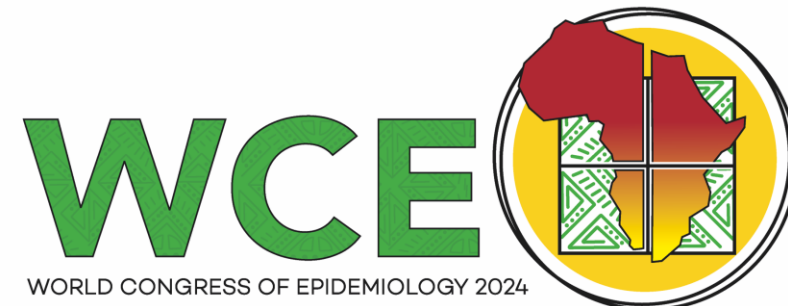


Race, epidemiology and South Africa (SA)

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Have you focused on race as a social determinant of health at all ?



South Africa



South Africa



Aims of SA overview

- When or why do we use race in analysis as epidemiologists globally and in SA?
- When is it appropriate to use race in analyses?
- When is it appropriate to have a completely black, African sample in South Africa?
- Outline the relationship between racism and health and the way forward for research South Africa

Why do epidemiologists use race in analysis as globally and in SA?

- Socioeconomic status (SES) is a well-established, robust predictor of several health outcomes
- Deprivation, threat, and trauma, are associated with low SES, play a key role in adversity affect health outcomes including brain development and health behaviors
- Health disparities exist between racial and ethnic groups
- Colinearity between race, SES and stressors – difficulties in elucidating the true cause of illness in analyses

Why do epidemiologists use race in analysis as globally and in SA?

- Apartheid was the **ideology** supported by the National Party (NP) government and was introduced in South Africa in 1948.
- Apartheid called for the separate development of the different racial groups in South Africa.
- Segregation was part of the law – generally whites are better off than Black Africans, Indians and ‘Coloureds’ creating disparities in health, education and several other sectors
- In 1970, the NP designated homelands or Bantustans – creating chronic poverty and reinforcing structural racism

Race, Inequality and Deprivation in South Africa

‘Hendrik Verwoerd, infamously known as the architect of apartheid, stated: “What is the use of teaching the Bantu child mathematics when it cannot use it in practice? That is quite absurd. Education must train people in accordance with their opportunities in life, according to the sphere in which they live...’

Why do epidemiologists use race in analysis as globally and in SA?

- Bell and colleagues (2022): **Race, place, and HIV: The legacies of apartheid and racist policy in South Africa**
- Using multilevel logistic regression, segregation was found to increase the odds of HIV infection among Black South Africans, even after adjusting for many covariates .
- Estimated odds of infection in the most segregated municipality was 1.95 (95% CI: 1.15, 3.32)

When is it appropriate to use race in analyses?

- The historical context in SA presented earlier suggests that race might be a proxy for inequality and a predictor of accessing health care
- However, race can also be a biological determinant of health e.g. in screening for Type 2 diabetes mellitus and chronic kidney disease

When is it appropriate to use race in analyses?

The flyer is from Wits University, Faculty of Health Sciences, Wits Medical School, University of the Witwatersrand. It features the university's crest and a map of Africa. The text is as follows:

WITS UNIVERSITY

Faculty of Health Sciences
Wits Medical School
University of the Witwatersrand

PARTICIPANTS NEEDED!!!

We are conducting a study to see if a protein called **CEPD** is involved in the development of type 2 diabetes in the South African black population.

WHO CAN PARTICIPATE?
Black South Africans who are between the age of 40-60 years

HOW CAN YOU PARTICIPATE?
You will be required to visit the Chemical Pathology department (fill a consent form and questionnaire) and the Diet Ward at CHLUM (for blood collection)

WITS AND AFFILIATED INSTITUTIONS ARE EQUAL OPPORTUNITIES INSTITUTIONS
WITS IS AN AFFILIATED INSTITUTION OF THE DEPARTMENT OF HUMAN RESOURCES DEVELOPMENT

WITS MEDICAL SCHOOL
WITS UNIVERSITY

When is it appropriate to have a completely black, African sample in South Africa?

- Previous studies suggest a relationship between race (as proxy for inequality) and various health outcomes
- These are nationally representative samples and can infer differences between groups
- In some instances, e.g. in former homelands in South Africa, we can recruit a fully black sample or with the purposes of restriction

BMJ Open Multimorbidity and mortality in an older, rural black South African population cohort with high prevalence of HIV findings from the HAALSI Study

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Joshua A Sakonen ¹, Stephen Tollman ^{1,6}, Miles Wilham ^{1,7,8,9}, Justine Davies ^{1,10,11}

Supplemental material
Additional material for this article is available online.
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Abstract
Background Multimorbidity is associated with elevated risk of high health care use. We therefore investigated the association between multimorbidity and health care use in an older, rural black South African population cohort with high prevalence of HIV. Methods We used data from the Health and Retirement Study (HRS) to examine the association between multimorbidity and health care use. We used a multivariable logistic regression model to examine the association between multimorbidity and health care use. Results We found that multimorbidity was associated with increased health care use. Conclusion Multimorbidity is associated with increased health care use in an older, rural black South African population cohort with high prevalence of HIV.

Strength and limitations of this study
1. This is the first study to examine the association between multimorbidity and mortality in an older, rural black South African population cohort with high prevalence of HIV.
2. Multimorbidity was defined using a comprehensive list of conditions.
3. The study was conducted in a high-mortality setting with a high prevalence of HIV.
4. The association between multimorbidity and health care use was examined using a multivariable logistic regression model.
5. There are a number of limitations to this study, including the cross-sectional design and the potential for recall bias.



Is it appropriate to have a completely black, African sample in South Africa?



Racism and health

- Globally racism is measured as perceived racism or discrimination
- Perceived Racism Scale (PRS) is a 51-item instrument measuring the multidimensional experience of White racism, as perceived by African-American adults
- Perceived discrimination: Participants reported (yes vs. no) if they felt unsafe, avoided places, were insulted, or attacked during the last 12 months within example locations (e.g., public transport, and participants who select yes were then asked to allocate reason(s) for the experience from: 1) sex, 2) age, 3) ethnicity, 4) sexual orientation, 5) health/disability, 6) nationality, 7) religion, 8) language/accent, 9) dress/appearance.

Examples of the effect of racism on health

Impact of Racism Could Slow Recovery After Heart Attack

Nov. 1, 2022, at 7:19 a.m.

Impact of Racism Could Slow Recovery After Heart Attack

More

By Cara Murez HealthDay Reporter

(HEALTHDAY)

TUESDAY, Nov. 1, 2022 (HealthDay News) -- Discrimination doesn't just cause emotional pain in the moment, it may affect a victim's physical recovery from a heart attack, new research suggests.



Way forward...

- Despite racial differences or in SES and health outcomes, few data on racism and health
- It would be worthwhile to measure structural racism in a former homeland setting
- We should strive towards nationally representative samples

Selected References

- Dark et al (2023): The association of perceived discrimination with dementia risk in Black older adults. *Alzheimer's and Dementia*. 19(10):4346-4356
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