Deakin University feedback on the Consultation paper (December 2022)

Role and Functions of an Australian Centre for Disease Control: Prevention-Promotion-Protection

Functions of the CDC

1. **What decision-making responsibilities, if any, should the CDC have?**

   - Should the CDC directly take on any existing responsibilities, or provide a coordinating and/or advisory function only? And if so, would that be sufficient for responding to health emergencies?

The CDC needs to lead, coordinate and advise in an emergency setting to provide an overarching national response. This needs to be defined through legislation.

Given the split in federal and State level responsibilities, and that public health acts that enable public health surveillance and responses sit at state and territory jurisdictional level the CDC should provide evidence-based advice to governments, which should encompass prevention and response interventions, as well as research priorities to address evidence gaps.

In a pandemic context, many of the intervention decisions are political ones that must balance all aspects of costs and benefits. A lack of consistency across states and territories can undermine public confidence in health policies and actions. However, there may be times where a different response is required for specific communities, or where there are different priorities that lead to a different policy approach being taken. For example, the implementation of policies and actions designed largely for metropolitan populations, but initiated in rural areas, can have poor outcomes/uptake and exacerbate existing inequities. The advice provided by a CDC should be open for all to see, and for the states and territories to address when they do (or don't) take on the advice.

Given the complexity of state versus federal responsibilities and to avoid an overly bureaucratic or unwieldy model, it is recommended that the proposed model for CDC decision making responsibility undergo cost/benefit analyses.

CDC advice must also automatically include intervention-specific evaluation plans that can be coordinated nationally through the CDC. This will help to ensure that all jurisdictions are achieving the targeted outcomes and advice about if and how interventions need to be modified or when a policy change is required. This will also allow the CDC to work with states that have opted for different policy approaches to ensure they are meeting the same goals.

2. **What functions should be in and out of scope of the CDC?**

   - What should the role of the CDC be in promoting or coordinating a One Health framework?

The role of the CDC should be national coordination and leadership for communicable and non-communicable diseases (NCDs), including the wider determinants of health:

- surveillance and intelligence
- emergency assessment and response
- workforce mapping and training capabilities
- international engagement in our region Asia Pacific for emerging threats
- informing research priorities
- providing standards for evaluation of public health interventions.

The One Health framework should include a 'health in all policies' systems approach. Indeed, a systems approach is critical to the work of a CDC and so the platform must have this built into its design from day one.

While Phase 1 will be focussed on pandemic preparedness and the national stockpile, it is critical that the platform for the first phase is designed to support the expansion of scope to:

- NCDs, including potential NCD consequences from communicable disease interventions
- communicable disease impacts on short and long term mental and physical health.

Without considerable scoping in Phase 1, prevention and other functions scheduled to be included in later phases may be disenfranchised, with resources, focus and organisational culture geared towards the inclusions in the initial stages, to the detriment of the functions to be included in later stages.

The CDC should play a major (if not lead) role in helping with implementation of the National Preventive Health Strategy and National Obesity Strategy and key health behaviours (e.g., nutrition, physical activity, smoking, alcohol) should be a major focus. For example, emerging evidence suggests physical activity is not only important for NCDs, but also for preventing and reducing the severity of communicable diseases.

Deakin University agrees with the need for advisory groups to provide evidence-based advice across a wide range of public health topics of national interest, taking care to avoid conflicts of interest.

'Gather and analyse' should include "non-communicable disease and health behaviour surveillance data" (see WHO Global Action Plan for Physical Activity [GAPPA]).

Should the CDC retain the inclusion of "Relevant Periodic National Health Surveys" under the 'Guide and Communicate' heading, particularly for NCDs and related health behaviours, they need to be undertaken more frequently to have value. Currently these surveys (e.g., current IHMHS – Intergenerational Health and Mental Health Study) are conducted too sporadically (sometimes 10 years apart) and are not helpful for informing progress on preventive health targets or for identifying potential new targets. The CDC could also provide opportunities to review the various surveys to ensure regular, frequent, comprehensive and integrated collection of data.

3. **What governance arrangements should be implemented to ensure public confidence in the CDC?**

    - How can the CDC balance the need for the CDC to be responsive and accountable to governments, while also providing trusted, authoritative, and evidence-based advice?
    - What aspects of independence do you believe are important to the successful function of the Australian CDC?
    - How should the CDC be organisationally structured to best meet the needs of Australia's federated society?

