

Canterbury Genomic Pilot

Dr Richard King FRCPA

Canterbury Health Laboratories

Hopes local genomic testing pilot will cut wait times for cancer patients

6:04 pm on 18 March 2026

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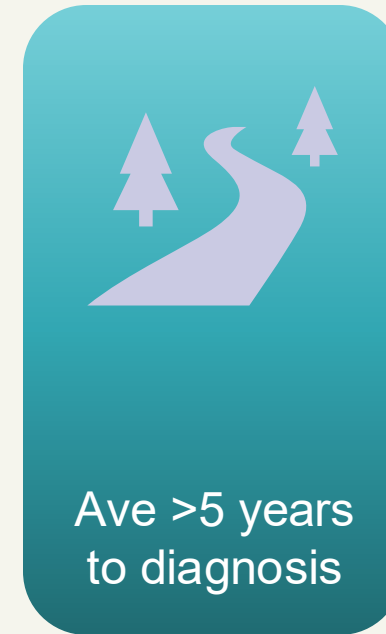
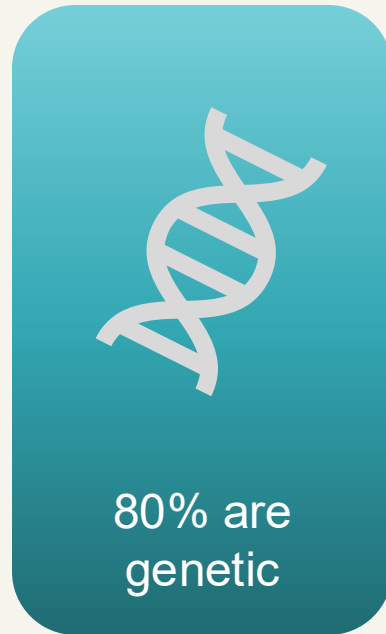
The government launched a **two-year pilot** of a genomic testing programme on Wednesday, allowing samples to be analysed locally.

Health New Zealand would partner with global genomics company **illumina** to deliver the testing, which would be performed at **Christchurch's Canterbury Health Laboratories**.

Health New Zealand
Te Whatu Ora

Rare disorders

300 000 New Zealanders



Rare Disorders Strategy

Introducing new capabilities

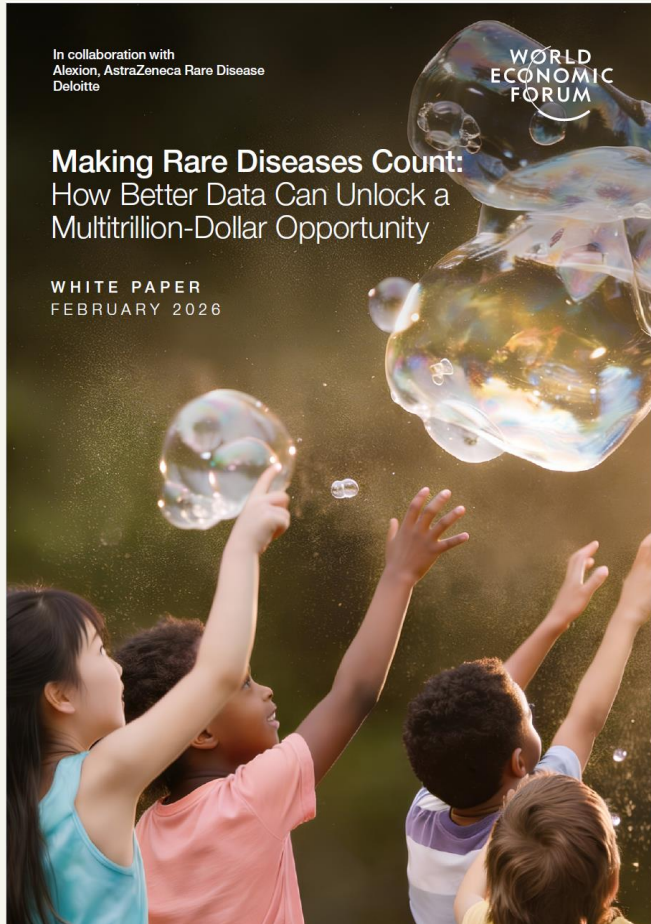
Over time, new capabilities will be introduced into the system to speed up diagnosis and allow earlier preventive care.

