

Queensland Clinical Senate

Connecting clinicians to improve care

Dare to compare

Reducing unwarranted variation
for potentially preventable
hospitalisations

30 November - 1 December 2017

Queensland Clinical Senate, Meeting Report

Published by the State of Queensland (Queensland Health), January 2018



This document is licensed under a Creative Commons Attribution 3.0 Australia licence. To view a copy of this licence, visit creativecommons.org/licenses/by/3.0/au

© State of Queensland (Queensland Health) 2018

You are free to copy, communicate and adapt the work, as long as you attribute the State of Queensland (Queensland Health).

For more information contact:

The Queensland Clinical Senate, email qldclinicalsenate@health.qld.gov.au phone 3328 9188. An electronic version of this document is available health.qld.gov.au/clinical-practice/engagement/clinical-senate/default.asp

Disclaimer:

The content presented in this publication is distributed by the Queensland Government as an information source only. The State of Queensland makes no statements, representations or warranties about the accuracy, completeness or reliability of any information contained in this publication. The State of Queensland disclaims all responsibility and all liability (including without limitation for liability in negligence) for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason reliance was placed on such information.

Contents

Chair’s report.....	iv
Recommendations	1
Executive summary.....	2
Presenter highlights.....	3
Potentially preventable hospitalisations.....	5
Appendices.....	18

Presenters and panellists

Adrian Carson, Chief Executive Officer, The Institute for Urban Indigenous Health

Bruce Chater, Chair, Statewide Rural and Remote Clinical Network

Lisa Davies-Jones, Chief Executive, North West Hospital and Health Service

Anne Duggan, Senior Medical Advisor, Australian Commission on Safety & Quality in Health Care

Adam Elshaug, Co-Director, Menzies Centre for Health Policy, The University of Sydney

Melissa Fox, Chief Executive Officer, Health Consumers Queensland

Peter Gillies, Chief Executive Officer, Darling Downs Hospital and Health Service

Casey Khoo, Director of Medicine, Darling Downs Hospital and Health Service

Carmel Nelson, Clinical Director, The Institute for Urban Indigenous Health

Jane Partridge, Director, Healthcare Purchasing and Performance Division, Queensland Health

Tony Russell, Diabetes and Endocrinology, Princess Alexandra Hospital

Ian Scott, Director of Internal Medicine and Clinical Epidemiology, Princess Alexandra Hospital

Mark Tucker-Evans, Chair, Health Consumers Queensland

Raj Verma, Director, Clinical Program Design and Implementation, NSW Agency for Clinical Innovation

Karyn Walsh, Chief Executive Officer, Micah Projects

Ian Williams, Board Chair, Brisbane South Primary Health Network

Chair's report



As clinicians, we are always striving to improve – improve our skills, improve the system we work in, and improve the treatment and care we provide. Ultimately, we want these improvements to translate into better outcomes for our patients, regardless of where they live and how they entered the health care system.

Anecdotally and experientially, we often know where change is needed and whether our efforts to make improvements are successful. The evidence is, however, in the data.

Data in The Australian Atlas of Healthcare Variation released by the Australian Commission on Safety and Quality in Healthcare in mid-2017 paints a clear picture about variation in care according to where people live. The information is invaluable for understanding how our healthcare system is providing care.

It doesn't tell us what is good or bad variation (warranted or unwarranted) – it just tells us how much variation there is and where it is. We then have the opportunity to look at the data, analyse it, discuss it, decide if the variation is valid, based on the patient's choices or circumstances, or whether the variation is an indication of challenges or problems in our system.

At the Senate's final meeting for 2017, *Dare to Compare*, we used the data in the Atlas to start a discussion about what it means in Queensland, why we are measuring it and how we should use it.

Our focus was on variation for hospital admissions that could have potentially been prevented for chronic obstructive pulmonary disease (COPD), heart failure, diabetes complications, and kidney and urinary tract infections.