Funding must be allocated in a way that ensures there is no influence, actual or perceived, on the gathering and interpretation of evidence and advice given. That said, there also needs to be oversight and review of the CDC itself, with accountability. The evaluation of health protection and prevention interventions, including health communications, initiated on the CDC's advice is one way to monitor CDC performance.

There are public perceptions that researchers and academic experts may be muzzled by their own institutions, or research funders, and so bringing the expertise together where academics are free to contribute without fear or favour will also help to strengthen trust. Conversely, a scientist who may have a conflict of interest can be excluded from particular advisory tasks, or their bias picked up as they would not be working alone.

The CDC will be partially virtual, linking the expertise that exists and filling gaps. It is important that when operating under the CDC on specific tasks or problems, that CDC membership comes first

before institutional membership so that the benefits of true collaboration can be fully realised. If the CDC is seen as a collective of institutions rather than of intellectuals who can move into think tanks together in an unencumbered way, then this is unlikely to be perceived as progress and will not move us beyond some of the existing inter-jurisdictional rivalries in our federation.

The CDC needs to ensure all corners of the country and all community perspectives are appropriately represented in think-tanks and governance, with fixed terms for state and territory representatives and renewal of membership. Power imbalances need to be given careful consideration.

Why do we need a CDC?

A coordinated and national approach to public health

4. **How can the CDC best support national coordination of the Australian public health sector?**

    - How can the CDC ensure effective collaboration and exchange of information with relevant stakeholders, including engagement with the private sector?

The CDC needs to operate with systems approaches to health monitoring, prevention and response. This necessitates a sophisticated collaboration framework to bring stakeholders together. Most public health interventions will require the understanding and good will of the general public, industry and governments at all levels. The research and research synthesis required to inform these interventions must be produced under the same conditions.

Consultations on complex issues need to strive for balanced representation of experts in the field and private sector/consumer representatives.

The federal, state and territory health departments are key partners who will often be the holders of data, or the agents of data collection.

Engagement with industry (including peak bodies and advocacy groups) is critical for effective collaboration and information exchange, for example prevention of and response to disease outbreaks such as Foot and Mouth Disease and Q-Fever.

The CDC is about making the public health expertise in research institutes and universities more readily available, and just as with all exemplary research translation, it works best when cocreated with stakeholders. This would also foster cross disciplinary collaboration which will assist innovation, feasibility and help avoid unintended consequences. By connecting the CDC with research funding mechanisms, such as informing MRFF targeted calls, the CDC can help further drive the alignment of research to address collective priorities. This will become more possible as the CDC grows through each phase. It will be critical that there is also additional research funding allocated to rapid research for CDC priorities so that current funding pools are not depleted.

5. **What lessons could be learned from Australia's pandemic response?**

    - How can the CDC best ensure linkages with all sectors relevant for preparedness and response – including primary care and the animal and environmental health sectors?

    - Are there any national, state and territory or international reviews that would be of assistance in designing the CDC?

The CDC needs to take account of all disease surveillance networks (humans and animals) from states and territories, with input from WHO and OIE-World Organisation for Animal Health. It would also benefit from involvement from the NHMRC as there are many policies/guidelines under its jurisdiction.

The key linkages should be incorporated into the formal CDC structure with representatives part of the structure, or key domain leaders having liaison with the sector in their portfolios.

There should be a clear line of reporting/communication and delineation of responsibilities as well as clear guidelines for each sector on how to respond and simple reporting frameworks. Application of guidelines should allow flexibility to meet local needs and maximise local engagement and response. All of this should also be reviewed and updated regularly for continual learning and improvement.

There should be intersectoral scenario testing of pandemic plans, for example, that allow plans to be tested for feasibility, refined, and updated. This would also be a way to train/renew skills in public health workers across jurisdictions, keep a surge workforce in other parts of the health sector response-ready and keep community and industry engaged and communication channels open so that everyone trusts the pandemic preparedness.

There need to be integrated approaches to community wide consultation and co-design to ensure the CDC improves health outcomes for those in greatest need and with consideration for the power imbalances that exist.

