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HEALTH
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The South African government's COVID-19 response: protecting lives and livelihoods

Mark S. Blecher, Jonatan Davén, Gesine Meyer-Rath, Sheetal P. Silal, Konstantin Makrelov, Marle van Niekerk



Given the health-related and economic impact of COVID-19, epidemiological and economic modelling should be brought together to enable multi-criteria decision- and policy-making to protect both lives and livelihoods.



The aim

To provide an overview of the impact of COVID-19 on lives and livelihoods in South Africa, and government's budgetary support to the health and income protection responses; to review the epidemiological and economic modelling that informed the response and carry-through effects of the economic downturn on the economy, public finances and health budgets.



Key findings

South Africa's budgetary response to the pandemic included allocation of more than R20 billion to the health sector response and more than R100 billion for income protection in 2020/21, and a further R14 billion for health in 2021/22. The economic downturn caused by the pandemic and related lockdown measures caused large budget cuts, including to the health sector.



Recommendations

Future responses to COVID-19 and other health threats should focus more keenly on both lives and livelihoods, ideally bringing together epidemiological and economic modelling within a common decision-making framework. The social security and health sectors need adaptable systems and service platforms that can respond rapidly to temporary surges in demand. The adequacy of health budgets, in the light of recent budget reductions, should be continuously monitored.

The role of modelling in planning and budgeting for South Africa's COVID-19 response

Sheetal Silal, Juliet Pulliam, Lise Jamieson, Brooke Nichols, Harry Moultrie, Gesine Meyer-Rath



Given the potential impact that model projections may have on decision-making, uncertainty in projections must be communicated clearly to decision-makers through reasoned discussion on robust and more sensitive model findings.



The aim

The South African COVID-19 Modelling Consortium was established in late March 2020 to support government's planning and budgeting for COVID-19-related healthcare. This chapter reports on the approach taken for modelling cases, hospital admissions, deaths, and costs in a situation of substantial uncertainty.



Key findings

- Between March and September 2020, 38 updates to the epidemiological and economic models were produced and shared with stakeholders in the National and Provincial Departments of Health, National Treasury and other partners.
- Four sets of short- and long-term model projections and model code were published, and an online dashboard with data and visualisations of all outputs was created.
- Together, the epi- and econ-models allowed government to plan several months ahead of time, negotiate with manufacturers, and prepare contracts for additional resources.



Recommendations

- Managing expectations and communicating uncertainty is of paramount importance when relaying model findings.
- Adaptive modelling in a rapidly evolving epidemic requires continuous engagement with stakeholders.
- Development of local capacity in disease modelling is imperative to sustain the contribution of this domain to supporting the country's future health needs.

Test-Trace strategy for disease control and management:

South Africa's control measures to contain the spread of COVID-19

Moeketsi Modisenyane, Shadrack Mngemane, Tebogo Maomela, Takalani Nengumane, Phyllis Chituku, Elizabeth Leonard, Tumisho Langa, Yogan Pillay



Contact tracing, in conjunction with robust screening, testing and surveillance systems, is central to disrupting the COVID-19 disease transmission chain and controlling infectious disease outbreaks in the population.



The aim

To critically examine the development and implementation of alternative COVID-19 testing and contact tracing initiatives



Key findings

- Leveraging existing disease surveillance systems and databases has allowed for a rapid and cost-effective transition towards COVID-19 surveillance.
- Community engagement and proactive population outreach mechanisms were used to support door-to-door case-finding, testing and isolation, and quarantine of close contacts.
- Rapid response teams enabled the scaling-up of COVID-19 screening, testing and contact tracing.



Recommendations

- Use an evidence-based approach to adopt and adapt testing and tracing patterns to local contexts
- Incorporate professional, patient and community perspectives in testing and tracing activities
- With its strong community ties and co-ordinating function, PHC allows for the multi-sectoral action needed to reduce vulnerability and build resilience among communities.

Managing therapeutic uncertainty in the COVID-19 pandemic:

rapid evidence syntheses and transparent decision-making

Trudy D. Leong, Andy L. Gray, Tamara Kredo, Renee de Waal, Karen Cohen, Andy G. Parrish, Halima Dawood



An explicit evidence-to-decision framework has allowed for global evidence to be adapted to local needs and context.



The aim

To describe how a rapid review mechanism was implemented to enable the development of evidence-informed and context-specific clinical treatment and prevention recommendations for COVID-19 in South Africa; to reflect on the implementation of these recommendations in clinical practice, using national medicines utilisation data from the public sector



Key findings

A rapid yet robust evidence-informed approach for therapeutic recommendations under pandemic conditions was developed. The extent to which the resulting guidelines actually altered clinical practice, even in the public sector, is uncertain. Increased use of corticosteroids was evident in most provinces. There was concerning evidence of increased use of medicines that were not recommended, such as azithromycin, colchicine, and vitamin C.



Recommendations

Improved transparency of the process is required, with evidence reviews, and explanations of how evidence has led to decisions, being placed in the public domain. Adequate resourcing of the clinical guideline process is needed to ensure more timely recommendations. Retrospective evaluations of medicines use in hospitals and ambulatory care could provide data to strengthen knowledge translation efforts and aid effective communication with all stakeholders. The longer-term challenge of improving healthcare providers' understanding and use of evidence requires attention to undergraduate curricula, continuing professional development processes and offerings, and specialist training.

COVID-19-related queries received by the National Health Laboratory Service and the National Institute for Communicable Diseases in South Africa: January to August 2020

Megan J. Dempster, Nimesh Naran, Murray Dryden, Zhixin He, Kathleen J. Kabuya, Khadeejah Sheik, Trisha A. Whitbread, Moushumi A. Mathews, Harsha Somaroo, Vivien Essel



Data from the NHLS-NICD hotlines reflected trends in case numbers, knowledge gaps, and distribution of concerns related to COVID-19.



