Reference Proposal for 2023 CNA Membership Assembly

Title of Report: Colorado Nurse's Role in Achieving Health Equity through the Mitigation of the Harmful Effects of Social Determinants of Health (SDOH).

Type of Report: Action Report

Introduced by: Governmental Affairs & Public Policy (GAPP) Committee

Recommendations:

The Colorado Nurses Association's (CNA) Governmental Affairs and Public Policy Committee requests CNA membership's formal support of the following five recommendations:

1. Colorado Nurses Association will be informed by global and national perspectives on actions to achieve health equity and will utilize its resources within its sphere of influence, improving Colorado's individual and population health.

2. Colorado Nurses Association will use its expertise and collective voice to advocate for regulatory and policy changes necessary to assure access to inclusive and equitable care.

3. Colorado Nurses Association will support the education of and research by nurses, individuals, and communities on the health, societal, and economic impact of SDOH.

4. Colorado Nurses Association recognizes that every nurse in every practice setting has a responsibility to address SDOH and will advocate to secure the resources required/infrastructure support for nurses to consistently address SDOH, including investments in time and professional development.

5. Colorado Nurses Association recognizes that building a diverse workforce is essential to achieving inclusive and equitable healthcare and will support efforts to that end.

In requesting membership support of these recommendations, GAPP is guided by ANA's ethical, social policy, and practice statements as well as the purposes and functions of CNA.

We stand firmly with the American Nurses Association's Nursing Scope and Standards of Practice 4th ED (2021), Social Policy Statement (2015), and Code of Ethics for Nurses with Interpretive Statements (2015). These documents collectively address the professional nurse's role in "addressing individual needs for protection, advocacy, empowerment, organization of health, alleviation of suffering, and comfort and well-being." (ANA, 2021). These documents add that "nurses must be open to examining the impact of history and today's laws and regulations to understand and acknowledge that the nursing profession itself has a historical and existing connection to policy and politics." (ANA, 2021). Nurses' commitment to social justice calls for actions and advocacy to address unjust systems and structures, mitigate inequalities in

health care access, and assure basic rights, i.e., respect, human dignity, autonomy, security, and safety (ANA, 2021). Nursing's Social Policy Statement (2015) describes the relationship—the social contract—between the nursing profession and society and their reciprocal expectations (ANA, 2015).

We also stand firmly with CNA's Bylaws (2021): The purposes and functions of the Colorado Nurses Association include (1) Working for the improvement of health standards and the availability of healthcare services for all people; 2) Fostering high standards of nursing; (3) Advocating for workplace standards that foster safe patient care and support the profession; (4) Promoting and protecting human rights related to healthcare and nursing; (5) Assuming an active role as a consumer advocate in health; and (7) Acting and speaking for the nursing profession regarding legislation, governmental programs, and health policy.

The ANA Code of Ethics' (2015) expansive definition of nursing practice is "the protection, promotion, and optimization of (wellness) and abilities, prevention of illness and injury, facilitation of healing, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, groups, communities and populations," (Pittman, 2019). Nurses comprise the largest healthcare profession in the United States with nearly 5.2 million Registered Nurses nationwide (AACN, 2023). Emphasis must be placed on nursing's collective potential and responsibility to influence individual and population health through all means, but principally by engagement in state and national health policy.

Report:

Definitions

The nationally accepted definitions of SDOH, health equity, and health equality serve to frame this proposal's recommendations for action.

Social Determinants of Health (SDOH) are defined as the daily conditions in which people are "born, live, learn, work, play, worship, and age" (HHS, n.d.) that affect their health and well-being, often a stronger influence than individual health behaviors (Remington et al., 2015). Healthy People 2030 (n.d) groups these determinants into five domains: Economic Stability, Education Access and Quality, Healthcare Access and Quality, Neighborhood and Built Environment, and Social and Community Context.

Health Equity reflects ethical and human rights concerns and refers to a state in which all communities and community members have a fair and just opportunity to experience their best health condition (Braveman et al., 2018). Health equity occurs when obstacles to health care are addressed and when everyone has a fair and just opportunity to be as healthy as possible (Robert Wood Johnson Foundation, n.d.). Health equity must be differentiated from equality. Equality aims for equal access for everyone, while health equity prioritizes social justice by adjusting resource allocation for minoritized and underserved populations to create an even playing field (Johns Hopkins Medicine, 2022).

