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Addressing the social determinants of health in the COVID-19 pandemic:

High poverty, NCD & HIV burden settings

Khayelitsha, Cape Town in South Africa as a case study

Vera Scott

School of Public Health, University of the Western Cape



The evolution of the Covid pandemic in South Africa

5 March – first case in
South Africa

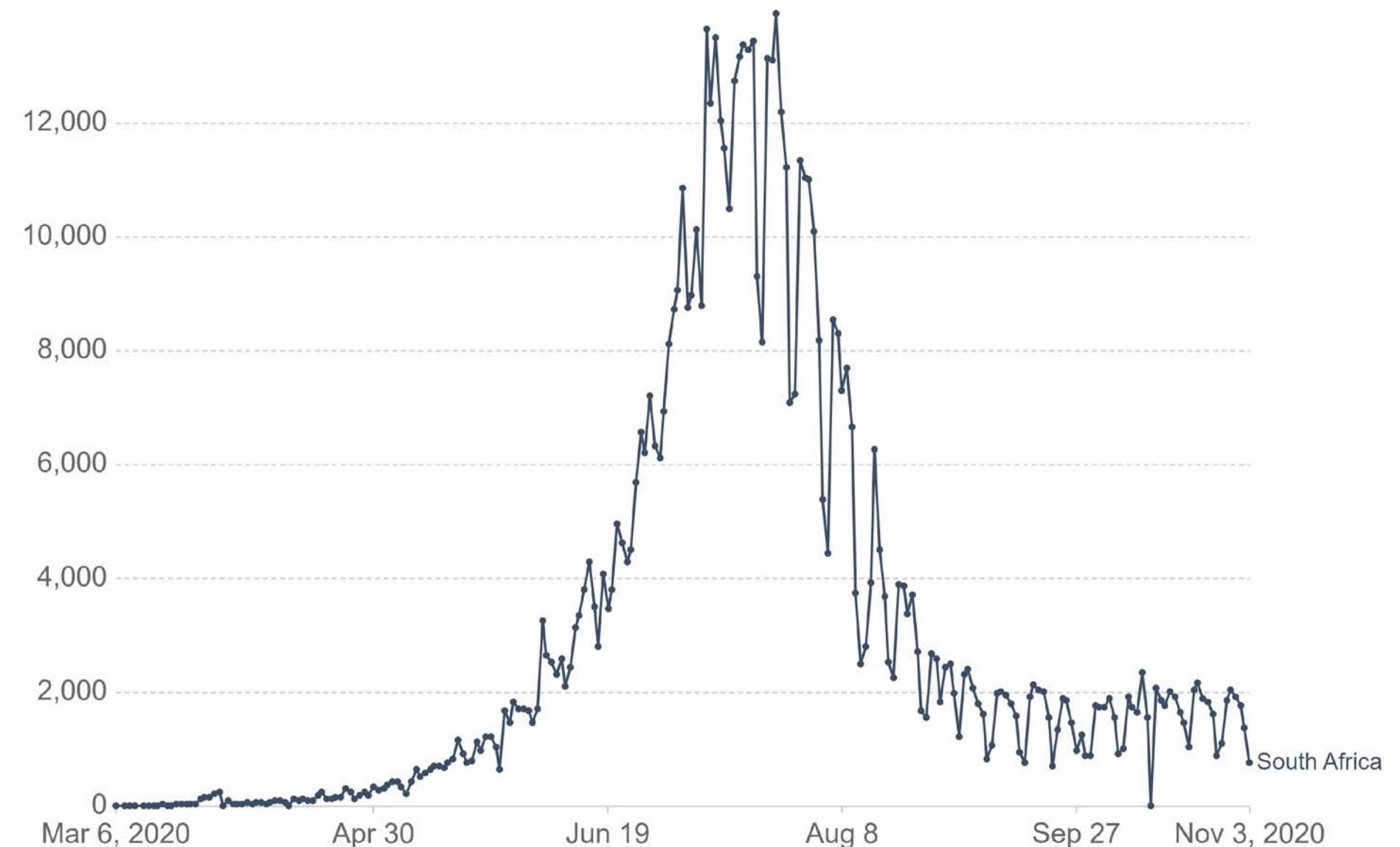
11 March – first case in
Western Cape

28 March – first case in
Khayelitsha

Daily new confirmed COVID-19 cases

The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.

