Laboratory Sciences Models of Care – Workforce Review Final Report

QUEENSLAND HEALTH

January 2010

GOVERNMENT ADVISORY SERVICES

Disclaimer

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Table of Contents

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Table of Contents

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Executive Summary

This executive summary presents a high-level overview of the report. Readers are strongly advised to read the relevant sections of the full report to gain a full understanding of both the findings and recommendations.

Project overview

This is the Final Report for the Laboratory Sciences Models of Care –Workforce Review conducted by KPMG for Queensland Health. The review was conducted over a four-month period, commencing mid September 2009 focusing on the following workforce groups:

- Scientists;
- Laboratory Technicians; and
- Operational Officers (including Pathology Specimen Collection Officers, Central Specimen Reception Officers, General Laboratory Assistants and Mortuary Assistants/Attendants).

The following project sites, which reflect the varying circumstances across the State, were engaged:

- Central (Core Laboratory and Phlebotomy)
- Forensic and Scientific Services (DNA Analysis, Central Specimen Reception and Mortuary Attendants)
- Toowoomba (Group Laboratory)
- Kingaroy (District Laboratory)

The purpose of this project is to:

- review current work practices to inform strategies to reallocate tasks and activities to more appropriately use the resources of highly trained professional staff, to optimise the use of their skills and effort to provide safe, quality services;
- develop alternative work designs that make better use of available resources that allow staff to concentrate on the tasks that they were specifically trained to undertake;
- identify training and development gaps to support implementation of workforce and work practice change; and
- support implementation through detailing practical steps to ensure smooth transition to new arrangements.

The project activities were conducted over two stages that included Part A - a review of current work tasks and practices; and Part B - making recommendations in regards to new ways of working.

Key findings and opportunities

The key themes identified in Part A (reported in October) were:

- issues relating to role delineation;
- lack of understanding of role within the larger operating context;

- limited scope of role (both Health Practitioners and Operational Officers);
- diminished opportunities for career progression;
- role of Health Practitioners in managing Operational Officer teams; and
- barriers to exploring workforce reform.

A number of areas for potential change were identified in Part A. These opportunities for change covered:

- Role enrichment (Health Practitioners and Operational Officers), for example:
  - Operational Officers taking on additional activities/tasks to free up scientists/technicians for more appropriate duties
- Multi-disciplinary working, for example:
  - Greater flexibility for staffing across departments (potential to reduce overtime)
  - The rotation of staff assists the break down of traditional silos in larger laboratories
- Improve recruitment and retention of staff, for example:
  - ensuring an appropriate skill base by continuing to develop appropriate competency based training
- Service/scope extension, for example:
  - By devolving responsibilities to team members
  - supporting professional development for staff
- Clear delineation of roles and responsibilities, for example by:
  - ensuring work processes are simplified and standardised

Developing alternative work designs

KPMG worked closely with staff in the project demonstration sites to support detailed specification of potential new roles. This occurred through a series of future state workshops and follow up discussions. A wide range of new roles were identified and are described in the body of the report. However, a narrower range of roles were prioritised for further development as they were assessed as best contributing to the delivery of desirable outcomes. The following criteria were used to guide this prioritisation process:

1 Benefit to patients.

2 Benefits to staff – Health practitioners and Operational officers.

3 Benefit to service efficiency and productivity

4 Evidence base/strength of case supporting the option.

5 Consistency with Pathology Queensland, QHFSS and CaSS strategic direction.

6 Practicality of the option.

7 Resources required to implement the option.

8 Other initiatives or projects currently underway.

9 Applicability in other settings within the District and across Queensland Health.

10 Readiness and willingness to change.

The prioritised roles recommended for trialling are:

1 Machine operator

2 Cross-trained Operational Assistant (CSR/Phlebotomy)

3 Extension of CSR Role – Pre-analytical officer

4 Specimen Reception Assistant

5 Operational Supervisor (for Operational Officers)

6 Billing Co-ordinator

These roles are described in detail in the report. We suggest that the first three roles are first piloted at RBWH with a view early to roll out and trialling elsewhere. The final three emerged from QHFSS, with role 4 and 6 primarily applicable in that context.

Commonality of opportunities

Our analysis and engagement has identified a variety of roles, a number of which are specific to particular locations. However, we have noted that through conducting the future state workshops and further interviews that there is a degree of consistency in the potential new roles that have been identified across the four demonstration sites. In particular, the full range of potential roles identified at RBWH are seen to be broadly applicable to other Pathology Queensland sites – the main limiting factor in their application is likely to be scale of operation with particular reference to District laboratories.

Education and training requirements

Overall, the training and education provided by Pathology Queensland and QHFSS appears to address the general training needs of the workforce. The current training programs and capacity within both Pathology Queensland and QHFSS are robust and broadly effective.

The main gaps identified relate to the new project roles the majority of which could be addressed internally as appropriate training capacity exists in house or can be accessed through established links with training providers.

Indeed, the major identified needs relate less to training and more to effective supervision and support for staff in the workplace when they are taking on new roles.

Implementation

Our experience from previous projects of this nature suggests that strong local leadership and effective project management support will be critical to driving change. There is evidence that this is in place with key service managers clearly committed to reform.

To support implementation the following areas should be given close attention:

- Ongoing stakeholder engagement and change management
- Impact assessment
- Guidelines, policy and protocol development
- Recruiting to the pilot positions
- Refinement of the job descriptions
- Education / training of the new staff
- Develop key performance indicators
- Ongoing involvement of the steering committee and project sponsor

Summary observations and recommendations

Three key themes have been identified through conduct of the project. These are:

Enhancing the role of Operational Officers - overall there is a consensus of opinion that operational officers should be permitted and supported to do more than they currently do. This change would be critical in unlocking capacity amongst scientists and technicians to utilise their skills to the full.

Maximising the appropriate use of available skills - maximising the opportunities for skilled staff to appropriately use their skills and develop specialised skills or varied cross skilled roles will improve retention and recruitment as job satisfaction will be enhanced. Skilled staff will feel valued and supported if they are given the support and ability to delegate/deploy elements of work that can be delivered by other staff groups.

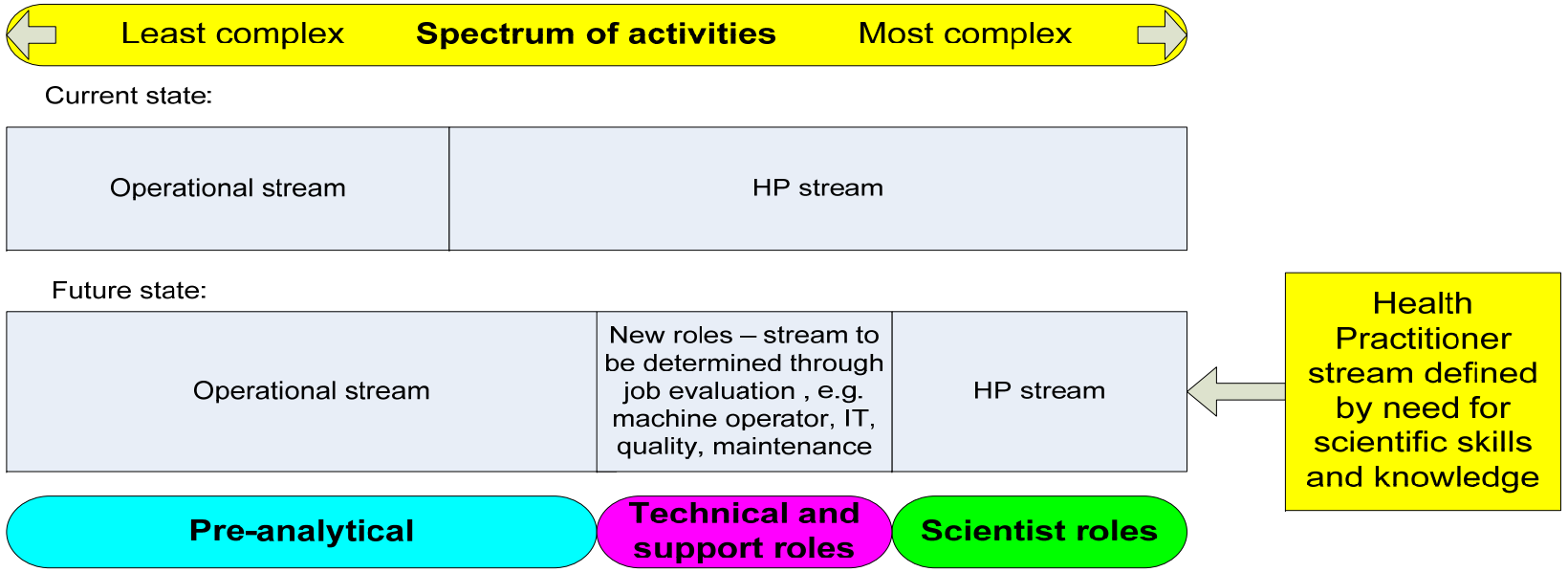
Scale of operation constraints - the scale of operation at some smaller laboratories means that there are significant implications if some aspects of workforce reform were introduced. The need for cover for all aspects of laboratory work and the maintenance of workable on-call rosters means that HP staff will still need to undertake tasks/roles that theoretically could be devolved to others. This limits the extent to which workforce reform can be implemented in practice in some settings.

Implications for the future shape of the workforce

The main findings and recommendations emerging from this project can be summarised as follows:

- Tasks undertaken by HP staff include a number of areas which do not require the level of skills and knowledge possessed by this staff group
- The distinction between Scientists and Technicians is considerably blurred in many settings
- Technicians have reduced in number commensurate with the decline in training programs.
- The mix of staff and the areas of responsibility can, therefore, change with benefits in terms of effective use of staff skills and efficiency in the use of resources.

Diagrammatically, the current and future potential staffing mixes can be presented in the following way:



In essence, operational staff can take on a greater range of roles and responsibilities in the pre-analytical phase. The HP workforce can then focus their scientific skills and knowledge on analysis, evaluation and decision-making and grow further into areas where there skills can better utilised (e.g. clinical liaison).

New roles focused around technical operation and support to equipment, maintenance and quality assurance can also emerge. The industrial classification for these roles should be determined by objective evaluation of the finalised job roles. It is likely that technical training will be required for some of these potential roles. This may usefully link with discussions currently being held around Diploma-level qualifications.

Executive Summary

Within the operational stream there is scope for job enhancement through developing roles with greater breadth and "advanced roles" which would see an increased skill level beyond current roles – such roles may also require further training and could necessitate formal qualification.

Finally, a series of recommendations are set out in the report for consideration in regards to pathology workforce reform. These relate to:

- Maximising opportunities for professional growth and development through design
- Use of shared roles/resources across business units
- Maximising the skills of the workforce to ensure best use of resources
- Valuing staff and incentivising change
- Ensuring that there is job variety and flexibility within the pathology service
- Valuing the Operational staff occupational stream
- Improving understanding of roles and responsibilities and how roles contribute to the whole system

In summary, as part of any reform process it will be important that roles adopted for trial are properly funded and supported to ensure they can be meaningfully evaluated and assessed. Longer-term implementation and roll out of new roles can then be progressed either through taking advantage of opportunities as vacancies arise or through development of "business cases" on an invest-to-save basis.

In the first instance, potential new roles should be trialled and evaluated to determine their value and suitably modified in light of the information gained through the trail process. At this point job evaluation would determine the industrial classification within which permanent roles should reside. An objective assessment could then be made of the training requirements for the roles and the necessity of any mandatory qualifications.

Project Overview

This section provides the framework and methodology that the Laboratory Sciences Models of Care – Workforce Review project has utilised.

Project Overview

Purpose of the project

The central purposes of the project are to:

- review current work practices to inform strategies to reallocate tasks and activities to more appropriately use the resources of highly trained professional staff, to optimise the use of their skills and effort to provide safe, quality services;
- develop alternative work designs that make better use of available resources that allow staff to concentrate on the tasks that they were specifically trained to undertake;
- identify training and development gaps to support implementation of workforce and work practice change; and
- support implementation through detailing practical steps to ensure smooth transition to new arrangements.

Project Activities

Part A: To undertake a review of current work tasks and practices

Part B: To make recommendations in regard to new ways of working, to more appropriately use staff skills, time and allow highly trained specialist professionals to concentrate their time and efforts on tasks they were specifically trained to undertake. This will be considered particularly from the viewpoint of the individual staff members and the work team

Scope of the project

Pathology Queensland and QHFSS have engaged KPMG to review and report on its workforce groups. The review encompasses the following workforce groups:

- Scientists
- Laboratory Technicians
- Operational Officers (including Pathology Specimen Collection Officers, Central Specimen Reception Officers, General Laboratory Assistants and Mortuary Assistants/ Attendants)

The review does not include the scope of practice of Clinical Pathologists or administrative staff.

The following areas/ sites are demonstration sites:

- Central (Core Laboratory and Phlebotomy)
- Forensic and Scientific Services (DNA Analysis, Central Specimen Reception and Mortuary Attendants)
- Toowoomba (Group Laboratory)
- Kingaroy (District Laboratory)

Notwithstanding the specific geographical and service focus of this project, it is recognised that it will be necessary to consider the impact across Queensland Health of the

Project Overview

This section provides the framework and methodology that the Laboratory Sciences Models of Care – Workforce Review project has utilised.

development of alternative work designs and the capacity to put them into place.

Project Methodology

The Laboratory Sciences Models of Care – Workforce Review used a 10-stage methodology, divided into two parts:

Part A - review of current work tasks and practices; and

Part B - making recommendations in regards to new ways of working.

This includes 10 project stages. The project stages are displayed in Figure 1: Project methodology.

A detailed description of the activities that occurred in Part A of the project is included in the Part A Summary Report. This report includes an overview of Part A activities and outcomes and describes the detail of Part B activities, outcomes and recommendations.

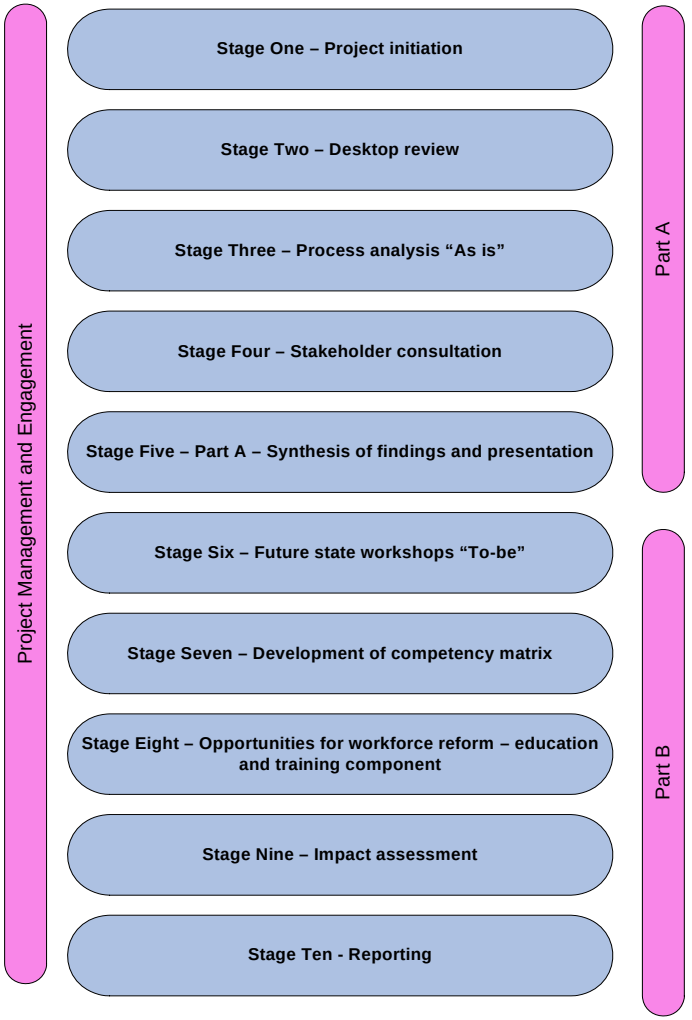


Figure 1: Project methodology

Part A activities and outcomes

This section describes the activities and outcomes from Part A of the project.

Part A - a review of current work tasks and practices

The key activities that occurred in Part A of the project included:

- Desktop Review
  - a document review including investigation into the existing policy context and other workforce reform initiatives;
  - literature scan to understand the broader operating context and seek examples of best practice in other jurisdictions and countries; and
  - analysis of activity data, quality data and human resources information.
- Workshops to determine the current delivery of pathology services by the in-scope staff groups
  - workshops at each of the four demonstration sites;
  - process mapping to understand the broad processes undertaken by Pathology Queensland and QHFSS; and
  - development of a tasks and skills analysis for each area in scope.
- In-depth consultation with key stakeholders including:
  - directors of services;
  - key service managers;
  - key laboratory managers of the demonstration sites;
  - training and education managers; and
  - range of Scientists, Technicians and Operational Officers.
- Preliminary identification of potential opportunities for change.

A detailed description of the methodology used for Part A of this project is recorded at:

- KPMG Tender response (July 2009);
- Project Plan (September 2009); and
- Part A Summary Report (October 2009)

Summary of findings from Part A

The workshops and stakeholder consultations identified a number of key themes that emerged through Part A of the Project. These were documented in the Part A Summary report (October 2009) and are highlighted below:

1. issues relating to role delineation;
2. lack of understanding of role within the larger operating context;
3. limited scope of role (both HP and OO);
4. diminished opportunities for career progression;

Part A activities and outcomes

This section describes the activities and outcomes from Part A of the project.

5. role of Health Practitioners in managing operational officer teams; and
6. barriers to exploring workforce reform.

Opportunities for change

Opportunities for change are summarised in Table 1 below under the following themes:

1 Role enrichment (Health Practitioners and Operational Officers)

2 Multi-disciplinary working

3 Improve recruitment and retention of staff

4 Service/scope extension

5 Clear delineation of roles and responsibilities

Part A activities and outcomes

This section describes the activities and outcomes from Part A of the project.

Opportunities for Workplace Reform

Table 1: Summary of the opportunities for workforce redesign identified through Part A activities

Opportunity	Commentary
Theme 1 - Role enrichment	

1.1 Health Practitioner role enrichment	• Health Practitioners freed to provide:
	  • Support and liaison with clinical teams
	  • Input into developing and maintaining IT Systems
	  • Education & training for all Operational & Health Practitioners
	  • Quality - internal and external
	  • Project leads – process and quality improvement projects
	  • Education of nursing staff & medics
	  • Clinical trials and research

1.2. Operational Officers role enrichment and enlargement	• Operational Officers to take on additional activities/tasks to free up scientists and technicians for more appropriate duties. Tasks to include:
	  • Reagent preparation
	  • Preventative maintenance
	  • Stores management
	  • 'Second in Charge' in larger teams e.g. Core CSR
	• Opportunity for Laboratory Operational Officer and Phlebotomists to be trained to assist each other and work across disciplines.

Part A activities and outcomes

This section describes the activities and outcomes from Part A of the project.

Opportunity	Commentary

1.3. Mortuary attendants within smaller laboratories	• Rotation with other OO staff
	• Assist with some of the OO lab roles to free up Scientists and technicians – tasks could include:
	  • reagent preparation;
	  • equipment preparation;
	  • make films;
	  • make blocks;
	  • preventative machine maintenance
	  • data entry
	  • administrative tasks

1.4 External Quality Improvement role for Scientist	• External quality positions to educate wards on quality ordering of pathology tests • Greater interaction with clinical teams, education of nursing staff & registrars. • Optimal ordering of laboratory tests. • Reduction in 'no tests' • Cost avoidance for Health Service
1.5 Research	• Opportunity to engage Health Practitioner staff and attract funding • Research benefits for provision of quality service – embracing evidence based practice • Research should be linked to clinical and business priorities
1.6 Performance	• Process and outcome measured as part of routine work

Part A activities and outcomes

This section describes the activities and outcomes from Part A of the project.

Opportunity	Commentary
management	• Incorporate quality measures into performance management • Provide adequate time, support and training for data collection and analysis
Theme 2 – Multi-disciplinary working	
2.1 Multi-disciplinary skills (HP & OO)	• Trained additional OO in all high throughput laboratory tasks • Trained multi-skilled scientists and/or technicians to provide on-call cover across disciplines (on-call cost saving) • Greater flexibility for staffing across departments (potential to reduce overtime) • The rotation of staff assists the break down of traditional silos in the larger laboratories • Help to remove traditional barriers between professional disciplines
Theme 3 – Improve recruitment and retention of staff	
3.1 Recognition for undertaking further qualifications	• Improved recognition of profession and individual (monetary or other) and opportunity to extend role in line with qualification • HR policy to recognise OO with a degree to allow entitlement for further training • Introduction of opportunities for OOs with scientific background to cover HP positions • Promotion of self respect and respect from others in the team or other clinical areas
3.2 Promote competency based training	• To ensure an appropriate skill base continue to develop appropriate competency based training (in line with the FSS Scientific Skill Development Unit) • Dedicated trainers released from normal duties – experienced team members to sign off on competencies
3.3 Team working	• All staff working within the Core Laboratory should have a tour, spend time within the CSR to

Part A activities and outcomes

This section describes the activities and outcomes from Part A of the project.

