Government of **Western Australia**
East Metropolitan Health Service

Robyn Kruk AM
Independent Panel Chair
Sustainable Health Review

By email: SHR@health.wa.gov.au

Dear Ms Kruk

We are pleased to enclose our EMHS submission for the Sustainable Health Review.

The information contained in the document was gathered through a number of workshops with our staff, an online survey and through small working groups. The submission has been reviewed and endorsed by the EMHS Board.

Our bold ideas for change to ensure a sustainable, patient-centred health system are the focus of the document and the appendices are included to provide details on key areas.

If you require any further information on our submission please do not hesitate to contact either [redacted]

Yours sincerely

Ian Smith PSM
BOARD CHAIR
EAST METROPOLITAN HEALTH SERVICE

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Government of **Western Australia**
East Metropolitan Health Service

East Metropolitan Health Service

Sustainable Health Review Submission

20 October 2017

EMHS envisage a health system where:

- **Consumers are provided with access to information and data, empowering them to make informed decisions about their health care**
- **Broader determinates of health are recognised and targeted to influence better health outcomes**
- **Contemporary models of care and supporting workforce models are encouraged**
- **The focus shifts from illness to health and financial models are redefined to reflect this**
- **Partnership opportunities with the private sector and research institutions are identified and benefits derived from these relationships**
- **Advanced information organisation, storage and sharing capacity is established, enabling information to be easily integrated in current and future technology**

Our bold ideas for change look beyond barriers that typically deter the system considering such concepts, with the view that large scale changes are needed to transform the way health care is provided in WA.

Figure 1 illustrates a patient centred health system which promotes a sustainable future incorporating the following key elements:

- Patient first
- Value for money
- Healthy lifestyles
- Partnerships across sectors
- Technology and innovation.

Ideas which change the supporting framework of the health system are included in the outer rings and practical examples of how our bold ideas would change the patient journey are included in the centre. Additional detail on each point is contained in the body of this document with discussion papers included as appendices and referenced throughout.

Geoff's story

Geoff is a 45 year old male who lives with his partner and his two children in Forrestfield. He works full-time at Perth Domestic Airport as a baggage handler and when he's not at work he enjoys spending time with his family.

Geoff's partner Sam also works part time at the local primary school as a registrar.

When Geoff isn't at work he enjoys helping out at his daughter's athletics club and playing computer games with his son.

Geoff considers himself to be relatively healthy. He is slightly overweight, and feels short of breath when walking up hill and gets occasional back pain if he's done some heavy lifting at work or spent a lot of time in the garden. Geoff was diagnosed with depression 9 years ago and manages this condition well.

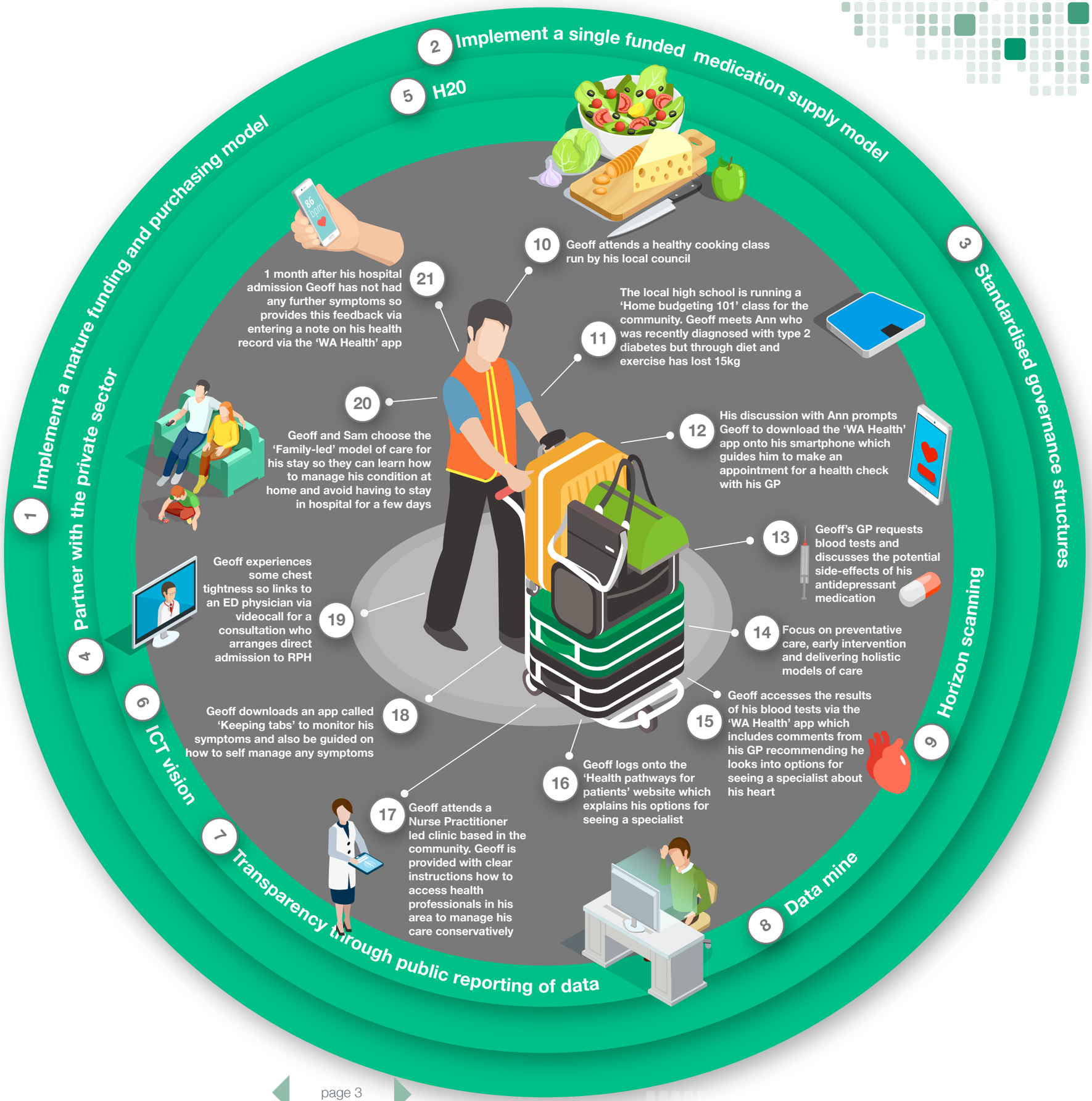


Figure 1

Bold ideas to change the supporting framework of the health system

1. Implement a single source of funding to each Health Service Provider (HSP), allowing HSPs to distribute funds appropriately based on their population needs.

   Move towards a mature purchasing model to deliver a health care system focussed on value based care, not volumes, and incorporates flexibility. *(appendix 1)*

2. Review medications policy, including the validity of existing agreements which exclude patients' access to Pharmaceutical Benefits Scheme (PBS) medications. *(appendix 2)*

3. Review Mental Health governance and consider more holistic models of care. *(Appendix 12)*

4. Partner with organisations in the private sector, focusing on developing visionary partnerships with external stakeholders, private enterprise, and research institutions.

   Seek sponsorship deals with commercial organisations to support research and innovation.

   Partner with universities to provide our workforce with greater opportunity for continuous learning. *(appendix 3)*

5. Establish an 'H20' for health, based on the B20 model for the business global community. WA could take the lead in advocating the formation of an H20 to engage in dialogue with the G20.

6. Improve the flow of information across the continuum to allow equity of ICT for care enabled by ICT strategy determination to be separate from the program which maintains and improves existing architecture. *(appendix 4)*

7. Promote transparency of data through public reporting of safety and quality performance data to drive continuous improvement. *(appendix 5)*

8. Establish a data mine that will extract information from our data sets and transform it to an understandable structure for further use, regardless of advances in technology.

9. Have a dedicated resource to link with other industries and focus on horizon scanning to determine what tools and resources are available. *(Appendix 6)*

Bold ideas which will significantly change the patient journey through our health system

10 Partner with local communities to promote healthy lifestyle and give incentives for activity

- *E.g. NHS policy to create "Healthy New Towns" encourage healthy living by providing discounts on their supermarket shopping/sports gear if they hit weekly exercise "step targets", provide free bikes, outdoor public gyms and cooking lessons for local residents.*

11 Raise awareness of links with education on health outcomes and work with education providers to offer opportunities for learning

- *E.g. Research suggests increasing education may result in substantial health benefits* (BMJ 2017; 358 doi: https://doi.org/10.1136/bmj.j3542 (Published 30 August 2017)

12 Provide patients with simple information on pathways, linkages between services and how to navigate through the system. *(appendix 7)*

13 Integrate primary care with the hospital system to allow more efficient care. *(appendix 8)*

Invest in an ICT system that facilitates the flow of information across the continuum and enables transparency over the whole journey and includes patients and practitioners,

- *e.g. 'Net-health'*

14 Focus on preventative care, early intervention and delivering holistic models of care. *(appendix 9)*

Create a coordinating physician position for complex patients to help keep the general health care of the patient in focus rather than each specialty area concentrating on components rather than the global health care of the patient.

15 Allow patients to access their own health information.

Provide patients with unrestricted access to their own health information and data, with education to support their understanding of this information, and empowering patients to be the primary decision maker in their care.

This could extend to allowing custodianship of medical records to sit with patients rather than health providers.

16 Improve health literacy and provide coordinated care.

Support patients to understand basic health information and services to make appropriate decisions around their care. *(appendix 10)*

17 Encourage contemporary models of care and workforce models

Establish non-medical led outpatient clinics (pharmacy, allied health and nursing) as first point of contact for patients to deliver conservative treatment if clinically appropriate with a view to reducing unwarranted medical treatment

- *Health Round Table have shown that surgical waitlist can be reduced by 2/3 with patients seeing allied health practitioners and nurse practitioners as first point of contact*

Determine what a low cost workforce profile looks like, encouraging strategies such as substitution roles to achieve this. *(appendix 11)*

18 Enable self-management by providing patients with access to information via smartphone applications and social media, to manage their condition outside the hospital setting. Support and partner with creators of applications, patients and health providers to enable this to occur.