Our World
in Data



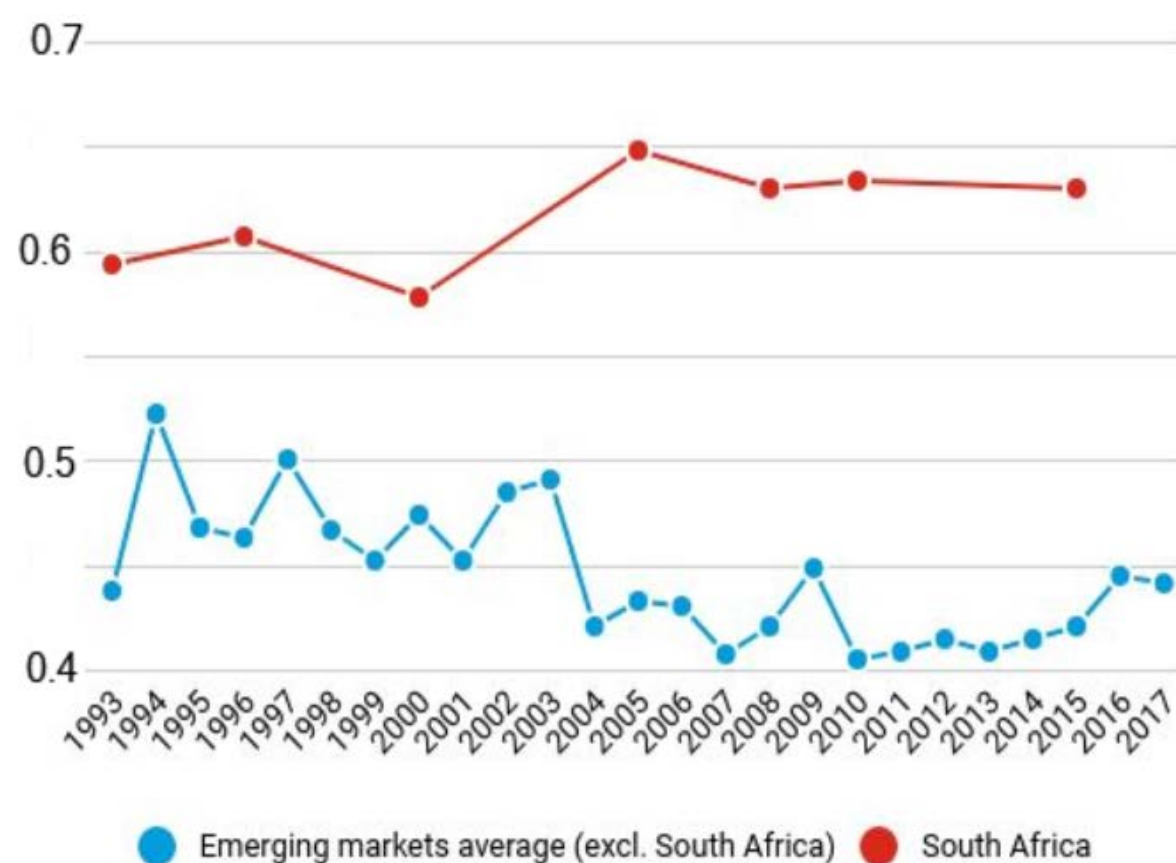


Socio-economic context

Increasingly unequal South Africa

Income inequality in South Africa has remained high and decoupled from the average for emerging markets.

(index scaled, 0-1)



Source: World Development Indicators.

Key Statistics

Access to piped water	89.9%
Access to improved sanitation	77.9%
Access to mains electricity	85.4%
Use solid fuels for cooking	10.9%
Dwelling owned	66.4%
Living in formal dwellings	77.7%
Municipal refuse removal	66.0%

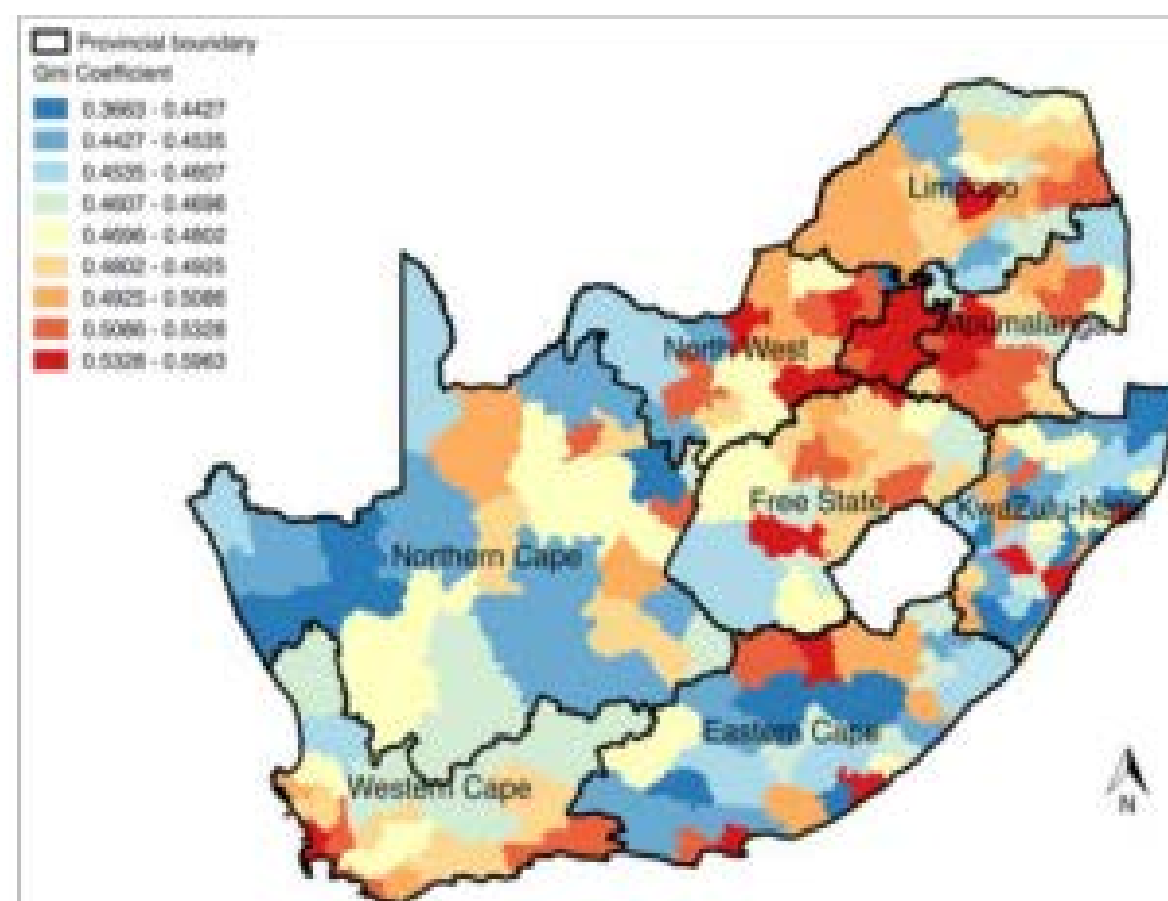
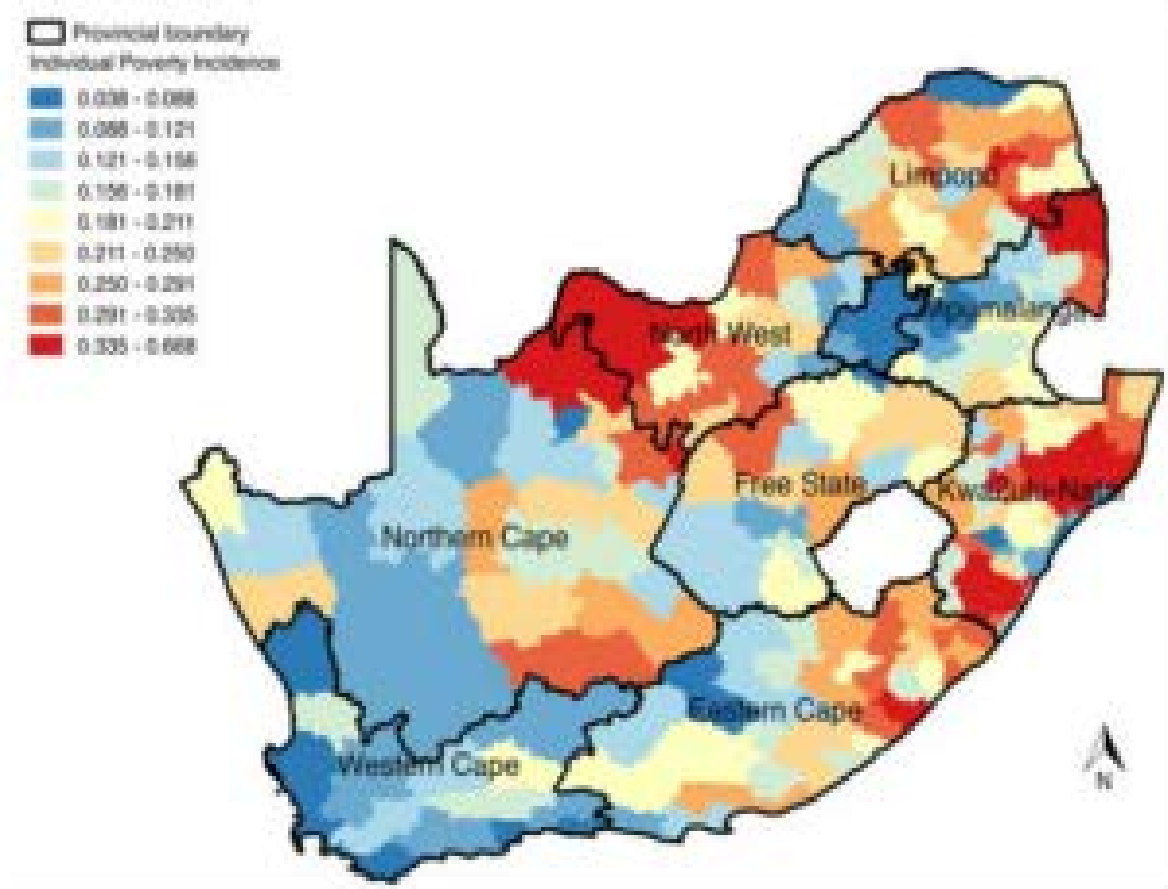
General household survey, 2013

