

Australian Genomics Education Initiatives

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Australia Genomics Initiatives

- Overview of Australian healthcare system (Nicky)
- Australian Genomics Health Alliance (Kate)
- Genome Plus (Nicky)

Questions

Australian Healthcare System

Funding:

- Australia Gov (Federal)
- State/ territory
- Private

Responsibility for services

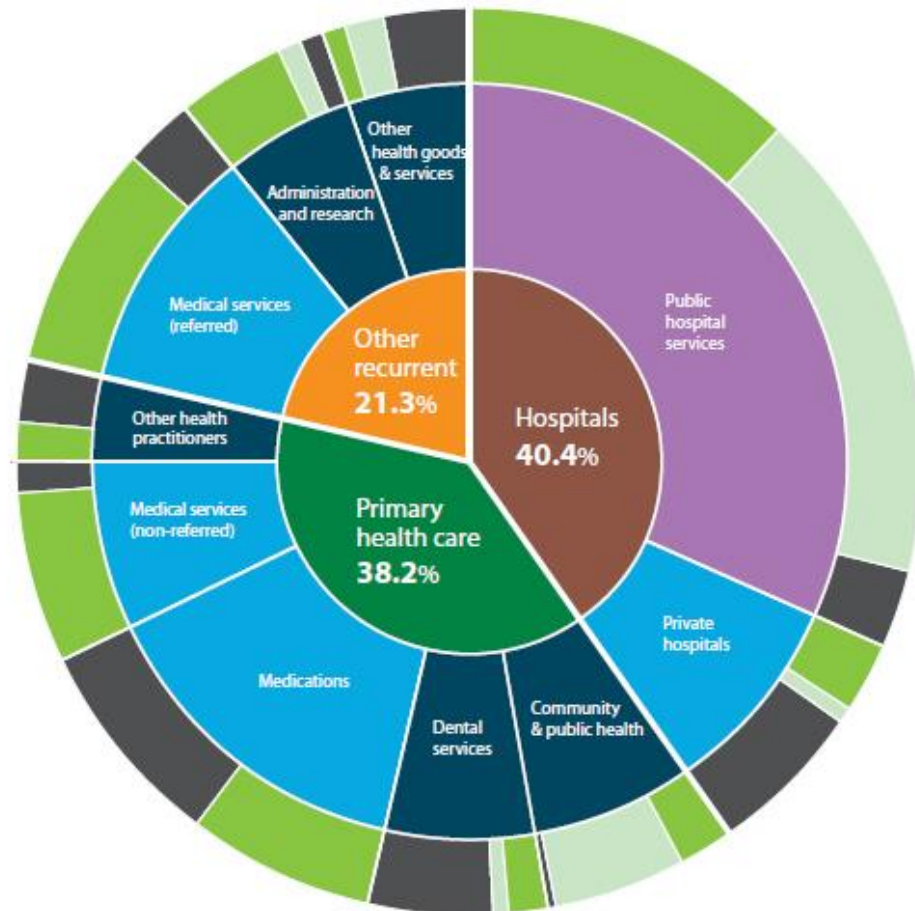
- Public
- Private

Many HCP's practice in public and private

Training & Education of HCP:

- Medical Colleges- e.g. RACP
- Associations – e.g. HGSA
- Universities – e.g. USYD

Industry and related services supporting health system



Share of expenditure

- Hospitals
- Primary health care
- Other recurrent

Responsibility for services

- Combined private sector and public sector —all levels of government
- State and territory governments
- Private providers

Funding

- Australian Government funding share
- State/territory government funding share
- Private funding share

Source: AIHW Health System



- Australian Genomics Health Alliance (AGHA) is a national network of clinicians, diagnosticians and researchers led by the Murdoch Children's Research Institute, Melbourne
- NHMRC grant (2015) to develop a roadmap for the adoption of genomics into health care
- Chief Investigators : 61

AGHA programs

Research undertaken within 4 key programs:

