A Strategic Framework for the Pathology and Laboratory Services Sector

2014

3 December 2014

A Quality and Value Approach
Acknowledgements and disclaimer

This strategic framework has resulted from a series of discussions by a national Roundtable of experts chaired by the Chief Medical Officer of the Ministry of Health which occurred from November 2011 to February 2013. The membership is:

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The report presents the consensus view of Roundtable members; it does not represent Ministry of Health Policy.
1 Context

1.1 The New Zealand Pathology and Laboratory Sector

Pathology and Laboratory services are a critical, often invisible part of the patient’s clinical pathway. This document provides the context for the Pathology and Laboratory Sector (PLS) in New Zealand (NZ), describes the role of the Pathology and Laboratory Round Table (the Round Table) and sets out the strategic direction for the future.

Laboratory testing plays a critical role in clinical decision making providing clinicians with information that supports and expedites diagnosis and treatment. Laboratory tests also underpin disease screening for risk factors, determination of disease severity, recovery likelihood, therapeutic selection, monitoring and investigation of adverse outcomes. At the population health, level clinical laboratories are critical in the identification of hospital acquired infections, identifying antimicrobial resistance patterns, and in the control of infectious disease outbreaks and exposures to toxic substances.

Pathology and Laboratory services are involved at multiple stages of the patient pathway and cross community, primary, secondary and tertiary service boundaries. It is generally accepted that approximately 70% of diagnoses rely on output from Pathology or Laboratory services\(^1\).

Pathologists are the medical specialists who provide expertise in the diagnosis and monitoring of diseases utilising laboratory tests and Medical Laboratory Scientists perform the test. The place of laboratory testing in clinical pathways of care is defined by the pathology discipline providing oversight of the particular test concerned. At present, pathology practice has nine different areas of activity relating either to the methods used or the types of disease that they investigate. These are:

- Anatomical Pathology
- Forensic Pathology
- Chemical Pathology
- Genetic Pathology
- Haematology
- Immunopathology
- Microbiology
- General
- Clinical Pathology.

1.2 Establishment of the Pathology and Laboratory Round Table

In 2009, the Ministerial Review Group (MRG)\(^2\) noted that service access for laboratory services was inconsistent both in terms of the range of services available and the cost of services to consumers. They recommended that the Ministry of Health (the Ministry) review the arrangements for planning, funding and provision of national, regional and local laboratory services with a view to determining the optimal planning, funding, and service configuration arrangements for New Zealand.

In response to the MRG report, the Ministry convened the Round Table in 2010 with a view to strengthen engagements within the Laboratory and Pathology sector. The group was comprised of key sector leaders from DHBs, private and community laboratories and the Ministry. It is chaired by the Chief Medical Officer. The Round Table has continued to meet on a regular basis.

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The Round Table identified that the PLS faces a number of significant challenges and has developed the strategic framework in this document to that sets out the future direction for the NZ PLS. This framework includes the principles that underpin the focus on a patient centred approach and provides the basis for a future work plan for the Round Table.

The role of the Round Table has evolved to include the provision of advice on PLS matters to the Director-General of Health. In this role the Round Table is tasked with working collaboratively with the wider health sector stakeholders, the NZ PLS committees to achieve the objectives set out in the Strategic Framework. The governance structure is shown in Appendix 2.

1.3 Future environment challenges for the NZ PLS

Significant change will occur in the New Zealand public health system over the next ten years which will impact on the PLS. Some of the trends that will impact are identified below.

**Figure 1: Challenges facing New Zealand’s Pathology and Laboratory Services**

- **Workforce**
  - Greater specialisation
  - Greater diversity of workforce
  - New and emerging workforce groups
  - Aging workforce

- **Demographic trends**
  - People live longer and are well
  - Increase in chronic disease
  - Increase in co-morbidities and clinical complexity

- **Consumer expectations**
  - Personalised care
  - Increase in point of care testing
  - Increase in demand
  - Information

- **Technology changes**
  - Improved detection
  - Increased volume throughput
  - Integrated systems
  - Rapid Microbiology Turnaround (TAT)
  - Increase global service provision
  - Increase in clinical trials
  - Increased antimicrobial resistance surveillance
  - Increase in available tests e.g Genomics.

- **Health system changes**
  - Treatment and care delivered closer to home
  - Clinical team working differently
  - Focus on wellness and prevention
  - Integration of care for patient
  - Best use of increasing volume of information

The Round Table recognises that the NZ PLS needs to proactively respond to future changes and challenges. This includes the sector developing the capability and capacity to observe, monitor and inform future changes to the health service. It also recognises the need for the PLS to participate more effectively in the patient’s clinical pathway.
2 Strategic Framework

In response to the current challenges facing the PLS, the Round Table has developed a strategic framework that sets out the strategic direction that will guide the NZ PLS to appropriately respond to the needs of the NZ population and health system (see Appendix 1). The framework also provides direction and guides meaningful engagement with the wider health service and is a guide for those organisations and stakeholders that have an interest in PLS and the NZ health system.

In developing this strategic framework the Round Table identified it needed to incorporate the Triple Aim principles, which are high level outcomes focussed on quality, equity and value for money, and which are integral to the NZ health sector (Figure 2).

Figure 2: New Zealand’s Triple Aim

Along with the wider health sector the PLS also contributes to the Ministry of Health’ high level outcomes, which are:

- Health services are clinically integrated, more convenient and people-centred
- New Zealanders are healthier and more independent
- Future sustainability of the health system is assured\(^3\).