Opportunity	Commentary
	understand the roles of CSR OO staff - to overcome cultural barriers relating to perception to be undervalued and allow cross fertilisation of ideas • Value the ability to work in team as part of selection criteria • Provide opportunity to train staff in team working skills – team building • Breakdown traditional cultural barriers between disciplines & departments
Theme 4 – Service/scope extension	
4.1 Service development and skills development	• Opportunities to train staff to undertake new testing e.g. paternity testing & Sexual Health DNA Analysis growing the individual and growing the business at the same time • Appropriate training and skills development is required
4.2 Improve Supervision	• To free up the supervisor to undertake a more strategic and problem solving role: • Devolve responsibilities to team members e.g. rostering • In larger teams like CSR explore the possibility of introducing 'second in charge' role • Opportunities for professional development for staff
Theme 5 – Clear delineation of roles and responsibilities	
5.1 Clear delineation of Scientist, Technical Officer and Operational Officer roles	• Opportunity to ensure work processes are simplified and standardised • Appropriate use of trained staff • Retention of trained staff • Efficiency

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Part B – recommendations in regards to new ways of working

The activities that occurred during Part B of the project focused on making recommendations for new ways of working. The activities that occurred within Part B of the project included:

- Conduct of future state workshops at Central (RBWH), QHFSS, Toowoomba and Kingaroy to identify and further develop opportunities for change in relation to the key issues described in Part A.
- Small group discussions with representatives from each in scope professional group to develop job descriptions and identify training gaps.
- Interviews with team leaders/managing scientists to ensure that options explored were not in conflict with the organisation/unit's strategic direction or other initiatives.
- Interviews with skills development staff to work through training and education gaps in relation to new roles and to inform future approaches to staff development.
- Development of job/role descriptions for potential new roles/pilot roles.
- Development of a competency matrix – as annotated in Appendix A.
- Assessment of impact of proposed changes and development of a working model to calculate the impact of potential workforce changes in the future.

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Future State Workshops

Future state workshops were conducted as follows:

- Kingaroy
- Toowoomba
- Central including CSR, Core Laboratory and Phlebotomy
- QHFSS – CSR and DNA Analysis
- QHFSS – Mortuary

The purpose of these workshops was to:

- further develop hypotheses for future options for changed identified in Part A;
- identify roles for future options to support and enhance service delivery;
- identify roles for future options that support recruitment and retention of the skilled workforce;
- consider where scientific skills are required and what tasks may be delegated to other roles; and
- identify site specific issues that would impact upon the potential for change.

The future state workshops discussions were used to generate ideas for potential reform initiatives relevant to the issues and opportunities identified – these have varying merit but are all included at this point. Table 2 sets out the workforce redesign opportunities identified at each site.

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Table 2: Summary of the opportunities for workforce redesign identified in the Future State Workshops

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
Central (RBWH) **Core Laboratory**							
Specific "engineer', Automation and instrument position	• Core Laboratory • Possibility to roll out to other laboratories within Pathology Queensland (possible shared role across number of laboratories)					✓	
Pathology specific IT role to support Laboratory Information System (LIS) and interfacing computer systems	• Core Laboratory • Possibility to role out to other laboratories within Pathology Queensland (possible shared role across number of laboratories)					✓	

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
Client Liaison role to assist with feedback to medical practitioners	• Core Laboratory • Possibility to role out to other laboratories within Pathology Queensland (possible shared role across number of laboratories)					✓	
Operational manager	• Core Laboratory					✓	
Training role	• Core Laboratory					✓	
Quality role	• Core Laboratory					✓	
Human resources/OHS Role	• Core Laboratory					✓	✓
Central (RBWH) **Central Specimen Reception/Phlebotomy**							

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
Development of a pre-analytical team - Blended CSR/Phlebotomy Operational Assistant	• CSR (Core Laboratory) • Phlebotomy		✓	✓			
Operation Officer Pool – to allow for relief to both Phlebotomy and to CSR and General Laboratories (a pool could provide staff across a range of service locations, not just RBWH)	• CSR (Core Laboratory) • Phlebotomy	✓	✓	✓			
Extend the role of the phlebotomist to become a 'Collection Technician'	• Phlebotomy			✓			✓
Phlebotomy cadet role to provide career/succession planning	• Phlebotomy			✓			

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
Expansion of the phlebotomy service into the Department of Emergency Medicine (DEM) and Intensive Care Unit (ICU) as currently there is limited service to DEM, and Phlebotomists currently cannot "bleed' patients in these areas due to the need to 'flush' the line.	• Phlebotomy						✓
Extension of CSR Operational Officer role to include "racking", i.e. putting samples into analyser racks.	• CSR (Core Laboratory)	✓				✓	
Development of a machine operator role cross-over of CSR and Laboratory	• CSR (Core Laboratory)	✓				✓	

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
Toowoomba							
Automation and instrument role	• Machine-based laboratory processes • The scale of operation at Toowoomba would need to be considered to determine the viability of this role. It may be better to commence this at Central and then roll out to other laboratories or to have a shared role across a number of laboratories (taking into account geography)					✓	✓

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
Extend the role of the phlebotomy role to become a broader based 'Collection Technician" working beyond pathology.	• Phlebotomy • This could mean expansion into areas of "clinical measurement" creating a role more focused on support to diagnostic information capture rather than just specimen collection. • Broader role could encompass areas such as blood gases, cannulation, point of care testing, embedding the phlebotomy service in the emergency department • Possible benefits through enhanced 'patient focus' and closer links with clinical teams.			✓			✓
Extension of CSR Operational Officer role to include "racking", i.e. putting samples into analyser racks.	• Machine-based laboratory processes.					✓	
Development of a machine operator role - cross-over of CSR and Laboratory	• Machine-based processes in laboratory					✓	

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
CSR/laboratory assistant role/phlebotomy role	• General role: the smaller the lab the greater the potential for generalist roles – need to maximise its potential use with particular importance in relatively small laboratories. • Phlebotomists developing skills which would enable them to cover in CSR viewed as more practical than the other way round.		✓	✓			
Client Liaison role to assist with feedback to medical practitioners and engagement in broader clinical/patient centred activities	• Across streams and/or focused in particularly pathology disciplines/areas of practice. • Possibility to role out to other laboratories within Pathology Queensland (possible shared role across number of laboratories)					✓	✓

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
Training role	• Across all aspects of operations • May not be sufficient scale for this to be full-time but a clearer focus on training and development could flow from a define job role.					✓	✓
Quality and maintenance role (including calibration)	• Focusing on both elements in a laboratory operating at this scale. If this role was performed by an individual without advanced scientific knowledge it would focus on activities within defined parameters/boundaries and require adherence to specific defined policies and standard operating procedures.	✓				✓	
Microbiology/histology set up	• Set up can be undertaken by staff without advanced scientific knowledge.	✓				✓	
Kingaroy							

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
NB. The opportunities identified arising from the engagement with staff at Kingaroy are limited due to the small scale of operation. The areas listed below are to some extent theoretical but are intended to give a sense of potential areas for consideration in small laboratories. It should be noted that at Kingaroy the OOLab, OOCSR and OO Phlebotomy roles are undertaken by one person in a combined role.							
Extension of Operational Officer role to include "racking", i.e. putting samples into analyser racks.	• Machine-based laboratory processes.	✓	✓	✓		✓	
Specimen reception/laboratory assistant role/phlebotomy role	• General role: the smaller the lab the greater the potential for generalist roles – need to maximise its potential use with particular importance in relatively small laboratories. • Phlebotomists developing skills which would enable them to cover in CSR viewed as more practical than the other way round.	✓	✓	✓			

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
Quality and maintenance role (including calibration)	• Focusing on both OO and HP elements in a laboratory operating at this scale. If this role was performed by an individual without advanced scientific knowledge it would focus on activities within defined parameters/boundaries and require adherence to specific defined policies and standard operating procedures.					✓	
Microbiology/histology set up	• Set up can be undertaken by staff without advanced scientific knowledge.					✓	
Operational Officers undertaking aliquotting	• Role commonly performed in some laboratories.					✓	
Training coordinator/Quality Role for Central Specimen Reception	• QHFSS CSR • Potential for shared role across the client liaison teams		✓				

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
Introduce a Billing co-ordinator role for CSR	• QHFSS CSR		✓				
Specimen Reception Assistant Role to support CSR and laboratories to deliver/transport specimens	• QHFSS CSR • QHFSS Public Health Laboratories		✓				
Operational Officer Pool - shared between CSR and Laboratories	• QHFSS CSR • QHFSS Public Health Laboratories	✓	✓				
Laboratory Support Operational Manager role to support the work of the HP stream through instrumentation, ordering etc	• QHFSS DNA Analysis					✓	
Operational Supervisor to manage the Operational officers	• QHFSS DNA Analysis					✓	

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
Development of a Projects role with quality and change management aspects	• QHFSS DNA Analysis					✓	

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Opportunity	Services/specialty/target group	In scope professionals currently undertaking tasks					
		OO Lab	OO CSR	OO Phlebotomy	OO Mortuary	HP	Other
QHFSS **Mortuary**							
Mortuary Support Assistant	• QHFSS Mortuary				✓		
Mortuary Training and Quality Co-ordinator	• QHFSS Mortuary					✓	
Expansion of the Mortuary Attendant (004) role to include CT scanning and plain films	• QHFSS Mortuary					✓	

Part B – activities and outcomes

This section describes the activities and outcomes from Part B of the project.

Prioritisation of opportunities for change

We understand that Queensland Health will seek to trial/pilot a range of potential new roles arising from this project. To support this aspiration, we have identified areas where such trials may be particularly useful or applicable – these suggestions are discussed later in this report.

Following the future state workshops KPMG synthesised the discussions and worked with key individuals to explore the detail of potential new roles further. Discussions took place to determine the priority focus for new roles taking into account the views of the existing workforce and considering possible impacts upon service delivery and the extent to which workforce reform would be promoted if these positions were trialled or implemented.

Some groups were sceptical about the availability of funding to support pilots and were unwilling to take a 'blue sky' perspective, preferring to stay within the realms of what they viewed as potentially achievable.

In assessing the opportunities that have arisen from the future state workshops, KPMG have used the following criteria to inform prioritisation of opportunities:

1 Benefit to patients.

2 Benefits to staff – Health practitioners and Operational officers.

3 Benefit to service efficiency and productivity

4 Evidence base/strength of case supporting the option.

5 Consistency with Pathology Queensland, QHFSS and CaSS strategic direction.

6 Practicality of the option.

7 Resources required to implement the option.

8 Other initiatives or projects currently underway.

9 Applicability in other settings within the district and across Queensland Health.

10 Readiness and willingness to change.

Prioritisation of opportunities for change also centred around the five areas of opportunity noted in the conclusion of Part A activities. The five overarching themes to consider when exploring further opportunities for change were:

1. Role enrichment
2. Multi-disciplinary working
3. Improve recruitment and retention of staff
4. Service/Scope extension
5. Clear delineation of roles and responsibilities

The following sections describe the outcomes from the future state sessions.

Central (RBWH) – roles and model of care

This section outlines the discussion from the Central future state workshops and corresponding interviews to consider the model of care and potential future roles.

Central – Core Laboratory and Central Specimen Reception

The focus of the work covered CSR, core Chemistry, Haematology and Coagulation. It was intended that some of the new roles identified that are applicable to the Core Lab, have the potential to be applied to other Pathology Queensland laboratories both in relation to location (group and district) and specialty (microbiology etc).

The potential new roles identified within this context are:

Core laboratory:

- Information technology co-ordinator/ liaison;
- Client Liaison/Quality Officer;
- Training Co-ordinator;

CSR:

- Machine Operator;
- Cross trained Operational Assistant (CSR/Phlebotomy);
- Extension of CSR Role – Pre-analytical officer; and
- Operational Officer Pool.

Principles underpinning workforce design, potential new roles and model of care

Within the future state workshops there were a number of key workforce design principles. The future state workshop held at Central identified the following underpinning principles:

- Changes must take account of the customers needs
- Volume/capacity to deliver
- Improve career path and progression opportunities
- Clarity in relation to role definition and professional boundaries
- Ensure variety into the job roles
- Challenge and use skills to maximum potential
- Ensure flexibility in work practices, including flexible and split shift patterns
- Decrease the existing silo mentality through cross-skilling and cross- working, endeavouring to increase exposure to whole of system/service and therefore increase understanding and context,

Model of Care

The new roles are designed to operate within the Core Laboratory based at RBWH. There is potential for these roles to be considered for both Group and District laboratories as well as other laboratory settings within RBWH. Although size and scale of operation will need to be carefully considered.

Central (RBWH) – roles and model of care

This section outlines the discussion from the Central future state workshops and corresponding interviews to consider the model of care and potential future roles.

The new roles are intended to increase efficiency, provide more variation within job roles or to address areas of need. New roles have been identified in areas viewed as problematic and time consuming for staff and also an inappropriate use of scientific skills. The introduction of these roles would allow scientists more time to utilise their scientific skills appropriately and improve job satisfaction. In turn, this should improve recruitment and retention of staff.

These roles will also allow scientists the opportunity to specialise/sub-specialise into areas they have an interest outside of the pure scientific role.

During the future state workshop, participants identified areas of the current pathology service that are currently being undertaken by Health Practitioners that could be completed by Operational Officers as long as the resources and training was appropriate – these opportunities are reported in later sections. However, should these tasks be delegated then Scientists identified areas where freed up time could be used that they felt would benefit the section. These included:

- Quality roles
- HR/Administration
- Training co-ordinator
- Operational manager

In relation to CSR, the model of care discussed for the future included an extension of the existing CSR operational officer role. It is widely acknowledged that there is duplication of effort in relation to handling and recording samples/specimens. In collaboration with staff at the Core Laboratory and CSR the following areas are identified as duplication:

- Racking
- Sample integrity checking
- Data entry
- Storage

In addition, there are instances where a specimen may be transferred from the CSR to core laboratory staff by either a Health Practitioner or Operational Officer. This may be due to logistics and physical location, but it was agreed in the future state session that in the majority of cases the CSR (if staffed appropriately) could extend their role and conduct a component of the work traditionally performed by the core laboratory staff.

It is recognised that Pathology services are not well resourced for these operational roles currently. It was also considered that a blended operational officer role would be of considerable benefit to the system. An opportunity that was identified was that of a joint trained CSR operational officer with a phlebotomist role. This would increase variety, enable flexible working and joint understanding of how the roles impacts on another part of the system. This could mean, for example, staff working as phlebotomists at peak times for collection of samples and spending the rest of the day working at CSR.

Central (RBWH) – roles and model of care

This section outlines the discussion from the Central future state workshops and corresponding interviews to consider the model of care and potential future roles.

In addition, the notion of an operational officer pool was favoured. This would allow staff the opportunity to have experience of different sections and become cross skilled. From the organisations perspective there is a key advantage as there is a flexible, trained workforce able to move to areas of priority as required. This model could encompass CSR operational officers and lab operational officers initially, expanding to include phlebotomy, and potentially be utilised across a geographic area – metro, north, south etc.

We propose careful consideration of the following roles for core laboratory and CSR as we believe that this would have the greatest impact on the job satisfaction and productivity of the sections.

New Roles

Core laboratory:

1. Information Technology co-ordinator/liaison officer

This role was identified within the future state workshops which relates to similar roles already in place. . Further exploration has identified that the laboratory requires additional support for interfacing and future automation of processes and techniques as opposed to the LIS (Auslab) system. This role would include:

- superior knowledge of equipment used in the laboratory:
- advanced knowledge in the requirements for interfacing equipment with the LIS:
- ability to translate between scientific terminology and IT terms:
- liaison between pathology staff and vendors:
- identify training needs for new interface components:
- co-ordinate training for staff for new systems:
- manage projects requiring new equipment installations:
- understand and communicate the new automation available: and
- review and research new automation available;

2. Client Liaison/Quality Officer

A key area that has been identified is the lack of time to be able to dedicate to liaison with the medical profession to advise in relation to tests requests/testing regimes or in following up on recurrent errors/poor practice.

It is acknowledged that there would be significant impact if a Scientist was able to undertake this role to provide feedback to referring practitioners, provide training and undertake root cause analysis.

The role would include:

- liaison with referring practitioners
- review of processes and procedures

Central (RBWH) – roles and model of care

This section outlines the discussion from the Central future state workshops and corresponding interviews to consider the model of care and potential future roles.

- root cause analysis
- regular reporting to agreed governance structure on recurring themes
- ability to problem solve
- project manage solutions to common errors
- identify and source training needs
- liaise with the pathology laboratories
- support the pathology system and have a comprehensive understanding of the state wide pathology service

It would be anticipated that this role would report to the Central Pathology Service Manager as the themes identified may be transferable to other areas, and additional support at a more senior level to raise issues strategically may be required.

3. Training Co-ordinator

In discussion with staff and learning and development co-ordinators the training available is comprehensive however *completion* is ad hoc and sometimes incomplete in uptake. It has been identified that a training co-ordinator specifically for the core lab would be beneficial. This role would include the following tasks:

- maintain training records for staff;
- coordinate training for new starters;
- coordinate training for existing staff;
- complete regular training needs analysis;
- liaison with learning and development/scientific skills unit staff;
- contribute to the development of new training modules and external courses;
- develop relevant supporting training tools;
- provide some basic training;
- mentor and guide staff as required; and
- report to management on training needs and progress.

This role should report to the Core Laboratory Manager as the Laboratory Manager will have the overall budgetary responsibility to enable training plans to be instigated.

CSR:

1. Machine Operator

The purpose of this role is to support the laboratory in the management of equipment and machinery. The role would involve an understanding of laboratory machinery being able to identify and fix equipment to a predetermined level, working within clear parameters and knowing when to refer problems/engage external expertise via the vendor. In addition, the role would co-ordinate contact/liaison with the vendor, including maintenance and upgrade schedules.

Central (RBWH) – roles and model of care

This section outlines the discussion from the Central future state workshops and corresponding interviews to consider the model of care and potential future roles.

In discussion with staff within Core Laboratory at Central it was advised that 24/7 coverage is required and should this role be determined to be able to be undertaken by an Operational Officer, supervision by a HP should always be present.

This position will:

- check specimen quality, e.g. lipaemia, haemolysis
- add specimen to analyser rack
- load specimens onto analyser
- start up and shut down the analyser;
- load and lot change analyser reagent;
- conduct routine maintenance for analyser;
- conduct quality control loading, review and basic equipment troubleshooting;
- conduct routine calibration;
- check that all LIS fields have been resulted, as per request form;
- specimen dilution;
- reject unsuitable specimens according to corporate policy;
- monitor work unit reagents and re-stock as required;
- participate in general quality activities, e.g. OQI generation; and
- record and escalate client feedback.

It is anticipated that this role would report to the Supervising Scientist within Core Chemistry.

2. Cross trained Operational Assistant (CSR/Phlebotomy)

This role would be shared between CSR and Phlebotomy. The duties that this role would undertake include:

- routine blood collection duties on adult clients;
- participation in phlebotomy ward rounds;
- specimen sorting and dispatch;
- receipt of specimens at CSR; and
- distribute samples to laboratories.

The role would report to both supervisors of the areas CSR and Phlebotomy.

3. Extension of CSR Role – Pre-analytical officer

This role builds upon the existing CSR role and branches into the core laboratory area. This role could be rolled out to smaller laboratories. It is noted that in very small labs and in the private sector that the operational officer role is expanded along the lines we propose. Tasks for this role include:

- specimen receipt;
- retrieve and load samples for added tests;

Central (RBWH) – roles and model of care

This section outlines the discussion from the Central future state workshops and corresponding interviews to consider the model of care and potential future roles.

- storage of specimens;
- monitor stock and reorder;
- assist with pre-analytical tasks as required, e.g. Staining of films, preparation of samples for additional testing; and
- participate in general quality activities.

This role reports to the supervisor for CSR.

4. Operational Officer Pool

We would support the development of a cross skilled pool of operational officer staff to improve job satisfaction and provide flexibility for the organisation.

We recommend that the Pool of operational staff tasks would be very similar to the blended role of CSR and Phlebotomy as outlined previously as this would maximise the flexibility with which staffing resources could be used..

Central (RBWH) – roles and model of care

This section outlines the discussion from the Central future state workshops and corresponding interviews to consider the model of care and potential future roles.

Central - Phlebotomy

Model of Care

Operational Officers within Phlebotomy were happy to consider an extension of their role. They identified areas where they believe they could assist the overall health system as well as specifically pathology. They consider an extension into DEM and ICU.

Staff identified the need for a Phlebotomy assistant that could support them in their work by undertaking the data entry/paperwork component of their role. It was also viewed that should this role exist it would be advantageous for succession planning. In further discussion the idea of a Phlebotomy cadet was more palatable.

The other main areas identified have already been discussed above, namely:

- Blended CSR/phlebotomy role
- Operational Officer Pool

New Roles

Phlebotomy Cadet

This role is aimed at the school leaver and would encompass a range of tasks that are currently undertaken by the phlebotomist with the exception of any task directly relating to interaction with the patient. Considerations include:

- prepare phlebotomy trolleys;
- ordering/restocking supplies;
- collecting request forms and ensuring they are completed;
- locating patients and identifying any issues with patients transferring wards;
- preparing all labels and documentation; and
- transporting specimens to the laboratory as required.

Next steps

During the course of consultation with Central laboratory staff they have carefully considered roles that they would like to trial. KPMG believes that their ideas align closely with the ten criteria outlined on page 24. Accordingly, we believe that the following roles are the priority areas for piloting and have identified the criteria that they meet.

