Public Health Association
AUSTRALIA

Public Health Association of Australia

Submission on discussion paper

Towards a Framework for Communicable Disease Control

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Contents

Introduction **3**

Public Health 3

The Public Health Association of Australia 3

Advocacy and capacity building 3

This submission 3

1. AFPHM and PHAA Discussion Paper 2011 ..... **4**

2. The current system **5**

3. An argument for a centralised Australian Centre for Disease Control **5**

4. Short Responses to the Discussion Paper Questions **9**

Question 1: 9

Question 2: 9

Question 3: 9

Question 4: 10

Question 5: 10

Question 6: 11

Question 7: 11

Question 8: 12

Question 9: 12

5. Conclusion **13**

6. References **14**

Introduction

The Public Health Association of Australia Incorporated (PHAA) is recognised as the principal non-government organisation for public health in Australia and works to promote the health and well-being of all Australians. The Association seeks better population health outcomes based on prevention, the social determinants of health and equity principles.

Public Health

Public health includes, but goes beyond the treatment of individuals to encompass health promotion, prevention of disease and disability, recovery and rehabilitation, and disability support. This framework, together with attention to the social, economic and environmental determinants of health, provides particular relevance to, and expertly informs the Association's role.

The Public Health Association of Australia

PHAA is a national organisation comprising around 1900 individual members and representing over 40 professional groups concerned with the promotion of health at a population level.

Key roles of the organisation include capacity building, advocacy and the development of policy. Core to our work is an evidence base drawn from a wide range of members working in public health practice, research, administration and related fields who volunteer their time to inform policy, support advocacy and assist in capacity building within the sector. PHAA has been a key proponent of a preventive approach for better population health outcomes championing such policies and providing strong support for the Australian Government and for the Preventative Health Taskforce and National Health and Medical Research Council (NHMRC) in their efforts to develop and strengthen research and actions in this area across Australia.

PHAA has Branches in every State and Territory and a wide range of Special Interest Groups. The Branches work with the National Office in providing policy advice, in organising seminars and public events and in mentoring public health professionals. This work is based on the agreed policies of the PHAA. Our Special Interest Groups provide specific expertise, peer review and professionalism in assisting the National Organisation to respond to issues and challenges as well as a close involvement in the development of policies. In addition to these groups the Australian and New Zealand Journal of Public Health (ANZJPH) draws on individuals from within PHAA who provide editorial advice, and review and edit the Journal.

Advocacy and capacity building

In recent years PHAA has further developed its role in advocacy to achieve the best possible health outcomes for the community, both through working with all levels of Government and agencies, and promoting key policies and advocacy goals through the media, public events and other means.

This submission

The PHAA appreciates the invitation from the CDNA to make a submission on the Discussion Paper "Towards a Framework for Communicable Disease Control".

1. AFPHM and PHAA Discussion Paper 2011

The first plenary session of the CDNA and PHAA Communicable Disease Control Conference held in Canberra (4-6 April 2011) was 'Does Australia need a CDC?'. As part of that conference The Australasian Faculty of Public Health Medicine of the Royal Australasian College of Physicians and the Public Health Association of Australia discussed the concept of an Australian Centre for Disease Control (ACDC) with the role of national scientific leadership of surveillance and control of current and emerging infectious diseases across the country and, as appropriate, in the neighbouring region.

The organisations then produced a discussion paper that attempted to address many of the questions raised by the working group. This response draws heavily on the 2011 paper. The key concepts were firstly, the aim of establishing an ACDC would be to provide strong central, expert driven leadership and coordination of national communicable disease control. Secondly, an ACDC could operate as the central leading organisation (the hub), in partnership with existing government and non-government agencies: a "Hub and Spoke" model. Key functions could include:

- National coordination of disease surveillance. Experts in communicable disease surveillance should lead the analysis and interpretation of notifiable disease information and the coordination of scientific effort;
- National leadership in communicable disease prevention programs e.g. National Immunisation Program, HIV and antibiotic resistance
- Specialist expertise in the investigation, coordination and management of nationally significant outbreaks of communicable disease or other significant related issues (e.g. adverse events following vaccination);
- Oversight and coordination of training and development of the disease control workforce; and
- Strategic contribution to the control of communicable diseases in the Australian Area of Interest (Western Pacific and Near North) in partnership with World Health Organisation regional agencies (SEARO and WPRO).

