

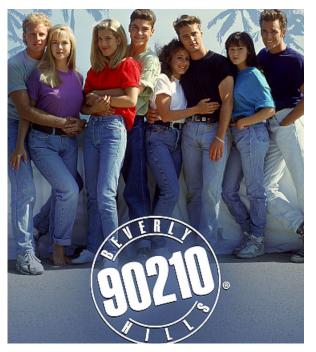




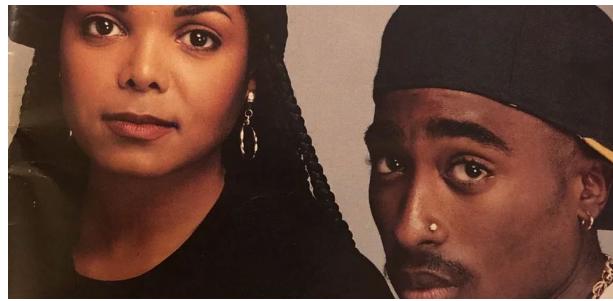


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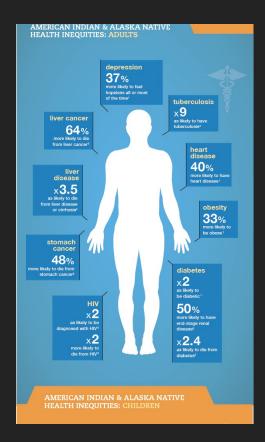




Overview

- What are equity trends in the field of nutrition and health?
- What are considerations for the future and next steps?





Despite technological advances and some overall population decline, the high burden of chronic disease remains.

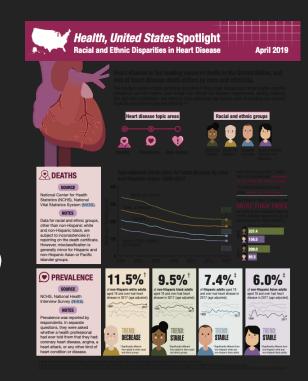
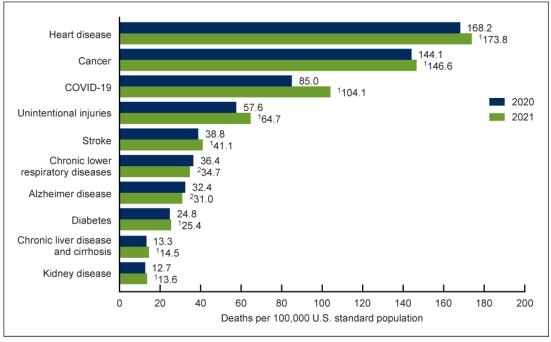


Figure 4. Age-adjusted death rate for the 10 leading causes of death in 2021: United States, 2020 and 2021



¹Statistically significant increase from 2020 to 2021 (*p* < 0.05). ²Statistically significant decrease from 2020 to 2021 (*p* < 0.05).

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

90% of the nation's \$4.1 trillion in annual health care expenditures are for people with chronic and mental health conditions.^{1,2}

In 2019, 53.8% of adults aged 18–34 years had at least one chronic condition, and 22.3% had more than one condition. Prevalence of any as well as specific chronic conditions varied by population subgroup

Suggested citation for this article: Watson KB, Carlson SA, Loustalot F, et al. Chronic Conditions Among Adults Aged 18—34 Years — United States, 2019. MMWR Morb Mortal Wkly Rep 2022;71:964–970. DOI: http://dx.doi.org/10.15585/mmwr.mm7130a3.

NOTES: A lotal of 3,464,231 resident deaths were registered in the United States in 2021. The 10 leading causes of death accounted for 74.5% of all U.S. deaths in 2021. Causes of death are ranked according to number of deaths. Rankings for 2020 data are not shown. Data table for Figure 4 includes the number of deaths for leading causes and the percentage of total deaths. Access data table for Figure 4 at: https://www.cdc.gov/nchs/data/databriefs/db456-tables.pdf#4.

Many U.S subgroups continue to experience higher rates of dietrelated morbidity and mortality than the general population (e.g. cardiovascular disease) across the life course

These disparities have persisted for decades

Which U.S. Population Groups Experience Cancer Health Disparities?