The following three roles outlined in Table 3 are those that KPMG recommend to be trialed.

Central (RBWH) – roles and model of care

This section outlines the discussion from the Central future state workshops and corresponding interviews to consider the model of care and potential future roles.

Table 3: Summary of the opportunities identified at Central for trials

Role	Criteria for prioritisation
Machine Operator	• Benefits to staff – Health practitioners and Operational officers. – improve job satisfaction and staff morale • Benefit to service efficiency and productivity – improvement anticipated • Practicality of the option – clearly defined role and benefits identified • Resources required to implement the option – minimal resources required to pilot role • Applicability in other settings within the district and across Queensland Health – can be transferred to other settings particularly larger laboratories • Readiness and willingness to change – Central laboratory expressed a clear willingness and readiness to embrace change
Cross – trained Operational Assistant (CSR/Phlebotomy)	• Benefit to patients – improved service due to understanding of the pathology system • Benefits to staff – Health practitioners and Operational officers.– improve job satisfaction and staff morale • Benefit to service efficiency and productivity – improved efficiency is anticipated • Consistency with Pathology Queensland, QHFSS and CaSS strategic direction.- workforce reform is supported strategically • Practicality of the option • Other initiatives or projects currently underway. – work with SDU at

Central (RBWH) – roles and model of care

This section outlines the discussion from the Central future state workshops and corresponding interviews to consider the model of care and potential future roles.

Role	Criteria for prioritisation
	Pathology Queensland to identify training requirements and management of a blended or operational pool team. • Applicability in other settings within the district and across Queensland Health – can be transferred to other settings particularly larger laboratories • Readiness and willingness to change – Central laboratory expressed a clear willingness and readiness to embrace change
Pre analytical officer	• Benefit to patients – improved service due to understanding of the pathology system • Benefits to staff – Health practitioners and Operational officers: improve job satisfaction and staff morale • Benefit to service efficiency and productivity– improved efficiency is anticipated • Practicality of the option. • Applicability in other settings within the district and across Queensland Health – can be transferred to other settings particularly larger laboratories • Readiness and willingness to change. – Central laboratory expressed a willingness and readiness to embrace change.

Toowoomba – roles and model of care

This section outlines the discussion from the Toowoomba future state workshops and corresponding interviews to consider the model of care and potential future roles.

Toowoomba

The entire service was covered in consideration of future opportunities for change at Toowoomba. The types of roles which emerged from the discussions are likely to be most applicable in services of similar size at other Pathology Queensland laboratories i.e. group laboratories.

The roles described within this context are:

- Machine Operator;
- Information technology co-ordinator/ liaison;
- Client Liaison/Quality Officer; and
- Training Co-ordinator.

Principles underpinning workforce design, potential new roles and model of care

Participants in the future state workshop held at Toowoomba identified a number of workforce design principles that they viewed as being important in guiding change. These included:

- Multi skilled staff – across areas of practice and equipment
- An appropriate end between multi-skilled and specialist skill staff dependent on the scale of the laboratory
- Flexibility
- Client/customer focus
- Staff performance incentives.
- Transition and articulation pathways for staff to support development and progression
- Flexible employment options with local discretion
- Effective mechanisms for quality control
- Appropriate training and education - opportunities and time available to support development
- Explicit competency assessments and performance management arrangements

Model of Care

The potential new roles at Toowoomba are primarily applicable to similar size and scale laboratories or larger services.

The focus is on ensuring optimal use of skills, providing opportunities for expansion at the less skilled end of the work spectrum and freeing up Health Practitioners to engage in areas where their specific skills are absolutely required, will produce greatest benefit and enhance job satisfaction.

In particular, the new roles (which focus mainly around potential enhancement to OO positions) will allow Health Practitioners to move into areas they have an interest and relevant contribution to outside of the pure laboratory role – this might include clinical liaison activities and contribution to education/communication on pathology matters (e.g.

Toowoomba – roles and model of care

This section outlines the discussion from the Toowoomba future state workshops and corresponding interviews to consider the model of care and potential future roles.

appropriate testing regimes for junior doctors) to the wider health workforce.

Specifically, the improved use of staff skills would have potential to: support:

- Technique development and improvement
- Clinical liaison including MDT meetings contribution, practice change/improvements, e.g. testing regimes
- Capacity for follow-up/investigation
- Training/support for other staff
- Using broader staff talents, not just a narrow focus on technical skills.

Broader points were also raised which will not lead to the creation of significantly changed roles but which could mean marginal change in current practice and role delineation. Specific areas covered included:

- Reagent loading – can be undertaken by any staff member with minimal training.
- Stocking - can be undertaken by anybody, but should be kept to a small number of staff to clarify responsibility and allow development and maintenance of required knowledge.
- Documentation - this is a supervisory responsibility within defined areas of responsibility. It only requires scientific knowledge where the documentation is of a specifically technical nature.
- Set up elements for microbiology and histology – but there are critical mass and economies of scale constraints that would need to be taken into consideration to ensure that staff are efficiently and productively employed throughout the working day. This relates to the pattern of set out, culture growth and reading which occurs at the present time.

New roles

Toowoomba identified similar opportunities to those outlines at Central laboratory. These include:

- Machine Operator
- IT coordinator/liaison
- Training coordinator
- Client liaison/quality role
- Pre-analytical officer

Next steps

Due to the size and scale of Toowoomba laboratory the applicability of lessons learnt at Central laboratory will be considered relatively transferable. Therefore KPMG recommend that the trials commence primarily at Central laboratory as outlined previously, with a view to a further trial period of new roles at Toowoomba. This will ensure maximum use of funding for pilot studies.

Kingaroy – roles and model of care

This section outlines the discussion from the Kingaroy future state workshops and corresponding interviews to consider the model of care and potential future roles.

Kingaroy

The consideration of future role development at Kingaroy covered the full range of activities undertaken within the existing service. The small scale of operation was identified as a major impediment to potential workforce change as even though skill mix change is feasible the need to maintain a reasonable on-call roster means that the scientist component required is higher than would be suggested by a simple analysis of activities and tasks. Limited scope for change was identified, therefore, but the following may have some potential value in small laboratory settings:

- Quality and maintenance role (including calibration)
- Microbiology/histology set up
- Extension of CSR Operational Officer role to include racking
- CSR/laboratory assistant role/phlebotomy role

Principles underpinning workforce design, potential new roles and model of care

A similar set of principles for workforce redesign were highlighted as at other laboratories. Specific attention at Kingaroy was given to:

- Multi-skilling
- Maximising staff flexibility
- Maximising variation and interest for individuals
- Skills development elsewhere in the healthcare workforce to support effective use of pathology skills, e.g. nursing phlebotomy skills for out of hours collection.

Model of Care

As noted above the theoretical scope for change is greater than the practical realities allow. However, potential benefit could be delivered at the margins in a number of areas by maximising the scope for Operational Officers and freeing up Health Practitioners to best utilise their skills.

The small scale of operation means a degree of multi-skilling is essential (e.g. specimen reception and phlebotomy roles) and this should be systematically promoted. Specimen reception through to machine set-up is accepted as reasonable scope for OOs (as is the case in other sizes/types of laboratory). Maximising the scope of OOs can provide greater flexibility in the use of Health Practitioner time and/or allow allocation of Health Practitioner time in areas where capacity does not currently allow input. This may be marginal but is worthwhile pursuing in terms of flexibility, efficiency and job satisfaction.

Broader opportunities exist to enhance pathology efficiency and to make best use of laboratory workforce skills. In particular, the following areas are worthy of attention:

Enhanced nursing support to pathology – in on-call periods Health Practitioners fulfil the phlebotomy role. Consideration should be given to this being undertaken by

Kingaroy – roles and model of care

This section outlines the discussion from the Kingaroy future state workshops and corresponding interviews to consider the model of care and potential future roles.

nursing staff to allow effective and efficient use of the skills of the on-call staff member.

Point of care/near patient testing – this technology is already in use in a number of settings covering such areas as blood gases, electrolytes, chemistry, coagulation, haematology. The scope of this practice is not clear; there is no clearly stated rationale for its application or explicit criteria used locally to decide on its usage. In addition it is imperative that effective training and support is in place to support production of meaningful and accurate results

In addition practice at local hospitals can have an impact of pathology workload with unnecessary rework and follow-up – a number of issues have been identified which have an impact on the workload and efficiency of laboratories and pathology staff. These include inadequate specimen collection (leading to re-work) and lack of knowledge in use of Auslab (meaning unnecessary handling of queries and provision of results),

New roles

Kingaroy identified similar opportunities to those outlines at Central laboratory though the practicalities of progressing these approaches are likely to present major challenges. These include:

- Machine operator
- IT coordinator/liaison
- Training coordinator
- Pre-analytical officer
- Cross trained Operational assistant (CSR/Phlebotomy)

Next steps

The scale of operation at Kingaroy and the staff numbers involved indicates that any introduced change would show minimal impact when evidenced quantitatively. However, the qualitative impact may have bigger consequences. As opposed to new roles, KPMG would suggest that instead of trialing new roles within Kingaroy, alternatively funds are directed to other areas which might enhance pathology efficiency such as at training nursing staff to undertake collection of samples out of hours. This would have a positive impact on the laboratory workforce and upskill nursing staff.

Additionally, the Operational Officer role at Kingaroy should be further explored prior to implementation of any trial at Central. This is to consider any lessons that may be learnt from the model currently in operation at this group laboratory.

QHFSS – models of care and new roles

This section outlines the discussion from the QHFSS future state workshops and corresponding interviews to consider the model of care and potential future roles.

Forensic and Scientific Service (QHFSS) – Central Specimen Reception

QHFSS CSR staff participated in the future state workshop and identified with a number of issues raised through their colleagues at Central CSR. We recognize that the focus is different and the staff handle different specimens and are exposed to a number of different types of Laboratory Information Systems (LIS) and processes. However, in relation to roles similarities can be drawn.

QHFSS CSR team were very open to the possibilities for change and had a true understanding of what type of model of care and consequent new roles would mutually benefit the individual, the team, the organization and their clients.

Principles underpinning workforce design, potential new roles and model of care

CSR shared their future state workshop with DNA Analysis and the principles were agreed as follows:

- Career progression opportunities;
- Most appropriate and effective use of skills;
- Support staff with required infrastructure and equipment, including IT/software;
- Use economies of scale/critical mass;
- Provide clear leadership from executive;
- Clear management expectations and support;
- Opportunities for multi-skilling;
- Underpinning workforce reform with education, training and support; and
- Clear understanding of client expectations.

Model of Care

QHFSS CSR recognised that their productivity is limited due to the competing demands of the various public health laboratories and individual team leaders that they provide a service to. There are a multitude of differing processes that CSR staff are required to manage to support the public health laboratories at QHFSS. Some laboratories agree to allow CSR staff to receipt and data entry their samples, others merely want the specimen to be received and delivered. Amongst all the different processes there are a number of mid points including that some laboratories wish for CSR to use Auslab, others still wedded to in house programmes such as MARS, and this requires CSR to have considerable local knowledge to accommodate the requests of individuals and each laboratory. Aside from this project CSR needs to be permitted to centralise its approach and all laboratories should be required to conform.

Due to the complex nature of FSS, CSR operational officers' roles vary considerably dependent upon the laboratory they are processing samples for. Some laboratories will allow these operational staff to utilise their full scope of practice, and others will constrain these staff.

The future model of care needs to

QHFSS – models of care and new roles

This section outlines the discussion from the QHFSS future state workshops and corresponding interviews to consider the model of care and potential future roles.

- establish single processes for the initial handling and processing of all samples'
- expand the role of the CSR Operational Officer; and
- support the CSR and wider client services teams (including Property Point and Scientific Services Liaison Unit (SSLU)

To improve the productivity, the team have outlined a hierarchical structure rather than the existing flat structure. This allows for some career progression, some new roles, added variety and respect and better efficiency.

They have outlined areas that cause the most bottlenecks, laboratory frustration and individual boredom or frustration and have identified a series of roles to address this.

New Roles

CSR staff clearly articulated the need for the following roles. KPMG have carefully considered these roles and agree that these are the most appropriate types of roles required to support the QHFSS service.

Training Co-ordinator /Quality role

Currently this role is undertaken by an OO3 and assumed as part of her duties with support from the CSR Supervisor. Due to the turn over of staff in this area, there is evidence to suggest that this training role could be a full time role if it also included a quality focus.

Tasks that this role would undertake include:

- audits (Quality);
- problem solving;
- delivery of training modules;
- train and mentor staff;
- coordinate training activities;
- record training needs and plan for delivery;
- write and update Standard Operating Procedures (SOPs);
- create and amend rosters;
- record quality issues;
- conduct root cause analysis;
- liaison with scientists and suppliers; and
- reporting to the Client Services Manager on quality issues

This role would report to the Client Services Manager.

Billing Co-ordinator

Currently the billing role is completed by the Operational staff on a rotational basis however there are two staff that mainly complete this task. This is a full time role. It is felt that this role is more of an Administrative Officer role and that a combination of billing, data entry, worklists creation and ordering could ensure this role to be the equivalent of 1FTE.

This role would include:

QHFSS – models of care and new roles

This section outlines the discussion from the QHFSS future state workshops and corresponding interviews to consider the model of care and potential future roles.

- Auslab (including data entry);
- Billing;
- ordering stock through FAMMIS (Queensland Health stock ordering system);
- answering phones;
- photocopying;
- organise couriers; and
- handling and sorting mail within the Department.

Specimen Reception Assistant

One of the most time consuming tasks undertaken within CSR is the delivery run to the laboratories. This takes staff away from processing samples, and samples and laboratories doing transfers (generally) have to wait for the 'trolley run' at designated times during the working day. To address this and provide a better, more responsive service for the public health laboratories, a Specimen Reception Assistant role has been considered.

The role includes the following tasks:

- unpacking stores;
- storage of specimen after hours;
- cleaning of eskys, general cleaning;
- housekeeping bins. Biohazard cabinet and administrative area;
- manage return of clean specimen containers; and
- sample portering service (delivery).

This role could be shared with stores or with the wider client services team.

Operational Officer Pool

Similar to the Central Laboratory situation, an operational pool would be advantageous at QHFSS. The Pool should consist of operational officers that can multiskill across CSR, Property Point and the public health and forensic laboratories. Managing such a diverse workforce would be complex and challenging and the training requirements would be high. However, the Pool could not replace an experienced individual's role within any particular section but if they understood the basic principles, with a short familiarization Pool members could undertake a high proportion of the role providing at least some support to the team.

The Operational Pool would allow members to be exposed and understand a number of different types of roles within the organization and could prepare the individual for permanent positions as they arise.

The Operational Pool Officer would be required to undertake the following roles:

- receiving packages;

QHFSS – models of care and new roles

This section outlines the discussion from the QHFSS future state workshops and corresponding interviews to consider the model of care and potential future roles.

- registration of samples in Auslab;
- Manual Handling and Infection Control policies and procedures;
- data entry; and
- basic laboratory processes – centrifuge, aliquoting etc.

This Operational officer pool would avoid the need for scientists and technicians having to fulfill the Operational Officer roles in their absence.

Forensic and Scientific Service (QHFSS) – DNA Analysis

DNA Analysis has undertaken a complex change process in response to a Ministerial Taskforce. Through this work the process has become very compartmentalised. Due to this many staff are reporting that they now have less job satisfaction as their role is diminished and consequently their skill level is (considered by them to be) deteriorating. Operational Officers were also introduced as a response to the taskforce report in order to support Health Practitioners in addressing issues with backlogs of cases. The introduction of Operational Officers has been very successful and the team has been valued. However there is a lack of career progression for Operational staff and therefore there is a high turnover of staff.

Model of Care

As stated, the model of care within DNA Analysis is very compartmentalised. Operational Officers are encouraged to extend their role and Health Practitioners are supportive of this. The limiting factor relates to the number of Operational Officers working within DNA Analysis.

Within this section, Operational Officers are working at an optimum level and capacity. For this reason, there may be value in considering similar roles in other scientific business units with QHFSS. However, if there were more resources the Operational Officers would do more of the same, rather than extend their role further. Currently, when Operational staff are not available, scientists and technicians undertake their role.

If there were more Operational Officers (or an improved staffing mix), scientists and technicians would be able to refocus their time and consider moving into roles such as those outlined below.

New Roles

Laboratory Support Operational Role

There is increasing potential for automation within the sphere of DNA Analysis, and this increases the need for a dedicated resource to support the implementation, maintenance, repair and liaison with suppliers. This role has been described as a "floor manager".

This section outlines the discussion from the QHFSS future state workshops and corresponding interviews to consider the model of care and potential future roles.

Scientists and technicians report that this role would support their day to day work and allow an increase in productivity as this individual would be experienced and trained to undertake initial diagnostics and minimal repairs prior to contacting the supplier.

This role's duties include:

- basic diagnostics of instrumentation;
- quality controls and risk management;
- liaison with suppliers;
- problem solving;
- write Standard Operating Procedures;
- calibration;
- training on use of equipment;
- create and manage maintenance schedules; and
- research new automation available.

Operational Staff Supervisor

In recognition of the need for operational officers in this area and the valued role that they provide. Health Practitioners recognise that the Operational officers need a dedicated resource to manage their workload and support them. Currently the position is supported by a team leader but given his workload it would be advantageous and more appropriate to split this component of the role to the Operational stream.

This would allow the scientists and technicians the opportunity to provide more dedicated time into quality and projects.

The duties encompassed in this role include:

- day to day management of all DNA Analysis Operational Officers;
- development and implementation of rosters and allocation of tasks;
- development of all relevant documentation including SOPs;
- co-ordination of Operational Officers training needs;
- responsible for the professional development of operational staff within DNA Analysis;
- co-ordinate the requests of scientists and technicians and allocate to Operational Officers;
- support the team leaders in the delivery of effective services for DNA Analysis;
- problem solving;
- liaison with scientists, technicians and management; and
- responsible for the coordination of ordering and restocking of laboratory supplies.

This role should report to one of the DNA Analysis team leaders.

QHFSS – models of care and new roles

This section outlines the discussion from the QHFSS future state workshops and corresponding interviews to consider the model of care and potential future roles.

Projects Co-ordinator (including research)

This role is currently accommodated within one of the scientist team leader's roles, along with Auslab, Quality, management of Operational Officers and Projects. It has been widely acknowledged that this is too much for one role and that consequently there are problems with all aspects being able to be accomplished sufficiently. There is benefit to separate the Projects role from this existing role. This would provide an opportunity for Health Practitioners to perhaps rotate into this role or be appointed into this role. Examples were quoted where funding for Projects has been missed due to the lack of ability to attend meetings and understand the research funding system. This projects role could coordinate research projects, including sourcing funding options, identify new technology and support its implementation (including training and integration with LIS).

The duties of this role may include:

- identification of research projects;
- submissions for funding;
- applications for research resources (staffing, equipment);
- coordination of research projects;
- identification of new technology advances and associated opportunities;
- implementation of new technology and change management processes;
- identification of training needs to support new technology; and
- liaison with staff across DNA Analysis.

QHFSS – models of care and new roles

This section outlines the discussion from the QHFSS future state workshops and corresponding interviews to consider the model of care and potential future roles.

Forensic and Scientific Service (QHFSS) – Mortuary

QHFSS Mortuary has shared information with us in relation to their plans for the service. These plans will seek to address issues in relation to career progression and we understand that these proposals are currently being discussed both internally and externally within the necessary procedures and protocols. In order not to complicate matters the KPMG Project Manager has had discussions with the manager for the mortuary and agreed that at this stage there will be minimal reporting from KPMG on this section.

Model of Care

The model of care is currently under discussion as part of a separate process.

Roles for reintroduction

Some innovative roles have been developed previously, but it has been reported to KPMG that due to staffing pressures at the time these roles were not utilised as intended.

Within the future state workshop KPMG were able to identify with staff new roles for consideration. Unfortunately the roles are already developed but not currently happening. In addition, the one role they described that was new involved the proposal that Mortuary operational officers undertook training to provide CT scan and plain films (x-rays). However, on further inspection of this possibility, the licensed operator (radiographer) is required to have the ability to analyse and interpret images in order to perform the post scan data processing which is outside the scope of expected level of responsibility of operational staff. In addition Radiation Health were more comfortable with HP staff being licensed users as this is the first occasion that non-radiographers were granted CT scanning licences in Queensland and was dependent on successful completion of an approved training course.

Mortuary Support Assistant

This role has been approved previously. Mortuary staff indicated that they still believe in the value of a mortuary support assistant to undertake the following tasks:

- prepare bodies;
- set out appropriate instrumentation daily;
- maintain a clean working environment to minimise infection as well as preparing soiled linen and theatre clothing for laundering;
- use AUSLAB system to register cases
- track specimens in AUSLAB;
- scan document, print forms, labels and cassettes;
- transferring bodies;
- conduct body audits;
- assist in the controlled release of bodies; and
- collection and delivery of post mortem specimens to other forensic departments.

QHFSS – models of care and new roles

This section outlines the discussion from the QHFSS future state workshops and corresponding interviews to consider the model of care and potential future roles.

Mortuary Training and Quality Co-ordinator

This role currently exists, but due to staff shortages the role has not yet been able to be performed as is desired. Staff identified that this role is required and would be advantageous in supporting training requirements in addition to the quality role across the section.