Our perception was that such an agency would best be established through legislation to function as a national source of technical capacity separate to the existing Department of Health and Ageing (and jurisdictional equivalents). This 'Agency' should report through a CEO to a Board of eminent leaders in disease control and prevention and ultimately through the Board to the Federal Minister of Health. Appointments to the Board should be made by agreement between the Federal, State and Territory Ministers of Health, through the Australian Health Ministers' Conference (AHMC) and/or Council of Australian Governments (COAG) and in consultation with recognised leaders in disease control.

A framework for implementation and evaluation of this model should be established which takes into account the costs involved, measures of functional improvement in disease control initiatives and particularly improvements in disease control outcomes at jurisdictional levels. This would include measures based around priority targets for disease control and would also involve consideration of current arrangements under the legislative framework of *the National Health Security Act 2007.*

The PHAA appreciates the efforts of CDNA to use this discussion paper to consider such a framework.

2. The current system

As the CDNA Discussion Paper identifies, Australia has a track record of positive outcomes in disease control. This extends as far back as Australia's impressive response to the 1918-19 influenza pandemic and leadership in the early days of the response to HIV-AIDS. However, the discussion paper does not, in our view, adequately set out our concerns that:

- the pressures of globalisation, travel and environmental change have resulted in a complex and rapidly evolving communicable disease agenda.
- Modern and future communicable disease threats require a much more robust response capability than can be delivered through current systems.

Although the Australian Government plays a role in disease control, there are limitations to its authority and ability to influence the traditional roles of the States and Territories in securing disease control outcomes. It is not just in the area of health, or communicable disease in particular but the interests of the State and Territory jurisdictions do from time to time differ from Federal interest creating a certain level of tension. Recently, for example, the Queensland government extensively cut areas of public health including some that have direct relevance to communicable disease and the CDNA discussion paper.

The PHAA recognises the complexity of the current system. Currently, the Australian Government has powers under the *Quarantine Act 1908*, the *National Security Act 2007* and through its Office of Health Protection. The Communicable Disease Network of Australia (CDNA), with the support of the Office of Health Protection, provides the coordination, scientific analysis and advice required for communicable disease control to the Australian Governments. The CDNA is comprised of Australian Government, State and Territory officials, representing their jurisdictions, as well as representatives of affiliated organisations (e.g. the Department of Agriculture, Fisheries and Forestry and the Australian Defence Force). The discussion paper and annex set out the number and diversity of players that might be involved in controlling and outbreak of an infectious disease or are involved in prevention.

The CDNA reports to the Australian Health Protection Principal Committee (AHPPC). The AHPPC may exert operational control in the event of what it considers to be a national communicable disease emergency.

Universities and private sector organisations such as CSL make important contributions in vaccine research and development. However, while essential to the performance of disease control activities their role and influence is not coordinated or subject to a higher degree of strategic control. No single national agency is responsible for achieving outcomes across the wide range of communicable disease issues.

3. An argument for a centralised Australian Centre for Disease Control

Australia is unique in being the only Organisation for Economic Co-operation and Development (OECD) country without a recognised separate authority for the national scientific leadership and

coordination of communicable disease control. Different nations have different models to deliver this function (see section 4), but all are comprised of technical professionals with a degree of independence from the political process. Significant benefits and achievements are attributed to the United States Centers for Disease Control (CDC) in the literature[1, 2] and both the US and United Kingdom Centres attest to their successes in their annual reports. [3, 4] The European Centre for Disease Control (ECDC) is a recently established supra-national agency. Within 2 years of commencing operations, the ECDC was favourably evaluated as providing benefits to the European Community.[5] Generally speaking, in developed countries, Centres for Disease Control have made a favourable contribution to the health and wellbeing of the population.

