

### WA Clinical Senate presentation

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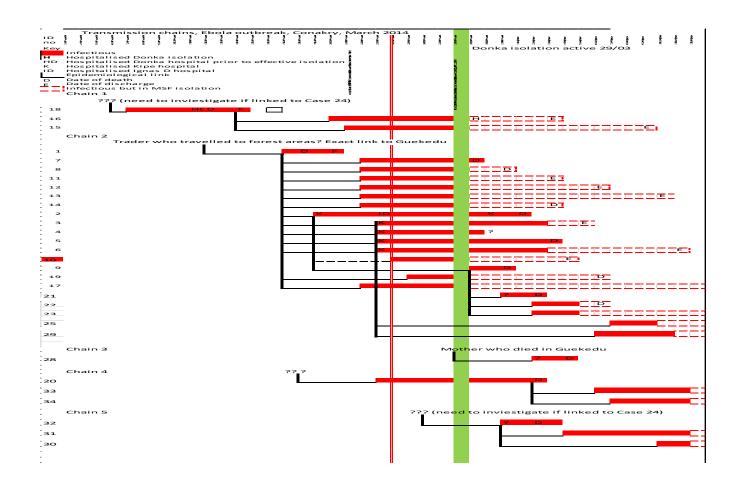
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### Lessons from low-resource settings

- Challenges: Limitations of curative health care system, lack of trust in authorities
- Challenge is an opportunity-Prevention
- Most important lesson- community engagement





"This is just the tip of the iceberg," she told her colleagues. "This is going to blow up." New York Times



## Community engagement

- Trust and reciprocity.
   Everything matters,
   everything influences
- Guiding partner vs 'empty vessels'
- Systems for real-time, responsive engagement





Lokuge et al. BMC Medicine (2021) 19:50 https://doi.org/10.1186/s12916-021-01934-5

#### **BMC Medicine**

#### RESEARCH ARTICLE

**Open Access** 

## Exit strategies: optimising feasible surveillance for detection, elimination, and ongoing prevention of COVID-19 community transmission



K. Lokuge\*, E. Banks, S. Davis, L. Roberts, T. Street, D. O'Donovan, G. Caleo and K. Glass

#### Abstract

**Background:** Following implementation of strong containment measures, several countries and regions have low detectable community transmission of COVID-19. We developed an efficient, rapid, and scalable surveillance strategy to detect remaining COVID-19 community cases through exhaustive identification of every active transmission chain. We identified measures to enable early detection and effective management of any reintroduction of transmission once containment measures are lifted to ensure strong containment measures do not require reinstatement.

**Methods:** We compared efficiency and sensitivity to detect community transmission chains through testing of the following: hospital cases; fever, cough and/or ARI testing at community/primary care; and asymptomatic testing; using surveillance evaluation methods and mathematical modelling, varying testing capacities, reproductive number (R) and weekly cumulative incidence of COVID-19 and non-COVID-19 respiratory symptoms using data from Australia. We assessed system requirements to identify all transmission chains and follow up all cases and primary contacts within each chain, per million population.

**Results:** Assuming 20% of cases are asymptomatic and 30% of symptomatic COVID-19 cases present for testing, with R = 2.2, a median of 14 unrecognised community cases (8 infectious) occur when a transmission chain is identified through hospital surveillance versus 7 unrecognised cases (4 infectious) through community-based surveillance. The 7 unrecognised community upstream cases are estimated to generate a further 55–77 primary contacts requiring follow-





National COVID-19 Health and Research Advisory Committee<sup>1</sup>

Date of report: 21 May 2020

#### Risks of resurgence of COVID-19 in Australia

#### **Focus**

The focus of this paper is on critical strategies to help mitigate the risks of resurgence of COVID-19 in Australia. This includes an approach for community engagement, monitoring and testing, particularly for vulnerable and hard to reach groups that are at higher risk.

This report is point in time and may need further review as more evidence and information is available, particularly on clusters and the transmission of new infections in Australia, and the scale and reach of public health measures.

#### Conclusions

Community engagement and communication of COVID-19 epidemiology and response

NCHRAC conclusion 1: Communications should reinforce the work the Australian public has done in responding to the pandemic and encourage ongoing engagement.



## Response to COVID

Outliers- unexpectedly good/unexpectedly bad

MAY 27 2020 - 12:00AM

Australia: a near miss?



Coronavirus: Murphy defends Australia's early virus modelling





## Challenges, opportunities

- Opportunity: community has acted
- Challenges- downside of success
- Risk- focus on technology, not engagement and implementation





## Necessity to act beyond health

## WHO: just 25 Covid vaccine doses administered in low-income countries

Director-general warns of 'catastrophic moral failure' if richer countries hoard treatment

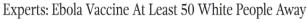
The ONION Experts: Ebola Vaccine At Least 50 White People Away

PNG could already have Covid vaccines if Australia and others had not blocked waiver, says MSF

Médecins Sans Frontières says Australia's opposition of intellectual property waiver probably hindered Pacific nation's pattle with Covid













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flawless Poetry Slam De

One month



## "Greatest opportunity to make a disproportionate improvement"

# Investments in broad-based prevention



## Thank you