

Case study: Leveraging the 4th Industrial Revolution to Prepare and Respond to the COVID-19 Pandemic – Namibia's Experience



**44th African Association of Public
Administration and Management, 06-09
December 2022, Cape Town, South Africa**

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Presentation Outline

- Background

- COVID-19 in Namibia

- 4IR and COVID-19 response

- Lessons Learned

- Challenges and Gaps

- Conclusion & Recommendations



Country Profile

- Population: 2.55 million population
- Surface Area: 825,418 km²
- Youthful population; About 40% of the population is under 15 years of age
- Population density: 3 people per sq. Km
- Rural population remain underserved

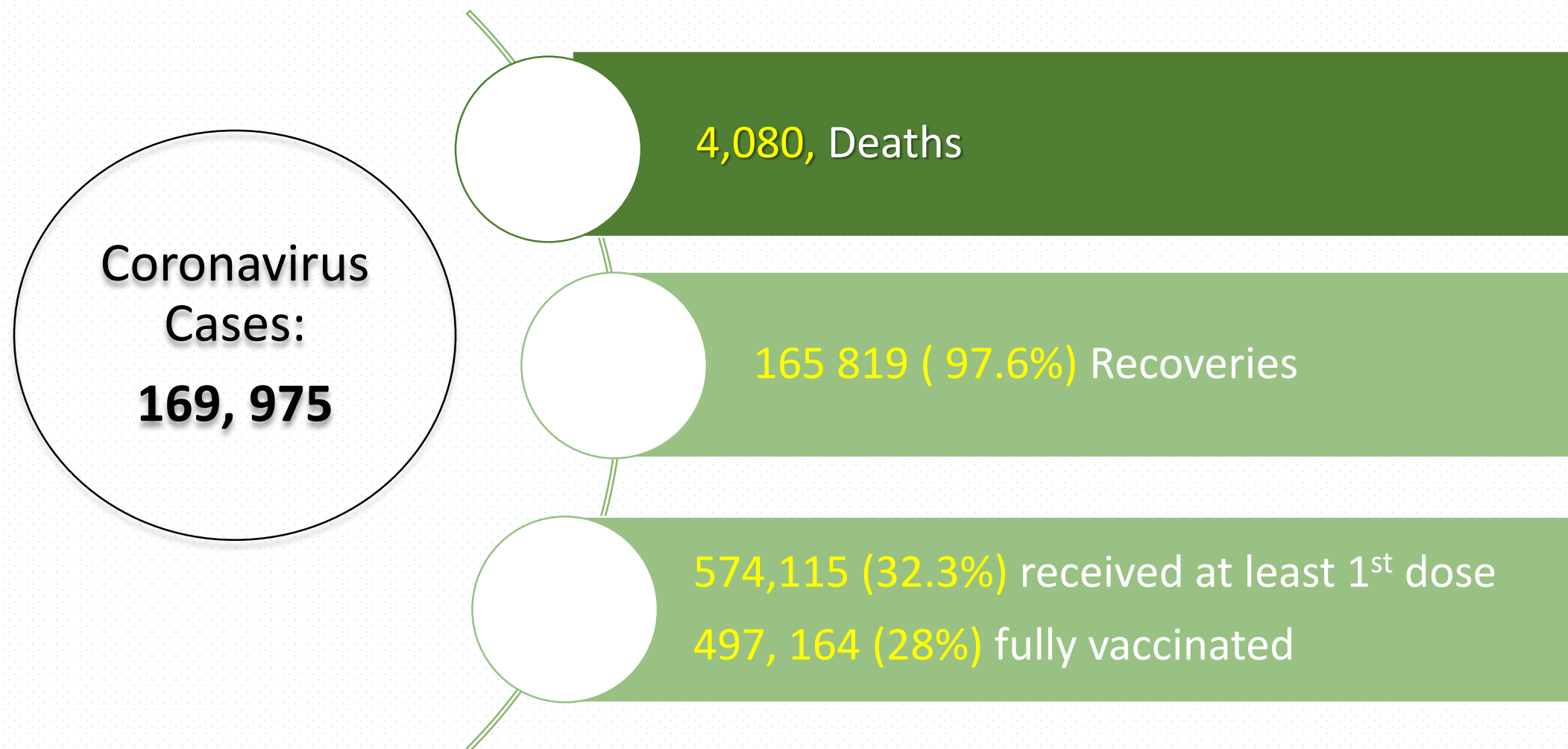
Legal Framework

- International Health Regulations, 2005
- Public Health Environment Act 2015
- Electronic Transaction Act, 2019
- eHealth Strategy – 2021
- IT Policy for the Public Service

ICT environment/Mobile infrastructure

- Relatively stable telecommunication backbone with fibre, mobile towers, fixed broadband, grid online West Africa Cable system (WACs) and Equiano landing cables
- 97% Broadband Coverage
- 51% internet penetration of the total population
- Stable and uninterrupted electricity supply

COVID-19 in Namibia – Update, 15 November 2022



COVID-19 National Preparedness & Response



Pillar 3: Surveillance, Rapid Response Teams, and Case Investigation

Use of technological innovations that support surveillance, testing, and contact tracing activities

Digital COVID-19 dashboards were developed in collaboration with local institutions of higher learning such as NUST

Digital technologies were used to understand COVID-19 Epidemiology by triangulating cases from data systems such as DHIS 2, Go.Data and GIS

Pillar 5: National Laboratories;

The MoHSS collaborated with local mobile telephone service providers to facilitate the notification of COVID-19 test results to concerned individuals through the short message service (SMSes)

Digital COVID-19 dashboards were updated routinely with information on laboratory testing; shared with stakeholders.

The use of genome sequencing capacity to study and identify emerging variants of SARS-COV2

Partnership with private laboratories created an opportunity to increase testing coverage, using the latest Gene Xpert Polymerase-chain reaction (PCR) technology, which shortened turnaround times.

Lessons Learnt

- Redefined value of Whole-of-Government Approach and Multi-Sectoral Coordination
- The country's youthful population: our greatest resource to drive technological innovations and entrepreneurship for the 4th Industrial Revolution
- Access to digital technologies enabled seamless communication between national and sub-national levels
- Social media platforms remain essential in debunking myths and stigma associated with COVID-19 infection and vaccination

Challenges & Gaps

- Fragmented ICT systems and platforms hampered the response efforts of the pandemic
- Lack of national standards and framework for data exchange
- Data management largely paper-based
- Inadequate education and training in manufacturing and 4IR technology skills
- Low R&D capacity and investment

Recommendations

- Create a Resurgence Plan to provide guidance, facilitate coordination, and mobilization of resources
- Strengthen cross-border surveillance by leveraging technologies that promote self-screening of travelers using automated voice or motion-triggered tools
- Establish cross-border digital communication hubs, that enables real-time information exchange on a traveler's vaccination status and alike
- Strengthen collaboration with Academia and Research Institutions to provide continuous research on digital interventions

Recommendations

- Develop 4IR Human Capacity through education reform
- Develop a National Consolidated 4IR Strategy to address the strategic priorities and provide policy guidance across different sectors
- Establish a cross-sectoral National 4IR Commission to eliminate fragmentation and duplication of institutional mandates, functions, activities and resource allocation
- Develop strategies to address existing digital divide & health inequities

Conclusions

- Leveraging digital technologies to respond to the pandemic was literally out of necessity to survive as opposed to a desire to explore untapped technological innovation
- The pandemic revealed opportunities to harness converging technologies to create an inclusive, human-centered future
- The country's youthful population serves as the greatest resource to accelerate 4IR adoption and capacity development

Thank you!