The call for an ACDC has been a longstanding one.[6] Rubin *et al* heralded the benefits of local coordination and dedicated training for public health disease control based on the US CDC training program when Public Health Units were established in NSW in 1990.[1, 7] Recently, there have been a number of public expressions of interest in the establishment of an ACDC and in ensuring an ongoing commitment to training in communicable disease epidemiology.[8, 9] A number of people with an interest in the outcome of an ACDC have re-commenced advocacy in medical and government fora.

Renewed advocacy for an ACDC has notably been driven by the results of critical reflection upon recent national disease control incidents.[8, 10] The national response to the 2009 H1N1 Influenza A pandemic demonstrated that the required resources and leadership far exceeded what was available to the Australian Government and CDNA.[10] This led to large demands upon the public health workforce in the States and Territories. The ability of the public health workforce to 'surge' to meet these demands was not sustainable. Many jurisdictional representatives on CDNA, tasked with providing technical advice, were also required to lead and manage the response. An ACDC is necessary to provide national technical leadership and coordination of emergent public health responses, including the efficient communication of technical information and strategic management of the public health workforce to provide national surge capacity. The outcome would be improvements in the technical input to decision making in response to national disease threats and an improved capability to conduct the national response.

The identification in April 2010 of febrile convulsions in young children following administration of seasonal influenza vaccine highlighted the need for timely identification of new adverse events following immunisation, and the need for expert driven investigation of an emerging health issue.[11] An ACDC would be responsible for the routine surveillance of Adverse Events Following Immunisation, timely identification of signals arising from this surveillance and the technical leadership and coordination of the investigation and response to identified concerns. This would increase the potential for highly efficient public health investigations with the optimal allocation of scarce public health resources and timely reports to Government and the community.

The examples cited above are evidence of the overall lack of national capacity to address communicable disease issues in a strategic manner within the context of an inclusive and sustainable program. Currently the AHPPC, the Office of Health Protection, Department of Health and Ageing (DoHA) and the CDNA jointly manage the national communicable disease agenda. Among the CDNA's tasks are the development of national documents (e.g. specific disease control guidelines) and monitoring particular disease control priorities. The CDNA relies on States and Territory input with some Australian Government administrative support. Its functions and deliverables are limited

by this dependence. An ACDC, as a central core of technical expertise, would offer CDNA in particular a strong 'technical' arm to assist with deliverables such as guidelines or technical reports. It would also need to operate within a supportive legislative framework to deliver a highly effective and efficient program of communicable disease control.

There are a number of important communicable disease issues which are outside the immediate scope of the CDNA. Their common feature is the lack of national leadership and ownership which leads to a piecemeal approach rather than a coordinated drive for solutions. At the very centre of the argument for an ACDC is the absence of a national strategic communicable diseases plan and the agency that would be responsible for the delivery of the coordinated programs and increase the national capacity for communicable disease control. A prime example is the lack of national leadership and recognition of the importance of emerging antibiotic resistance and the requirement for a public health led approach. In this context an ACDC would work with organisations such as the Australian Commission on Quality and Safety in Health Care to ensure coordination of strategies aimed at improved quality of clinical care and communicable disease control. An ACDC would also provide the leadership to meet the ongoing challenges in sexual health of increasing rates of HIV, chlamydia, gonorrhoea and syphilis infections. Local sexual health clinics and leading academic institutions such as NCHECR can describe the emerging issues but they need a national level 'home' to ensure that issues are taken up as they are identified and that solutions are conducted nationwide within a structured framework.

Such outcomes are also desirable in other public health programs. The National Immunisation Program is faced with a number of decisions regarding the introduction of new vaccines, changes to the current vaccination schedule and the task of revision of the Australian Immunisation Handbook. While the technical input is available through the Australian Technical Advisory Group on Immunisation, the national leadership, infrastructure and logistics to plan, develop and evaluate a national program and to drive changes such as an all of life vaccination register are lacking. An ACDC would be responsible for coordinating the inclusion of technical advice with the implementation, evaluation and subsequent improvements to the program.