- *E.g PredictBGL is an application created by a parent of a child with Type 1 diabetes, to predict future blood sugar levels, with greater accuracy than expensive continuous glucose monitors https://predictbgl.com/*

19 Enable consumers to link directly with health providers outside the traditional health care setting.

- *E.g. Dr Justin Bowra is an ED physician based in Sydney who has developed the My Emergency Dr application, a 24-hours-a-day medical service connecting patients to an emergency physician via video link on smartphones www.myemergencydr.com/*

Commit to using telehealth/video call within the metropolitan area for consultation and remote monitoring as strategy for hospital avoidance allowing patients to remain in community care with virtual consultations with hospital based specialty staff

20 Encourage active family involvement in care, empower family to be part of patient care from the beginning of the journey and provide opportunities to learn from health professionals and access to information and support.

21 Consider incentives and non-payment for preventable poor outcomes

- *E.g. A US model withholds a percentage of payment until 1-2 months post discharge without complications*

EMHS have implemented a number of services, programs and initiatives to work towards achieving a sustainable, patient centred health system and recognise there are opportunities for further improvement.

Patient pathways and experience

EMHS aims to deliver patient centred health care in the most appropriate setting.

- The *Homeless Healthcare* program is an example of how EMHS have partnered with external organisations to provide care to patients identified as homeless. Working with a number of external partners, RPH is implementing the Institute for Social Inclusion (ISI) strategy. The strategy aims to deliver optimum continuum of care and reduce hospital presentation through a transition program from hospital, to community based healthcare and social support and providing accommodation and employment opportunities.
- The *Complex Care Coordination Service* based at Armadale Health Service forms part of a new model of care for chronic disease management focussing on safe, sustainable and seamless transition of care from hospital to community based services. The service has improved the referral process and transition to out-of-hospital care leading to a significant decrease in length of stay over a 12 month period.
- EMHS has recently introduced ENT referral criteria to guide GPs in their referral patterns. Initial data has shown a 60% reduction in new category 3 referrals to RPH from GPs. In addition EMHS has partnered with WAPHA to deliver education session for GPs to support them to manage more conditions in the community.

The following strategies outline how EMHS propose to continue to improve patient pathways and experience:

1. Encourage and enable patients to be actively involved in their health care
2. Ensure the right care is delivered in the most appropriate setting
3. Improve communication and collaboration between health care providers
4. Streamline referral pathways and transition between services
5. Focus on ICT as an enabler for positive patient experience and streamlined pathways

Quality and Value

EMHS have good monitoring of safety and quality data across the health service to promote continuous improvements in safety, quality and efficiency.

- The EMHS Ensuring Essentials program aims to identify the procedures and processes that are considered low or no value health care, based on available and validated evidence and work with clinicians to change pathways and practice to implement sustainable processes to reduce and or minimise the provision of these services within EMHS
- EMHS has initiated a portfolio of work relating to Clinical Audit, to enhance the focus on clinical outcomes within EMHS. This work is aligned with our key strategic priority of improving governance reporting and improved use and transparency of data

To build upon this work EMHS will consider the following strategies:

1. Encourage transparency of data
2. Establish incentive programs linked to safety and quality outcomes
3. Invest in education, training and research

Financial sustainability

EMHS seek to provide high value health care and work towards financial sustainability. The Service has made significant improvements in its financial position with turn-around of net service deficit on 1 July 2016 to a surplus as of 30 June 2017, without compromising clinical quality.

The strategies to continue improvement in this area are included below:

1. Engage consumers and manage expectations of service capabilities
2. Workforce reform to review salaries and award conditions
3. Consider alternative revenue streams
4. Review procurement processes and policies
5. Coordination of care to reduce duplication and share information
6. Transparent funding model with investment in early intervention and primary care

Prevention, promotion and partnerships

EMHS have formed successful and productive partnerships with a number of other government agencies, non-government organisations and the private sector.

- Partnerships with WA Police and the Mental Health Commission have resulted in better health outcomes for mental health clients through the Mental Health Co-Response trial.
- EMHS has formed a partnership with Woodside to develop staff wellbeing programs and learn from their experience in OSH

Further improvement can be gained by

1. Strengthening current partnerships and look for opportunities to work together
2. Enable information sharing between groups
3. Look for opportunities to establish new partnerships

Technology, research and innovation

EMHS is currently using new technology, research and digital innovation to drive efficiency and provide the best possible care for our patients

- An EMHS ICT Clinical Reference Group has formed to provide advice and expertise on matters relating to the strategic direction, clinical/non clinical requirements and functionality of ICT at EMHS.
- EMHS has appointed an Research Director, and launched a leadership program focused on developing and promoting a coordinated strategy for the future of research.

The strategies to improve in this area include:

1. Invest in ICT that goes beyond replacing and maintaining existing architecture
2. Optimise current ICT systems and applications
3. Look for partnerships to strengthen and prioritise research and innovation
4. Improve use of data

Workforce and Culture

EMHS seek to promote a contemporary, adaptable and high performing workforce and have implemented a number of initiatives to work towards this.

- EMHS launched the *Voice of the Staff* survey which enabled all staff to provide feedback on all aspects of the organization, including job satisfaction, workplace safety, leadership, work-life balance and engagement.
- The *Junior Doctor Wellbeing Program* was launched by RPH in recognition of the high levels of stress, burnout and anxiety among this group.

The strategies to improve in this area include:

1. Prioritise leadership development, education and training
2. Improve our recruitment strategy
3. Implement contemporary models of care and staffing models
4. Create a culture of empowerment

Appendix 1: Working towards a mature purchasing model

Summary

The Western Australian public health system prides itself on its ability to deliver high quality services to the population it serves. With health care costs now accounting for approximately 30% of the entire state spend it is vital that reforms and processes are implemented that protect the high quality services delivered, but also ensure a sustainable health care system.

How health care services are purchased is a crucial element in achieving the aforementioned state. We must move towards a mature purchasing model that is population based rather than service based.

This mature model will deliver a health care system which is focussed on value based care, not volumes. It must be flexible enough to be tailored specifically to the services being purchased.

Our future purchasing model will also present an environment where all parties clearly understand their role. Improved visibility of services available will be conveyed to the purchaser, the provider, as well as the consumers of the services.

The new purchasing model will deliver a system where the delivery of care, and the financing of the care delivered are fully integrated. There will be simplified accountability with a single source of funding. The purchaser will have control of the entire supply chain, which will be a networked care model with a single provider of all primary and secondary services. Multi-speciality services will bear the risk for the cost of care, with a culture of cooperation and coordination of care.

The ability to have a longer term view of purchasing will allow Health Service Providers to take a strategic approach to the development of their services

A Phased Approach

Considered thought should be applied to the transition to a more mature purchasing model. There must be a shared understanding that the process will take some time. All interested parties (purchasers, providers and consumers) will need to be involved in the development of a roadmap and carefully planned journey.

We must also take the opportunity to learn from other jurisdictions that have already gone down this path, and are in the state of maturity desired. The Kaiser Permanente model of an integrated healthcare delivery system is a prime example of how a mature purchasing model can operate.

The planning process for the move to a more mature purchasing model can start by challenging some of the fundamentals required in a model with simplified accountability. We could also commence by challenging some of the patient pathways, and distribution of services purchased.

DISCUSSION QUESTIONS

1. Should Health and Mental Health agencies be combined to simplify accountability?
2. Should the referral model be reviewed to ensure only appropriate patients are being referred to acute settings?
3. Should we challenge the General Practise model to ensure there is appropriate distribution of services available?

What Do We Purchase?

A mature purchasing model will be focussed on outcomes and value delivered, not volumes. It will ensure that Health Services are funded and accountable for servicing the population within their catchments. It will be take into account the residential population, working population and visiting population of all relevant catchments.

There are a great number of things that the public sector does very well and these services should continue to be purchased from the public sector. In some instances, the private sector has greater expertise and these services should be purchased from there.

The purchasing model needs to ensure that each service is procured from the most appropriate provider. Only tertiary services for example should be purchased from tertiary institutions. We need to ensure step-down facilities are used for purchasing sub-acute care.

The purchasing model should also leverage bargaining power where it can. For certain elements such as medical equipment and high cost drugs, health could potentially save money from purchasing centrally and distributing to the health services.

Clarity is also required as to what exactly is being purchased, and delivered in the primary care sector, and other facilities. For example, if the health services better understand what services are being delivered from the nursing homes we can better plan for caring for that population.

A mature purchasing model will also consider the cost penalty advantage of different environments. Buildings, infrastructure and technology all have a considerable impact on the cost of delivering services and these should be taken into account. The new model also needs to take into consideration how it purchases during periods of reinvestment, balanced with periods of retrenchment.

A mature purchasing model should also look into the entire value chain/supply chain/pathway, much like the model implement at Kaiser Permanente. Services need to purchased from the most appropriate location. What services GP deliver, and how intensely we invest in ED diagnoses are elements that need to be investigated.

Outpatient Purchasing

Outpatient services are an obvious area where a more mature purchasing model could drive significant cost efficiencies and deliver higher quality outcomes to consumers. Consideration needs to be applied as to the process for tendering for outpatient services, and how we ensure there is not an oversubscription of outpatient services.

Workforce purchasing could be an area which also greatly assists delivering an efficient outpatient services. The additional supply of doctors to be ingested into the workforce could be used to run cost effective outpatient services.

DISCUSSION QUESTIONS

1. What services should be purchased from the private sector eg IT, contracting, medical records?
2. Should day surgery be purchased from the private sector?
3. What consumables could potentially be purchased centrally to leverage bargaining power?
4. How do we ensure services are being purchased and delivered and the most appropriate facility?
5. What services are being purchased which could be carried out by a different workforce?
6. Can GP services be purchased from the community?
7. Can Outpatient Services be purchased from the private sector?
8. How do we ensure we do not oversubscribe outpatient services?
9. How do we measure the cost penalty/advantage of different physical environments?
10. Can we purchase the entire supply chain?
11. How do we incentivise Health Services to generate revenue?

How Do We Purchase?

With a clear focus on outcomes and not on volumes, the process for purchasing services will need to change.

