Government of Western Australia
Department of Health

TAKING PRESSURE OFF PUBLIC HOSPITALS

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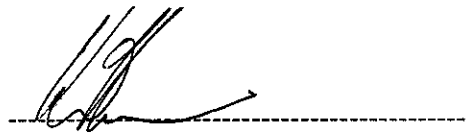

(Signature)

Hon. Dr. KIM HAMES
DEPUTY PREMIER
MINISTER FOR HEALTH

29 April 2009

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1. EXECUTIVE SUMMARY

WA Health provides a high standard of clinical care to its patients and this will continue. However, demand for services, particularly for unplanned care, continues to rise.

WA Health is committed to improving health outcomes for all West Australians by providing an efficient hospital system offering services at the right time and the right place whether it is planned or unplanned.

WA Health faces major challenges that produce tensions that must be reconciled:

- It must drive major widespread process changes in hospital care to enable timely access to acute care.
- It must do this while demand increases at a greater rate than resources and workforce can accommodate using existing models.
- It must do so while simultaneously improving patient experiences and outcomes plus enhance workforce engagement.

There are several initiatives planned to improve the delivery of services and confront the challenges that will take pressure off public hospitals:

- The Four Hour Rule Program
- The Bunbury Regional Hospital Development
- A predictive Capacity Planning Tool - CapPlan
- Improvements to Pathology Services

2. BACKGROUND

Throughout 2007-08 Western Australian metropolitan tertiary hospitals continued to experience increased demand on Emergency Departments (EDs), difficulties with the flow of patients through EDs, inpatient areas and discharge into the community or alternative places for care.

Currently WA tertiary hospitals work consistently above the recommended levels of 90 per cent bed occupancy. Access block (the percentage of patients waiting more than eight hours for an inpatient bed) is considered to be significant, and rates poorly compared with other jurisdictions. Access Block during 2008, has increased by 20.1% compared with 2007.[1]

The number of attendances to metropolitan public hospital EDs, grew by 6.8% (or 21,258 attendances) in 2008 (335,357 attendances) compared with 2007 (314,099 attendances)[1]. The corollary to this is that ED admissions to metropolitan public hospitals, for 2008, increased by 2.3% (or 1,762 admissions) over 2007[2].

[1] Source: Metropolitan public hospitals and JHC data from the Acute Management Demand System.
[2] Source: Metropolitan public hospitals and JHC data from the Acute Management Demand System. PHC data supplied from EDDC.

The median waiting time for patients to be seen in an ED at the metropolitan public hospital, has increased by 10.5% to 42 minutes in 2008 compared with 2007 figure of 38 minutes [3].

In WA, the challenges within our metropolitan hospitals have also been reflected in the rural area. The resources boom and the associated population growth, as well as reduced primary care availability have increased demand for services in the rural areas. The number of attendances at WA Country public hospitals increased by 8.0% (or 19,980 attendances)[4].

The Commonwealth National Partnerships Project has earmarked funds for WA Health to specifically implement initiatives to manage emergency demand; in particular:

- Improve the number of patients being treated in clinically appropriate periods of time
- Decrease the number of patients experiencing access block
- Provide data on emergency departments to the Commonwealth

The initiatives outlined below will address the key elements of managing emergency demand and focus on improving the patient journey with anticipated benefits for both patients and staff.

3. INITIATIVES

3.1 The Four Hour Rule Program

Role: Improve the number of patients being treated in clinically appropriate periods of time

The new Four Hour Rule Program will see fundamental changes to the way patients are admitted, discharged and/or transferred right across WA's public health system. The focus is on maintaining WA Health's excellence in clinical care, but improving the patient's journey and experience as well as providing benefit to the hospital workforce.

The Program will aim to ensure that 98 per cent of patients arriving at WA Health emergency departments (EDs) are seen and admitted, discharged or transferred within a four-hour timeframe, unless required to remain in the ED for clinical reasons.

The Four Hour Rule will also assist in achieving the benchmark of 80% of presentations being seen within clinically appropriate times. Appropriate clinical judgement will continue to be paramount and underpinned by relevant triage and other guidelines.[5]

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[3] Department of Health, ICAM. As this is a new collection, checking and editing processes are in development. The quality of the collection is improving; however, caution is advised when analysing this data.