According to the National Cancer Institute, cancer health disparities in the United States are adverse differences in cancer measures such as number of new cases, number of deaths, cancer-related health complications, survivorship and quality of life after cancer treatment, screening rates, and stage at diagnosis that exist among certain population groups including:

Individuals belonging to different ancestry, race, or ethnicity



Individuals of low socioeconomic status



Individuals who lack or have limited health insurance coverage



Residents in certain U.S. peographic locations, such as ural areas, or territories, such as Puerto Rico and Guam



Members of the sexual and gender minority communities



Certain immigrants, refugees, or asylum seekers



Individuals with disabilities



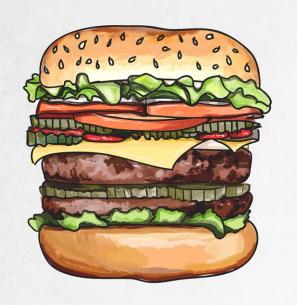
Adolescents and young adults



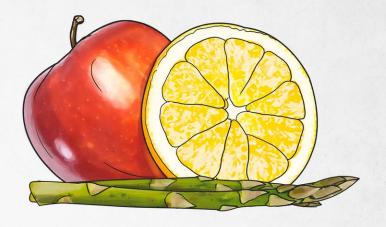
Elderly

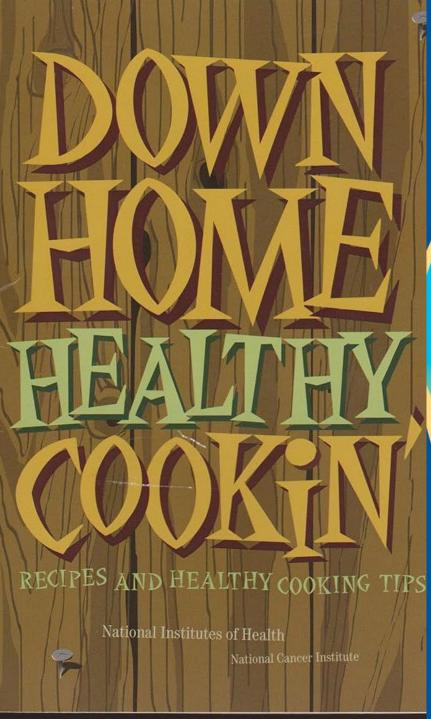


It is important to note that some populations may carry even a higher burden of cancer because they simultaneously fall into more than one of these categories.









Platillos Latinos ¡Sabrosos y Saludables!

Delicious Heart Healthy Latino Recipes







Nove More, Eat Better

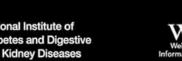
our community take steps toward better health



