Australasian Epidemiological Association www.aea.asn.au

Friday 9 December 2022

Australasian Epidemiological Association submission to the Chief Medical Officer in relation to the proposed Australian Centre for Disease Control

The Australasian Epidemiological Association (AEA) has been central to discussions regarding the establishment of an Australian Centre for Disease Control (CDC) since AEA's inception. At the inaugural meeting, held in Canberra in 1987, held a symposium and workshop that asked whether Australia needed a CDC.
AEA's first President, Professor Robert Douglas, wrote of the symposium:
"The general view of the meeting was that although Australian therapeutic health services are highly developed, disease-control activities are fragmented, inadequate and poorly coordinated. The meeting generally applauded recent Australian government initiatives to strengthen public-health research and training and to improve the Australian health information network through the Australian Institute of Health. However, the consensus was that a vital component is still missing from our health strategy; and that now is the time to being to plan for a national system of disease control, in which targets can be set properly, strategies can be developed, and in which state and federal governments, private practitioners, voluntary organisations and the corporate sector can play their proper roles in the prevention of disease and the minimisation of its effects."[1]

[1] Douglas RM. Does Australia need a centre for disease control? MJA. 1987;147:493

Fast forward 35 years, and amid a pandemic, establishing an Australian CDC is now a reality. The AEA welcomes the Federal Government's commitment to setting up an Australian CDC and the opportunity to contribute to the consultation process in guiding its purpose, scope, and functions.

Guiding Questions

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?

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?

AEA response to q. 1 and 2: the highest priorities of a CDC are (i) providing independent advice on public health intervention and policy priorities; and (ii) ensuring data systems are better tied together and accessible for national surveillance, research, analysis, and planning. Ultimately, the CDC needs to bring together national/state/local health agencies and serve as a trusted source of consistency on national processes/ guidelines and an expert point of reference to reduce silos in public health. Establishing productive and collaborative relationships with existing health agencies is crucial. Depending on their scope and existing funding, some national health agencies may be integrated into the CDC.

Numerous existing responsibilities could be integrated into the scope of the CDC. For example, infection control and biosecurity are currently addressed by the Communicable Diseases Network Australia (CDNA), however CDNA is not adequately funded. Incorporating the CDNA secretariat into the new CDC structure and providing additional resources would be ideal. The CDC will play an important role in synthesising existing and emerging evidence, providing a national and standardised point of reference for obtaining the information required to make public health decisions, such as the Series of National Guidelines (SoNGs) currently produced by the CDNA.

The AEA believes there is an important role for the CDC to play in improving the social determinants of health in Australia and focusing on disease prevention. The CDC is ideally placed to push forward integrated care at a national level. Currently, there is an unhelpful divide between public health vs primary and hospital care. Hospitals operate on a funding system based on disease diagnosis and treatment and are penalised for not meeting targets. An important remit of the CDC would be investigating ways to integrate preventive medicine into Medicare. The CDC must build excellent relationships with primary health networks and support their work, rather than duplicate it. Integration of primary health data into CDC linked datasets is critical to improved public health in Australia.

We also need the CDC to consider the impact of health interventions on other sectors and aspects of society. For example, Australians are living longer, but how sustainable is this from an environmental and economical perspective? Should we prioritise health interventions that make the working age population healthier to support an ageing population? These are pressing questions that require the expertise of bioethicists.

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?

AEA response to q. 3: The CDC needs to operate under the guidance of an independent board that oversees recruitment to Executive and Leadership positions within the CDC. Typically, Federal public servants are well trained in policy and move from content area to content area; the Australian CDC needs to have continuity of content expertise. It is important there are career development and advancement opportunities for core staff. The CDC needs to be guided by a strong Board that is fiercely independent, with a mix of relevant core disciplines, especially epidemiologists, public health practitioners, infectious disease physicians, virologists, behavioural scientists, and bioethicists. There should be a fixed term on the Board. Nominations for Ministerial appointment to the Board should come from ongoing Board members and the Australian Health Ministers Conference.