[4] Source: Metropolitan public hospitals and JHC data from the Acute Management Demand System. WACHS data is supplied directly. PHC data supplied from EDDC.

[5] The triage process mentioned in NPA Key Performance Benchmark D11 is one element of the Four Hour Program, which focuses on the entire patient journey throughout the Emergency Department. The ACEM triage guidelines will continue to be a key management measure as part of this broader process. WA Health also will continue to submit triage data as defined under the Non Admitted Patient Emergency Department National Minimum Data Set"].

The Program will support and be informed by existing operational reform initiatives that target particular aspects of demand management. These interdependencies include:

"Friend in Need - Emergency" (FINE) scheme

The Program will be closely aligned with the State Government's $84 million "Friend in Need - Emergency" (FINE) scheme, which will see the Government working in partnership with health and community care to help older and chronically ill patients to give them an alternative to hospitalisation.

Subsidies to General Practice (GP)

The 'Grants to After Hours General Practice' Program would integrate with, and compliment, existing Emergency Demand portfolio programs including: GP Super clinics; Health Connect; Health Direct; Residential Care Line; and FINE scheme.

This election commitment of $ 8 million over four years will involve a staged program roll out over a one-year period with Metropolitan General Practices targeted in Phase I, and regional/country centres included in Phase II roll out in Year 1. Operating subsidies will be offered to up to 20 general practices per year in the Perth metropolitan area and regional centres to offer late-night or 24 hour manned services. The value of the subsidies will be up to $100,000 per year for weeknight services from 8pm-midnight, Saturday afternoons and Sundays. A subsidy of up to $200,000 will be available for practices that provide midnight-to-dawn services where they can be sustained

Models of Care

Models of Care define the approach to the prevention, treatment and continuing care spectrum for particular health conditions or population groups. They provide the framework that will assist the Four Hour Rule program to ensure that services remain within the accepted and recommended course of intervention for patients.

eHealthWA

eHealthWA aims to provide a modern, integrated and user-friendly technology platform to support the delivery of public health care in Western Australia. Initiatives will involve upgrading or enhancing operational computing systems in hospitals and other health service facilities. These initiatives will assist in increasing the safety and efficiency of services and hence the patient journey through hospital.

Four Hour Rule Program Timeline

The Statewide Program follows the three key phases over its lifespan. This includes;

Four Hour Rule Targets

The overall target for the Statewide Program is to improve the quality of care provided to patients by ensuring that 98 per cent of patients arriving at EDs are seen and admitted, discharged or transferred within a four-hour timeframe.

WA Health will be expected to reach the target Statewide by mid-2012. Each hospital will have a two-year period in which to achieve the overall target of 98 per cent of patients arriving at EDs to be seen and admitted, discharged or

transferred within a four-hour timeframe. Within that two-year period, achievement of the following interim milestones will also be monitored:

- Complete a diagnostic analysis of the facility within the initial 26 weeks.
- Ensure 85 per cent of patients arriving at EDs are seen and admitted, discharged or transferred within a four-hour timeframe within 12 months of implementation start date.
- Ensure 95 per cent of patients arriving at EDs are seen and admitted, discharged or transferred within a four-hour timeframe within 18 months of implementation start date.
- Ensure 98 per cent of patients arriving at EDs are seen and admitted, discharged or transferred within a four-hour timeframe within 24 months of implementation start date.

This means for each Stage of the Program, the following annual targets will be achieved:

- April 2009 - April 2010 (year one): Stage 1 sites to achieve 85 per cent of patients arriving at EDs are seen and admitted, discharged or transferred within a four-hour timeframe.
- April 2010 - April 2011 (year two): Stage 1 sites to achieve 98 per cent of patients arriving at EDs are seen and admitted, discharged or transferred within a four-hour timeframe; and Stage 2 sites to achieve 95 per cent of patients arriving at EDs are seen and admitted, discharged or transferred within a four-hour timeframe.
- April 2011 - April 2012 (year three): Stage 2 sites to achieve 98 per cent of patients arriving at EDs are seen and admitted, discharged or transferred within a four-hour timeframe; and Stage 3 sites to achieve 98 per cent of patients arriving at EDs are seen and admitted, discharged or transferred within a four-hour timeframe.