The aim

To describe the COVID-19-related queries posed via calls to the public and clinician hotlines launched by the National Institute for Communicable Diseases (NICD) – a division of the National Health Laboratory Service (NHLS) – from 1 January to 31 August 2020, towards identifying knowledge gaps and recommendations for clinician training, improving access to information, and guiding health promotion



Key findings

The hotline provided general and clinical COVID-19 advice during 152 766 calls made over the study period. Most queries were received in April (n=53 471), with the majority from members of the public (95.0%). Gauteng Province accounted for most queries (42.9%). General information on COVID-19, advice for testing, and administrative/systems issues (related to nationwide announcements/events), together accounted for the largest proportion of COVID-19 queries (86.0%). These data mirrored information gaps and distributions of concerns related to COVID-19 and could be used to guide clinician training and public information-sharing.



Recommendations

The ongoing weekly and monthly analysis of data from the hotline should be used to engage with relevant stakeholders and to deliver targeted public health education based on identified knowledge gaps. Continuous, focused analyses of the queries from healthcare workers should be used to review persistent knowledge gaps and accordingly improve the clinical management and Infection Prevention and Control (IPC) guidelines published by the NICD.

Reflections of public healthcare nurses during the first wave of the COVID-19 pandemic in the Eastern Cape Province of South Africa

Jane F. Kelly,* Charné Dee Glinski,* Christina A. Laurenzi, Hlokoma Mangqalaza, Elona Toska, Lesley Gittings, Nontokozi Langwenya, Lulama Sidloyi, Amanda Mbiko, Babalwa Taleni and Bongiwe Saliwe



As the COVID-19 pandemic evolves and continues to create challenges for healthcare service delivery, it is essential that nurses are supported in ways that avoid burnout and empower them to meet the needs of their patients.



The aim

To explore the experiences, challenges and responses of nurses based in public healthcare facilities in the Eastern Cape Province of South Africa during the first wave of the COVID-19 pandemic



Key findings

The COVID-19 pandemic has placed an additional burden on already resource-constrained healthcare facilities and healthcare workers, compounded by rapid depletion and delayed restocking of COVID-19-related equipment and medicines.

Nurses experience daily dilemmas and internal conflicts associated with COVID-19, which has had a negative impact on their health and well-being, and their ability to deliver services.

The nurses formed a response committee to address issues arising from COVID-19, traced patients who were defaulting on treatment, provided their personal contact information to patients, and drew on the services of local 'caregivers' to deliver medication.



Recommendations

- Holistic support that encompasses appropriate and sustainable forms of psychological support accompanied by opportunities for debriefing, problem-solving and peer support is required.
- Task-shifting to other community-based personnel may solve issues related to workload and accessibility.

* These authors contributed equally.

COVID-19 infections, hospital admissions and mortality

outcomes: the associated risk factors among private medical insurance beneficiaries

Selaelo Mametja, Daniel Shapiro, Mabatlo Semanya, Jolene Hattingh, Gareth Kantor, Cheryl Cohen, Waasila Jassat, Craig Getz, Stanley Moloabi, Stefano Tempia



The highest-risk occupations for COVID-19 infection are in the fields of health, correctional services and police services.



The aim

To identify risk factors, including occupation, for SARS-CoV-2 infection, hospitalisation and mortality within the Government Employees Medical Scheme (GEMS) population across the three pandemic waves



Key findings

The study has established that GEMS members in essential and public-facing occupations have been at risk of COVID-19 infection, especially those in congregate settings such as schools or prisons. However, we are unable to identify or distinguish workplace infections versus those acquired beyond the workplace.



Recommendations

It is imperative to improve vaccination coverage, particularly of individuals at highest risk of severe illness, to reduce the impact of a potential fourth wave of COVID-19. It is also important to continue with public and workplace COVID-19 infection prevention measures such as physical distancing, hand hygiene, masking, good indoor ventilation, diagnostic testing, and isolation of staff members exposed to the virus.

COVID-19: insights from contracting the private sector for critical care

Geetesh Solanki, Mark Blecher, Judith Cornell, Nicholas Crisp, Beth Engelbrecht, Michael Manning, Reno Morar, Neil Myburgh, Bhavna Patel



Whether the COVID-19 SLA is ultimately deemed successful or not, it provided a real-time demonstration of the complexities and constraints for such engagement within the South African context, and it showed how, with trust and commitment, we can develop solutions.



The aim

To describe the experience of formulating a public–private service-level agreement (SLA) to access private-sector capacity in addressing expected public-sector shortfalls in critical care capacity during the COVID-19 epidemic



Key findings

Since the shift of patients between the sectors did not materialise, the most important outcome was that public- and private-sector participants were able to negotiate a SLA, as a shared response to a complex challenge. This engagement also provided insights beyond the original problem. The process revealed a lack of national leadership and co-ordination capacity; high levels of fragmentation in both sectors; different visions of what care should be provided; the high degree of complexity in contracting; capacity constraints in both sectors to deliver on their contracted roles; and a lack of data to inform policy choices. The most prominent lesson was that a trusting relationship was essential to the success of this initiative, built on a vision and a value system that all parties could endorse.



Recommendations

We recommend the establishment of national-level capacity for public–private engagement, review of the Regulations constraining public–private contracting, fast-tracking the national data management system, enhancing in-house administrative capacity to complement the use of intermediaries, conducting a broader critique of this engagement, and undertaking a cost efficiency assessment of the options for expanding capacity.