BURDEN OF DISEASE REPORT | 2019

Figure 16: A) Map of 9 quantiles of poverty distribution at municipal level. The darkest blue areas represent 26 municipalities with individual poverty incidence from 4–9 percent. The darkest red displays the poorest quantile with poverty rates between 33 and 67 percent.

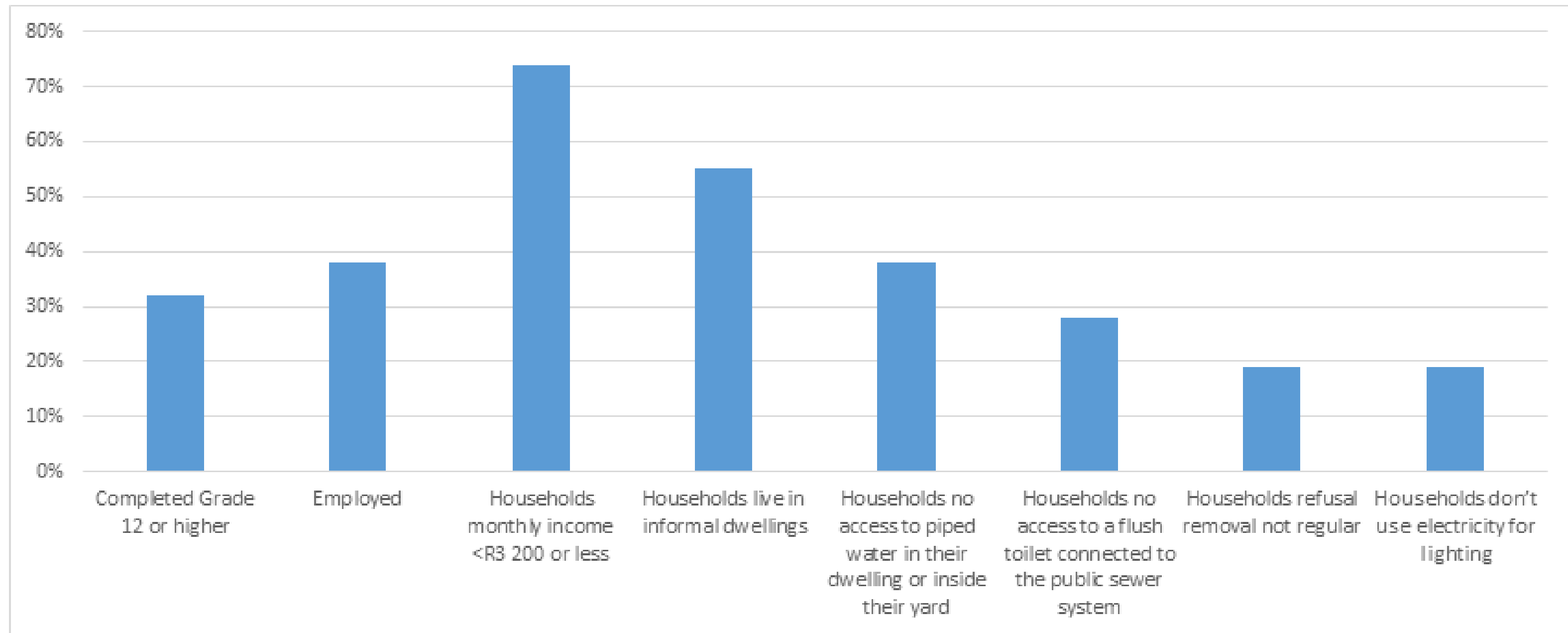
B) Map of 9 quantiles of distribution of inequity (Gini coefficient) at municipal level. The darkest blue areas represent 26 municipalities with lowest quantile of Gini coefficient (0.37-0.44). The darkest red displays the highest (most unequal) quantile with Gini co-efficient >0.53.

