COVID-19 health disparities in Utah 2020-2021

A series of profiles published by the Utah Department of Health and Human Services Office of Health Equity

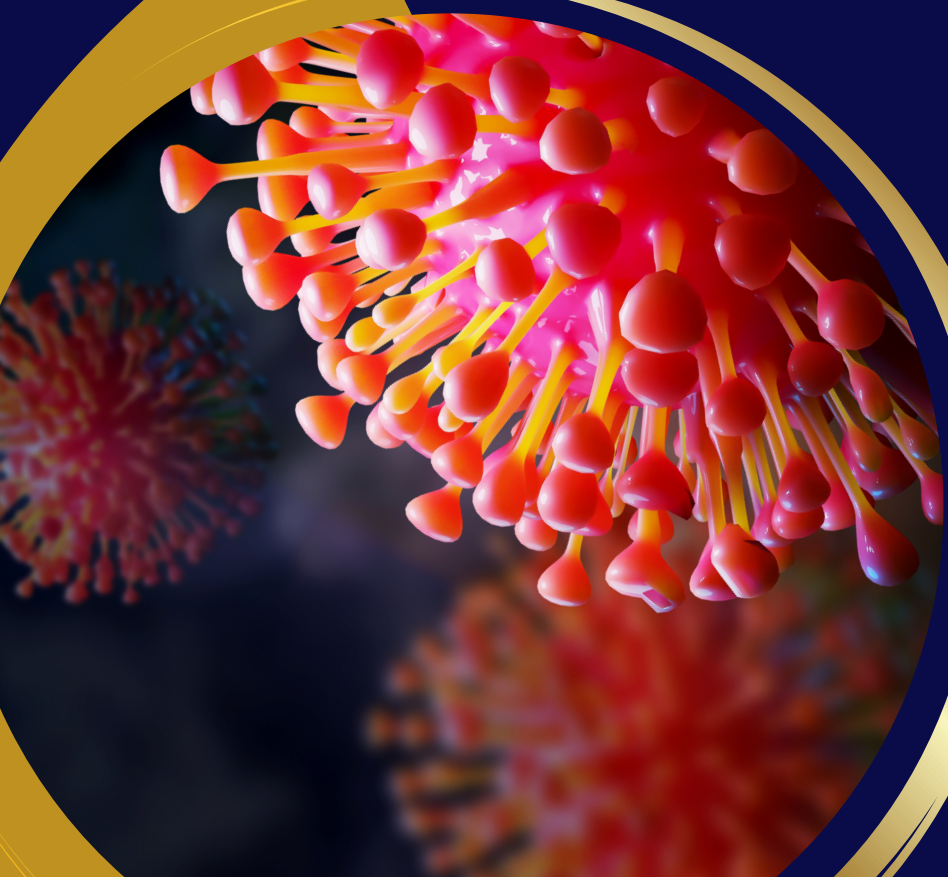

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Table of contents

List of abbreviations

CDC	Centers for Disease Control and Prevention
COVID-19	Coronavirus disease 2019
DHHS	Utah Department of Health and Human Services
HII	Health Improvement Index
OHE	Office of Health Equity
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2

Introduction

SARS-CoV-2 (the virus that causes COVID-19) has disproportionately affected many groups and communities in the state of Utah, including but not limited to, racial/ethnic minority populations, rural and frontier communities, low socio-economic households, and persons with disabilities.[1-2] Data from the Centers for Disease Control and Prevention (CDC), supported by multiple research studies, show these groups have an increased risk of COVID-19 exposure, severe illness and hospitalization, and death.[3-7]

In this report, the Utah Department of Health and Human Services (DHHS) Office of Health Equity (OHE) informs stakeholders on the state of COVID-19 disparities in Utah from 2020-2021. DHHS OHE explores COVID-19 health disparities by race/ethnicity, gender, age, population density, Utah Health Improvement Index (HII) classification,* tribal affiliation, refugee status, and disability status. Additional profiles looking at other subgroups may be added to this report at a later date. Identification of health disparities through disaggregated population-based data is vital and fundamental to better understand, identify, and address health disparities.