I sensed a level of engagement and interest in the conversation that suggests clinicians and system leaders appreciate the importance of the topic. Not just because it's measured both at a commonwealth and state level or because it's a key performance indicator for Queensland hospital and health services, but ultimately because it relates to value and patient outcomes.

Certainly, there was agreement that variation in care is more likely to be seen in our Aboriginal and Torres Strait Islander communities, rural and remote regions and areas of social and economic disadvantage. We cannot put everyone into the same basket when it comes to understanding the data and making change.

What we can do, however, is share the data – make it available to our clinical colleagues across the entire health system – and then work together across tertiary, primary, government, non-government and community organisations to understand the problem at a local and state level and make a start on change where change will mean our patients are receiving better care.

I am certain that over the next five to 10 years, this concept of variation as it relates to value and outcome, will underpin a large amount of our policy work and I am delighted that from a Queensland perspective we have taken a proactive stance in that conversation.

Dr David Rosengren
Chair, Queensland Clinical Chair

Recommendations

The Queensland Clinical Senate supports the measuring and reporting of variation in healthcare including potentially preventable hospitalisations (PPH).

We acknowledge Aboriginal and Torres Strait Islander people, the socio-economically disadvantaged and rural/remote residents have specific issues that result in increased variation in healthcare. A whole-of-government approach is required to address the social determinates of health for these Queenslanders.

We also acknowledge some variation is warranted and associated with need-related factors such as underlying differences in the health of specific populations, restrictions to services due to geography, or personal preferences. Specific analysis and consideration should be given to determine whether variation is warranted and, if not, instigate the development and evaluation of strategies to improve unwarranted variation in health outcomes.

The Queensland Clinical Senate recommends:

1. Data on PPH variation is shared across local healthcare service clinicians and their provider organisations including Hospital and Health Services (HHSs), Primary Health Networks (PHNs), relevant Community and Non-Government Organisations (NGOs) and Aboriginal Community Controlled Health Organisations (ACCHOs) with the intent of supporting an improvement approach based on avoidance of waste, service integration and sharing learnings of what works.

With the support of stakeholders, information on PPH variation is then made accessible to consumers in a format that supports them to understand the reasons for significant variation in Queensland and contributes to improved health literacy and preventative action by vulnerable consumers.

2. The Department of Health, PHNs and relevant statewide clinical and consumer networks work together to identify and implement strategies to address reasons for unwarranted PPH variation with a focus on –
 - a. Improving chronic disease health literacy (understanding and preventative action)
 - b. Developing, implementing, and evaluating best practice pathways for high prevalence PPH diagnostic groups.
3. The Department of Health work with stakeholders to establish accountabilities for HHSs in the context of shared accountability across acute and primary care sectors to reduce unwarranted PPH variation in healthcare. Enablers that can support and influence improvement include: better access for clinicians and consumers to quality, locally contextualised data; sharing of successful interventions; reform of the funding model to enable flexibility and support contemporary patient-centred care models, and meaningful agreed key performance indicators.
4. Clinicians reflect on their own practice, integrating their clinical expertise, patient preferences and the best research evidence into clinical practice.

Executive summary

In mid-2017, The Australian Commission on Safety and Quality in Health Care launched *The Second Australian Atlas of Healthcare Variation*.

The Atlas reports substantial variation in healthcare delivered between local areas. The Atlas examined potentially preventable hospitalisations (PPHs) for selected conditions.

Almost half (47%) of the potentially preventable hospitalisations in Australia in 2014–15 were associated with the five conditions: chronic obstructive pulmonary disease (COPD), diabetes complications, heart failure, cellulitis and kidney and urinary tract infections. The Senate focused on four of these conditions – COPD, diabetes complications, heart failure, and kidney and urinary tract infections - to examine variation throughout Queensland.

In Queensland, variation was greatest for diabetes complications, with an almost 12-fold difference in hospitalisation rates between the highest to the lowest region. For COPD there was a 10-fold difference, for cellulitis an over 9-fold difference, while for heart failure and UTIs differences were over four-fold and almost three-fold respectively.