2.1 Vision and mission

As part of the development of the strategic framework the Round Table prepared the following vision and mission statements for the NZ PLS which provide the strategic purpose and clarity on the role it plays in the wider health sector.

Vision

“clinical practice (in its broadest sense) will be advanced by an integrated and proactive pathology and laboratory service that anticipates the needs of patients and clinicians, and intentionally manages anticipated change.”

Mission

“The business of PLS is putting objective evidence (information and intelligence) into the hands of clinicians and patients, to enable timely decision making and to improve patient outcomes.”

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This mission recognises that a significant focus of PLS is to enable clinical treatment and care to be delivered in a safe, effective and timely manner centred on the patient. The focus is also broader than treatment and care. It includes such things as:

- using laboratory information to support the efficient planning and commissioning of health services for populations
- informing investment in new health technology and procedures
- the protection of society from harm associated with communicable diseases
- the early detection and screening of disease
- ensuring that systems, processes and practices are in place to provide assurance to the health service about the quality of laboratory and pathology information.

2.2 Strategic Principles

Strategic principles create a longer term direction and framework within which the NZ PLS can function. The strategic principles are linked to the system level outcomes and aimed at achieving the overarching vision and mission.

The model developed by the Round Table has three strategic principles which are positioned around a system of patient centred care (Figure 3).

Figure 3: New Zealand Pathology and Laboratory Services model for patient centred care

2.3 Objectives for the NZ PLS

The three principles underpin a number of areas from which high level objectives have been developed. These objectives link back to the model for patient centred care and provide the foundation for the development of a workplan by the Round Table.
1. **Integrated and Sustainable System**
   - **Sustainability**: the connecting of clinical and financial resources that supports the patient along the pathway in providing timely and appropriate advice and information to the patient and the clinical team.
   - **Integration**: the alignment of resources (eg, information technology, workforce and funding) to provide high quality service delivery to patients and clinicians.
   - **Workforce**: having the appropriately trained and qualified staff to deliver patient centred services.

2. **Clinical Excellence**
   - Enhancing the **clinical quality** by delivering a seamless service to the patient and clinicians in an open and transparent manner taking account of international best practice.

3. **Quality Outcomes and Value for Money**
   - **Innovation** – enabling the introduction and adoption of new tests in pathology (eg, ‘omics (Genomics) and Point of Care Testing) through consistency with commissioning, contracting and dissemination. Drive to ensure quality outcomes by providing the “Right care, right place, and right result at the right time.” Monitor and evaluation of outcomes.

2.4 **Workplan of the Round Table**

The objectives outlined in the strategic framework will form the basis for the actions outlined in the workplan.

The objectives and the associated workplan need to be tested, evaluated and refreshed on a regular basis to ensure the NZ PLS, under the strategic leadership the Round Table, remains responsive to the challenges facing the sector.
Appendix 1- Strategic Framework

NZ PLS Strategic framework

**Triple aim**
- Improved health and equity for populations
- Improved quality, safety and experience
- Best value for public health resources

**System level outcomes**
- Health services are clinically integrated, more convenient and people centred
- New Zealanders are healthier and more independent
- Future sustainability of the health system is assured

**Vision and Mission**

**Vision:** Clinical practice (in its broadest sense) will be advanced by an integrated and proactive pathology and laboratory service that anticipates the needs of patients and clinicians, and intentionally manages anticipated change.

**Mission:** The business of PLS is putting objective evidence (information and intelligence) into the hands of clinicians and patients, to enable timely decision making and to improve patient outcomes.

**Patient centred care**

**Integrated and Sustainable system**
- Models of care are community based and chronic care focussed
- Remote deployment of diagnostic tools are part of the laboratory environment
- There is an appropriately trained workforce that supports an integrated and sustainable system

**Clinical Excellence**
- The system is flexible, adaptable, sustainable and future-focused
- The clinical and managerial system optimises diagnostic value for money
- Benefits of change are optimised and risks appropriately managed

**Quality Outcomes and Value for Money**
- Laboratory diagnostic and reference services are consistent with clinical and scientific best practice principles
- Standards based sharing of laboratory information, in a patient centric manner
- Laboratory reference services that are consistent with international best practice, biosafety, biosecurity, surveillance and quality requirements
- Innovation and new technologies are monitored and evaluated in relation to their value (and risks) to the health system and to support strategic decision making.

**Workplan of the Round Table**

Health services are clinically integrated, more convenient and people centred
New Zealanders are healthier and more independent
Future sustainability of the health system is assured

Improved health and equity for populations
Improved quality, safety and experience
Best value for public health resources

**NZ PLS Strategic principles**

**NZ PLS Objectives**

There is an appropriately trained workforce that supports an integrated and sustainable system

Increased access to and utilisation of diagnostic tools

Standards based sharing of laboratory information, in a patient centric manner

Laboratory reference services that are consistent with international best practice, biosafety, biosecurity, surveillance and quality requirements

Innovation and new technologies are monitored and evaluated in relation to their value (and risks) to the health system and to support strategic decision making.

The quality of the information to support patient outcomes is high.
Appendix 2 - Governance framework

**Operational approach**

**Mandate:** Operational and advisory function
- Meets monthly (VC, Telecon)
- Develops and progresses the work plan.
- Responds to questions from DG or Minister as a first point of call. (i.e., may involve specialist colleague from leadership group if required)

**Strategic approach**

**Mandate:** Leads sector strategic approach.
- Meets twice a year (face to face)
- Endorses work plan for executive
- Reviews/endorse work developed by the action group
- Sector view - new technologies and developments
- Makes recommendations to DG