

# Cancer health disparities and inequities: Compounding deleterious effects of covid-19

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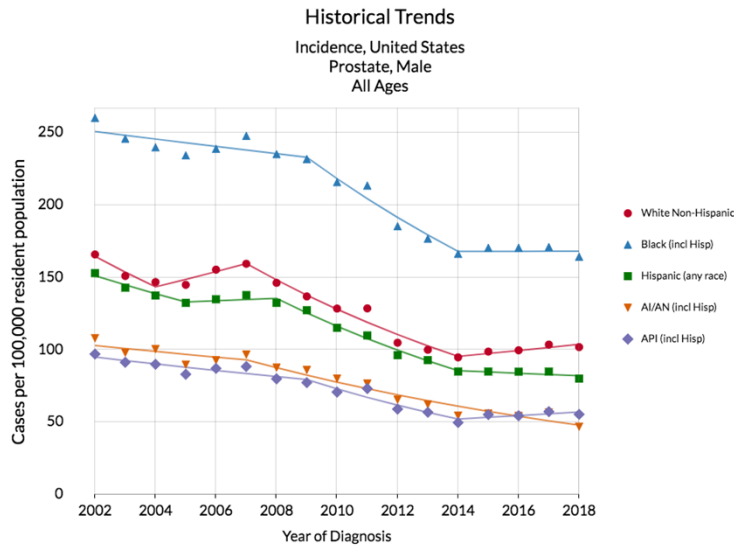
Chronic Diseases & Cognition Research Program

# Health care disparities and inequities in the US

## Principles set out in the preamble of the World Health Organization's constitution , 1946

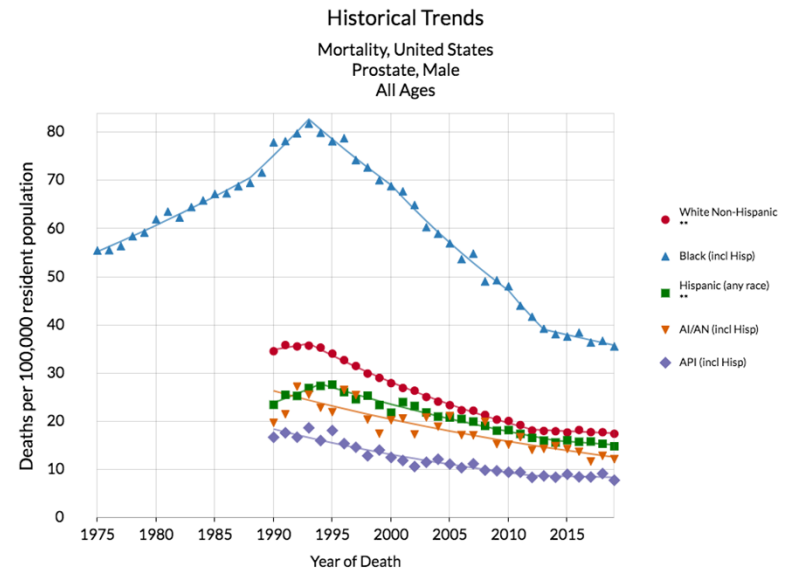
- Health is a fundamental human right.
- *Health equity* is achieved when every person has the opportunity to “attain his or her full health potential for health and well-being, and no one is disadvantaged from achieving this potential because of social position or other socially determined circumstances.
- *Equity* is the absence of unfair, avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically or by other dimensions of inequality (e.g. sex, gender, ethnicity, disability, or sexual orientation).
- Health and health equity are determined by the conditions in which people are born, grow, live, work, play and age, as well as biological determinants. Structural determinants (political, legal, and economic) with social norms and institutional processes shape the distribution of power and resources determined by the conditions in which people are born, grow, live, work, play and age.
- People's living conditions are often made worse by discrimination, stereotyping, and prejudice based on sex, gender, age, race, ethnicity, or disability, among other factors. Discriminatory practices are often embedded in institutional and systems processes, leading to groups being under-represented in decision-making at all levels or underserved.
- Progressively realizing the right to health means systematically identifying and eliminating inequities resulting from differences in health and in overall living conditions.