Source: Statistics South Africa: Poverty Mapping in South Africa using data from Census 2011 and the 2010/11 Income and Expenditure survey.³





Socio-economic context of Khayelitsha



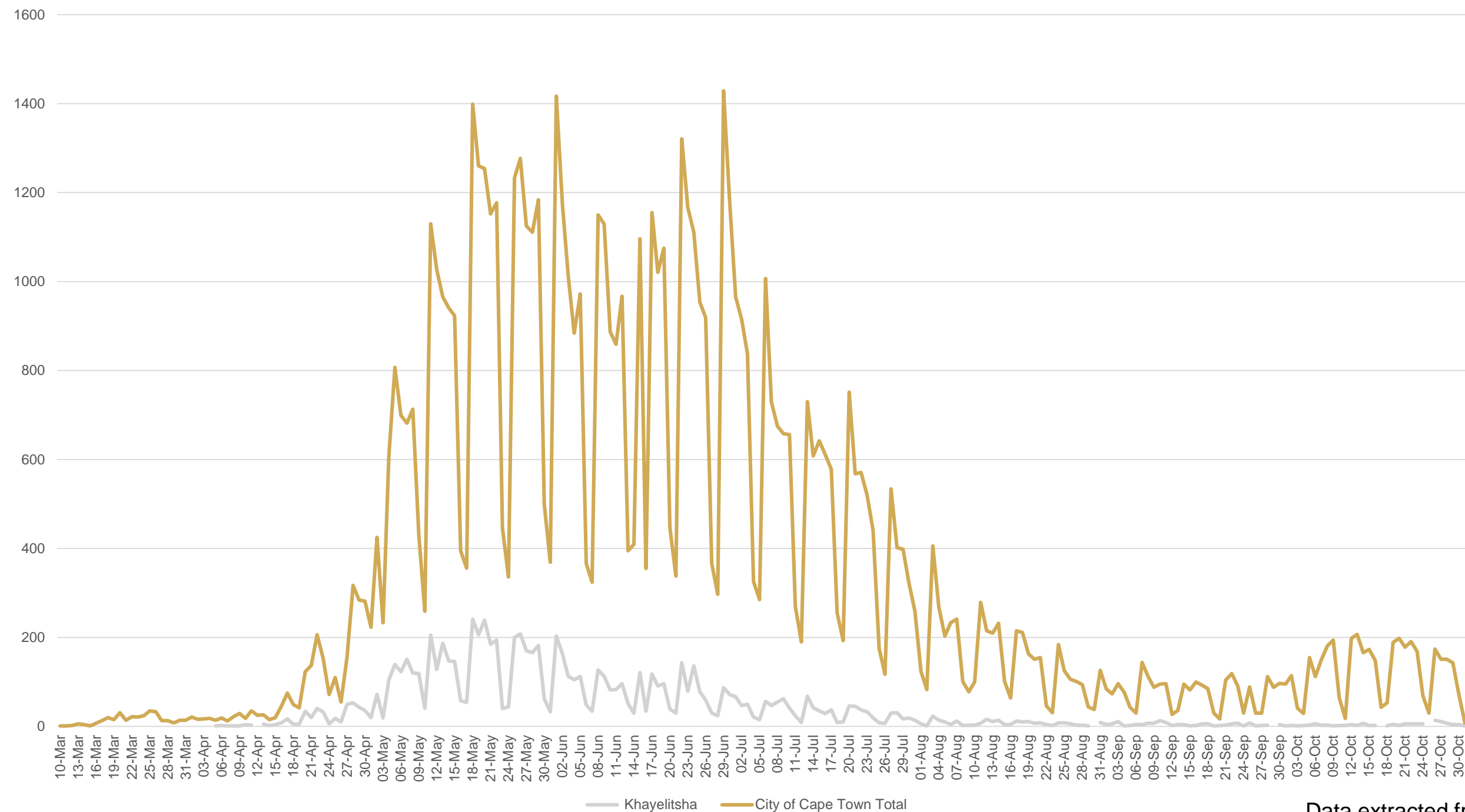
Source:
Census 2011
data



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COVID Cases Cape Metro March to October 2020



Data extracted from WC DoH Covid Dashboard:
Natacha Berkowitz



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SDHE 1 – Differentiated exposure