AEA welcomes the recognition in the Consultation Paper's CDC Design Principle 4 of the need for certainty of funding. This principle accords with the National Preventive Health Strategy's call for long-term and sustainable funding for Australia's preventive health system. There is a need to establish the CDC as a long-term agency with tied funding secured on a multiyear basis (e.g. an indexed triennial funding arrangement). Substantial funding will be required to enable the CDC to deliver on its mandate. This funding is an investment in Australians' future health. Ideally, there would be legislative processes that ensure bipartisan agreement is required to decommission/defund the CDC.

A key benefit of the CDC will be having a nationally coordinated, single point of reference for the evidence needed to make decisions, and for generating national standards, guidelines, and processes. We recognise some of the biggest problems will come from coordinating across different jurisdictions. A hub and spoke model, where the central hub of the CDC is located in Canberra, with spoke departments sitting within State and Territory Health Departments should be considered to help build trust and two-way communication.

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?

No AEA response.

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?

AEA response to q.5: The CDC consultation paper has already done an excellent job addressing lessons learned from the pandemic. One thing that became immediately clear to AEA members working as part of State and Territory Government surge workforces was the lack of central, strategic coordination of the response. It is critical that the CDC formulates a training programme for public health staff to undertake on health protection, which would be a pre-requisite to joining future surge workforces. In addition, a plan for the deployment of staff, what roles need to be filled, and strategies specific to different scenarios will also be a clear remit for the CDC.

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

Key challenges lie in the different processes and access levels to datasets initially collected at the State and Territory level. Currently, Australian health data are fragmented and challenging to access. The CDC presents an opportunity to minimise the ongoing issues faced when trying to obtain data from different jurisdictions. The hub and spoke proposed at q. 3 may facilitate the harmonisation of data collection, management, and linkage methods. However, we acknowledge some data custodians will be protective of their current practices and may find it challenging to have a new and external agency impose different processes. It is critical the CDC clearly articulates the benefits to the Australian population that will come from proposed changes and invests time in building productive and collaborative relationships with stakeholders. Without robust and sustainable digital and data infrastructure, ongoing IT funding and investment into data privacy and security, consistent and timely national data sources will be difficult to maintain long term.

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?

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

No AEA response.

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

AEA response to q. 7 – 9: the CDC presents an excellent opportunity to work towards national standardisation of data collection or pipelines for harmonising data across different jurisdictions. Currently, primary care data are not well integrated into routine data. Changing this should be a priority for the CDC.
We are at a point when epidemiology, economics, data science and computer simulation can be brought together to determine future public health intervention impacts and cost. A readily accessible example is the Scalable Health Intervention Evaluation (SHINE) at the University of Melbourne (https://mspgh.unimelb.edu.au/centres-institutes/centre-for-epidemiology-and-biostatistics/research-group/shine). The proposed CDC should harness this kind of multidisciplinary approach to make rational public health policy. The CDC should be the national centre for health-related data linkage, but not be restricted to health-focussed data e.g., important to ingest data on housing, social services, education etc. An example of how bringing together data from across government agencies can inform research, service provision, intervention evaluation and policy is the Better Evidence, Better Outcomes, Linked Data (BEBOLD) platform at the University of Adelaide (https://health.adelaide.edu.au/betterstart/bebold).

There are several existing data linkage networks that could inform or be utilised by the CDC. Examples include:

- Population Health Research Network (PHRN) is a national network of data linkage units, a secure data laboratory and e-research services which support researchers' access to linked population data.
- The Office of the National Data Commissioner's Data Inventories Pilot Program aims to support agencies discover their data assets and deliver data inventories for around 20 per cent of Australian Government agencies by 2025. There are common standards and shared infrastructure.
- LINDAHR is a partnership between the AIHW, government departments, research organisations and the ARDC to establish a new national linked research-ready health data asset.

The AEA supports the adoption of the International Science Council (https://council.science/) FAIR data principles (https://www.nature.com/articles/sdata201618) which guide scientists and authors to improve the Findability, Accessibility, Interoperability, and Reuse of digital assets. We advocate for improved collection, accessibility, and reporting of quality data across all government jurisdictions. These data need to be warehoused appropriately and made more easily accessible for timely analysis and subsequent response from Federal, State and Territory jurisdictions and for ethically approved epidemiological studies. Facilitating access to data in a timely fashion is critical to enabling experts to provide robust advice to government.