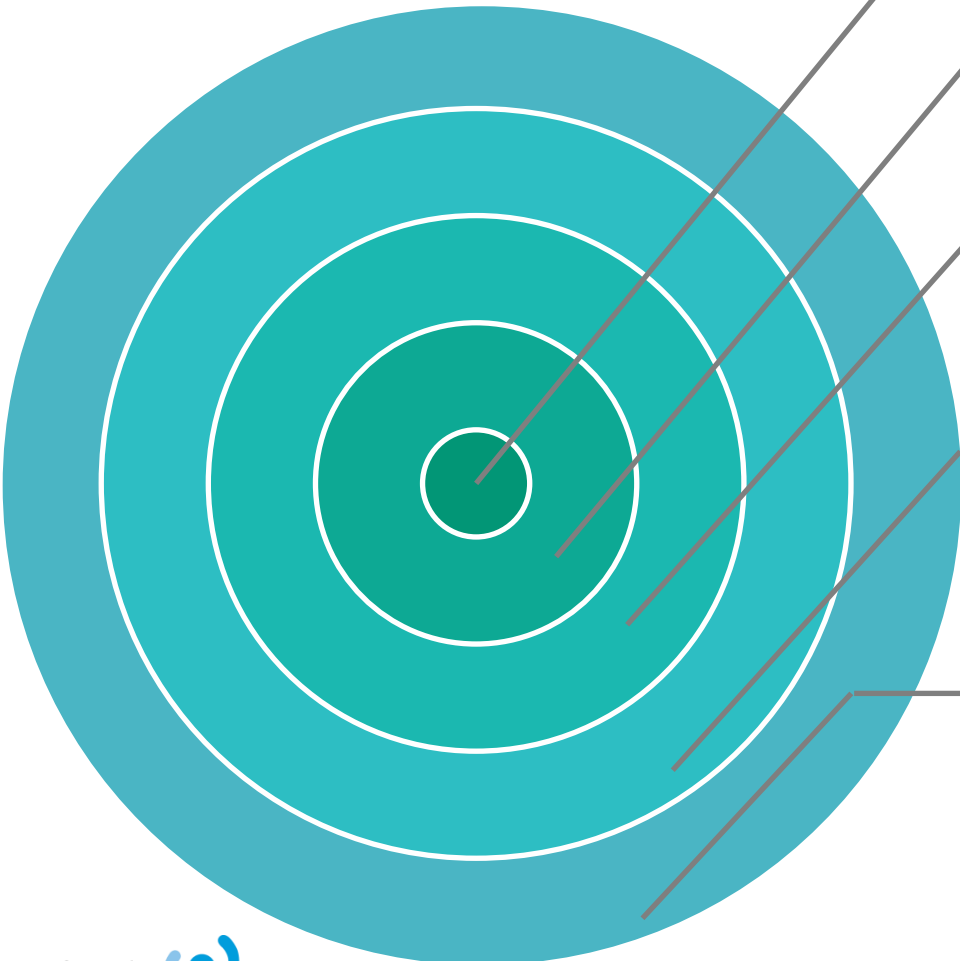
- Program 1: A national diagnostic and translational research network
- Program 2: A national data repository: scalable, shared and standardised
- Program 3: Economic analysis and policy implications for the health system
- **Program 4: Genomic workforce, education and ethics**

Program 4: Genomics Workforce, Education and Ethics

Purpose:

- Identify the current landscape with respect to workforce, education and training, patient understanding and ethics
- Provide outcomes that will be relevant and useful for education and training providers

Defining the genomic medicine workforce



Patients

Genomic specialists: clinical geneticists, genetic counsellors, genetic pathologists, medical scientists, bioinformaticians

Non-genomic health professionals ordering genomic tests: medical specialists

Non-genomic health professionals identifying and referring: GPs, allied health, nurses, midwives