This report also serves as a starting point for DHHS OHE to focus analyses on COVID-19 and contributing factors and later examine the societal, environmental, and policy-driven factors that contribute to or detract from population health. Health disparities due to COVID-19 occur as a result of many underlying factors such as crowded living conditions, jobs in essential work settings without an option to telework, no annual and/or sick leaves, not having or having limited access to health insurance, and significant travel time to testing[9] and vaccination sites. All these factors shed light on the need to better understand health disparities in order to eliminate them and advance health equity in Utah and throughout the United States.

* Health Improvement Index (HII) classification is based on the Utah small area classifications established in the Utah Department of Health and Human Services Office of Health Equity The Utah Health Improvement Index Report.

Health equity and health disparities

What is health equity?

Health equity is the principle underlying the commitment to reduce and, ultimately, eliminate health disparities by addressing its determinants. Pursuing health equity means striving for the highest possible standard of health for all people and giving special attention to the needs of those communities at greatest risk for health disparities.

The Utah Department of Health (DHHS) Office of Health Equity (OHE) developed a Health equity framework to guide and ground efforts to advance health equity and to reduce health disparities in Utah. This framework helps readers understand how social determinants of health and structural determinants of health impact health disparities, health equity, and quality of life.

What are health disparities?

Health disparities are more than adverse health outcomes. Although all health disparities are adverse health outcomes, not all adverse health outcomes are health disparities. A disparity implies the difference is avoidable, unfair, and unjust. Health disparities are differences in health outcomes closely linked to economic, socio-cultural, environmental, and geographic disadvantage.

How are health disparities measured?

Data disaggregation, or the act of breaking data down by group, is a key component in measuring health disparities. It is only possible to identify health disparities if data is disaggregated by group so the various indicators can be compared to a reference group.

According to Healthy People 2030,[10] there are several potential options for reference groups. Individual group indicators can be compared to the group with the healthiest outcomes, the group who represents the majority of the population, or the total or average outcome for all groups. For the purposes of this report, the reference group will be the outcome for Utah's overall population.

COVID-19 indicators

What COVID-19 indicators are analyzed in this report?

COVID-19 cases: A confirmed COVID-19 case is any person with a positive SARS-CoV2 PCR or antigen test. The DHHS assigns case status following the CDC national case definition, with an exception of considering positive antigen tests as confirmed rather than probable cases.[11]

COVID-19 hospitalizations: COVID-19 hospitalizations represent the total number of COVID-19 cases admitted to hospitals. The hospitalization counts are either reported automatically if a person is inpatient at the time of a positive lab or identified through local public health investigations.[11]

COVID-19 deaths: Death due to COVID-19 is confirmed if COVID-19 is a cause of death or underlying cause of death and is confirmed by the Office of the Medical Examiner. The DHHS uses the "CDC Guidance for Certifying Deaths due to Coronavirus Disease 2019 (COVID-19)" to determine which deaths are due to COVID-19.[11]

COVID-19 vaccinations:
a) People who received at least one dose is anyone who has received one or more doses of the Pfizer or Moderna two-dose vaccine, or one dose of the Johnson and Johnson single dose vaccine. This represents all people vaccinated in Utah whether they are fully vaccinated or partially vaccinated.[1]

b) People fully vaccinated is anyone who has completed their vaccine series, either two doses of the Pfizer or Moderna two-dose vaccine, or one dose of the Johnson and Johnson single dose vaccine.[1]

COVID-19 health disparities

How are COVID-19 health disparities and adverse health outcomes identified in this report?