Role: Decrease the number of patients experiencing access block

The key element of the four hour rule will be to embed a system change that will ensure sustainable efficiencies with emphasis on optimal patient care. The methodology of the program is based on using clinical service redesign processes that promote health service provision based on diagnostics and utilises data to ensure real blockages are identified and relevant solutions are generated to ensure patients move through a coordinated system to receive high quality care. The outcome of these service improvements will impact significantly on reducing access block.

The Clinical Service Redesign program is based on each site finding solutions to ensure the performance indicators are met; therefore part of the funding dedicated to the four hour rule program will be dedicated to the innovative solutions which are generated after the completion of the diagnostic phase. Hospital sites will be required to present a business case for each solution prior to its implementation. Each solution will be subject to evaluation against criteria assessing the solution's benefit to the performance benchmark indicators; the patient; its sustainable outcome; the complexity of its implementation; its impact on service provision; and, its alignment with the strategic reform agenda. Following a cost-benefit analysis each solution will receive sign-off by the Director General.

Four Hour Rule Risk Management Plan

The following issues have been considered as the priority risks and will be reviewed and managed in the planning, implementation and review phases of the Program:

Workforce

The changes introduced by this Program may require a redesign of workforce roles and practices. The clinical service redesign methodology requires that hospitals undertake a detailed diagnostic evaluation of their processes and practices in light of current and future constraints (including workforce) and develop solutions accordingly. In instances where workforce risks are highlighted, solutions may involve extended scope of practice or redesign of roles to aid attraction and retention.

Increase in demand

Given the benefits of implementing the Program, it is possible that sites will experience an increase in ED presentations. With the publicised timeframe in which people will be seen and treated, the public may choose to disregard alternative primary care options in lieu of convenience at public hospital sites.

Communication about the Program to the public will need to be contained to manage expectations, and other statewide initiatives will assist with disseminating core messages about alternative avenues for treatment (e.g. FINE Program, Models of Care).

Achieving the target

The scale and scope of this Program to be delivered within a three-year period will require a dedicated team of resources and active management to ensure momentum is maintained and deliverables are met. A structured implementation plan, dedicated resources at each site and a clear governance structure will assist with maintaining timelines and accountability for achieving Commonwealth[6] and State Program targets.

3.2 CapPlan

Role: Decrease the number of patients experiencing access block

CapPlan is an inpatient capacity planning program that will run complementary to the Four Hour Rule Program. CapPlan forecasts future patient activity to improve operational performance.

The program aims to match resources to patient demand for acute services, which ultimately will be able to reduce hospital wide gridlock events and improve access block. The program's objective is to:

- Identify potential congestion or overcapacity
- Forecasts future patient activity annually, right down to a shift by shift basis and is proven to be 95% accurate for quarterly forecasts and over 97% accurate for 72 hour forecasts

[6] The Commonwealth target states that by 2012-13, 80% of emergency department presentations are seen within clinically recommended triage times as recommended by the Australasian College of Emergency Medicine.

- Enables resources, including beds, nurses and other human resources to be matched to forecast patient activity

CapPlan enhances the operational aspects of nurse managers and executive to accurately plan inpatient beds and staffing to meet workload variation throughout the year through forecasting and visibility.

The capacity planning tool can be used effectively in high turnover areas (Emergency areas and Operating theatres) to improve length of stay, growing waitlists and reduce the risk of cancelled elective surgery and theatre lists.

Emergency Department

- Ensures emergency and bed capacities are planned & aligned to meet emergency patient workloads;
- allows planning of ED staffing and physical capacity to match anticipated Emergency patient presentation patterns and also manage the flow of admissions into inpatient beds

Operating Theatre

- Ensures that theatre & bed capacities are planned and aligned to meet contractual and pt workload obligations
- allows planning, alignment & management of both theatre and bed capacities on an ongoing basis, by understanding the flow on impacts theatre sessions have on bed capacities and acute workloads

3.3 Capital Works Bunbury Regional Hospital

Role: Decrease the number of patients experiencing access block

The ABS 2006 Census indicates there were 135,555 persons living in the South West catchment at that time.

