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NATIONAL WBE SURVEILLANCE INITIATIVE

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Sample design, testing, protocol improvements, analysis & sampling profile development

COVID-19 & Infectious diseases: Design, optimization, logistics, transmission, risk reduction, community resilience, data integration, governance, recovery, policy support

Phase 2: Pilot Scale Monitoring

Network monitoring of provincial hotspots (GT, KZN, WC, EC) & data validation

Phase 3: National Surveillance

Full scale national sewershed surveillance, data analysis and integration, National GIS, Heatmaps & National communication

THE EMERGENCY ROAD.....

A LOT ACHIEVED.....



- Detected SARS-CoV2 RNA in 98% of wastewater samples from upstream and downstream WWTW of prisons, hospitals, industries and mines

Positive gene amplification observed in environmental (NSS) samples – ie river water samples

WBE proven to be a useful complementary surveillance tool for management of COVID-19

Wastewater surveillance – cost effective, less invasive continuous screening approach

Correlation between increase in viral load and increase in case numbers with time

- Method efficiencies – Skimmed milk flocculation and $Al(OH)_3$ adsorption-flocculation cost effective and faster than PEG/NaCl precipitation;
- Built a robust collaborative platform of scientists, laboratories and WSIs
- VARIANTS
- MANAGING THE WAVES

THE COVID OPPORTUNITY.....

