



Government of **Western Australia**  
Department of **Health**

# A Clinical Simulation and Training Framework (CSTF) for the WA health system

## Consultation Document

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## Foreword

The Department of Health (Department) recognises the importance of clinical simulation and training to the skills development and safety of the health workforce in Western Australia; and its contribution to the effective and safe provision of health care. Simulation training occupies a relatively small but important footprint in the wider view of clinical teaching and training in the WA health system which encompasses a vast array of functions and activity extending from undergraduate clinical placements and training through to prevocational and vocational medical training; other skills development such as mandatory training; post graduate academic posts; and specialised training programs. Clinical simulation where scenarios are developed and testing occurs is also a relatively small but important function.

Over the last several years the Department has played a leading role in simulation training in WA due in-part to managing significant national funding agreements designed to increase the capacity of health workforce supply and workforce capability to address forecast workforce shortages. Whilst these funding agreements have ceased there is a significant legacy of these investments and effort which spans across the public and private health systems and the education sector, including special equipment and infrastructure, training courses, and specialist technical and educator workforces.

Considering this and the wider reforms occurring across government, the Department's now limited resources have to be prioritised to realising its role as a system manager. The question of how best to apply the limited resources to the simulation training environment requires exploration and this and the role of the Department going forward is considered in the context of this framework.

The work undertaken to date supported by the collaborative networks and expertise in WA will provide an essential foundation that underpins this clinical simulation training framework. The Department's capacity to fund recurrent and 'business as usual' simulation training activity is highly constrained and adopting a system manager approach of seed funding to initiate self-sustaining simulation to be led by simulation stakeholders and incorporated into their ongoing operations is key to this framework.

Themes arising from the Sustainable Health Review, the Government's Service Priority Review and other significant inquiries will reinforce the framework elements of reducing duplication, better information sharing, more effective use of resources and improving the quality, safety and availability WA's health care.

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CLINICAL EXCELLENCE

## Introduction and Context

The WA health system invests a significant amount of resources; person-hours, funding, infrastructure and consumables in the provision of clinical teaching and training. With the introduction of the *Health Services Act 2016* there is an explicit legal requirement for these functions to be exercised. They appear as objects in the *Act* (refer s.4) and as a specific function of Health Service Providers (HSPs) [refer s.34(b)].

The Department as System Manager has authority to issue binding policies to ensure a consistent approach to functions across the system, and enter into service agreements with HSPs for the provision of health services which by definition includes teaching and training.

Currently there is a binding [Clinical Teaching and Training Policy Framework](#) which establishes an effective foundation and a set of principles for this simulation framework. Provisioning for 'teaching, training and research' occurs through [Service Agreements](#) with HSPs. There is no specific focus on *clinical simulation and training* in either of these instruments nor any reporting on teaching and training more generally.

Clinical teaching and training requires interactions with organisations and systems external to health including education providers and accreditation authorities. How this is managed in WA is a key consideration of this framework.

Simulation training is considered a small but significant component of health workforce training and development in the context of clinical placements, both pre and post graduate supervised learning experiences, accredited vocational training and the provision of legally mandated teaching, training and research (TTR).

The allocation of government funding for TTR functions is contained in the [2017-2018 Service Agreements](#):

**Table 1: 2017-2018 Teaching, Training and Research (TTR) Block Funding\***

Health Service Providers	Cth (000)	State (000)	Total (000)
CAHS	7,998	12,985	20,983
EMHS	23,670	38,428	62,098
NMHS	33,431	54,275	87,706
SMHS	25,734	41,778	67,512
WACHS	9,450	15,343	24,793
Total – HSPs	100,283	162,809	263,092

\*note that the amounts allocated to each specific function (i.e. teaching, training or research) are not currently reported and the percentage spent on simulation in health service providers is not known.