A mature purchasing model needs to be adaptive and flexible so it can handle a number of varying models for different services being purchased and provided. It also needs to consider the added complexity of the responsibilities of federal and state governments. With an integrated health care

system to be focussed on supporting locally identified patient needs, purchasing should be based on the population catchments and governance boundaries that structurally define each Health Service.

With a population based focus, thought should also be applied to the concept of what is currently known as the providers becoming the purchasers themselves. To simplify the process of delivering health care, should providers be leveraged the autonomy on decision making for what services (as well as how and where) they purchase from the private and public sector.

Thought should also be given to the concept of the population we treat having control of the purchase of services. The fact that the System Manager and the Purchaser are one and the same should also be challenged. Who is ensuring that the right services are being purchased?

Many issues also have an impact felt across a number of agencies. Thought must be given as to how agencies can collectively purchase services to combat community issues such as drug addiction which has an impact across both Health and Police services to name a few.

DISCUSSION QUESTIONS

1. Should local health service be given autonomy on purchasing services themselves?
2. Should the roles of System Manager and System Purchaser be separated?
3. How do we promote a cross-sector approach to purchasing services with an impact across multiple jurisdictions?

A High Performing Purchaser

A mature purchasing model will also monitor the performance of the Purchaser to ensure they too are delivering a high quality service. Health Services are currently monitored on their performance, and in the new model the Purchaser must be as well.

We must ensure the Purchaser is purchasing the right services from the right location so the Health Services are able to meet the needs of their population. We must ensure that the processes undertaken by the Purchaser add value over to health consumers, over and above the cost of carrying out said processes.

DISCUSSION QUESTIONS

1. What defines a high performing Purchaser?
2. Are Health Services engaged in discussing how we measure the success of their performance and that of the Purchaser?
3. Do the processes undertaken by the Purchaser add value to consumers of Health Care?
4. Is the Community engaged in discussing performance measures?

Appendix 2: Review of medications policy/PBS medicines

In Australia during 2002-2003, five percent of total hospital expenditure in public hospitals was spent on medicines. Medicines used for in-patients in public hospitals are primarily funded by the hospital under the Medicare Agreements between the States and Territories and the Commonwealth Government. Between Oct 2010 and Sept 2011, WA public hospitals spent more than $205 million on pharmaceutical products with Royal Perth Hospital spending $68.7 million (33%). This $205 million accounted for 3.8% of the total health budget for Western Australia in 2010-2011. In 2016-2017, WA public hospitals spent a total of $306,526,036 on. Of this, only $160,379,647 was recouped through the Pharmaceutical Benefits Scheme.

The National Health Reform Agreement

The objective of the National Health Reform Agreement (entered into by all states, territories and the Commonwealth in August 2011) is designed to improve health outcomes for all Australians and to ensure the sustainability of the Australian healthcare system. The agreement has several clauses which apply to the supply of medications in public hospitals. These include:

G1 -Where an eligible person receives public hospital services as a public patient no charges will be raised. For medicines, the only time where a charge can be raised is if a patient is classed as an outpatient or upon discharge.

G4 - Pharmaceutical services to private patients, while they receive services as admitted patients, will be provided free of charge and cannot be claimed against the PBS.

G5 - States which have signed bilateral agreements for Pharmaceutical Reform Arrangements (see description below) may charge the PBS for pharmaceuticals for specific categories of patients as provided for in the arrangement.

In 1998, as a component of the negotiation of the Australian Health Care Agreements, the Australian Government proposed a package of Public Hospital Pharmaceutical Reforms (the Reforms) aimed at improving patient care and reducing cost shifting incentives. The Reforms allow public hospitals to prescribe and dispense PBS medications, including EFC medicines, to outpatients and patients upon discharge. Prescribing of a range of chemotherapy PBS medications is also available for day-admitted and non-admitted patients. Under the Reforms, eligible patients are able to receive up to one month's supply of PBS medicines. Prior to the Reforms, most patients discharged from public hospitals were given between 2 to 7 days of medication which was not subsidised through the PBS and required an immediate visit to their community GP upon discharge to obtain further prescriptions for medication.

Currently Armadale, Royal Perth Hospital and Bentley Hospital are all involved in the reform arrangement.

Recommendations

To support the WA health system in reducing expenditure on medicines and promoting sustainable spending in this area the following items should be explored:

1. Question whether in 2017/18 the Public Hospital Pharmaceutical Reform agreement excluding inpatient access to PBS medicines is still valid. Having a single funded supply model across the transition continuum has both patient safety and financial benefits to the health system through patients being maintained on the same brands and forms of medicines as in the community and reduced stock holding and wastage in hospitals.

2. Look at the viability of developing a policy and associated communication materials which promote patients to bring in their own medications from home during their hospital stay. This will need to co-exist with a cultural shift of staff attitude towards patient medications. Specifically, staff will need to manage medications in the same way as they would a patient's personal items to ensure they are safe, secure and identified as belonging to certain patient, preferably in a locked individual medication drawer. Staff also need to be educated on the significant cost of re-prescribing medicines if they are lost. Consideration needs to be given whether public hospitals are responsible for all of a patients medicines during an inpatient stay or whether that could be amended to "provision of medicines related to the episode of care".

3. Implement a consistent and robust process where public and private patients are charged the appropriate co-payment for medicines upon discharge as occurs with outpatients. This needs to include the immediate recovery of funds rather than invoicing the patient via HSS.

4. Implement a consistent and robust process where Medicare Ineligible patients are charged for medications supplied while an inpatient or on discharge from hospital as allowed in the WA Fees and Charges Manual. This needs to include the immediate recovery of funds rather than invoicing the patient via HSS.

5. A review should be undertaken on the stock of medications on wards to ensure that medications are not being wasted. This review could also include how to store and control medications where a patient supplies their own from home so that they are returned safely to patients on discharge and not mixed up with hospital supplied medicines for reuse on other patients. In addition ward imprest medication areas should be redesigned to allow nursing staff to access medication doses as required rather than the use of full stock bottles per patient.

Closing the Gap (CTG) PBS Co-payment measure

- Currently the CTG PBS Co-payment Program reduces the cost of PBS medicines for eligible Aboriginal and Torres Strait Islander people living with, or at risk of chronic disease, in the primary care setting.
- Hospitals are excluded from participating in the PBS Co-Payment Measure
- This means patients re-present to hospital when mediations run out as they may not have a metropolitan based GP despite requiring to remain in the metropolitan area for a period of time.
- CTG eligibility status should be linked to the patient to address the portability issue so that the patient is eligible regardless of where they are and who the prescriber is. (http://iaha.com.au/wp-content/uploads/2013/06/20130429-CTG-position-paper_436824_2.pdf)

Appendix 3: Health university

Background

WA Health employs over 40,000 staff. Organisationally staff are managed under the banner of five different Health Service Providers (HSPs) however the nature of the business means that there is alignment of goals and skills with each HSP.

Due to the immense number of staff, training is primarily focussed on clinical staff groups as a priority. WA Health is also in a unique position having a geographically dispersed workforce that further impacts the ability of staff members having access to educational resources.

Currently learning and training is undertaken separately by each HSP and facilitated in different forums, often without formal recognition or the competency achieved.

Some of the ways HSPs are investing in the training of their staff are:

1. As craft groups
2. Provision of mandatory training
3. Provision through funding for external learning facilitators.

Staff surveys have indicated the need to improve opportunities for all staff to improve their knowledge and skill base. Providing this opportunity to staff members has been proven to lead to a more engaged workforce which translates into better patient outcomes.

Proposed Health University

Through the creation of a single educational body for health there would be an opportunity to:

1. Provide a coordinated approach to all staff and provide the ability to identify workforce gaps and tailor training programs to fill those gaps.
2. Improve access to training and ensure a high quality of education is achieved.
3. Provide enhanced opportunities to support research.
4. Continue to ensure that there is collaboration within WA health and the HSPs.
5. Invest in modern technology that will assist in educational provision and access across both the metropolitan and rural sites.
6. The ability to capitalise on specialist knowledge and expertise that currently exists within different health service providers for the benefit of all.

7. Embrace patients as part of the cohort, upskilling patients and consumer representatives to have a clearer understanding of the health system encouraging them to work together with HSPs to achieve positive patient outcomes. Patient and carer lived experience could be used to support and enrich workforce training.
8. Allow HSPs to share experiences/innovations/best practice.
9. Establish consistent competency standards to meet accreditation requirements
10. Allow formal recognition of learning undertaken by individuals and allow assessment of the competency achieved.

Digital technology should be optimised where possible and consideration given to establishing the Health University as a virtual university.

Appendix 4: Information Communication Technology

Background

The WA Health ICT Strategy 2015-2018 focuses on incremental change to stabilise existing systems, build our ICT infrastructure, ensure ICT investment reflects business need and improve organisational capacity and capability.

The Strategy was informed by a comprehensive consultation process across the whole of WA Health and highlighted the need to embed ICT as a business enabler which supports clinical workflows, and to address inequalities in systems across health services.

WA Health's recent reform has highlighted a level of system uncertainty and complexity. The challenge to modernise the current technical infrastructure is reliant on the below dependencies:

- Strong leadership;
- Technical capacity;
- Working relationships;
- Clinical engagement; and
- Health Service operations.

Currently there are a number of barriers existing that may prove detrimental to achieving this vision.

Lack of Funding and no plan for investment

The State Government is facing a period of tight fiscal constraint that will require WA Health to make decisions on funding priorities in relation to current ICT expenditure.

Investments in ICT should be used to improve safety and quality, improve patient outcomes, create a better patient journey, build knowledge to inform research and changes to clinical practices and improve efficiencies and financial sustainability.

Corporate systems need to demonstrate value for money and improve efficiency by streamlining operations and provide interoperability, better management of information and ease of use for employees.

WA Health currently has multiple legacy systems and aging infrastructure that will struggle to be supported in the long term. ICT projects that have had a staged implementation program have taken longer than expected and the risk to EMHS is they may be outdated before implementation is performed.