Constraints to implement public health prevention, even during lockdown



Photo credit: MUCHAVE/SOWETAN



Photo credit: unknown Khayelitsha resident



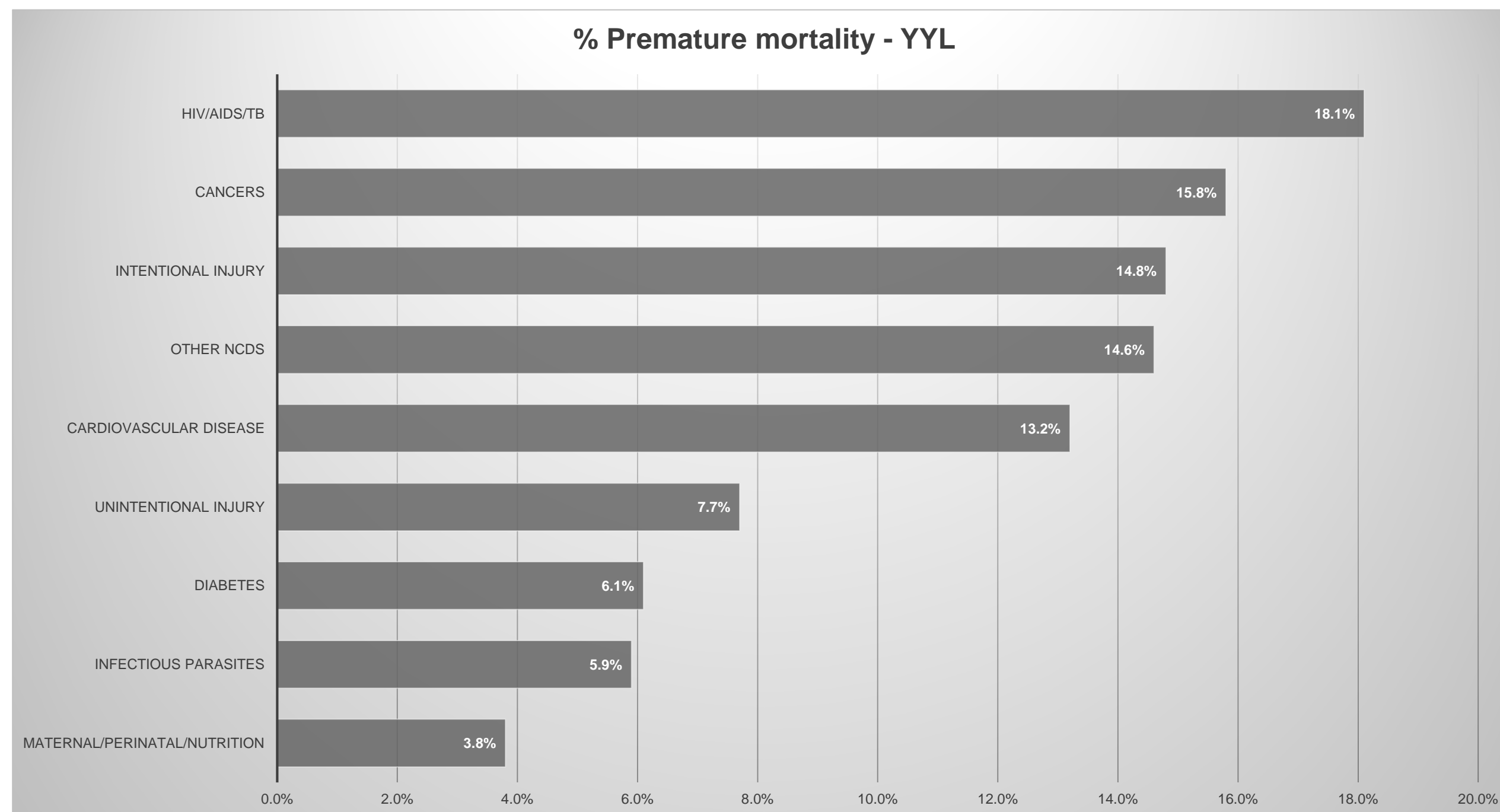
Poverty and impoverished living conditions limited the sustained implementation of public health strategies

US:





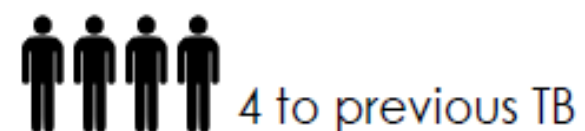
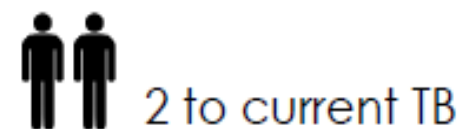
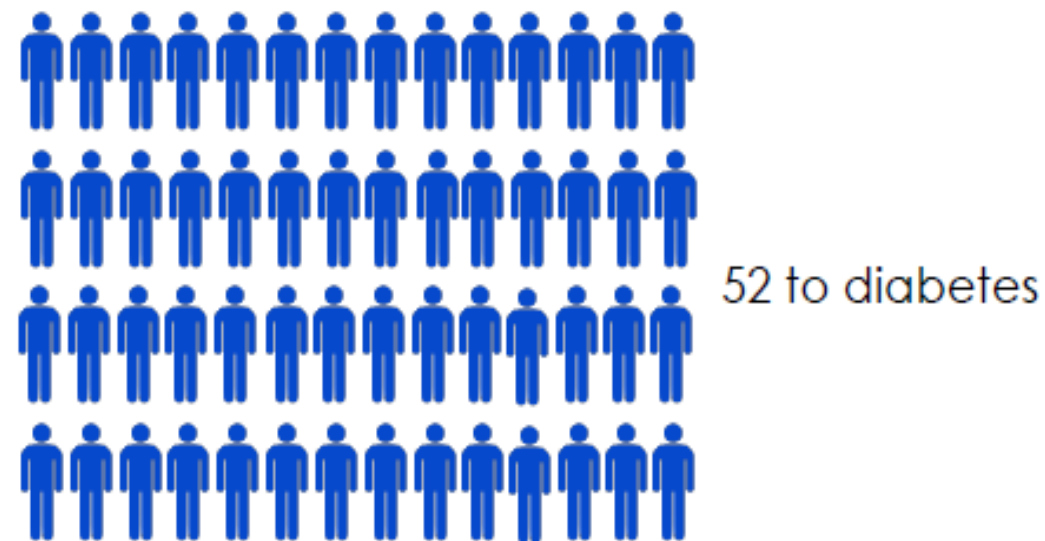
SDHE 2 – Differentiated vulnerability





How much are these factors contributing to COVID-19 deaths in WC?

For every 100 people in the public sector who have died from COVID-19
– we can attribute as follows:



Graphic: Mary-Ann Davies on behalf of the Western Cape Department of Health. **Western Cape: COVID-19 and HIV / Tuberculosis 9 June 2020**

Accepted manuscript: Boule A, Davies M-A, Hussey H. Risk factors for COVID-19 death in a population cohort study from the Western Cape Province, South Africa.