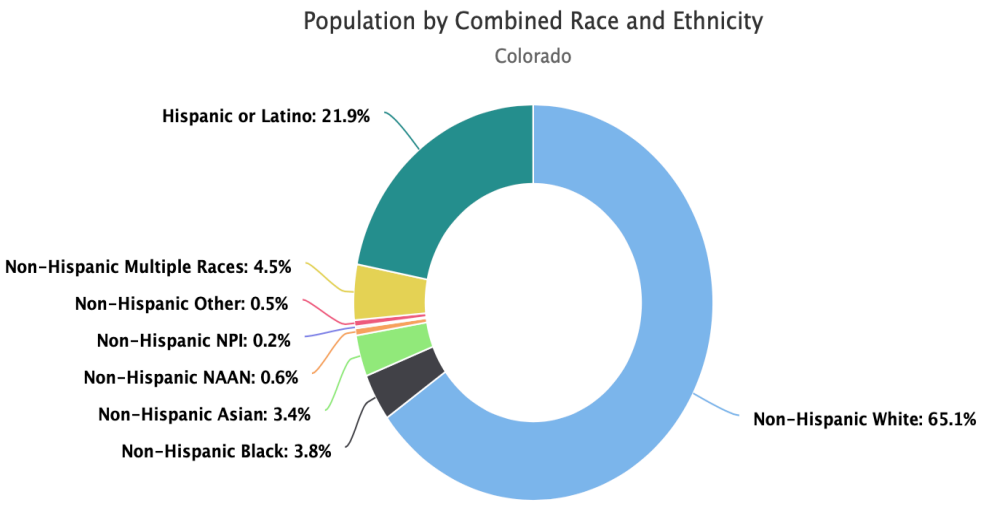
Conceptual Framework

The metaphor of the stream, with upstream, midstream, and downstream interventions, is utilized as CNA's working model for individual and collective nursing actions to mitigate harmful effects of SDOH. Social intervention and advocacy are best addressed prior to a medical crisis and may take place downstream (in direct care), midstream (within an organization or community), or upstream (in policy and regulation). All levels of intervention can positively influence population health outcomes, but upstream actions have the greatest impact on the downstream effect of improving population health. As an example of the metaphor applied to Healthy People's Domain of Healthcare Access and Quality, downstream interventions might include providing culturally sensitive direct care, midstream interventions might include providing community immunization clinics with multilingual providers, and upstream interventions might include advocating for state-level policies that ensure access to clinical care for the entire population.

Colorado-Specific Determinants and Disparities in Health

Social determinants of health (SDOH) are estimated to account for 80-90% of all modifiable health outcomes (Guilamo-Ramos et al., 2023). The Colorado Equity Compass (2023) has compiled data describing stark disparities in SDOH and health outcomes for Coloradans. These disparities effect Black, Indigenous, and People of Color (BIPOC) at rates that are disproportionate to Colorado's demographic population ratios.

CO Demographics by Race and Ethnicity, 2021



(CO Equity Compass, 2023)

The following Colorado-specific data relate not only to to Healthy People 2030's five domains of SDOH: Economic Stability, Education Access and Quality, Healthcare Access and Quality, Neighborhood and Built Environment, and Social and Community Contest, but also to Colorado's health outcomes.

Economic Instability

Data identifies significant disparities by race and ethnicity in Coloradans' median household income as well as rates of children experiencing poverty. The median annual household income for Black families in Colorado is $57,118, $55,122 for Indigenous populations, and $86,765 for White households (CO Equity Compass, 2023).

Healthy People 2020 (as cited by Tulane University, 2021) report economic instability to contribute to food and housing insecurities that increase the risks for affected children to experience obesity, malnutrition, and developmental delays. In Colorado, BIPOC children are significantly more likely to experience poverty that Non-Hispanic White children (CO Equity Compass, 2023).

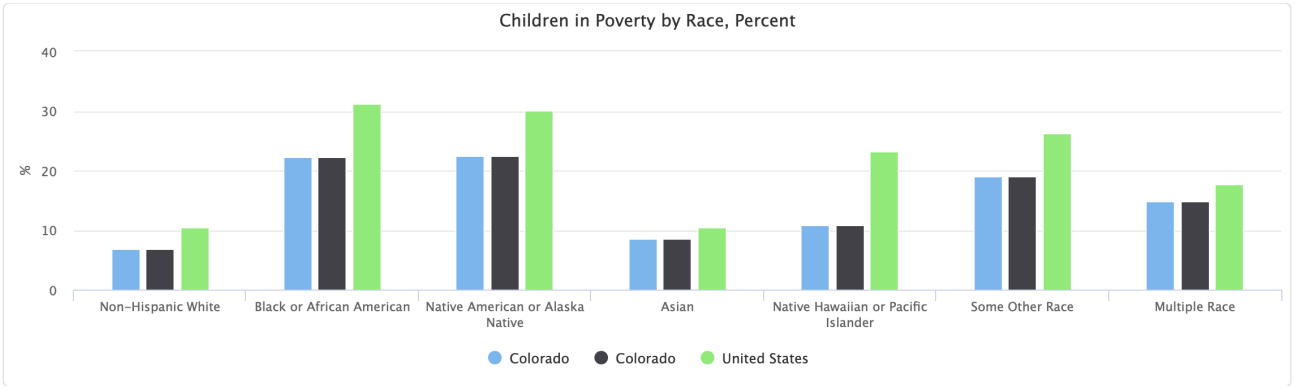
Median Household Income by Race / Ethnicity of Householder

This indicator reports the median household income of the report area by race / ethnicity of householder.