High Level agreement on a common vision for ICT or an implementation framework on how it will be achieved

A State-wide Health ICT Strategic Framework with a clear and common vision needs to be developed for guidance and to align the direction for WA Health. The Framework should enable the HSP's to develop their local strategic plans and operational priorities for Information Management (IM) and ICT using a common vision.

The Framework needs to include senior stakeholders across the whole of WA Health and allow workshops to be undertaken with stakeholders within each HSP to ensure it contains the right level of detail and requirements.

WA Health need to agree on a minimum baseline of ICT capability which will evolve over time as the ICT systems and EMHS grow.

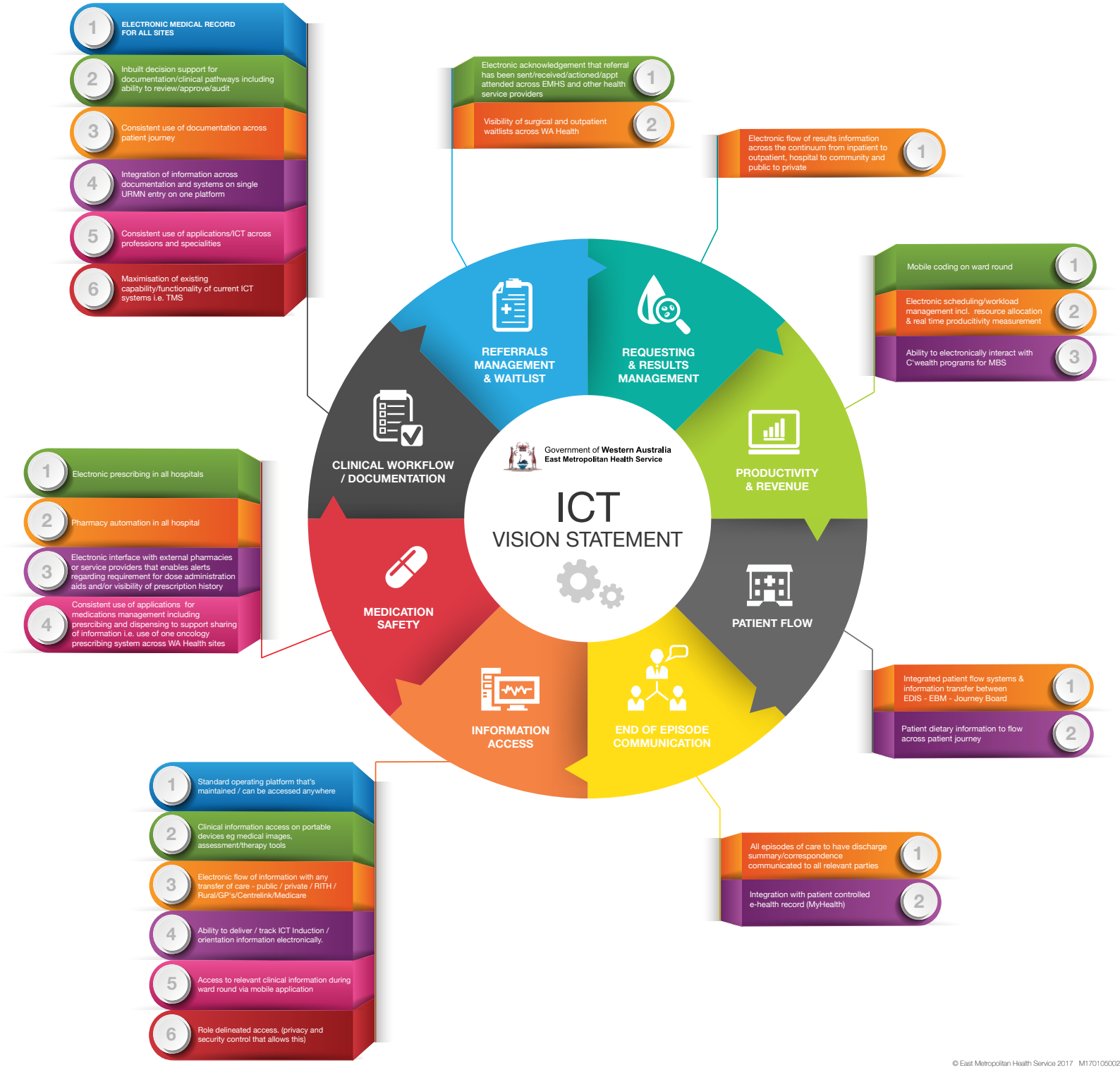
In order to ensure that objectives outlined within the Framework are being achieved, risks are managed and resources are being used responsibility, strong governance is required from a system level and local HSP levels.

Clearly distinguish between the program for maintaining and improving existing systems and a strategy which incorporates new ICT systems and programs.

Separating these elements into two streams with discrete funding allocations will ensure WA Health are well informed on future advances in technology and can make decisions which look beyond the maintenance roadmap.

ICT Vision for East Metropolitan Health Service Infographic

The infographic developed by EMHS demonstrates a cohesive and intelligent ICT Vision for the future state of ICT within EMHS. The Vision is patient and clinician centric and details collaboration at all levels of the patient journey.



Appendix 5: Proposal: Improved Transparency through the Public Reporting of Safety and Quality Performance Data by East Metropolitan Health Service

Background

In line with a recommendation arising from the recently released "Review of Safety and Quality in the WA health system: A strategy for continuous improvement (2017)", this paper summarises a recommended approach to the public release of safety and quality data, with a view to making EMHS an exemplar service in this aspect of community engagement.

Review of literature and discussion paper

A contemporaneous discussion paper, published August 2017 by Queensland Health, discusses options to expand the publication of quality and patient safety data. This is considered a comprehensive representation of the issues in an Australian context and the headline discussion items are replicated below as a guide in the development of an EMHS framework for this purpose.

What should be the purpose of public reporting?

One of the key lessons arising from the recent review of safety and quality in Victoria, was that improving transparency at all levels of the system was a prerequisite to the re-establishment of public trust in Victoria's health services. In this frame, it should be the aim for EMHS to improve its transparency of safety and quality performance in order to strengthen community trust by providing the public with assurance that high quality (and therefore safe) care is being delivered.

Which organisations should report?

At least initially, the reporting of safety and quality data will relate to the EMHS as a collective organisation. With a planned, phased approach to the release of site specific information, EMHS hospital performance will become apparent over time. Where relevant and available, consideration will also be given to the release of information pertinent to the delivery of community and ambulatory care services.

It should be acknowledged that the St John of God Midland Public Hospital (SJGMPH) is already disclosing a number of safety and quality performance indicators to the public via their website. Opportunities for the inclusion of SJGMPH into any EMHS specific publications would require further exploration within the remit of their contract.

Approach to standardising safety and quality reporting

State-wide or national standards regulating the self-reporting of safety and quality data into the public domain by health services are not evident within the review of the literature. It is therefore proposed that EMHS establish robust and transparent standards to guide the description and presentation of information to be placed in the public domain, to avoid a 'piecemeal' approach to this matter.

Who should be the audience for public reporting?

With respect to EMHS and the proposed principal intent of building community trust in the service, it would be consistent to therefore recommend that the priority audience for publicly reported safety and quality data would be patients, as well as the broader audience of "potential patients". Given that EMHS is a publicly funded HSP, the audience of "potential patients" could be taken to mean any member of the general public or broader community. As such, consideration must be given to ensuring that the publication of data is done so with the literacy of the general public in mind at all times.

How should information be reported?

It is proposed that the release of safety and quality data be released into the public domain via a phased approach. The specificity of identifiable performance (organisation and clinician specific) within each phase would be increased over a period of time, as described below:

- Phase 1: Safety and quality performance data reported publicly, identifiable at a whole of HSP level.
- Phase 2: Safety and quality performance data reported publicly, identifiable at an individual EMHS Hospital Group or Site level as appropriate.
- Phase 3: Safety and quality performance data reported publicly, identifiable at a departmental and/or discipline level as appropriate.
- Phase 4: Safety and quality performance data reported publicly, identifiable at an individual clinician level as appropriate.

Table 1 (overleaf) details the main components of each of the phases defined above. The release of information (noted as "external release") would only occur following an internal process of review (noted as "internal release"), validation and stakeholder engagement, giving some assurance that upon release into the public domain, the information is sound, robust and defendable and that any risks to individuals or specific departments have been duly considered and mitigated.

Where should the information be reported?

In relation to public reporting of safety and quality data, it is important to align the requirement for reporting a comprehensive and transparent suite of indicators in the public domain, with the need to interpret and display that data in such a way that promotes understanding amongst stakeholders who may have limited health literacy.

The Queensland Health discussion paper states that, in regard to public reporting that, “the frequency of publication, format, ease of accessibility and channel for reporting all need to be considered” (pg. 12). Whilst it is proposed that safety and quality performance data is principally reported to the public via the EMHS website and organisational publication, it is recommended that safety and quality data adhere to presentation guidelines developed for this purpose.

Risks and barriers to public reporting

A number of risks that may be realised through the release of safety and quality data into the public domain were identified in the analysis by Queensland Health. These pertain primarily to organisational reputation and image in the form of adverse media coverage and/or otherwise reduced public perception if poor performance is required to be publicly reported.

In order to remediate the above, it is recommended that a parallel body of work be conducted to proactively plan for any organisational response to circumstances where poor performance is publicly disclosed. This work should plan, using a risk management approach, an EMHS response to circumstances of self-reporting underperformance against safety and quality targets, as well as describing the corporate messaging which will be utilised to provide assurance to the public that steps are being undertaken to remediate the identified deficit.

In order to ensure that these risks are duly considered and managed, it is recommended that this program of work be progressed under the auspices of the EMHS Safety and Quality Committee. As part of this role, it is recommended that this Committee lead any organisational response observed to be required to mitigate risks or issues identified with the publication of safety and quality performance data.

Conclusion

The EMHS could become an exemplar service utilising a planned, phased approach for improved transparency, through the release of safety and quality information into the public domain.