New **genomic testing** for suspected rare disorders will speed up diagnosis, especially for infants and children. **Rapid DNA sequencing** will allow precise identification of a genetic disorder from among several thousand possibilities, rather than testing for one at a time. **The capability and service infrastructure to support early testing and preventive care will be built over time.**

Aotearoa New Zealand Rare Disorders Strategy – Te Rautaki o Aotearoa e Pā ana ki ngā Mate Mokorea



World Economic Forum



Improved quality of life and healthcare coordination



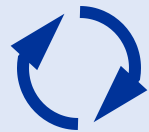
Reducing diagnostic, treatment, long-term and palliative care costs

Investing in rare disorders

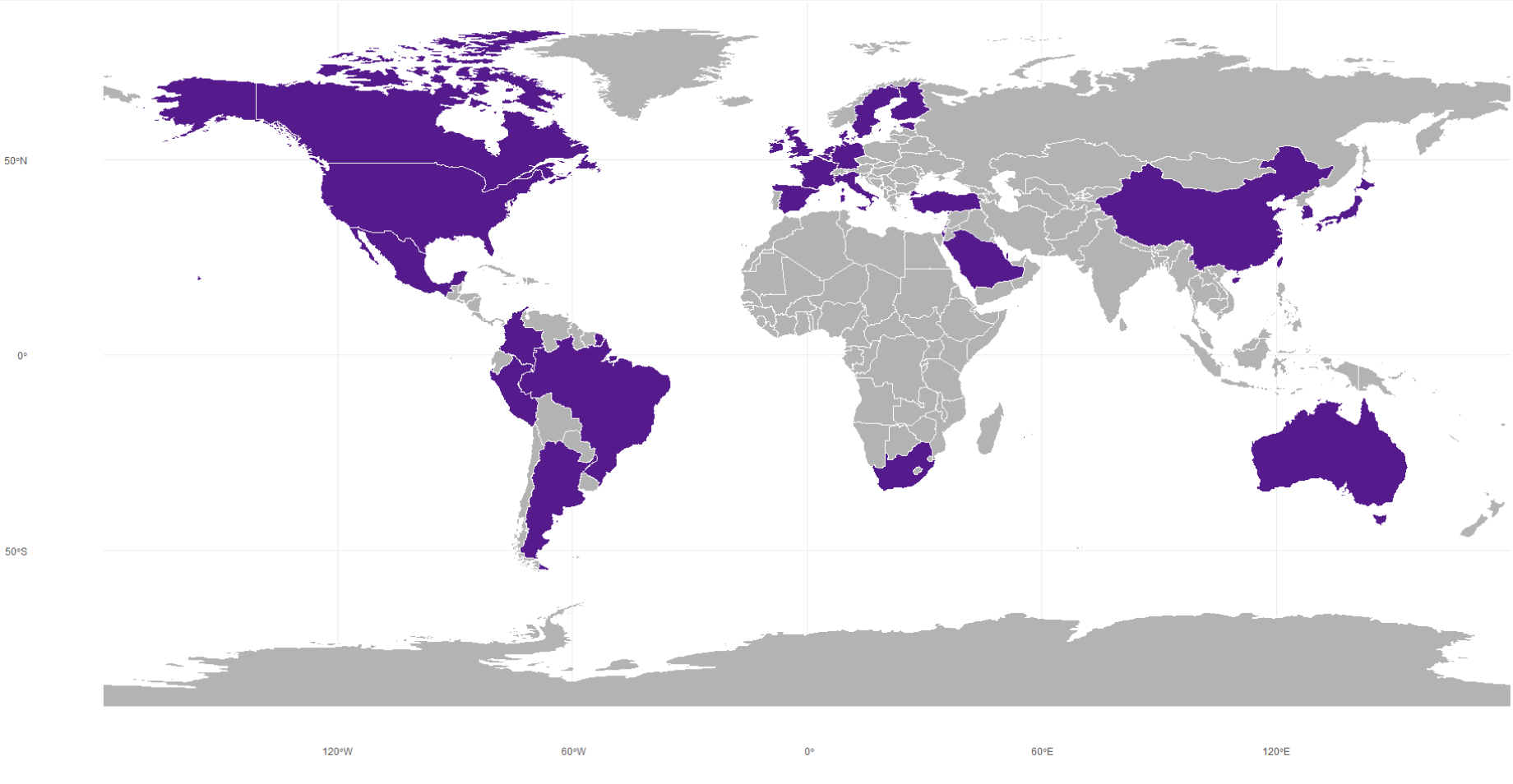
Advancing scientific discovery and health innovation



