Crowding and WASH infrastructure affect COVID risks in remote Indigenous communities

<u>Dr Nina Lansbury</u> (UQ School of Public Health; n.lansbury@uq.edu.au)

Dr Andrew Redmond (UQ Faculty of Medicine / Royal Brisbane and Women's Hospital)

Professor Paul Memmott (UQ School of Architecture)



The University of Queensland

AUSTRALIA

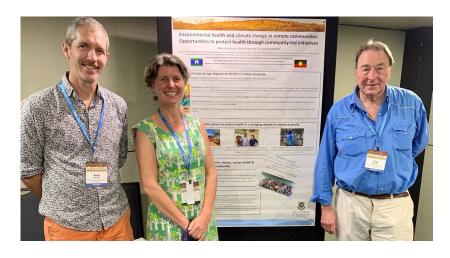


Photo (L-R): Andy Redmond, Nina Lansbury & Paul Memmott at the National Aboriginal and Torres Strait Islander Environmental Health Conference, Sept 2022





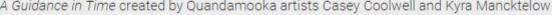
Acknowledgement of Country

We acknowledge the Traditional Owners and their custodianship of the lands on which we meet today.

We would like to pay our respects to their ancestors and their descendants, who continue cultural and spiritual connections to Country.

We recognise their valuable contributions to Australian and global society.





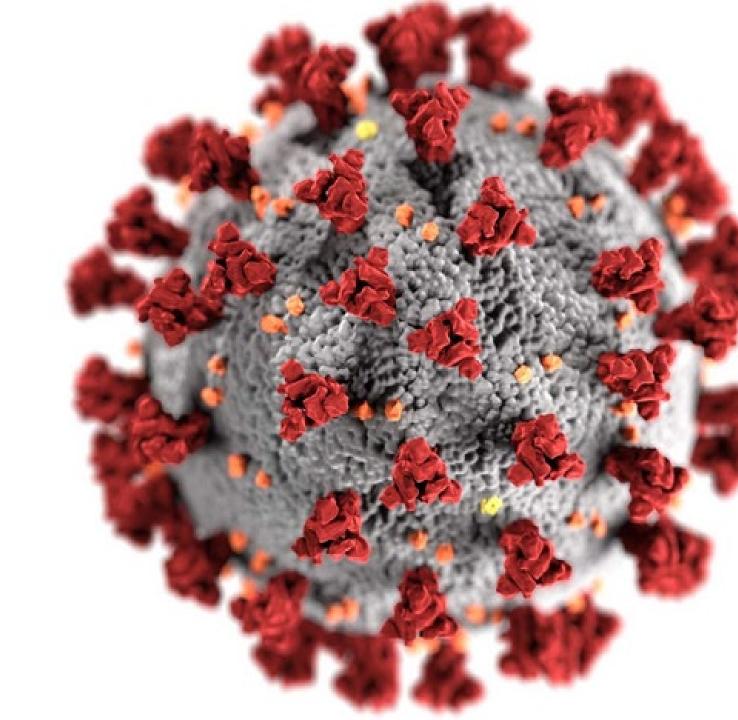


Key messages

- Early COVID success: remote Indigenous communities quarantined residents in 2020 to prevent COVID transmission.
- **COVID risks:** crowded housing and malfunctioning WASH infrastructure heightens risk of COVID transmission & other hygiene-related infections.
- Ongoing health risks: repeated acute infections set up the conditions for long term chronic conditions (eg group A Strep bacterial infections lead to chronic kidney disease and rheumatic heart disease).
- Need: new housing and regular repairs and maintenance (with adequate budgets) of WASH infrastructure are required in remote communities



An early COVID success story



Before COVID vaccines and treatment...







General Practitioner, Gurriny Yealamucka Health Service, Lecturer and Research Fellow, Australian National University



A swift decision to lockdown



Minimising

remote communities' exposure to Coronavirus: In addition to the National Management Plan, the Government is working to minimise the exposure of Coronavirus to remote and very remote communities. Access to these communities has been restricted to protect community members from the spread of Coronavirus. Those returning to communities will be required to self-isolate for 14 days in line with health guidelines.



Housing & WASH infrastructure in remote communities



Housing, crowding & infection:

Preventable pre-conditions for chronic disease

Project aims:

- Identify the relationship between infectious diseases & chronic diseases with housing maintenance and crowding
- Provide current data on this relationship

Data:

- Clinical diagnosis data
- Interviews with residents
- Focus groups with Anyinginyi Health & discussions with Julalikari Housing

Pilyii Papulu Purrukaj-ji

(Good housing to prevent sickness):

A study of housing, crowding and hygiene-related infectious diseases in the Barkly Region, Northern Territory



(Photo by Trisha Nururla Frank, 2019.