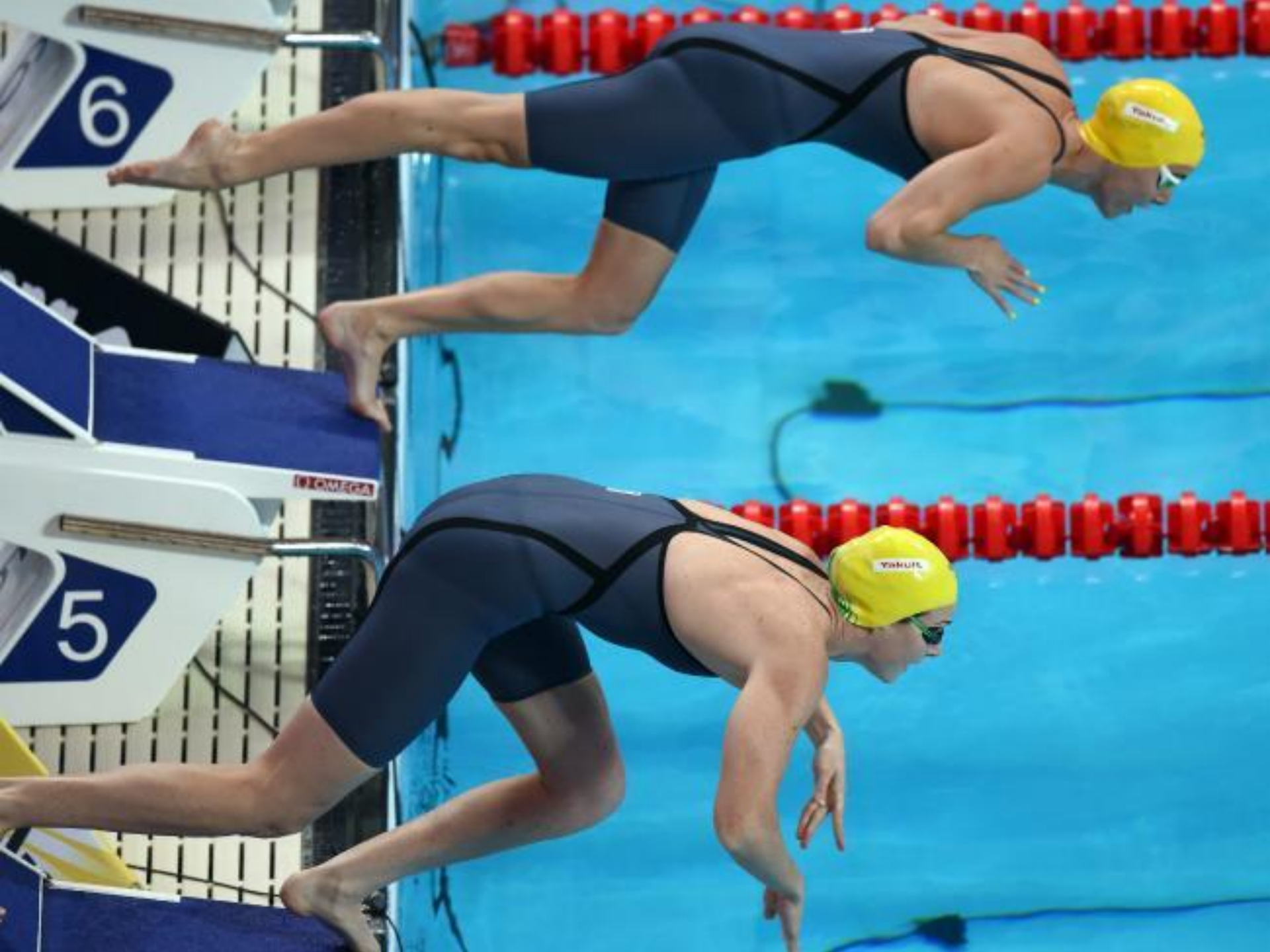
Representative organisations:
Associations, Colleges
Education providers
System Influencers

Program 4

- **Leadership:** Prof Clara Gaff and Prof Sylvia Metcalf from MCRI
- **Working group:**
 - Kate Dunlop, Centre for Genetics Education NSWHealth
 - Bronwyn Terrill, Garvan Institute Medical Research
 - Dr Debra Graves, Royal College of Pathologists
 - A/Prof Ainsley Newson, Values, Law and Ethics, University of Sydney
 - Human Genetics Society of Australasia
 - Project Officers

Projects

- Project 1 – Mapping 2016
- Project 2 – Needs assessment 2016–18
- Project 3 – Evaluation framework 2016–20
- Program 4: Patient participant survey
- Program 5/6: PhD- ethics



Gap in Australian Healthcare System

Public System

- Structured public system
- Resourced
- Academically driven
- Clinical guidance
- Delineation of responsibilities

Private / Industry

- Significant part of health system
- Diverse needs- drug development to clinical research to sales
- Unclear role/responsibilities
- RISK: access to treatments, product development, clinical trial design and management, sales aids



Genome Plus

- Tailored genomic engagement and education programs for healthcare professionals who are not part of the public health system.
- Complementary to public health system programs
- Audience:
 - pharmaceutical, biotechnology and medical device industry employees involved in clinical research, health technology assessment, marketing and sales representatives
 - health professionals who are in private practice and need to understand the impact of genomic medicine of their current practice i.e. dentists, pharmacists
- Commercial Model – no government funding

Key Learning criteria are dependent on role and application

- Appropriate genetics and genomics terminology
- Recognise knowledge and skills in relation to the application of genetics and genomics in area of practice
- Conditions involving alterations to the genome and/or population groups at risk as seen in their role
- National and regional guidelines on genetics and genomics
- Ethical, legal and social issues associated with genetic and genomic healthcare e.g. informed consent
- Responsibility for imparting accurate information to others
- Determine personal learning needs in genetics and genomics
- Access accurate information on genetics and genomics and structure for continual education

GenomePlus Challenges

- Limited recognition of industry of rapid rate of genomic technology development and potential impact on healthcare
- Dependency on parent companies in USA or EU for initiatives
- Complex reimbursement system for medicine, co-dependent technologies, devices, biomarkers etc.. different to USA & EU
 - Risk of having products not reimbursed i.e. rare cancers
 - Risk of limitation on biomarker use across products
- Resourcing breadth and depth of education required
 - Mix of online, face-to-face, workplace
 - Accessing specialist knowledge
- Acceptance and recognition of bridge needed to public system

Genomics in Australia

- Challenges but proactive and positive
- Collaborative

THANK YOU
Questions?