This role includes:

- lead the quality initiatives of Mortuary services;
- oversight the Mortuary Quality System (including audit and review);
- coordinate and audit the evaluation of new procedures;
- provide advice to the Mortuary manager on all Quality aspects;
- coordinate training events and analysis of staff's needs;
- liaison with Scientific Skills Development Unit to access and provide relevant training;
- assist in the provision of training;
- mentor and guide staff new to the section; and
- mentor and guide staff implementing new processes and procedures.

New Role

Extension of Mortuary Attendant Role (mortuary Technician)

Current Mortuary attendants believed that if the mortuary support assistant role was developed, they could extend their scope of practice and undertake three core roles:

- Evisceration;
- Reconstruction; and
- CT scanning and plain films (extension of scope).

They already undertake evisceration and reconstruction. However, despite their enthusiasm to extend their role into performing CT scans and plain film x-rays, as stated previously the licensing arrangements will not permit this to occur at this stage.

Next steps

During the course of consultation across QHFSS staff have carefully considered roles that they would like to trial. KPMG has assessed the impacts of their suggestions and whether they coincide with the ten criteria outlined on page 24. We believe that the following roles are the priority areas for piloting and have identified the criteria that they meet.

The following three roles are those that KPMG support to be trialed at QHFSS should funding permit

QHFSS – models of care and new roles

This section outlines the discussion from the QHFSS future state workshops and corresponding interviews to consider the model of care and potential future roles.

Table 4: Summary of the opportunities identified at QHFSS for trials

Role	Criteria for prioritisation
Specimen Reception Assistant	• Benefits to staff – Health practitioners and Operational officers – through improved service and staff morale • Benefit to service efficiency and productivity – better service to public health laboratories • Consistency with Pathology Queensland, QHFSS and CaSS strategic direction – porters and ward staff undertaken this role previously in hospital settings • Practicality of the option – logical role to consider • Resources required to implement the option- minimal resources required to trial – could be shared position across either stores or other client service teams • Other initiatives or projects currently underway – allied health assistant pilots occurring • Applicability in other settings within the district and across Queensland Health – transferable to other demonstration sites and across other larger laboratories. • Readiness and willingness to change – QHFSS CSR staff have expressed a willingness to embrace change.
Operational Supervisor	• Benefit to patients. • Benefits to staff – Health practitioners and Operational officers. • Benefit to service efficiency and productivity • Evidence base/strength of case supporting the option.

QHFSS – models of care and new roles

This section outlines the discussion from the QHFSS future state workshops and corresponding interviews to consider the model of care and potential future roles.

Role	Criteria for prioritisation
	• Consistency with Pathology Queensland, QHFSS and CaSS strategic direction. • Practicality of the option. • Resources required to implement the option. • Other initiatives or projects currently underway. • Applicability in other settings within the district and across Queensland Health. • Readiness and willingness to change.
Billing Co-ordinator	• Benefits to staff –Operational officers – support staff to undertake specimen processing and therefore reduce pressure and increase staff morale • Benefit to service efficiency and productivity • Applicability in other settings within the district and across Queensland Health. – dependent on model utilised in other laboratories this role could be introduced to other facilities. • Readiness and willingness to change – QHFSS CSR has shown readiness and willingness to embrace change.

Commonality of opportunities and application

Commonality of opportunities

Our analysis and engagement has identified a variety of roles, a number of which are specific to particular locations. However, we have noted that through conducting the future state workshops and further interviews that there is a degree of consistency in the potential new roles that have been identified across the four demonstration sites. The exact role and its description at different sites may be subject to some variation but they have been classified under common headings where the degree of similarity is high. The degree of commonality suggests that if new approaches are considered viable after trialing there may be reasonable scope for roll out to other locations.

The common opportunities are summarised below and their potential for application is highlighted:

Table 5: Summary of the commonality of opportunities identified

Role	Site applicability								Job description developed (Y/N)
	Central Lab Core	Central CSR	Central Phleb	Toowoomba	Kingaroy	QHFSS CSR	QHFSS Analysis DNA	QHFSS Mortuary	
Machine operator./maintenance	√			√	√		√		**Y**
Information technology co-ordinator	√			√	√		√		**N**
Training/quality co-ordinator	√	√		√	√	√	√	√	**Y**

Commonality of opportunities and application

Role	Site applicability								Job description developed (Y/N)
	Central Lab Core	Central CSR	Central Phleb	Toowoomba	Kingaroy	QHFSS CSR	QHFSS DNA Analysis	QHFSS Mortuary	
Client Liaison/Quality role	√			√					**Y**
Operational Officer Pool	√	√	√			√	√		**Y**
Pre-analytical officer (CSR plus role)		√		√	√				**Y**
Operational Assistant - Blended CSR/Phlebotomy/Lab support role	√	√	√		√				**Y**
Specimen Reception Assistant						√			**Y**
Mortuary Support Assistant								√	**Y**
Projects co-ordinator							√		
Laboratory Operational Support Manager							√		

Commonality of opportunities and application

Role	Site applicability								Job description developed (Y/N)
	Central Lab Core	Central CSR	Central Phleb	Toowoomba	Kingaroy	QHFSS CSR	QHFSS Analysis DNA	QHFSS Mortuary	
Operational Supervisor							√		
Billing co-ordinator						√			

In terms of broader applicability the table also gives an indication of where roles have could be useful in a range of laboratory settings which may apply beyond the project sites engaged to date. The Models of Care Steering Committee should consider the extent to which these roles could be introduced in other laboratories effecting light of the findings from initial trials.

It should be noted that consultation with staff has indicated that there is a degree of support – these views have been taken into account in developing these proposals. These are the areas that staff felt strongly would have the greatest impact though it should be acknowledged that they did not explicitly consider the financial implications and whether there was potential for a pilot to occur within the currently available financial envelope.

Central laboratory indicated the areas they would like to consider and assisted KPMG by providing us with their initial thoughts for job descriptions for these roles – these are attached at Appendix B for the Steering Committee's consideration.

These charts outline the qualitative impacts on service delivery and workforce reform in relation to the proposed new models of care.

Impact assessment

KPMG have developed a tool to assist Pathology Queensland and QHFSS to measure impact of change. This is outlined further in Appendix C. In addition, a series of tools are provided at Appendix D which may be used to support managers and staff in progressing workforce re-design. However, in the absence of explicitly calculated impacts we have identified the following potential benefits and qualitative impacts arising through the introduction of the suggested roles. Table 6 provides a narrative on the potential impacts of all the examples annotated through the completion of future state workshops and subsequent consultation with staff. The roles recommended for trial as discussed in previous sections are highlighted through shading.

Potential benefits and impact on service delivery.

Table 6: Summary of the impacts should roles be introduced

Role	Commentary
Machine operator/maintenance	The introduction of this role allows scientists and technicians to conduct scientific processes without the need to repair, maintain or support instrumentation or equipment. This will improve throughput of specimens as Health Practitioners can refer problems to a designated role.
Information technology co-ordinator	A considerable period of time is reported amongst scientists and technicians that they are required to input into IT projects and upgrades. Also, reporting errors and liaising with the vendor or LIS support team is time consuming. This role would allow Health Practitioners the opportunity to increase throughput and efficiency if this role became designated.
Client Liaison/Quality role	Staff recognise that if time could be spent to examine the root cause of problems, feedback to the client/organization and learn from such events, the service provision would improve. Currently, there is no opportunity to conduct this role due to the volume of work that is processed. If this role could be developed the service would become more efficient and the standards of service delivery would improve.
Operational Officer Pool	An operational pool would provide flexibility and support for the workforce.
Pre-analytical officer (CSR plus	This extension of CSR Operational Officer role allows Laboratory Operational Officers to be

Impact assessment

These charts outline the qualitative impacts on service delivery and workforce reform in relation to the proposed new models of care.

Role	Commentary
role)	used further to support scientific processes, freeing up staff with scientific skills to extend their current scope of practice into research, quality and improving the throughput and standard of testing.
Blended CSR/Phlebotomy/Lab support role – Cross trained Operational Assistant	This provides flexibility for pathology services and a greater understanding of how roles impact upon each other. This develops a mutual respect and overall will improve service delivery.
Specimen Reception Assistant	The introduction of this role would allow a more timely response to the laboratories in the transfer of specimens to the appropriate areas. This will improve turn around times and minimize "holding" periods where specimens are awaiting transport to the relevant section.
Mortuary Support Assistant	This role supports the performance of post mortem examinations especially when Pathologists require additional equipment, documentation etc. This role would prevent the mortuary attendant having to leave the theatre and remove PPE etc, thus resulting in a more efficient and professional service to Pathologists.
Projects co-ordinator	Project co-ordinator enables the section to access important funding streams to undertake research projects and be involved in the development of new technological advances. This awareness of new projects/research and instrumentation will improve service delivery.
Laboratory Operational Support Manager	This role is similar to that of the Machine operator and improves service delivery as previously outlined.
Operational Supervisor	Allocation of tasks appropriate to Operational Officers and having dedicated manager for Operational Officers will improve the overall DNA Analysis service. The service will be more co-ordinated and result in a more valued operational team.
Billing co-ordinator	This will allow Operational Officers time to focus on the processing of specimens resulting in improved turn around times.

Impact assessment

These charts outline the qualitative impacts on service delivery and workforce reform in relation to the proposed new models of care.

Potential benefit and impact on workforce

Table 7: Summary of the commonality of opportunities identified

Role	Commentary
Machine operator./maintenance	Enables role variety and improves staff morale for those who get frustrated in relation to equipment issues.
Information technology co-ordinator	Enables role variety and improves staff morale for those who get frustrated in relation to equipment issues
Training/quality co-ordinator	Training of new staff and ongoing training has been identified as an issue. A proposed solution to this problem has been the introduction of protected time to complete training and ideally a designated role.
Client Liaison/Quality role	Role variety and development opportunity for HP staff.
Operational Officer Pool	Provides an opportunity for staff to experience different sections, cross skill, multi skill and network across sections. Improves the overall understanding of the service system. Allows part time staff the opportunity to access more work hours.
Pre-analytical officer (CSR plus role)	Extension of role for individual.
Blended CSR/Phlebotomy/Lab support role – Cross trained Operational Assistant	Provides an opportunity for staff to experience different sections, cross skill, multi skill and network across sections. Improves the overall understanding of the service system. Allows part time staff the opportunity to access more work hours.
Specimen Reception Assistant	Support CSR Operational Staff to undertake processing of specimens and limits time away from the bench, thus relieving pressure in the work place and improving staff morale.
Mortuary Support Assistant	Support Mortuary Operational Staff to assist with post mortems and limits time away from

Impact assessment

These charts outline the qualitative impacts on service delivery and workforce reform in relation to the proposed new models of care.

Role	Commentary
	the theatre, thus relieving pressure in the work place and improving staff morale.
Projects co-ordinator	Enables role variety and improves staff knowledge and opportunities to be involved in research and projects. Keeps staff updated on technological advances and supports them to be appraised of new developments.
Laboratory Operational Support Manager	Enables role variety and improves staff morale for those who get frustrated in relation to equipment issues
Operational Supervisor	Supports Operational Officers within DNA Analysis and allows scientists and technicians time to use their skills more appropriately. Increase staff morale for HP and OO staff respectively.
Billing co-ordinator	Support CSR Operational Staff to undertake processing of specimens and limits time away from the bench, thus relieving pressure in the work place and improving staff morale.

Education and training – identified gaps

An overview of the gaps in education and training that have been identified in order to introduce the proposed new roles.

Education and training – identified gaps

Process

Education and training gaps have been assessed through consultation with staff at the demonstration sites, discussion relating to the identification of new roles and required training to support these new roles and also through interviews with the Scientific Skills Development Unit at QHFSS and Skills Development Unit at Pathology Queensland.

We describe our observations in the following sections.

General overview

Overall, the training and education provided by Pathology Queensland and QHFSS appears to address the general training needs of the workforce. It is interesting to note, however, that at the demonstration sites staff identified the need for training roles to be developed within the units, recognising the importance of this role.

It is also noted that training differs across the sites that were in scope for this project, and the relevance and access to training diminished the smaller the laboratory becomes. It can be argued that a more local training programme is appropriate for group laboratories.

A recent issue that has arisen is the requirement for operational officers to pay for courses rather than be supported by Queensland Health.

Gaps identified

Gaps were identified in both organisations regarding access and provision of management training. In the past, managers have been appointed historically through experience and time spent within the organisation, these individuals make very good scientists, but there is currently limited support to ensure that they perform as good managers.

Should the organisation agree with this opinion and support the recommendation that management training should be provided, we believe that this would translate to the workforce with improved retention rates of staff if they report to good managers who recognise their needs and support them accordingly.

Our observation is that both organisations have been responsive to the needs of their staff and where a gap is identified then through the relevant skills development units a training module has been developed in house to address this training need. KPMG have had access to the plethora of training modules available through QHFSS for DNA Analysis, CSR and Mortuary staff.

Future plans

We have been privileged to share information relating to training plans for both Pathology Queensland and QHFSS. We have noted from our consultations and workshops that any plans for further qualifications and career progression

Education and training – identified gaps

An overview of the gaps in education and training that have been identified in order to introduce the proposed new roles.

would be welcomed by staff within the Operational occupation stream.

Structure and draft job descriptions

Due to the limited number of professions that are in scope for this project, there is very little that can be amended in relation to the structure within pathology services. There are instances where joint roles between sections can be investigated such as blended CSR/Phlebotomy/Lab support roles; extended CSR (Pre-analytical officer) role; and Operational Officer Pool.

We have developed a series of draft job descriptions for new roles, these are attached at Appendix B and include:

1. Machine operator
2. Training/Quality co-ordinator
3. Client Liaison/Quality Role
4. Operation Officer (pool)
5. Pre-analytical officer
6. Joint CSR/Phlebotomy/Lab support Operational Officer
7. Specimen Reception Assistant
8. Mortuary Support Assistant
9. Billing co-ordinator

Career progression framework

Both organisations are already in discussions to promote this avenue for their staff. The development of the new roles highlighted by this project would be a major step forward in offering progression opportunities and job enrichment.

Impact assessment of proposed changes

This has been outlined in the 'Impact Assessment' section and incorporates a series of qualitative impacts that have been identified. In addition, an impact assessment model has been developed and is described at Appendix C.

Training needs analysis and draft training plan for the organisation

The current training programs and capacity within both Pathology Queensland and QHFSS are robust and broadly effective. The main gaps identified would relate to the new project roles - we have identified the training needs to support the new roles and these are outlined in Table 8 below. In summary, appropriate training capacity exists in house or can be accessed through established links with training providers.

The major identified needs relate less to training and more to effective supervision and support for staff in the workplace when they are taking on new roles. Table 8 outlines the training needs, and highlighted cells indicate those recommended as trials.

Education and training – identified gaps

An overview of the gaps in education and training that have been identified in order to introduce the proposed new roles.

Role	Training need	Comment
Machine operator./maintenance	Knowledge of equipment Basic maintenance schedule Basic repairs	Liaison with vendors
Information technology co-ordinator	AUSLAB knowledge Equipment knowledge Interface knowledge Program knowledge	Through LIS Liaison with equipment/instrumentation vendors Liaison with IT providers/vendors
Training/quality co-ordinator	Knowledge of Quality Information System Certificate of Training and Assessment (Cert IV)	SDU can provide through existing training modules
Client Liaison/Quality role	Knowledge of Quality Information System Customer Service Focus	SDU can provide through existing training modules
Operational Officer Pool	Completion of existing training modules for each section (decision needs to be made what tasks are to be undertaken by a pool employee) On the job training and mentoring	SDU and SSDU can provide through existing training modules

Education and training – identified gaps

An overview of the gaps in education and training that have been identified in order to introduce the proposed new roles.

Role	Training need	Comment
Pre-analytical officer (CSR plus role)	Completion of existing training modules for each section On the job training and mentoring	SDU can provide through existing training modules
Blended CSR/Phlebotomy/Lab support role	Completion of existing training modules for each section (decision needs to be made what tasks are to be undertaken by a pool employee) On the job training and mentoring	SDU can provide through existing training modules
Specimen Reception Assistant	Completion of selected modules of QHFSS CSR training On the job training and mentoring	SSDU can provide through existing training modules
Mortuary Support Assistant	Completion of selected modules of QHFSS mortuary training On the job training and mentoring	SSDU can provide through existing training modules
Projects co-ordinator	Understanding how to access projects funding Comprehensive knowledge of system Good networking opportunities Preparation of financial application Management training	This training needs to be sourced dependent on the applicant/incumbents experience and knowledge Gap identified in management training

Education and training – identified gaps

An overview of the gaps in education and training that have been identified in order to introduce the proposed new roles.

Role	Training need	Comment
Operational Staff Supervisor	Management training Completion of all DNA Analysis training modules	Gap identified in management training SSDU can provide through existing training modules
Billing co-ordinator	AUSLAB training On the job training and mentoring	SSDU can provide through existing training modules

Table 8: Summary of the training needs of identified roles for consideration

Assessment of the internal capacity to deliver on the training needs of the workforce.

Our preliminary assessment has concluded that both organisations' skills development units can address the training needs of these new roles adequately. The issue for the pathology workforce is more relating to the ability to financially support Operational Officers to complete further study that allows them to attain qualifications. Both organisations already have plans in place to address the training needs for these staff and to address career progression, but we are not aware of their plans for addressing the financial support required for employees to access and complete this training.

Summary

Queensland Health is well placed to meet the training needs of its staff currently with good access to training modules across both Pathology Queensland and QHFSS. It is responsive to its staff's needs and seeks to address training gaps with external agencies wherever possible. It acknowledges that it does not provide good training support for Health Practitioners moving into managerial roles and the financial ability to provide courses for all staff wishing to pursue courses for career progression is limited.

Implementation and plans for pilot

An outline of the steps required and elements to consider prior to piloting new roles.

Areas for further development prior to and during the pilot

The work undertaken in Part B of the project has resulted in the development of job descriptions and role guidelines for a variety of positions. The purpose of these documents is to act as a framework for future work and we recommend that these are built upon and amended throughout the pilot phase as further testing and development is conducted. In addition, further consultation needs to take place with the Steering Committee to determine which roles should be piloted and how these might be funded.

It should be clearly stated that KPMG has not provided any classification for the roles - this will be a matter for human resource processes within Queensland Health. The draft job descriptions are intended as a guide for consideration and use/amend as seen fit

There are a number of important activities that need to occur prior to and during the pilot of the new roles and model of care. These are described in Table 9.

Table 9: Suggested activities to occur in preparation for and during the pilot

Activity	Tasks
Ongoing stakeholder engagement and change management	Once the recommendations chosen for piloting by the steering committee are agreed, it is imperative to produce a comprehensive communication plan to advise staff of the proposed pilots and to ensure their involvement in the piloting phase. It is important that those involved in implementing the change are supported in relation to change management tools and techniques and how to manage positive and negative reactions to the proposed changes.
Impact Assessment	The impact of proposed changes needs to be assessed and the effect on workload anticipated. There must be executive support to trial these changes and to accept that initially there may be a negative effect on efficiency and productivity. The executive team needs to be explicit about their expectations in relation to this and communicate this perspective clearly.

Implementation and plans for pilot

An outline of the steps required and elements to consider prior to piloting new roles.

Activity	Tasks
Guidelines, policy and protocol development	Careful consideration needs to be given to the necessity to develop Standard Operating Procedures (SOPs) to support the implementation of pilot roles. In addition, Queensland Health procedures and protocols/policies affected by the pilot need to be carefully considered by the Steering Committee prior to implementation.
Recruiting to the pilot positions	Decisions need to be made as to how the pilot positions would be filled, and the Human Resource implications arising from this.
Refinement of the job descriptions	All job descriptions need to be formatted into the Queensland Health template and meet the requirements of the grading process within Queensland Health.
Education / training of the new staff	Acknowledgement that training will be required for the implementation of agreed pilots. Corresponding funding to provide the training and backfill needs to be allocated.
Develop key performance indicators (KPIs)	In order to effectively measure the impact of the pilot, an agreed measurement needs to be considered by the Steering Committee and arrangements for reporting progress against key performance indicators.
Ongoing involvement of the steering committee and project sponsor	Implementation phase needs to be fully supported by the Steering committee and project sponsors to the same degree as has happened prior to this point. Support may need to be increased initially until the pilot has been initiated.

Summary observations and recommendations

This section includes broader recommendations regarding pathology workforce redesign for consideration by Queensland Health.

Summary observations

It is clear from the work undertaken as part of this project that significant scope exists for beneficial change and that there is a significant body of support for reform. The following issues need to be kept in mind when considering reform, however:

Scale of operation constraints - the scale of operation at some smaller laboratories means that there are significant implications for the 24 hour service if some of the workforce reform ideas were introduced. The need for cover for all aspects of laboratory work and the maintenance of workable on-call rosters means that HP staff will still need to undertake tasks/roles that theoretically could be devolved to others. This limits the extent to which workforce reform can be implemented in practice – this should, however, be assessed on a case-by-case basis.

Maximising the appropriate use of available skills - maximising the opportunities for skilled staff to appropriately use their skills and develop specialised skills or varied cross skilled roles will improve retention and recruitment as job satisfaction will be enhanced. Skilled staff will feel valued and supported if they are given the support and ability to delegate/deploy elements of work that can be delivered by other staff groups.

Enhancing the role of Operational Officers - overall there is a consensus of opinion that operational officers should be permitted and supported to do more than they currently do provided this occurs within appropriate frameworks.