The cost-effectiveness of in-patient care for COVID-19:

implications for health technology assessment in South Africa

Susan Cleary, Tommy Wilkinson, Cynthia Tamandjou Tchuem, Sumaiyah Docrat, Geetesh Solanki



Institutionalising health technology assessment, including strengthening capacity and funding of analyses, will assist decision-making and sustainability in the National Health Insurance environment.



The aim

To showcase examples of health technology assessment (HTA) in South Africa by presenting research on the cost-effectiveness of in-patient care for COVID-19



Key findings

- Pragmatic, transparent and rigorous HTA that is aligned with the needs and timelines of policy-makers can be performed in the South African setting.
- Purchasing private-sector intensive care was unlikely to be cost-effective; dexamethasone was cost-effective, and remdesivir was cost-saving.
- Corresponding national policy included a signed service-level agreement to purchase private ICU beds for public patients, along with recommendations in favour of dexamethasone and against remdesivir. While policy decisions did not fully align with the results of the economic evaluations, evidence on the effectiveness of remdesivir was highly uncertain, requiring regular updates.
- A more formal and explicit incorporation of HTA within existing health policy processes is feasible and will assist with immediate decision-making and fulfilling the longer-term objectives of universal health coverage.



Recommendations

Implementation of health technology assessment need not wait for the perfect system. We recommend institutionalising HTA, including strengthening capacity for and funding of analyses to assist decision-making and sustainability in the UHC environment.

The impact of COVID-19 on use of maternal and reproductive health services and maternal and perinatal mortality

Robert Pattinson, Sue Fawcus, Stefan Gebhardt, Priya Soma-Pillay, Ronelle Niit, Jack Moodley



Overall, antenatal care services were maintained during the first two waves of COVID-19 in South Africa, but use of reproductive health services declined.



The aim

To examine the impact of the first and second COVID-19 waves on maternal and perinatal mortality and its effect on the use of maternal and reproductive health services in South Africa



Key findings

There was a marked increase of 40% in maternal deaths ($p < 0.00001$), 10% in stillbirths ($p < 0.00001$) and 3% in neonatal deaths ($p = 0.31$) when compared with the same period in FY2019/20. There was a mean 28% increase in the institutional Maternal Mortality Ratio (iMMR) in all provinces during the second wave compared with the first wave ($p < 0.0001$), except in the Western Cape which saw a decrease of 1%. The case fatality rate for pregnant women with COVID-19 was high (4.5%), as was the perinatal mortality rate (70.6 per 1 000 births), while the iMMR for South Africa was 16.94/100 000 live births. There was an increase of 3.6% in in-facility births in FY2020/21 compared with FY2019/20, with an observed increase in the movement of pregnant women to the more rural provinces and districts for delivery. Antenatal care services were maintained overall, but use of reproductive health services declined (contraceptive prescriptions by 5% and termination of pregnancy by 17% overall). The effects of the COVID-19 epidemic on pregnant women and its collateral damage were severe.



Recommendations

Strengthening the health system to maintain essential services during COVID-19 and vaccination of healthcare workers and pregnant women are key to reducing maternal and perinatal mortality.

The impact of COVID-19 on children: insights from the Western Cape experience

Maylene Shung-King, Lori Lake, Michael Hendricks, Aislinn Delany, Yolande Baker, Lizette Berry, Linda Biersteker, Hilary Goeiman, Shanaaz Mathews, Erna Morden, Jaco Murray, Chris Scott, Lesley Shand, Ben van Stormbroek, Thandi Wessels



Children's relative neglect in the initial phases of the COVID-19 pandemic, resulting in many negative direct health and collateral effects, points to the need for a purposive, co-ordinated, child-centred approach to addressing children's needs in times of crisis.



The aim

To describe the impacts of the COVID-19 epidemic on the health and wellbeing of children in the Western Cape Province and to highlight examples of good practices that prioritised children in this time of crisis



Key findings

- The health system, overwhelmed by adult infections, was slow in responding to children's multiple and complex needs brought about by the epidemic.
- Approximately 12 000 children in the province contracted COVID-19 during the first 12 months of the epidemic, and thousands more were affected by the illness and deaths of relatives.
- Children experienced many collateral effects, including increased hunger, violence, injury, and mental health problems, coupled with the disruption of healthcare services, schooling, early childhood development programmes, and social support networks.
- A proactive response from child health services, aided by the province's relative socio-economic advantage, a strong civil society response, and a stable, well-functioning health system helped to mitigate harm.

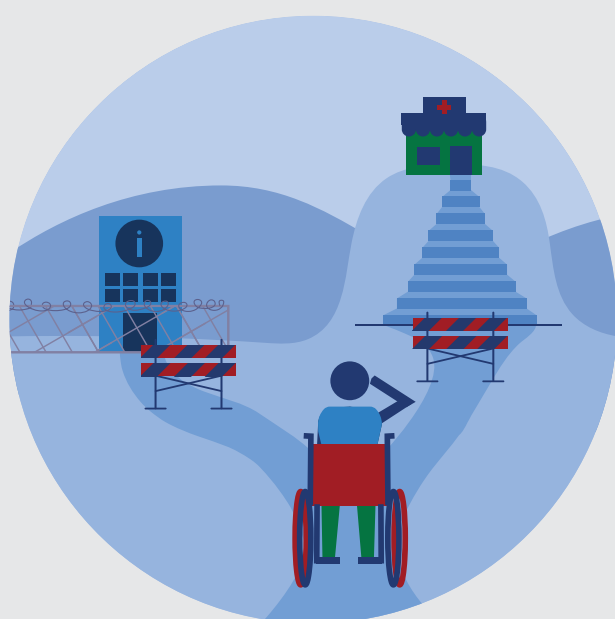


Recommendations

- Proactive plans to address potential negative consequences for children should be in place.
- Essential maternal and child health services should be protected.
- A whole-of-society approach should be invoked to harness care, support and protection platforms for children and families.
- Multi-level, child-centred, intersectoral teams should be established to co-ordinate government and civil society efforts.
- Child protection services should be classified as essential services.