Bunbury Hospital (BH) is the only regional referral hospital for the South West and is responsible for providing health care services to people in the South West. Bunbury Hospital has a total of 98 overnight beds and 8 day beds. St John of God Private Hospital is co-located with BH and has 120 beds, including 16 day beds.

The Bunbury Health Campus, including both public and private components, is the only regional referral hospital in the South West and provides the 'hub' of the 'hub and spoke' network for this region and acts as the regional referral centre for:

- diagnostic, secondary-level acute and procedural (surgical) services
- emergency and outpatient care
- specialist services (e.g. obstetrics) and
- the coordination of outreach specialist services.

WA Tomorrow[7] population projections estimate that the South West region will reach a population of 189,000 by 2031, a 39.5% increase on 2004. It is important to note that the projected rate of growth for the number of individuals that will be 70+ by the year 2031 is greater than any other age category.

[7] Western Australian Tomorrow - Western Australian Planning Commission

Compounding this issue Bunbury Hospital is the Regional Resource Centre for the SW Region and is the only ED in Bunbury. It has 15 treatment bays, including 3 resuscitation bays. In 2007/08 the ED had 33,681 patient attendances and based on future ED activity attendance projections and population growth the requirement for additional treatment bays to enable Bunbury Hospital to support the demands of the catchment area to 2016 is imperative.

Increasing the emergency capacity at Bunbury hospital to 34 bays and 10 observation beds will assist with managing increased demand from projected population growth within the region.

The expansion of the Bunbury health campus will:

- Increase the physical capacity of ED to meet patient activity projections
- Provide sufficient capacity to ensure that Bunbury Hospital is well positioned to meet the 'Four Hour Rule' ED waiting standard.

- Improve patient flow within Bunbury Hospital by the utilisation of an Observation Area and prevent unnecessary hospital admissions.

3.4 Pathology System Improvements

Role: Decrease the number of patients experiencing access block

The WA health system will require significant improvements in efficiency, reduced costs, reduced LOS and improvements in timeliness and quality of care in facing the challenges of an aging and increasing population and reducing resources.

The pathology system improvement consists of two projects, the:

1. modernisation of the Histopathology Laboratories as a necessary step towards improving our timelines in reporting on complex cases within hospitals.
2. implementation of an efficient IT service (Anatomical Pathology Laboratory Information System - AP LIS) that will complement and provide the necessary infrastructure for the modernisation and automation of an efficient pathology service.

Current histopathology processing systems in WA are based on 100-year old technology and impact on turnaround time of results. Introducing an automated tissue processor will revolutionise long established work processes and reduce the time required to process tissue from 8 - 12 hours to a single hour. This alone will provide clinicians with information that will influence treatment and ultimately benefit patients. It will also ensure attention is focussed on more rapid processing and reporting of complex cases thus enhancing hospital patient care and reducing hospital stay.

The AP LIS is the main laboratory information system used in the WA Pathology Centre and tertiary hospitals. The patient AP records are accessed by pathology consultants across all public tertiary and community hospital sites to aid in clinical decision making.

The new AP LIS will improve efficiency of diagnostic services and reduce report turn-around-times for hospital emergency department and in-patients. The new LIS will reduce defects in the laboratory which will most significantly result in the

number of amended and cancelled reports issued due to processing and reporting errors, ultimately translating into improved patient care.

4. MEASURES AND KEY PERFORMANCE INDICATORS

Role: Provide data on emergency departments to the Commonwealth

The Department of Health WA, agree to provide data under the national minimum data sets, including the non admitted emergency department care minimum data set as outlined in the National Healthcare Agreement.

Within two years of commencing the Four Hour Rule Program, hospital sites will need to ensure that 98 per cent of patients arriving at emergency departments are seen and admitted, discharged or transferred within a four-hour timeframe. A range of additional and supporting measures have also been incorporated and/or developed to ensure patient safety remains paramount and quality of care is the resulting outcome of the Program.

A Statewide Program Dashboard will monitor the progress of hospital sites against the overall target as well as using a number of key performance indicators (KPIs) including those outlined in the Hospital and Health Workforce Reform National Partnership Agreement.

