

Harnessing science, technology and innovation in response to
COVID-19

The South African Population Research Infrastructure Network

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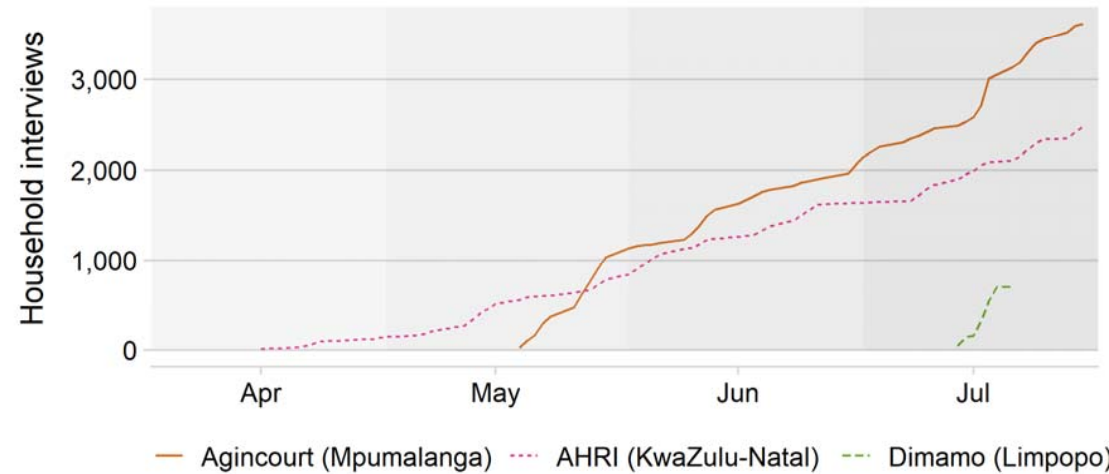
