

Identifying Drivers and Levers of the Double Burden of Malnutrition in Cape Town, South Africa Through Group Model Building



The FoodSAMSA consortium (<https://foodsamsa.samrc.ac.za/>)

Read our accompanying qualitative study here:



Contributors

Nicole Holliday^{1,2}, Martina Lembani³, Carmen Klinger^{1,2},
Muhalo Kenneth Muhal³, Zandile June-Rose Mchiza^{4,5}, Jillian Hill⁴,
Hlaliso Nonkezwa⁴, Maxwell Feni⁴, Annalie Wentzel^{3,4}, Sandile Luke⁴,
Magnifique Nkurunziza⁴, Peter von Philipsborn^{1,2}, Peter Delobelle^{5,6*},
Eva A Rehfuss^{1,2*}

¹ Institute for Medical Information Processing, Biometry and Epidemiology (IBE); Chair of Public Health and Health Services Research; Faculty of Medicine; LMU Munich, Munich, Germany
² Pettenkofer School of Public Health, Munich, Germany
³ School of Public Health; University of the Western Cape, Cape Town
⁴ NCD Research Unit; South African Medical Research Council, Cape Town, South Africa
⁵ South Africa Chronic Disease Initiative for Africa, University of Cape Town, Cape Town, South Africa
⁶ Department of Public Health, Vrije Universiteit Brussel, Brussels, Belgium
* Authors contributed equally to this work

The Problem



Cape Town is facing a Double Burden of Malnutrition (DBM)

- 80% of households in Cape Town experience moderate to severe food insecurity¹
- Stunting among children <2-year-old is 19.7% in Western Cape while overweight/obesity affects over 1 in 5 kids (2-4 years)²
- Adult diabetes and obesity prevalence higher than regional averages³

The Question

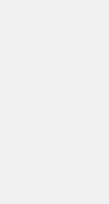
1

Using a systems lens, what have been the dominant systemic drivers of the DBM at the individual, household (micro-), community, and local policy (meso-) level in Cape Town in the last 30 years?