In the profiles, the Utah Department of Health and Human Services (DHHS) Office of Health Equity (OHE) identifies statistically significant COVID-19 health disparities and adverse health outcomes across several different categories, including race/ethnicity, gender, age, population density, and Utah HII index. A statistically significant difference (higher/lower) is defined as, the Utah overall rate (age-adjusted whenever possible) does not fall within the 95% confidence interval (age-adjusted whenever possible) of the rate for a specific population.

A health disparity is identified when:

- The group analyzed is generally considered to be at economic, socio-cultural, environmental, and geographic disadvantage with respect to the COVID-19 indicator.

AND

- The case rate is significantly higher than the overall Utah case rate; or
- The case-hospitalization rate is significantly higher than the overall Utah hospitalization rate; or
- The case-death rate is significantly higher than the overall Utah death rate; or
- The vaccination rate is significantly lower than the overall Utah vaccination rate.

Health disparities are identified in the tables of this report by the depicted color:

Health disparity

An adverse health outcome is identified when:

- The group analyzed is not generally considered to be at economic, socio-cultural, environmental, and geographic disadvantage with respect to the COVID-19 indicator.

AND

- The case rate is significantly higher than the overall Utah case rate; or
- The case-hospitalization rate is significantly higher than the overall Utah hospitalization rate; or
- The case-death rate is significantly higher than the overall Utah death rate; or
- The vaccination rate is significantly lower than the overall Utah vaccination rate.

Adverse health outcomes are identified in the tables of this report by the depicted color:

Adverse health outcome

COVID-19 health disparities profiles format

In this report series, COVID-19 health disparities are reported in race/ethnicity, tribal affiliation, disability status, refugee status, rurality, and Utah Health Improvement Index (HII) profiles. To identify COVID-19 health disparities, the Utah Department of Health and Human Services (DHHS) Office of Health Equity (OHE) used a similar template across all profiles with the exception of the profiles for tribal affiliation, disability status, and refugee status.

The below information briefly explains each section in the profiles.

1. Background
Importance of identifying health disparities

2. Guide to this profile
a) What COVID-19 indicators are analyzed in this report?
b) How are health disparities and adverse health outcomes identified in this report?

3. Findings of health disparities
Visualizations and tables that report health disparities by each COVID-19 indicator

4. Limitations
Data related limitations

5. Recommendations
Actionable recommendations

6. References
List of references

Links to COVID-19 health disparities profiles

Race/ethnicity profile

https://healthequity.utah.gov/wp-content/uploads/Race-ethnicity-profile.pdf

Tribal affiliation profile

https://healthequity.utah.gov/wp-content/uploads/Tribal-affiliation-profile__COVID-19-Health-Disparities__October-11.pdf

Refugee status profile

https://healthequity.utah.gov/wp-content/uploads/COVID-19-Disparities-Refugee-Profile.pdf

Race/ethnicity, sex, and age profile

Utah Health Improvement Index (HII) profile

Rural profile

Note: Links to profiles will be updated as they are published.

Moving forward

The data in these profiles indicate the severity of COVID-19 health disparities in Utah from 2020–2021. Disparity identification is a crucial foundational step to mitigate further widening of health inequities moving forward. However, additional work is needed to further understand findings. This work can be used to inform policy changes, build organizational capacity, design future interventions to reduce health disparities, and increase the resilience of Utah's communities to more effectively face current and future public health emergencies.

Outlined below is the Utah Department of Health and Human Services (DHHS) Office of Health Equity (OHE) health equity mindset which establishes groundwork upon which partners can strive toward health equity together. The mindset can be operationalized within four strategic practices: build internal infrastructure, work across agencies, foster community partnerships, and expand the narrative. Based on the mindset and strategic practices, key actions for organizations are identified below as foundational practices to advance health equity.