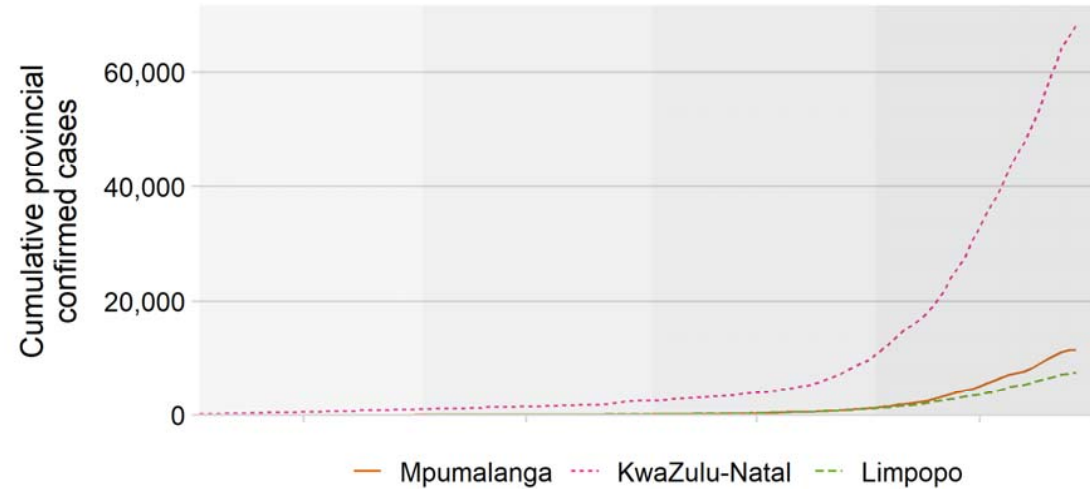
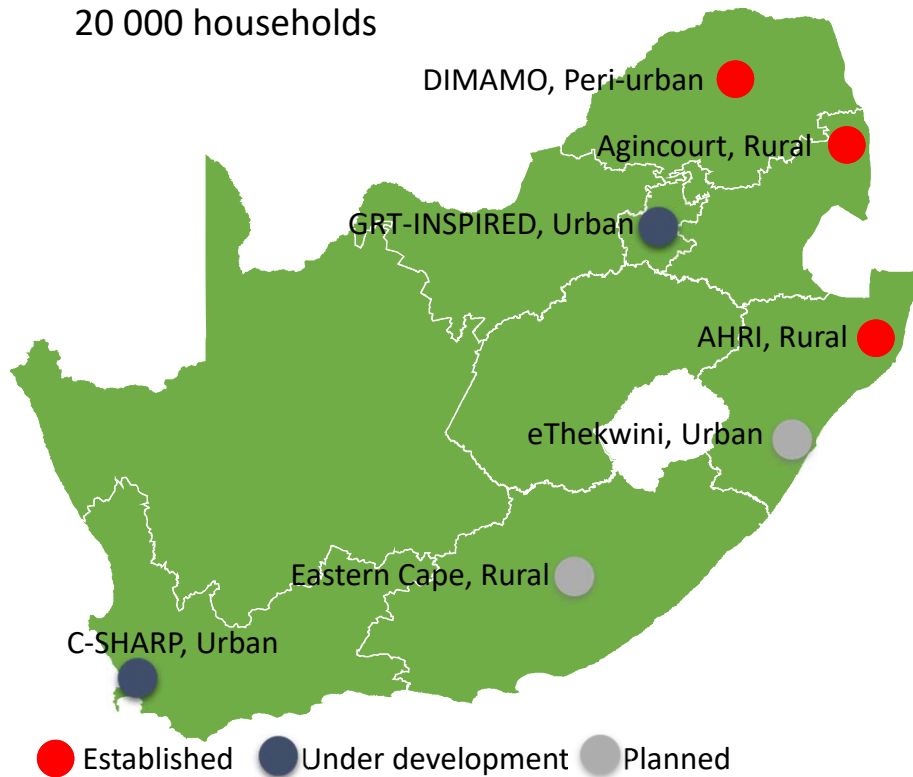
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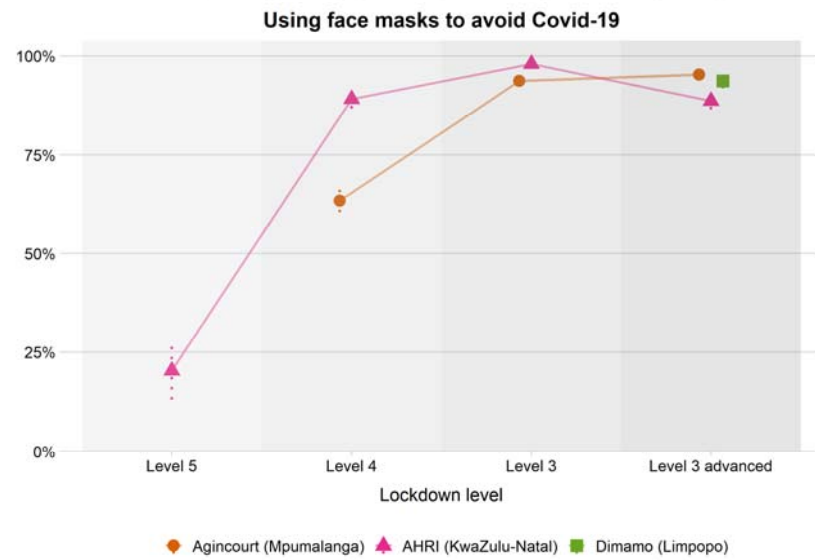
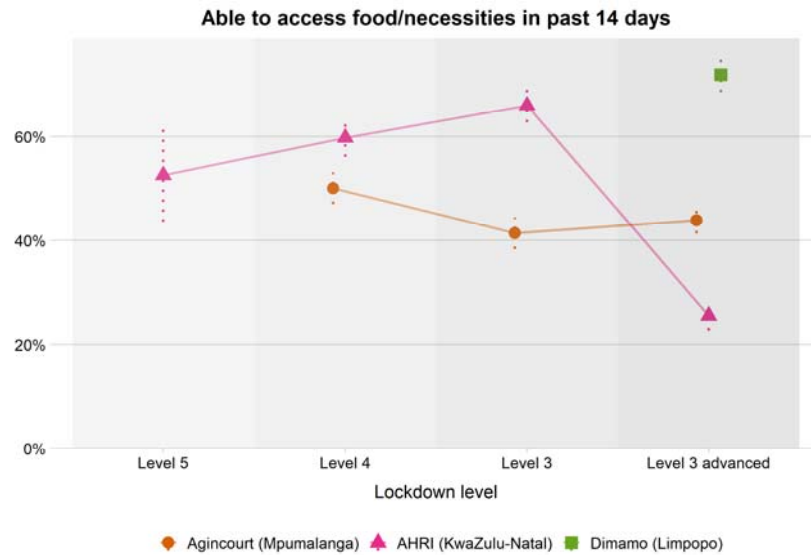
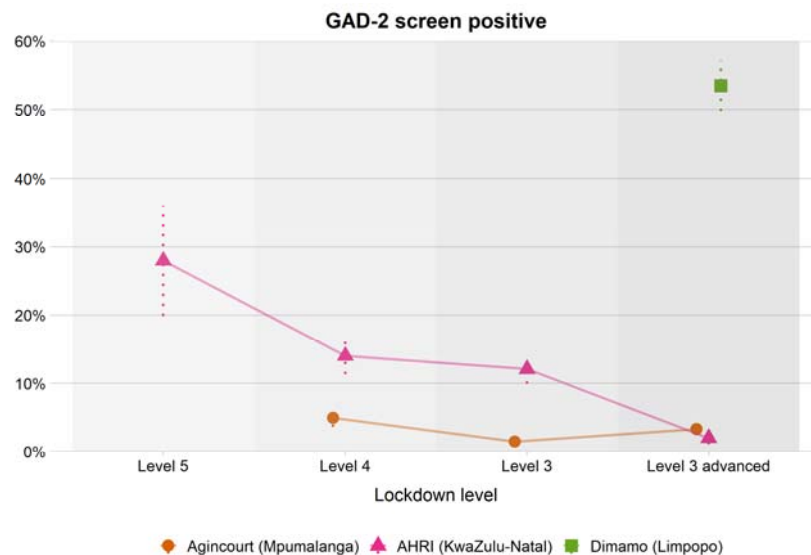
SAPRIN