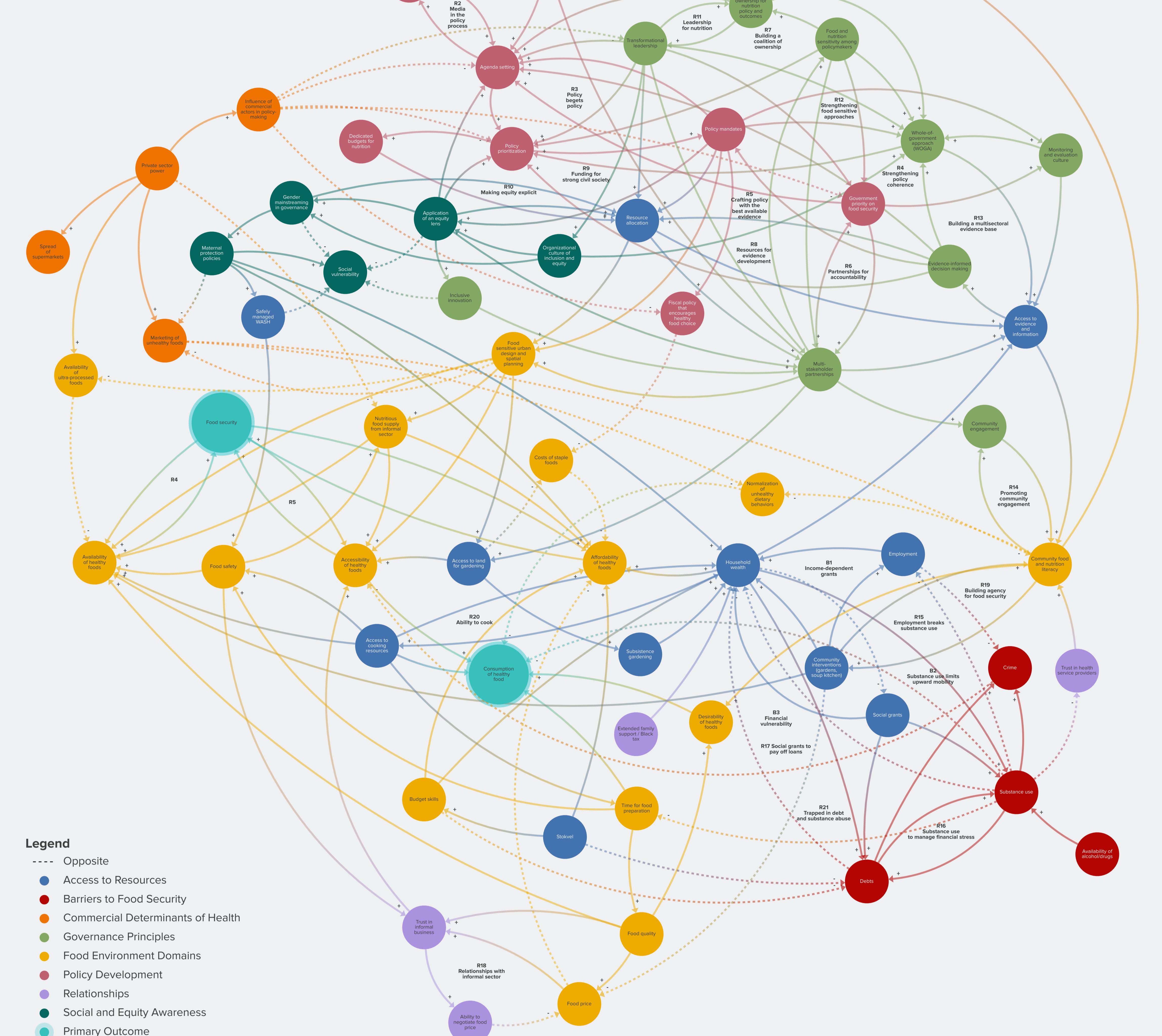
2

Where are potential points to intervene in the current system to reduce the DBM?

The Results



Systemic drivers of DBM



The Method

- November 2023 – April 2024: 35 in-depth interviews
 - 21 community health workers
 - 14 researchers, and city and provincial government employees, civil society representatives
- Data analyzed using grounded theory and systems thinking
- Interview data provided preliminary list of variables driving DBM
- Drivers were included in a seed model used in group model building workshops
- March 2024: 2 in-person workshops with micro-level stakeholders
- May & October 2024: 2 online workshops with meso-level stakeholders
- Causal loop diagrams developed in group model building then refined by research team and merged into one model
- Stakeholders recommended several areas of leverage: places where small inputs can result in large impacts

Recommended Leverage Points

Micro-Level

1

Advocacy with ward councilors regarding:

- Alcohol policy, including liquor vending times and business licenses;
- access to land for home and community gardens.

2

Increasing the frequency of health inspections to monitor food safety in informal food outlets.

3

Strengthen neighborhood street watch programs through small donations to pay watch members.

4

Strengthen food and nutrition literacy training of community health workers.

Meso-Level

1

Supporting evidence uptake in agenda setting

- Create an online hub of nutrition information (e.g., data from health surveys and program monitoring and evaluation) that can be accessed by stakeholders and communities
- Continue Food Imbizos and extend outreach to include more policymakers to increase food and nutrition literacy

2

Regulating food marketing

- Advocate for legislation to limit unhealthy food marketing to children

3

Developing structures to enable a healthy food environment

- Improve sustainable WASH infrastructure at informal market areas and engage vendors in food safety training
- Advocate for a change in regulation concerning land use permits to make land for gardening more accessible
- Update zoning laws to mandate considerations for food environment impacts

4

Increasing transparency of the influence of the corporate sector

- Develop and implement transparent and clearly-mandated platforms for interaction with the commercial sector that are cognizant of conflicts of interest
- Raise awareness among city and provincial employees of commercial determinants of health

5

Mobilizing civil society

- Host a breastfeeding awareness campaign and advocate for improved maternity leave and breastfeeding support at work
- Establish a community board of informal traders that can advocate for their needs.
- Strengthen routine communication channels with news outlets and journalists to bring food environments and nutrition into public discourse
- Establish youth advocacy coalition to speak to policymakers and participate in media campaigns regarding nutrition
- Host a media campaign about the risks of UPFs and advocate for a 20% rate on the Health Promotion Levy
- Develop and implement transparent and clearly-mandated platforms for interaction with civil society



References

Haysom, G. & Pulker, A. (2024) State of City Food System Report: Cape Town. AfriFOODlinks project, Cape Town, South Africa.