Compounding benefits – the virtuous cycle

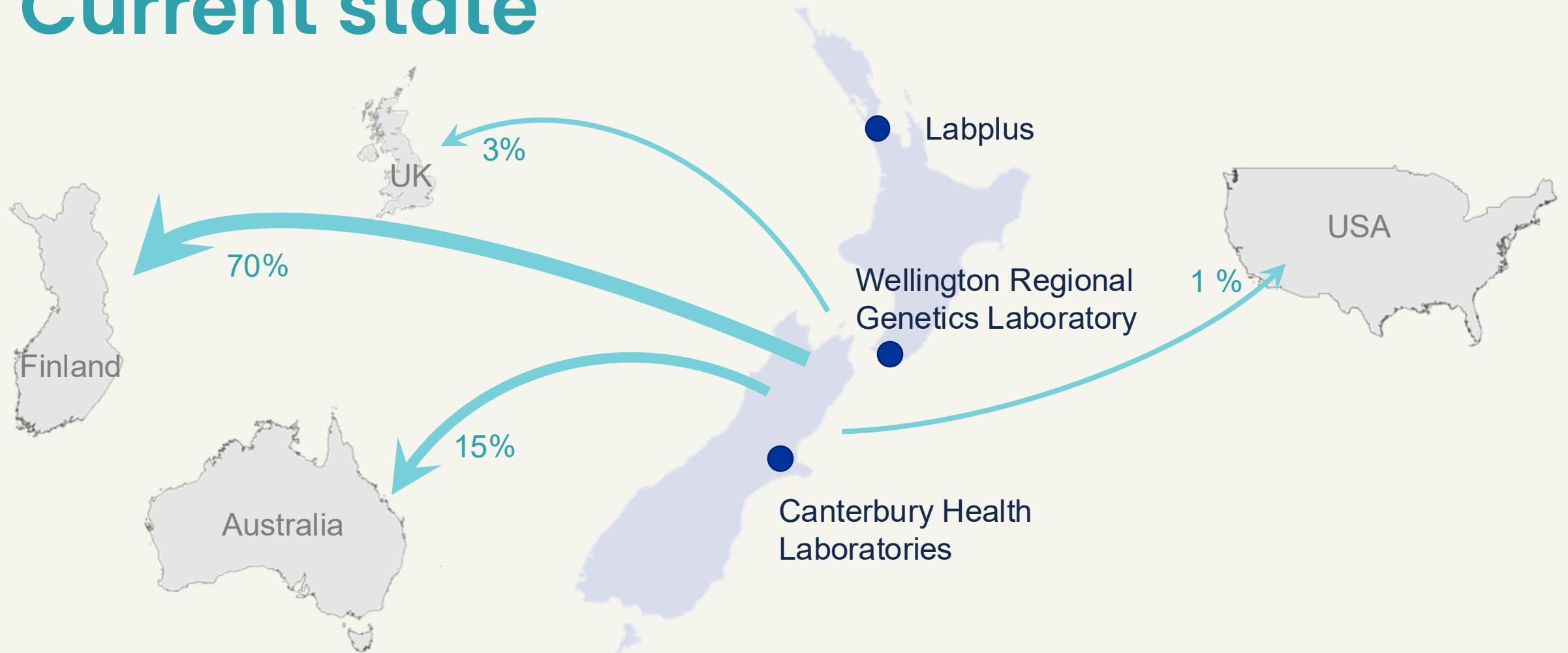


Countries with publicly funded WES/WGS



Region	Country
North America	USA, Canada, Mexico
Central/South America	Brazil, Argentina, Colombia, Peru
Europe	UK, Germany, Belgium, Denmark, Netherlands, Sweden, Italy, Spain, Ireland, Estonia, Finland, France
Middle East	Saudi Arabia, Qatar, Turkey, Israel
Asia/Oceania	Australia, China, Japan, South Korea, Taiwan
Other	South Africa