Experiences of vulnerability of people with disabilities during COVID-19 in South Africa

Lieketseng Ned, Emma Louise McKinney, Vic McKinney, Leslie Swartz



People with disabilities experience significant feelings of vulnerability as a result of COVID-19 measures which are not disability-inclusive.



The aim

To explore the experiences of vulnerability and the impact of COVID-19 on people with disabilities in South Africa



Key findings

- Vital disability-specific health services were not regarded as 'essential services', thus placing people with disabilities at heightened risk.
- While some relied on delivery of medication through public health and non-governmental services, this support was not provided to everyone.
- Sign language interpretation services, assistive devices and technology services maintenance, rehabilitation services, and therapeutic and developmental interventions were not regarded as essential and so were not always available.
- There was limited availability of disability-specific information on COVID-19, leaving many people with disabilities and their caregivers with scant knowledge on how to protect themselves.

As a result, people with disabilities experienced heightened fears and anxiety about contracting the virus, contributing to poor mental health.



Recommendations

Additional efforts are needed to ensure that people with disabilities are not an afterthought in pandemic responses. This requires meaningful consultation with people with disabilities.

Mental health experiences of public psychiatric healthcare workers during COVID-19 across southern Gauteng, South Africa:

a call for strengthening public mental health care

Andrew Wooyoung Kim, Kagisho Maaroganye, Ugasvaree Subramaney



Without major and expeditious policy action towards improving public mental health, South Africa awaits yet another mental healthcare catastrophe in the wake of the COVID-19 pandemic.



The aim

To examine the impacts of the COVID-19 pandemic on the public psychiatric care system among a sample of hospital staff working in psychiatric wards across three tertiary academic hospitals and two specialised psychiatric facilities in the southern Gauteng area



Key findings

We found elevated rates of psychiatric morbidity among hospital staff. We also identified strong associations between healthcare-related stress during Levels 3 to 1 of the lockdown and worsening symptoms of depression, anxiety, and post-traumatic stress disorder. We also found salient experiences of fear and COVID-19 infection risk, acute resource shortages, and long-term healthcare infrastructural constraints. These circumstances undergirded and exacerbated harmful conditions that posed major threats to patient care, impaired occupational health services, and compromised each hospital's capacity to overcome the pandemic.



Recommendations

Initiatives to improve staff psychological wellbeing and mitigate burnout should be implemented. Hospital preparedness for future healthcare emergencies should be maximised, and challenges to service delivery in the public mental healthcare system should be addressed.

The impact of COVID-19 on Occupational Therapy services in Gauteng Province, South Africa:

a qualitative study

Kitty Uys, Daleen Casteleijn, Karin van Niekerk, Raashmi Balbadhur, Jenna d'Oliveira, Henry Msimango



The impact of COVID-19 on healthcare services has been widely reported, but there is limited information available on the impact of the COVID-19 on Occupational Therapy services in South Africa.



The aim

To report on the impact of COVID-19 on rehabilitation services and programmes in public and private health care as delivered by occupational therapists (OTs)



Key findings

Our findings show that the COVID-19 pandemic has had a far-reaching influence on the practice context, service-users, as well as OTs themselves. The practice context refers to environmental factors that influence both the OT and the service-user, and therefore affect rehabilitation services. COVID-19 has influenced the practice context in different ways, depending on the healthcare service setting.



Recommendations

Recommendations include the listing of Occupational Therapy rehabilitation services as essential in times of a pandemic. Better health and social support to vulnerable populations should be established, as their challenges escalate during COVID-19. A follow-up study to investigate the post-COVID-19 impact on all rehabilitation healthcare workers is also indicated.

Research ethics support during the COVID-19 epidemic:

a collaborative effort by South African Research Ethics Committees

Theresa M. Rossouw, Douglas Wassenaar, Mariana Kruger, Marc Blockman, Alistair Hunter, Theresa Burgess



For results to have maximum impact and relevance in a public health emergency, ethics review and approval must be rapid and timeous, without compromising rigour and quality of review.



The aim

To outline the processes and mechanisms introduced by a spontaneous, informal, ad hoc group or research ethics chairpersons and members, termed 'Research Ethics Support in COVID-19 Pandemic' (RESCOP), in the interest of responsible and accountable, but rapid, ethics review during the COVID-19 pandemic



Key findings

South African legislation mandates that no health research may be conducted without approval from a registered research ethics committee. For results to have maximum impact and relevance in a public health emergency, ethics review and approval must be rapid and timeous, without compromising rigour and quality of review. South African research ethics committees were under-prepared for this task, largely due to gaps in national ethics guidance and the critical absence of the National Health Research Ethics Council. As a consequence, and in an unprecedented initiative, RESCOP arose as a needs-based network of Research Ethics Committees to support and advise each other in meeting the country's urgent research needs in an ethically sensitive, innovative, but guideline-compliant and responsible way, without compromising review thoroughness or diligence, but minimising avoidable administrative delays.



Recommendations

The processes established by RESCOP can serve as a good-practice model for ethics review in future public health emergencies that could be adopted and adapted by other committees and future versions of national research ethics guidelines.