Variation in healthcare is well documented and while some variation is expected and can be a good thing, the Commission suggests some of it may be unwarranted.

Understanding this variation is critical to improving the quality, value and appropriateness of health care.

Warranted variation

Warranted variation is associated with need-related factors such as underlying differences in the health of specific populations, or taking the patient perspective and meeting their needs/preferences.

Unwarranted variation

Unwarranted variation is substantial variation in health care that cannot be explained by patient risk, needs or preferences.*

Potentially Preventable Hospitalisations

An admission to hospital for a condition where the hospitalisation could potentially have been prevented through the provision of appropriate individualised preventative health interventions and disease management, usually delivered in primary care and community-based care settings.*

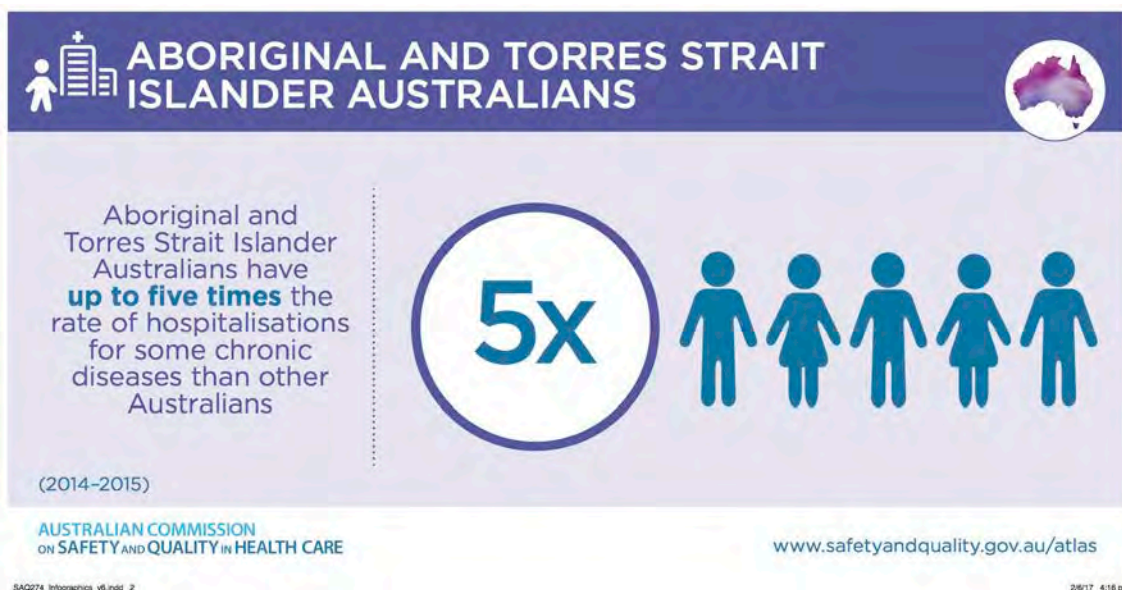
*Australian Commission on Safety and Quality in Healthcare

Presenter highlights

The Australian Atlas of Healthcare Variation: what does it tell us?

Dr Anne Duggan, Senior Medical Advisor, Australian Commission on Safety and Quality in Health Care

- The Second Australian Atlas of Healthcare Variation was launched in June 2017.
- Healthcare use is mapped by residence of the patient (not by where the care was provided)
- Almost half (47%) of the potentially preventable hospitalisations in Australia in 2014–15 were due to the five conditions examined: chronic obstructive pulmonary disease (COPD), heart failure, cellulitis, kidney infections and urinary tract infections (UTIs), and diabetes complications (AIHW, 2016)
- Substantial variation was observed between Statistical Area Level 3 (SA3) areas in the rates of hospitalisation for each condition.
- Variation was greatest for COPD (16-fold difference), diabetes complications and cellulitis (approximately 12-fold difference for both). Rates of hospitalisation for heart failure and UTIs varied seven-fold and six-fold, respectively.
- Aboriginal and Torres Strait Islander people have up to five times the rate of hospitalisations for some chronic diseases compared with other Australians.
- Where we want to get to in Australia is measuring outcomes – at the moment we are measuring process but we are using the data we have to drive the conversation about appropriateness of care. To get to appropriateness, you need to understand the problem.
- The Atlas shows variation, it doesn't give you answers – it starts conversations.
- In comparison with other countries, Australia is higher than the OECD average for:
 - Asthma and COPD hospitalisation, hospital discharges, prevalence of overweight and obesity, consultations skipped due to cost, and prescribed medicines skipped due to cost.