<https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciaa1198/5899044>



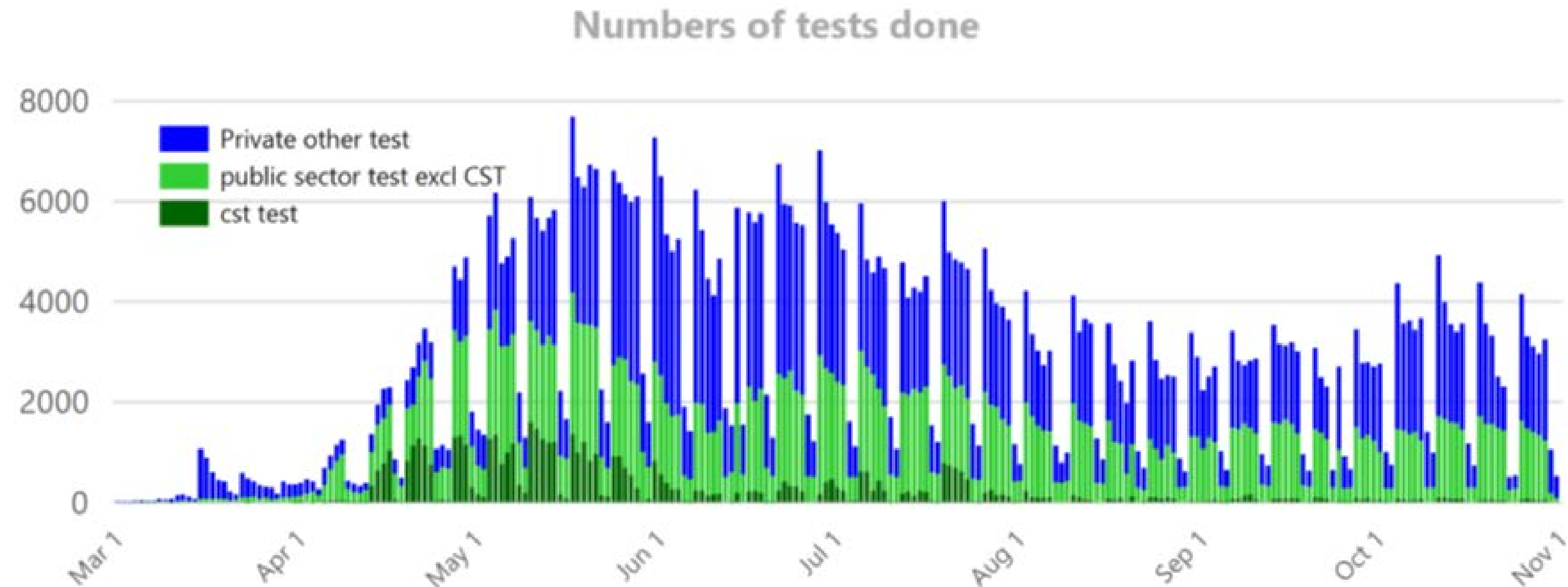
Analysis of the Social Determinants of NCDs in South Africa

Proximal – downstream - immediate	
<i>Host</i>	Genes; Age; Thrifty phenotype hypothesis
<i>Co-morbidities</i>	Obesity; Increased abdominal girth Hypertension
<i>Behavioural</i>	Smoking; Physical inactivity Diet high in calories and low in grains and fibre
Socio-cultural - intermediate	Social exclusion and lack of social support Perceived lack of control and inequity Cultural perceptions about body size
Distal - upstream -social determinants	
<i>Living and working conditions</i>	Decreased opportunity to exercise in urban settings Local food environment Access to effective, quality health services (incl diagnosis, monitoring, care, rehabilitation) Occupation, Literacy
<i>Structural</i>	Trade liberalisation - processed and ultra-processed foods (incl ‘fast food’); Neoliberal policies – job insecurity, loss of social security leading to stress Accelerated urbanisation.

Source: Scott VE, Schaay N, Schneider H & Sanders D. Addressing social determinants of health in South Africa: The journey continues. In: Padarath A, Barron P, editors. *South African Health Review 2017*. Durban: Health Systems Trust; 2017. [Online], Available: URL: <http://www.hst.org.za/publications/south-african-health-review-2017>