Report Area	Non-Hispanic White	Black	Asian	American Indian or Alaska Native	Native Hawaiian or Pacific Islander	Some Other Race	Multiple Race	Hispanic or Latino
Colorado	$86,765	$57,118	$91,537	$55,122	$76,717	$60,126	$69,851	$62,615
United States	$75,208	$46,401	$98,367	$50,183	$71,029	$55,769	$65,220	$58,791

Data Source: US Census Bureau, American Community Survey. 2017-21. → *Show more details*

(CO Equity Compass, 2023)



(CO Equity Compass, 2023)

Educational Attainment

Tulane University (2021) describes educational attainment as a key determinant to long-term health. Tulane University (2021) further cites Healthy People 2020 in reporting linkages between lack of high school completion, premature mortality, and poor health. BIPOC populations in Colorado are more likely to drop out of high school prior to completion. The Colorado Equity Compass (2023) reports 5.63% of Colorado's White population to have no high school diploma versus 9.17%, 15.72%, 13.97%, and 15.18% for Black, Native American and Alaska Native, Asian, and Native Hawaiian or Pacific Islander populations, respectively.

Population with No High School Diploma by Race Alone, Percent

This indicator reports the percentage of population with no high school diploma by race alone in the report area.
The percentage values could be interpreted as, for example, *"Of all the white population in the report area, the percentage of population with no high school diploma is (value)."*

Report Area	White	Black or African American	Native American or Alaska Native	Asian	Native Hawaiian or Pacific Islander	Some Other Race	Multiple Race
Colorado	5.63%	9.17%	15.72%	13.97%	15.18%	28.95%	13.95%
United States	8.55%	12.79%	20.27%	12.44%	13.02%	35.00%	16.86%

(CO Equity Compass, 2023)

Access to Healthcare

The American Academy of Family Physicians (as cited by Tulane University, 2021) reports fewer people die from cancer, heart disease, and stroke when they have regular access to primary care. High-quality primary care, in addition to providing primary, secondary, and tertiary preventative services, improve health literacy that enables individuals to take precautionary actions to safeguard health. Barriers to healthcare access include lack of affordability, residing within a Health Provider Shortage Area (HSPA), and expectations of discrimination or unfair treatment.

BIPOC populations in Colorado are more likely to report difficulty paying medical bills and concerns that they will receive unfair treatment by healthcare staff due to their race or ethnicity (CHI, 2021). Of the Coloradans that reported difficulty paying medical bills in 2021, 17.6% identified as Black, 17% Hispanic or Latino, 13.1% Native American or Alaska Native, 12.9% Asian, and 8.8% White (CHI, 2021).

Of the Coloradans reporting that they did not seek care for fear of discrimination, 5.4% identified themselves as Black, 4.4% Hispanic or Latino, 3.4% Multiracial, and 2.3% White (CHI, 2021).

Percentage of Coloradans who had a problem paying medical bills in the past year by race/ethnicity, 2021

17.6% Black or African American

17.0% Hispanic/Latino

8.8% White

13.1% American Indian/ Alaska Native

12.9% Asian

14.5% Multiracial

15.5% Some Other Race

Data for Native Hawaiian or Other Pacific Islander, or Middle Eastern/North African were not reportable.

(CHI, 2021)

Percentage reporting not getting care because they were concerned about unfair treatment or consequences by race/ethnicity, 2021

5.4% Black or African American

4.4% Hispanic/Latino

2.3% White

3.4% Multiracial

Data for American Indian/Alaska Native, Asian, Middle Eastern/North African, Native Hawaiian or Other Pacific Islander, and Some Other Race were not reported due to sample size.

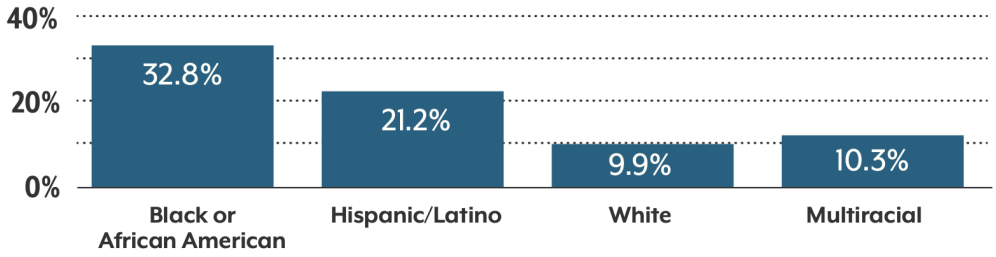
(CHI, 2021)

Community, Built Environment, and Neighborhoods

The environmental and social conditions in which people live have crucial influence over health. Driving factors include access to heathy foods and housing and the absence or presence of violence, crime, and environmental contaminants such as pollution (Tulane University, 2021). BIPOC populations in Colorado are disproportionately more likely to experience food and housing insecurities while having more difficulty finding childcare (CHI, 2021).