Health equity mindset

The health equity mindset is a perspective that can guide strategies and practices in public health, healthcare, and social services. Rather than a set of actions, the mindset is a shift in thinking to foster a collective approach to health equity. There are five main components to the health equity mindset:

- Be intentional, strategic, and open-minded about partnerships
- Address health in context
- Profoundly recognize and value lived experience
- Foster power building and sharing
- Operate with flexibility, adjust quickly, and advance in uncertainty

The health equity mindset builds strong and trust-based partnerships and addresses health disparities in an innovative manner. Embracing this mindset aligns partners' goals and visions around health equity to address disparities collaboratively.

Health equity strategic practices

Grounded in the health equity mindset, four strategic practices can be used by state and local agencies, community organizations, policymakers, and other systems to advance toward health equity. Adapted by DHHS OHE from the Human Impact Partners' strategic practices to build organizational capacity, the four strategic practices are:

Build internal infrastructure

Building internal infrastructure supports organizations' ability to promote and carry out efforts to advance health equity practices. An understanding of and commitment to health equity strengthens organizations' capacity to mitigate health disparities during public health emergencies. Building infrastructure can involve internal policy improvement, capacity and knowledge of staff, data processes, and service delivery/accessibility to be more equitable.

Work across agencies

Advancing health equity is collaborative work. It is necessary to make use of relationships to be most effective in addressing health disparities. Collaboration with state, local, and tribal government agencies; healthcare systems; and other stakeholders promotes a shared vision and goal of achieving health equity. These alliances help all stakeholders align resources and goals around advancing health equity.

Foster community partnerships

Partnerships with community-based organizations, grassroots health equity efforts, and community members from underserved/underrepresented groups are vital to gain a full understanding of health disparities and how to address them. Additionally, community partnership creation ensures accountability to goals, builds trust and mutual alliances, and establishes channels to gain feedback from communities.

Expand the narrative

Expanding the narrative increases organizations' understanding of what creates health—the social and structural determinants of health. Identification of the social and structural determinants demonstrates the interconnectedness of many sectors and promotes further collaboration to address health disparities. A shared understanding of health equity principles among staff and external partners aligns priorities and creates a shared vision of achieving health equity.

Actions to advance health equity

The following actions are based around the health equity mindset and the four strategic practices. These actions are the foundation to build an equitable public health system to address current and future public health emergencies.

Integrate a health equity mindset to inform responses

Prioritize a health equity mindset at all levels of an organization to ensure that, in the case of a public health emergency, equity is built into the goals, plans, and operations of the response. This approach allows organizations to address health disparities proactively and mitigate pre-existing inequities which become more visible during a public health crisis.

Standardize demographic data collection, analysis, and reporting and disaggregate data to reflect the diversity of Utah's communities

Collect robust demographic data to ensure organizations know whom they serve and do not serve. Additionally, organizations should disaggregate demographic data to better identify specific health disparities and allocate resources accordingly. In understanding which groups' needs are not being met or which groups are being disproportionately affected by a public health issue, additional solutions should be created to address these health disparities.

Provide accessible/inclusive services

Provide updates, forms, and other critical information in languages other than English to make communications accessible to those who do not speak/read English. Additionally, communications should be accessible to people with disabilities. Specifically, web-based and other information should be accessible to people with disabilities by considering those who use screen readers, have visual, auditory, or intellectual disabilities, have difficulty reading, and others.

Make services and contact with communities available outside of typical business hours to increase accessibility of services. Many Utahns work jobs that do not fall within this schedule and are unable to take time during the work day to access the services they need.

Identify and address the structural and social determinants of health (SDOH) that impact risk for adverse health outcomes beyond individual behaviors and choices

Build alliances among systems (including government, healthcare, non-profit organizations, businesses, etc.) to address SDOH, increase understanding of intersections among populations served, and promote information sharing across sectors. SDOH includes housing, geographic location, technology/internet access, jobs that offer sick leave and health insurance, healthcare access, healthy food,

clean air, etc. Collaborate to address SDOH in order to build partnerships to advance toward health equity.

