

Design Concept Note

A community-based response to COVID-19 for trialling in Melbourne

Goal

To reduce the impact of COVID-19 in Melbourne.

Purpose

To demonstrate that a community-based initiative for the provision of prevention, detection, tracing, care and support can **effectively increase uptake and timeliness** of the COVID-19 **public health** response by the state government.

Objectives

1. To establish clear mechanisms and partnerships to help individuals to manage the impact of COVID-19 and reduce unintended health, social and economic impacts.
2. To reduce the time between the onset of symptoms and testing for SARS-CoV-2 through increased demand and access to testing.
3. To reduce the time between testing, receiving positive test results and the delivery of care and support for people and their contacts who are required to isolate/quarantine.
4. To reduce the time from diagnosis to initiation of contact tracing (tracing delay and cluster outbreak management).
5. To implement and monitor key process indicators that measure effective implementation and allow for early corrective action.
6. To implement a governance model that ensures that community perspectives are central to the response and guide interventions.



Rationale

For many decades, the value of engaging with and involving communities has been a pillar of public health programs, including routine immunisation, disease control (e.g., tuberculosis, HIV and other sexually transmitted infections), maternal, neonatal and child health services, and epidemic responses (e.g., Ebola, polio, measles).

Incorporating insights and ideas from diverse communities is central for the cooperative model of public health, whereby health services and professionals work together with communities to plan, research, deliver and evaluate the best possible health promotion and health care services¹. Community participation is essential in the collective response to COVID-19, from adherence to lockdown measures, to the steps that need to be taken as governments ease restrictions, to community support through volunteering².

Pandemic responses (including COVID-19 so far), by contrast, have largely involved governments telling communities what to do, seemingly with minimal community input. Yet communities, including vulnerable and marginalised groups, can identify solutions: they know what knowledge and rumours are circulating; they can provide insight into stigma and structural barriers; and they are well placed to work with others from their communities to devise collective responses. Such community participation matters because unpopular measures risk low adherence. With communities on side, we are far more likely – together – to come up with innovative, tailored solutions that meet the full range of needs of our diverse populations.

One of the key initiatives that helped **South Korea** to contain SARS-CoV-2 transmission was engagement with local governments, which were involved through coordinating drive-in testing, care centres and housing facilities for patients who tested positive but did not display severe disease. The interplay between the central government, local government and their citizens was important in empowering individuals to feel like they were in charge.

The Massachusetts COVID-19 **Community Tracing Collaborative** (CTC), implemented by an experienced health NGO, employs around 1,600 workers in Boston and surrounding suburbs whose roles are divided in to three categories³.

- **Case investigators** quickly call people who have tested positive for the virus and interview them extensively about their contacts, beginning 48 hours before they first noticed symptoms.

¹ Marston C, Hinton R, Kean S. Community participation for transformative action on women's, children's and adolescents' health. Bull World Health Organ. 2016;94:376–382. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4857226/>

² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7198202/>

³ <https://www.newyorker.com/news/us-journal/can-coronavirus-contact-tracing-survive-reopening>

- **Contact tracers**, the largest group, call and/or visit each of those contacts, ask them to isolate at home for 14 days, and then follow up frequently, to make sure that they are doing so and to check for any symptoms
- **Care resource coordinators** are effectively social workers, appointed to help people solve problems – how to get food, access medical care, find a place to stay, or manage addictions – that might prevent them from being able to isolate themselves.

In this design concept, we do not propose a single provider as is the case in Massachusetts (Partners in Health), but rather a coalition of stakeholders, including DHHS, health service providers, community-based organisations, other service providers (e.g., AMES Australia, which is a leading provider of humanitarian settlement, education, training and employment services to refugees, asylum seekers and newly arrived migrants), employers/employees and unions.

The importance of prompt testing and efficient contact tracing in controlling transmission is highlighted in a paper published in *The Lancet Public Health* recently⁴. The authors evaluated the impact of timeliness and completeness in various steps of a contact tracing strategy using a mathematical model with explicit time delays between symptom onset, diagnosis by testing, and isolation (**testing delay**). The model also includes tracing of close contacts (e.g. household members) and casual contacts, followed by testing regardless of symptoms and isolation if testing positive, with different **tracing delays**.

The proportion of onward transmissions per index case that can be prevented depends on testing and tracing delays, and given a 0-day tracing delay (no longer than 24 hours), ranges from up to 80% with a 0-day testing delay (no longer than 24 hours between onset of symptoms and testing) to 42% with a 3-day testing delay and only 5% with a 7-day testing delay.