Of Coloradans reporting concern that they would not have stable housing within the next two months, 14.5% identified as Black, 8.7% Multiracial, 7.7% Hispanic or Latino, and 4% White (CHI, 2021). Similarly, of the population reporting food insecurities, 32.8% identified as Black, 21.2% Hispanic or Latino, 10.3% Multiracial, and 9.9% White (CHI, 2021).

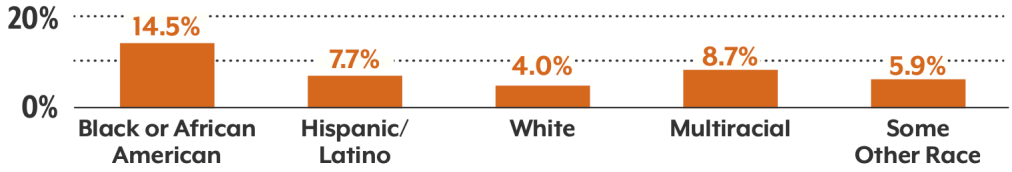
Percentage reporting food insecurity by race/ethnicity, ages 19 to 44, 2021



Data for American Indian/Native Alaskan, Asian, Middle Eastern/North African, Native Hawaiian or Other Pacific Islander, and Some Other Race were not reported due to sample size.

(CHI, 2021)

Percentage who worried they wouldn't have stable housing in the next two months, 2021



Data for American Indian/Alaska Native, Asian, Middle Eastern/North African, and Native Hawaiian or Pacific Islander were not reported due to sample size.

(CHI, 2021)

Residential Segregation

Healthy People 2030 cite residential segregation to be a form of structural discrimination and a significant driver of racial disparities in health (America's Health Rankings, 2022). Segregation between Black and Non-Hispanic White households limits socioeconomic mobility and condenses environmental and social threats (America's Health Rankings, 2022).

Colorado's index of dissimilarity is 66 and is ranked #27 of all U.S. states with one being the least segregated (America's Health Rankings, 2022). The index of dissimilarity ranges from zero (complete integration) to 100 (complete segregation).

ACES

Adverse Childhood Experiences (ACES) affect children of all races and ethnicities. Historically marginalized populations, however, experience compounded risks due to added adversities and systemic inequalities that function as barriers to resiliency (Camacho & Clark Henderson, 2022). ACES are defined as potentially traumatic events that occur between birth and 17 years of age (CDC, 2023). These experiences include abuse, neglect, and violence, witnessing violence in the home or community, having a family member attempt or die by suicide, having a parent incarcerated, or having a household member struggle with substance misuse or mental illness (CDC, 2023). Recently this definition has expanded to include bullying, racism, homelessness, and involvement in the foster care system (Camacho & Clark Henderson, 2022).

In Colorado, Black and Hispanic children comprise 4.4% and 32% of the minor population, respectively (HHS, 2021). However, Black children comprise 11.3% of victims of child abuse and neglect, and Hispanic children 41.2% (HHS, 2021). White children, despite accounting for 54.9% of Colorado's minor population, made up 39% of Colorado's victims of child abuse and neglect in 2021 (HHS, 2021).

Health Outcomes

Colorado's population health outcomes further illustrate disparities per race and ethnicity that are incommensurate with population ratios.

Hospitalizations Due to Preventable Conditions

Black populations are approximately 73% more likely to experience preventable hospitalizations that White populations (CO Equity Compass, 2023).

The table and chart below display local, state, and national trends in preventable hospitalization rates per 100,000 Medicare beneficiaries for the latest report year by patient race and ethnicity.

Report Area	Non-Hispanic White	Black or African American	Hispanic or Latino
Colorado	2,118	3,682	2,298
United States	2,754	4,914	3,014

(CO Equity Compass, 2023)

Prevalence of HIV/AIDS

HIV and AIDS are excessively more prevalent in BIPOC populations than Caucasian in Colorado and the United States. In 2020 in Colorado, HIV and AIDS prevalence rates were approximately 4.5 times higher in Black populations than in White (CO Equity Compass, 2023).

The table below displays trends in the prevalence rate for HIV/AIDS for the latest report year by population race and ethnicity.