Build capacity of the community health worker (CHW) workforce

Support CHW positions embedded in public health (e.g., in local health departments [LHDs] and community-based organizations [CBOs]) to increase support of LHD and CBO equity activities. CHWs in public health agencies and within the community are skilled in trust-building and can support outreach efforts and connection to services in historically underserved communities and/or communities that do not trust the government.

Additionally, support training and education of all CHWs about public health and how to navigate government services and other systems. This will increase the workforce's capacity to collaborate with other organizations, healthcare systems, government agencies, etc. to build resource networks.

Include community leaders from populations of focus as decision-makers with decision-making power

Increase representation of all communities in decision-making spaces to enhance organizations' ability to understand each groups' specific needs. Community feedback and recommendations should be embedded into decision-making and plan creation, outreach, goals, etc. Create a system wherein representatives provide feedback and organizations report on progress and changes made to support trust-building and strong community partnerships.

Coordinate efforts among state, local, tribal, and other authorities in creating a response to ensure continuity and reciprocity

Convene partners and stakeholders at all levels of jurisdiction, including state and local, to create networks and collaboration to understand needs and health disparities in specific areas. These partnerships allow organizations to work together to carry out health equity activities.

Identify and change policies which contribute to health inequities

Promote policies that address structural determinants of health such as access to healthcare and health insurance coverage, employment opportunities that support health promotion activities, and quality childhood education in order to improve population health. These elements support communities in engagement with the healthcare system, prevent the development and spread of illness, and support entire families' health.

These actions should be implemented by state and local agencies, healthcare systems, community-based organizations, policy-makers, and others to advance toward health equity. These actions are foundational and can be used as a starting point to develop an equitable public health system and implement the health equity mindset and strategic practices, which will equip these systems to better face current and future public health emergencies.

Additional data notes

- Case counts are a leading indicator of COVID-19 transmission. Case counts are reported to DHHS each day by testing sites and health care providers. It is important to note the actual case numbers in Utah are expected to be higher than what is reported. This is due to mild illness in those who don't feel sick enough to get tested and seek care, more people who receive at-home tests which are not reported to DHHS, and limited testing availability particularly during surges. Because of these limitations, it is important to consider other measures along with the case counts for COVID-19 transmission and severity.[11]

- Hospitalizations and death counts show the most severe outcomes due to COVID-19. Both outcomes often occur after a person is first diagnosed with COVID-19, so the counts for these indicators often lag by days to weeks after case counts.[11]

- Race/ethnicity data in this report was calculated as race-alone and not in combination. People who reported Hispanic ethnicity with any race, are grouped as Hispanic/Latino. Racial groupings included people who reported with a single race alone and did not indicate Hispanic ethnicity. People who identify as two or more races of non-Hispanic or unknown ethnicity are grouped as Two or more races.[11]

- Within each of the race and ethnicity categories, it is acknowledged that significant diversity exists and the use of broad categories might obscure health disparities among smaller subgroups and among multiracial and multiethnic communities. Five race categories were used in the report whenever possible (along with Hispanic origin or ethnicity), in accordance with the federal Office of Management and Budget categories utilized by the U.S. Census Bureau.

- Data from people who self-identified as American Indian/Alaska Native are included in this report, with acknowledgment that people who self-identified as American Indian/Alaska Native may or may not be registered members of federally-recognized tribal jurisdictions.

- In addition to the eight profiles in the report, DHHS OHE also wanted to analyze health disparities by sexual orientation, languages spoken, employment status, and housing/homelessness, which was not feasible due to lack of data on these demographic elements.

- All tables and data visualizations were produced using COVID-19 surveillance data from the DHHS. Data analysis was carried out in RStudio (version: 4.1.2) and Microsoft Excel.