# Prostate cancer disparities in incidence and mortality in the US.



Notes:  
Created by statecancerprofiles.cancer.gov on 11/13/2021 6:24 am.  
Regression lines calculated using the Joinpoint Regression Program (Version 4.8.0.0)

For Hispanic incidence data, NHIA (NAACCR Hispanic Identification Algorithm) was used for Hispanic Ethnicity (see Technical Notes).  
Source: Incidence data provided by the National Program of Cancer Registries SEER\*Stat Database (2001-2017) - United States Department of Health and Human Services, Centers for Disease Control and Prevention. Based on the 2019 submission.  
Rates calculated by the National Cancer Institute using SEER\*Stat. Rates are age-adjusted to the 2000 US standard population (19 age groups: <1, 1-4, 5-9, ..., 80-84, 85+). Rates are for invasive cancer only (except for bladder cancer which is invasive and in situ) or unless otherwise specified. Population counts for denominators are based on Census populations as modified by NCI. The US populations included with the data release have been adjusted for the population shifts due to hurricanes Katrina and Rita for 62 counties and parishes in Alabama, Mississippi, Louisiana, and Texas. The 1969-2017 US Population Data File is used with SEER 2017 data.  
Rates and trends in this graph are computed using the same standard for malignancy. For more information see malignant.html  
Due to data availability issues, the time period used in the calculation of the joinpoint regression model may differ for selected racial groups or counties.



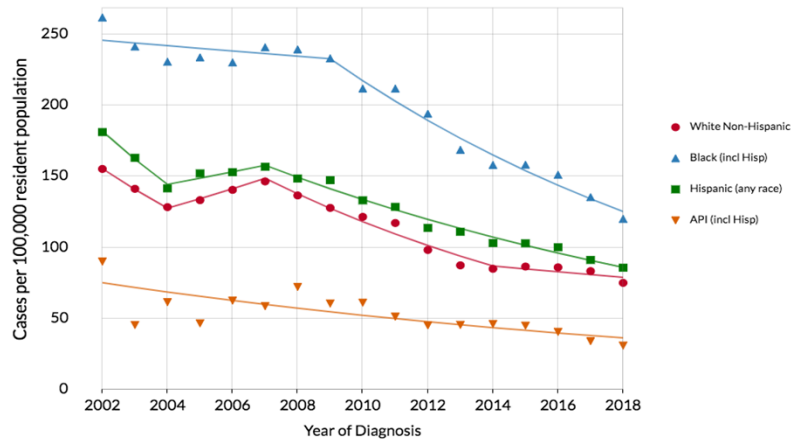
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Created by statecancerprofiles.cancer.gov on 11/13/2021 6:29 am.  
Regression lines calculated using the Joinpoint Regression Program (Version 4.8.0.0)

Source: Death data provided by the National Vital Statistics System public use data file. Death rates calculated by the National Cancer Institute using SEER\*Stat. Death rates (deaths per 100,000 population per year) are age-adjusted to the 2000 US standard population (19 age groups: <1, 1-4, 5-9, ..., 80-84, 85+). Population counts for denominators are based on Census populations as modified by NCI. The US populations included with the data release have been adjusted for the population shifts due to hurricanes Katrina and Rita for 62 counties and parishes in Alabama, Mississippi, Louisiana, and Texas. 1969-2017 US Population Data File is used with mortality data.  
\*\* Hispanic mortality data for the United States has been excluded for the following states: Louisiana, New Hampshire, and Oklahoma. The data on Hispanic and non-Hispanic mortality for these states may be unreliable for the time period used in the generation of the trend (1990-2017) and has been excluded from the calculation of the United States trend. This was based on the NCHS Policy.