Nina Lansbury Hall, Paul Memmott, Samuel Barnes, Andrew Redmond, Carroll Go-Sam, Daphne Nash, Trisha Nururla Frank, and Patrick (Pepy) Simpson. February 2020.

https://espace.library.ug.edu.au/view/UQ:aed175a







Key findings: Crowding

- Many Indigenous Australians lease social housing because of barriers to individual land ownership in remote Australia.
- Insufficient social housing to meet the need.
- Much higher levels of crowding than officially recorded & higher in remote (34%) than urban (8%); up to 22 people in some houses.
- Crowding makes it difficult to follow health living practices such as washing bodies, clothes and bedding, and safe food preparation.

In one crowded house, a kidney dialysis patient and seven family members had slept in the yard for clinical care in town.



Key findings: Health hardware

- Crowding increases the likelihood of:
 - 'health hardware' breakdown (washing machines, hot water systems, working fridges etc)
 - infection transmission between people
- Repairs and maintenance are more expensive in remote areas and waiting periods are long.

One resident told us:

Year by Department of Housing, but no repairs or maintenance. They inspect doesn't happen'.

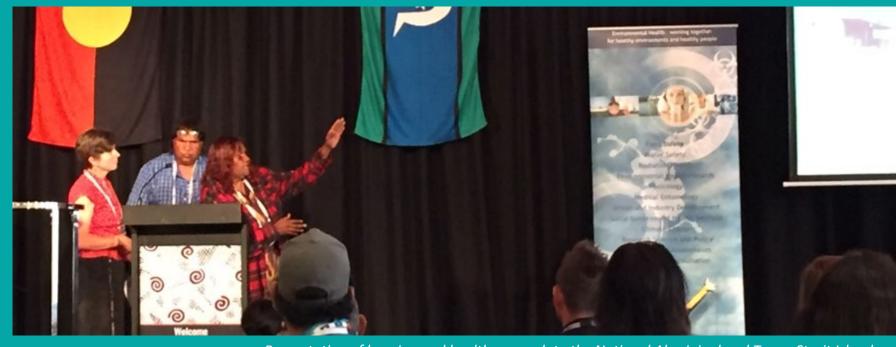


Key findings: Infection

- *High rates of preventable, hygiene-related infectious diseases* in communities and CLAs (town camps).
- Over half of the total infectious diseases were:
 - skin infections (boils, sores, scabies, school sores)
 - respiratory infections
 - ear, nose and throat infections
- Other notable diseases: conjunctivitis, gastroenteritis, rheumatic fever, trachoma, tooth decay
- Chronic kidney disease and rheumatic heart disease are the outcome of repeated infections (eg Group A Strep).



Going forward with WASH prevention of COVID & more



Presentation of housing and health research to the National Aboriginal and Torres Strait Islander Environmental Health conference 2019, Perth (R-L: Ms Patricia Frank, Mr Patrick Simpson & Nina Lansbury)

Top line messages on housing & health (& COVID risks)



People can secure appropriate, affordable housing that is aligned with their priorities and need

5,500 new houses are required by 2028 to reduce the health impacts of crowding in remote communities.

Remote Housing Review (ecu.edu.au) (2017)

Target

9a: By 2031, increase the proportion of Aboriginal and Torres Strait Islander people living in appropriately sized (not overcrowded) housing to 88 per cent.

9b: By 2031, all Aboriginal and Torres Strait Islander households:

- within discrete Aboriginal and Torres Strait Islander communities receive essential services that meet or exceed the relevant jurisdictional standard
- in or near to a town receive essential services that meet or exceed the same standard as applies generally within the town (including if the household might be classified for other purposes as a part of a discrete settlement such as a "town camp" or "town based reserve".)



The role of WASH & other health initiatives to prevent infectious & chronic disease in remote communities

- Laundry: for clothes and bedding
- Yard: lawn, bough sheds
- Showers: hot water & soap
- Ventilation: fans, windows
- Energy security: power cards for entire pilot
- Aboriginal health worker: visit homes to provide wound care
- Environmental health worker: arrange repairs, training, education

Lansbury, N., Memmott, P. & Redmond, A. (2023), Environmental health initiatives in the home to reduce Streptococcal A bacteria transmission: A Tennant Creek focus, Workshop background paper, The University of Queensland, Brisbane.

C-

Returning to the conference theme: SDG6 ambitions for WASH & COVID in remote communities



- **6.1** By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- **6.2** By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- **6.B** Support and strengthen the participation of local communities in **improving water and sanitation management**



Thank you & please stay in touch

Dr Nina Lansbury (UQ School of Public Health; n.lansbury@uq.edu.au)

Dr Andrew Redmond (UQ Faculty of Medicine / Royal Brisbane and Women's Hospital)

Professor Paul Memmott (UQ School of Architecture)

Acknowledgements: Many thanks to our research partners in Tennant Creek NT-especially Anyinginyi Health and Julalikari Housing