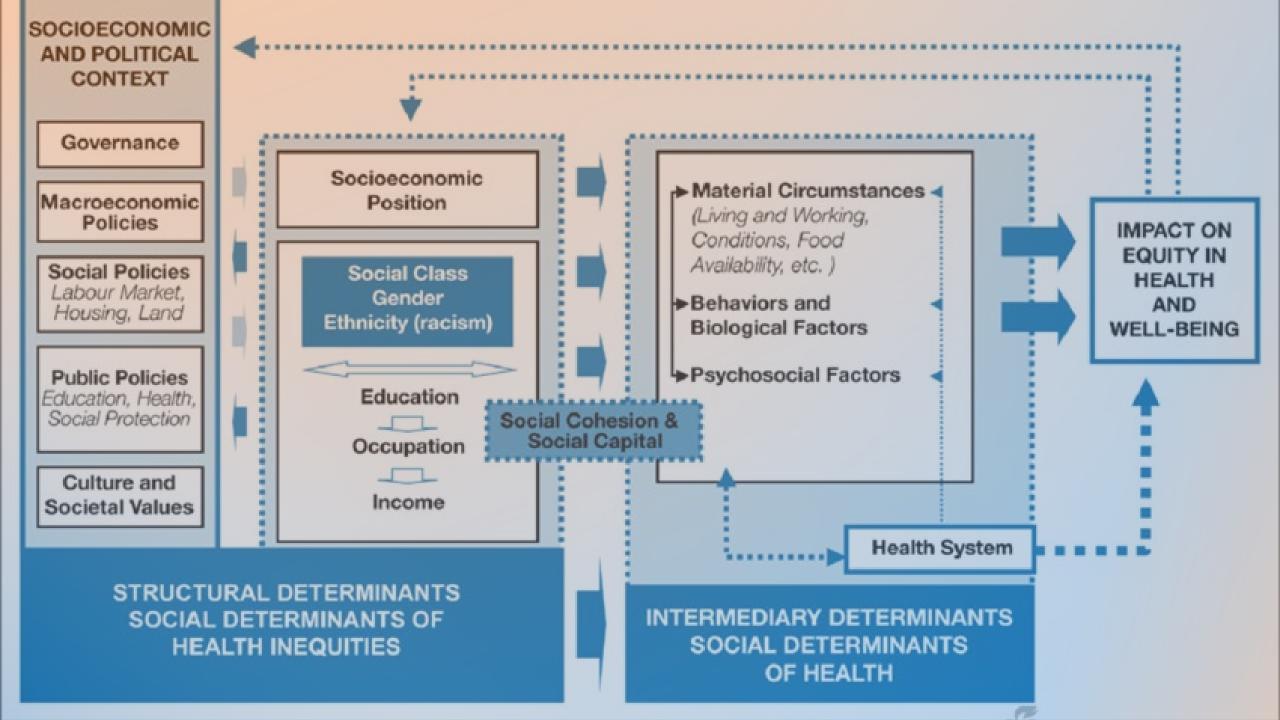






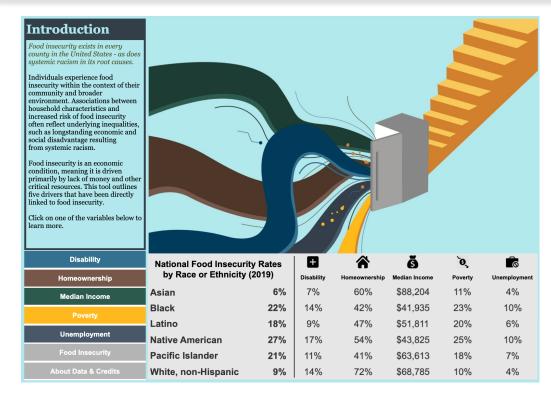






Identifying Racism in the Drivers of Food Insecurity

Differences in Cardiovascular Risk Factors by Race and Ethnicity, Adjusting for Social Determinants of Health, During 1999-2008 and 2009-2018



Source: https://www.tableau.com/foundation/data-equity/economic-power/feeding-america-racism-food-insecurity

	NHANES 1999-2008			NHANES 2009-2018		
Cardiovascular risk factors	No. of participants	Age- and sex-adjusted difference	Age-, sex-, and SDOH-adjusted difference ^b	No. of participants	Age- and sex-adjusted difference	Age-, sex-, and SDOH-adjusted difference ^b
Mean body mass index ^c						
Black - White	4253/10407	2.1 (1.8 to 2.4)	2.0 (1.7 to 2.4)	5124/9826	2.0 (1.7 to 2.4)	1.8 (1.5 to 2.1)
Hispanic - White	5280/10407	0.7 (0.3 to 1.1)	0.9 (0.5 to 1.2)	5677/9826	1.2 (0.9 to 1.5)	1.2 (0.8 to 1.5)
Mean systolic blood pressure, mm Hg						
Black - White	3516/9100	5.5 (4.7 to 6.4)	4.6 (3.8 to 5.5)	4831/9409	6.4 (5.6 to 7.2)	5.3 (4.5 to 6.1)
Hispanic - White	4585/9100	1.7 (0.7 to 2.7)	0.2 (-0.8 to 1.2)	5375/9409	1.7 (1.0 to 2.4)	0.2 (-0.5 to 0.9)
Mean hemoglobin A _{1c} , %						
Black - White	3991/10295	0.4 (0.3 to 0.4)	0.3 (0.3 to 0.4)	4801/9663	0.4 (0.3 to 0.4)	0.3 (0.3 to 0.4)
Hispanic – White	5207/10295	0.3 (0.2 to 0.3)	0.2 (0.2 to 0.3)	5535/9663	0.3 (0.3 to 0.4)	0.3 (0.2 to 0.3)
Mean total cholesterol, mg/dL						
Black - White	3933/10194	-5.6 (-7.3 to -3.9)	-4.4 (-6.3 to -2.5)	4694/9571	-5.9 (-7.8 to -4.1)	-4.3 (-6.0 to -2.5)
Hispanic - White	5167/10194	0.1 (-1.7 to 1.9)	0.4 (-1.5 to 2.3)	5493/9571	0.5 (-1.8 to 2.8)	1.3 (-1.1 to 3.6)
Prevalence of current cigarette smoking, %						
Black - White	4388/10697	-0.5 (-2.9 to 1.8)	-8.0 (-10.0 to -5.9)	5183/9973	3.8 (1.7 to 6.0)	-4.0 (-5.9 to -2.1)
Hispanic - White	5412/10697	-6.1 (-9.1 to -3.1)	-17.5 (-20.6 to -14.4)	5740/9973	-6.1 (-8.3 to -3.9)	-16.6 (-18.9 to -14.3)
Mean 10-y risk of atherosclerotic cardiovascular disease, % ^d						
Black - White	2855/7633	1.4 (1.0 to 1.7)	-0.3 (-0.6 to 0.1)	3905/7828	2.0 (1.7 to 2.4)	0.7 (0.3 to 1.0)
Hispanic - White	4054/7633	0.8 (0.3 to 1.3)	-1.3 (-1.9 to -0.7)	4752/7828	0.7 (0.3 to 1.0)	-0.7 (-1.1 to -0.4)