Current state



Exome/panel testing in New Zealand

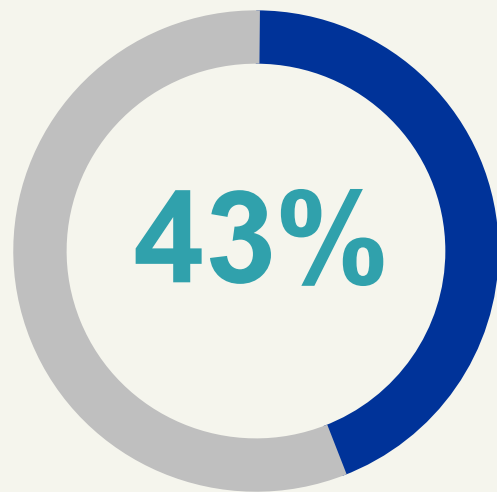
Exome sequencing



7/2022 to date

572

Families
tested

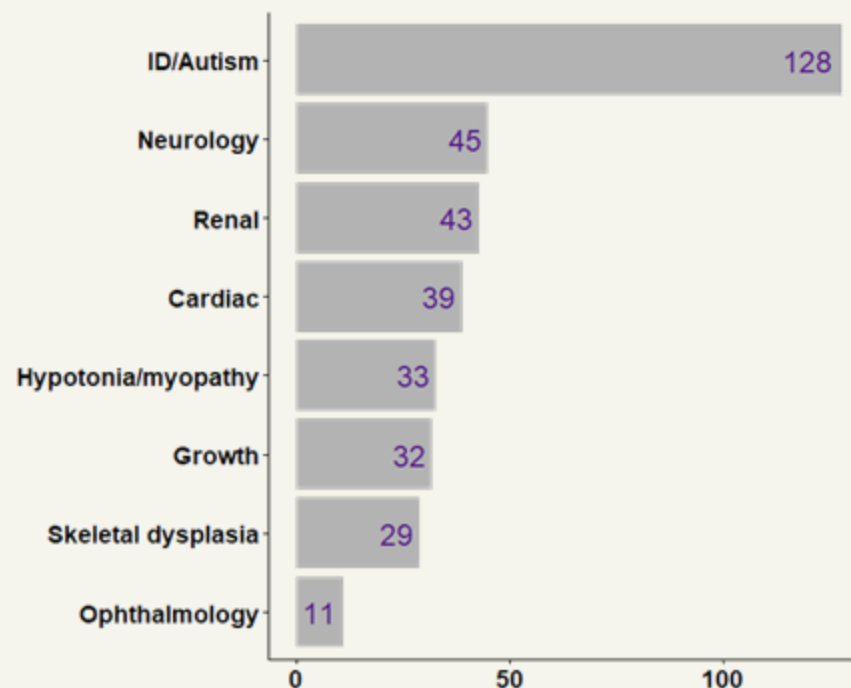


Diagnostic rate

Turn Around Time

Urgent – 4 wks

Routine – 8 wks



GHSNZ (NI) 102
Paeds 21

Metabolic 27
Other 14

GHSNZ
(Central) 94

GHSNZ
(Southern) 20

GHSNZ (SI) 156
Paeds 73

*Data from first 500 samples

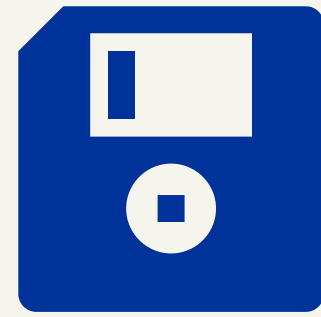
Challenges...



Where relevant, allele frequency data in New Zealand Māori populations is incorporated using the He Kākano /Aotearoa Māori Variome Resource for Clinical Diagnostic Purposes