Recognising the benefits of coordination also recognises that much of the communicable disease control agenda is currently divided across the nation into specialty sector interests. Universities and laboratories have had much to gain from this diversified and 'devolved' (read fragmented) approach to disease control. However, it should be understood that the standing up of an ACDC would provide practical benefits to those already working within the existing clinical/technical/research environments. Furthermore their agendas are generally weighted to research and do not contribute to timely surveillance for intervention activity.

The workforce that supports communicable disease control would benefit from the establishment of an ACDC. There are nationwide problems in recruiting throughout the health system but especially in training the disease control workforce. This workforce has benefited from the establishment of a dedicated program to deliver a trained workforce. The Australian National University ran a very effective Masters in Applied Epidemiology program for more than 20 years and the University has only recently been advised that funding would be discontinued. Other workforce training in communicable disease control has been achieved through traditional campus course masters in Public Health and jurisdictional training programs (eg NSW Public Health Officer Training Program).

The loss of the MAE program and defunding of the Public Health Education and Research Program (PHERP) represents a serious threat to the maintenance of a high quality trained workforce in communicable disease control, reduces the outbreak response surge capacity and will create a gap in workforce training from 2012. The management of this workforce gap has no national ownership or perceived solution to what is ultimately an issue of national importance. There would be benefits in having a national agency take leadership on the whole issue of workforce development for what is a specialised role (disease control). The establishment of an ACDC would provide the 'home' for the oversight, coordination and management of this issue.

The OzFoodNet program is an example of a well resourced, nationally coordinated program which addresses many of these aforementioned requirements, albeit for the control of foodborne disease. It operates within a framework of central and jurisdictional centres of expertise and through its established program of surveillance and interaction with centres of laboratory expertise and international authorities serves as a national epidemiological resource and a national repository of educational expertise for the investigation and management of foodborne disease in Australia. It was evaluated positively in 2002 and continues to provide an excellent service and resource to this day.[12] It provides the template for the construction of similar programs to address areas such as respiratory disease, blood borne virus infection and health care infection.

OzFoodNet provides a current working example of the most suitable way to address the requirement for technical leadership and coordination of a national communicable disease control program in Australia. This would be through the use of a 'Hub and Spoke' model which would complement the existing framework for communicable disease control in the States and Territories. This would provide central, expert driven leadership and coordination of a national communicable disease control 'program', enhanced transparency in decision making and efficient use of expertise. It would provide the necessary base for nationally enhanced capability in surveillance, workforce development and tasking, identification and addressing the key issues and the conduct of outbreak response measures at a national level.

The most appropriate way to support the authority of an Australian Centre for Disease Control would be through legislation which enables it to function as a national source of technical capacity separate to the existing Department of Health and Ageing (and jurisdictional equivalents). The importance of providing independent 'arm's length' advice to government in health related matters has been recognised recently with the proposed legislation for establishing the Australian Commission for Quality and Safety in Healthcare as an independent entity.

In the event of establishing an independent communicable disease control authority the reporting framework should be through a CEO to a Board of eminent leaders in disease control and prevention and ultimately through the Board to the Federal Minister of Health. Appointments to the Board should be made by agreement between the Federal, State and Territory Ministers of Health, AHMC and/or COAG and in consultation with recognised leaders in disease control.

4. Short Responses to the Discussion Paper Questions

Question 1:

Are there strengths or weaknesses of the existing communicable disease control system that are not included?

The key issue is about a single point of leadership for dealing with all aspects of communicable disease from outbreak coordination, through surveillance, laboratory, programs and workforce training to research and prevention.

Question 2:

Are there elements of a future communicable disease control system that are not included?

Health care associated infections have been identified. This is inconsistent with the other issues which are specifically types of infections. However, there are good reasons why it would be made a priority issue.

However, although health infections are a key priority other workplaces should be included as generic. Perhaps it is possible to identify as "health care infections and other workplace infections".