4. APPENDICES

APPENDIX 1

Taking Pressure off Public Hospitals - Department of Health Western Australia

Targets of Schedule D

1. **By 2012-13, 80% of emergency department presentations are seen within clinically recommended triage times as recommended by the Australasian College of Emergency Medicine**

2. **By 2013-14, 95% of Hospitals with an ED report to the non-admitted emergency department care national minimum data set collection**

Role of State	Key Deliverables for State Implementation Plan	Timing	Cost	Expected effects on Performance Benchmarks
FOUR HOUR RULE **Target 1.** **Improve the number of patients being treated in clinically appropriate periods of time**	The Four Hour Rule (as above) is a system wide initiative that will involve individual hospital sites creating solutions that will enable them to achieve the four hour target. Common elements of Clinical Services Redesign that are likely to occur at hospital sites include: • Patient streaming and redesign of triage process • Extended roles and scope of practice of staff to increase timely decision making • Reduced duplication of services in the ED	WA Health will be expected to reach the target Statewide by mid-2012. Individual hospital sites will need to reach the target within two years of commencing the Program. Implementation of the Program will commence in a series of stages: *Stage 1:* • April 2009 - Royal Perth Hospital (RPH), Sir Charles Gairdner Hospital (SCGH), Fremantle Hospital (FH), and Princess Margaret Hospital for Children (PMH).	Total program cost of $56.4 million comprising $20.3 million- for program costs including salaries, wages, ongoing coaching, consultancy supports and incidentals. Made up of: Stage 1: $6.3million Stage 2: $5.6million Stage 3: $8.4million. An additional $36.1 million has been allocated for the Program's solutions which are generated after the completion of the diagnostic phase. Hospital sites will be required to present a	WA Health's Four Hour Rule Program will improve achievement of Target 1, from 60% of emergency department presentations seen within clinically appropriate times in 2005-06 to the target indicator of 80% by April 2012. The mechanism for this performance improvement will be: • 98% of patients being seen and admitted, discharged or transferred within four hours- a shorter timeframe than is currently experienced. • Reduced overcrowding in

	• Increased focus on strategies to allow early morning discharge for appropriate patients ie. Earlier review by more senior staff.	*Stage 2:* • October 2009 - General hospitals with emergency departments including, Rockingham General Hospital, Armadale-Kelmscott Memorial Hospital, Swan District Hospital. Graylands Selby-Lemnos and Special Care Health Service, Bunbury Regional Hospital and Joondalup Health Campus will also be included at this stage. *Stage 3:* • April 2010 - Regional resource centres including Kalgoorlie Hospital (Goldfields), Albany Hospital (Great Southern), Broome Hospital (Kimberley), Geraldton Hospital (Midwest), Port Hedland Hospital (Pilbara). Nickol Bay Hospital in Karratha, King Edward Memorial Hospital and Peel Health Campus will also be included in this stage.	business case for each solution prior to its implementation. Each solution will be subject to evaluation against criteria assessing the solution's benefit to the performance benchmark indicators; the patient; its sustainable outcome; the complexity of its implementation; its impact on service provision; and, its alignment with the strategic reform agenda. Following a cost-benefit analysis each solution will receive sign-off by the Director General.	emergency departments. • Increased capacity of clinical staff to assess patients within the required standard.

FOUR HOUR RULE **Target 2.** **Decrease the number of patients experiencing Access Block**	*Initiative* Introduction of the Four Hour Rule Program across the jurisdiction- 98% of patients to be seen and admitted, discharged or transferred from EDs within a four hour timeframe. The Four Hour Rule will use a Clinical Services Redesign methodology to create whole of hospital change. *Steps to Implementation* - Training in Clinical Services Redesign methodology for Executives, Project Leads and Project Team members - Develop of Communication and Stakeholder Management Strategy - Establish governance structure - Allocate resources to individual hospital sites - Ongoing coaching and support for Executives, Project Leads and Project Team members *Performance Information* A Dashboard of indicators has been established.	As Above	As Above	As Above