A data revolution

6. **What are the barriers to achieving timely, consistent and accurate national data?**

We still do not have national consistency in data platforms and not all data are collected and input in a way that is amenable to more sophisticated analysis. The data function needs to include the principles of non-duplication and accessibility.

We need to build consensus on what and how data is collected, its format, frequency and how it should be presented. This needs to be designed and nationally consistent if we are to ever get to a point where we have timely data that a CDC can then access to provide rapid real world data analysis as part of disease surveillance and in particular, outbreak detection and control.

Appropriate systems and expertise to collate, manage and analyse the data coming to a central repository and a subsequent process to report back what is happening at a national level and the funding to support that is critical.

Reform needs to start from the point of data collection. Those collecting the data need to understand its purpose and value, rather than viewing data recording as onerous and outside of their professional scope. This will support better data quality and consistency. This currently has a potential effect on a wide variety of data collected.

Data then needs to be made publicly available for use.

7. **What existing data sources are important for informing the work of the CDC, and how could existing data bodies (national, state and territory) be utilised and/or influenced by the CDC?**
    - Is there data currently not collected in Australia which should be considered?
    - What else is needed to ensure that Australia is able to identify emerging risks to public health in a timely way?
    - Would the development of a national data plan with an agreed scope and/or an evidence-based health monitoring framework be useful?

Evaluation frameworks should be an integral part of all interventions, including agreed data collection plans to understand and communicate key inputs / costs, as well as to measure the outcomes and inform intervention refinement or cessation.

Data about traveller and migrant health should be collected, including notifiable diseases of interest to other countries and treatability in Australia i.e., drug resistant malaria, MDR TB, AMR etc. Currently

state-based approaches are inconsistent and the National Notifiable Diseases Surveillance System (NNDSS) is out of date (2016) and not easily analysed. Genomics testing is limited except in cases referred to researchers. Geosentinel international network conducts surveillance (cases and metadata) at a limited number of sites.

8. **What governance needs to be in place to ensure the appropriate collection, management and security of data?**

9. **How do we ensure the CDC has the technical capability to analyse this data and develop timely guidance?**

The CDC must work in partnership with academia to leverage the technical capability of Australia's research institutions and to identify state of the art data collection and analysis methods. The CDC should also consult academic and international expert networks and engage technical experts and regional collaborations through Indo-Pacific centre for Health Security and other CDCs (China, Africa). Providing funding to technical experts to work with the CDC would be required to make this work effectively.

10. **How can the CDC ensure collaboration with affected populations to ensure access to, and the capability to use, locally relevant data and information, particularly as it relates to First Nations people?**

Working with trusted leaders of affected populations to ensure data and information are communicated consistently, effectively and appropriately for the context. Build principles of co-production into the governance and processes of the CDC.

National, consistent and comprehensive guidelines and communications

11. **How can the CDC establish itself as a leading and trusted national body that provides guidance to governments based on the best available evidence, and participates in generating that evidence?**
    - To what extent should the CDC engage with the media, public messaging and health communications directly or via other existing structures such as Australian and state and territory health departments?
    - What could the CDCs broader role be in increasing health literacy to support sustained improvements in health outcomes?

It is very important that the CDC is a leading and trusted national body that provides guidance to governments based on the best available evidence and participates in generating that evidence. Messaging should prioritise positive, balanced and culturally appropriate/sensitive messaging to ensure vulnerable groups are supported and not targeted by negative media messaging.

Working with trusted leaders of affected populations is important to ensure data and information are communicated consistently, effectively and appropriately for the context and tailored for various audiences. Language is very important. Co-designing communication pathways and methods with different priority populations and communities will help address inequity and potential issues around trust in certain segments of the population.

There needs to be a single point of communication of health policy in an emergency/non emergency setting, which needs to be negotiated with state health departments. This will encourage action by

government on the available evidence and advice of experts and help to avoid confusion by the media and public about agreed-upon directions.

However, in the development of those directions, the CDC could have a role in hosting debates where there is controversy or disagreement. Healthy debate is central to science. We do not want a CDC comprised of just like-thinkers, nor do we want a CDC that fosters group-think.