Question 3:

Within existing legislative arrangements, how can we achieve comprehensive and coordinated central technical expertise across all content areas of communicable disease control?

- *How can we improve the accessibility and outputs of existing national centres to align with communicable disease priorities?*
- *Would developing new centres of expertise such as centres for emerging, zoonotic and vector-borne infections, and influenza and other respiratory infections address gaps in national technical expertise?*
- *How could domestic communicable disease control authorities support the development of a proactive regional engagement strategy for surveillance, preparedness, prevention and control activities in the Asia-Pacific region to mitigate potential epidemics?*

The PHAA has put arguments earlier in this submission about the need for an Australian CDC to address this range of issues. We have perceived the best model as one of hub and spoke. Leadership and coordination from an ACDC would not only provide an opportunity for the States and Territories to have better coordination with the Federal government without concern about domination but it would also allow a significant role for Australia within the region. An Australian CDC could also become in effect (and perhaps later in reality) an Australasian Centre for Disease

Control. Until such time as our country coordinates within the region disease control issues from beyond our immediate borders will be a significant issue. Assisting our near neighbours in the full range of issues around disease control and prevention should be one of our responsibilities. When conducted at arm's length from government, the ACDC ought to be able to develop higher levels of trust independent of political concerns.

The other coordination role for the ACDC would be to work with government to ensure the development of national centres, for example to coordinate research and surveillance on zoonotic disease.

Question 4:

Are there important diseases and threats not currently under national surveillance and what type of surveillance might be most suitable for the disease/threat?

- *What are the possible ways to integrating new and existing systems to develop the best possible information for public health action?*
- *Within existing legislative frameworks, how could we establish a cycle of continuous quality improvement of standardised periodic evaluation of existing systems?*
- *How can we ensure surveillance indicators can be linked to disease control goals so that program evaluation and effectiveness can be accurately assessed?*
- *What are possible ways to introduce innovative methods to modernise surveillance?*

The discussion paper had identified zoonotic disease as the current area of greatest weakness in our surveillance systems. Setting priorities and managing competing interests is most difficult when there are a range of players who have invested considerably of time, money and intellect into their own area. Good leadership at arm's length from government has the potential to provide priorities that are much more about health than about political influence of the minute. Having an ACDC reporting annually to the Federal and other parliaments would ensure accountability. This would also provide governments with the appropriate opportunity to modify the legislation establishing the ACDC if an emerging role was to make sense. (An example might be regarding bio-terrorism).

Question 5:

How could a nationally integrated laboratory system be organised?

- *What is required to develop a molecular surveillance network and harmonised testing methods for diseases of public health importance?*
- *What type of financial mechanisms might support public health laboratory testing, especially specialised testing?*
- *How can we develop innovative ways to network and share laboratory data to support disease surveillance, prevention and control goals?*

Laboratory systems are not within the expertise of the PHAA. However, we would support additional finances to ensure that the coordination of the range of laboratories around Australia can be managed effectively in an outbreak, emergency or crisis. In this submission we have made clear that the PHAA believes the most effective way of doing this is through an ACDC. This may then also facilitate, where appropriate, using a broader network including laboratories in New Zealand, the Pacific and Asia. Coordination internationally would also be managed through direct linkages with, for example, CDC in Atlanta as well as the Canadian and European equivalents.

Public service systems by their design tend to be conservative. If looking to develop innovative ways and systems it is likely to be more effective to look outside the public service to an organisation such as an Australian CDC. Being a government appointed and, most likely largely funded, it may be able to be somewhat more innovative but is also unlikely to be high risk taking with regard to innovation.

Additionally, an appropriate arm's length approach from government may allow the ACDC to find effective ways of raising revenue. The TGA already manages to charge industry for consideration of its new pharmaceuticals and this model may provide an idea for some kind of similar mechanism for the ACDC.

Question 6:

How could current communicable disease policy development be improved?