- Part of Research Infrastructure Roadmap (SARIR)
- Population Platform to:
 - Provide multi-disciplinary research evidence
 - Inform health and social policy and programming
- Poor rural and urban communities
- Each node follow at least 100 000 individuals in 20 000 households

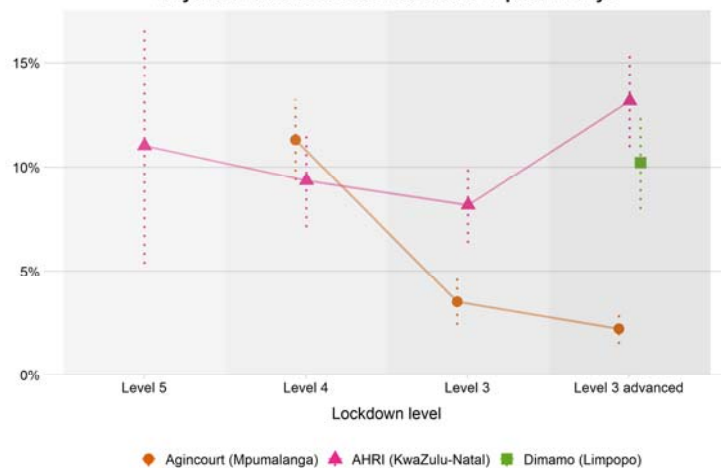


Impact of Covid-19 on Research

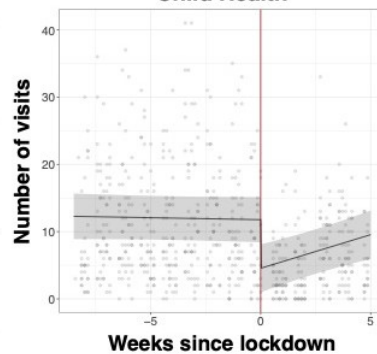
- SAPRIN nodes host 42 research studies and employ about 560 staff on these studies
- As a result of the Covid-19 pandemic:
 - Studies paused or suspended: 29
 - Start delayed: 22
 - Changed to make use of Call Centre: 9
- New Covid-19 related studies: 20
 - To understand community transmission patterns
 - To investigate interaction with other diseases, e.g. TB, HIV, Non-communicable diseases and respiratory viruses
 - Covid-19 immune response in the presence of HIV and/or TB
 - Socio-economic-behavioural studies – impact on households, risk groups
 - Health systems research



