Response ID ANON-EJPH-TM5D-1

Submitted to Feedback on the draft National Microbial Genomics Framework 2024-2025
Submitted on 2023-10-09 12:03:24

Introduction

1 Are you responding on behalf of an organisation, or as an individual?

On behalf of an organisation

Specify if other selected:

2 What is your organisation's and/or your main field of expertise?

Other - please specify

Specify if other selected:
Health genomics

3 If representing an organisation, which sector does your organisation belong to?

University/Education/Research Institution

Organisation Sector:

4 If representing an organisation, what is the organisation's name?

Organisation name:
Australian Genomics

5 If representing yourself, what is your name?

Name:

6 Do you give the Department of Health and Aged Care permission for your submission to be published?

I agree to my responses being made public under my name and/or organisation name

Preamble

7 What do you think of the following introduction sections: Glossary, Background, Purpose, Strategic Context, Strategic Priorities and Implementation?

Response to Background:

We note that much of the content of the Glossary and Background are materially consistent with the 2019 – 2022 Framework.

Response to Purpose including Guiding Principles:

We note that much of the content of Purpose is materially consistent with the 2019 – 2022 Framework.
Given the significant health genomic activity and investment across research, translation and implementation into healthcare at a Commonwealth and State/Territory level, we feel the Framework could be strengthened by alluding to stakeholders beyond public health/pathogen genomics, and include human health genomic initiatives, data infrastructures and health services.

Response to Strategic Context:

We note that the COVID response accelerated microbial genomic surveillance, and this Framework has been renewed to reflect these developments, and also there is explicit reference to the One Health principle, which we welcome.

The challenges of shared responsibility for funding of microbial genomic delivery are noted, and the need for explicit jurisdictional and federal negotiation around cost-sharing of surveillance and research, versus public health delivery. The challenges of data sharing across jurisdictions have also been noted, which resonate across health and genomics.

We also acknowledge that the next 3 yearly review of the Framework will need to address in greater operational detail the Centre for Disease Control, and the extent to which roles and responsibilities for implementation of the Framework will be integrated into the CDC.

Response to Implementing the Framework:

N/A

Prioritisation

8 What do you think of the five strategic priorities?

Response to Strategic Priority One:

N/A

Response to Strategic Priority Two:

N/A

Response to Strategic Priority Three:

N/A

Response to Strategic Priority Four:

N/A

Response to Strategic Priority Five:

We note that the Strategic Priorities are consistent with the 2019 – 2022 Framework, with wording adjusted to reflect the incremental progress over the past four years. We note that many of the goals have been transferred verbatim from the initial Framework. Noting the significant impact that the pandemic had on this field – in accelerating priorities, and complicating delivery, we recommend critical appraisal of the ambitiousness of stated goals and timelines.

Please note that the reference to the $500 million Australian Genomics Mission under the MRFF is incorrect. It is named the Genomics Health Futures Mission.

9 Are there any additional priority areas that should be considered?

No

Specify any additional priority areas for consideration:

N/A

Measuring Progress

10 Please indicate your level of agreement with the goals and targets outlined in the draft Framework.

Agree

Explanation of response to level of agreement with goals and targets:

N/A

11 What do you think of the implementation outcomes listed under the five strategic priorities?

Response to Strategic Priority One Outcomes:

Action 1.2.3 promoting awareness and understanding of microbial genomics as a priority should extend to the public. With the increased political, media and public attention to microbial genomics during the COVID-19 pandemic, this led to increased familiarity. Therefore, there is a timely opportunity to extended and expand upon public awareness. The willingness of the public to participate in testing is critical to outbreak surveillance and control.

Response to Strategic Priority Two Outcomes:

Earlier this year, Australian Genomics provided government with a report and recommendations for the establishment of a National Approach to Genomic Information Management (NAGIM), which detailed data standards, management, governance and sharing in a wholistic system applicable to clinical and research genomic data. Many of the principles can be applied to microbial genomics, and innovations in microbial genomics, such as AusTrakka, may be applied to the establishment of a NAGIM. Coordination of all human health related genomic data would bring additional benefits including data-led fulfilment of OneHealth goals.

Response to Strategic Priority Three Outcomes:

N/A

Response to Strategic Priority Four Outcomes:

N/A

Response to Strategic Priority Five Outcomes:

N/A

12 Are there any additional implementation outcomes that should be considered?

Yes - please specify below

Specify any additional implementation outcomes for consideration:

As noted above, the implementation outcomes could explicitly seek opportunities for alignment, collaboration and co-investment with the substantial human health genomics activity in Australia, including but not limited to the Australian Genomics, and the establishment of Genomics Australia.

For example – 1.3.5 refers to the need to 'Harmonise governance and legal requirements between jurisdictions and amend guiding frameworks specifically for sequence and genomic data and associated metadata'. This is an activity that impacts both public health, and human health delivery in genomics.

Similarly, the Framework specifies the 'pressing need for more bioinformaticians, computer scientists, genomic epidemiologists, translational genomics researchers, genomics-literate microbiologists, and data analysts.' The genomic workforce capacity and capability overall is a significant challenge to Australia's realisation of the opportunities of health genomics. Without coordinated policy and strategy between public health, and human health disciplines, we risk cannibalisation, and fragmentation.

Annex A

13 What do you think of the national and international developments highlighted in Annex A?

Provide comments on Annex A:

No comment beyond the aforementioned absence of human health genomic activity in Australia and internationally.

Framework Layout

14 Do you agree that the presentation of the Framework is appropriate?

Agree

Explanation of ranking for feedback presentation:

N/A

15 Do you have any comments of the design, layout, length, or presentation of the Framework?

Yes - please specify below

Provide feedback on the design, layout, length or presentation of the Strategy:

Given that many of the actions are extensions upon those previously introduced in the 2019-2022 Framework, perhaps the tables outlining the actions could include additional columns indicating a) progress toward completion, and b) any changes in priority level (low – medium – high). This would give stakeholders a good understanding of progress without having to do a side-by-side comparison of the previous Framework and this.

16 Please provide any additional feedback and comments:

Provide any additional feedback or comments:

The power in genomics is bringing together the sequence data and the epidemiological or clinical data to give meaning to the interpretations and there is a need to have the data custodians that hold the data engaged.

Genomics is a long-term innovation that require sustainable funding to advance both research and application to understand the best use cases, cost effectiveness and assess the health impacts.

Interoperable and centralised databases, such as AusTrakka, that respect existing systems are essential in being able to bring data together consistently and efficiently, whilst also optimising and streamlining the sharing of information and data between jurisdictions and nationally.

For pathogen genomics at least, having inadequate representation of data sharing between jurisdictions/pathogens creates gaps and weakens the public health surveillance. There needs to be an enforceable way to compel equitable and consistent expectations on what information need to be shared and for what purposes.

Australia needs to be connected with the global genomics community, both pathogen and human, to ensure that we are contributing to and adopting the best-practice models and contributing more broadly to global initiatives in genomics.