- *Would a "strategy for strategies" that defines core components of communicable disease control improve national communicable disease policy?*
- *What are the best ways to engage with researchers and commission policy relevant research?*
- *How can we develop critical appraisal capacity within policy-making bodies to keep pace with and synthesise the expanding evidence?*

Further development of national centres of excellent in prevention and disease control is likely to be the most effective way of synthesising and expanding evidence. At the moment, for example, there are disparate groups doing interesting and effective research around zoonosis but no national coordination and sharing of outcomes – especially involving research coming from a veterinary perspective. The commissioning of research by an ACDC in coordination with the NHMRC is likely to ensure better coordinated and more directed outcomes.

Question 7:

What do you consider to be communicable disease control priorities in Australia and why?

- *Are there specific disease control programs for which a national approach will improve delivery and cost-effectiveness and health outcomes?*
- *How can we ensure known effective prevention programs are nationally consistent and implemented?*

•*What are the best ways to encourage research of innovative ways to prevent disease?*

The PHAA believes that prevention is underfunded and coordination is poor. The Australian National Preventive Health Agency (ANPHA) has the potential to coordinate research and find cost-effective solutions in this area. The current remit, however, of ANPHA is narrow in that it is largely focussed on alcohol, tobacco and obesity. Prevention often requires significant behavioural shift along with effective management guidelines, health promotion programs and incentive schemes. Prevention is focussed on structural change as well as changes in personal behaviours and changes within specific settings (such as the workplace).

An ACDC should be in a place where it either works very closely with ANPHA or subsumes ANPHA as part of a body that is concerned not just with handling communicable diseases but preventing them. An ACDC that took on this role would also then be well placed to provide leadership on all communicable and non-communicable diseases.

Question 8:

How could we best develop a national threat assessment and decision-support function for new threats and multijurisdictional events?

•*How can we ensure threat-specific planning incorporates the latest evidence and where appropriate, applied research, such as mathematical modeling, informs planning?*

•*How can we improve health communications during multijurisdictional outbreaks?*

A single coordinating body such as the ACDC provides the best opportunity, in the view of the PHAA for delivering the best national threat assessment and decision making system using the latest research and most effective coordination. An ACDC would be in a position to assist in establishing, supporting and working closely with centres of excellence across the full spectrum of communicable (and possibly *prevention* of non-communicable) diseases. Communications systems would remain in place with all State and Territory as well as the Federal jurisdictions maintaining an appropriate relationship with the ACDC.

Question 9:

What improvements are needed to communicable disease control education and training?

•*What could be the scope of national workforce planning for communicable disease control and who would be best placed to undertake this work?*

•*Is there a greater role for vocational workplace training? If so, which skills in communicable disease control would you prioritise for work-placed based vocational training?*

Improvements in communicable disease control education and training need a national oversight. The cutting (or even non-continuation of funding) of the ANU program of Master of Applied

Epidemiology was an example of short term budget issues taking priority over longer term needs for skills in the area of communicable disease training and education. It is similar story with regard to PHOTPs in both NSW and Victoria. One of the arguments put for an ACDC by the PHAA is that the body can provide an oversight of programs of training and where appropriate assist in the establishment of coordinated centres of excellence in training in specific fields. The discussion paper identifies areas such as 'one health' that are currently poorly coordinated and in need of additional funding and focus to improve Australia's ability to deal with further communicable disease outbreak associated with zoonosis.

5. Conclusion

The PHAA supports the broad directions of the discussion paper *Towards a Framework for Communicable Disease Control*. However, we are keen to ensure that as far as possible decisions about a framework are in line with this submission. We are particularly keen that the following points are highlighted:

- That Australia develops an ACDC
    - The ACDC be at arm's length from government
- The ACDC be focussed Australia's needs but also takes into account the regional issues
- Leadership is an essential element of improving our responsiveness to communicable disease concerns
    - These are best addressed through the establishment of an ACDC

The PHAA appreciates the opportunity to make this submission and the opportunity to put forward our ideas on the excellent discussion paper and annex.

Please do not hesitate to contact me should you require additional information or have any queries in relation to this submission.

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