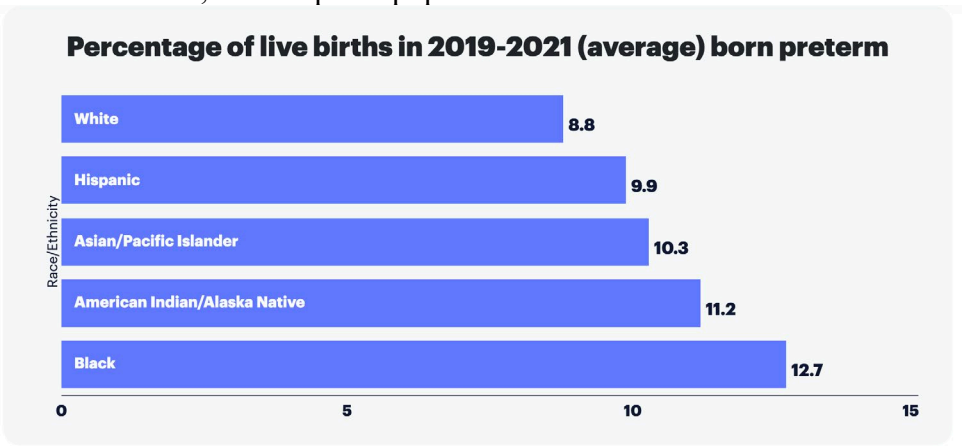
Report Area	White	Black or African American	Asian	American Indian or Alaska Native	Hispanic or Latino	Multiracal
Colorado	215.1	1,007.4	80.6	252.7	313.3	No data
United States	1,004.4	1,252.9	93.6	158.2	499.9	183.1

Data Source: Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. 2020. → *Show more details*

(CO Equity Compass, 2023)

Preterm Births

In Colorado, the rate of preterm birth, or birth before 37 weeks' gestation, is 37% higher for Black women than that of women of all other races or ethnicities (March of Dimes, 2022). Preterm birth rates are also disproportionately higher in Native American, Alaska Native, Asian, Pacific Islander, and Hispanic populations.



(March of Dimes, 2022)

Low Birthweights

Rates of low birthweight (birthweight of <2,500 grams) in Colorado are poorer than the U.S. average and further reflect ethnic and racial disparities. Of the reported live births with low birthweights in Colorado between 2014 and 2020, 8% were of Non-Hispanic White race and ethnicity, 14% Black, and 9% Hispanic (CO Equity Compass, 2023). The United States average is 6.9%, 13.6%, and 7.4%, respectively (CO Equity Compass, 2023).

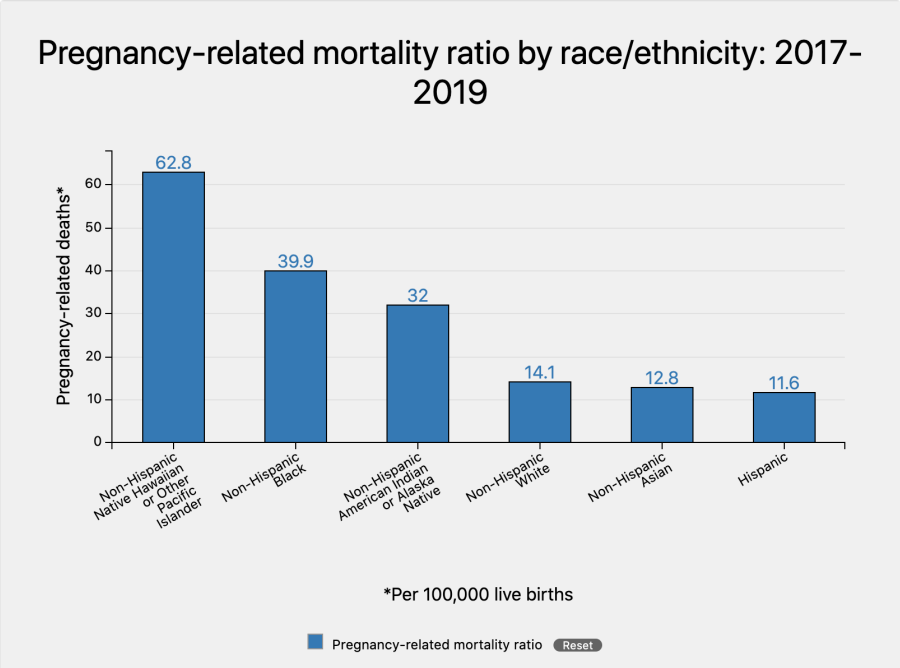
This indicator reports the 2014-2020 seven-year average percentage of live births with low birthweight (< 2,500 grams) by race and by Hispanic origin.

Report Area	Non-Hispanic White	Non-Hispanic Black	Hispanic or Latino
Colorado	8.0%	14.0	9.0%
United States	6.9%	13.6	7.4%