Reflections on the health system response to COVID-19 in the Western Cape Province

Krish Vallabhjee, Lucy Gilson, Mary Ann Davies, Andrew Boulle, David Pienaar, Gavin Reagon, Hassan Mahomed, Simon Kaye, Saadiq Kariem, Keith Cloete



Building organisational fitness and resilience through everyday challenges is critical for emergency preparedness and for health system strengthening.



The aim

To present the experience of and learnings from the COVID-19 response in the Western Cape, so as to encourage wider reflection on surveillance and planning, health services response, corporate support services, and leadership and governance



Key findings

- Government can be agile and responsive to shocks.
- The WCG:H response was underpinned by decisive stewardship, using routine information, emerging evidence and digital technologies to do business differently.
- Distributed leadership and decentralised approaches enabled local responsiveness, with deft development of inter-disciplinary and cross-functional mechanisms for rapid decision-making and a culture of learning and constant improvement.
- It is critical to strengthen the health system by building organisational fitness and resilience through collaborative relationships, flexibility and the ability to learn, improve and adapt, both to manage everyday challenges and in preparation for extraordinary adverse events.



Recommendations

Areas for future improvement of the health platform include strengthening community connectedness, managing 'policy overload' on frontline managers, and empowering middle management.

Intersectoral collaboration before and during the COVID-19 pandemic in the Western Cape:

implications for future whole-of-society approaches to health and wellbeing

Helen Schneider, Ida Okeyo, Alheit du Toit, Beth Englebrecht, Leslie London, Elizabeth Pegram, Gavin Reagon, Keith Cloete



As the 'universal recipient' of failing societies, the health sector has a particular responsibility to advance whole-of-society approaches to health and wellbeing through intersectoral collaboration.



The aim

To document forms of intersectoral collaboration that emerged in the Western Cape Province in response to the COVID-19 pandemic, and the lessons and opportunities that these experiences offer for health and wellbeing



Key findings

- The interdependencies created by the COVID-19 pandemic catalysed a range of collaborative relationships across governmental sectors and levels.
- These can be leveraged for future intersectoral action on health and wellbeing.



Recommendations

- Intersectoral collaboration is enabled by collaborative governance structures, common information systems and joint processes of learning.
- A shared purpose, trust relationships and a willingness to overcome silos in sectoral functioning are also key.

Leveraging Community Health Workers for intensified case-finding: experience from South Africa's COVID-19 response

Lindiwe Madikizela, Marang Matlala, Ofentse Mosikare



The Community Screening and Testing programme has provided evidence that Community Health Workers play a crucial role in undertaking community-based activities to address behaviour change, case-identification, and referrals for testing and linkage to health facilities.



The aim

To analyse the implementation of Community Screening and Testing as a strategy for identifying positive COVID-19 cases within community settings, with a focus on the role of Community Health Workers (CHWs).



Key findings

A comparison of active and passive case-finding was used to illustrate the impact of assigning CHWs to conduct COVID-19 screening in the community. It was found that the implementation of targeted screening activities was effective in identifying a higher yield of positive COVID-19 cases, while also integrating health services to ensure continuity of services during a pandemic.

The re-allocation of CHWs to COVID-19 activities had a negative impact on the provision of routine services.

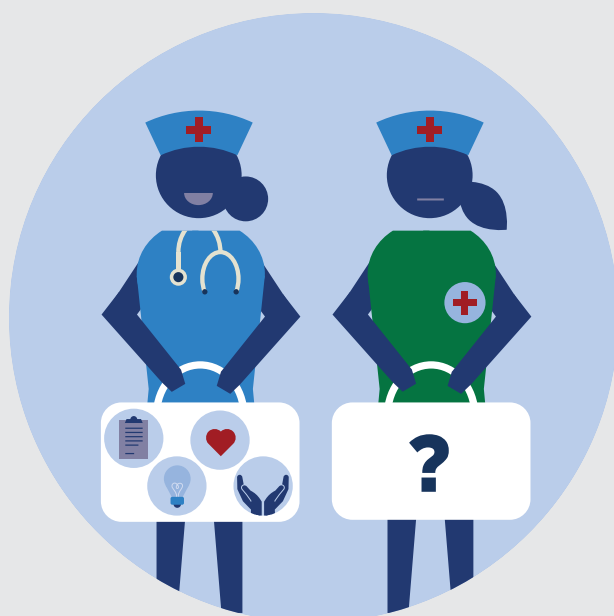


Recommendations

- CHWs should be paired with Primary Health Care nursing personnel to increase efficiencies in household screening interventions.
- The absence of standardised data collection and reporting processes, which hinders immediate decision-making for outbreak response teams, should be addressed.

Self-management skills may be key to helping Community Health Workers cope amid the COVID-19 pandemic

Levona J. Johnson, Josè M. Frantz



Self-management is a key skill that can be used by healthcare workers to manage the daily stress of work and the environment.



The aim

This chapter explores and describes how Community Health Workers have coped during the pandemic and whether the skills learnt in a self-management training programme assisted in managing themselves and others during the pandemic.



Key findings

Five themes emerged: during COVID-19, spirituality became a coping strategy that has been tapped into by many healthcare workers; communities of practice were deemed important when carrying out their duties; self-care for healthcare workers is important if they are to be maximally available for their job demands; taking action in their daily work tasks and demonstrating good adaptation skills were positively influenced by the self-management programme; and improved self-efficacy enabled healthcare workers to demonstrate better coping skills.