Unsolicited findings



Data requests

Pilot Overview



Whole Genome Sequencing

*Trio exomes to
trio genomes*



Virtual panels

*Retain testing in NZ
on genome backbone*



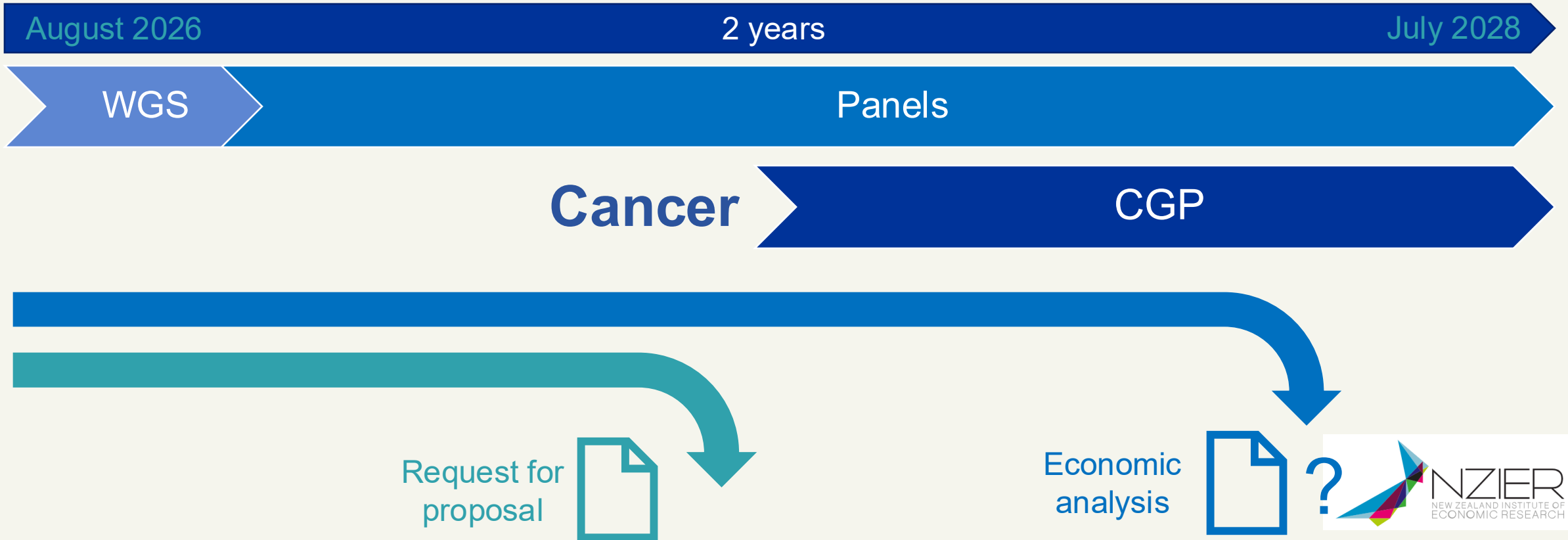
Cancer

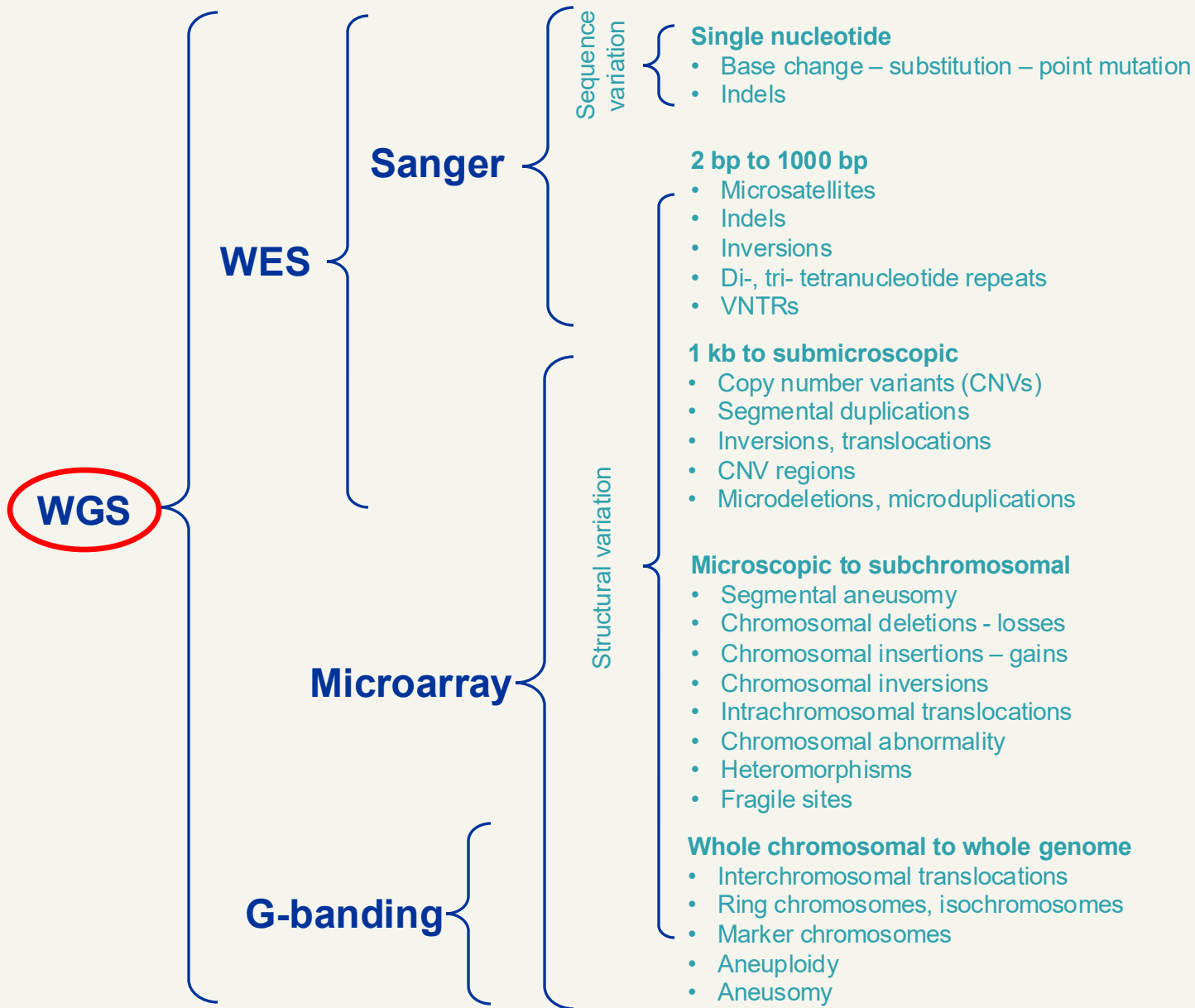
*Trial TSO500
comprehensive genomic profile*