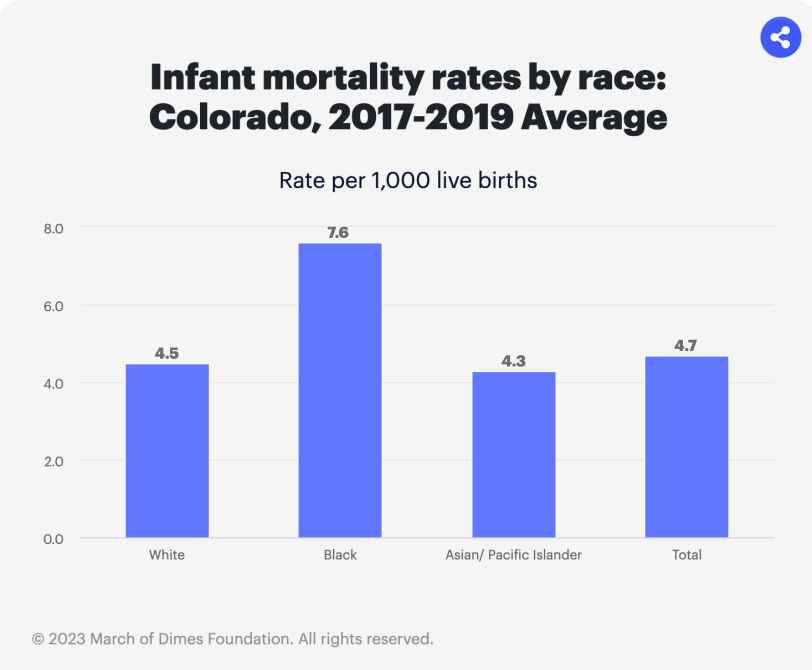
(CO Equity Compass, 2023)

Maternal and Infant Mortality

Throughout the United States, women of color and those of lower socioeconomic status are more likely to die during pregnancy or in the year after birth (CHI, 2021). In Colorado, Native American or Alaska Native women who gave birth between 2014 and 2016 were 4.8 times more likely to die during pregnancy or in the postpartum period that non-Indigenous women (CHI, 2021). In the United States between 2017 and 2019, non-Hispanic Black women were approximately 2.8 times more likely to die in the perinatal period than non-Hispanic White women (CDC, n.d.). Between 2017 and 2019 in Colorado, infant mortality rates were highest for Black infants, followed by White, Asian, and Pacific Islanders (March of Dimes, 2021).



(CDC, n.d.)



(March of Dimes, 2021)

Premature Mortality

Between the years of 2018 and 2020 in Colorado, non-Hispanic Black and Hispanic populations lost substantially more Years of Potential Life (YPL), or experienced death before age 75, per 100,000 population, than did Non-Hispanic White populations (CO Equity Compass, 2023). In this two-year period, Hispanic and Latino and Black populations experienced approximately 22% and 68% more Years of Potential Life Lost (YPLL), respectively, than Non-Hispanic White populations (CO Equity Compass, 2023).

Report Area	Non-Hispanic White	Non-Hispanic Black	Hispanic or Latino
Colorado	5,853	9,854	7,178
United States	7,170	11,443	5,625

Data Source: Centers for Disease Control and Prevention, CDC - National Vital Statistics System. Accessed via County Health Rankings. 2018-2020. → *Show more details*

(CO Equity Compass, 2023)

Stroke Mortality

Between the years of 2016 and 2020 in Colorado, rates of stroke mortality were approximately 44% higher in Non-Hispanic Black communities than in Non-Hispanic White communities (CO Equity Compass, 2023).

Colorado's Nursing Workforce

Access to preventative healthcare, particularly primary care, is cited by the U.S. Department of Health and Human Service (HHS) (n.d.) as a SDOH. Primary care settings are ideal for screening, health promotion, and early intervention (Yuan et al., 2022). However, 89% of counties in the U.S. are classified as whole or partial county Primary Care Health Provider Shortage Areas (pcHSPA) (Streeter et al, 2020). As of 2017 in region 8, in which Colorado lies, it was reported that 93.1% of counties are pcHPSAs (Streeter et al., 2020).

"The nursing profession and broader healthcare sector are key factors to furthering efforts across clinical practice, research, education, and policy to address worsening disparities," (Guilamo-Ramos et al., 2023). However, shortages in the nursing workforce and lack of nursing preparedness to address SDOH present challenges. Colorado's nurse to population ratio is 8.95 to 1,000 (Nurse Journal, 2023; US Bureau of Labor Statistics, 2022; US Census Bureau, 2020). This falls within the least robust ranking of all US state categories of <10:1,000 (Nurse Journal, 2023). Primary care, despite showing the greatest service demand, is the least emphasized setting for pre-licensure clinical experiences and only 10% of new graduate nurses choose careers in this field (Lawlor et al., 2023).

Acute care nurses reported in two studies that barriers to high-quality social care intervention, despite identification of unmet social needs, included time constraints, lack of comfort with subject matter, and knowledge gaps related to internal or external resources (Brooks-Carthon et al., 2019; Phillips et al., 2020).

The Future of Nursing (2021)

The Robert Wood Johnson Foundation sponsored this study, the third on the Future of Nursing, to explore the contributions of nursing in addressing SDOH and health equity. The purpose of this study, along with the previous two, was to create a more robust culture of health in the United States (National Academies of Sciences, Engineering & Medicine, 2021). The report contains nine recommendations that call for change by nursing, the nation's largest health care workforce. CNA membership's approval of GAPP's recommendations for action is consistent with Recommendation 1: In 2021, all national nursing organizations should initiate work to develop a shared agenda for addressing SDOH and achieving health equity.