References

1. Bui, D. P., McCaffrey, K., Friedrichs, M., LaCross, N., Lewis, N. M., Sage, K., Barbeau, B., Vilven, D., Rose, C., Braby, S., Willardson, S., Carter, A., Smoot, C., Winquist, A., & Dunn, A. (2020). Racial and Ethnic Disparities Among COVID-19 Cases in Workplace Outbreaks by Industry Sector - Utah, March 6-June 5, 2020. *MMWR. Morbidity and mortality weekly report, 69*(33), 1133–1138. https://doi.org/10.15585/mmwr.mm6933e3

2. Lewis, N. M., Friedrichs, M., Wagstaff, S., Sage, K., LaCross, N., Bui, D., McCaffrey, K., Barbeau, B., George, A., Rose, C., Willardson, S., Carter, A., Smoot, C., Nakashima, A., & Dunn, A. (2020). Disparities in COVID-19 Incidence, Hospitalizations, and Testing, by Area-Level Deprivation - Utah, March 3-July 9, 2020. *MMWR. Morbidity and mortality weekly report, 69*(38), 1369–1373. https://doi.org/10.15585/mmwr.mm6938a4

3. Lopez, L., 3rd, Hart, L. H., 3rd, & Katz, M. H. (2021). Racial and Ethnic Health Disparities Related to COVID-19. *JAMA, 325*(8), 719–720. https://doi.org/10.1001/jama.2020.26443

4. Okoh, A. K., Sossou, C., Dangayach, N. S., Meledathu, S., Phillips, O., Raczek, C., Patti, M., Kang, N., Hirji, S. A., Cathcart, C., Engell, C., Cohen, M., Nagarakanti, S., Bishburg, E., & Grewal, H. S. (2020). Coronavirus disease 19 in minority populations of Newark, New Jersey. *International journal for equity in health, 19*(1), 93. https://doi.org/10.1186/s12939-020-01208-1

5. Price-Haywood, E. G., Burton, J., Fort, D., & Seoane, L. (2020). Hospitalization and Mortality among Black Patients and White Patients with Covid-19. *The New England journal of medicine, 382*(26), 2534–2543. https://doi.org/10.1056/NEJMsa2011686

6. Rodriguez-Lonebear, D., Barceló, N. E., Akee, R., & Carroll, S. R. (2020). American Indian Reservations and COVID-19: Correlates of Early Infection Rates in the Pandemic. *Journal of public health management and practice : JPHMP, 26*(4), 371–377.

7. Centers for Disease Control and Prevention. Health Disparities. Accessed December 1, 2021, https://www.cdc.gov/nchs/nvss/vsrr/covid19/health_disparities.htm

8. HEDA: Conducting a health equity data analysis: A guide for local health departments in Minnesota. (n.d.). Retrieved January 10, 2022, from https://www.health.state.mn.us/data/mchs/genstats/heda/index.html

9. Centers for Disease Control and Prevention. Introduction to COVID-19 Racial and Ethnic Health Disparities. Accessed December 1, 2021, https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/racial-ethnic-disparities/index.html

10. Office of Disease Prevention and Health Promotion. (n.d.). *Healthy People 2030*. U.S. Department of Health and Human Services. https://health.gov/healthypeople/objectives-and-data/browse-objectives/diabetes

11. Utah Department of Health (2022). Retrieved March 1, 2022, from https://coronavirus.utah.gov/

12. Office of Health Disparities (2021). Health Equity Mindset: Building Community Collaboratives to Advance Health Equity. Salt Lake City, UT: Utah Department of Health.

13. Hankivsky, O., Grace, D., Hunting, G., Giesbrecht, M., Fridkin, A., Rudrum, S., ... & Clark, N. (2014). An intersectionality-based policy analysis framework: critical reflections on a methodology for advancing equity. *International journal for equity in health, 13*(1), 1-16.

14. Office of Health Disparities (2021). Office of Health Disparities Strategic Plan 2021-2023. (n.d.). Retrieved March 31, 2022, from http://www.health.utah.gov/disparities/data/policies-and-procedures/OHEStrategicPlan.pdf