residents aged 65 and older are the only segment of the population expected to grow between 2020 and 2060, at which point they are projected to represent 25% of the county's population. This creates an even greater need to **develop outreach programs for seniors to promote vaccination (for preventable pneumonia and influenza as well as COVID-19), address mental health issues, tackle isolation, and ensure there are resources available to support caregivers in OC.**

COVID-19 Vaccination Disparities: **We must collect data and monitor for local vaccination disparities by gender, age, race/ethnicity, etc.** A survey on vaccine hesitancy conducted in late 2020 among over 25,000 people in OC found males were significantly more likely than females in OC to agree to be vaccinated.[34] However, now that vaccination has begun, more women (58.1%) have received at least one dose of the vaccine than men (41.8%) in OC.[35]

Notably, "a divide between 'haves' and 'have-nots' is emerging" among older adults across the country.[36] Seniors without social support, those that can't drive or might not be comfortable with technology (nor have internet access) are likely facing obstacles for getting vaccinated. Moreover, barriers to vaccine access appear to be affecting Black and Latinx/Hispanic elders as well as people who are not native English speakers; older adults living in low-income neighborhoods; seniors who are frail, seriously ill or homebound; and those with vision and hearing impairments.[37] Kaiser Health News recently reported that in 23 states with available vaccination data, White residents are being vaccinated at higher rates than Black residents, often at double the rate or even higher.[38] Latinx/Hispanics also appear to experience vaccination disparities but the data are not available yet. Moreover, Blacks also appear to be skeptical of the vaccine because of barriers stemming from structural racism, as well as possible mistrust about the vaccine and medical system in general.[39]

"Many noncitizen immigrants have potential barriers to obtaining the vaccine including confusion about eligibility and potential costs, concerns about health and economic impacts of side effects, and immigration-related fears."[40] Efforts to minimize fears and improve access should therefore include community based targeted outreach, the use of community health advocates (i.e., Promotores), and mobile clinics. Efforts such as the Latino Health Equity Initiative and API Task Force can help minimize vaccination gaps and improve vaccination rates among all communities of OC.

COVID-19, Gender and Race/Ethnicity: The COVID-19 pandemic is highlighting existing health inequities and creating new disparities. With regard to gender, and consistent with national trends, OC men have suffered higher COVID-19 mortality rates than OC women, while OC women have experienced higher COVID-19 case rates than OC men.[41, 42]

Researchers have ventured various theories about why coronavirus affects women and men differently. "Some potential reasons surround social determinants of health, such as smoking or wearing a mask to prevent infection. Others relate to biological factors, stemming from extensive prior research that has demonstrated significant differences in the immune systems of women and men."[43] Additional research on COVID-19 and gender is therefore required.

Importantly, women are also suffering disproportionately from the socio-economic fallout of the pandemic. According to multiple studies, women's jobs are more vulnerable to the COVID-19 crisis than men's jobs, in part because more women work in the industries most affected by COVID-19, such as food service, retail, arts, recreation and public administration.[44] In addition, "Coronavirus shutdowns have closed schools and daycare centers around the country, keeping kids at home and making it even harder for parents (especially mothers who tend to provide the majority of childcare) to keep working. Childcare poses an additional challenge to working mothers during the pandemic."[45] With these ongoing disparities in mind, we must continue to track trends and invest in gender equity measures long after the COVID-19 crisis subsides.

With regard to race/ethnicity, COVID-19 has disproportionately affected communities of color. In OC,

Latinx/Hispanic men have suffered the highest mortality rates, and Latinx/Hispanic women have experienced the highest case rates. This is in part attributed to social determinants; Latinx/Hispanic individuals in OC are more likely to be low-income, less likely to be insured, less likely to access health care services, and more likely to work in essential jobs.[46, 47] Moreover, in general, communities of color continue to experience systemic racism in the health care system when it comes to COVID-19.[48] Moving forward, **we must ensure outreach, navigation, testing, treatment, vaccination and data collection are equitably deployed in order to overcome racial/ethnic COVID-19 disparities in OC.**

CONCLUSION

In closing, while OC women are generally healthier than most, they are experiencing disparities in breast cancer, cervical cancer, mental health, heart health, and aging. Further, the COVID-19 pandemic has exposed and exacerbated existing inequities with regard to women's employment, caregiving responsibilities, and financial security. Orange County must aggressively collect and analyze community health and COVID-19 data by gender, sexual orientation, and race/ethnicity; invest in culturally sensitive outreach and navigation to engage vulnerable communities; and deliver prevention and early intervention programs that can improve health outcomes and reduce disparities affecting women, especially women of color, in the county.

ABBREVIATIONS

ACS = American Community Survey
www.census.gov/programs-surveys/acs

CDPH = California Department of Public Health
www.cdph.ca.gov

CHIS = California Health Interview Survey
www.ask.chis.ucla.edu

COSHPD = California Office of Statewide Health Planning and Development
www.oshpd.ca.gov

NCI = National Cancer Institute
www.statecancerprofiles.cancer.gov

OC HCA = Orange County Health Care Agency
www.ochealthinfo.com

OCHT = Orange County Healthier Together
www.OCHealthierTogether.org

STD = Sexually Transmitted Disease

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AUTHORS:

Dena J. Rubin, MPH
Allyson W. Sonenshine, JD
Gail T. Dratch, MSW
Sydney K. Minchin
Orange County Women's Health Project

FOR MORE INFORMATION, CONTACT:

Orange County Women's Health Project
Allyson W. Sonenshine, JD
sonenshine@ocwomenshealth.org
info@womenshealth.org
www.ocwomenshealth.org

Orange County
WOMEN'S HEALTH PROJECT

Orange County Health Care Agency - Research
Curtis Condon, PhD
(714) 834-2034
ccondon@ochca.com

ochealth
CARE AGENCY

Orange County Healthier Together
Cara Woodard
cara.woodard@conduent.com
OCHIP@ochca.com
www.ochealthiertogether.org

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A source for health data and information in Orange County.

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