In addition to the TTR funding above, provisioning for clinical wages and on-costs must factor in allowances for clinical workforce professional development including the *WA Health System Medical Practitioners AMA Industrial Agreement 2016* which ranges from Interns \$5,657 through to Senior Registrars \$14,142 per annum; and an additional two days of professional development leave on top of ordinary requirements for nursing and midwifery. These alone amount to several million dollars per annum.

Currently there is no specific policy requirement for HSPs to report on clinical teaching or training activity, nor any single mandated learning management system to capture workforce development activity and programs. The absence of systemic data to inform future directions for

clinical teaching and training and to report on current activity is a key issue and makes it difficult to describe the profile and contribution simulation training makes in the overall context of teaching and training. The simulation training effort is not coordinated across the WA health system and no policies or performance reporting exists within the Clinical Teaching and Training Policy Framework to ensure consistency, efficiency and effectiveness in the provision of these functions. Simulation training may be provided in a local context, have state-wide benefit and yet have limited access for key groups. Similarly, assets held within local settings may have access and use restrictions limiting wider utility.

Evidence suggests that clinical simulation and training is an effective modality to test, refine, practice and develop skills without risk to patient safety, and contributes to improving inter-professional learning and team-based service delivery, workforce safety, capability and retention<sup>12</sup>. It can involve the use of various equipment and consumables such as high fidelity manikins, theatre equipment and surgical instruments to generate a high degree of realism and has a broad application over an extensive range of health workforce disciplines contributing to skill acquisition and maintenance across the continuum of a practitioner's career.

Education providers of clinical health professions in WA utilise simulation training extensively to apply clinical knowledge, and support clinical upskilling along the professional training continuum. It features in the curricula for registered and non-registered professions in pre-entry training through to post-graduate/professional. WA has access to high quality services in this regard and there are opportunities to improve collaboration between the health and education sectors, the accreditation authorities within the National Registration and Accreditation Scheme (NRAS) and to better align training with future health workforce development, direction and needs.

There is an active simulation community in WA, with many motivated and high calibre individuals who have contributed immensely over many years to develop the profile of simulation including through improved facilities, faculty and technical support, published works, national and international relationships, and training courses. Much of these efforts are self-driven and there is an opportunity to better harness the collective experience and contributions of this network for the benefit of the health system.

Given the current operational nature of simulation training within HSPs, the absence of a state-wide strategy for simulation may not present a degree of risk. However there are opportunities to better organise, coordinate and reduce duplication and assist with state-wide courses and access to training. Simulation centres within public hospitals in WA are an important resource in this context, and may present some opportunities to contribute to these goals.

The Department, through the Office of the Chief Medical Officer is currently the custodian of a recurrent simulation training fund of \$1.97m which, while not part of TTR represents a small (approximately 0.7%) of the overall related expenditure. Historically this fund has been used to support initiatives and to procure simulation training services that are not normally available within the WA health system. No strategic approach has been developed to administer the use

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<sup>1</sup> Abraham et al. 2011. "The Use of Simulation Training in Teaching Health Care Quality and Safety: An Annotated Bibliography." *American Journal of Medical Quality* 26(3) 229–238

<sup>2</sup> George, Katie, and Beth Quatrara. 2018. "Interprofessional Simulations Promote Knowledge Retention and Enhance Perceptions of Teamwork Skills in a Surgical-Trauma-Burn Intensive Care Unit Setting." *Dimensions of Critical Care Nursing* Vol. 37 / No. 3 DOI: 10.1097/DCC.0000000000000301

of this fund and whilst it represents a relatively small portion of the overall teaching, training and research funding there is an opportunity with this framework to improve the contribution the fund makes to the WA health system through more targeted investments and research within the clinical simulation and training environment.

The simulation framework must align to key WA government and health system direction and policies including the [Interim Report of the Sustainable Health Review](#), the [WA Government's Service Priority Review](#); the mandatory [Clinical Teaching and Training Policy Framework; Funding and Purchasing Guidelines](#); and the [Review of Safety and Quality in the WA health system](#). This alignment will be represented in the simulation framework's principles, priorities and actions.

