Appendix K: Secondary Health Outcomes

Notes about these charts	2
Oregon, Statewide	5
Excess Deaths	5
Estimates of Excess Deaths	5
Behavioral Health	6
Oregon Opioid Overdose Deaths	6
Anxiety and Depression	6
Perinatal Health Outcomes	9
Preterm birth rate	9
Suicide	10
Suicides, Total	10
Sexually Transmitted Diseases	10
Chlamydia	10
HIV	11
Unemployment	12
Regular Immunizations	13
Kindergartners with School-Required Vaccines	13
Women of Child-Bearing Age with TDaP Vaccine	13

Notes about these charts

Regions in these charts are modified regions based on the Oregon emergency response regions. Region 1 includes Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington. Region 2 includes Benton, Lincoln, Linn, Marion, Polk, and Yamhill. Region 3 includes Coos, Curry, Douglas, Jackson, Josephine, and Lane. Region 4 includes Baker, Gillam, Hood River, Malhuer, Morrow, Sherman, Umatilla, Union, Wallowa, and Wasco. And Region 5 includes Crook, Deschutes, Grant, Harney, Jefferson, Klamath, Lake, and Wheeler.

Charts have varying sizes of "Y" axis to fit the data per the population being represented on the chart (for example county, region, age band, etc.) so use caution when viewing charts side by side.

Some data is organized by stage of the pandemic.

- Stage 1 March 2020 November 2020: outbreak, disease investigation, implementing public health protections (masking, distancing, shutdowns), preparing for vaccination
- **Stage 2** *December 2020 August 2021*: vaccination, disease investigation, enforcing public health protections, and partial reopening
- **Stage 3** *September 2021 February 2022:* vaccinations, reopening and dealing with variants
- Stage 4 March 2022 Present July 2022: total reopening, no public health protections (except in health care settings), and changes in investigative guidelines

Data sources:

- Anxiety and depression data come from the US Census Household Pulse Survey. Data for Oregon were accessed online at: https://www.census.gov/programs-surveys/household-pulse-survey/data.h tml
- **Chlamydia** case data come from the Oregon Public Health Division Acute and Communicable Disease Prevention, compiled from reports submitted to

OPHD. Data accessed online at:

https://public.tableau.com/app/profile/oregon.public.health.division.acute. and.communicable.disease.pre/viz/MonthlyReportDashboard_EXTERNAL_A GGREGATED/MonthlyReportDashboard

- Kindergarten vaccinations data accessed online at: <u>https://public.tableau.com/app/profile/oregon.immunization.program/viz/</u>

 SchoolLawTableau/Immunizations
- HIV case data come from the Oregon Public Health Division Acute and Communicable Disease Prevention, compiled from reports submitted to OPHD. Data accessed online at: https://public.tableau.com/app/profile/oregon.public.health.division.acute.and.communicable.disease.pre/viz/MonthlyReportDashboard_EXTERNAL_AGGREGATED/MonthlyReportDashboard
- Low birthweight infants: Data for Oregon come from Oregon's Vital
 Statistics Annual Report. This is available online at:
 https://visual-data.dhsoha.state.or.us/t/OHA/views/Annualtrendsinbirthan
 dpregnancydashboard/TrendsDashboard?%3AisGuestRedirectFromVizporta
 l=y&%3Aembed=y
- Opioid overdose deaths come from State Unintentional Drug Overdose
 Reporting System (SUDORS) highlighted in OHA's Opioid Overdoes Public
 Public Health Surveillance Update (09/16/2022):
 https://www.oregon.gov/oha/PH/PREVENTIONWELLNESS/SUBSTANCEUSE/OPIOIDS/Documents/monthly_opioid_overdose_related_data_report.pdf
- Preterm Birth Rate: Data for Oregon were accessed online at:
 https://www.marchofdimes.org/peristats/reports/united-states Data for the US were access at: https://www.cdc.gov/nchs/data/vsrr/vsrr020.pdf
- Suicide data come from the National Violent Death Reporting System (NVDRS). Data for Oregon were accessed online at: https://www.oregon.gov/oha/ph/DiseasesConditions/InjuryFatalityData/Pages/nvdrs.aspx
 - Number of people who died by suicide
- TDaP vaccine data come from Oregon Immunization program, accessed online at:

https://public.tableau.com/app/profile/oregon.immunization.program/viz/ RoutineImmunizationsDashboard/Dashboard C

• **Unemployment** data come from State of Oregon Employment Department, accessed online at:

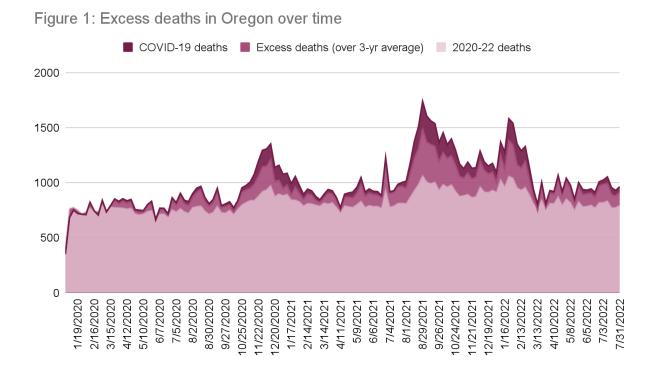
 $\frac{\text{https://www.qualityinfo.org/ed-uesti/?at=1\&t1=4101000000}^{\text{unemprate}}}{^{2000}^{2022}}$