	Indicators will measure performance in the categories of: 1. Activity and utilisation measures 2. System integration and change measures 3. Quality and clinical outcome measures 4. Hospital resources and capacity measures This initiative will lead to: - 85% of patients being seen and admitted, discharged or transferred within a four hour timeframe by 12 months. - 95% of patients being seen and admitted, discharged or transferred within a four hour timeframe by 18 months. - 98% of patients being seen and admitted, discharged or transferred within a four hour timeframe by 24 months.			
FOUR HOUR RULE **Target 3.** **Hospitals with an ED report to the non-admitted emergency department care national minimum data set collection**	*Initiative* WA currently reports national minimum dataset information on public hospitals that have an ED.	Hospital with EDs in the WA Country Health Service (WACHS) currently do not provide triage date and time variables as per the national definition. Significant work	WA supports additional EDs being included in the national reporting, and the NMDS requirements should be able to be delivered. However the introduction of	Same as target 1

	All metropolitan EDs (including Joondalup Health Campus and Peel Health Campus) comply with the current national reporting requirements as defined by the Non-Admitted National Minimum Data Set (NMDS). WA is a member of the National Health Information Statistics and Standards Committee, and through this group will work with all jurisdictions to see definitions matters around EDs addressed.	has already been undertaken to address this shortfall, with these items scheduled to be collected as of 1 April 2009.	quarterly rather than annual national reporting will be problematic for small rural sites given workforce constraints and current IT processes. WA currently receives data for all EDs and Emergency Services in WA (except St John of God Hospital, Murdoch (SJGHM) - a private, not for profit health facility) Collection of data from this site would need to be examined in the context of current legislative arrangements. Previous discussions with SJGHM around the collection of ED data have not been successful	

Role of States	Key Deliverables for States Implementation Plan	Timing	Cost	Expected effects on Performance
CAPPLAN **Target 2.** **Decrease the number of patients experiencing Access Block**	The CapPlan project is an inpatient capacity program that predicts acute patient bed demand. The objectives of the program are to: • Match resources to patient demand for acute services. • Provide elective capacity to meet community need whilst remaining within budget. • Can predict daily acute patient demand - forecasting hourly acute inpatient bed demand or 3 or 12 month demand. • Predictive ability has been shown to be 99% accurate for a 24 hour period during the pilot at Sir Charles Gairdner Hospital.	The CapPlan program will complement the 4 hour rule project and will be implemented in parallel with the staged 4 hour rule project in the tertiary hospital sites ie Royal Perth Hospital, Sir Charles Gairdner Hospital, Fremantle Hospital, King Edward Memorial Hospital and Princess Margaret Hospital.	CapPlan costs of $ 2.88 million over 4 years. Consisting of: 09/10 $900,000 10/11 $659,307 11/12 $659,037 12/13 $659,038	The ability to accurately forecast likely demand and resource needs for any given day and the hour of the day. The 99% accuracy in predictability will: Reduce hospital-wide gridlock events The capacity planning tool can be used effectively in high turnover areas (Emergency areas and Operating theatres) to improve length of stay, growing waitlists and reduce the risk of cancelled elective surgery and theatre lists.

Role of States	Key Deliverables for States Implementation Plan	Timing	Cost	Expected effects on Performance
BUNBURY REGIONAL HOSPITAL **Target 2.** **Decrease the number of patients experiencing Access Block**	*Initiative* Introduction of the Four Hour Rule Program in Bunbury Hospital - 98% of patients to be seen and admitted, discharged or transferred from the ED within a four hour timeframe. Modification of emergency departments to better facilitate patient streaming initiatives, including the creation of special treatment centres for high volume low risk patients.	Increase the emergency department capacity at: Bunbury Hospital to 34 bays and with the development of 10 observation beds to manage increased demand due to projected population growth in the region in a timely manner. Initiation of a reconfiguration of the department to accommodate a fast track hub at Bunbury Hospital as a business contingency whilst the capital project is progressed	Capital works estimated at $14.1 million The cash flow for this project is as follows: 09/10 $1.2m 10/11 $3.9m 11/12 $8.3m 12/13 $700k	The expansion of the Bunbury health campus will: • Increase the physical capacity of ED to meet patient activity projections • Provide sufficient capacity to ensure that Bunbury Hospital is well positioned to meet the 'Four Hour Rule' ED waiting standard. • Improve patient flow within Bunbury Hospital by the utilisation of an Observation Area and prevent unnecessary hospital admissions.