That said, there may be a role in helping the media understand who is an expert in a particular area, and the nuances of such debates that inform the CDCs (and other science bodies) ultimate direction on various matters.

12. **To what extent should the CDC lead health promotion, communication and outreach activities?**

Other CDCs (as outlined in the Discussion Document on page 51) include "design and implement national public health programs". There is an opportunity for the CDC to play a role in national scale up of evidence based successful programs proven to work in the Australian context. For example, see Deakin University's:

- RESPOND: Reflexive Evidence and Systems interventions to Prevent Obesity and Non-communicable Disease
- Connecting the Dots: Helping communities to think differently about the wellbeing of young people
- TransformUs | Learning through moving
- INFANT | Healthy eating and active play - supporting families from the start of life (infantprogram.org)

With the proposed remit of the CDC intended to include prevention (which we strongly support), the Centre's name could also reflect the importance of prevention of disease, not just control of disease: for example, *The Centre for Disease Prevention and Control* (CDPC).

There is also an opportunity for the CDC to work with the sector to fill the current gap in recommended frameworks for evaluation and prioritisation of health promotion and prevention activities. Frameworks exist that could be adapted to enable provision of standardised assessment such as currently performed by MSAC and PBAC. See for example Deakin's Assessing Cost-Effectiveness (ACE) framework.

13. **Are there stakeholders outside of health structures that can be included in the formulation of advice?**
    - What kind of mechanisms could be developed to support broader consultation on decisions when needed?

A range of other stakeholders outside of health structures should be included in the formulation of advice. Indeed, the CDC should take a 'health in all policies' approach, an opportunity for cross-government engagement on the health agenda. Health-related engagement often happens (and should continue to happen) with Departments of Education, Transport and Sport / Recreation, but processes need to be established to engage more widely across all government departments including the proposed National Climate and Health Strategy Unit being established in the Federal Government. Interdepartmental and cross-jurisdictional governance groups, such as advisory groups, could be established to support this consultation within and across governments and their departments.

Reinforcing and building on this approach, the proposed adoption of a One Health approach would necessitate the CDC to engage government departments and industry in areas of agriculture and natural resources.

National Medical Stockpile

14. **What has your experience, if any, been of accessing supplies from the National Medical Stockpile (either before or during COVID-19), and can you identify any areas on which the CDC could expand or improve?**

World-class workforce

15. **How could a CDC work to ensure that our public health workforce is prepared for future emergencies, both in Australia and abroad?**

The CDC could support appropriate planning for future emergencies at a national and local level with scenario testing, strategy and action plan development, including emergency management lines of responsibility.

Partnerships between health departments, state health promotion agencies (such as VicHealth) and universities built on existing models would not only strengthen the academic content in public health training programs, but also ensure that the wider public health workforce and research training is aligned with current health threats and realities. This also needs to be incorporated into ongoing professional development for the public health workforce.

The CDC could advise government on priority areas to support/subsidise training in workforce areas including relevant lab sciences (molecular and serological surveillance), epidemiology, environmental health and data analytics including bioinformatics.

The CDC could engage universities to develop consistent curriculum in pandemic preparedness and infection control that address top workforce priorities.

16. **How could the CDC support and retain the public health workforce in reducing the burden of non-communicable disease?**

Rapid response to health threats

17. **What role could the CDC play in greater national and international collaboration on One Health issues, including threat detection?**

18. **What are the gaps in Australia's preparedness and response capabilities?**
    - Could the role of the National Incident Centre be modified or enhanced?
    - What functions should a national public health emergency operations centre deliver to strengthen Australia's coordination of health emergencies?

Currently there is a national lack of infrastructure and funding for the requirements for adequately resourcing preparedness and response to health emergencies. The health sector has lots of expertise but this has to be harnessed in a concerted way. There needs to be designated hubs in regions. There is also the requirements for better communication lines, surveillance mechanisms and quick access to national and global data as things are evolving on the ground.

Prevention and preparedness need greater priority, which requires funding, and a shift in focus from lagging to leading indicators of risk, but also a broader shift in community culture - a long-term challenge.

19. **How can the CDC position Australia, mindful of global, regional and local expertise, to be better prepared for future pandemics, health emergencies, and other public health threats?**

    - What could our contribution to global preparedness look like?