Equally important is engaging diverse local communities to implement effective behaviours that reduce virus transmission; which will in turn help to reduce the pressure and workload of contact tracing by limiting unnecessary exposures and focusing on services– including health services and aged care, food suppliers and outlets, housing and utilities, and transport. To gain and sustain community cooperation we need community engagement that bridges the gaps between communities, essential services and care and government. Mechanisms are needed at all levels of government to hear in real time from different communities – those doing well and why those are struggling to adhere to prevention efforts.

⁴ [https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(20\)30157-2/fulltext?utm_campaign=tlcoronavirus20&utm_content=134833523&utm_medium=social&utm_source=twitter&utm_channel=tw-27013292](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(20)30157-2/fulltext?utm_campaign=tlcoronavirus20&utm_content=134833523&utm_medium=social&utm_source=twitter&utm_channel=tw-27013292)

Rationale Summary

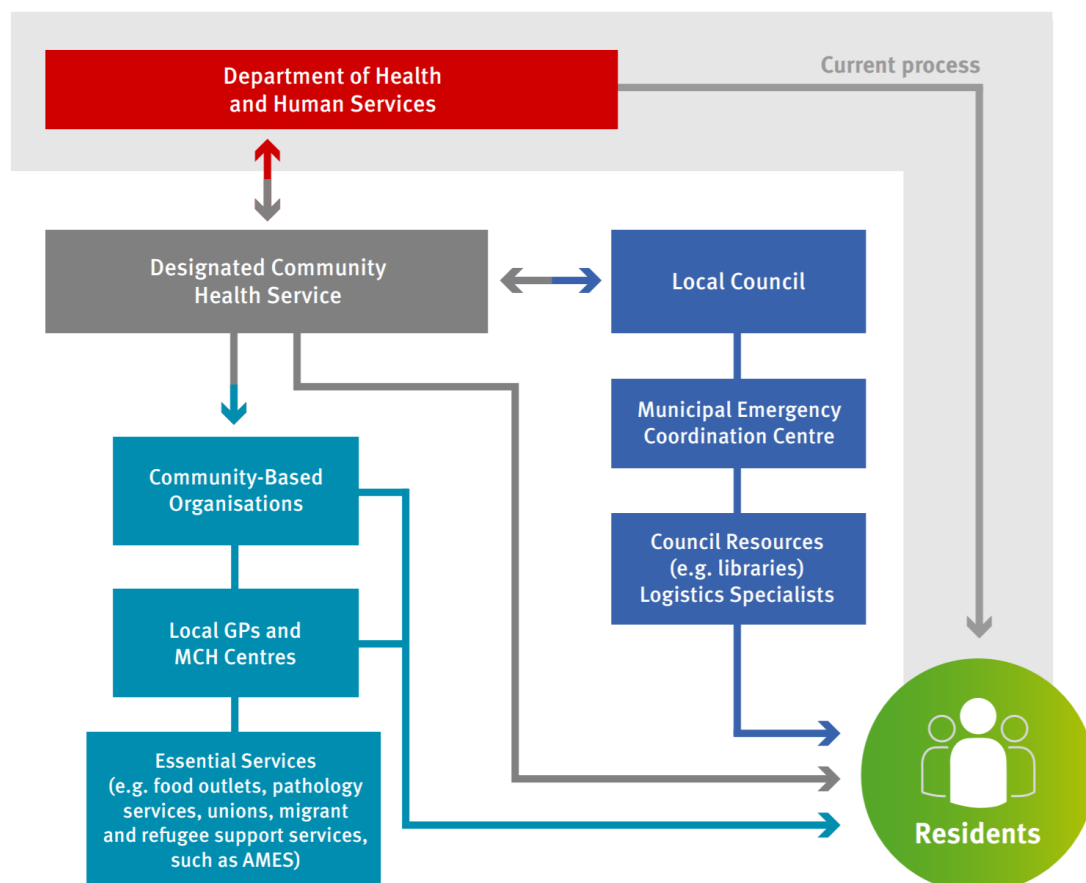
- Delegation of specific tasks to the local area and its community resources allows for more effective incident management, integrating all the required elements – epidemiology, contact tracing, community engagement, case management (especially if isolating with either no or mild symptoms) by establishing clear care pathways for positive cases, laboratories (if feasible), and logistics (including care support).
- This approach draws on an in situ workforce closely connected to local communities allowing better integration of a broader range of sectors, community resources and a more rapid and comprehensive whole of society response. This is more likely to enable care-at-home implemented by local community services and GPs as a feasible intervention.
- This offers a scalable and more sustainable strategy leading to probable improved performance indicators (especially related to the speed of testing, tracing, and isolation/quarantine).
- A delegated approach potentially frees up higher level governance, emergency planning operations, policy and strategy groups to focus on higher level concerns and planning.
- Partnership models will help to identify what interventions are required to support both the wider community and vulnerable groups to have the capability and motivation to cooperate with government pandemic response strategies and guidelines and the effective delivery of care and support services.