Table 1: Proposed phases for the public reporting of EMHS safety and quality data

Green = EMHS aggregate data only

Red = Hospital level data

Blue = Unit/specialty level data

Brown = Clinician level data

Phase	Timelines	External Release	Internal Release
Phase 1	1 November 2017	**Preventing infections in our health service** • Hospital acquired bacteraemia • Hand hygiene compliance **Stories from our patients** • Patient Opinion stories and trends **The Patient Experience** • Survey results	**Caring for our mental health clients** • Unplanned readmissions • 7 day follow-up **Getting it right the first time** • Unplanned readmissions – procedure specific • Complaints numbers and actions taken **Learning for Patient Safety** • High level incident overview and strategies • Falls incidents • Pressure ulcer incidents • Medication error incidents

Phase	Timelines	External Release	Internal Release
Phase 2	1 April 2018	**Caring for our mental health clients** • Unplanned readmissions • 7 day follow-up **Getting it right the first time** • Unplanned readmissions – procedure specific • Complaints numbers and actions taken **Learning for Patient Safety** • High level incident overview and strategies • Falls incidents • Pressure ulcer incidents • Medication error incidents	**Monitoring mortality for safety** • In hospital mortality rates **Preventing complications in hospital** • Hospital acquired complications **Preventing infections in our health service** • Hospital acquired bacteraemia • Hand hygiene compliance **Caring for our mental health clients** • Unplanned readmissions • 7 day follow-up **Getting it right the first time** • Unplanned readmissions – procedure specific • Complaints numbers and actions taken **Learning for Patient Safety** • High level incident overview and strategies • Falls incidents • Pressure ulcer incidents • Medication error incidents

Phase	Timelines	External Release	Internal Release
Phase 3	1 July 2018	**Monitoring mortality for safety** • In hospital mortality rates **Preventing complications in hospital** • Hospital acquired complications **Preventing infections in our health service** • Hospital acquired bacteraemia • Hand hygiene compliance **Caring for our mental health clients** • Unplanned readmissions • 7 day follow-up **Getting it right the first time** • Unplanned readmissions – procedure specific • Complaints numbers and actions taken **Learning for Patient Safety** • High level incident overview and strategies • Falls incidents • Pressure ulcer incidents • Medication error incidents	**The Patient Experience** • Survey results **Preventing infections in our health service** • Hospital acquired bacteraemia • Hand hygiene compliance **Learning for Patient Safety** • Falls incidents • Pressure ulcer incidents • Medication error incidents **Getting it right the first time** • Complaints numbers and actions taken

Phase	Timelines	External Release	Internal Release
Phase 4	1 Jan 2019	**The Patient Experience** • Survey results **Preventing infections in our health service** • Hospital acquired bacteraemia • Hand hygiene compliance **Learning for Patient Safety** • Falls incidents • Pressure ulcer incidents • Medication error incidents **Getting it right the first time** • Complaints numbers and actions taken	**Monitoring mortality for safety** • In hospital mortality rates **Preventing complications in hospital** • Hospital acquired complications
Phase 5	1 July 2019	**Monitoring mortality for safety** • In hospital mortality rates **Preventing complications in hospital** • Hospital acquired complications	
Other areas to be explored and incorporated into the phasing once further developed		• Patient Reported Outcome Measures (PROMs) • Australian Council of Healthcare Standards (ACHS) Clinical Indictor Suite • Australian Commission on Safety and Quality in Health Care (ACSQHC) Clinical Care Standards • Select indicators from speciality specific audit processes e.g. survival rates etc. • Goals of Patient Care • Local audit via internal systems e.g. CoBRA • Clinical audit outcomes	

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Time for Transparent Standards in Quality Reporting by Health Care Organizations.

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Appendix 6: Horizon Scanning

Horizon scanning refers to the process of systematically examining new developments with the aim of improving long term planning, the anticipation of future needs and the early adoption of new technologies and practices.

A robust **process** and **structure** for horizon scanning, and a **culture** which supports it is critical to develop strategies which are forward thinking. This applies to a broad range of areas in health and needs to be incorporated into existing health system processes and frameworks including the CSF and Purchasing Framework. Effective horizon scanning will provide current information to alert decision makers, planners and policy makers of new developments and shape models of future service delivery.

Areas where horizon scanning should be incorporated include:

- Innovation hubs
- New technology
- New workforce models
- New disease profiles
- New treatments

The use of horizon scanning to support clinical practice, policy innovation and health service management practice will provide a tool for the health system to better integrate longer term strategic responses to issues that may otherwise be progressed with largely in the context of the immediate environment.

Appendix 7: Coordination of care

As health care services grow in size and complexity, achieving consistent high-quality patient experience is dependent on coordination of care. This includes internal coordination within the health system but also beyond, through coordination within and between external organisations.

The increased pressure and demand of health services is driven by three main factors:

- Ageing population
- Increase in prevalence of Chronic Disease, and
- Increase in expectations

Effective coordination from both internal and external aspects is required to address these factors.

Internal

Within the health system coordination underpins every patient journey as care is often provided in multiple health care settings by multiple health care providers.

Best practice for coordination of care involves a multifaceted approach which includes comprehensive care planning and management; multidisciplinary, coordinated team-based care involving medical and non-medical health providers; patient education and self-management; and ongoing monitoring and follow-up.

There is a demonstrated need for improved coordination of care and this has been supported by:

- High rates of medical errors
- Unmet needs
- Poor satisfaction with care
- High rates of preventable readmissions
- Human, time and cost burden.

Successful care coordination requires several elements:

- Good communications and effective case management including care transitions between providers and establishing accountability and agreeing on responsibility
- A focus on the total health care needs of the patient by assessing their needs and goals
- Clear and simple information that patients can understand
- Patient –centred medical home

- Teamwork; both within the health system and with patients to enable patient empowerment and increase health literacy
- Effective health information technology systems that enable information sharing
- Allocation of responsibility for monitoring and follow-up, including responding to changes in patients' needs
- Support to manage the patients' self-management goals and realigning where appropriate
- Providing the patient with a link and access to community resources
- Working to align resources with patient and population needs as they change

Current Models

Several models currently exist nationally and internationally. Majority of these models rely on consumers / patients making intermittent visits, either through outpatient events, primary or secondary care for feedback regarding current progress, pre-determined historical follow-up protocols and use of emergency services to deal with crises rather than prevention.

Focus Going Forward

Within the health system Health Service Providers (HSPs) need to capitalise on population responsibility with a focus and measurement of outcomes.

Analysis of population outcome data (morbidity and mortality) will allow a target program to:

a) Identify populations with modifiable risks. Commencing with a small target population or disease, develop a clear process with goals outlining what constitutes a success e.g. COPD / DM / Care in Nursing Homes.

b) Align Case Management services to the needs of the population.

c) Consider inverting the pyramid by promoting "specialist early – community regularly" which will assist in:

   a. Early identification of at risk / early disease process

   b. Aggressive intervention at the early stage of the diagnosis to prevent progression and complications by the specialists. This will be supported by the use of patient education and empowerment and achieved by:

      i. assessing patients' needs and goals

      ii. creating a proactive care plan

iii. monitoring and follow-up; including responding to changes in patients' needs

iv. supporting patients self-management goals by enabling patients to deal with both chronic and acute elements of their disease

v. support and encourage cross organisation integration, reduce confusion and improve ease of navigation by using consistent titles throughout the workforce and align their roles across the health system (e.g. discharge coordinators and care coordinators – different titles but all may be doing the same role)

vi. use of a broader workforce and workforce substitution e.g. nurse practitioners, Advance Scope Allied Health led clinics, building therapy assistant workforce.

vii. better integration including working with current providers of community support e.g. pharmacists, opticians, podiatrists etc.

c. Monitoring support close to or at home within the community

d. Investment in technology to allow information sharing and empowerment.

d) Incentivise and drive Key Performance Indicators (KPIs) in order to ensure all stages in care coordination are supported which will eventually lead to reduced need for admission and /or outpatient visits.

External

Consideration of broader determinants of health is key to improving the sustainability of the health system and requires stronger partnerships to be formed with other government agencies and non-government organisations to enable effective coordination of care to our population.

Australia's Health 2016 outlines key determinants of health as social, biomedical risk factors and behavioural risk factors https://www.aihw.gov.au/reports/australias-health/australias-health-2016/contents/determinants .

Making improvements to socioeconomic positions of our population, including employment and work, housing and the residential environments can positively impact the health system. There needs to be coordination across organisations to achieve significant changes.

Appendix 8: Primary Care

Background

Primary Care can be broadly described as care provided in community settings encompassing services such as: prevention and screening, early intervention, and the treatment and management of health conditions. Primary care service providers include GPs, general practice nurses, allied health practitioners, pharmacists, dentists and Aboriginal health professionals.

Primary care is largely funded through the Commonwealth via Medicare.

In a sustainability context, primary care offers the prospect of a more cost effective model of care and a tool in managing demand for hospital services while maintaining patient health outcomes.

Current Issues

- WA has fewer GPs per capita than other states (77 GP's per 100,000 WA compared to 95 GP's per 100,000 nationally). In August 2017 Healthfix Consulting estimated that as a consequence the hospital sector required to pick-up a shortfall in service valued at $430M per annum.
- State Emergency Departments have very low barriers to entry – they are provided without cost at the point of service, are available 24 hours per day every day of the year and do not require an appointment. As a consequence they are an accessible option for many in the community as an alternative to General Practice.
- Within the state system funding is allocated through the Activity Based Funding (ABF) model. This is a model which may reward throughput rather than outcome.
- The limited engagement between hospitals and community based staff impacts on the ability of the health system to provide integrated and coordinated care.
- There is considerable frustration among clinicians at the fragmented nature of patient records, and the relatively low level of clinical facing IT and software products available in WA Health. Current systems do not allow clinicians to view complete patient records, even across WA Health facilities and services, much less with the Primary care providers. Discharge communication has significantly improved, but no other correspondence is sent to GPs by secure electronic messaging (eg Outpatient letters). Nor are there automated, reliable mechanisms for referral. As a consequence there is a lack of coordination and duplication of service delivery.