# Prostate cancer disparities in incidence and mortality in Florida.

Historical Trends

Incidence, Florida  
Prostate, Male  
All Ages



Notes:  
Created by statecancerprofiles.cancer.gov on 11/13/2021 7:16 am.  
Regression lines calculated using the Joinpoint Regression Program (Version 4.8.0.0)

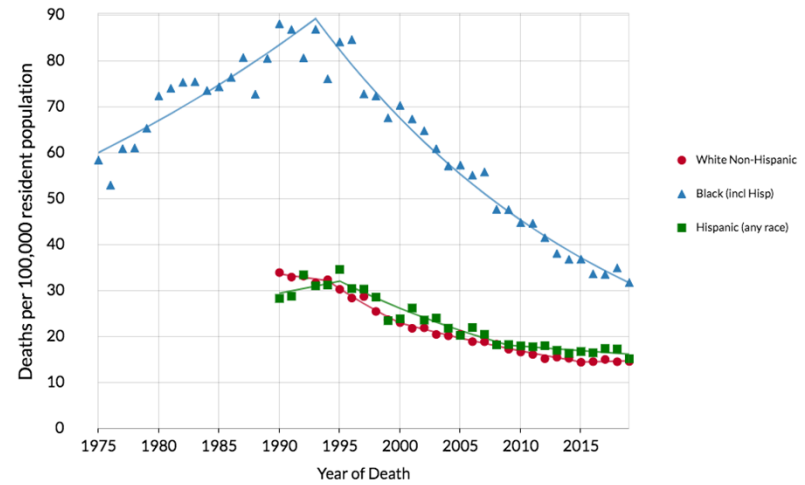
The following group(s) are suppressed due to insufficient counts:

Incidence Florida Prostate AI/AN (incl Hisp) Male All Ages

For Hispanic incidence data, NHIA (NAACCR Hispanic Identification Algorithm) was used for Hispanic Ethnicity (see Technical Notes).  
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Rates and trends in this graph are computed using the same standard for malignancy. For more information see malignant.html  
Due to data availability issues, the time period used in the calculation of the joinpoint regression model may differ for selected racial groups or counties.

Historical Trends

Mortality, Florida  
Prostate, Male  
All Ages



Notes:  
Created by statecancerprofiles.cancer.gov on 11/13/2021 6:37 am.  
Regression lines calculated using the Joinpoint Regression Program (Version 4.8.0.0)

The following group(s) are suppressed due to insufficient counts:

Mortality Florida Prostate AI/AN (incl Hisp) Male All Ages  
Mortality Florida Prostate API (incl Hisp) Male All Ages

Source: Death data provided by the National Vital Statistics System public use data file. Death rates calculated by the National Cancer Institute using SEER\*Stat. Death rates (deaths per 100,000 population per year) are age-adjusted to the 2000 US standard population (19 age groups: <1, 1-4, 5-9, ..., 80-84, 85+). Population counts for denominators are based on Census populations as modified by NCI. The US populations included with the data release have been adjusted for the population shifts due to hurricanes Katrina and Rita for 62 counties and parishes in Alabama, Mississippi, Louisiana, and Texas. 1969-2017 US Population Data File is used with mortality data.

# Strategies to mitigate disparities

- **Patient Navigation (PN)**

- Structural and Reliability Analysis of a Patient Satisfaction with Cancer-Related Care Measure: A Multi-Site Patient Navigation Research Program Study. ([Jean-Pierre et al., Cancer. 2011 Feb 15; 117\(4\): 854–861](#)).
- Item Response Theory Analysis of the Patient Satisfaction with Cancer-Related Care Measure: A Psychometric Investigation in A Multicultural Sample of 1,296 Participants. ([Jean-Pierre et al., Support Care Cancer. 2014 Aug; 22\(8\): 2229–2240](#)).
- Psychometric Validation and Reliability Analysis of a Spanish version of the Patient Satisfaction with Cancer-Related Care Measure: A Patient Navigation Research Program Study. ([Jean-Pierre P, et al., Support Care Cancer. 2012 Sep; 20\(9\): 1949–1956](#)).
- Psychometric Evaluation of the Patient Satisfaction With Logistical Aspects of Navigation (PSN-L) Scale Using Item Response Theory. ([Carle A, Jean-Pierre P, et al. Med Care. 2014 Apr; 52\(4\): 354–361](#)).