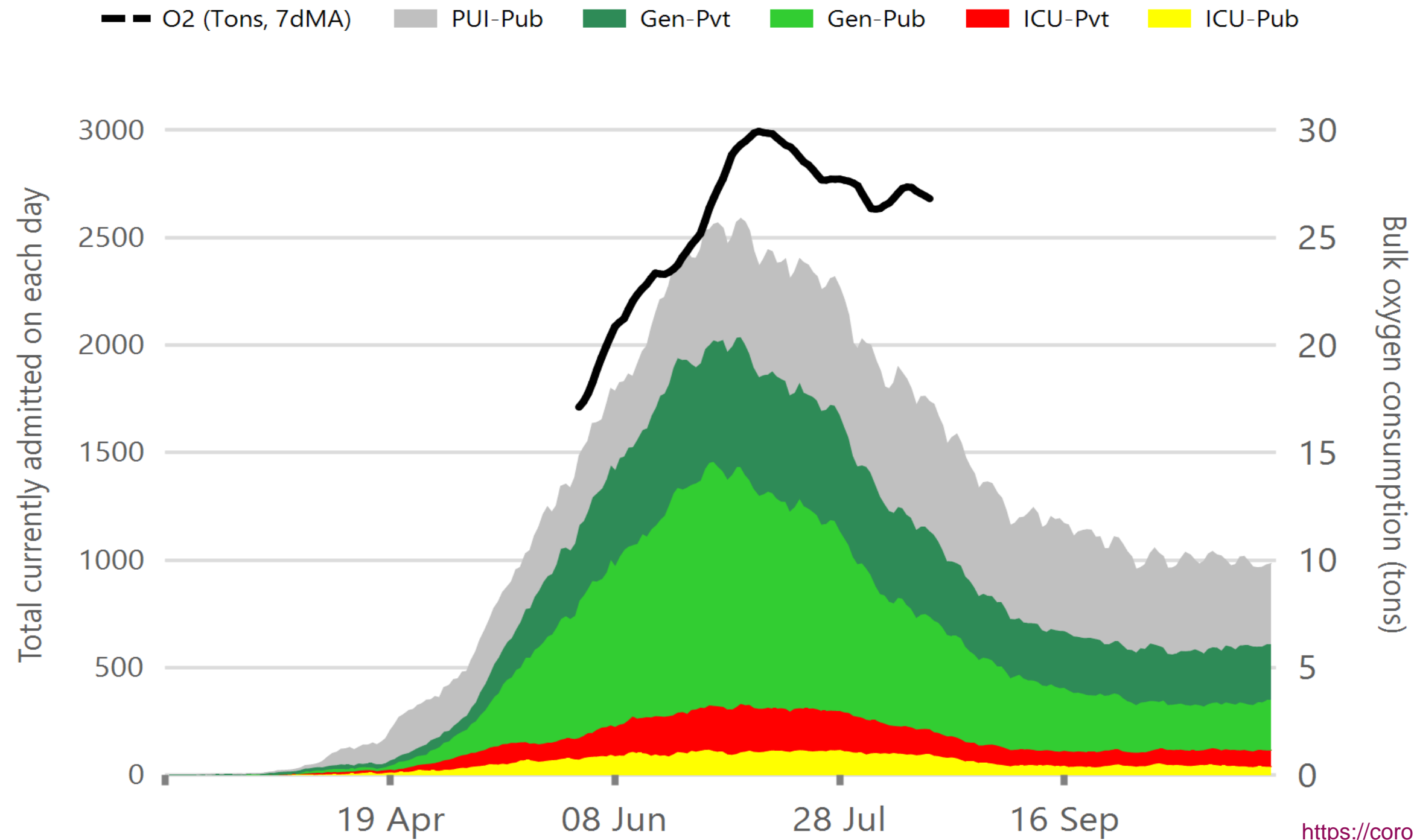


SDHE 3 - Differentiated access to care





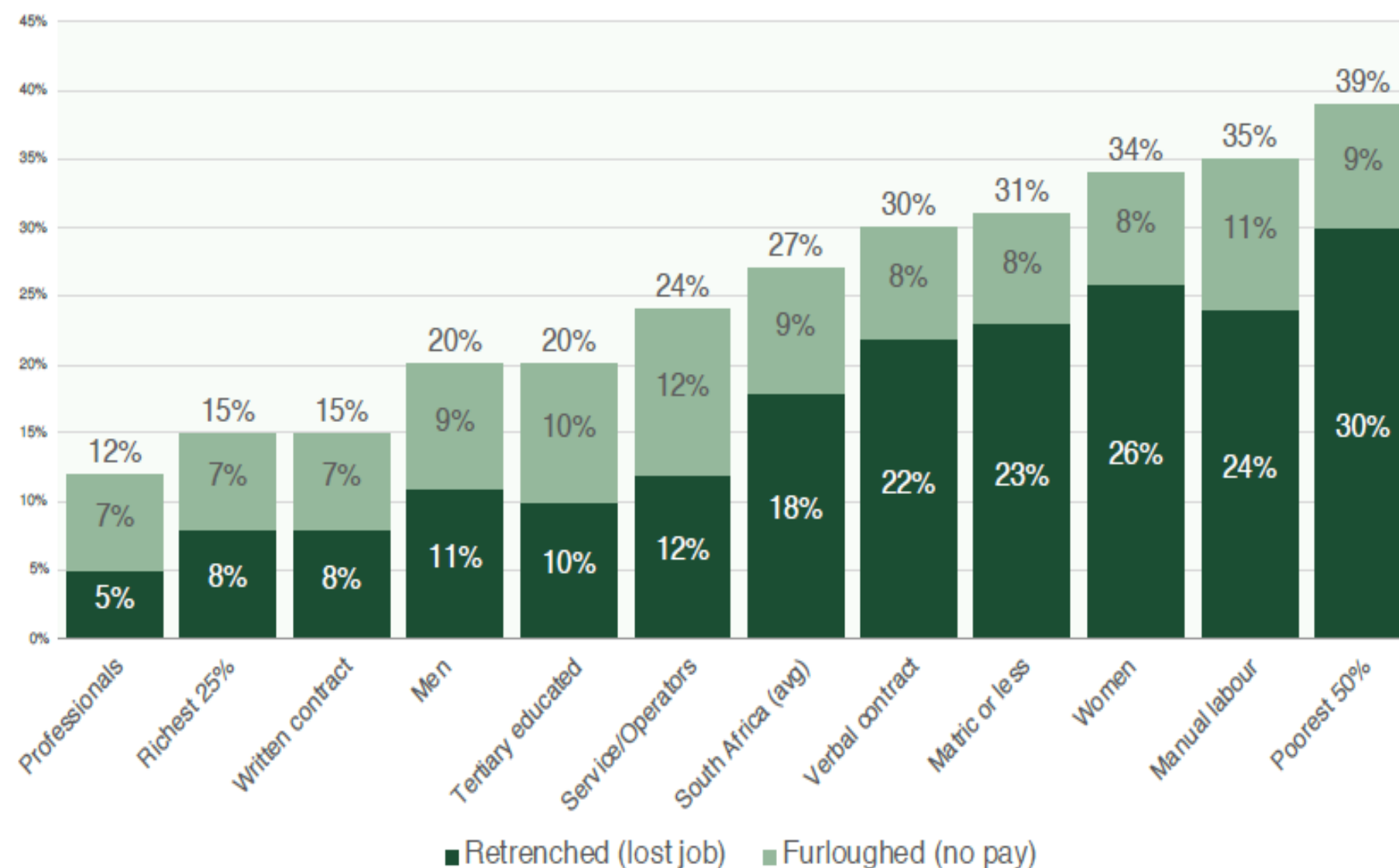
Currently admitted





SDHE 4 - Differentiated impact of Covid-19

Figure 1: The percentage of respondents experiencing net job loss or furlough (an employment relationship but no income) in the working age population: February to April 2020