Proposals for sustainability

Areas of opportunity for WA Health/Health Services to collaborate with primary care to develop more sustainable models and improved health outcomes include but are not limited to:

- **New funding model**

  Flexible funding models where the funds follow the patient (bundling) need to be explored to enable more equitable access to care, better match of resources to care requirements, reduce disincentives and allow development of innovative service delivery. Consideration of alternative models that integrate hospital and social care, or the option to move outside of the ABF model where there are demonstrable efficiency gains, will contribute to a sustainable health model and may facilitate earlier intervention and better management in areas such as chronic condition management.

- **Coordination of care**

  Patients and health providers need to be able to navigate through the health system, with a better awareness of what care is provided in each setting, and how these services are linked.

- **Improved health and condition management:**

  There is substantial opportunity to address the ongoing need for improved access to specialist assessment, and ambulatory intervention, for non-admitted patients particularly those with chronic, complex health care needs. Simultaneously, there needs to be disinvestment from expensive, episodic, hospital centred care that does not meet the needs of clients.

  - health promotion and disease prevention (specifically to coordinate efforts/maximise impact/avoid duplication)
  - early detection and screening
  - consumer health literacy and health education (See Health literacy in the EMHS submission)
  - emergency and acute care GP advice and referral pathways (e.g. After-Hours GP services, Comprehensive Primary Care/Health Care Homes, HealthPathways, Acute Medical pathways, redesign)
    - 355 individuals presented 10 or more times to EMHS EDs in 2016-17, with an annual expenditure per individual estimated to be $54 000.
  - shared care (e.g. Maternity, potential expand into other conditions)
  - chronic condition self-management

- care coordination for chronic and/or complex conditions, including linkage to Comprehensive Primary Care/Health Care Homes and upskilling use of non-medical staff to support care where appropriate. Community-based programs such as COPD Linkage and Heart failure nurse support programs have a good evidence base. Perverse incentives around reduction in activity and the likelihood of keeping the less sick out of hospital thereby those admitted are frailer, more complex cases with longer stays need to be addressed.
- end of life care (including better identification of life-limiting illness and communication with consumers and other health professionals involved in that patient's care around the diagnosis, prognosis and options for both malignant and chronic conditions. Use of Advance Care Planning and Advance Health Directives needs to be encouraged and supported and mechanisms to engage the GP in the Goals of Patient Care initiative need consideration.)

- **Information sharing and communication**:
  - transparent service information to facilitate improved use of existing services and streamlined referral processes (e.g. Hospital websites, HealthPathways)
  - improve communication with and between GPs (significant progress on discharge communication but outpatient communication still lacking, and neither ED or OP correspondence sent by secure electronic messaging) and facilitate electronic referral maximising auto-population of relevant clinical and demographic information and decision support to ensure adequate information is included including required investigations.
  - electronic record sharing (While not a substitute for direct communication with GPs, increasing information uploaded into the My Health Record will facilitate improved information sharing. This will not be a complete solution, with potential limitations due to patient ability to opt-out and hide information. Additional investment in integrated clinical information systems and the hardware to support them is required to realise the potential in this area.)

- **Research, education and training:**
  - research and research translation involving primary care / GPs and specifically focusing improved care across transitions and on sustainability
  - GP education and upskilling (including HealthPathways, GP educational events and networking with health service staff, GPs upskilling in clinics, increased training and use of GPs with Special Interests (GPSIs) and hospital outreach)
  - Medical staff education around what GPs do, what conditions they can manage (with a view to unnecessary reducing internal referrals – HealthPathways may be useful tool which hospital staff should be encouraged to consult prior to internal referral that is not in line with standard disease management protocols) and the importance of good GP communication. GP Units within hospitals, GPs working in ED, clinics and inpatient settings can also help educate staff.

- **Specific health areas for focused attention include**
    - Aboriginal Health
    - Migrant and refugee health
    - Mental Health
    - Prison Health
    - Child and Youth Health, and transition from youth to adult care
    - Aged Care

Partnerships and collaboration across health services and with public health are key enablers, with the Aboriginal Community-controlled Health sector, WAPHA, Migrant health, Mental health, Aged Care, NGOs and other government agencies such as Corrective services.

Appendix 9: Early Intervention

Background

The goal of early intervention in the Health Sector must be to improve patient outcomes and to use health expenditure more efficiently. Most disciplines within the hospital would be aware of specific interventions relevant to their areas of practice. These interventions are not put into practice for reasons such as lack of workforce requirements, financial factors or lack of a project manager.

Examples of Early Intervention

Some examples of the potential of early intervention are:

1) Endocrinology

a. Diabetic Foot Service. Diabetic foot problems are a major source of patient morbidity and hospital admissions. RPH currently has a limited in-patient foot service for the management of severe diabetic foot problems. This has proved to be a cost-effective model of care. This could be extended to include out-patients and referrals from General Practice or the Emergency Department.

b. Capturing patients with Osteoporosis through the Fracture Clinics. Identification of such patients with subsequent specialist review would reduce patient readmissions with subsequent fractures.

c. Providing a broader service for diabetic patients whilst an in-patient. Currently the Endocrine Unit sees referrals only. Another model of care would be to review all diabetic patients in the hospital as part of the Endocrine Service.

2) Cardiology/Respiratory

a. Smoking Cessation Service. Smoking contributes to cardiac and respiratory problems. Being able to assist patients with the specialised interventions that are available for smokers would significantly reduce cardiovascular and respiratory disease burdens.

b. Physiotherapy programs such as cardiac and pulmonary rehabilitation. These programs are tailored to patients' needs and are provided in a tertiary, general and community facilities based on acuity, co-morbidities and risk. These programs follow best practice and improve quality of life and reduce presentations and admissions to hospital. We should further partner with primary care to facilitate early identification/diagnosis and referral to these programs.

3) Aged Care

a. Managing and early intervening in the care of the elderly frail patient would keep them in their own home as long as possible and reduce their presentations to tertiary hospitals.

b. Foster further partnership with community based assessment and interventions through linkages to services such as Silver Chain, aged care providers, community based physiotherapy services.

c. Implementation of "Discharge to Assess" programs for presentations to ED and admissions to acute assessment unit. Patients and their immediate needs are assessed by the MDT but ongoing needs are assessed in the community by an integrated health and social care team. Example in Sheffield UK, where the hospital and home teams are under the one employment and patients are seen according to need e.g. may be visited up to three times a day at home, resulted in a 37% increase in patients discharged on their day of admission or the following day. Whilst we already have ability to refer to the community for services, the concept of discharge to assess has not been realised. Can this be achieved through redirection of resources or through improving integration between hospital and existing home care services?

4) Other Examples of Early Intervention

a. Early management in the community of patients with conditions such as osteoarthritis e.g. of the knee. These patients need to be provided with best practice care i.e. comprehensive assessment, appropriate radiology, self-management and education, assistance to lose weight and exercise (access to dieticians, exercise prescription, exercise programs).

b. Services are already provided within general practice and some community based/funded programs but access to these services for our population can be prohibitive. Screening clinics by Allied Health need to be further rolled out. Clinics such as orthopaedic screening clinics are in place in some WA health services and widely in the Eastern States. Run by a physiotherapist these clinics provide early assessment of patients referred and ensures patients that go on to a surgical appointment are those that need a consultant opinion and / or progress to surgery. Patients who can be effectively managed conservatively in this way may also be seen earlier than if they were to await a specialist opinion only to then be referred for conservative management. Clinics of this nature beyond just orthopaedics are in existence but not widely implemented e.g. Physiotherapy spinal/ back pain, Physiotherapy in Gynaecology, Speech Pathology Swallowing (with ENT) and Physiotherapy ENT Vestibular. Consider development of appropriate other clinics, which may also involve other allied health professions.

These suggestions serve to demonstrate the wide range of early intervention that can be useful. All Departments would have disease–specific recommendations for early intervention.

The challenge facing the health system is having the right infrastructure to implement early interventions. Resources to provide a coordinated focus and support early intervention across the system would allow progression in this space.

Conclusion

An emphasis on early intervention would be an innovative step for the health system as most secondary and tertiary health services deal with the consequences of established disease. System and funding models to support and encourage early intervention are key enablers for this to occur.

Appendix 10: Health literacy

Background

Health literacy is a term used to describe how people understand information about health and healthcare and how they use this to make decisions about their own health care management. Low levels of health literacy negatively impact the individual, the healthcare organisation and the system as a whole.

To make positive impacts on individual health literacy, it is essential that changes are made to the health literacy environment. The complexity of the health system is challenging for both consumers and providers and this complexity contributes to poor outcomes. Changes to and development of policies, processes, materials and relationships can improve the health literacy of consumers and providers.

In 2011, the National Safety and Quality Health Service (NSQHS) Standards were endorsed and Standard 2 focusses on Partnering with Consumers. In 2014, in recognition of the importance of health literacy health outcomes, the Australian Commission on Safety Quality in Healthcare published "Health Literacy: Taking action to improve safety and quality".

Future State

Australia does not yet have an agreed national approach to Health Literacy, however some individual states have developed Action Plans to address this need. (Tasmania has a Communication and Health Literacy Action Plan).

In the absence of an agreed national approach, WA needs to develop systems and policies at an organisational and societal level that support action to address health literacy. Health literacy needs to be embedded into high level systems and integrated into education curriculums (eg schools, and adult education programs to support the consumers and university courses designed for health professionals to support the future providers).

To assess current levels of health literacy within health organisations the WA DOH should recommend a review of all health organisations according to The 10 Attributes of a Health Literate organisation and as a program this can lead to the co-ordinated development of resources to assist organisations to improve health literature.

There are opportunities to educate consumers along the health continuum and partnerships with other programs such as:

- Promoting consumer (and clinician) use of the My Health Record (MyHR), and ensuring WA Health uploads relevant information as soon as possible, including pathology and imaging reports and emergency department and outpatient correspondence (Only Inpatient discharge summaries are currently uploaded if the patient has a MyHR).