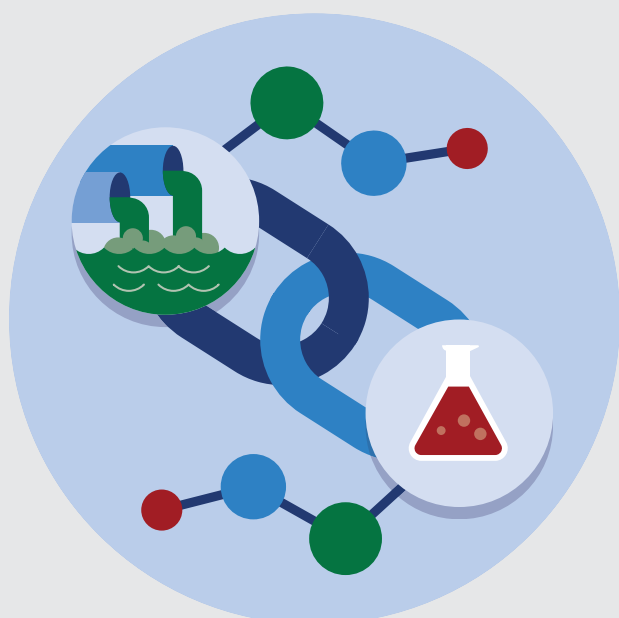


Recommendations

Self-management skills have proved to be very valuable in empowering Community Health Workers to cope during the pandemic by facilitating their professional and personal resourcefulness and resilience. Providing Community Health Workers with these skills should be promoted as they sustain their contribution to supporting the COVID-19 response.

The SACCESS network for COVID-19 wastewater surveillance: a national collaboration for public health responsiveness

Lynn Bust, Natacha Berkowitz, Edward Archer, Mary-Ann Davies, Wolfgang Preiser, Renée Street, Melinda Suchard, Leslie London



The agility of the SACCESS network in the context of the COVID-19 crisis enabled its formation and response to challenges in a short space of time.



The aim

This qualitative case study aimed to describe the formation and development of a national wastewater surveillance network, the South African Collaborative COVID-19 Environmental Surveillance System (SACCESS) network, during the public health emergency of COVID-19. The study explored the lessons drawn from the SACCESS experience in terms of network governance and bottom-up collaboration, for application to health system strengthening.



Key findings

Thematic analysis of key informant interviews identified four main themes: 'factors that enabled network formation in the time of COVID-19'; 'the importance of relationships', 'strengths and challenges of an informal network', and 'lessons for building health systems'. The scale of the pandemic brought a sense of unity against a common problem which enabled network formation. The informal and interdisciplinary nature of the network was key. Individuals, not institutions, were important in an environment in which relationships were established and trust was built. Some challenges and potential conflict did arise as the network developed.

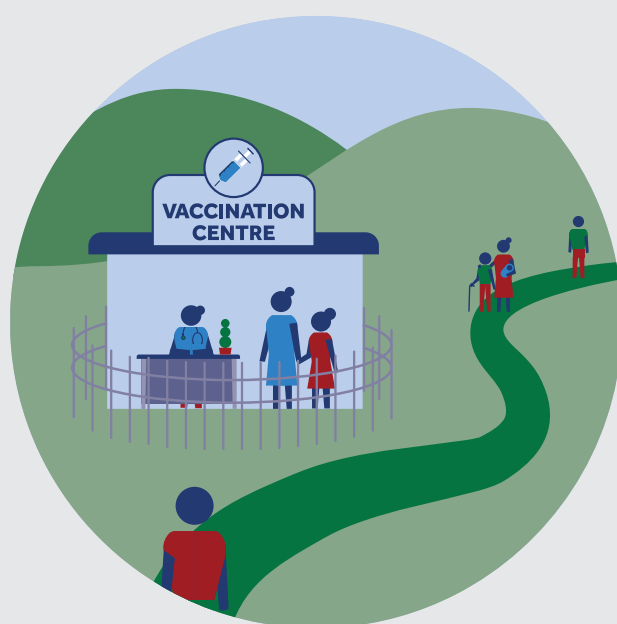


Recommendations

The study provides lessons for the role of networks in health system strengthening for COVID-19 and beyond, including the importance of informality, and bottom-up collaborations. It shows that as a network evolves, network governance can be flexible, which can benefit both network and health system goals. There should be a recognised role for and focus on informal networks in health system strengthening.

Left behind: why South Africa must develop migration-aware responses to COVID-19 and future pandemics

Thea de Gruchy, Jo Vearey



South Africa should see COVID-19 as an opportunity to improve health systems and pandemic preparedness plans, ensuring that these are migration-aware.



The aim

To outline how the exclusion of migration and migrants (both citizens and non-citizens) from COVID-19 response – including vaccine programming – negatively affects health for all in South Africa



Key findings

The pandemic – and responses to it – have led to: amplification of existing structural challenges faced by migrants; manifestation of new challenges; justification of increasingly restrictive approaches to immigration management; and undermining of efforts towards universal health care.



Recommendations

A firewall that provides legal protection for undocumented persons should be implemented. Vaccine registration systems should not exclude those without a South African identity document and doses should be accessible in different locations. Work with migrant communities is required to provide accurate information about the COVID-19 vaccines and how to access them. A 'score-card' to guide the development and implementation of a migration-aware response to COVID-19 should be created. A National Migration and Health Policy and Action Framework and an inter-sectoral National Migration and COVID-19 Task Team should be established. Health authorities should ensure that National Health Insurance implementation does not limit access to healthcare for non-citizens.

Providing health services for farm workers during COVID-19:

a case study of an NGO in a rural agricultural area

Nirvana Pillay, Nancy Coulson



Hlokomela provided four types of outreach activities: provision of personal protective equipment; workplace and community screening services; training and awareness activities; and distribution of food.