Implications for the future shape of the workforce

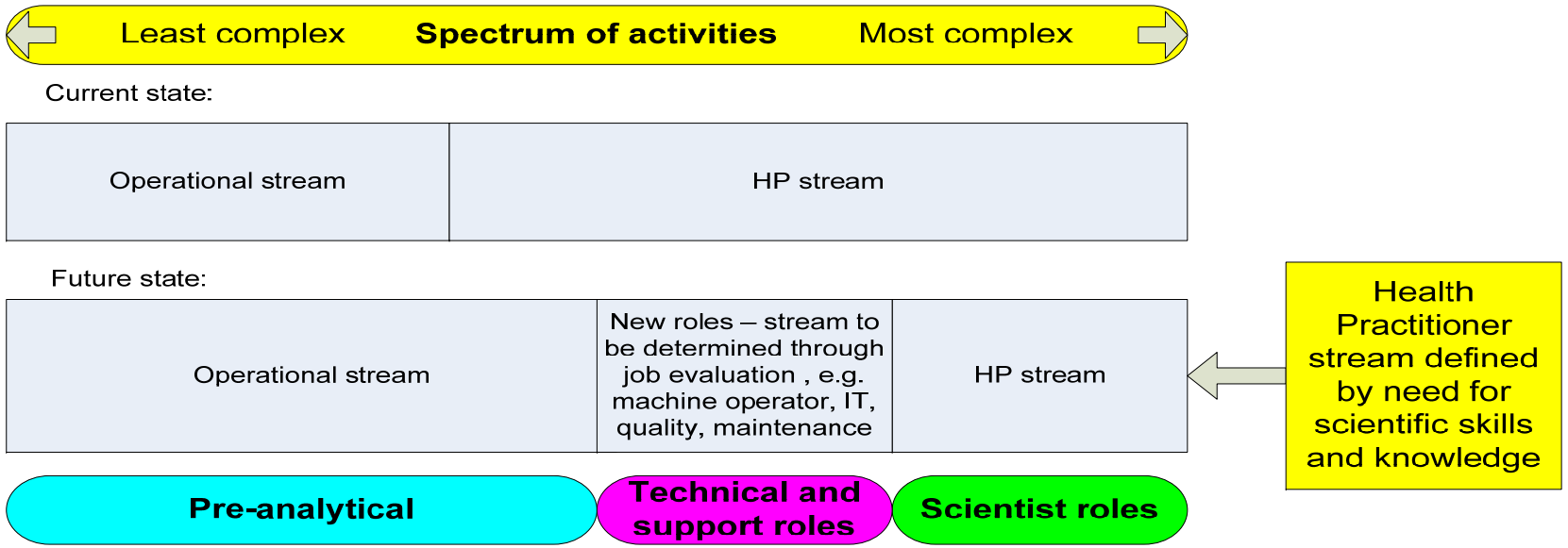
The main thrust of the findings and recommendations emerging from this project can be summarised as follows:

- Tasks undertaken by HP staff include a number of areas which do not require the level of skills and knowledge possessed by this staff group
- The distinction between Scientists and Technicians is considerably blurred with staff fulfilling similar roles in many settings
- Technicians have reduced in number commensurate with the decline in training programs.
- The mix of staff and the areas of responsibility can, therefore, change with benefits in terms of effective use of staff skills and efficiency in the use of resources.

Summary observations and recommendations

This section includes broader recommendations regarding pathology workforce redesign for consideration by Queensland Health.

Diagrammatically, the current and future staffing mixes can be presented in the following ways:



In essence, operational staff can take on a greater range of roles and responsibilities in the pre-analytical phase. The HP workforce can then focus their scientific skills and knowledge on analysis, evaluation and decision-making and grow further into areas where there skills can better utilised (e.g. clinical liaison).

New roles focused around technical operation and support to equipment, maintenance and quality assurance can also emerge. The industrial classification for these roles should be determined by objective evaluation of the finalised job roles. It is likely that technical training will be required for some of these potential roles. This may usefully link with discussions currently being held around Diploma-level qualifications.

Summary observations and recommendations

This section includes broader recommendations regarding pathology workforce redesign for consideration by Queensland Health.

Within the operational stream there is scope for job enhancement through developing roles with greater breadth and "advanced roles" which would see an increased skill level beyond current roles – such roles may also require further training and could necessitate formal qualification.

Recommendations for progress

The primary focus of this project has been identification of alternative work designs and the development of specific suggestions of new roles and ways of working. To support this development and implementation process a series of recommendations arising from our observations and analysis are provided. These apply to the system as a whole across Pathology services in Queensland and focus on

- Operational practicalities
- Strategic enablers and drivers

Recommendations are made under the specific headings.

Workforce reform – operational practicalities

- **Maximising opportunities for professional growth and development through design**

Recommendation 1: Move away from the silo mentality of employing operational officers for discrete tasks and consider the processes where it is logical and efficient for an operational officer to manage a process until a predetermined point. To support this change Queensland Health should trial the proposed CSR/Phlebotomy blended role and assess the improvement in the following areas:

- patient care;
- job satisfaction (retention rates);
- customer feedback (scientists, doctors and nurses)
- service delivery; and

This section includes broader recommendations regarding pathology workforce redesign for consideration by Queensland Health.

- efficiency.

The management of operational officer positions should be considered once the role is defined.

Recommendation 2: Health Practitioners should be provided with appropriate training, guidance and support to equip them with the skills and knowledge necessary for delegating to and supervising operational officers.

Recommendation 3: Time and capacity for supervision of assistants/support staff should be explicitly built into revised staffing models and individual roles.

Recommendation 4: A clear and consistent framework of training and qualifications needs to be in place for the operational officer workforce to both assure quality and competence and to facilitate movement of staff across the pathology system as a whole.

Recommendation 5: Devolution of tasks from the skilled Health Practitioner workforce should not focus on operational officer roles alone. Where the skills required of a specifically administrative or clerical nature these should be devolved to AO grades rather than to operational officers.

- **The use of shared roles/resources across business units should be considered.**

Recommendation 6: Consider other areas (out of project scope) within Pathology services where a 'blended' role could succeed for both HP staff and Operational Officers.

- **Maximise the skills of the workforce to ensure best use of resources and a motivated, valued team of professionals**

Recommendation 7: The emphasis in promoting workforce and role design should be on maximising the contribution of all staff in relation to their skills and potential rather than on a narrow focus on devolution of tasks.

Recommendation 8: All services should systematically review their current workload and identify the areas where staff skills are used sub-optimally. This sub-optimal workload should be broadly quantified in terms of time and resource cost. The impact assessment tools developed as part of this project can be used to support this process.

- **Value staff and incentivise change**

Recommendation 9: There should be local incentives for change through allocating an agreed element of any freed up resources to the development of advanced or extended scope roles, or increase in numbers of operational officers.

Summary observations and recommendations

This section includes broader recommendations regarding pathology workforce redesign for consideration by Queensland Health.

Recommendation 10: Where natural attrition of HP staff occurs, local services should carefully consider the required skill mix to support the pathology service and use the opportunity to redesign the team.

- **Ensure that there is job variety and flexibility within the pathology service**

Recommendation 11: Pursue the route of an operational pool of staff to provide both job variety, cross skilling and also flexibility.

- **Supporting effective implementation and roll-out**

Recommendation 12: Effective implementation of a program of change across the system will require action beyond the redesign of roles alone. The broader environment within which new roles develop and operate will be critical in delivering sustainable change and benefit.

Strategic enablers and drivers

- **Operational staff occupational stream**

KPMG has identified that a significant barrier to job satisfaction relates to how the individual feels their contribution to the system is valued.

Throughout the course of our investigation we have consistently heard the underlying message that operational officers that are in scope for this project feel that it is inappropriate that they are in the same occupational stream as non-clinical operational staff. We observed that, some operational officers in scope have additional responsibilities as follows:

1. chain of custody requirements
2. patient contact
3. level of accountability and responsibility
4. liaison with medical practitioners
5. potential for appearance at court
6. exposure to traumatic events (mortuary)

Summary observations and recommendations

This section includes broader recommendations regarding pathology workforce redesign for consideration by Queensland Health.

While the valuable input of other professions within the Operational Stream are recognised, we suggest that Queensland Health consider the appropriateness of the operational occupational stream for these in-scope professions. Changes in this area may have positive impacts upon staff morale and in turn recruitment and retention rates. Such a change need not have financial implications for Queensland Health – remuneration would still be fundamentally determined by job value rather than the occupational stream within which it is located.

Recommendation 13: Support the exploration of an alternative to the existing operational occupational stream.

- **Career progression and training pathways**

KPMG have been made aware that there are several plans in place to provide more definitive training and corresponding career pathways. We know that significant progress has been made with two models and have agreed with the managers of these services that we would not discuss this further in this report. The two areas are:

- Development of a cross functional Operational officer qualification with South Bank TAFE;
- Development of a dedicated course leading to higher qualifications for Mortuary staff through the Cunningham Centre.

Recommendation 14: KPMG would strongly agree that the development of a clear training pathway with career progression supported financially through the organisation is an imperative for the sustainability of the pathology workforce.

- **Understanding of roles and responsibilities and how roles contribute to the whole system**

Aside from workforce redesign, there is a clear cultural issue that the organisations in scope both operate in a silo mentality. At the very least any new employee should have an induction into the CSR and understand the basic processes and roles that occur within CSR. This would improve communication, improve staff morale and increase staff's understanding of context and consequences of their actions on the whole system.

Recommendation 15: Induction process for all pathology and QHFSS staff to include CSR orientation.

In summary, as part of any reform process it will be important that roles adopted for trial are properly funded and supported to ensure they can be meaningfully evaluated and assessed. Longer-term implementation and roll out of new roles can then be progressed either through taking advantage of opportunities as vacancies arise or through development of "business cases" on an invest-to-save basis.

Summary observations and recommendations

This section includes broader recommendations regarding pathology workforce redesign for consideration by Queensland Health.

In the first instance, potential new roles should be trialled and evaluated to determine their value and suitably modified in light of the information gained through the trail process. At this point job evaluation would determine the industrial classification within which permanent roles should reside. An objective assessment could then be made of the training requirements for the roles and the necessity of any mandatory qualifications.

Appendices

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Tasks and skills analysis

Attached are the finalised tasks and skills analysis sheets for each of the in-scope areas within the four demonstration sites. There are no sets for Kingaroy as there was no 'as-is' assessment made at this site. There is also an absence for CSR at QHFSS as the skills were very similar to that identified at Core laboratory at Central (RBWH). All of these skills sets have been tested and finalised with staff at the demonstration sites.

Central (RBWH) Core Laboratory

- Coagulation
- Haematology
- Chemistry
- Immunoassay

Automated processes (95% Haematology, 95% Coagulation, 95% Chemistry and 100% Immunoassay)

Activity	Task	Knowledge/Skills	Level	Comment
ID Check	Check sample with request form (scanned image) Check data entered in AUSLAB Check sample integrity Check whether sample is Automated	AUSLAB Computer skills Test knowledge Volume required Problem solving (e.g. if sample clotted what to do to rectify)	OO3 in Haematology HP in Coagulation HP/OO in Chemistry HP in Immunoassay	Not all areas have OOs

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

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Activity	Task	Knowledge/Skills	Level	Comment
	or manual process			
Additional tests required	Check whether additional tests are required - interpretation	Clinical knowledge Test knowledge Knowledge re pre-analytical stages and preparation Volume required and critical levels Age of sample and its effect on testing (storage)	HP (Coagulation) HP/OO (General Chemistry) OO in Haematology	
Sorting	Sorting samples into urgent/non-urgent Sort samples into those which will be processed manually and automated Sorting samples into those with regular profile and those requiring additional	Test knowledge Process knowledge Policy and procedures Decision making Local processes in CSR (What will be done by them and what will not) Problem solving Communication skills	OO where possible HP where no OO exists in team or out of hours	

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
Pre-analysis	Preparation of sample – centrifuging Problem solving	Centrifuging Test knowledge Sample integrity Problem solving	OO3 in Haematology	
Loading	Loading of analyser	Use of analyser Process of analyser How to 'rack'	OO in Haematology HP in other areas	
Analysis	Push button start Machinery trouble shooting Daily/periodic maintenance QC/ calibration – review Reagent preparation Specimen preparation Decision making/diversion Delegation	Motor skills Technical knowledge and mechanical knowledge of equipment Knowledge of maintenance procedures and timeframes Knowledge of calibration requirements and error adjustment Procedural/policy	OO commences process in Haematology HP	Some of this process could be undertaken by OOs

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
		knowledge Lab techniques Knowledge of test Clinical knowledge Quality procedures AUSLAB		
Results generated Investigation phase	Integrity checking Identify further action required Add-on tests required Communication with other departments Interpretation of results (if required) Phone critical results to referrer Storage/disposal Film preparation (haematology)	AUSLAB Equipment Test knowledge Laboratory techniques Analytical skills Communication skills Local procedures and policies Interpretation skills Clinical knowledge (what is critical?) Centrifuging Procedures on	HP HP or OO3	

Appendix A – Tasks and Skills Analysis

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The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
		sharing specimens Storage requirements Film preparation (haem)	OO3(Haem)	
Validation	Technical validation Specimen integrity Clinical interpretation Integrity of results Decision making Extra tests/retests Communication with lab and medical staff Commenting – manual additions	Instrument knowledge Test knowledge Clinical knowledge Interpretation skills Statistical analysis AUSLAB Lab techniques Communication skills Documentation Reporting Problem solving	HP	
Film review (haematology)	Review of film Analysis Interpretation Communication with	Morphology Microscope skills Clinical knowledge Keyboard skills	HP	

Appendix A – Tasks and Skills Analysis

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The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
	clinicians	AUSLAB Communication skills		
Automatic reporting				
Validation	Decision making – further tests Validate equipment integrity of data (level 1 validation) Phone through critical results Manual investigation required	Decision making Problem solving Protocols and procedures Professional boundaries (when to refer to haematologist) Clinical knowledge Clinical history and relevance	HP	
Storage		Polices and procedures	OO3/HP	
Disposal/Discard		Policies and procedures	OO3/HP	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Manual Process

Activity	Task	Knowledge/Skills	Level	Comment
ID check	As per automated	Clinical knowledge	HP	As per automated
Set up	Set up area Set up equipment Set up sample	Reagents required Test knowledge Equipment knowledge Cell washing (centrifuge) Ability to stain Make films Haemolyse cells/haemolysate	HP	No OOs in laboratory at Toowoomba
Processing	Dependent on test	Test knowledge Scientific skills Morphology Microscope skills Ph levels for electro instability tests	HP	

Appendix A – Tasks and Skills Analysis

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The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
Investigation	Problem solving Interpretation Further requests required			
Result/reporting	Attain results	Clinical knowledge Test knowledge Clinical history Problem solving Diagnostics Reporting Accountability Genetic diagnosis (comment) AUSLAB	HP	As per manual review stage outlined in Automated notes
	Interpret results		HP	
	Report		HP	

Appendix A – Tasks and Skills Analysis

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The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Additional tasks

Activity	Task	Knowledge/Skills	Level	Comment
Training			OOs to OOs	In house and across state
Cost information for tests				
Write methods			OOs and HPs	
Supervision			HP and OO	
Trouble shooting			HP	
Phone management			HP/OO	
Validate techniques			HP	
Trials/Research			HP	
Continuing professional development			HP/OO	
Professional associations (membership)			HP/OO	
In-service tours			HP (Previously OO)	
Teaching/education			HP	
Reference/advice for other labs or clinicians			HP	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
Quality role			HP/OO	
NATA Accreditation			HP/OO	
Statewide discussions			HP/OO	
Meetings			HP/OO	

Appendix A – Tasks and Skills Analysis

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The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Central – Central Specimen Reception

Activity	Task	Knowledge/Skills	Level	Comment
1. Specimen Sorting	Receipt of specimens	Customer service focus Communication skills Lamson equipment problems – minor diagnostics and fixes Delivery schedules Esky types Specimen types Familiarity with request forms Couriers paperwork and delivery schedules Locations specimens sent from Handling of specimens Handling of packages Policies and procedures	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
	Triage	Various locations and purpose Policies and procedures Handling techniques Prioritisation protocols Time stamping (purpose)	OO3	
	Phone calls	Customer service focus Communication skills Ability to problem solve Decision making Local contacts Computer skills AUSLAB Request form familiarity Professional boundaries (add-ons tests requested)	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
2. Distribute and Prioritise	Decision making Priority assigned Location determined	Local knowledge of source of specimen Knowledge of type of test Specimen type Interpreting medical terminology Knowledge of request form Distribution protocols Prioritisation protocols	OO3	
3. Coding	Pt ID and match with request forms	Policy awareness and adherence Request form AUSLAB Scanning	003	
	Recognise Test	Knowledge of pathology terminology Knowledge where to access information	003	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
	Assess test requirements Volume, container, processing etc	Knowledge of pathology terminology Test knowledge Knowledge where to access information	003	
	Sort specimen	Knowledge of test Local protocols and procedures Racks for Haematology	003	
	Decision on storage	Knowledge of test Local protocols and procedures	003	
	Decision initial processing requirements	Knowledge of test Local protocols and procedures	003	
	Basic processing	Centrifuging Aliquoting	003	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
4. Data Entry/ registration	Data entry/ checking registration data	AUSLAB knowledge Local policy and procedure Ability to problem solve –chase missing information Scanning Billing knowledge	003	
5. Initial processing	Centrifuging Aliquoting	How to set out rack Centrifuging Aliquoting Lab No allocation (AUSLAB) Print labels Tube type Pipette skills Volumes required Clinical knowledge When respinning is required SOP	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
		Policies and procedures		
6. Urine and Fluids	Coding Decision making-random/timed Urgent/ non-urgent	Knowledge of test Types and priority of test Knowledge of volume required and receptacle Knowledge and transfer to receptor Weighing Calculation of discard dates	OO3	
	Data entry	PEI codes AUSLAB Manual entry (not scanned) Scanned image (scanning)	OO3	
	Processing for distribution	pH adjusting Centrifuge Aliquoting	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
	Storage/Discard	Polices and procedures	OO3	
7. Trials	Aliquoting Packaging Phone calls Support scientist Data entry (DSD knowledge)	Trial knowledge (purpose – specific to trial) Time management skills Coordination Aliquoting Dangerous Goods Course Communication skills Data entry (DSD knowledge)	OO3	
8. Send Aways	Checking Packaging Documentation completion Liaison Storage Data entry	Dangerous goods course Reference to training manual Legal requirements Packaging requirements Specimen type and test and	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
		corresponding documentation Ability to problem solve Understand the local context and wider pathology service network Communication skills Esky tracking facility AUSLAB Accountability and authorisation parameters Storage requirements		
9. Parcels	Sorting	Knowledge of source location Knowledge of local processes Knowledge of services provided to other labs Knowledge of private	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
		processes		
	Checking (NB – different processes for different source locations)	Knowledge of private processes Type of test Volume required Check ID with sample – policy AUSLAB Esky tracking software Receipt function knowledge	OO3	
	Coding	As above	OO3	
	Billing	Billing information Decision making	OO3	
	Time management Storage Distribution Liaison	Time management Storage policy Distribution policy Communication skills	OO3	
10. Trouble-shooting		Problem solving High degree	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
		customer focus Communication skills Time management Coordination Prioritisation skills Decision making Ability to multi-task Methodical Test knowledge Local knowledge and network Ability to follow prescribed pathways		
ONLY NEW SKILLS IDENTIFIED IN THESE AREAS				
11. Data Entry		Knowledge of HBSCIS Canning Assign images Complete AUSLAB corrections	OO3	As detailed previously but in addition

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
		Filing General administration Audit trails - quality		
12. MDU		Knowledge of swabs	OO3	Not all staff trained for this bench
13. Cleaning and maintenance		Maintenance programmes Cleaning schedules Equipment handling practices Record temperatures of fridge and freezers Lamson minor fixes and reporting	OO3	
14. Additional Tasks	Patient confidentiality		OO3	
	Stock replenishment		OO3	
	Printing labels		OO3	
	Preparing areas		OO3	
	PPE		OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
	OH &S		OO3	
	Infection control		OO3	
	Risk Management		OO3	
	Training staff		OO3	
	Fire Warden		OO3	
	LEAN meeting – service improvement		OO3	
	CPD		OO3	
	Education		OO3	
	Knowledge management – updates		OO3	
	Team work		OO3	
	Communication		OO3	
	Follow-up on Actions		OO3	
16. Role of Co-ordinators	Room Supervisor		OO3	
	Desk Co-ordinator		OO3	
	Training co-ordinator		OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Central (RBWH) – Phlebotomy

Ward (Adult)