## A Brief Background

The recent history of clinical simulation and training in WA had the Department playing a leading role for example with the Junior Doctors Business Case (JDBC) over three years from 2010 which successfully secured \$74m in state funding to accommodate the increase in medical students internship placements. A significant component of the JDBC was an investment into simulation training in public health services for junior medical practitioners<sup>3</sup>.

The Commonwealth government injected substantial funding into the development of Australia's health workforce throughout 2011 to 2014. The Department again played a leading role with the *WA Health Simulation Training Strategy 2011-2013* designed to capitalise on this multi-million dollar contribution and it established governance, networks, course development, infrastructure and a central coordination unit within the Department. This function was absorbed by the WA Clinical Training Network (WA CTN) during 2014/15, also hosted by the Department. The WA CTN concluded operations in 2016 on cessation of Commonwealth funding.

The Department's recurrent simulation training fund was utilised over this time in a variety of ways including procurement of medium to high fidelity training, partial seed-funding for the establishment of a centralised simulation equipment maintenance service and funding various initiatives. The management of the fund was relocated from the WA Health Workforce Directorate to the Office of the Chief Medical Officer during an internal restructure in 2017. This was preceded by a major clinical training reform program undertaken in 2013. The fund currently provides for a (primarily) surgical skills training contract with the University of WA Clinical Training and Education Centre and Emergency Management of Anaesthetic Crises (EMAC) training contract at Edith Cowan University.

Various governance and networking arrangements have also existed to guide the Department's efforts including the Immersive and Simulation-based Learning (ISL) Committee, Simulation Advisory Group, WA Clinical Training Network, and various medical interest groups including the Clinical and Vocational Reference Group. Externally the simulation community recently created the WA Simulation in Healthcare Alliance (WASHA) which is a registered not-for-profit incorporated entity, and replaces the functions of the ISL Committee.

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<sup>3</sup> [https://ww2.health.wa.gov.au/~/\\_/media/Files/Corporate/Reports%20and%20publications/Medical%20Workforce/Medical-Workforce-Report-201314.pdf](https://ww2.health.wa.gov.au/~/_/media/Files/Corporate/Reports%20and%20publications/Medical%20Workforce/Medical-Workforce-Report-201314.pdf) page 53

The Simulation Advisory Group comprised of representatives from the Department and Health Service Providers was formed to provide simulation strategy advice and had several meetings during 2017. This group did not agree that priorities should focus on assets and equipment and mapping current activity, but rather develop priorities and business case proposals for the next three to five years. The group identified the importance of including external providers in these processes to ensure business case development could adequately capture the potential for revenue and training demand<sup>4</sup>.

Efforts to investigate activity-based funding for teaching, training and research and the development of a Clinical Teaching and Training Policy Framework, whilst not having a specific focus on simulation, highlight the importance of the teaching and training functions for the WA health system.

Internal committees exist with a related agenda including the Medical Education, Training and Accreditation Committee (METARC) and potentially the Workforce Steering Committee.

Two documents finalised in 2016 by the Department had an number of recommendations:

- 'Simulation in the Western Australian Public Health System, Issues for the System Manager' (Office of the Chief Medical Officer)
- 'A Procurement Framework for Simulation Training' (Workforce Directorate)

Refer to Appendix One for a list of these recommendations and their relevance to this paper.

## Principles

The principles contained within the mandatory Clinical Teaching and Training Policy Framework have been adopted to apply to this framework and are as follows:

### **Adaptability**

Clinical teaching and training activity will reflect changing environmental factors such as demographics, emerging health needs, models of care and new technologies to ensure an adaptable and responsive health workforce.

### **Quality**

Clinical teaching and training will meet the standards of appropriate governing bodies.

### **Sustainability**

Clinical teaching and training activities will be efficiently and sustainably managed to ensure future workforce capacity, development of a skilled and competent workforce, provision of the best possible teaching infrastructure and to foster future investment in clinical teaching and training across the WA health system.