Panels

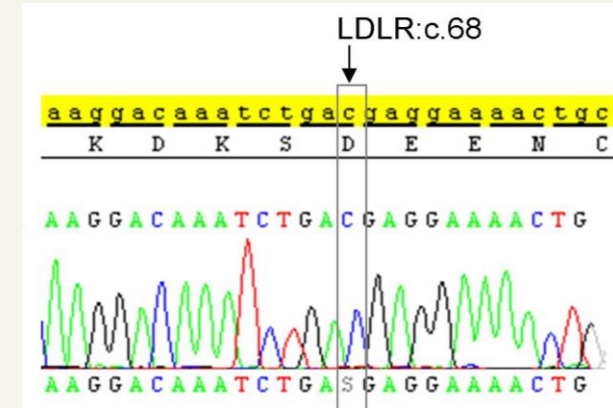
1. RASopathy panel
2. Connective tissue disorders – EDS
3. Thoracic aortic aneurysm
4. Skeletal dysplasia
5. Osteogenesis imperfecta
6. Tranche 2... TBC

Timeline

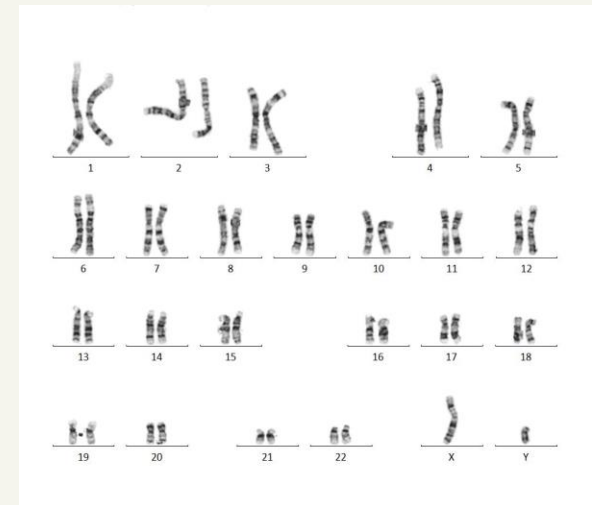




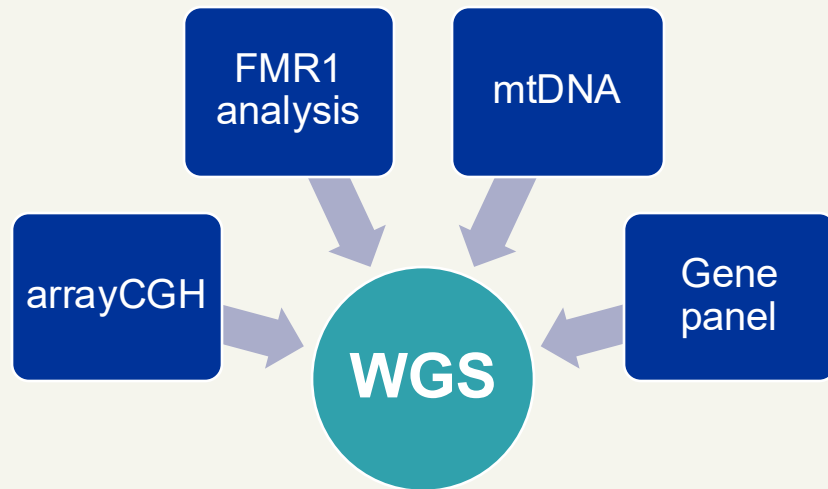
Molecular
genetic
detection



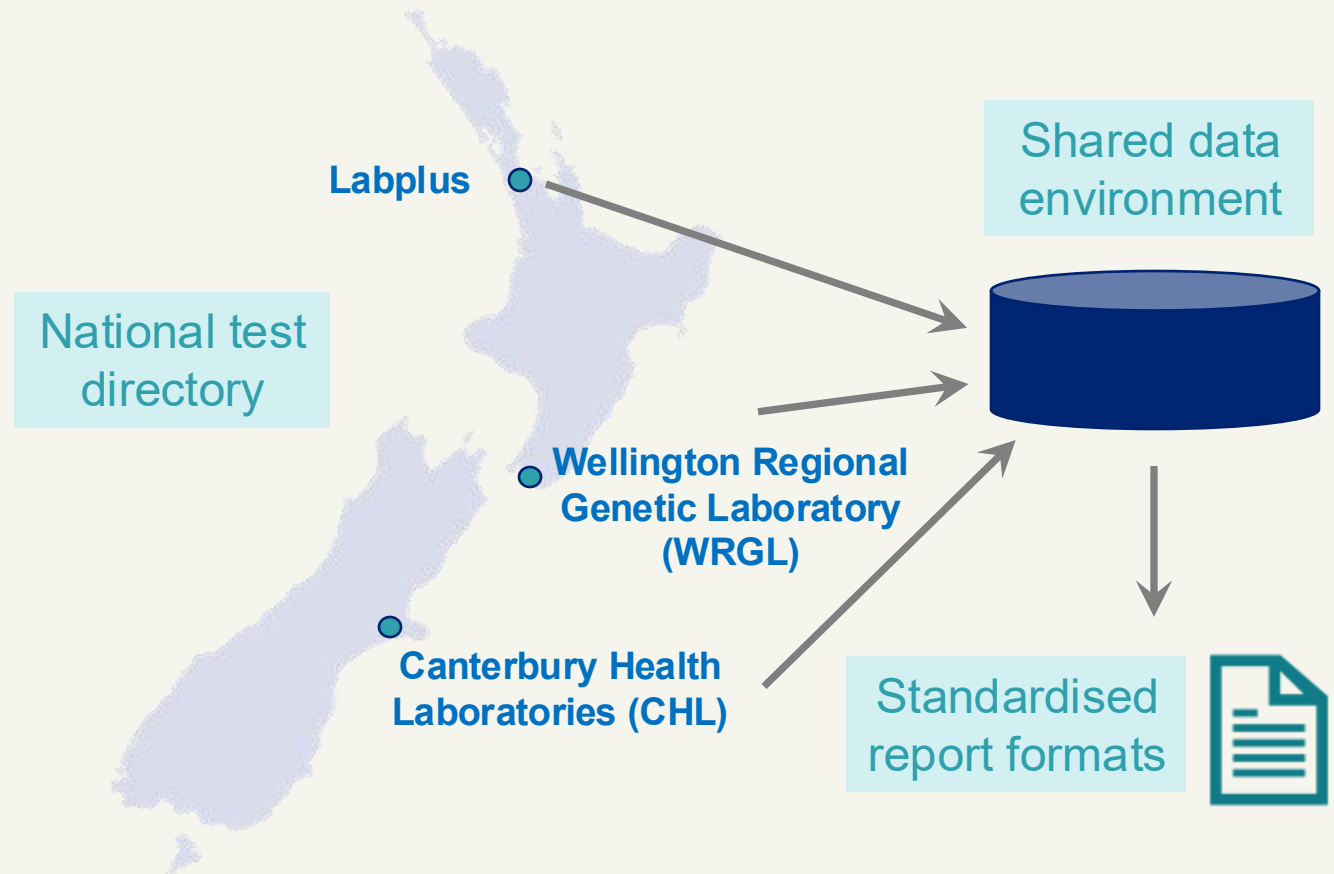