The CDC should engage with international programs such as the IndoPacific Centre for Health Security, Asia Pacific Malaria Elimination Network and Geosentinel. A scoping exercise is needed to identify existing activities in our region that could be leveraged and supported.

Collecting and sharing information about traveller and migrant health as sentinel populations for notifiable (and other) communicable diseases would support global preparedness. The CDC could manage an updated and real time imported cases register, provide easily accessible data (raw and analysed), and make engagement with high-risk countries on processes for reporting back red flags a priority. This would require strong international engagement, which could be led by the CDC.

International partnerships

20. **What role should the CDC undertake in international engagement and support internationally, regionally or domestically?**

    - International engagement, coordination and intelligence sharing are central to the role of all international CDCs. What additional objectives should the CDC include? (for example, leadership, technical engagement and capacity building, or other issues?)
    - How can the CDC be utilised to strengthen pandemic preparedness internationally?

Our CDC should formally represent our nation in discussions. A lot of work needs to be done to bring current structures into the CDC framework.

It should engage with the IndoPacifc Centre for Health Security and CSIRO ACDP and other stakeholders operating in the region conducting human and animal surveillance.

Leadership on preventive health

21. **How can the CDC foster a holistic approach across public health, including the domains of health protection, and promotion and disease prevention and control?**

Deakin University supports the Public Health Association of Australia's (PHAA) suggestion that the $12 million underspend in the Australian National Preventive Health Agency be transferred to the new Australian CDC to be spent on NCD prevention. This investment would boost policies and programs focused on preventing cancer, obesity, type 2 diabetes and other key chronic diseases and would in turn create a healthier and more economically productive society. This has the potential to be an accelerant to the new Australian CDC and would help improve the lives of all people in Australia, for the long-term.

It is important that the CDC takes a holistic approach to public health and includes promotion of key health behaviours identified in the National Preventive Health Strategy, such as promoting a healthy diet, physical activity, immunisation, mental health and cancer screening and reducing use of tobacco, alcohol and other drugs.

Prevention requires a whole of community approach. Too often, the obligation is placed on the individual without acknowledging or addressing the systems and environments that hold the problem

in place. This also needs to be driven by policy and action from industry and government, which could be assisted by the CDC.

Deakin University has developed a simple and powerful real-time visual mapping tool for complex systems that produces evidence-based and effective results. Systems Thinking in Community Knowledge Exchange (STICKE) empowers and builds capacity for communities to lead and take responsibility for their own prevention efforts, describing complex social problems and identifying tailored, local solutions. This tool can be applied at any scale and fosters a holistic approach to public health knowledge and intervention.

22. What role could the CDC have in implementing the goals of the National Preventive Health Strategy?

The CDC could play a role in convening national actors to support development of an implementation plan and in developing an outcomes measurement framework and collating the data to measure progress. It could play a role in developing frameworks to prioritise and evaluate implemented strategies.

The CDC could also report on the progress of Australian jurisdictions (and national progress) on the targets set out in the National Preventive Health Strategy (NPHS) and National Obesity Strategy.

For example, the CDC can play a role in delivering the goals of the NPHS by supporting the Asia Pacific Society for Physical Activity's '5 Priority Policy Areas for Physical Activity Action':

- whole-of-school physical activity programmes
- active transport and land use
- promoting physical activity through the healthcare system
- sport and recreation for all
- community-wide programs.

The CDC would benefit from and could support calls by the Public Health Association of Australia and others for increases to overall levels of investment in public health, starting with the National Preventive Health Strategy 2021-2030 target to increase investment in prevention to five per cent of government health budgets.

Given the CDC has such a wide proposed remit, it needs to work towards more equitable and sustainable funding distribution and limit and the possibility of reinforcing existing funding inequities that exist across the spectrum of prevention and care, and between various parts of the communicable/NCD landscape.

23. Should the CDC have a role in assessing the efficacy of preventive health measures?

Yes, through:

- monitoring and surveillance
- preventive and response measures
- providing standards for evaluation of public health interventions.

This will require effective and rapid data synthesis/modelling as well as reporting to relevant stakeholders.

The CDC could also help the Therapeutic Goods Authority (TGA) to prioritise the innovations it evaluates, for example home testing of infection compared with home testing of function immunity. If prioritisation is required by the TGA because of limited capacity, then the CDC should have input into which option would be the most useful at the population level.