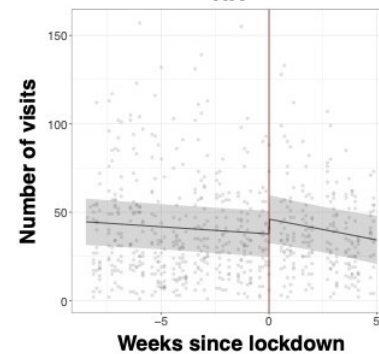
Anyone unable to access healthcare in past 14 days



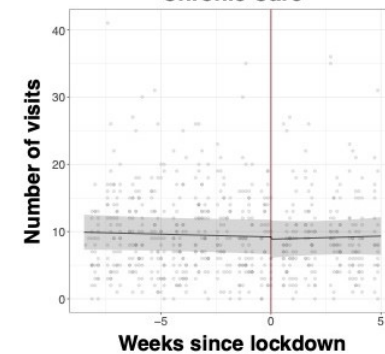
Child Health



HIV

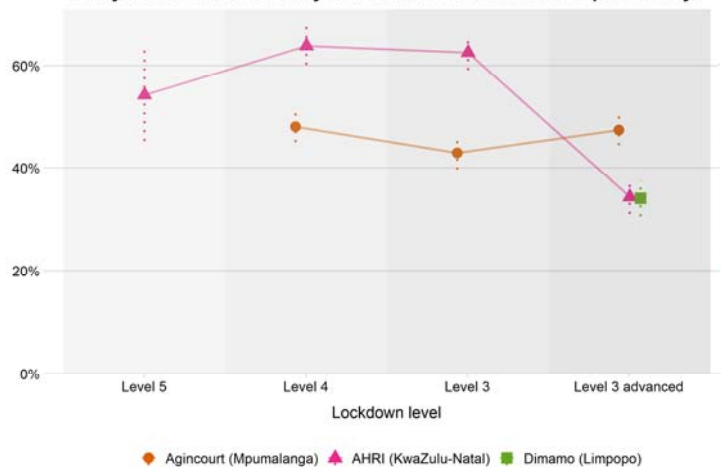


Chronic Care



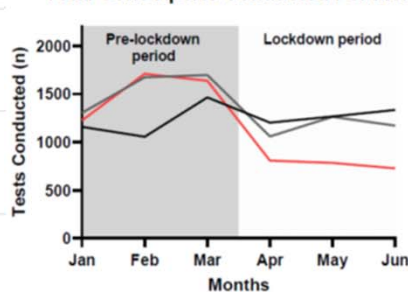
Siedner, Harling, Herbst et al, *under review*, 2020

Everyone in household daily medication could access it in past 14 days

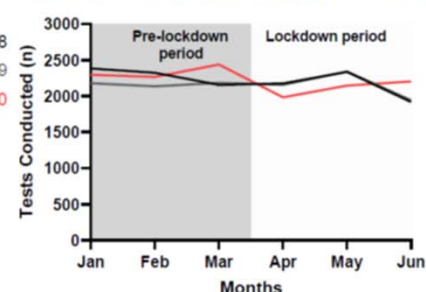


Laboratory Tests in uMkhanyakude District, KZN

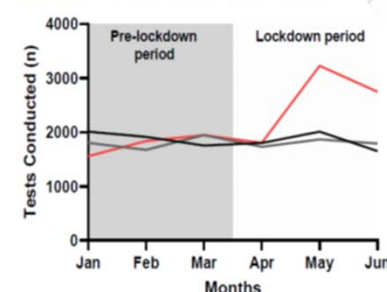
Total Gene Xperts Conducted Per Month



Total CD4 T-Cell Counts Conducted Per Month



Total HIV-1 RNA Viral Loads Conducted



Lessons Learned and Future Potential

- Infra-structure allowed a rapid response to the pandemic
- Relevance
 - One of very few opportunities to document Covid-19 epidemic in a complete population
 - Community effectiveness studies of Covid-19 prevention measures and health service interventions
 - Look at long term health outcomes and health service impact
- Follow-up Discussions
 - The role of population and health research infrastructure like SAPRIN in epidemic preparedness and response
 - Open data and data sharing