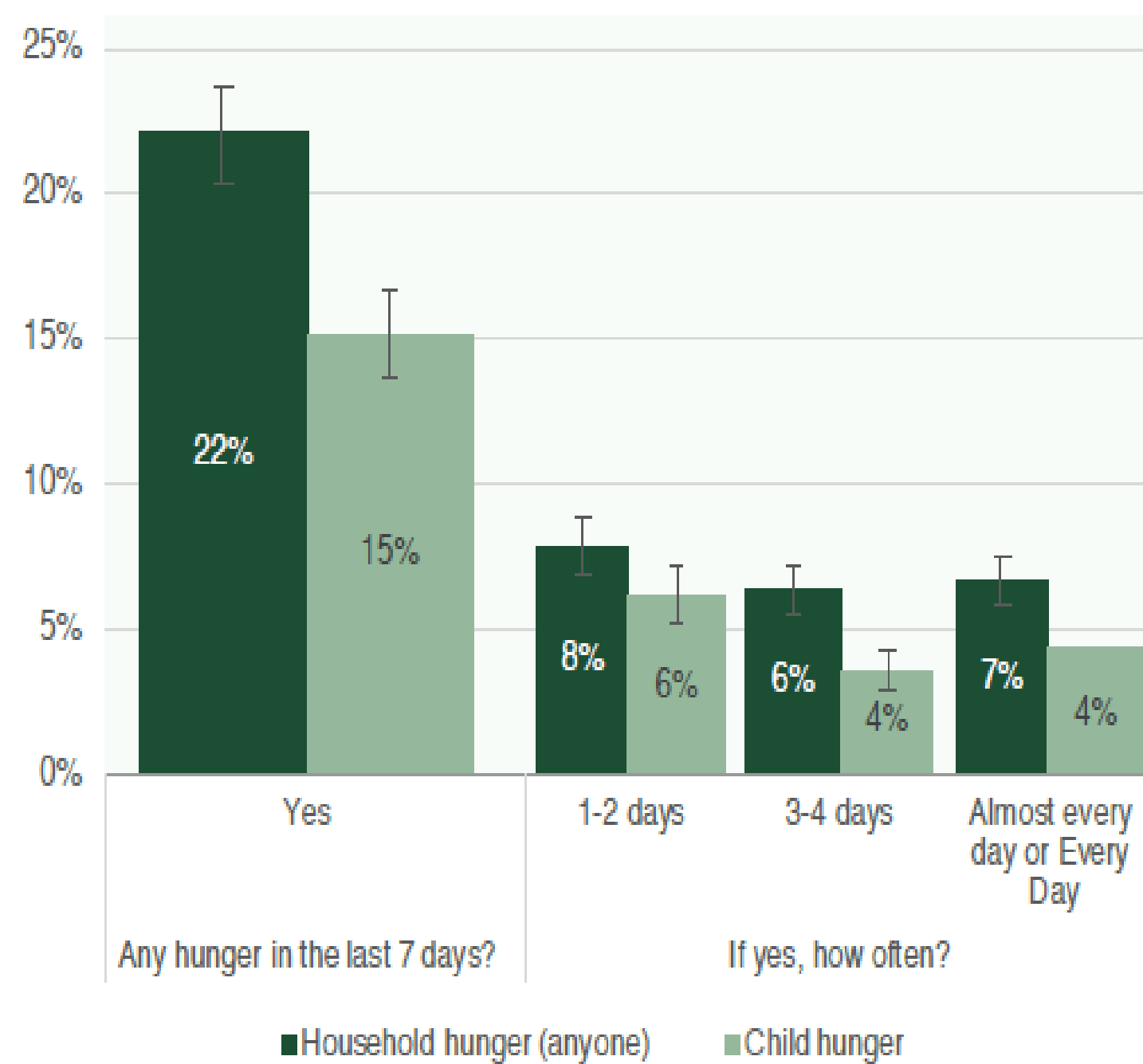


Source: NIDS-CRAM WAVE 1 SYNTHESIS
REPORT: OVERVIEW AND FINDINGS

Source: Jain, R., Budlender, J., Zizzamia, R., and Bassier, I. (2020) using NIDS-CRAM W1 data.



Figure 1: Reported hunger in the last seven days (asked separately for 'anyone in the household' and for 'children (<18 years) (NIDS-CRAM Wave 1, weighted)



Source: NIDS-CRAM WAVE 1 SYNTHESIS
REPORT: OVERVIEW AND FINDINGS



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The global pandemic could become an opportunity to build an equitable, inclusive education system

By Andile Cele • 27 October 2020



Two pupils from Gugulethu Primary School work on their iPad during lessons in March 2020, near in Gugulethu, South Africa. (Photo: Andile Cele)



Andile Cele

Tabling a human rights budget on civil society's radar this week

By Shanti Reddy • 19 October 2020



(Photo: www.gettyimages.com)



Shanti Reddy

Covid-19: We need both physical distancing and social solidarity

By Lydia Calnecross for Spotlight • 22 March 2020



Lydia Calnecross for Spotlight



- Western Cape Government Corona-19 Dashboard <https://coronavirus.westerncape.gov.za/covid-19-dashboard>
- Accessed: 3 November 2020
- South Africa: Coronavirus Pandemic Country Profile <https://ourworldindata.org/coronavirus/country/south-africa?country=~ZAF> Accessed: 2 November 2020
- **CHILD POVERTY IN SOUTH AFRICA: A Multiple Overlapping Deprivation Analysis June 2020**
<http://www.statssa.gov.za/publications/03-10-22/03-10-22June2020.pdf>
- Mary-Ann Davies, Erna Morden, Thato Mosidi et al. **BURDEN OF DISEASE RAPID REVIEW UPDATE 2019.** Western Cape Department of Health
- Mary-Ann Davies on behalf of the Western Cape Department of Health. **Western Cape: COVID-19 and HIV / Tuberculosis 9 June 2020**
- StatsSA. Census 2011.
- [Nic Spaul](#) , Cally Ardington, Ihsaan Bassier, et al. **NIDS-CRAM WAVE 1 SYNTHESIS REPORT: OVERVIEW AND FINDINGS.** <http://resep.sun.ac.za/nids-cram-wave-1-synthesis-report-overview-and-findings/>
- IMF. Six Charts Explain South Africa's Inequality.
<https://www.imf.org/en/News/Articles/2020/01/29/na012820six-charts-on-south-africas-persistent-and-multi-faceted-inequality>. Accessed 2 Nov 2020

With thanks to Natacha Berkowitz, Epidemiologist, City of Cape Town, for support in accessing reports and dashboards