Wider determinants of health

24. **How could the CDC work in partnership with at-risk populations and associated health sectors, including First Nations people, people with a disability and older Australians, to ensure their voices are included in policy development?**

    - How could the CDC meet the intent of Closing the Gap?

We strongly support the focus on at-risk populations and community engagement as a key pillar for the CDC.

Engagement and consultation with at-risk populations and associated health sectors needs to happen early in the process of policy development. Culturally appropriate and sensitive messaging to the public is critical to prevent marginalisation seen during the COVID-19 pandemic, which also has an impact upon health outcomes.

The pandemic provided data on those in the most at-risk populations for respiratory disease transmission, by occupation, geography and demographic profile. Working with these communities must be a priority for influenza and other pandemic planning, as well as vaccination programs and other response measures. This is also likely to be an area where research gaps remain, and working closely with these communities to identify ways to make them less vulnerable will benefit the entire population and make a fundamental difference in our resilience in the face of future pandemics.

25. **How can the CDC best deliver timely, appropriate, and evidence-based health information to culturally diverse and/or at-risk populations?**

The CDC will need to maximise engagement through channels with existing trusted relationships with at-risk populations. Leveraging these existing connections can support a more timely, appropriate and acceptable response. Recognition of the value of these pathways for prevention rather than having to establish new support structures in response to crises, which takes critical time and more funding, is very important.

Relationships with communities in the natural hot spot areas (i.e., socioeconomically disadvantaged and culturally and linguistically diverse communities, those who could not work from home, and/or casual workers) were strengthened during the outbreak response in the second COVID-19 wave in Victoria and subsequent flare ups. Yet there was no obvious sign these existing relationships were used to support prioritised vaccine program roll out. Once the Delta wave impacted these communities, again ahead of the other parts of the state, they were already lagging in their vaccine uptake with some of the lowest rates in the state. Leveraging those existing relationships more strongly and consistently and engaging communities through their trusted channels could have established higher levels of early immunisation for their own protection and to help slow the front line of community transmission.

There needs to be strong communications and community partnerships teams that are adequately resourced to leverage existing relationships and provide information through channels those communities already trust and listen to, to ensure issues like the example above don’t happen.

26. **How should the CDC engage across sectors outside its immediate remit (including portfolios with policy responsibility for wider determinants of health, culture, and disability)?**

CD, NCD and wider determinants of health risk associated with climate change needs future scenario modelling. It will be more pertinent for rural and regional populations than urban areas where the majority of support often sits. The CDC needs to engage regional healthcare and research organisations to identify key priorities.

Research prioritisation

27. **Should the CDC have a role in advising on (or directly administering) funding or prioritisation of public health and medical research?**

Balance is important in the prioritisation of funding to ensure equity. The CDC could advise on funding for other areas, for example advise NHMRC on key gaps in technology/knowledge and work with MRFF on targeted calls to support CDC priorities, but could administer it for the public health research sector for targeted research, if appropriate.

For the most part, the CDC should not conduct research itself. However in certain circumstances, they should oversee and coordinate evaluation of interventions in crisis settings, and also collect the evidence to inform policy or policy change in a crisis, which would usually be in conjunction with states, managed in a coordinated way so they are not duplicating effort.

There is a role for the CDC to deliver funding for rapid targeted research that is required outside of regular research funding cycles to rapidly deliver evidence on the implementation of new strategies.

For example, the health system should have been actively screening people in the community for COVID-19 infection to enable us to interpret our surveillance data. The CDC might have directed that work to augment surveillance, or until a surveillance system could estimate the proportion of infectious people who were isolating, by testing a subset of people in isolation on a daily basis. Such a role would have taken the guesswork out of when to cut isolation from seven days to five for asymptomatic infections, or remove isolation altogether, and importantly would have provided the data to share with the general public and employers about what impact that would have at the time they announced the policy change.

But on the whole, the CDC should work with Australia's leading experts, particularly highly cited researchers who represent the top one per cent in their field globally, in an open and transparent manner, avoiding conflicts of interest with industry.

The CDC Project

28. **How could the success of a CDC be measured and evaluated?**