### **Transparency and accountability**

Maintain systems and processes that demonstrate sound governance, management and reporting of clinical teaching and training activities and outcomes.

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<sup>4</sup> Simulation Advisory Group minutes 13 July 2017 - meeting 5

## **Workforce planning**

Ensure that clinical teaching and training activity is relevant and supports short and long term workforce capability, supply and distribution.

## **Framework Scope, and Roles and Responsibilities**

The role of the Department for this function will be to endeavour to establish this framework to be as self-sustaining as is achievable within approved funding models. The ongoing advancement of clinical simulation and training in the WA health system will need to be driven by:

- An effective and organised advisory network that is formalised and connected appropriately to the governance of the WA health system;
- HSPs given their responsibility and resources for teaching and training to support high quality health services;
- Education providers in bringing developments in simulation education in health care into WA's workforce development; and
- The simulation system and stakeholders being appropriately supported to share information, best practices and reduce duplication and inefficiencies.

An advisory network governance model, based on a collaborative approach<sup>5</sup> is proposed for clinical simulation and training in WA. This is outlined below.

The Department's role is important, but strategically confined. Its major focus once the framework is established will be to ensure the recurrent simulation fund is effectively managed to benefit the system and that the proposed advisory network described below is functioning optimally. Where appropriate the Department can utilise the levers of mandatory policy and service agreements to ensure a standard approach to reduce waste, improve standards and address issues of access for simulation across the WA health system.

The key components of the framework are:

### **Evidence and Planning**

- Improving the ability to forecast demand and need for skills training, clinical teaching and training direction.
- Capturing performance.
- Information to business case.
- Quality planning and resourcing for simulation.

### **Effective Collaboration**

- Introducing an advisory network governance model.
- Facilitating connections.
- Reducing duplication.
- Advance the recognition of clinical simulation and training through collaboration with accreditation authorities and education providers.

### **Quality, Safety and Innovation**

- Ensure the various 'levels' of fidelity are supported appropriately and that there is sound rationale to support proposals and the development of programs.
- Facilitating access to training not normally available within health services.

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<sup>5</sup> <http://press-files.anu.edu.au/downloads/press/p96031/mobile/index.html>

- Innovation to benefit the WA health system is supported.
- Simulation research creates opportunities for WA.

### **Sustainability**

- Seed funding to achieve integration with normal operations.
- Focus on local needs with an outwards impact, scalable pilots, and applying the outcomes of local trials across the system (portability).
- Contributing to a better health system for WA.