Abbreviation: NHANES, National Health and Nutrition Examination Survey.

SI conversion factor: To convert total cholesterol to millimoles per liter, multiply by 0.0259.

Source: He J, Zhu Z, Bundy JD, Dorans KS, Chen J, Hamm LL. Trends in Cardiovascular Risk Factors in US Adults by Race and Ethnicity and Socioeconomic Status, 1999-2018. *JAMA*. 2021;326(13):1286–1298. doi:10.1001/jama.2021.15187

Racial and ethnic differences in cardiovascular risk factors were defined as mean values in Black participants minus mean values in White participants or mean values in Hispanic participants minus mean values in White participants. NHANES participants with complete data for cardiovascular risk factors were included in the analysis. Absolute values on which this table is based can be found in eTable 5 in the Supplement. Additional data on obesity, hypertension, diabetes, high total cholesterol, and self-reported history of cardiovascular disease can be found in eTable 6 and eTable 7 in the Supplement.

Social determinants of health (SDOH) included education (fless than high school, high school graduate, some college, or college graduate or higher), family income-to-poverty ratio, home ownership, employment (employed, student, retired, or unemployed), health insurance (private, government, or none), and regular access to health care facility.

^c Calculated as weight in kilograms divided by height in meters squared.

^d The 10-year risk of atherosclerotic cardiovascular disease was calculated using the Pooled Cohort Equations among individuals without a self-reported history of cardiovascular disease. The probability of developing atherosclerotic cardiovascular disease over 10 years ranged from 0% to 100%.

CHARACTERISTICS OF A TRANSLATIONAL SCIENTIST

Translation is the process of turning observations in the laboratory, clinic and community intointerventions that improve the health of individuals. and the public - from diagnostics and therapeutics to medical procedures and behavioral changes. The professionals involved in this process, either developing interventions or improving the process. itself, ore TRANSLATIONAL SCIENTISTS.

RIGOROUS RESEARCHER

Conducts research at the highest levels of rigor and

transparency, possesses strong statistical analysis skills, and designs research projects to maximize reproducibility.

ROUNDARY CROSSER

Breaks down disciplinary siles and collaborates with others across research areas and professions to collectively advance the development of a medical intervention.

TEAM PLAYER

Proctices a team science approach by leveraging the strengths and expertise and valuing the contributions. of all players on the translational science team.

PROCESS INNOVATOR

Seeks to better understand the scientific and operation principles underlying the translational process, and innovate to overcome bottleneids and accelerate that process.

DOMAIN EXPERT

Possesses deep disciplinary knowledge and expertise within one or more of the domains of the translational science spectrum ranging from basic to clinical to public health research and domains in between.

SKILLED COMMUNICATOR

Communicates with understanding with all stakeholders in the translational process across diverse social, cultural, economic and scientific backgrounds, including patients and community members.

SYSTEMS THINKER

Evaluates the complex external forces, interactions and relationships impacting the development of medical interventions, including patient needs and preferences, regulatory requirements, current standards of care, and market and business demands.

Team and **Implementation** Science

- The National Institute of Health's concept of team science is a means of addressing complex clinical problems by applying conceptual and methodological approaches from multiple disciplines and health professions.
- Implementation Science is the scientific study of methods to promote the systematic uptake of research findings and other evidencebased practice into routine practice and, hence, to improve the quality and effectiveness of health services and policies.
- Both can serve as a bridge between discovery and implementation and help incorporate social and structural factors





Types of Interventions

Structural

Aim

Change economic, legal, political, or social environmental factors that shape public health outcomes

Example

- Decriminalise sex work
- Community empowerment, such as enhancing skills to mobilise or engage in legal advocacy
- Sensitivity training for law

Behavioral

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Support changes in human behavior to influence health outcomes