The CDC would need to develop a legal framework to inform how national data linkage is conducted, who can access these data and how, but the Office of the National Commissioner should be able to provide guidance. For CDC to maximise the potential of nationally linked data, a core team of expert analysts with expertise in epidemiology, biostatistics and computer

science will be needed. Access to high performance computing is also critical; are the opportunities to partner with the National Computing Infrastructure (nci.org.au) for this purpose?

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?

AEA response to q. 10: Everyone has the right to be counted in epidemiological and public health data. While Australian governments must collect data to fulfill their responsibilities to their constituents, which data are collected, and how and by whom these are collected, accessed and used, must be determined in partnership with the community to whom the data belong. This is referred to as data sovereignty, a form of self-determination. Data governance is the processes through which data sovereignty is enacted. The CDC will need to work with communities, particularly those whose data have historically been used for harm, to co-design data governance frameworks. Such frameworks need to include a commitment to, and processes for building the capacity of, communities to access and use their own data to address their own health priorities.

For First Nations peoples, the CDC will need to seek leadership from Aboriginal and Torres Strait Islander peak health organisations, such as the Lowitja Institute, the National Aboriginal Committee Controlled Health Organisation (NACCHO), Australian Indigenous Doctors' Association (AIDA), and the Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINaM). The CDC should also use Aboriginal and Torres Strait Islander-developed tools to support enacting these frameworks, such as the Indigenous Data Sovereignty Readiness Assessment and Evaluation Toolkit. By taking steps to ensure appropriate data governance, the AEA believes that the CDC would be supporting the collection and use of more timely and accurate data. Such improvements in data quality and data systems are necessary if the CDC wish to prioritise health justice.

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 Government and state and territory health departments?

- What could the CDCs broader role be in increasing health literacy to support sustained improvements in health outcomes?

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

AEA response to q. 11 and 12: Communication is vital for the CDC to ensure that public health messaging is consistent nationally. While delivery of health interventions will fall to states and

territories, a centrally planned programme developed by national experts will be advantageous. BreastScreen is a good example of this: states and territories deliver the programme, but decisions around eligibility criteria, the timing of screening etc., are made at a national level. There is also a role for bioethicists in the formulation of health promotion programmes and communication. All public health interventions have costs and benefits, and it is crucial that these are not applied in inequitable ways so that particular sectors of the community are not overly disadvantaged.

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

AEA response to q. 13: the CDC cannot house the breadth and scope of public health-related issues within its agency. It will be necessary to outsource some policy development, programme development, and evaluation to universities and research centres with specific expertise. There should be a process for transparent EOI opportunities to tender for projects by universities and medical research centres.

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?

No AEA response.

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

AEA response to q. 15: Australia needs a registry of epidemiologists and other public health experts who have appropriate skills and are willing to be seconded to a surge workforce in response to public health events such as infectious disease outbreaks and climate change related events. The Australian National University's Master of Applied Epidemiology only has the capacity to train a small number of field epidemiologists each year, and there are insufficient graduates to staff a surge workforce in times of need. There is thus a clear need for specialist training that will enable epidemiologists to develop capacity in health protection. Ideally, this could be available for epidemiologists to do online (and then be eligible to register for the surge workforce register) or to be delivered in-person when onboarding new staff in a surge workforce. This will ensure minimum capability is met. This concept is similar to the Australian Medical Assistance Team (AUSMAT), with the CDC playing a role analogous to the National Critical Care and Trauma Response Centre. As noted in our response to q.5, a plan for deploying of staff and cataloguing the different roles, tasks, and strategies specific to different scenarios will also be a clear remit for the CDC.

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

AEA response to q. 16: Epidemiologists can synthesise evidence and advise on optimal interventions, but we advocate for appropriate delivery and implementation, considering the local context. We recognise that interventions need to be adapted and implemented in line with community needs, values and infrastructure, often requiring input from a broad range of disciplines and partnership with consumers. Evidence-based public health needs to consider more than whether intervention is efficacious; it has to be fit for purpose too. Working with communities is the best way for this to happen.