- WAPHA Health Pathways could be leveraged. Health Pathways are currently developing pathways to assist GPs in managing patient conditions and navigating the wider health system as required. A similar program aimed at consumers could go some way to improving health literacy and managing expectations of consumers in the current health environment. A consumer education program could align with the launch of this type of program, potentially including some of the topics outlined below.
- Consumer education/information (including versions suitable for Aboriginal patients, English-as-a-second-language/non-English speakers and alternative forms) would be beneficial on:
    - The role of the GP as the primary care co-ordinator and the value of regular review for ongoing health conditions, possibly building on the Comprehensive Primary Care and Health Care Homes initiatives being implemented by WAPHA. Correctly identifying each patient's GP and encouraging every patient interfacing with Health Services to have a GP is essential. Assisting them to identify one if they don't would be helpful.
    - Advise/information on how to seek appropriate emergency care and what options are available including After-hours GP services and the role of Emergency Departments. A consumer-facing HealthPathways development could help provide consumers with some decision support for specific symptoms/illnesses/injuries. Encouraging patients to book early if they are unwell and to see another GP in the same practice if their own GP is unavailable, would also improve continuity of care.
    - Chronic condition and End of Life Care decisions and options. Examples of programs which empower and support consumers to explore and express their choices include but are not limited to Chronic Condition self-management programs, Cardiac and Pulmonary rehabilitation education sessions, Advance Care Planning and the Goals of Patient Care initiatives.
    - The function of general and tertiary hospitals, including how to prepare for your appointment/admission, what to bring, telehealth and other options and managing expectations around referral processes, waiting times, communication and follow-up arrangements. Individual hospital websites, brochures and correspondence do contain some information but there is significant scope for improvement and ideally there would be as much uniformity as possible to make the process easier for consumers.

Poor health literacy comes at a great cost. A focus on the importance of this at a high level and the development of supporting tools, policies and guidelines at all levels is required to make a positive impact on this complex issue.

Appendix 11: Contemporary workforce models

There are a range of factors that influence the capacity to introduce contemporary workforce models. These include, but are not limited to:

- Demarcation between, and opposition by, occupational groups where changes may result in work being undertaken by a different occupational group.
- The involvement in unions and professional bodies who will seek to protect the interests of their membership.
- The industrial relations framework to establish new roles and models of service delivery. This would include remuneration setting for new roles and the capacity/costs involved where introducing expanded hours of service.
- Public perception of the introduction of substituted roles and the perceived impact on patient care and outcomes.
- Registration and accreditation issues, where new work roles are developed.
- Failure to provide challenges in the workplace may lead to dissatisfaction among professional groups who have contemporary levels of educational preparation, and may affect retention.
- The appetite of Government to support changes in the face of opposition from interest groups.

Future state

- Smarter, innovative, more efficient workforce models need to take the place of traditional workforce planning and management in all professional groups. Models need to be supported by evidenced based research and practice, and education and training at university and in the vocational education and training (VET) sector need to be modified to align.
- The future healthcare workforce needs to include interdisciplinary service models, supported by clinical education and training frameworks and practices and driven by a culture of collaboration.
- Build on the digital literacy of the health workforce through integrated ehealth strategies.
- Increase utilisation of technology in the provision of services

- There are a range of workforce substitution roles that have already been established and further consideration could be given for further development.

  These include:

  - Therapy Assistants
  - Assistant in Nursing
  - Advanced Practice Health Professionals
  - Advanced Practice Nursing
  - Nurse Practitioners

- As professional roles at the high end are expanded, substitution of less complex tasks to other roles should be considered.
- The health system to review workforce models in countries that have a lower workforce level, to get ideas for substitution.
- Introducing new responsibilities and functions to current roles and creating new roles.

  This includes:

  - Introducing prescribing rights for health professionals
  - Introducing Multiskilled Health Workers

  This role would focus on assessment functions where a single practitioner undertakes a comprehensive assessment of a client's needs on behalf of all members of the care team..

  - Introducing Physician Assistant positions.
  - Providing additional administrative support for clinical practitioners to enable them to spend more time providing direct patient care rather than administrative tasks

Appendix 12: Mental Health governance and more holistic models of care

Governance

Key issues with the current governance structure for mental health at the system level

- There is a lack of standardisation of governance for mental health across services (NMHS, SMHS, EMHS, WACHS and CAHS)
- There is an unequal distribution of resources across mental health services in WA, specifically related to authorised and secure beds
- There is insufficient integration and communication between the multiple governing bodies for mental health with roles and functions ill defined and variably understood.(the Mental Health Unit, Office of the Chief Psychiatrist, the Mental Health Commission)
- There is inadequate consultation with health service providers about the specific needs and demands of the population in regard to mental health service provision
- Commissioning and procurement processes across the various areas delivered to NGO, Alcohol and Other Drug (AoD), housing, primary health, employment and mental health sector separately lead to wastage, duplication and convoluted service delivery.
- There is poor interface between mental health and drug and alcohol services (e.g. funding)
- Lack of integration between the governance for NGOs and health service providers is a lost opportunity and makes it more difficult for mental health service.
- There is a limited role for mental health professionals in NGO organisations in decision making about the utilisation of resources

Strategies to address issues

- There should be better alignment between the major governing bodies for mental health with clear definitions of purpose, role and function and this widely articulated. The merits of funding through one singular body for all of health services should be considered
- There should be better representation of senior mental health professionals within the major governing bodies and in discussions between these major organisations
- Distribution of resources should be evidence based and incorporate public health and population studies
- Investigation of other models (including international) of governance for mental health to guide our structure

- Mapping of resources around the allocation / utilisation of NGO limited resources to ensure that these go to the most vulnerable
- Communication and integration between mental health services and drug and alcohol services because of the associated comorbidity
- Look to innovation and consider contemporary models of care that change the way we manage mental health

Holistic / contemporary models of care

- Should be aligned to the 4th National Mental Health Plan priority areas of social inclusion and recovery, prevention and early intervention, service access and continuity of care, quality improvement and innovation.
- Mental health patients frequently have poor physical health and this should be a priority for all services to address and develop innovate ways to integrate / coordinate the management of these aspects. Examples are GP clinics onsite at mental health services, joint consultation rooms (e.g. GP and psychiatrist; obstetrics and psychiatrists) in primary care
- The care coordination model should be expanded with commitment to staff education and formalised agreements with various organisations in order to set appropriate standards of care for all mental health patients. This model promotes engagement of carers / consumers and NGOs and facilitates a recovery focus principles
- Standardise the program management model across services
- In accordance with the Mental Health Act 2014, there should be an ongoing emphasis to engage consumers in all aspects of service delivery, design and evaluation and individual management plans. This can be achieved by the inclusion of peer support workers and carer consultants within the workforce in both inpatient and community based services
- Strong focus on the further development and strengthening of specialist community services/ community based care that prevents escalation into the tertiary health care system e.g. HITH, Early Episode Psychosis, Co-Response etc.
- Priority should be given to innovative models and treatments e.g. MHOA, PICU, dedicated youth mental health services
- Urgent review of the function of State-wide mental health services to ensure that these resources are deployed efficiently and are contemporary. This includes access to care in rural and remote areas

- Investment should be provided to modernise mental health service delivery to include the use of technology e.g. tele-psychiatry, apps specifically for mental health consumers, web based mental health learning (e.g. online therapy)
- Expand the availability of procedural treatments to public mental health patients e.g. Transmagnetic Magnetic Stimulation (TMS), neurofeedback and ECT
- Ongoing investment is required to ensure that research is given adequate resources (e.g. dedicated FTE) and that it informs our practice (e.g. translational research)
- Early intervention programs should be well embedded into service delivery and expanded beyond first episode psychosis (e.g. mood disorder clinics, sleep clinics etc.)
- Review of the demand for subacute services in order to allocate resources accordingly (e.g. assessment of the benefit of rehabilitation wards, community in-reach etc.)
- Development of a formalised accommodation strategy to ensure that mental health patients with severe disability are placed in suitable / affordable accommodation to ensure their recovery and a commitment to address homelessness
- Development / implementing education and training (e.g. mandatory training) across mental health staff so it is accessible and high quality
- Implement single treatment services for aged care patients with a funding system to support better integration of physical health care and mental health care
- Integrate youth mental health with social services, supported by an appropriate funding framework.

Appendix 13: WA Centre for Health Innovation

Background

As part of its election commitment the WA State Government announced the formation of an Innovation Hub to be located on the RPH campus. An Innovation Hub will provide accommodation and services to start-up and established collaborative medical innovation research organisations. Under the Government's plan, RPH will become a leading modern medicine hub that hosts and fosters new research and thinking on health service delivery.

RPH is WA's longest serving hospital dating back to 1829 and has long been held as an exemplar site for teaching, innovation and research with notable national and international achievements. The creation of an Innovation Hub within the new inner city precinct, to be known as the Western Australia (WA) Centre for Health Innovation, is an exciting opportunity for the East Metropolitan Health Service as well as the broader WA health system.

WA Centre for Health Innovation Stakeholder Engagement Forum

EMHS acknowledges that the early involvement of stakeholders is critical to ensure the development of an effective, creative and inventive strategy for the WA Centre for Health Innovation. A stakeholder forum was held on 12 September 2017 at Kirkman House to start the conversation. Attendees included a diverse range of stakeholders from the research and government sector, as well as industry representatives from tech and innovation companies, as outlined below.

Dr Deborah Cousins	Department of Jobs, Tourism, Science and Innovation
Prof Michael Berndt	Curtin University
Prof Trevor Davison	Central Queensland University
Mr Joseph Cain	Philips Population Health Management, ANZ
Professor Jim Codde	Notre Dame University
Ms Marion Burchell	Office of the Government Chief Information Officer
Adjunct Prof Warren Harding	Curtin University
Mr Bruce Dwyer	Philips Population Health Management, ANZ
Ms Claire O'Farrell	Medibank
Prof David Morrison	Murdoch University
Ms Cath Resnick	Kinchip Systems
Prof Greg Blatch	Notre Dame University
Prof Hugh Barrett	University of Western Australia
Prof Margaret Jones	Edith Cowan University
Mr Rodney Thiele	Scitech
Mr Nesh Sooriyan	SpaceCubed
Prof Garry Allison	Curtin University
Associate Prof Natalie Ciccone	Edith Cowan University
Dr Christobel Saunders	UWA Medical School
Prof John Challis	WA Health Translation Network

The process

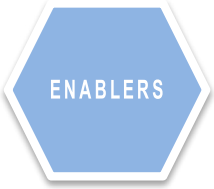
Attendees were initially tasked with the challenge to 'be bold'. The group collectively discussed the vision for an Innovation Hub at RPH.