The impact of variation on potentially preventable hospitalisations: quality, cost and value

Professor Adam Elshaug, Co-Director, Menzies Centre for Healthy Policy, The University of Sydney

- Due to its relatively standardised methodology, the Atlas allows benchmarking against selected OECD nations with similar data.
- The Grattan Report estimates that we are paying about \$2.5billion in system costs associated with PPHs and that 1.3 per cent of hospital admissions are potentially avoidable.
- Literature suggests that only the short stays (1-2 days) are potentially preventable
- Grattan Report figures show that about \$1.7billion is being spent on chronic disease management and reduction of PPHs.
- Value concepts around PPHs:
 - The Kaiser Pyramid
 - Porter Strategic Agenda for Creating Value-based Health Care Delivery Systems.
- We are hamstrung by disintegrated funding – the system is failing our doctors and our community.
- At a system level, is it possible to move some activity weighted funding out of hospital for increased investment in community care for some cohorts?

Panel discussion – Using variation data as a measurement of performance



Panel members: (L to R) Anne Duggan, Melissa Fox, Ian Scott, Adam Elshaug and Lisa Davies-Jones

- The literature suggest only hospitalisations of 1-2 days are preventable – as people who experience a 10 day length of stay would have likely been hospitalised regardless. If so, are the 1-2 day hospitalisations the only PPH admissions we should be counting?

- In general, consumers have an expectation that despite the fact that many have to travel to receive health services, they should get care in a timely manner, it should be evidence-based, and our outcomes shouldn't change no matter where we live or who we are. But we know that isn't the case.
- From a consumer perspective, three of the four causes for variation are due to the fact that we have a system that is not patient centred.
- To achieve change we need to bring in system managers, other professions, data systems etc. we need the will and the role models to push it along.
- Consumers will be our best advocates for change.
- When people see the value of data they start to take it more seriously.
- If we stop focusing on tertiary prevention and did more primary prevention, a lot of these conditions would be preventable, but there is years of work to be done before we can change our current problems.
- We need to think long term about how to keep people healthy.
- Is there a link between unwarranted variation and care outside of hours? Perhaps poorer outcomes for out of hours discharge are linked to the fact that there weren't primary or allied health services available out of hours and complications arose.
- Of 15,000 acute medical admissions to a Brisbane hospital in one financial year, 15% could have been treated in an alternative care setting - that is a form of PPH.
- We don't want a health system that ignores warranted variation – we want warranted variation because it's very patient focused and we want a much more patient-focused health system.
- It is incredibly important that assumptions are not made about a variation rate.
- One solution could be to benchmark PPHs at peer level so the context is the same.
- Resources (funding), data, clinical champions to drive the implementation of evidence-based new models of care are required to effect change.

'To improve health outcomes we need to take a strategic approach, sharing information and working in partnership with consumers, primary care and other community services providers.'

Lisa Davies-Jones, CEO, North West Hospital and Health Service

Understanding variation and what drives PPH variation

Challenges for Aboriginal and Torres Strait Islander people

Carmel Nelson, Clinical Director, The Institute for Urban Indigenous Health

- Overall, PPH rates are 3x higher for Aboriginal and Torres Strait Islander people compared with non- Indigenous people – this pattern is the same in countries such as Canada and New Zealand.
- Chronic PPH conditions account for the majority (around 70%) of all PPHs for Aboriginal and Torres Strait islander people – and there is a 5-fold difference in PPH rates in this category overall.
- Diabetes is the most commonly recorded chronic PPH amongst Aboriginal and

Torres Strait Islander people.

