

# AIDH & InGeNA 2022 FEDERAL ELECTION STATEMENT

## Genomics and precision medicine in Australia: Priorities for an incoming government

**The health system is currently undergoing a significant shift from one that is reactive, illness-focused and uniform, to one that is predictive, preventive and focused on the individual** <sup>(1)</sup>.

Prior to the pandemic, for many people genomics was best known for helping you understand your family's ancestry. Now, there would be few Australians who are not aware of the important role genomics played in combatting COVID-19 and sequencing the novel Coronavirus, SARS-CoV-2.

Australia has leveraged existing genomics expertise and systems to support our public health response in a way that has allowed us to track viral variants and support contact tracing whilst still preserving individual privacy. That same expertise will support us beyond COVID, on our path to recovery.

Deloitte estimate that, based on the US market, the genomics and precision health sector is expected to contribute \$3.77 billion to Australia's GDP <sup>(2)</sup>. Health system sustainability will also be supported in that:

1. The use of genomics techniques is anticipated to deliver a 20% reduction in length of hospital stays <sup>(3)</sup>.
2. Breast cancer cascade testing can save \$12.8m in hospital, treatment, and palliative care <sup>(4)</sup>.
3. The application of pharmacogenomics in guiding drug selection for patients with depression is estimated to result in 12,000 extra people in remission, save the health system \$1,750 per patient, and deliver productivity gains of \$2,230 per patient <sup>(4)</sup>.

Precision health can ensure that people reach the right diagnostic test and receive the right treatment at the right time, reducing the diagnostic odyssey experienced by many patients. Genomics and precision health are relevant to all Australians:

- In 2020 there was more than 2 million people in Australia with are rare genetic disease. That's as many as those with diabetes <sup>(5)</sup>.
- 6-8% of children born in Australia will have a rare genetic condition. That's more than 18 thousand each year <sup>(5)</sup>.
- Half a million Australians were diagnosed with cancer in a recent 5-year period <sup>(6)</sup>
- 1 in 2 Australians will be diagnosed with cancer in their lifetime <sup>(6)</sup>

## Priority 1:

### Transparency and predictability of funding decisions

Establishing transparent and predictable funding decisions and arrangements for genomics and precision health will mean all Australians have equity of access to precision health and the resulting benefits.

**Recommendation 1:** The federal government improves equity of access to genomics by:

- I. Working with the Medical Services Advisory Committee (MSAC) to ensure recommendations for funding genomic applications are implemented in a timely fashion
- II. Working with state and territory counterparts to increase the consistency of funding arrangements for genomic diagnostics and treatments to ensure all Australians can benefit from genomics regardless of where they live.

## Priority 2:

### Supporting a skilled genomics workforce

Introducing genomics into mainstream medical practice requires a workforce that is sufficiently confident and capable to realise the benefits of genomics for patients and health system sustainability.

**Recommendation 2:** The federal government works with relevant parties to:

- I. Ensure that there is sufficient funding for training and placement of genetic counsellors and genomic pathologists to address demands for genomics services across the health sector.
- II. Ensure that medical specialists, general practitioners, and allied healthcare workers receive sufficient training in genomics to support patients and identify opportunities to reduce the diagnostic odyssey faced by many patients with genetic conditions.

## Priority 3:

### Access to genomic data for research and clinical practice

The storage and use of genomic data provides additional challenges for health services across Australia in areas such as consent and data sharing.

**Recommendation 3:** The federal government works with relevant parties to:

- I. Build a federated approach to storing genomic data that supports clinical and research applications.
- II. Engage with Australians about important issues such as consent and data sharing to allow them to make informed choices about when and how they allow their genomic and related health data to be shared for clinical and research uses.

## References

1. **CSIRO Futures.** *Future of Health.* 2018.
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4. **Industry Genomics Network Alliance.** *Valuing the impact of genomics on healthcare in Australia.* 2021.
5. *Rare diseases are a 'common' problem for clinicians.* **Elliott E, Zurynski Y.** 9, s.l. : Australian Family Physician, 2015, Vol. 44.
6. **Australian Institute of Health and Welfare.** Cancer data in Australia. [Online] <https://www.aihw.gov.au/reports/cancer/cancer-data-in-australia/contents/summary>.