Governance and Collaborative Design

As the lead agency, the **Designated Community Health Provider** will convene a Design and Monitoring Committee (DMC) for their catchment area comprising the community health provider, a DHHS representative, LGA Municipal Emergency Coordination Centre staff, a local general practitioner, community-based organisation (CBO) representatives, a relevant logistics specialist, and a representative of the technical support agency. The role of the DMC will be to finalise the goal and objectives, provide detailed activities for each component (see below), assign roles and responsibilities, and develop a monitoring, evaluation and learning framework (MELF), with key measurable indicators for each component. In addition, the LGA council may choose to form a coordination committee that spans the entire local area including several community health services. This would be an internal coordination committee and not have the primary role of liaison with DHHS. That belongs to the designated community health provider.

Relationship Between Partners

Community-based response to testing, results, assessing resident needs and contact tracing



Model of care

- **Community Engagement:** Increase awareness and uptake of prevention behaviours, and access to testing and post-testing support services. Broad representation from the community sector via community leaders will help to improve coordination and identify delays in accessing testing and support.
- **Integrated Health Services Delivery:** COVID-19 detection and care functions are delegated to local level health providers – community health centres, primary care services and GPs, reporting to DHHS.
- **Local Government:** Plays a coordinating function within the local area and mobilises resources. Care and support are provided as close to people's homes as possible to increase access and utilisation of services.
- **Essential Business Services:** Engagement with the business sector to ensure supply chains of essential equipment and services to promote policies across the employment sector.



Components

Component 1

Establish clear mechanisms and partnerships to help individuals to manage the impact of COVID-19 and reduce unintended health, social and economic impacts.

- i. Identifying the most effective and relevant mechanisms and partnerships in each local area.
- ii. Public health messaging and COVID-19 preparedness planning with clear messaging to communities about mask wearing, hand washing and other preventive measures and the importance of timely testing, isolation and quarantine.
- iii. Engaging employers and employees to promote testing and isolation policies.
- iv. Promoting existing government packages available to support those accessing testing.
- v. Qualitative research to inform the messaging of health promotion activities for Component 2, which would document community attitudes to COVID-19, testing and prevention measures, such as physical distancing and face masks; barriers to adherence; and rumours. This function could be via, for example, the Burnet Institute's Optimise study, already designed and funded.

Previous epidemics illustrate the value of engaging with women when communicating about risks⁵:

- Increased responsiveness to women's voices.
- As primary caregivers to children, the elderly, and the ill, we must recognise and engage women in risk communication and community engagement.
- When we don't recognise gendered dynamics during outbreaks, we limit the effectiveness of risk communication efforts.
- Women's access to information on outbreaks and available services are severely constrained when community engagement teams are dominated by men.
- Tailoring community engagement interventions for gender, language, and local culture improves communities' uptake with interventions.

⁵ <https://interagencystandingcommittee.org/covid-19-how-include-marginalized-and-vulnerable-people-risk-communication-and-community-engagement>

Component 2

Reduce the time between the onset of symptoms and testing for SARS-CoV-2 through increased demand and access to testing.

- i. Health promotion with clear messaging to communities about the need to get tested as soon as symptoms occur. This will require a number of strategies, including materials in the languages commonly spoken in the local area, drop-in community information sites, and communication through CBOs, sporting clubs, etc. Other issues that cause testing delays that need to be addressed include:
 - Job security and avoidance of isolation requirements
 - Time delays in getting results – impacting on time of work
 - Inconvenience and limited preparation and planning by individuals
 - Unsafe workplaces with limited prevention so people are having to test and isolate repeatedly.
- ii. Locally appropriate testing facilities and laboratories with appropriate triage and management of testing demands across the network, such as was implemented in the northern and western suburbs at the beginning of this second wave.
- iii. The community health centre would need to be supported by DHHS to ensure quality assurance and that appropriate data collection protocols are adhered to. While the standard DHHS template to record information from each person tested should be used, attention should be paid to obtaining the most accurate information on the reason for being tested and how to contact the person being tested. Consent to share this information with service providers needs to be obtained.
- iv. It is important that the people doing the testing provide accurate information about what needs to happen next. This is the time to start a “personalised package” when the person may be at their most contagious. They need to go straight home – not via the shops, the school, a quick visit to their parents, the hairdressers etc. It is also the time to assess their acute needs – as well as organising for the care resource provider to be in contact for other ongoing needs.

Component 3

Reduce the time between testing, receiving positive test results and the delivery of care and support for people and their contacts who are required to isolation/quarantine.

While the pilot project will have little if any control over the turn-around time between testing and receiving results (although an arrangement with a local private laboratory should be explored), improved management and oversight of testing demands and capacities across the local network of testing facilities

and laboratories can help to reduce delays in testing results delivery through a local dashboard or communication platform.