### **Advisory Network Governance Model**

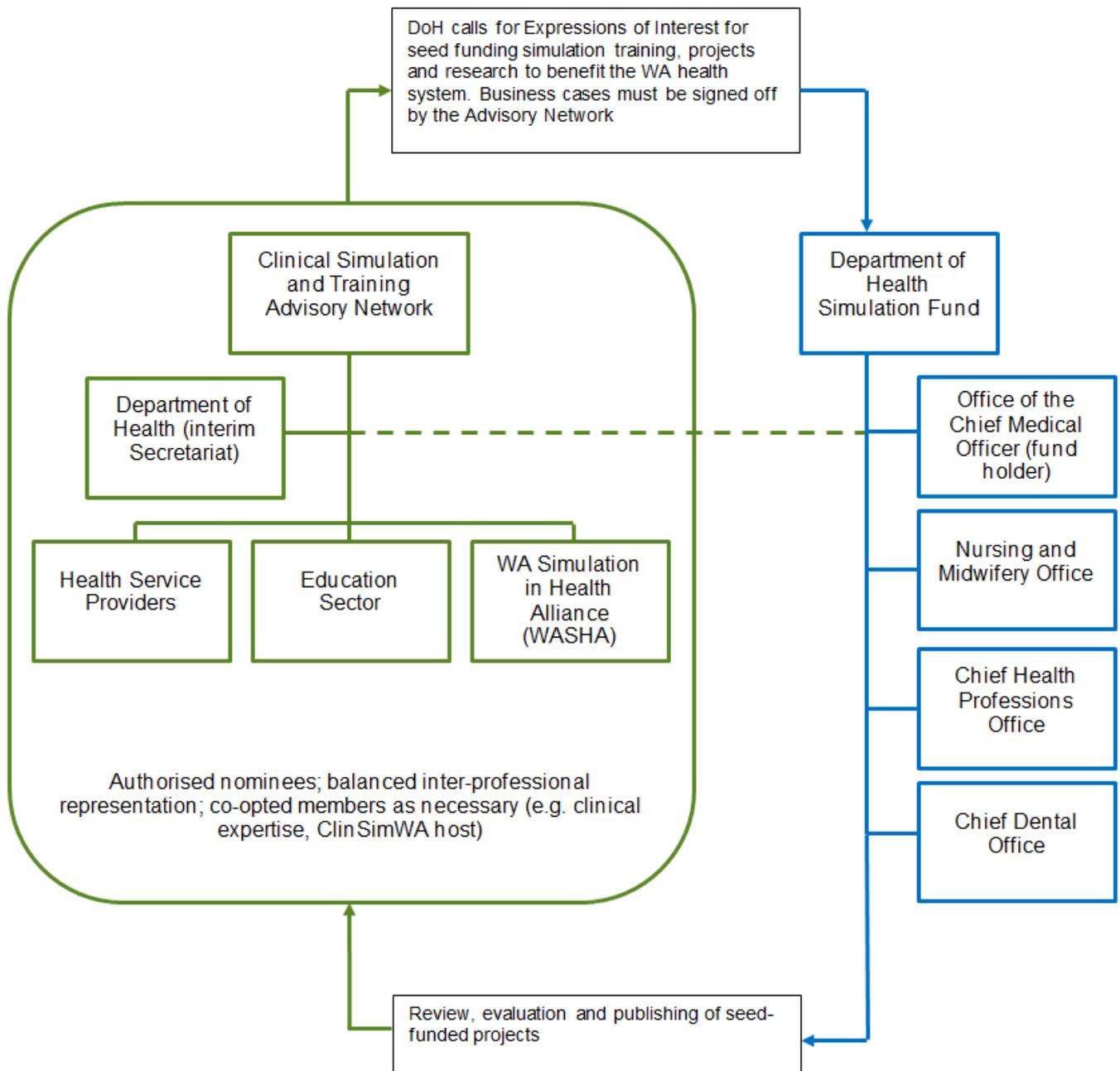
In order to establish a state-wide approach to health workforce development, and more specifically to the delivery of clinical simulation and training, an advisory network approach is logical as it can be arranged to incorporate the extensive and diverse stakeholders that have expertise and ability to make a valuable contribution to simulation and training outcomes.

Historical models of simulation governance with the Department leading a hierarchical approach are no longer suitable. The WA CTN as an example was quite effective in galvanising the stakeholder groups but due to the contractual requirements specified by the Commonwealth required significant resourcing and to be actively led and organised by the Department to successfully function. A more sustainable model must be developed.

To ensure optimal engagement across the diversity of stakeholders, best endeavours must be undertaken to ensure any advisory network governance model is not cumbersome. Where decisions are being made that impact on public health services, a key consideration is the linkages with the governance structure of the WA health system. Of equal importance is the design of a process to ensure any proposals seeking funding are approved through the advisory network to avoid duplication and potential conflicts of interest.

Some level of structural or administrative support is required for a formalised network to function properly. The Department currently provides support for several committees with memberships that include internal and external stakeholders that have a system-wide remit over various clinical and workforce issues. Recognising the transition from its past leadership role, the Department is able to provide an interim secretariat to the clinical simulation and training advisory network for 12 months. The expectation will be that the advisory network will take on the responsibility for these functions over time.