Activity	Task	Knowledge/Skills	Level	Comment
1. Trolley preparation	Stock trolley	Stock required Stock location Equipment requirements Checklist Standardised procedure	OO3	
2. Visit the Ward	Check Request forms box on ward	Communication Assertiveness Local knowledge Policy and procedures Clear understanding of role and responsibility Knowledge of request forms Medical terminology	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
	Prioritise patients	Test knowledge Clinical knowledge Urgency of testing		
	Identify location of patient	Local knowledge Communication with ward staff		
	Trouble shoot -	Problem solving Decision making Communication skills		
	Check ID form with patient	Policy and procedure Legal requirements Legal responsibility Knowledge of consequences of not following procedure Confident to maintain professional guidelines re responsibilities Communication skills	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
		Identifying challenging situation and managing/minimising potential for aggression Risk management strategies		
	Phone call to co-ordinator to advise of # of patients to be "collected"	Communication skills		
	Prepare for test	Test knowledge Test requirements Volume requirements AUSLAB Location of reference materials Pathology terminology Medical terminology Local pathology	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
		equipment and processes		
	Patient contact – communication and consent Initial Assessment	Communication skills Empathy Clinical knowledge Risk management Policies and procedures Contamination knowledge Observation of environment and patient Chain of infection theory	OO3	
	Liaison with nurse	Communication skills Clinical knowledge (i.e. turn drip off etc)	OO3	
	Communication with patient/family	Communication skills Patient confidentiality	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
		Consent issues		
	Attain patient consent	Consent Communication skills Policy and procedure documentation	OO3	
3. Blood collection	Assess Access	Human anatomy Protocols if alternative accesses are required (feet, hand bleed etc) Clinical knowledge Knowledge of fistulas Knowledge of PIC lines Haematoma's Knowledge of treatment program and impact on collection of blood sample	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
	Identify which equipment Identify volume required and receptor required	Equipment knowledge Test knowledge Clinical knowledge Local pathology service requirements	OO3	
	Proceed with blood collection	Problem solving Warning signs Techniques	OO3	
	Problem solving – problem with draw Allergy Fainting	Communication with patient Communication with clinical staff Communication with laboratory staff	OO3	
4. Documentation/Close	Patient care – apply pressure to site Observe site post collection	Clinical knowledge Warning signs	OO3	
	Documentation	Policy and procedure	OO3	
	Preparation of	Policy and procedure	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
	sample	Test knowledge		
	Storage	Policy and procedure Test knowledge	OO3	
	Dispose of sharps	Policy and procedure	OO3	
5. Liaison with laboratory	Communication re urgency of testing	Test knowledge Request form Clinical knowledge	OO3	
6. Policies and procedures	Manual handling Patient confidentiality Infection control Risk management People management Managing aggressive behaviour Blood collection techniques		OO3	

Appendix A – Tasks and Skills Analysis

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The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
	Waste disposal			
7. Specialised tests		Test knowledge Techniques to attain sample Pre and post test requirements Administration of drugs Within diabetic clinic – point of care testing – analyser equipment knowledge Calibration of analyser Time management – SST Hormone levels = GTT = Serum eye drops	OO3	
8. Non- Blood collection	Breath test	Test knowledge Equipment	OO3	

Appendix A – Tasks and Skills Analysis

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The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
	Sweat test 24 hour urines Urine testing Faeces Sputum Semen Swabs Skin scrapings	knowledge Collection information Techniques Test receptor required Volumes required Patient education Patient instruction Communication Clinical knowledge impacting on test Storage and delivery instructions Documentation requirements		
Outpatients – additional skills required to manage profession in different environments/ages				
Outpatients		Additional administration skills Independent – isolated	OO3	

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
		AUSLAB EXCEL Scanning CARPS Barcoding Label printing Care Cards Billing information Communication with Drs, Nurses and patients Customer focus Stock provision Management of aggressive behaviour Cleaning of the area Workplace health and safety Manual handling		

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
Paediatrics		Anatomy of child Capillary and venous bloods Developmental stages of child Communication with parents Minimum volumes required Tubes required Order of draw Knowledge of blood flow Restraint policy Consent policy Time management Administration of numbing cream (S4 drug) Administration (additional to adult ward)	OO3	

Appendix A – Tasks and Skills Analysis

The Tasks and Skills Analysis are an output from Part A activities and provided here in their entirety in response to the request for all finalised papers made at the Steering Committee meeting held 28th October, 2009.

The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Activity	Task	Knowledge/Skills	Level	Comment
		Make films		
Neo-nates		Cross contamination issues Isolet Foot anatomy Holding techniques Make slides CAPGAS testing Stock control and provision	OO3	

Appendix A – Tasks and Skills Analysis

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The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Toowoomba – Core Laboratory

Automated Process

Activity	Task	Knowledge/Skills	Level	Comment
ID Check	Manual scanning	Basic motor skills	HP	
Loading	Manual Loading		HP	
Analysis	Push button start Machinery trouble shooting Daily/periodic maintenance QC/ calibration – review Reagent preparation Specimen preparation Decision making/diversion delegation	Motor skills Technical knowledge and mechanical knowledge of equipment Knowledge of maintenance procedures and timeframes Knowledge of calibration requirements and error adjustment Procedural/policy knowledge Lab techniques	HP	Some of this process could be undertaken by OOs

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Activity	Task	Knowledge/Skills	Level	Comment
		Knowledge of test		
Validation	Technical validation Specimen integrity Clinical interpretation Integrity of results Decision making Extra tests/retests Communication with lab and medical staff Commenting – manual additions	Instrument knowledge Test knowledge Clinical knowledge Interpretation skills Statistical analysis AUSLAB Lab techniques Communication skills Documentation Reporting Problem solving	HP	
Manual review				
Automatic reporting				
Storage				
Disposal/Discard				

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Manual Process

Activity	Task	Knowledge/Skills	Level	Comment
Set up	Set up area Set up equipment Set up sample	Reagents required Test knowledge Equipment knowledge	HP	No OOs in laboratory at Toowoomba
ID check	As per automated	Clinical knowledge	HP	As per automated
Specimen Preparation/Set up		Procedure Tasks required Labelling procedures and protocols Whether the test is a 'special' requires different set ups Laboratory techniques Set –up knowledge of equipment	HP	
Processing	Dependent on test	Test knowledge Scientific skills	HP	

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Activity	Task	Knowledge/Skills	Level	Comment
Result	Attain results		HP	As per manual review stage outlined in Automated notes
	Interpret results		HP	
	Report		HP	
				Larger labs would have more automated processes based on a volume issue.

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Toowoomba – Central Specimen Reception

Activity	Task	Knowledge/Skills	Level	Comment
1. Specimen Sorting	Pt ID and match with request forms	Policy awareness and adherence Request form	003	Task completed also by 004 HP staff cover this function out of hours
	Recognise Test	Knowledge of pathology terminology Knowledge where to access information	003	Task completed also by 004 HP staff cover this function out of hours
	Assess test requirements Volume, container, processing etc	Knowledge of pathology terminology Test knowledge Knowledge where to access information	003	Task completed also by 004 HP staff cover this function out of hours
	Trials	Understanding of specific protocols Coordination of collection time and transport Involves international	OO3	Task completed also by OO4

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Activity	Task	Knowledge/Skills	Level	Comment
		travel		
	Decision on transport	Knowledge of test Local protocols and procedures	003	Task completed also by 004 HP staff cover this function out of hours
	Decision on storage	Knowledge of test Local protocols and procedures	003	Task completed also by 004 HP staff cover this function out of hours
	Decision initial processing requirements	Knowledge of test Local protocols and procedures	003	Task completed also by 004 HP staff cover this function out of hours
	Basic processing	Centrifuging Aliquoting Safety requirements (PPE)	003	Task completed also by 004 HP staff cover this function out of hours
2. Data Entry	Enter patient demographics	AUSLAB knowledge Local policy and procedure	003	Task completed also by 004 HP staff cover this function out of

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
		Ability to problem solve HBCIS knowledge training course required		hours
	Enter test request	Knowledge of test	003	Task completed also by 004 HP staff cover this function out of hours
3. Specimen Processing	Decision what is required	Test requirements Local policy and procedure	003	Task completed also by 004 HP staff cover this function out of hours
	Centrifuging	Operation/maintenance Different centrifuges Safety – management of breakages/spills	003	Task completed also by 004 HP staff cover this function out of hours
	Aliquoting	AUSLAB PPE requirements Safety requirements	003	Task completed also by 004 HP staff cover this function out of hours

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
4.Send Aways or local service	Decision what requires send-away and what is local	Test knowledge Local services Services provided by other Centres	003	Task completed also by 004 HP staff cover this function out of hours
	Package	Dangerous Goods Handling Course (mandatory for air freight – road transport recommendation only) Knowledge where to get reference material	003	Task completed also by 004
	Documentation	Local policies and procedures Legal requirements (through dangerous goods course) Esky tracking system	003	Task completed also by 004
	Decision how to transport and storage of specimen	Local policies and procedures Legal requirements (through dangerous goods course	003	Task completed also by 004

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
		Test knowledge		

Appendix A – Tasks and Skills Analysis

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Toowoomba – Phlebotomy

Activity	Task	Knowledge/Skills	Level	Comment
1. Receive request	Understand requirements of test	Test knowledge – volume required, fasting, tubes Knowledge of all relevant protocols Knowledge of where to find reference Knowledge of medical terminology Knowledge of pathology requirements for testing Knowledge of first aid	003	
	Decision whether test can be performed	Clinical knowledge Knowledge of protocols Test requirements	003	
2. Liaison with requesting practitioner to request new form, or advise test needs to happen different	Liaison with other professionals	Communication skills Professional boundaries/scope of practice Local knowledge	003	When determined that test cannot be done

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Activity	Task	Knowledge/Skills	Level	Comment
day		Forms Policies and procedures		
3.Assess physiology	Assess vein	Anatomy knowledge Physiology knowledge Clinical knowledge	003	
	Determine which equipment is required	Equipment knowledge PPE Infection control Test knowledge	003	
	Determine volume required and likelihood of getting required sample	Test knowledge Clinical knowledge Physiology knowledge Polices and procedures	003	
	Patient type assessment	Clinical knowledge of conditions impact on vein access	003	
	Decision of when to refer to CSR or Department for advice	Professional boundaries Awareness of personal boundaries and capabilities	003	

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
	Decision to discuss with referring practitioner	Communication skills Clinical knowledge Confidence Liaison Decision making	003	
4. Patient ID check	Check patient with wrist band and paperwork, etc	Policy and procedure Legal requirements Consent	003	
5. Blood collection	Collection	Techniques required Problem solving Test knowledge Ability to know when the collection is not going well and how to act PPE Infection control	003	
	Patient communication	Communication skills Empathy	003	
6. Labelling and documentation	Label sample	Label requirements	003	

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
		Test knowledge Storage requirements Priority – whether it can wait or needs to go for testing ASAP Policies and procedures on sample handling		
	Storage	Test knowledge Storage requirements Priority – whether it can wait or needs to go for testing ASAP Policies and procedures on sample handling	003	
	Transport	Lamson Physical delivery policy Test requirements – re on ice, time limits etc. Policy and procedures	003	
7. Follow-up/queries	Respond to queries	Problem solving Processes	003	

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
		Professional boundaries/scope of practice Liaison with other departments/professions Patient advocacy		
	Follow-up actions	Time management Prioritisation Documentation	003	

Appendix A – Tasks and Skills Analysis

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The Tasks and Skills Analysis outlines the required competency to undertake current tasks.

Toowoomba – Mortuary

Activity	Task	Knowledge/Skills	Level	Comment
Body tracking		Documentation Policies and procedures Local knowledge re services		
Liaison with police		Documentation Policies and procedures Local knowledge re services Communication Skills Professional boundaries Legal requirements/responsibility		
Liaison with coroner		Documentation Policies and procedures Local knowledge re services Communication Skills Professional boundaries Legal		

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
		requirements/responsibility		
Data entry		AUSLAB		
Liaison with Pathologists		Documentation Policies and procedures Local knowledge re services Communication Skills Professional boundaries Legal requirements/responsibility Organisational skills		
Liaison with Funeral Directors		Documentation Policies and procedures Local knowledge re services Communication Skills Professional boundaries Legal requirements/responsibility		
Liaison with Social		Documentation		

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Activity	Task	Knowledge/Skills	Level	Comment
Workers		Policies and procedures Local knowledge re services Communication Skills Professional boundaries Legal requirements/responsibility		
Preparation for viewings		Techniques Skills Empathy Dignity		
Assist with autopsies		Techniques Tools Anatomy Medical terminology Clinical knowledge Documentation		
Maintain autopsy area		Equipment handling Cleaning procedures Clinical and normal waste		

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
		disposal Preparation of area – trolleys for pathologist		
Hygiene, maintenance and OH & S		Policies and procedures		
Liaison with medical records		Documentation Policies and procedures Local knowledge re services Communication Skills Professional boundaries Legal requirements/responsibility		
Specimen Preparation for referral and movement	Taking Collecting Packaging	Anatomy Techniques Documentation Policies and procedures Local knowledge re services		

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
Liaison Organ Donor Coordinator		Documentation Policies and procedures Local knowledge re services Communication Skills Professional boundaries Legal requirements/responsibility		
Specimen disposal		Disposal policies and procedures Waste disposal Tissue disposal Documentation		

Appendix A – Tasks and Skills Analysis

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QHFSS – DNA Analysis

Activity	Sub task	Knowledge/Skills	Level	Comment
Receipt			OO3	HP can do all these in the absence of OO3
Distribute			OO3	
Evidence Recovery				
Exhibit room receipt		AUSLAB	OO3	
Tracking in AUSLAB		AUSLAB	OO3	
Prioritisation	Examination of items		OO3	
Check registration		AUSLAB		
Communication with QPS		Knowledge of processes for items and FTAs	OO3 – FTA HPs for Item Clarification	
Digital imaging	Scanning Digital images Uploads	AUSLAB Equipment Scanning Imaging	OO3	
Segregation Tubes vs items		Local processes and procedures	HP	Acknowledge that DNA Analysis are

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Activity	Sub task	Knowledge/Skills	Level	Comment
Evidence recovery		Manipulation Sampling procedures SOPs Training modules Chain of custody Legal requirements Computer skills		considering OO staff to be trained to undertake manipulation of tubes
Compile cases		Interpretation Investigation		
Reagent preparation		Knowledge of chemicals Principles of chemical reagents Pipetting		
Peer review			HP	
Processing		Scientific processes	HP	
Manipulation		Scientific processes	HP	Consideration of OOs manipulation of

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Activity	Sub task	Knowledge/Skills	Level	Comment
				tubes
Sexual Assault investigation		Scientific process Processes and protocols	HP (specialist trained)	
Analytical				
Analysis	Dependent on equipment utilised	Extraction types Amplification Quantification Automated and manual processes	HP3 +	
Extraction		Techniques	HP	Possibly could be undertaken by HP 2
Batch		Theory and background of DNA Lab processes batching	OO3	
Pull samples			OO3	
Quantification		Technique	HP	
AUSLAB sorting			OO3	

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Activity	Sub task	Knowledge/Skills	Level	Comment
Storage			OO3	
Amplification			HP	
Prep for thermocyclers			HP	
Plate preparation			HP	
Processing		Equipment knowledge Ability to diagnose equipment problems Processes involved Maintenance Preparation Calibration	HP	
Reporting team				
Results			HP	
Quality Assurance			HP3	
Plate readers		Plate reading	HP3	
Convert Plate results to PDF			OO3	Could be AO role however there

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Activity	Sub task	Knowledge/Skills	Level	Comment
				would need to be at least 1 FTE more if this task was to move
Case file allocation			HP4	
Compile Case file	Print profile	Scanning Upload AUSLAB Policy/procedures Computer skills Excel/Word	HP	
Interpret profile		Statistics Interpreting profiles	HP	
Order reworks if required			HP	
Results finalised			HP	
AUSLAB reporting			HP	
Liaison/Communication with Police		Communication skills	HP (experienced or competent scientist)	
Peer Review Process		Training modules	HP	Technical reviews

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Activity	Sub task	Knowledge/Skills	Level	Comment
				completed by HP and Admin reviews of the paperwork
Intelligence team				
NCIDD search			HP	
Search and compare			HP	
Match			HP	
Report			HP (reporting Scientist)	
Peer Review			HP	
Destruction of reference	Police instruction Pull samples Checking Destroy Sign destruction certificate		 OO3 HP OO3 HP	
Court appearances/Statement preparation				
Request for statement			AO/OO	

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Activity	Sub task	Knowledge/Skills	Level	Comment
Allocation to reporting scientist			HP	
Statement preparation		Written and oral skills	HP	Staff has to be in training for reporting or an experienced HP
Peer review		Training module	HP	
Statement finalised through QPS			HP	
Statement issued		Written and oral skills	HP (reporting scientist)	
Appearance in court		Court familiarisation course	HP (reporting scientist)	
Evidential certificate		Written and oral skills – gazetted as a DNA Analyst	HP (reporting scientist)	
Additional tasks	Legal requirements		OO3 HP	
	Training – external and internal		OO3 HP	
	Confidentiality protocols – shredding		OO3	

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Activity	Sub task	Knowledge/Skills	Level	Comment
	etc		HP	
	Review and development of SOPs		OO3 HP	
	Cleaning of environment		OO3 HP	
	Meeting attendance		OO3 HP	
	Representation on committees		OO3 HP	
	Quality	Computer skills (audit trials) Calibration Pipette Hot Block Thermostats Remote monitoring Balances Timers Fridge/freezer	OO3	

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Activity	Sub task	Knowledge/Skills	Level	Comment
		temperatures		
	Stock control and replenishment (lab consumables)		OO3	
	Workplace health and safety		OO3 HP	
	Cleaning/maintenance		OO3 HP	
	Calibration		HP – MP II Platforms OO3 calibrate all other equipment	
	Supervision		HP	
	Policy and Procedure updates		OO3 HP	
	Continuing professional development		OO3 HP	
	Research		OO3 HP	

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Activity	Sub task	Knowledge/Skills	Level	Comment
	Technical updates		HP	
	Projects		HP	
Evidence recovery	Liaison Reporting Allocation Co-ordination		HP4	

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QHFSS – Mortuary

Activity	Task	Knowledge/Skills	Level	Comment
Receive body	Check body	Local processes and policies Basic ID check Assess condition of body	OO4	
	Liaison with Police	Communication skills	OO4	
	Complete death/morgue register	Local processes and policies	OO4	
Preparation of case file	Preparing case file paperwork including Form 1	Administration Use of forms and purpose Medical terminology Policies and procedures Awareness of organ donation suitability and processes Infection control	OO4 (in absence of administration staff)	

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Activity	Task	Knowledge/Skills	Level	Comment
		Administration AUSLAB knowledge		
	SIDS protocol	SIDS protocol	OO4	
	Photocopying	Photocopying	OO4	
Data entry	Data entry	Keyboard skills AUSLAB AUSLAB test codes Interpretation of request form Ability to generate stickers/labels Scanning Knowledge of forms and purpose Local processes and procedures	OO4	
Case allocated to Pathologist	Coroner form received Pathologist allocated	Local knowledge of personal preferences of pathologist Interpretation of	OO4	

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Activity	Task	Knowledge/Skills	Level	Comment
		Coroners form		
Receipt of autopsy order	Decision making depending of type of autopsy ordered	Decision making Knowledge of different types of case SOPs Processes and procedures (local and legal)	OO4	
	Liaison with pathologist	Communication skills Professional boundaries	OO4	
Room preparation	Trolley preparation	Instrument use Sterile techniques Stock required Pathologist preference Ordering Restocking	OO4	
	Specimen	Type of specimen	OO4	

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Activity	Task	Knowledge/Skills	Level	Comment
	containers/ Bucket preparation	Types of container Volume required		
	Media preparation	Type of media Media composition Media storage Dilutions Sterile techniques Preparation of angiogram dyes	OO4	
Prepare body for autopsy	Record weight and height	Record height and weight Understand purpose Documentation	OO4	
	Eviscerate body	Evisceration techniques Equipment use Instrument use Advanced anatomy Clinical knowledge Infection control	OO4	

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
		Policies and procedures		
Conduct autopsy	Assist pathologist including evisceration	Evisceration techniques Anatomy Clinical knowledge Medical terminology SOPs Equipment use Documentation Specimen collection, handling and storage	OO4	
Specimen collection		Policies and procedures Specimen collection volume, tubes, storage Documentation AUSLAB	OO4	
CT scanning	Manual handling of	Manual handling	OO4	

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
	body for CT scan and X-ray	and body orientation Infection control risks and practices Corresponding paperwork Procedures for removing body from body bag – cross checking ID (for x-ray only)	OO4	
Tissue donation	Room set up (sterile field) Body preparation	Policies and procedures	OO4	
Reconstruction	Suturing Packing skills Reconstruction	Suturing skills Packing skills Plastering Basic anatomy Use of staplers Infection control Knowledge of type of case	OO4	

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Activity	Task	Knowledge/Skills	Level	Comment
Viewing of body	Communication with counsellor re suitability of body for viewing	Empathy with family's needs Sensitive communication	OO4	
	Preparation of room	Understanding the body and preparing room accordingly – e.g., odour control, lighting etc Use of appropriate trolley/cot etc to present body	OO4	
	Presentation of body	Presentation of body for viewing Techniques to 'dress' body for viewings	OO4	
	Presentation of body (child/baby)	Take hand and foot prints Cutting locks of hair for parents	OO4	
Body release Whole organ	Releasing bodies or organs to funeral	Policies and procedures	OO4	

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
release	directors	Legal responsibility Communication with funeral directors AUSLAB Storage principles Data entry		
Disposal	Disposal of tissue Form 7's	Knowledge of legal process Knowledge of local policies and procedure Knowledge of how to dispose which tissue/organ – i.e. through funeral director etc. Corresponding paperwork	OO4	
SIDS cases	SIDS protocols Paperwork Specialist measurements	Policies and protocols Corresponding paperwork	OO4	

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Activity	Task	Knowledge/Skills	Level	Comment
	Liver macerations	AUSLAB Measurements required and purpose Techniques required for liver macerations in babies – context/purpose		
Quality management and safe work practices	PPE Infection control Disposal of waste (clinical) Workplace health and safety Risk management	Policies and procedures Knowledge management updates	OO4	
Additional Tasks	Stock		OO4	
	Maintenance	Equipment knowledge Ability to sharpen, clean, maintain	OO4	

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
		Maintenance schedules for equipment Recognition of faults		
	Cleaning	Policies and procedures Include: fridges, linen, trolleys, drains and equipment Knowledge of cleaning agent Infection control	OO4	
	Body Audits	Decision making Data entry Paperwork Process of checking ID with body	OO4	
	Continuous quality improvement	Research Updates of policies and procedures Communication	OO4	

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
		skills – written and verbal as required		
	Teaching/training	Train the trainer course if formally training staff from other centres Communication Providing constructive feedback	OO4	FSS mortuary is a state training centre Provide on the job training for their peers in other centres. Mortuary attendants are included in the provision of training to registrars Mortuary attendants mentor, train and support staff seconded to FSS
	Court	Court etiquette Professional boundaries Presenting factual information Organisational awareness	OO4	If staff are called to court there is some training offered but this is not routinely offered

Appendix A – Tasks and Skills Analysis

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Activity	Task	Knowledge/Skills	Level	Comment
		Roles and responsibilities		

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Job descriptions and role guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff. These are intended as an initial guide and will require further work.