Role of State	Key Deliverables for State Implementation Plan	Timing	Cost	Expected effects on Performance Benchmarks
ANATOMICAL PATHOLOGY LABORATORY **Target 2.** **Decrease the number of patients experiencing Access Block**	***Initiative*** **Implement a new Anatomical Pathology laboratory information system (AP LIS) in PathWest Laboratory Medicine WA to replace the existing LIS (*AP System)* which cannot be effectively further developed to be a standardised LIS that meets the needs of Public Hospitals, modern AP laboratories and expectations of referring clinicians** 1. Improve AP diagnostic services to Public Hospital Emergency Department patients and in-patients. Clinicians to provide higher quality patient care by reducing report turn-around-times and reducing hospital stay. 2. Enhance the efficiency, timeliness and flexibility of AP reporting through optimal utilisation of available workforce (particularly	The new APLIS will be expected to be implemented at PathWest and results from the new system available to WA Health Public Hospitals by early 2012. **Stage 1.** Oct- Dec 2009 Tender process **Stage 2.** Jan-Mar 2010- Establish a PathWest AP LIS support team comprising of staff members from PathWest AP and HIN. **Stage 3.** Apr 2010-Sep 2011- The purchase and implementation of the AP LIS at all PathWest AP sites **Stage 4.** Oct - Dec 2011 - Develop the role of an Informatics specialist in AP and offer a fellowship opportunity for a consultant pathologist.	$680,00 TOTAL for the AP LIS equipment	***Performance Information*** A number of indicators have been established to measure performance in: 1. Report turn-around times based on complexity of specimen referral as determined by the Medicare Benefits Schedule. This will improve turn around times thus support the presentations being seen within clinically recommended times and reduce access block for both Emergency patients and in patients.

	pathologist time), minimising service costs and improving workflow. 3. Implement modern systems of reporting on histological material, utilising advanced image display, image transfer and storage to improve efficiency of reporting. 4. Integrate IT system with work processes to implement Lean manufacturing-based approaches to continuous quality and efficiency improvements in PathWest AP laboratories to enable the achievement of a "zero-defects" performance goal. 5. Establish a modern AP reporting system with comprehensive networked computer-based facilities and access to databases.			

Role of State	Key Deliverables for State Implementation Plan	Timing	Cost	Expected effects on Performance Benchmarks
TISSUE PROCESSING & HISTOPATHOLOGY : A MODERN APPROACH **Target 2.** **Decrease the number of patients experiencing Access Block**	*Initiative:* **Implement a modern system of tissue processing and workflow to improve turnaround time for histopathology reporting for hospital inpatients and outpatients in Western Australian public hospitals.** 1. Implement modern tissue preparative workstations. 2. Implement modern low toxicity continuous rapid throughput automated tissue processing systems. 3. Use gastrointestinal mucosal biopsies as a model for standardisation and improve efficient of high volume histopathology reporting. 4. Implement a "Reporting Station" approach to histopathology reporting, which comprehensive computer monitor based clinical information,	*Stage 1* PathWest Anatomical Pathology Department at QE II Medical Centre (2009-2010) *Stage 2* PathWest Anatomical Pathology Department at Fremantle Hospital (2011). *Stage 3* Transfer equipment and systems from Fremantle Hospital to the Fiona Stanley Hospital. (2014-2015).	*Processing and reporting Systems:* **Subtotal: $870,000** *Imaging system:* **Subtotal: $300,000** **Total $1,170,000**	***Mechanism performance improvements will be:*** As Above. Internal benchmarks will be achieved in the following areas which further demonstrate an improvement in access block. 1. High throughput tissue processing and reporting systems will result in improved turnaround times for complex inpatient pathology cases and therefore allowing clinically appropriate treatment in a timely manner, impacting positively on discharge and therefore ultimately affecting Access Block. 2. The implementation of state of the art imaging systems will have a longer

	diagnostic imaging, and patient history. 5. Investigate the use of high resolution computer images rather than microscope slides for histopathology reporting, interdepartmental consultation, archival storage and quality assurance.			term effect in allowing more efficient reporting and improved turnaround time. Again this will positively impact on patient management in hospitals and ultimately on Access Block. 3. Reduction in the number of laboratory defects determined from internal procedures assessments (case audits) by 30% by December 2012 towards the goal of 'zero' defects. 4. Reduction in the number of amended and cancelled reports arising from laboratory defects by 20% by December 2012.