# Strategies to mitigate disparities

- **Patient Navigation (PN)**

- Psychometric Development and Reliability Analysis of a Patient Satisfaction with Interpersonal Relationship with Navigator Measure: A Multi-Site Patient Navigation Research Program Study. ([Jean-Pierre, P et al., Psychooncology. 2012 Sep; 21\(9\): 986–992.](#))
- Cross-cultural Validation of a Patient Satisfaction with Interpersonal Relationship with Navigator Measure: A Multi-site Patient Navigation Research Study. ([Jean-Pierre P, et al., Psychooncology. 2012 Dec; 21\(12\): 1309–1315.](#))
- Psychometric Evaluation of the Patient Satisfaction With Logistical Aspects of Navigation (PSN-L) Scale Using Item Response Theory. ([Carle A, Jean-Pierre P, et al. Med Care. 2014 Apr; 52\(4\): 354–361.](#))
- Psychometric evaluation of the German version of the Patient Satisfaction with Cancer-related Care questionnaire. ([Bokemeyer F, Lange-Drenth L, Jean-Pierre P, et al., BMC Health Serv Res. 2020; 20: 983.](#))

# Strategies to mitigate disparities

## Patient Navigation (PN)

- Satisfaction with Cancer Care Among Underserved Racial-Ethnic Minorities And Lower Income Patients Receiving Patient Navigation. ([Jean-Pierre et al., Cancer, 2016 Apr 1; 122\(7\):1060-1067](#)).
- Do Better-rated Navigators Improve Patient Satisfaction with Cancer-Related Care? ([Jean-Pierre P, et al., J Cancer Educ. 2013 Sep; 28\(3\): 527–534](#)).
- Effect of patient navigation on satisfaction with cancer-related care ([Wells K, Winters P, Jean-Pierre, et al., Support Care Cancer. 2016 Apr; 24\(4\): 1729–1753](#)).
- Patient-reported outcome measures suitable to assessment of patient navigation. ([Cancer. 2011 Aug; 117\(15\): 3603–3617](#)).

# Strategies to mitigate disparities

## Assessment of cancer-related biobehavioral adverse effects:

- Self-Reported Memory Problems in Adult-onset Cancer Survivors: Effects of Cardiovascular Disease and Insomnia. ([Jean-Pierre et al. Sleep Med. 2015 Jul; 16\(7\): 845–849](#)).
  - Cancer patients with with insomnia were 16 times as likely to have SRMP.
  - Insomnia symptoms significantly predicted SRMP, uniquely explaining 12% of the variance, and accounted for 18.8% of the association between cardiac issues and SRMP, demonstrating mediation (Sobel  $p < 0.05$ ).
  - Among participants without a cancer history, cardiovascular disease and insomnia were not associated with SRMP ( $p > 0.05$ ).
- Neuropsychological Care and Rehabilitation of Cancer Patients With Chemobrain: Strategies For Evaluation and Intervention Development. ([Jean-Pierre P, et al. Support Care Cancer. 2014 Aug; 22\(8\): 2251–2260](#)).
- Latent Structure and Reliability Analysis of the Measure of Body Apperception: Cross-Validation for Head and Neck Cancer Patients. ([Jean-Pierre P, et al. Support Care Cancer. 2013 Feb; 21\(2\): 591–598](#)).
- A Brief Patient Self-Report Screening Measure of Cancer Treatment-Related Memory Problems: Latent Structure and Reliability Analysis. ([Jean-Pierre P, et al. Treat Strategy Oncol. 2011; 2\(1\): 93–95](#)).
- A Phase III Randomized, Placebo-Controlled, Double-Blind Clinical Trial of the Effect of Modafinil on Cancer-Related Fatigue among 631 Patients Receiving Chemotherapy: A URCC CCOP Research Base Study. ([Jean-Pierre P, et al. Cancer. 2010 Jul 15; 116\(14\): 3513–3520](#)).



# Unmet cancer-related care needs of racial-ethnic minorities

- Cancer-related fatigue
- Sleep dysfunction
- Psychological distress
- Brain and neurocognitive impairments
- Pain
- Quality of life

# Impact of covid-19 on cancer health disparities and inequities

- Covid-19 highlights a long-standing and well-documented problem of race/ethnicity-based inequities and social injustice in health and health care in the United States.
- Blacks represent 13% of the US population, but account for 24% of covid-19 deaths.
- Delays in screening, initiation and completion of treatment, survivorship care
- Infection and certain malignancies
  - Lara et al. (Cancer, 2021). Racial disparities in patients with coronavirus 2019: Infection and gynecologic malignancy.
- Analyses of Risk, Racial Disparity, and Outcomes Among US Patients With Cancer and COVID-19 Infection.
  - Wang et al., JAMA Oncology, 2021
- Exploring the Scope and Dimensions of Vaccine Hesitancy and Resistance to Enhance COVID-19 Vaccination in Black Communities.
  - Oluwole Okoro et al. (J Racial and Ethnic Health Disparities, 2021).