The Campaign for Action (n.d.) is focused on building a healthier America state by state by implementing the Future of Nursing's recommendations. The Colorado Center for Nursing Excellence (2023) is leading Colorado's efforts through the Colorado Action Coalition. Nurses are invited to join one or more of the strategic advisory committees that have been formed to implement five of the recommendations in the report.

Summary:

The ethical standards of our profession and the purposes and functions of the Colorado Nurses Association call for membership support of this proposal for nurses to take action to mitigate the harmful effects of SDOH and work to achieve health equity. The GAPP Committee recognizes

that Colorado's nursing workforce will require resources to achieve its capacity to implement actions to this end. The GAPP Committee also recognizes this work will require collaboration with other groups seeking to achieve the same goals. As Colorado's data have indicated, there are significant health disparities that must be addressed. It is our responsibility as health professionals to adopt this proposal that positions CNA to take action to mitigate these disparities.

Suggested Implementation:

1. Colorado Nurses Association may collaborate with other groups to assure nursing role capacity to assess SDOH with care planning to address individual, family, and population level interventions.

2. Individual nurses may seek competency in the following domains of SDOH and utilize competencies to inform advocacy efforts on all levels: economic stability, education access and quality, health care access and quality, neighborhood and built environments, social and community context, and planetary conditions (Kuehnert et al., 2020).

3. The GAPP committee and individual nurses may identify and act upon opportunities to impact Colorado-based health policy and regulations.

4. The Colorado Nurses Association may collaborate to assure that Colorado health care providers and facilities are accountable to partnerships with community stakeholders in advancing the health of individuals, communities, and populations.

5. The Colorado Nurses Association and individual nurses may advance the following core competencies for informed nursing practice across practice settings:
   a) Trust-building within diverse communities and environments
   b) Continuous assessment of how SDOH are impacting health outcomes
   c) Coalition building within internal and external stakeholders to address SDOH
   d) Ongoing advocacy for effective health policy and systemic interventions to address SDOH (Pittman, 2019; Storfjell et al., 2017)

Estimated Fiscal Impact: Unknown depending on implementation.

Suggested Champions: GAPP Committee's Task Force Members: Patricia Abbott, Margaret Bishop, Judith Burke, Colleen Casper, Mary Kerwin, Mavis Mesi

References

American Association of Colleges of Nursing (AACN). (2023). *Nursing workforce fact sheet.* https://www.aacnnursing.org/news-data/fact-sheets/nursing-workforce-fact-sheet#:~:text=Nursing%20is%20the%20nation%27s%20largest,89%25%20are%20employed%20in%20nursing.

America's Health Rankings. (2022). *Residential segregation: Black/white in Colorado.* https://www.americashealthrankings.org/explore/measures/residential_segregation/CO

American Nurses Association (ANA). (2015). *Guide to nursing's social policy statement.* https://www.nursingworld.org/~4af892/globalassets/catalog/sample-chapters/guide-to-nursings-social-policy-statement.pdf

Brooks-Carthon, J. M., Hedgeland, T., Brom, H., Hounshell, D., & Cacchione, P. Z. (2019). "You only have time for so much in 12 hours" unmet social needs of hospitalised patients: A qualitative study of acute care nurses. *Journal of clinical nursing*, *28*(19-20), 3529–3537. https://doi.org/10.1111/jocn.14944

Braveman, P., Arkin, E., Orleans, T., Proctor, D., Acker, J., & Plough, A. (2018). What is health equity? *Behavioral Science & Policy*, *4*(1), 1–14. https://doi.org/10.1353/bsp.2018.0000

Camacho, S., & Clark Henderson, S. (2022). The social determinants of adverse childhood experiences: An intersectional analysis of place, access to resources, and compounding effects. *International journal of environmental research and public health*, *19*(17), 10670. https://doi.org/10.3390/ijerph191710670

Campaign for Action. (n.d.). *Colorado action coalition.* https://campaignforaction.org/state/colorado/

Castrucci, B. & Auerback, J. (2019). *Health affairs: Meeting individual social needs falls short of addressing social determinants of health.* https://debeaumont.org/news/2019/meeting-individual-social-needs-falls-short-of-addressing-social-determinants-of-health/

Centers for Disease Control and Prevention (CDC). (2023). *Fast facts: Preventing Adverse Childhood Experiences.* https://www.cdc.gov/violenceprevention/aces/fastfact.html

Centers for Disease Control and Prevention (CDC). (n.d.). *Pregnancy mortality surveillance system.* https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Freproductivehealth%2Fmaternalinfanthealth%2Fpregnancy-mortality-surveillance-system.htm

Colorado Center for Nursing Excellence (CCNE). (2023). *Colorado action coalition.* https://www.coloradonursingcenter.org/coac/

Colorado Equity Compass. (2023). *Create your own community assessment map.* https://coequitycompass.org/resources/create-your-own-community-assessment-map