The first five job descriptions have been developed for trial positions:

1 Machine operator
2 Cross trained operational Assistant (CSR/Phlebotomy)
3 Pre-Analytical Officer
4 Specimen Reception Assistant
5 Billing Co-ordinator
6 Operational Supervisor

The remaining job descriptions are for consideration should the Steering Committee wish to pursue. These include:

1 Training/Quality Co-ordinator
2 Client Liaison
3 Mortuary Support Assistant
4 Operational Officer Pool

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Machine Operator

Hours of Duty: If implemented following pilot, 24/7 coverage would be required, and must have HP on duty at same time

Proposed Duty Statement:

- Check specimen quality, e.g. lipaemia, haemolysis
- Add specimen to analyser rack
- Load specimens onto analysers
- Analyser start up / shut down
- Analyser reagent loading and lot change
- Analyser routine maintenance
- Analyser quality control loading, review and basic troubleshooting
- Routine calibration
- Analyser basic troubleshooting – requires clarification
- Check that all Laboratory Information System (LIS) fields have been resulted, as per request form
- Specimen dilution
- Reject unsuitable specimens according to corporate policy
- Monitor work unit reagents and re-stock as required
- Participate in general quality activities, e.g. OQI generation
- Record and escalate client feedback
- May participate in other duties as required, e.g. assist other units, cross-training
- Train and mentor more junior staff as required

Reports to: Supervising Scientist

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Cross trained Operational Assistant (CSR/Phlebotomy) (an optional Laboratory support)

Hours of Duty: Half time in each work unit

Proposed Duty Statement:

- Phlebotomy
  1. Routine blood collection duties on adult clients
  2. Participation in ward rounds
  3. Specimen sorting and despatch
  4. Does not include – paediatric or specialised collections, e.g. GTT

- CSR
  1. Receipt specimens – triage, check ID, assign test codes, register
  2. Reject unsuitable specimens according to corporate policy
  3. Distribute samples to laboratories
  4. Does not include – aliquoting, clinical trials, parcels management, urines and fluids, sendaways

- Both units
  1. Monitor work unit consumables and re-stock as required
  2. Maintain a hygienic work unit, e.g. cleaning, decontamination
  3. Participate in general quality activities, e.g. OQI generation
  4. Record and escalate client feedback
  5. Participate in continuing education activities
  6. Train and mentor more junior staff as required

Reports to: Supervisors of Phlebotomy and Central Specimen Reception

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Could be extended to include Laboratory Support:

- Receive samples
- Receipt samples in Auslab
- Complete basic laboratory processing (aliquoting, centrifuge)
- Load rack
- Place rack onto analyser
- Storage of specimens
- Disposal of specimens
- Conduct calibration or equipment as required under supervision
- Maintain clean working environment

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Pre - analytical Officer – (extension of CSR role)

Hours of Duty: 24/7 coverage required if implemented following pilot

Proposed Duty Statement:

- Receipt specimens – check ID, assign test codes, register, aliquot / share
- Reject unsuitable specimens according to corporate policy
- Store specimens post analysis
- Retrieve and load samples for added tests
- Monitor work unit consumables and re-stock as required
- May include other tasks such as staining of films, preparation of samples for additional testing, assisting in other pre-analytical areas, etc, and as required.
- Maintain a hygienic work unit, e.g. cleaning, decontamination
- Participate in general quality activities, e.g. OQI generation
- Record and escalate client feedback
- Train and mentor more junior staff as required

Reports to: Supervisor Central Specimen Reception

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Specimen Reception Assistant (QHFSS CSR)

Purpose of role

- To assist in the delivery and transfer of specimens within public health laboratories.

Key accountabilities

- Unpacking specimens
- Storage of specimens
- Cleaning of eskys/general cleaning
- Return of clean specimens
- Delivery and collection of specimens to public health laboratories

Qualifications/Professional registration/Other requirements

- Nil

Key skill requirements/competencies

- Overview of CSR
- Overview of QHFSS and purpose of laboratories (types of testing undertaken and samples)
- Handling of specimens/samples
- Receipting of samples
- Basic familiarity with Auslab
- Manual handling policies and procedures

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Billing Co-ordinator

Purpose of role

- To process all billing information of specimens on arrival at QHFSS CSR.

Key accountabilities

- Enter billing information onto Auslab
- Complete relevant documentation to support billing
- Filing
- Responding to complex billing cases
- Liaison with clinicians to attain referrer/patient information
- Liaison with Medicare to attain provider numbers
- Photocopying
- Co-ordination of couriers
- Answering phone calls/taking messages
- Undertaking the ordering of stock through FAMMIS
- Handling/sorting mail

Key skills required:

- Detailed understanding and experience of using Auslab
- Detailed knowledge of billing component of Auslab
- Understanding some medical terminology (basic)
- Knowledge of the Medicare system and reimbursement/charging
- Overview of laboratories within QHFSS
- Understand CSR processes
- Application of mail handling processes and protocols
- Excel including use of formulas
- Ability to use and understand FAMMIS

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Operational Supervisor

Purpose of Role

- To manage the operational officers within DNA Analysis, supporting the operational team to deliver a quality service.

Key accountabilities:

- Be responsible for the day to day management of all DNA Analysis Operational Officers
- Development and implementation of rosters and allocation of tasks
- Development of all relevant documentation including SOPs
- Coordination of Operational Officers training needs
- Responsible for the professional development of Operational Officers
- Support the team leaders in the delivery of effective services
- Problem solving
- Liaison with scientific staff and management
- Responsible for the coordination of ordering and restocking of laboratory supplies

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

These job descriptions are for other roles identified through the process that the Steering Committee may wish to consider:

Training and Quality Coordinator – Laboratory/CSR

Purpose of role

- Lead the quality initiatives of the laboratory as initiated by the Core laboratory Manager. The position includes oversight for the Quality Information System and will oversee analytical review and audit of the relevant entries. The position will have a coordinating and audit role in the evaluation and introduction of new procedures and provide advice to the Manager and mortuary staff on all aspects of Quality.
- Co-ordinate training opportunities and develop training courses in conjunction with Scientific Skills Development Unit

Key accountabilities

- Fulfil the accountabilities of this role in accordance with Queensland Health's core values,.
- Lead the quality initiatives of the Laboratory as directed by the Laboratory Manager.
- Lead the implementation of NATA/ISO accreditation/certification requirements in line with Pathology Queensland standardised policies and practices.
- Develop, deliver, evaluate, document and assess training modules and standard operating procedures in accordance with agreed training plans
- Participate in laboratory related tasks , in order to maintain necessary skills to deliver and document training and quality in a mortuary environment
- Provide advice to the Laboratory Manager and staff on all aspects of Quality.
- Liaise with the Quality department and Skills Development Unit to ensure compliance of laboratory practice with organisational direction
- Identify the training requirements of the laboratory staff
- Liaise with Skills Development Unit to develop/source courses to address training needs
- Support, mentor and guide new and existing staff through training activities
- Ensure all staff are communicated with regarding any policy, processes and legislative changes

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Mortuary Quality and Training Officer (current)

(adapted role description to include training component)

Purpose of role

- Lead the quality initiatives of Mortuary Services, Forensic Pathology as directed by the Mortuary Manager. The position includes oversight for the Mortuary Quality System and will oversee analytical review and audit of the System. The position will have a coordinating and audit role in the evaluation and introduction of new procedures and provide advice to the Manager and mortuary staff on all aspects of Quality.
- The incumbent will be required to coordinate, perform special projects as directed by the Mortuary Manager and participate in mortuary duties to assist with the operational requirements of the mortuary.
- Co-ordinate training opportunities and develop training courses in conjunction with Scientific Skills Development Unit

Key accountabilities

- Fulfil the accountabilities of this role in accordance with Queensland Health's core values, as outlined above.
- Lead the quality initiatives of the Mortuary as directed by the Mortuary Manager.
- Lead the implementation of NATA/ISO accreditation/certification requirements in line with Forensic and Scientific Services standardised policies and practices.
- Develop, deliver, evaluate, document and assess training modules and standard operating procedures in accordance with agreed training plans
- Participate in dissection, evisceration, reconstruction and cleaning of deceased in various stages of infection, decomposition, mutilation and incineration and other laboratory related tasks , in order to maintain necessary skills to deliver and document training and quality in a mortuary environment
- Provide advice to the Mortuary Manager and staff on all aspects of Quality.
- Liaise with the Quality department and Scientific Skills Development Unit to ensure compliance of mortuary practice with organisational direction
- Identify the training requirements of the mortuary staff
- Liaise with Scientific Skills Development Unit to develop/source courses to address training needs

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

- Support, mentor and guide new and existing staff through training activities
- Ensure all staff are communicated with regarding any policy, processes and legislative changes

Key skill requirements/competencies

- Knowledge and understanding of autopsy processes and anatomical dissections
- Demonstrated skills in delivery, evaluation and documentation of quality and training programs.
- Demonstrated high level interpersonal skills including negotiation, consultation, communication and presentation skills necessary to liaise with stakeholders such as medical, scientific, legal and allied health professionals
- Demonstrated ability to work effectively as a member of a team without direct supervision demonstrating established work priorities and meeting deadlines

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Client Liaison/Quality Role (Generic)

Purpose of role

- To improve the operation of laboratories through liaison with referrers (medical practitioners) to improve the quality of specimens and increase knowledge of pathology services.

Key accountabilities

- Liaison with referring practitioners
- Review of processes and procedures
- Liaison with scientists
- Reporting to Laboratory/Service managers
- Undertaking root cause analysis to identify issues
- Identify solutions and provide implementation plans
- Change management
- Monitoring/evaluating progress of implemented changes
- Initiate policy and procedural amendments to support changes
- Maintain Quality Information Systems in line with Queensland Health policy

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Mortuary Support Assistant (Current)

Purpose of role

- To assist in routine tasks that supports the mortuary staff and operational requirements of a forensic mortuary.

Key accountabilities

- Fulfil the accountabilities of this role in accordance with Queensland Health's core values, as outlined above.
- Prepare bodies and set out appropriate instrumentation daily for pathologists to complete post-mortem examinations, and maintain a clean working environment to minimise infection as well as preparing soiled linen and theatre clothing for laundering, in line with Quality management processes.
- Use the AUSLAB computer system to register cases, track specimens, scan documents and print forms, labels and cassettes.
- Undertake routine procedures under the supervision of the Team leader, Mortuary Services, using established techniques and methods designed for the preparation of paperwork and utensils to assist in the provision of mortuary services at QHFSS.
- Perform a range of tasks of a complex and specialised nature including cleaning of bodies, specimen preparation and labelling, removing bodies on trolleys from one area to another and body audits as required.
- Participate in frequent cleaning to ensure a clean environment is available.
- Assist in the controlled release of bodies.
- Collection and delivery of post mortem specimens to other forensic departments.
- Monitor, restock and order consumables/items for the mortuary and participate in quality management processes and continuous quality improvement.

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Key skill requirements/competencies

- Ability to successfully manage a routine workload in a methodical, timely, auditable manner and demonstrated ability to manage time effectively.
- Ability to communicate effectively with both internal and external clients, including the ability to follow detailed operational instructions,
- Ability to work cooperatively and effectively within the Forensic Pathology Team including reliability, integrity and professional attitude necessary for a medico-legal and potentially hazardous workplace.
- Possession of basic keyboard skills and experience with electronic communications, including use of Groupwise and AUSLAB.
- A commitment to the principles of quality management and continuous quality improvement.
- Ability to actively participate in a working environment supporting quality human resource management practices including employment equity, anti-discrimination, occupational health and safety and ethical behaviour.

Appendix B – Job Descriptions and Role Guidelines

Appendix B outlines several job descriptions at various stages of completeness reflecting the consultation with staff.

Operational Officer Pool

Hours of Duty: Variable hours

Proposed Duty Statement:

- CSR
  1. Receipt specimens – triage, check ID, assign test codes, register
  2. Reject unsuitable specimens according to corporate policy
  3. Distribute samples to laboratories
  4. Does not include – aliquoting, clinical trials, parcels management, urines and fluids, sendaways

- Laboratory Support
  1. Receive samples
  2. Receipt samples in Auslab
  3. Complete basic laboratory processing (aliquoting, centrifuge)
  4. Load rack
  5. Place rack onto analyser
  6. Storage of specimens
  7. Disposal of specimens
  8. Conduct calibration or equipment as required under supervision
  9. Maintain clean working environment

  Both units
  1. Monitor work unit consumables and re-stock as required
  2. Maintain a hygienic work unit, e.g. cleaning, decontamination
  3. Participate in general quality activities, e.g. OQI generation
  4. Record and escalate client feedback
  5. Participate in continuing education activities
  6. Train and mentor more junior staff as required

Reports to: Supervisors of Operational Officer Pool

Staff Model Specification and Impact Assessment tool

Effective management of resources and change processes is significantly enhanced when the impacts of a proposed change are understood. In the context of workforce change an ability to model and scenario test potential job role changes at an individual and wider level will assist in making effective change. To support this process a tool (referred to in Step 7 above) has been developed in an Excel spreadsheet to assist service managers, workforce planners and other interested parties in assessing and modelling the impacts of potential workforce changes. The tool uses base information on current arrangements to identify areas for potential skill mix change based on the competency requirements for specific tasks.

The broad steps in its operation are:

- Collection of information on current service delivery to describe the "Current arrangements".
- Identification of competency requirements for each task and the staff level required to deliver the task to inform "Competency based task allocation".
- Crude modelling of the potential for skill mix change based on matching of tasks to competencies – automatically calculated by the model.
- Modification of the crude outputs – e.g. to reflect relative efficiency of staff mix, practical constraints to a redesigned staff mix etc
- Incorporation of supervisory requirements (as required)

As noted in the explanation of Step 7 above the model is not simply mechanistic – it explicitly allows for variation of assumptions and overriding default re-allocation of roles based on 'crude' competency assessment. The Excel spreadsheet model will be provided to Queensland Health separately to this report – it is complete in terms of its operation and it is proposed that the model is refined and finalised in response to feedback. We propose running a session with interested parties from Pathology Queensland and/or QHFSS to explain the operation of the model and to undertake initial testing.

As part of the development process information has been collected in relation to areas of current practice which have been identified as potential areas for workforce redesign. This information will be used to showcase operation of the model as part of the proposed initial testing.

A series of screenshots are set out below to assist in summarising the operation of the model.

Summary of model operation

The model moves from a statement of current arrangements and assesses impacts through the following five elements:

- Current arrangements
- Competency based task allocation
- Future state crude modelling
- Future state - model amended for real world factors
- Net impact accounting for supervision requirements under amended future state

These are described in the following sections.

Current arrangements

Model screen shot:

Current arrangements									
Staff role	Activity area	Specific tasks	Frequency	Time required per occurrence (minutes)	Current Staff level delivering task	Staff costs (hourly rate)	Total cost per occurrence $	Time required per week (minutes)	Total cost p week $

This element of the model is a statement of current practice and is the critical base from which potential change scenarios can be built and tested.

Information can be collected using a simple template tool – this can be undertaken for an individual role, for a group of staff or a whole team/service. This provides an overall statement of the overall rate of effort and is broken down into broad activity areas and then into specific tasks, e.g. evidence recovery as an overall task broken down into component elements (though not individual tasks). The exact level of detail cannot be defined for every area but it is down to that level which would provide a picture of the type/level of competency required. Each role in the spreadsheet details an individual sub-task which are then

totalled to give a picture of the activity area which in turn can be summed to provide a statement of the overall time/effort for a given staff member of group of staff.

Competency based task allocation

Model screen shot:

Competency based task allocation			
Required competencies	Minimum appropriate staffing level required	Efficiency factor %	Alternative efficiency factor %

For each task conducted a statement of the key competency required to deliver this is identified. In a separate worksheet all identified competencies are recorded and for each of these a minimum appropriate staffing level is specified for the activity/task. In addition, the model allows for an "efficiency factor" to be used to specify the additional time that would be required for a staff member (other than the current role) to conduct the task. This means that concerns over inappropriate assumptions of one-to-one equivalence in a reformed workforce can be explicitly addressed in the model.

This information is used to inform the crude modelling undertaken at the next stage.

Future state crude modelling

Model screen shot:

Future state - crude modelling							
Staff costs of minimum appropriate level (hourly rate)	Total costs per occurrence $ (includes efficiency factor)	Total cost per week $	Time required by minimum approporiate staff level (minutes per week, inclusive of efficiency factor)	Net potential efficiency gain in terms of original staff member's time per occurrence (minutes)	Net potential efficiency gain ($ per occurrence)	Net potential efficiency gain (minutes per week)	Net potential efficiency gain (Week) ($)

This stage in the modelling process calculates the cost of using an alternative workforce on the crude assumptions that all tasks are delivered by staff at the minimum required competency level. This is calculated in both pure dollar terms and in terms of a productivity gain in relation to the time freed up for staff to undertake other tasks.

Future state - model amended for real world factors

Model screen shot:

Future state - model amended for real world factors					
☐ Yes to all					
Maintain current staffing approach	If "Yes" rationale for status quo	Staff costs at amended level per week $	Time required at amended level per week (minutes)	Net potential efficiency gain (minutes per week)	Net potential efficiency gain (week $)

This stage in the modelling process allows modification of the previous crude assumptions to take account of real world factors. This might include, for instance, the fact that passing current tasks to another staff member is impractical or inefficient as the process flow would be negatively impacted. The default in the model is for all tasks to be passed on to a person with the required minimum competency but this can be amended for individual tasks, groups of activities or for all aspects of a role.

The model then recalculates the efficiency gains in both dollar and productivity terms at an individual task and aggregate level.

Net impact accounting for supervision requirements under amended future state

Model screen shot:

Net impact accounting for supervision requirements under amended future state								
Default supervisory factor (%)	Alternative supervisory factor (%)	Supervisors time required (minutes per week)	Cost of supervision per week $	Net potential efficiency gain (minutes per week) inclusive of supervisory time	Net potential efficiency gain per week ($) inclusive of supervisory costs	Weeks of work per year	Net potential efficiency gain (minutes per year) inclusive of supervisory time	Net potential efficiency gain per year ($) inclusive of supervisory costs

The final adjustment made in the model reflects the need for supervision of staff undertaking tasks in a reformed workforce. This requirement (expressed as a percentage) can be varied within the model but should reflect long term supervision

requirements rather than those needed in an initial learning or development phase. The model then allows final calculation of financial savings and productivity gains.

Appendix D - Seven step development process for workforce redesign

This section describes a 7 step role redesign process which can be used by local services and at the strategic level to assist in the development and modelling of new roles and service models.

In addition, an Excel model to support calculation of the impacts of reformed workforce arrangements is described.

Re-designing the workforce – a 7-step guide

KPMG's primary objective in this project has been to identify areas where workforce redesign can produce benefits for staff, the service delivery system and, ultimately, patients/service users. In developing potential new roles for development a range of redesign tools and techniques have been utilised. In seeking to add value beyond the life of this project and to underpin implementation of change and to support on-going workforce and role redesign a set of user friendly tools have been developed for future use.

The approach which is set out is offered as a methodology for real world deployment in other pathology services and in contexts beyond those covered by this project. The proposed 7-step process is described in further detail below – each step contains a series of sub-elements which are separately described in each instance. We suggest that these materials be produced as a standalone "How To Guide" and made available to relevant managers and staff across the system – we can provide the flowcharts in a format separate to this report if you wish to pursue this.

To promote a systematic approach to workforce and job design the approach is best used in its entirety. However, individual steps in the process may be applicable or useful as standalone tools in some workforce change contexts.