Oregon, Statewide

Excess Deaths

Estimates of Excess Deaths

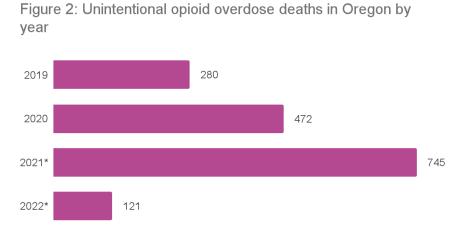
Excess deaths are the difference in the observed number of deaths in a specific time period and the expected number of deaths within that same time period. Estimates of the number of excess deaths help provide additional information about the burden of the COVID-19 pandemic in relation to mortality trends. Figure 1 presents the estimated number of excess non-COVID-19 mortality, expected Estimated non-COVID-19 mortality is presented in The number of non-COVID deaths in Oregon exceed projected expectations of deaths in the state, which could be due to numerous factors. This will be explored more in Report 2.



Behavioral Health

Oregon Opioid Overdose Deaths

Figure 2 is a column chart displaying the number of opioid overdose deaths in Oregon between 2019-2020. The number of opioid deaths has nearly doubled every year since 2019. Opioid overdose death trends seen in Oregon are slightly higher than that of the United States, where opioid overdose deaths have increased by approximately 30% each year since 2019.



*As opioid deaths are dependent on mortality data, both 2021 and 2022 data are incomplete.

Anxiety and Depression

The US Census Household Pulse survey was utilized to quickly collect data on how the ongoing pandemic was impacting people's lives. Phase 1 (April - July 2020) of the survey collected data and disseminated data every week. All later phases of the survey have used two-week collection and dissemination periods. The survey asked respondents to rank their symptoms of anxiety and depression in the past seven days; Figure 3 displays respondents who reported symptoms of anxiety or depressive disorder on more than half or nearly all of the past seven days during the pandemic. Figure 4 displays percent of adults with symptoms of anxiety, and Figure 5 displays adults with symptoms of depression.

Figure 3: Adults reporting symptoms of anxiety or depressive disorder during COVID-19 pandemic

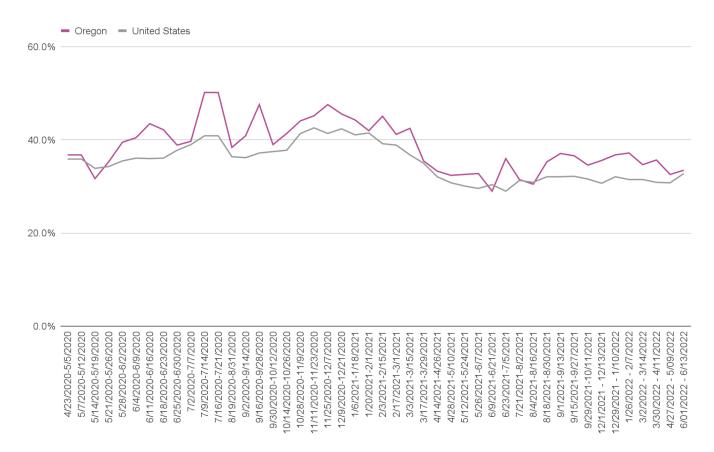
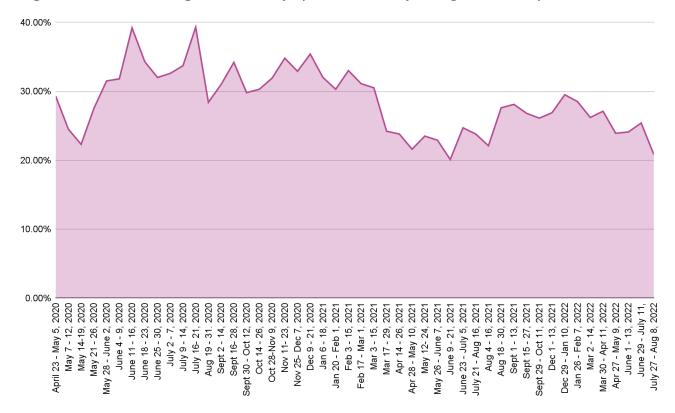


Figure 4: Percent of Oregonian's with symptoms of anxiety during COVID-19 pandemic



April 23 - May 6, 2020
May 7-12, 2020
June 4-9, 2020
June 4-9, 2020
June 4-9, 2020
June 11-16, 2020
June 11-18, 2020
June 11-28, 2020
Nov 25- Dec 7, 2020
Oct 28-Nov 5, 2020
Nov 25- Dec 7, 2020
June 11-28, 2021
May 11-28, 2021
June 21-Juny 5, 2022
June 21-Juny 5, 2022
June 21-Juny 5, 2022
June 21-Juny 5, 2022
June 21-Juny 11, 2022
June 11-3, 2022
June 21-Juny 11, 2022

Figure 5: Percent of Oregonian's with symptoms of depressive disorder during COVID-19 pandemic

Perinatal Health Outcomes

Preterm birth rate

In 2020, 8.2 percent of
Oregon live births were
preterm, a slight decrease
from 8.3 percent in 2019.
This trend is similar to the
United States. 2021 and 2022
data are not yet available.