Colorado Health Institute (CHI). (2021). *Colorado health access survey.* https://www.coloradohealthinstitute.org/sites/default/files/file_attachments/2021%20Colorado%20Health%20Access%20Surveu%20Storybook.pdf

Colorado Health Institute (CHI). 2021. *Preventing maternal mortality requires attention to mental health and the factors that lead to disparities.* https://www.coloradohealthinstitute.org/blog/preventing-maternal-mortality-requires-attention-mental-health-and-factors-lead-disparities

Guilamo-Ramos, V., Johnson, C., Thim-Kaiser, M., & Benzerki, A. (2023). Nurse-led approaches to address social determinants of health and advance health equity: A new framework and its implications. *Nursing Outlook,* doi: https://doi.org/10.1016/j.outlook.2023.101996

Healthy People 2030. (n.d.) *Social determinants of health.* https://health.gov/healthypeople/priority-areas/social-determinants-health

Johns Hopkins Medicine. (2022). *The difference between health equity and equality.* https://www.hopkinsacg.org/health-equity-equality-and-disparities/

Kuehnert, P., Fawcett, J., DePriest, K., Chinn, P., Cousin, L., Ervin, N., Flanagan, J., Fry-Bowers, E., Killion, C., Maliski, S., Maughan, E.D., Meade, C., Murray, T., Schenk, B., & Waite, R. (2020). Defining the social determinants of health for nursing action to achieve health equity: A consensus paper from the American Academy of Nursing. *Nursing Outlook, 70*(1):10-27. doi: 10.1016/j.outlook.2021.08.003

Lawlor, M., Mitchell, R., Burant, P., Quinn Griffin, M., & Dolansky, M. (2023). Enhancing nurse roles in community health (ENRICH). *Nurse Educator, 48* (3), 153-157. doi: 10.1097/NNE.0000000000001345

March of Dimes. (2022). *2022 march of dimes report card for Colorado.* https://www.marchofdimes.org/peristats/reports/colorado/report-card

March of Dimes. (2022). *Morbidity and mortality: Data for Colorado.* https://www.marchofdimes.org/peristats/data?reg=99&top=6&stop=94&lev=1&slev=4&obj=1&sreg=08

National Academies of Sciences, Engineering & Medicine. (2021). The future of nursing 2020-2030: Charting a path to achieve health equity. *The National Academies Press.* https://nap.nationalacademies.org/read/25982/chapter/1

Nurse Journal. (2023). *The U.S. nursing shortage: A state-by-state breakdown.* https://nursejournal.org/articles/the-us-nursing-shortage-state-by-state-breakdown/

Phillips, J., Richard, A., Mayer, K., Shilkaitis, M., Fogg, L. F., PhD., & Vondracek, H. (2020). Integrating the social determinants of health into nursing practice: Nurses' perspectives. *Journal of Nursing Scholarship, 52*(5), 497-505. https://doi.org/10.1111/jnu.12584

Pittman, P. (2019). *Activating nursing to address unmet needs in the 21st century.* https://hsrc.himmelfarb.gwu.edu/sphhs_policy_facpubs/963

Remington, P. L., Catlin, B. B., & Gennuso, K. P. (2015). The County Health Rankings: rationale and methods. *Population Health Metrics*, *13*(1), 11–11. https://doi.org/10.1186/s12963-015-0044-2

Robert Wood Johnson Foundation. (n.d.). *Achieving health equity: Why equity matters.* https://www.rwjf.org/en/building-a-culture-of-health/focus-areas/Features/achieving-health-equity.html

Storfjell, J., Winslow, B., & Saunders, J. (2017). *Catalysts for change: Harnessing the power of nurses to build population health in the 21st century.* https://www.rwjf.org/content/dam/farm/reports/reports/2017/rwjf440286

Streeter, A., Snyder, J. E., Kepley, H., Stahl, A. L., Li, T., Washko, M. M. & Shah, T.I. (2020). The geographic alignment of primary care Health Professional Shortage Areas with markers for social determinants of health. *PloS One*, *15*(4), e0231443–e0231443. https://doi.org/10.1371/journal.pone.0231443

Tulane University School of Public Health and Tropical Medicine (Tulane University). (2021). *Education as a social determinant of health.* https://publichealth.tulane.edu/blog/social-determinant-of-health-education-is-crucial/

U.S. Bureau of Labor Statistics. (2022). *Occupational employment and wage statistics query system.*https://data.bls.gov/oes/#/occGeo/One%20occupation%20for%20multiple%20geographical%20areas

United States Census Bureau. (2020). *Colorado: 2020 census.* https://www.census.gov/library/stories/state-by-state/colorado-population-change-between-census-decade.html

United States Department of Health and Human Services (HHS). (2021). *Child welfare outcomes state data review portal: Colorado.* https://cwoutcomes.acf.hhs.gov/cwodatasite/pdf/colorado.html

United States Department of Health and Human Services (HHS). (n.d.) *Healthy people 2030: Social determinants of health.* https://health.gov/healthypeople/priority-areas/social-determinants-health