Government epidemiologists need access to training and professional development opportunities outside the public sector. It is essential that they have the opportunity to keep up to date with developments in methods and analytic approaches to ensure optimal public health outcomes. The AEA can provide appropriate professional action to epidemiologists working in government agencies, including the CDC.

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

AEA response to q. 17: The AEA is supportive of the Consultation Document's acknowledgement of the importance of a One Health approach. However, this approach needs to be focussed on health, while acknowledging the interconnectedness of health with food, water, energy and environment. One Health is a cross-sector concern, and we see the CDC having a role in engaging with national sectors and disciplines that contribute to health issues such as the agricultural industry and its use of antibiotics in farming practice. We also see the CDC making meaningful contributions to the WHO Western Pacific Regional Committee and the One Health High-Level Expert Panel on One Health. Indeed, it is vital that the CDC builds relationships with other similar national disease control organisations, particularly within the Western Pacific, to ensure the effective coordinated management of existing and emerging disease threats to the region.

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?

No AEA response.

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?

No AEA response.

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

- 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)? International
- How can the CDC be utilised to strengthen pandemic preparedness internationally?

No AEA response.

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?

No AEA response.

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

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

AEA response to q. 22 – 23: the Australian CDC must have chronic disease prevention as a core function. Nearly 50% of Australians now live with chronic disease; this represents the greatest health challenge, and its management is our greatest health expense. As we outlined in our response to q. 2, the CDC has an important role to play in moving forward integrated care at a national level. There is currently a focus on treating people once they become sick, with scant regard to primary prevention. An important remit of the CDC would be investigating ways to integrate preventive medicine into Medicare.

Underpinning the National Preventive Health Strategy is surveillance, a key function of the CDC. Robust national surveillance is required for non-communicable diseases and the risk factors that cause them. The descriptive epidemiology, projections and health economic assessments that surveillance data inform underpins all good health policy and decision making. Surveillance data are also central to assessing the efficacy of public health interventions, and for benchmarking the success of the National Preventive Health Strategy.

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

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

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

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)?

AEA response to q. 24 – 26: Populations and communities who are at risk of the worst health outcomes have historically been excluded from policy development. Likewise, health information is often inaccessible and/or culturally irrelevant to marginalised and under-served populations. The AEA believes it is important that the CDC works in partnership with such populations/communities to ensure that their voices are amplified in the development of health policy and information, including in the design of policy evaluation, such as Closing the Gap. The AEA recommends that these partnerships are governed by a consumer and community engagement framework, which must be underpinned by, and promote, genuine partnership and include processes and support for building the capacity of communities to contribute to health policy development.

Structural racism is commonly regarded as a critical global public health problem, but there is a lack of guidance and leadership from governments to address power imbalances that underpin it. The AEA believes that the CDC must be positioned to address racialised health inequalities and to do this the new agency must consider the function of race and racism, power and governance. To engender the desire to shift power imbalances to ensure health justice, the CDC should ensure that it has First Nations leadership in its highest levels.

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

AEA response to q. 27: Public Health is woefully underfunded by the NHMRC. For example, Public Health receives approximately 5% of NHMRC Ideas Grants, compared to the 70% awarded for Basic Science and 20% for Clinical Medicine. Public Health Researchers receive half as many Investigator Grants as are awarded to Basic Science Researchers or Clinical Medicine Researchers. This is despite the economic return estimated as $14.30 for every dollar spent on prevention.

There is a critical need for greater research investment into public health. The AEA recognises at all disciplines within the Australian Health and Medical Research Sector are underfunded, and that the only solution is to raise the contributions into the Medical Research Endowment Account. The Australian Society for Medical Research has long been advocating for this to be raised to 3% of the health spend. The AEA support this call.

The CDC should be given the opportunity to appoint several new members to the Australian Medical Research Advisory Board, to ensure that the core functions of the CDC continue to be underpinned by quality evidence. AMRAB advises the Minister for Health and Aged Care on

prioritising spending from the Medical Research Future Fund, but public health experts are not well represented by the AMRAB. Public Health is woefully underfunded by the NHMRC

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

No AEA response.

Yours sincerely