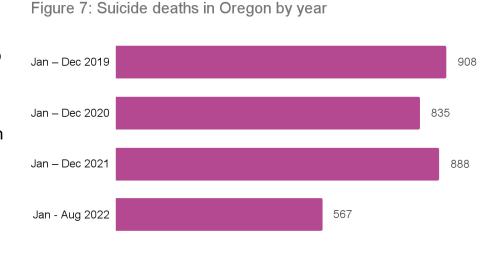
Figure 6: Percent of live births that were preterm, Oregon and the US



Suicide

Suicides, Total

The yearly number of suicide deaths for the state of Oregon show no increase since 2019. Instead, there appears to be a slight decrease in the number of suicides from 2019 to 2021. Nationally,the US has seen modest declines in suicide rates since 2019.

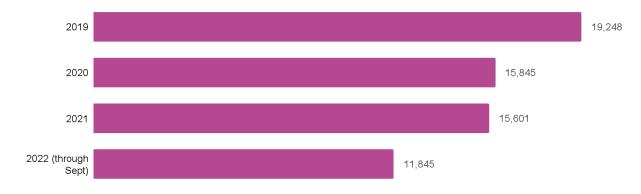


Sexually Transmitted Diseases

Chlamydia

Figure 8 displays the number of new chlamydia cases in Oregon each year between 2019 and 2022. There has been a drop in cases between 2019 and 2020, which could indicate a drop in people accessing services for sexuall transmitted infections. The 2022 data are only through September, but if the monthly trend of approximately 1300 cases per month continues, 2022 will be similar to 2020 and 2021.

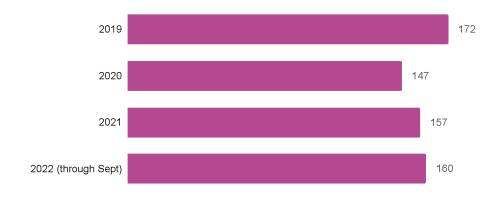
Figure 8: New chlamydia cases in Oregon by year



HIV

Figure 9 displays the number of new HIV diagnoses in Oregon each year from 2019-2022. The numbers are relatively similar, although there was a drop in new cases between 2019 and 2022 which could indicate a drop in people accessing services for sexuall transmitted infections. The 2022 data are only through September, there may be more new cases this year.

Figure 9: New HIV diagnoses in Oregon by year



Unemployment

Figure 10 is a clustered column chart comparing the adjusted unemployment rates in Oregon and the United States. Overall, Oregon and the US unemployment trends are comparable. Although Oregon's unemployment rate had a sharp increase at the beginning of the pandemic (13.3), this rate was lower than the US unemployment rate of 14.7. Since this peak, unemployment rates in Oregon have gradually declined back to pre-pandemic levels, with Oregon's unemployment rate in July of 2022 being 3.5.

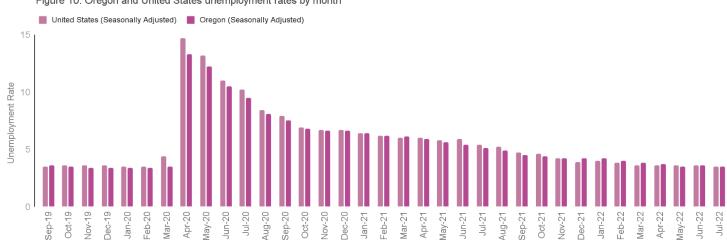


Figure 10: Oregon and United States unemployment rates by month

Regular Immunizations

Kindergartners with School-Required Vaccines

Figure 11 displays the percent of kindergartners in Oregon who have completed all

school-required vaccines.

These data are reported by the Oregon Immunization Program and come from the Immunization Primary Review reports, collected annually in March. The percent of kindergartners vaccinated has stayed fairly consistent through the past few years.

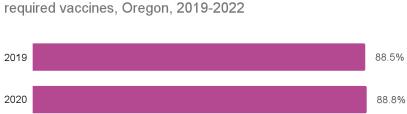


Figure 11: Percent of kindergartners with complete school-

2021 88.0% 2022 88.4%

Women of Child-Bearing Age with TDaP Vaccine

Figure 12 displays the number of women of child-bearing age in Oregon who had received the TDaP vaccination as reported by the Oregon Immunization Program.

There has been a drop in the total number of women receiving the TDaP vaccine since 2019. Data for 2022 are only available through July 2022, so the number for 2022 is incomplete.

Figure 12: TDaP vaccines among women of childbearing age (18-45), 2019-2022 YTD