The aim

To show how the Hlokomela health service, a non-governmental organisation (NGO) in rural agricultural Limpopo, responded to the COVID-19 pandemic by providing health and other social services while farming, as an essential service, continued during the most restricted phase of national lockdown



Key findings

Hlokomela responded quickly in a health crisis through leveraging established relationships and networks to address health gaps that arose for farmworkers, farm employers and the wider community. They mediated the weaknesses in the government's COVID-19 response by providing four types of outreach activities: provision of personal protective equipment; workplace and community screening services; training and awareness activities; and distribution of food.



Recommendations

- Relationship-building and networking is necessary for rapid system change in local-level responses to emergencies.
- The COVID-19 epidemic revealed the value of partnership between the State, the private sector and an NGO to meet health needs in an agricultural region.
- Health promotion capacity is essential in agricultural regions. Trained Community Health Workers should be stationed on commercial farms to reach farmworkers.

Towards Housing First and harm reduction: addressing opioid dependence and homelessness in Tshwane during the COVID-19 pandemic

Andrew Scheibe, Natasha Gloeck, Edith Madela-Mntla, Wayne Renkin, Shaun Shelly, Sasha Lalla, Lorinda Kroukamp, Stephan de Beer, Jannie Hugo



People need a home, social connections and access to evidence-based interventions to achieve health. A national policy on homelessness should be developed, funded and implemented.



The aim

To present lessons learnt from the application of principles of Housing First and harm reduction for people experiencing homelessness in Tshwane (South Africa) between April 2020 and March 2021



Key findings

The COVID-19 pandemic and the related response brought to the fore the health and social issues affecting people experiencing homelessness in Tshwane. Clear, supportive policy and a dedicated budget are required for municipalities to move towards addressing homelessness. Processes must continue despite changes in political leadership or fresh emergencies. The benefits of opioid substitution therapy in shelter settings were demonstrated. Stakeholders are keen to learn more about harm reduction and for effective responses, the principles of harm reduction should be institutionalised. The model for integrated healthcare and harm reduction services at shelters was tested, and shows promise, but requires resources. The high cost of methadone and unmet demand for opioid substitution therapy among the homeless population in Tshwane remain unresolved.



Recommendations

National and local policy on homelessness should be developed, funded and implemented. These policies should be informed by additional research, developed in partnership with affected populations and built upon a common understanding of Housing First and harm reduction.

Supporting early childhood development during COVID-19 using telehealth: stakeholders' perspectives

Jeannie Van der Linde, Renata Eccles, Maria du Toit



Telehealth, as part of a proposed hybrid approach to service delivery, appears to be a medium to deliver functional, person-centred developmental care to reduce the cumulative effect of risks to ECD.



The aim

To explore the feasibility of early developmental telehealth through caregiver and student-clinician stakeholders' perspectives



Key findings

Almost all the caregivers (96.7%, $n=29$) rated their overall tele-assessment experience as positive, and identified tele-assessment as a viable assessment mode; however, 53.8% ($n=14$) indicated that they would prefer face-to-face assessments to supplement tele-assessments. Caregivers and student-clinicians found tele-intervention a viable approach to service delivery, although they were initially apprehensive. When probing caregivers' perspectives of the tele-assessment and -intervention formats, the need for a hybrid approach was identified.



Recommendations

Future research should determine the efficacy of the hybrid approach to service delivery for developmental delays to improve access to developmental care during the COVID-19 pandemic, including in the fields of speech-language pathology, occupational therapy and behavioural play therapy. Stakeholders' perspectives should continue to be gathered to inform future policy and clinical decision-making regarding telehealth.

Intellectual property barriers to access to COVID-19 health products in South Africa

Yousuf Vawda, Catherine Tomlinson, Andy Gray, Leslie London, Lauren Paremoer



While South Africa has shown admirable leadership at the World Trade Organization, the government has stalled on tabling amendments to the Patents Act 57 of 1978 that would facilitate improved access to vaccines and other health products.



The aim

To understand how intellectual property barriers affect the availability of and access to vital health products necessary for the COVID-19 pandemic response, with recommendations for eliminating or mitigating these barriers



Key findings

'Vaccine nationalism' is causing global supply shortages.

Manufacturers of vaccines and other health products persistently refuse to share their know-how and technology.

A late start to the vaccine roll-out and the delay in amending South Africa's patent laws are among several failures by government.



Recommendations

The severely strained health infrastructure must be addressed.

Corruption in procurement contracts and distribution must be eliminated.

A Bill to amend the Patents Act, aligned with Government's 2018 intellectual property policy, should be tabled.

Trends in COVID-19 public health intervention adherence and vaccine hesitancy in South Africa: 2020–2021

Timothy Köhler, René English, Carmen Christian



As the national vaccine roll-out ramps up, government ought to continue with accurate, continuous, and targeted communication surrounding the importance of COVID-19 public health interventions.



The aim

This chapter uses microdata from a nationally representative survey conducted during the COVID-19 pandemic in South Africa to analyse trends in public health intervention (PHI) adherence (such as mask-wearing and hand hygiene), PHI-related attitudes, and vaccine hesitancy during 2020 and 2021.



Key findings

We observed a large increase in mask-wearing prevalence from just 53% of adults in May/June 2020 to 83% in April/May 2021. Conversely, hand hygiene decreased over the same period (67% to 48%), whereas staying home and physical distancing adherence remained relatively low. In high-risk groups, including the hypertensive, obese, those with chronic conditions, and 60+ years adult sub-populations, mask-wearing prevalence increased substantially. We also document an increase in vaccine acceptance in 2021 and show that related beliefs are not time-invariant.



Recommendations

South Africa has done well to communicate the importance of and enforce the wearing of face masks, physical distancing, and hand hygiene. However, while the national vaccine roll-out continues and until vaccine coverage rates can assure population-wide protection, PHI adherence must continue to be one of government's primary tools in minimising the extent of COVID-19 infections and related morbidity and mortality.