Cytogenetic
detection



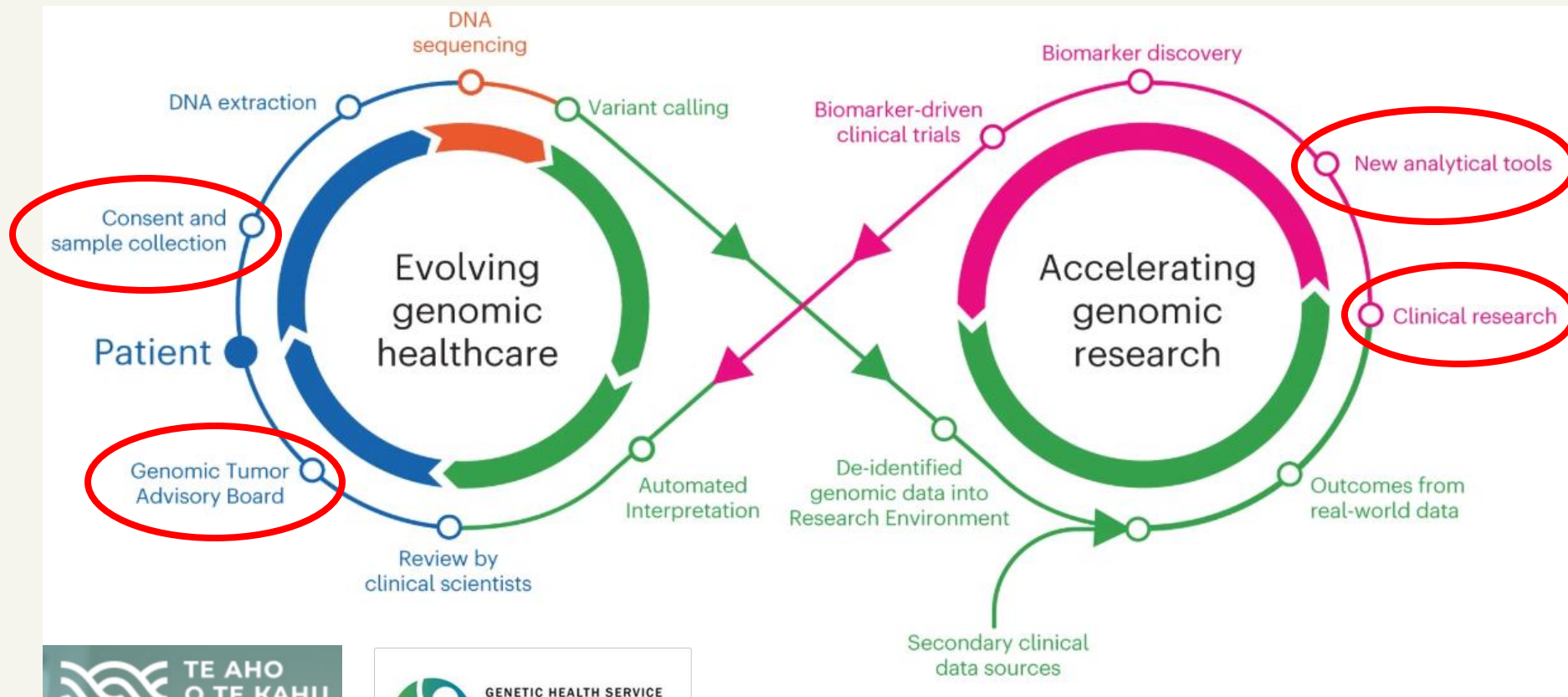
Evolving workflows



Consolidation of workflows within the laboratory



Strengthening connections



National Clinical Networks

Health New Zealand
Te Whatu Ora

August 2028



Health New Zealand
Te Whatu Ora



Acknowledgements



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