Apart from providing an interim secretariat, the Department's role will require a degree of separation from the business of the advisory network. The Department's primary role will be managing the recurrent simulation fund. This overall arrangement is depicted in the following diagram:



This governance model and the concept of the advisory network is outlined at a high level here, and further work will be required to develop the terms of reference, roles and responsibilities. Internally the Department is considering a management approach for the simulation fund.

System-wide, the Department is continuing to work on determining its role and focus for workforce planning, development and reform.

### Status Quo Option for Simulation Governance

The advisory network governance model above needs to be tested against the status quo as part of the consultation and to determine its feasibility. Current simulation governance at a system-wide level is limited to the following:

- From July 2018 the Department will have one simulation training contract with an external provider with contract management the responsibility of the Office of the Chief Medical Officer. The arrangement places an emphasis on the provider undertaking its

own market research and submitting proposals to the Department. This is an effective arrangement and demonstrates the concepts of seed funding through constant renewal of training programs, removal of courses that are self-sustaining and an ability to consider emerging areas of need. The training is multi-professional.

- Simulation centres and training services within public health services and education providers are being driven by local needs and demand, and limited in their application at a state-wide level.
- WASHA as an incorporated entity, has developed a strategic framework for WA Health's simulation-based learning and made a submission to the Sustainable Health Review. Whilst these contributions are acknowledged, WASHA has no formal links with the governance of the WA health system and identifies the Department as being responsible for a large range of simulation projects and activities.

An assessment of the status quo would conclude that without a more inclusive but sustainable governance model, clinical simulation and training in WA will revert to silos and be driven by local needs and in some cases self interest groups.

## **Priorities**

This section describes a set of actions relating to this framework which include the Department's internal commitments to establish a management arrangement for the recurrent simulation fund, and finalise some outstanding contractual and asset arrangements. Additional actions proposed have been assigned to the advisory network and HSPs based on the roles and responsibilities outlined in this framework.

## Priority Actions

Framework Component	Action	Timeframe	Lead
<b>1. Evidence and Planning</b> <ul style="list-style-type: none"> <li>Improving the ability to forecast demand and need for skills training, clinical teaching and training direction.</li> <li>Capturing performance.</li> <li>Information to business case.</li> <li>Quality planning and resourcing for simulation.</li> </ul>	1.1 Develop and administer a survey across the health system to identify simulation sites, current clinical simulation and training activity (summarised), planned simulation and training, gaps in simulation and training, and what systems are being used to capture activity.	12 months	Advisory Network
	1.2 Implement a publicly available knowledge-base of evaluations of simulation and training pilots, projects and programs.	24 months	ClinSimWA host (see 2.1)
	1.3 Develop local area plans for simulation and training (potential for seed funding to do this work if plans do not exist)	24 months	HSPs
<b>2. Effective Collaboration</b> <ul style="list-style-type: none"> <li>Introducing self-governance or a networked governance model.</li> <li>Facilitating connections.</li> <li>Reducing duplication.</li> <li>Advance the recognition of clinical simulation and training through collaboration with accreditation authorities and education providers.</li> </ul>	2.1 Invite expressions of interest for seed funding to transfer the ownership and management of the ClinSimWA website from the Department of Health to a provider with a more publicly accessible hosting arrangement that promotes ease of access and greater utilisation.	12 months	Department of Health
	2.2 Confirm a model for networked governance and interim support, and the formal arrangements for the Network's relationship with public health entities and education providers, for advancing clinical simulation and training in WA.	12 months	Department of Health
	2.3 Implement a process via the ClinSimWA website for the Network to identify efficiencies and reduce duplication for simulation and training activity.	24 months	ClinSimWA host
<b>3. Quality, Safety and Innovation</b> <ul style="list-style-type: none"> <li>Ensure the fidelity (levels of realism) are supported appropriately and that there is sound rationale to support proposals and the development of programs.</li> <li>Facilitating access to training not normally available within health services.</li> <li>Innovation to benefit the WA health system is supported.</li> <li>Simulation research creates opportunities for WA.</li> </ul>	3.1 Develop agreed exemplar business cases to support simulation proposals, including hospital simulation centres, specialist training courses, emerging areas of need and research.	12 months	Advisory Network
	3.2 Identify evidence-based directions for simulation in the WA health system, and implement a process to maintain this information	24 months	Advisory Network
	3.3 Provide ongoing contract management of the simulation training contract with the Clinical Training and Education Centre, UWA in accordance with WA State Government procurement requirements.	ongoing	Department of Health
<b>4. Sustainability</b> <ul style="list-style-type: none"> <li>Seed funding to achieve integration with normal operations.</li> <li>Focus on local needs with an outwards impact, scaleable pilots, and applying the outcomes of local trials across the system (portability).</li> <li>Contributing to a better health system for WA.</li> </ul>	4.1 Implement the recommendations from 'Managing the Clinical Simulation Training Fund in the WA Public Health System 2018'.	6 months	Department of Health
	4.2 Provide interim support to establish the networked governance model for clinical simulation and training in WA	12 months	Department of Health