Perceptions of persons with disabilities on the COVID-19 vaccine roll-out in South Africa

Tim G.B. Hart, Yul Derek Davids, Mary Wickenden, Yamkela Majikijela, Mercy Ngungu, Stephen Thompson



Equitable access to health care for persons with disabilities should be ensured during the pandemic, including access to vaccines. Mainstreaming and awareness of disability must become non-negotiable at all health facilities, including ensuring that accessible communication is provided in diverse formats.



The aim

To examine perceptions of persons with disabilities' experiences during the COVID-19 pandemic about challenges with care services, pandemic communication and Government's disability-inclusiveness regarding demand for and access to the COVID-19 vaccine



Key findings

The circumstances of persons with disabilities and their specific needs, such as communication and care providers, have worsened during the pandemic. There is insufficient awareness of those urgently needing the vaccines as they are at risk of serious health problems if infected. Ensuring that the Disaster Management Framework is disability-inclusive is a critical requirement.

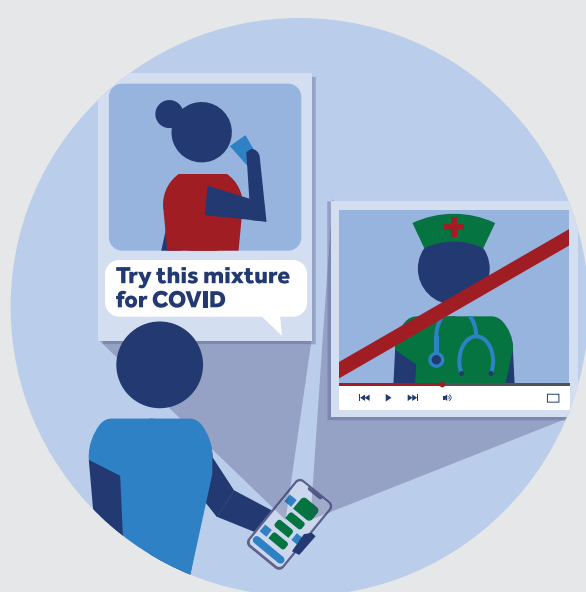


Recommendations

- Monitoring of the diverse needs of persons with disabilities during and beyond the pandemic should be enhanced.
- Equitable access to healthcare should be ensured for persons with disabilities during the pandemic, including vaccine roll-out and disability mainstreaming and awareness at health facilities.
- Improved identification of and contact with particular at-risk groups is needed to ensure that the most vulnerable, including persons with disabilities, are prioritised and accommodated for vaccination.
- Improved partnerships must exist between the government and disability support organisations to enable a strong flow of relevant accessible information, support and services to those who need them during disasters, and to ensure that the National Disaster Management Centre urgently finalises its risk management framework for persons with disabilities.
- Post-COVID-19 recovery plans should incorporate an explicitly disability-inclusive focus.

“Even if I’m well informed, I will never get it”: COVID-19 vaccine beliefs, intentions and acceptability among adolescents and young people in South Africa

Lesley Gittings, Marisa Casale, Natasha Kannemeyer, Nokubonga Ralayo, Lucie Cluver, Jane Kelly, Carmen Logie, Elona Toska



Vaccine hesitancy among AYP and their social networks, if not addressed, may undermine the effectiveness of the COVID-19 response in South Africa.



The aim

To explore COVID-19 vaccine-related beliefs, intentions, and acceptability among adolescents and young people in South Africa, highlighting potential barriers and enablers of vaccine acceptability and uptake among adolescents and young people in Africa, and implications for initiatives aimed at increasing informed COVID-19 vaccine uptake in this population group



Key findings

Reasons provided for reluctance to use vaccines include: mistrust of government and scientists, perceptions of low vulnerability to illness, conspiracy-related beliefs, fear of injections and potential side-effects, and a preference for non-biomedical remedies. Themes identified as enablers to vaccine acceptability were protection from COVID-19 and concern for the wellbeing of elderly caregivers. Potential enablers of vaccine acceptability and uptake include: receiving information from trusted sources, the desire for safety, perceived vaccine effectiveness, and observing the safe uptake among trusted people such as peers and family members.



Recommendations

A multi-dimensional approach aimed at addressing perceptions of low vulnerability to disease, mistrust and the perceived effectiveness and safety of vaccines is required. Ensuring accurate information from trustworthy sources, meaningfully engaging with traditional health practitioners, developing family- and peer-based initiatives, and building trust in government and international health infrastructure may support vaccine uptake, thus strengthening social and health outcomes for South Africa's next generation.

Health and related indicators 2021

Noluthando Ndlovu, Candy Day, Andy Gray, Jacob Busang, Linda Mureithi



COVID-19 hastened the development of new or improved health information systems or modules to track health system inputs and responses.



The aim

To provide a repository of data describing the broad status of the South African health system using health status, health service and socio-demographic indicators, with a particular focus on how COVID-19 has affected the provision of health care



Key findings

- COVID-19 has had a negative impact on health systems throughout the country and has resulted in many collateral impacts on other aspects of health service delivery and outcomes.
- Community Health Workers have been a vital cadre in the response to COVID-19 and in mitigating disruptions to health service delivery.
- The COVID-19 epidemic hastened the development of new and improved health information systems to track the disease and health system inputs and responses.
- Longer-term impacts are expected due to disruption in services for both communicable and non-communicable diseases.



Recommendations

As South Africa transitions from a pandemic response to managing COVID-19 as an endemic disease, a key task will be to retain what is most useful in health information systems and other innovations, and to ensure that these continue to contribute to the unfinished agenda of universal health coverage.