Example

- Peer education on strategies to improve condom use with clients and partners
- Self-efficacy building workshops to increase treatment adherence

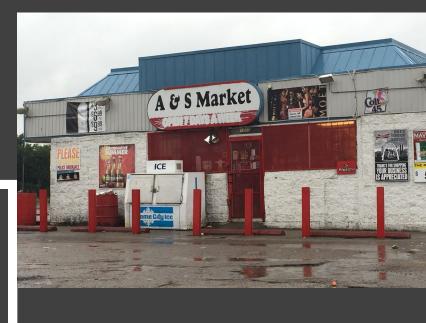
Biomedical

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Provide clinical or medical approach to health outcomes

Example

- PrEP program for sex workers
- STI treatment services
- Post-violence response medical care and reporting support





Source: Integrated Interventions to Address Sex Workers' Needs and Realities: Academic and Community Insights on Incorporating Structural, Behavioural, and Biomedical Approaches. In S. M. Goldenberg (Eds.) et. al., Sex Work, Health, and Human Rights: Global Inequities, Challenges, and Opportunities for Action. (pp. 231–253). Springer.

Brown, A. F., Ma, G. X., Miranda, J., Eng, E., Castille, D., Brockie, T., Jones, P., Airhihenbuwa, C. O., Farhat, T., Zhu, L., & Trinh-Shevrin, C. (2019). Structural Interventions to Reduce and Eliminate Health Disparities. *American journal of public health*, 109(S1), S72–S78.

SANKOFA



Go Back and Get It

Reflecting on Progress... Using a Lens of 'Sankofa'

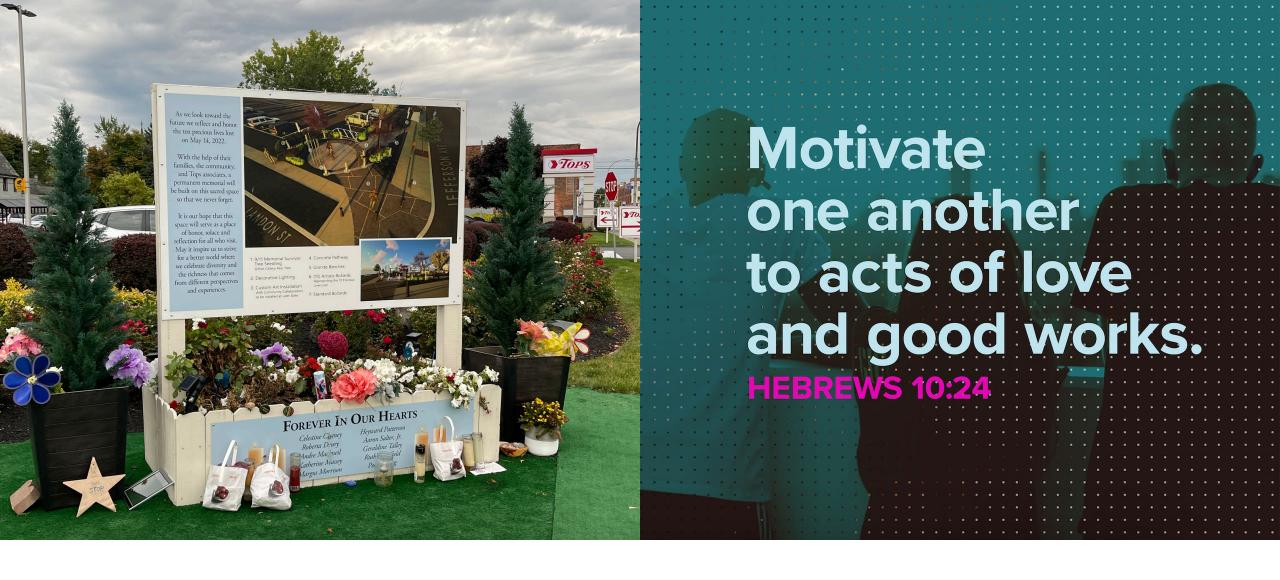
The word Sankofa comes from the Akan people of Ghana.

It has been embraced as a symbol of Pan-Africanism and African Diaspora

Se wo were fi na wosankofa a yenkyi" (translated from the Akan language to mean "it is not taboo to go back and fetch what you forgot").

The power of Sankofa centers around this: to know history and your heritage is to know your current self, the world around you, and how to better both.

Taking from the past what is good and bringing it into the present in order to make positive progress through the benevolent use of knowledge.



Thank you!