# Social determinants of health (non-medical factors that influence health outcomes) and that can influence health equity

Social determinants of health (non-medical factors that influence health outcomes) that can influence health equity) :

- Income and social protection
- Education
- Unemployment and job insecurity
- Working life conditions
- Food insecurity
- Housing, basic amenities and the environment
- Early childhood development
- Social inclusion and non-discrimination
- Structural conflict
- Access to affordable health services of decent quality.

WHO, 2010

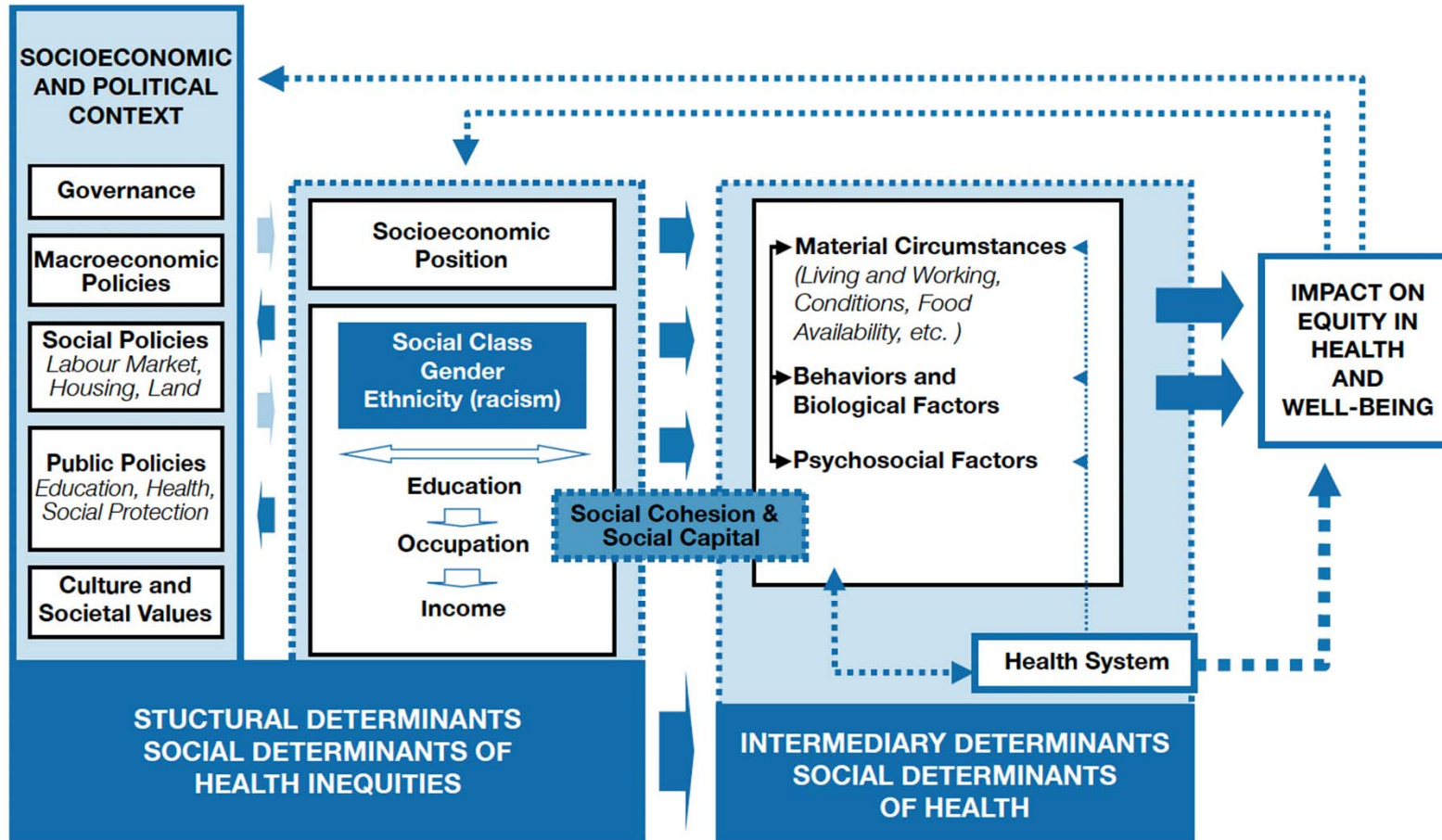
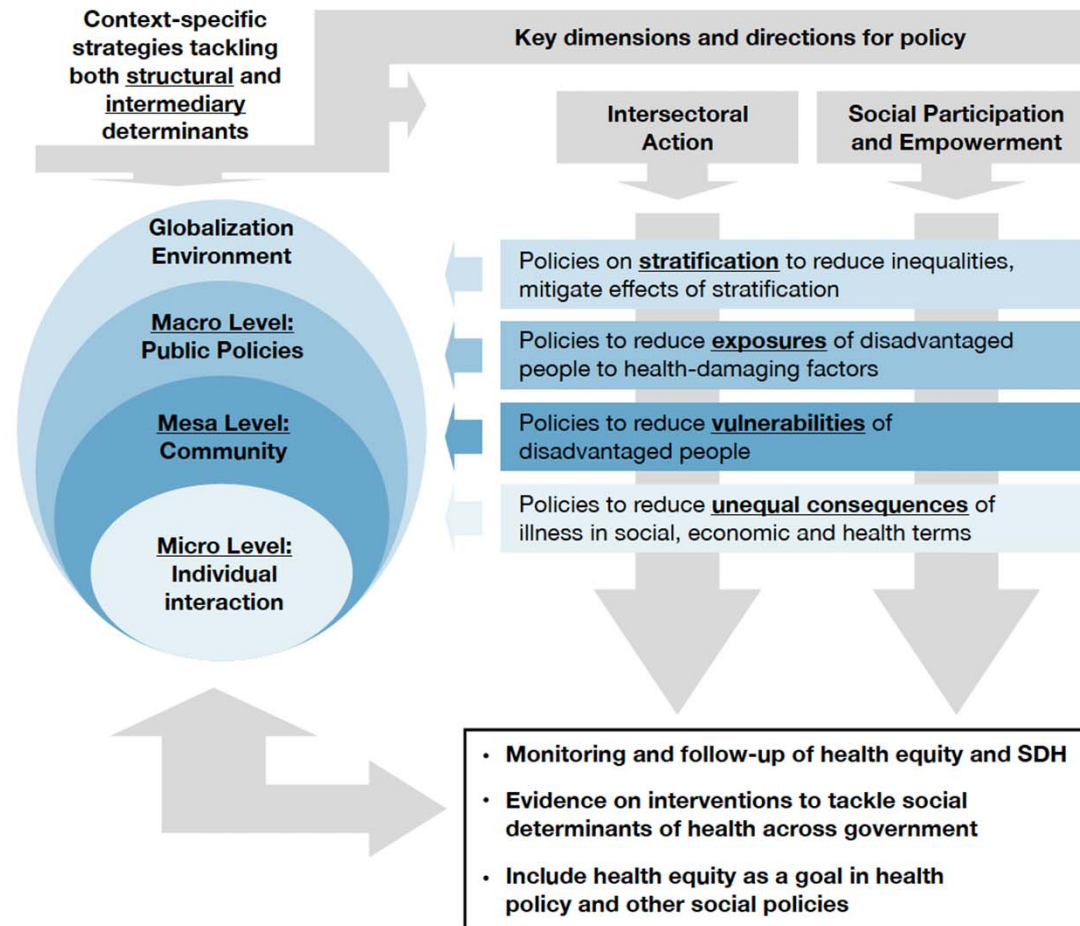


Figure B. Framework for tackling SDH inequities



## Next steps ....

- Moving from description to action research
- Reliable characterization of cancer health inequities
- Work with patient stakeholders to develop best approaches to overcome barriers to accessing equitably beneficial optimal cancer care.
- Develop and implement targeted interventions to reduce/eliminate cancer health inequities

Thank you!

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