## **Implementation**

The implementation of this framework will be subject to a range of approvals and this work will need to be undertaken with a separate project plan or implementation guide.

## **Review and Reporting**

Once approved, the Clinical Simulation and Training Framework for the WA health system will be regularly reviewed as follows:

- The effectiveness of the framework over specified timeframes.
- The implementation plan as a project.
- The outcomes from the management approach of the Department's simulation fund.

## Appendix 1 – Previous Recommendations

‘Simulation in the Western Australian Public Health System, Issues for the System Manager (2016)’

Recommendation	Comment
1. Establishment of a Simulation Committee to advise the System Manager on suitable system-level strategy, advice on funding priorities, facilitate system-level interventions and engage with the broader WA simulation community.	<b>Established and currently in abeyance. Considered for inclusion in this framework</b>
2. Develop, with the assistance of the Simulation Committee, an overarching strategy for the System Manager’s involvement in simulated training in the Western Australian public health system.	<b>This project.</b>
3. A stocktake of simulation equipment and courses be undertaken and maintained by the Simulation Committee to assist with the formulation of system-level strategy and the identification of current and emerging gaps and areas of prioritisation.	<b>Out of scope for management of the recurrent clinical simulation fund. Considered for inclusion in this framework.</b>
4. That ownership and management of the ClinSimWA website be transferred to the ISL Committee, with the expectation that new hosting arrangements that promote ease of access and greater utilisation will be made.	<b>Considered for inclusion in this framework.</b>
5. That Expressions of Interest in housing the Department owned simulation equipment and delivering the EMAC course be sought from Health Service Providers.	<b>Completed.</b>
6. That the Simulation Committee undertakes a scoping exercise to ascertain the viability and ongoing cost of establishing a WA public health system simulation centre.	<b>Out of scope for management of the recurrent clinical simulation fund. Not considered further.</b>

‘A Procurement Framework for Simulation Training (2016)’

The report recommends that:

<ul style="list-style-type: none"> <li>• the remaining funding from the 2016/17 financial period is repurposed to facilitate:               <ul style="list-style-type: none"> <li>○ market research that identifies the demand for simulation training across occupational groups working within WA Health clinical environments</li> <li>○ the creation of a WA Health simulation community of practice network relating to training and equipment (repair and warranties)</li> <li>○ the development of workforce development metrics (key performance indicators and critical success factors), and analytics (statistical models) that can be utilised by the system manager to develop core reporting requirements for the WA Health Workforce Development Strategy.</li> </ul> </li> </ul>	<b>Considered for inclusion in this framework.</b>
<ul style="list-style-type: none"> <li>• the position of Medical Adviser is reviewed</li> </ul>	<b>Completed.</b>
<ul style="list-style-type: none"> <li>• the project is now closed</li> </ul>	<b>Completed.</b>
<ul style="list-style-type: none"> <li>• the role of the system manager in the effective allocation and management of simulation training funds, be determined.</li> </ul>	<b>A management approach is being considered separately.</b>

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