Characteristics of the redesign tools

In developing these tools we have been guided by the following principles:

- ***Simplicity*** – the tools should be easy to understand and straightforward in use
- ***Flexibility*** – the tools should be flexible to allow application in all contexts.
- ***Practicality*** – the tools should focus on providing practical information and outputs.
- ***Scalability*** – the tools should be applicable at varying levels from individual staff, through teams to whole services

The 7 step role redesign process

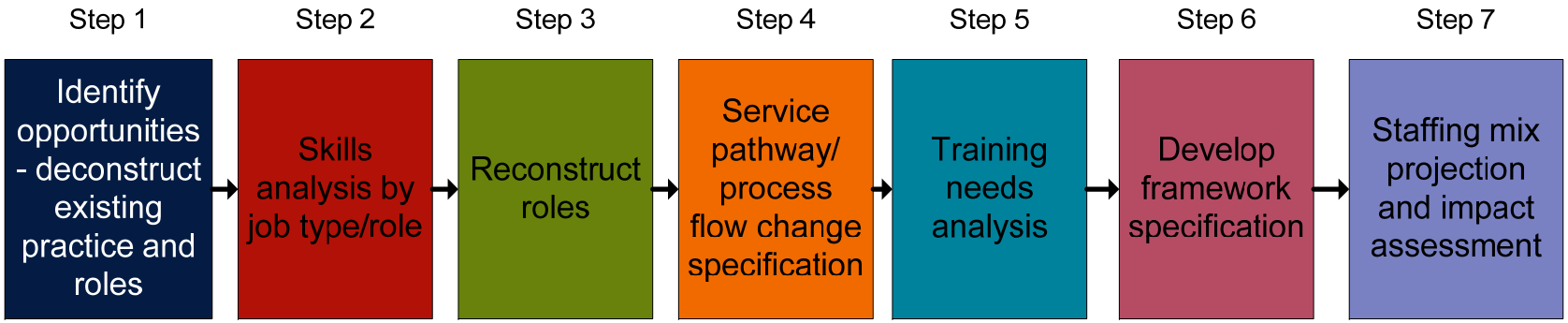
Figure 2 on the following page provides a high-level summary of the steps required to undertake a comprehensive job/role redesign process. This process can apply at a number of levels from a single role, through a small team, a whole unit to a service as a whole.

Appendix D - Seven step development process for workforce redesign

This section describes a 7 step role redesign process which can be used by local services and at the strategic level to assist in the development and modelling of new roles and service models.

In addition, an Excel model to support calculation of the impacts of reformed workforce arrangements is described.

Figure 2 : The seven step role redesign process

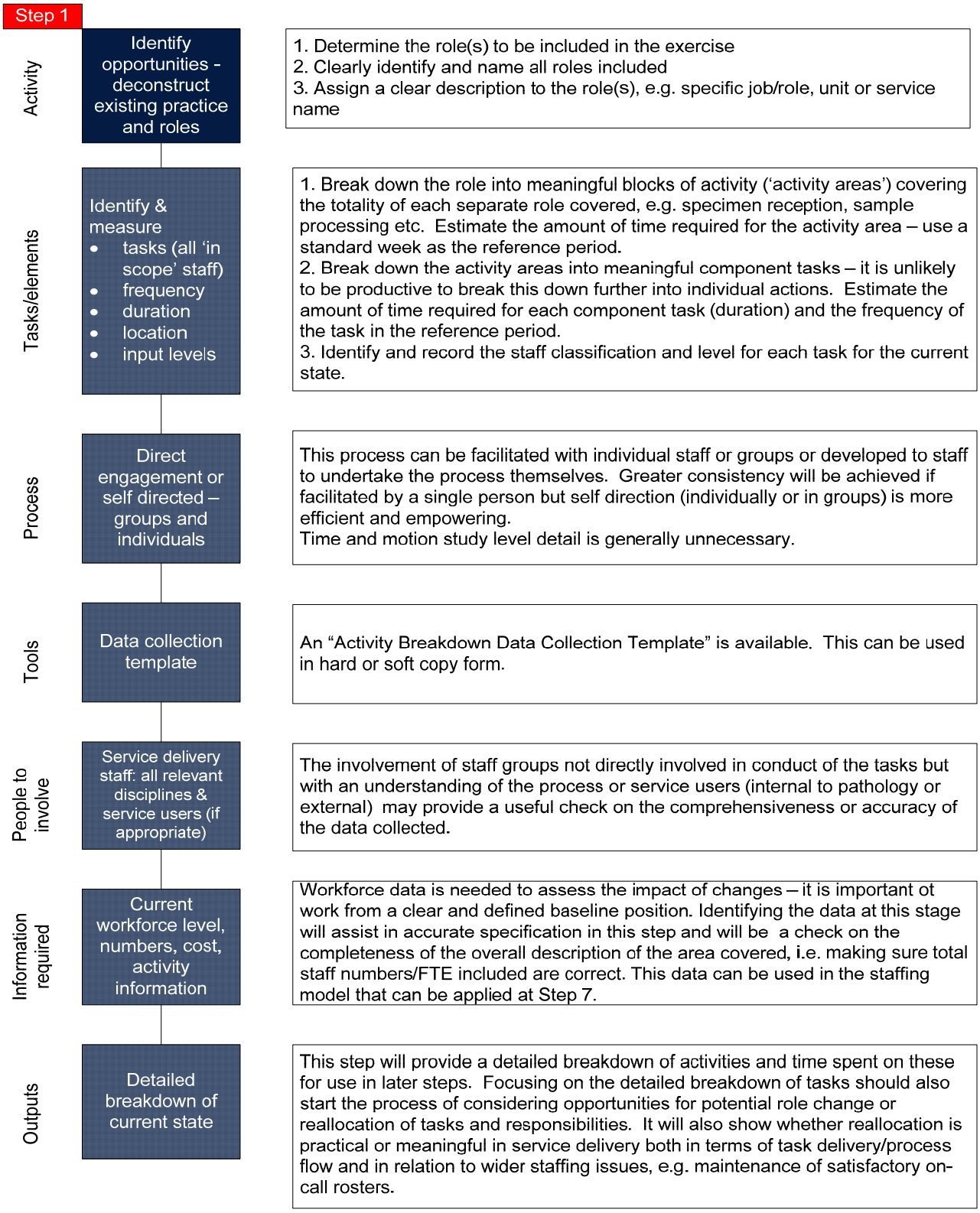


Each of the 7 steps is described in further detail below. For each step the process is broken down into the following common elements:

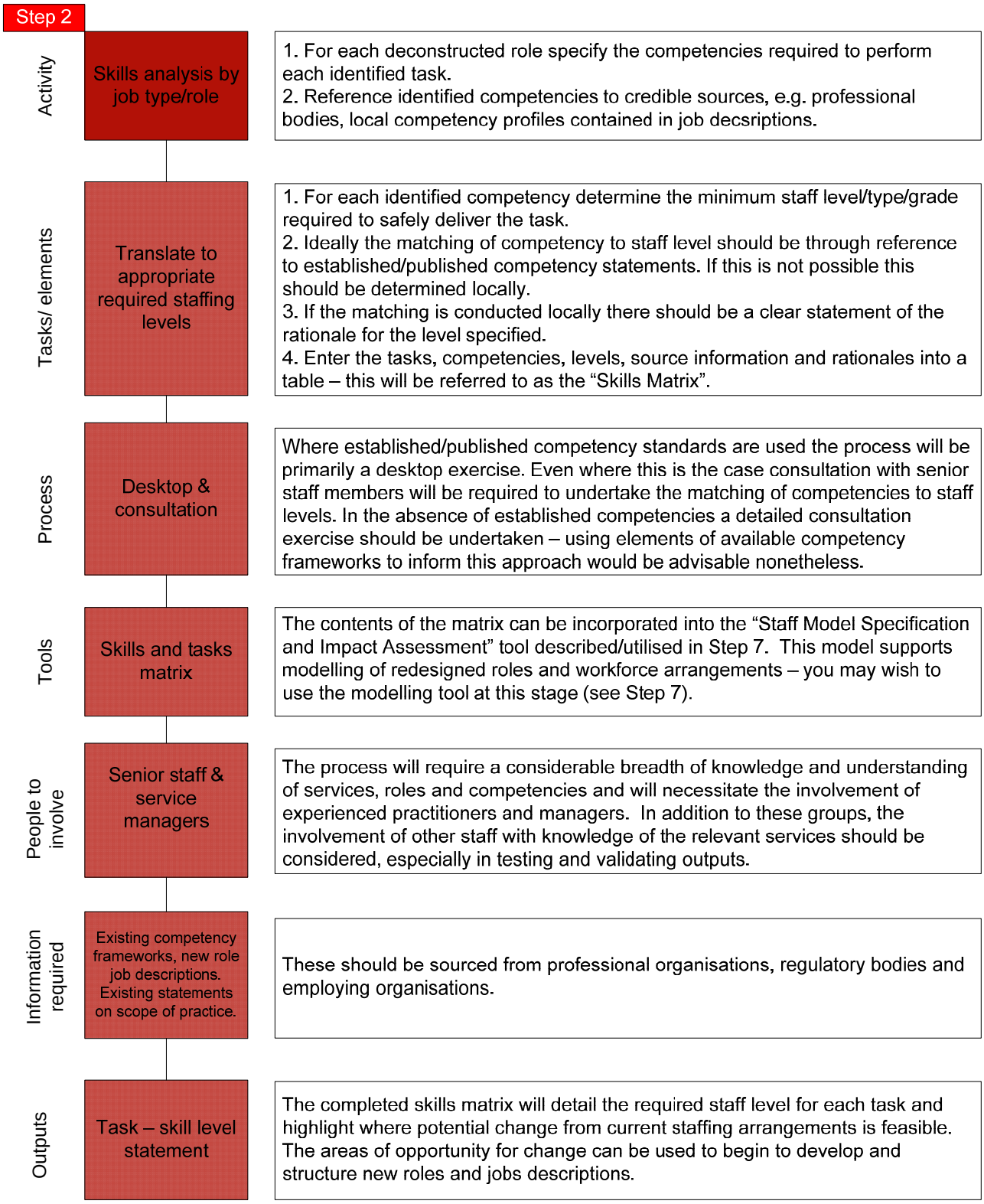
Element	**Description/coverage**
Activity	A summary description of the step, e.g. skills analysis, training needs analysis
Tasks/elements	The tasks undertaken in the step
Process	The process followed to deliver the step as a whole
Tools	The tools, if any, that can or should be applied
People to involve	People who need to be involved in the process and the role they play
Information required	Information required (if any) to support/inform/underpin conduct of the step.
Outputs	The output(s) from undertaking all elements of the step

User guide and notes for 7 step process

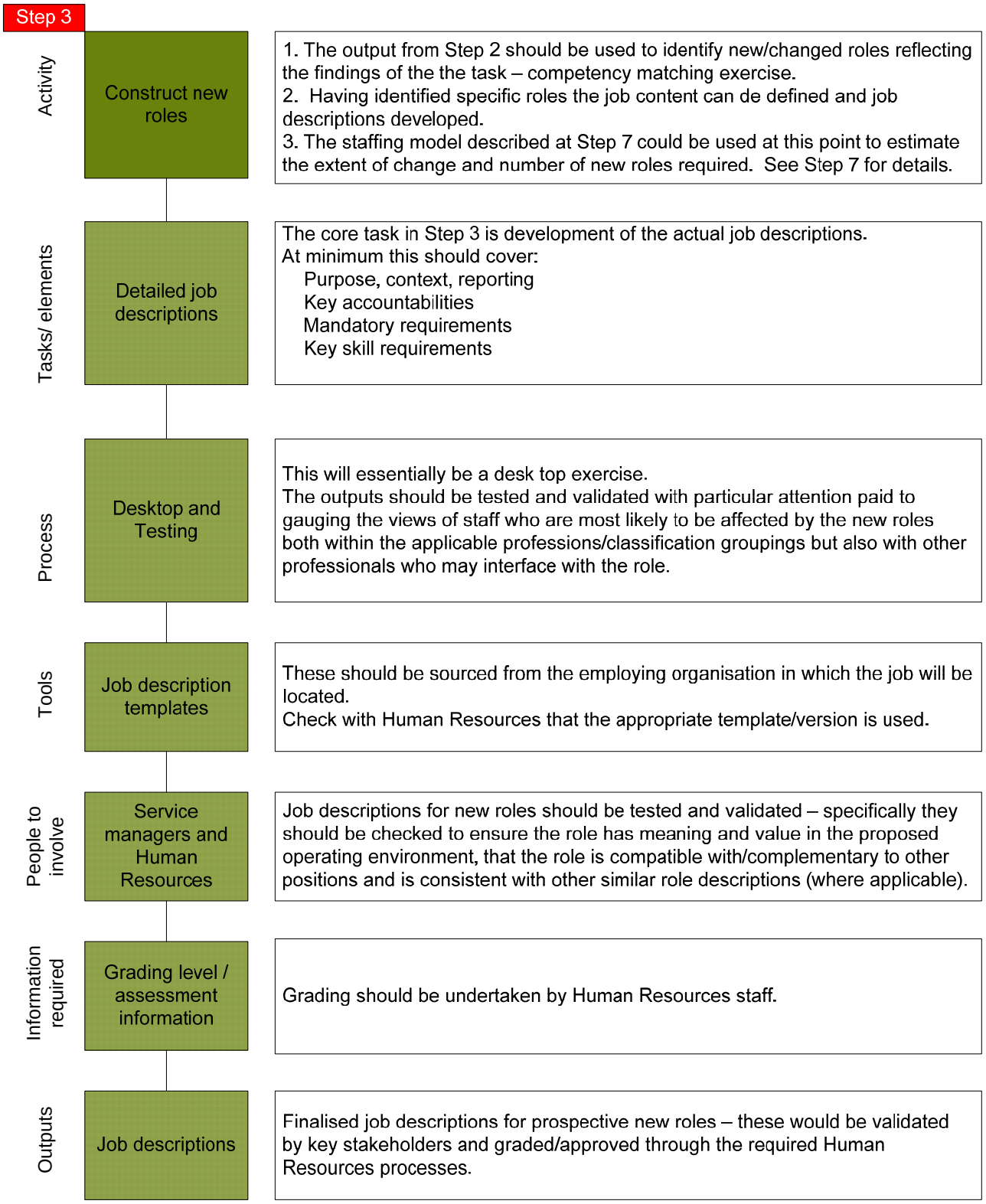
Step 1: Identify opportunities - deconstruct existing practice and roles



Step 2: Skills analysis by job type/role



Step 3: Reconstruct roles



Step 4: Service pathway/process flow change specification

Step 4

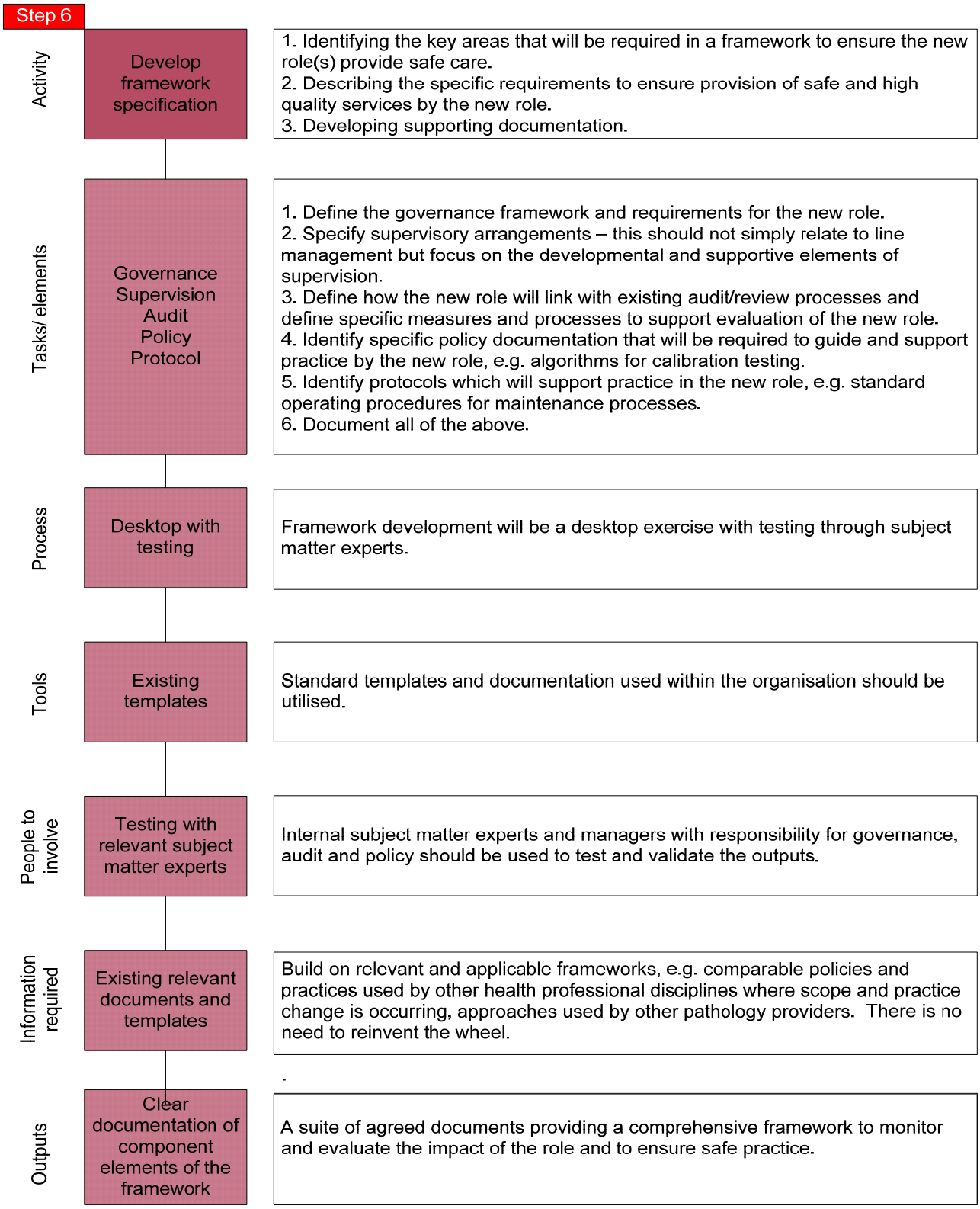
Activity	Service model change specification	1. Use the new job descriptions to determine how the patient pathway and model of delivery may change. 2. Assess the impact of the new role in terms of patient, staff and system benefits.
Tasks/ elements	Specify changes to process flow in context of new roles and responsibilities	1. Develop a high-level process flow covering the area of operation for the new role(s) in advance of a 'To be' process session. 2. Use this model with stakeholders in a process session to understand and define the contribution of the new role and the key relationships and interfaces with other staff. 3. Refine the process flow to ensure that the new role is effectively and appropriately utilised and to maximise benefits in terms of service delivery, flow, customer/user experience and efficient use of resources. 4. Define how the responsibilities of others in the process flow may change as a consequence of the introduction of the new role. 5. Identify any productivity savings/time freed up for other staff as a consequence of the role change.
Process	Desktop preparation and To be 'mapping' sessions	The 'To be' element is critical in engaging the wider team in designing, influencing and supporting role and workforce change. This exercise should be an important contributor to the change management process.
Tools	Detailed process maps	The level of detail should be sufficient to describe the operation and key interfaces of the new role. Session facilitators should be familiar with process mapping techniques.
People to involve	Service delivery staff, service mangers & users/customers	All stakeholders with an involvement in the affected pathway should be involved. This will ensure all relevant perspectives are brought to bear as well as spreading understanding of the new role. A patient or carer perspective can provide powerful insights into the impact and benefit of role change from a user point of view.
Information required	Outputs from previous elements	Outputs and information from Steps 1 -3.
Outputs	Detailed annotated pathways	The key tangible output will be the detailed annotated process flows – these should be validated by session participants. The intangible outputs would be increased knowledge of the proposed role change(s) and engagement with/ commitment to the redesign process.

Step 5: Training needs analysis

Step 5

Activity	Training needs analysis	1. Undertaking an analysis to determine the skills gap between the new role and the skills base of likely applicants for the role. 2. Use the information gained from the gap analysis to define potential training requirements.
Tasks/ elements	Skills gap analysis for identified role(s) Specify training requirements	1. The exercise should focus on the new role and suitable potential applicants 2. Undertake an audit of the skills of suitable potential applicants and compare these to the skills set out under "Key skill requirements" in the job description. 3. Define the skills gap. 4. Specify training requirements to address each identified skills gaps. 5. Determine whether the training can/should be delivered on the job, within the organisation and outside the organisation. 6. Identify areas where accessing training requirements will be challenging. 7. Investigate means of addressing training challenges.
Process	Desktop work with testing	The core analysis required will be conducted as a desktop exercise. The outputs should be tested and validated with service managers.
Tools	Skills matrix and Job descriptions	Tools used in this step will be the "Skills Matrix" developed at Step 2, new role job descriptions defined at Step 3 and the current job descriptions of suitable potential applicants.
People to involve	Testing with managers and training specialists/ educators	Service managers will be best placed to gauge the validity and accuracy of the gap analysis. Training specialists and educators will have the knowledge to assess the suitability and deliverability of training plans.
Information required	Skills matrix and future state descriptions from previous activity	The statement of skills required as specified in the job description developed at Step 3 will be the key source document. Process analysis will highlight "soft" skills that may be required for effective delivery of the role, particularly in relation to the interfaces with other staff and services.
Outputs	Gap analysis and statement of up skilling and cross skilling requirements	The output will form the basis of a training plan for the role, a specific individual and/or potential applicants for the role. The output should highlight training that can be delivered on the job, within the organisation and outside the organisation.

Step 6: Develop framework specification



Step 7: Staffing mix projection and impact assessment