- i. Utilising local dashboards and/or communication platforms between testing facilities and laboratories will help to minimise delays in returning results to individuals, by engaging local providers at the testing facilities to delivery results in the first instance.
- ii. A local dashboards and/or communication platform can also support rapid identification of newly positive cases within the local area through linkage with the DHHS public health event surveillance system and improvements to initiation of contact tracing by ensuring all personal information about cases is up to date.
- iii. A local dashboard and/or communication platform can also support enhanced contact tracing efforts and surge support by the local testing facilities and community health centres in the LGA.

The Massachusetts CTC, described above, employs case investigators who quickly call people who have tested positive for the virus and interview them extensively about their contacts, beginning 48 hours before they first noticed symptoms. Contact tracers call and/or visit each of those contacts, ask them to isolate at home for 14 days, and then follow up frequently, to make sure that they are doing so and to check for any symptoms. Experiences from other countries, including the Massachusetts CTC, demonstrate the need for contact tracers to be familiar with the communities where cases are identified, including an ability to communicate in the patient's first language. As noted above, **gender balance** in contact tracing teams is essential. The standard DHHS template for contact information should be used as well as the standard protocol for testing and isolating contacts. **The provision of post-testing care and support may need further resources from DHHS.**

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Component 4

Provide care and support for people and close contacts who are in isolation or quarantine to reduce unintended health, social and economic impacts.

- i. A local dashboard and/or communication platform used to return results to local service providers can then be utilised to rapidly identify positive cases and link them with community health centres that are best placed to respond and deliver a “personalised package” of care-at-home implemented by local community services and GPs.

- ii. In the local government areas, CBOs should be a rich source of care-resource coordinators that are familiar with local communities, speak their language and are able to communicate their needs to the council and to other CBOs who are able to provide the needed resources.
- iii. Other sources of support might include the Australian Red Cross and the Multicultural Centre for Women's Health.

Prior to launching the pilot project, information on the nature of basic needs during isolation should be gathered both locally through focus group discussions and/or from CBOs that worked in the nine public housing towers in North Melbourne and Flemington and will also be identified at the point when community members attend for testing at community testing facilities. The Boston program recruited designated care-resource coordinators who are effectively social workers with close ties to communities, whose role is to help people solve problems—how to get food, find a place to stay, access health care, or manage addictions—that might prevent them from being able to isolate themselves.

Component 5

Implement and monitor key process indicators that measure effective implementation and enable supportive actions to address issues.

As mentioned above, the DMC will need to develop a MELF, with support from the technical agency, which tracks progress towards objectives. There needs to be a system whereby this information can be reported back up to DHHS. This will ensure that DHHS systems appropriately flag the actions that have occurred, will avoid duplication and the risks posed by different agencies following up cases (i.e., multiple phone calls from different people asking different things) and will allow direct comparisons of these or similar indicators with other areas where case and contact tracing is being managed centrally.

Core outcome and process indicators will need to be agreed upon. These might include:

- Number of people tested (total) and proportion that test positive.
- Average time (and spread) between onset of symptoms and being tested.
- Average time (and spread) between being tested and receiving results.
- Average time (and spread) between identifying cases and finding all close contacts (family members and casual or workplace contacts).
- Average time (and spread) between identifying contacts and their being tested.
- Proportion of identified cases and contacts in isolation who receive necessary support (eg, food, medicines and health care, e.g., maternal and child health visits) within a defined period of time (e.g., 24 hours).

Roles and responsibilities of partners

- **DHHS:** System integration, policy and protocol advice, liaison with community health service, provision of information on newly diagnosed cases, templates for questionnaires at test sites and for interviewing cases and contacts, and information management.
- **Community health centres and local GPs:** Coordination of testing sites and procedures, referral of patients for testing and care, assessment of needs in isolation and quarantine, liaison with residential aged care facilities, inputs into communication materials, and recruitment of case investigators, contact tracers and care resource coordinators.
- **Community-based organisations:** Development, design and delivery of health communication messages, identification of care resource coordinators, recruitment and support for contact tracers, support for the provision of essential supplies during isolation.
- **Local government:** Coordination, project management (including HR), financial management, and liaison with state government.
- **Technical agency:** Technical advice to DMC, support for the development of the MELF, research to assess community knowledge, attitudes and behaviours, advice to the development of communication materials.

Potential outcomes

- Successful partnership based on equal levels of contribution by stakeholders – supporting healthy, engaged, and responsive communities.
- MELF key indicators to track improved responsiveness and health outcomes and guides decision-making
- Research demonstrates that it can effectively inform interventions.
- The project provides a platform for the introduction and evaluation of new tools:
 - Community or home-based testing
 - Screening – if active case finding needed
 - Information sharing and a means to address questions in real-time
 - Eventual vaccine delivery