Attendees then broke into small groups to brainstorm ideas across the following five areas:

What are the goals and vision for an Innovation Hub?
How does this fit with EMHS's vision of *healthy people, amazing care* and RPH's goal *to become the safest hospital in Australia?*

What should be the key focus of the Innovation Hub?
Should it have a specific focus or maintain a broad remit?

Who are the key individuals/organisations/industries that need to be engaged in the development and delivery of an Innovation Hub?



What are the enabling factors to ensure the successful establishment and delivery of an Innovation Hub?

What opportunities can we capitalise on to assist in the establishment and delivery of an Innovation Hub?

Summary of discussions

Bold ideas

Make every patient encounter an opportunity to be a 'research project' to improve care/outcomes	Improve patient outcomes by delivering value based health care across RPH	Payment by outcomes	Commercialised research outcomes
Make RPH an incubator/lab for clinical practice changes	Bringing stakeholders together to problem solve e.g. FLUX	SPARK co-lab	Rock Health partnership
Linking into other innovation entities and precincts	Innovation distribution centre	Removing the traditional ownership boundaries between different stakeholders	Centralised project management and outsourced services
Increase health economies	Economic modelling	Must stimulate and support the ecosystem	Less $ on build more $ on service
Simulation	Consumer engagement	Readmission avoidance	New (novel) service delivery areas
Data Linkage → Primary Health Network → Individual records	Data Linkage e.g. emergency medicine	WA Health Translation Network for education programs/translate research into practice	Focus on problems looking for solution rather than solution looking for problem
Physical or virtual location?	Why 'hub'? Why place bound? Autonomous trucks, remote surgery, the internet…	Prototype scaling for common health issues with reinvestment if commercialised	Fund or incubate state health Intellectual Property

Ensure there is a 'web lab' component	Ensure you start in the right place, do not make assumptions	Must be agile – governance, funding/procurement, risk matrix, learning	Block chain technology
Not only resource sector investors	Remove the traditional ownership boundaries between different stakeholders	Co-creation between industry + government	Greater connection across other sources of health care
Educating investors about health innovation	Fund entrepreneurs in residence	Increase the pace of ideation and market validation of ideas	Commercial vs. non-commercial innovation
Indigenous health outcomes innovation	Inner city health	Put the hub somewhere it is needed i.e. where the need is highest	Consumer perspective driving innovations. What is the role of the consumer in the process?
Focus on reducing amount of time patients spend in health system (especially hospitals)	Patient input informing care	Commercialising vs. non-commercialising care	Innovators a network of investors, look at StartUp Health
University of Waterloo innovation experience	Hospital, GP, Aged Care co-location	Education	Next generation →Partnerships and education →Inform training →Appropriate skills

Goals and Vision for an Innovation Hub

- Broad vision
- Clinical focus
- Patient centric, looks at ways to change patient care
- Focus on systems and culture
- Doctoral training centre
- Innovative health system and services
- Interprofessional training
- Data linkage
- primary health care transition
- Best quality healthcare
- Renowned
- Think big
- Goals targeted and tailored
- Vision statement easily links to outcomes of the innovation hub
- Use/collection of innovative data to do core business better
- Opt in and opt out research functionality
- Unique services at RPH to use as start up
- Tied to the legacy and history of RPH
- Be ambitious
- Shift in focus from hospitals and the sick to keeping people healthy and out of hospital
- Vision for whole of WA/bigger than WA
- What does the vision for the future health worker look like?
- Goals and vision easily understood by patients, stakeholders and staff
- Reputation for the best quality healthcare
- Developing the vision and skills to contribute to the health worker of the future
- Translation to improve health care
- Environment of rapid application
- Leader in ideas
- Facilitation service
- ‘Hub’ is not limited to one location
- Look to others e.g. Israel, Texas Medical Centre, Boston, Harvard
- Preventive health
- Breaks down silos

Focus of an Innovation Hub

FOCUS

- Focus on what we do we do well
- Play to strengths
  - Identify themes e.g. trauma, BIU, telehealth
  - Interconnection with researchers
  - Build on reputation
- Facilitate/support innovation
- Accessibility
- Who are our customers?
- What are the community needs?
- Location/disease process
- What are our problems, can we problem solve to develop solutions?
- Targeting most at risk population
- Leading cultural change/empowering staff to be involved
- Efficiencies of care
- Data linkage and data to drive change (i.e. health service research)
- Block chain
- Focus on enablers
- Patients versus clinicians versus researchers or disease process
- Targeting high cost
- Increase quality care
- Decrease hospital length of stay
- Next generation – opportunities for undergraduates/graduates
- Augmented reality, wearable technology
- Supporting/identifying innovation
- What is happening elsewhere (local, national, global mapping) → do not reinvent the wheel
- What are we not going to do?
- Monetary/non-monetary value e.g. job skills
- Diversity – high performing teams
- Automation – artificial intelligence
- Continuum of care/Models of care
  - Linkages with other providers/services e.g. cancer care, Indigenous model of care
  - Platforms of engagement
  - Disease groups
- How can we set pace for everyone else?
- Having the expertise
- Recognised as the leader in area of expertise
- Opportunity to drive policy
- What makes us the 'go to' place
- Achieving meaningful change/outcomes – can we make a difference?
- Partnerships with community
- How to bring innovation to point of care
- Prevention or treatment?
- People or process?

Partners in the development and delivery of an innovation hub

Stakeholders

- End users
- Other WA Health Services e.g. SMHS/NMHS/private/public hospital network
- Accelerators
- Incubators
- Test bed → cross fertilised
- Research translation
  - Community representatives (patient voice)
  - Universities
  - Public/primary sectors
  - Medical research
  - Non-government organisations
  - Department of Health
  - Department of Social Services
- Philanthropists – Lotterywest
- Aged care
- A think tank core group/brains trust
- Community
- Royal Australian College of General Practitioners
- Global partners – think with them
- University/researchers in residence
- Federal Health liaison
- Marketing partnerships
- Specialist consultant – Spacecubed, consultancy role

Funding

- Investment funding
- Research commercialisation and partnerships e.g. pharmaceutical
- Insurance
- Accelerates/venture capitalists e.g. ATP Innovations
- Foreign investments e.g. tech/$/talent
- Government agencies – need for ongoing support
- Asian market

Enablers for the establishment and delivery of an Innovation Hub

- Culture of innovation, not just ticking a box
- Collection/generation of meaningful data/research translation
- Accelerator/outsourced with reporting
- Funding/investment
  - Commercialisation fund
  - Do not rely on grant funding e.g. NHMRC
  - Sustainable funding/continuity of funding/self-generated
  - Research academics to take products to market
  - Entrepreneur industry opportunities
  - Business plans, pitch to attract investment
  - Peter Santa Maria Stanford methodology
  - Product management
  - Export commodity
- Good governance structure
- Embed work of hub into practice
- Facilitate process from inception pathway → focus on achievable/ scalable work
- Credibility
- Open doors policy
- Culture of information sharing e.g. share trials, tests in motion
- Established criteria to determine solution based trials
- Models of care/indicators
- Measurability of results/benchmarks
- Quality improvement
- Partnerships → cannot rely on RPH/EMHS alone
  - Linkages with other projects
  - Specialist consultant – Spacecubed, consultancy role
  - Opportunities available abroad
  - GCIO to support
- People
  - Program manager leverage to find connections
  - Upskill current workforce
  - Good communicators
  - Mentors
  - Team/corporate team
  - Embed students/internship
  - Keep talent in WA
- MRP connect/start with one and build movers and shakers connecting health services
- Removing barriers
- Innovative approach to accommodation of hub
  - Move away from metrocentric model
  - Create a digital market place
- Ministerial engagement

Opportunities to assist in the establishment and delivery of an Innovation Hub

- Co-location with hospital
  - Focus on relevant, real, patient centric care
  - Innovation could be around health service delivery, new models of care (e.g. chronic disease models of care), new ways of measuring patient outcomes/measuring beyond process outcomes
  - Offers setting to pilot safely, leverage facilities, evaluate and sell the idea
  - Focus on health innovation e.g. virtual reality/system interoperability
  - Creating care close to the home, engagement with regional clinicians, avoidable hospital admissions
  - Build on existing strengths/niche areas at RPH e.g. trauma, but do not focus solely on hospital
  - Lab space already available
  - Dedicated workforce at RPH
- Geographic location of innovation hub
  - Time zone, given health care is a 24-hour industry it offers good in-roads to Asia and Europe (health care is an exportable commodity)
  - Location in health corridor (near other tertiary hospitals) and knowledge corridor (near major universities) → cross pollination across universities and hospitals
  - Create an inner-city precinct
  - Capitalise on other innovative sectors and knowledge in WA e.g. Mining sector
- Demographics of population in EMHS – homeless, Aboriginal health, low SES → opportunities to respond to local community/moral obligation to tackle issues faced by populations in our communities
- Hub to act as networking platform to create a place to go and connect
- New way of operating – do not get bogged down in corporate governance/structure
- Invest in initiatives that generate funding
- Opportunities for data linkage
  - Critical care capabilities
  - Paramedicine
- Opportunities to link with other election commitments e.g. Urgent Care Clinics, Medihotels
- Jobs – opportunities for attracting and retaining clinicians
- Establish trust which brings different people into the room
- Opportunity to shape the thinking of political leaders

Next steps

The information collected as part of the WA Centre for Health Innovation Stakeholder Engagement Forum will help to inform the next steps in the establishment of an Innovation Hub at RPH.

EMHS is currently developing a business case for project resourcing to undertake more detailed planning, including in relation to infrastructure requirements for an Innovation Hub.

Analysis of the feedback for themes and their mapping against opportunities and other programs of work in Western Australia will form part of the next stage of work.

EMHS will continue to investigate how it can work with key stakeholders in the development process. Future stakeholder input will be sought on space and facility requirements. Formal proposals will also be sought at a later stage for involvement with the RPH Innovation Hub.

This document can be made available in alternative formats on request.

East Metropolitan Health Service

www.health.wa.gov.au

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