- Higher rates of PPH are seen amongst Aboriginal and Torres Strait Islander people compared with non-Indigenous people even when controlling for socio-economic status, age, gender, and geography.
- That said – as each of these variables are applied, rates of PPH increase – but increase more so for Aboriginal and Torres Strait islander people than for non-Indigenous people.
- There is evidence that chronic PPHs are more often associated with more advanced disease, resulting in longer periods of hospitalisation and higher costs – for everyone.
- Some of the drivers of the disparity:
 - Underlying health risks and disease prevalence
 - Access to and uptake of primary health care
 - Hospital experience
 - Discharge and transition back to community
 - Readmission.

'High rates of readmission are often related to the provision of suboptimal inpatient care and may be viewed as an indicator of quality of hospital care or a missed opportunity to coordinate care more effectively.'

Dr Carmel Nelson, Clinical Director, The Institute for Urban Indigenous Health

Challenges for Queenslanders living in remote areas

Bruce Chater, Chair, Statewide Rural and Remote Clinical Network

- Queensland Health data records where you're treated, whereas the Atlas data records where you're from.
- Issues relate to three areas: Disadvantage (e.g.: socio-economic, lifestyle, sanitation and disease), quality (e.g.: distance, diagnosis, double counting) and clinical variation.
- Rural remote issues need to be considered when analysing the data.
- Dilemmas:
 - Causality
 - Context – service, distance, diagnostic
 - Continuity – across and within services
 - Conscience – patient centred care
 - Connection – care needs to be local or where people live
 - Clinical context
 - Counting – double
 - Clinical variation
 - Consultation with rural experts
 - Clinician feedback (of data)

- Clinical change
- Comparison with peers.

Challenges for Queenslanders living in areas of relative socio-economic disadvantage

Karyn Walsh, Chief Executive, Micah Projects

- Need to address barriers to healthcare, housing, self-management capacity and social support.
- Inequality – including health inequality – is growing in Queensland.
- Challenges:
 - How people with complex social and behavioral issues are viewed when they present to healthcare services
 - Treating the disease not the person
 - Silo approach to care or presenting reason
 - Obstacles to sharing critical information
 - Leadership and Investment
 - Limited funding allocated to integrated community-based models targeted at vulnerable population groups.
- Actions to improve:
 - Recognising the population
 - Applying a policy setting and budget
 - Creating an ‘integrator’.

‘We have to recognise vulnerable populations – it’s not a one size fits all.’

Karyn Walsh, Chief Executive, Micah Project

Heart failure and COPD

Dr Casey Khoo, Director of Medicine, Darling Downs Hospital and Health Service

COPD

	Rate	Lowest SA3 rate	Highest SA3 rate	Number of hospitalisations
Queensland	286	63	631	14,846

Number of hospitalisations per 100,000 people, age and sex standardised, 2014-15

- Of the 10 lowest rates nationally, two were in Queensland: Sherwood/Indooroopilly, Kenmore/Brookfield/Moggill.

- Of the 10 highest rates nationally, one was in Queensland: Far North.
- Potential drivers of variation – COPD:
 - Prevalence of COPD and comorbidities
 - Access (and continuity) to primary health care
 - Long distance to travel (and isolation) from home to treatment (hospital admission may be best form of treatment)
 - Adherence to evidence-based guidelines
 - Access to community pulmonary rehabilitation and multidisciplinary care
 - Access to technology e.g. spirometer
 - Access to secondary prevention programs e.g. support for regular physical activity and a healthy diet
 - Lack of suitable aged and disability care
 - Cost and access to medications and supplemental oxygen when needed
 - Patients' health literacy and ability to self-manage exacerbations
 - Rates of influenza and pneumococcal vaccination
 - Air quality and occupational exposures
 - Rates of smoking (influenced by socioeconomic disadvantage, psychological distress, Aboriginal and Torres Strait Islander status, and remoteness).

Heart failure

	Rate	Lowest SA3 rate	Highest SA3 rate	Number of hospitalisations
Queensland	210	94	424	10,997

Number of hospitalisations per 100,000 people, age and sex standardised, 2014-15.

- Of the 10 lowest rates nationally, two were in Queensland: Sherwood/Indooroopilly, Surfers Paradise
- Of the 10 highest rates nationally, two were in Queensland: Port Douglas/Daintree, Outback/South
- Potential drivers for heart failure:
 - Access (and continuity) to primary health care
 - Prevalence of risk factors for heart failure, such as coronary heart disease, rheumatic fever and rheumatic heart disease, diabetes, hypertension, smoking, obesity, kidney disease
 - Access to cardiac rehabilitation programs that include education, psychosocial support, exercise training and optimal pharmacotherapy
 - Access to evidence-based multidisciplinary heart failure services in the community
 - Access to dialysis; in areas with large Aboriginal and Torres Strait Islander populations requiring dialysis for kidney disease, inadequate access to dialysis may worsen heart failure and contribute to hospitalisation numbers
 - Long distance to travel (and isolation) from home to treatment (hospital admission may be best form of treatment)
 - Adherence to evidence-based guidelines
 - Lack of suitable aged and disability care
 - Cost and access to medications
 - Patients' health literacy and ability to self-manage care.

Kidney and urinary tract infections

Ian Williams, Board Chair, Brisbane South Primary Health Network

	Rate	Lowest SA3 rate	Highest SA3 rate	Number of hospitalisations
Queensland	380	194	543	18,720

Number of hospitalisations per 100,000 people, age and sex standardised, 2014-15.

- Of the 10 lowest rates nationally, none were in Queensland.
- Of the 10 highest rates nationally, six were in Queensland: Loganlea/Carbrook, Beaudesert, Mudgeeraba/Tallebudgera, Tablelands (East)/Kuranda, Outback/North, Springwood/Kingston.
- Potential drivers for kidney and urinary tract infections:
 - Adherence to evidence-based guidelines, including choice/length of antibiotics
 - Access to affordable, culturally-appropriate primary care.
 - Clusters of populations with high risk of UTIs, e.g. residents of aged care homes & Indigenous Australians
 - Weather: hot conditions can increase the risk of dehydration and UTI
 - Access to hospital in the home & other community services
 - Health literacy or cognitive impairment, e.g. some residents of aged care homes, contributes to delays in obtaining care
 - The incidence of infection with multidrug-resistant, extended- spectrum β -lactamase-producing bacteria
 - Screening, treatment and follow-up more difficult in remote communities.

Diabetes complications

Tony Russell, Diabetes and Endocrinology, Princess Alexandra Hospital

	Rate	Lowest SA3 rate	Highest SA3 rate	Number of hospitalisations
Queensland	205	52	601	10,120

Number of hospitalisations per 100,000 people, age and sex standardised, 2014-15.

- Of the 10 lowest rates nationally, one was in Queensland: Brisbane Inner-West.
- Of the 10 highest rates nationally, four were in Queensland: Outback-north, Far north, outback-south, Tablelands (East)/Kuranda
- Potential drivers of variation for diabetes complications:
 - Prevalence of diabetes & risk factors for Type 2 diabetes, e.g. smoking, dialysis, poor glycaemic control
 - Access to (and continuity of) primary health care
 - Adherence to evidence-based guidelines
 - Long distance to travel (and isolation) from home to treatment (hospital admission may be best form of treatment)
 - Availability of foot clinics, eye clinics & diabetes educators
 - Integration of hospital and primary care
 - Frequency of preventive checks in primary care
 - SES status, health literacy, access to healthy food
 - Cost of and access to medications
 - Ability and motivation to self-manage diabetes
 - Clusters of groups with high prevalence of type 2 diabetes, e.g. Indigenous, Pacific Islanders
 - Access to quality, culturally appropriate care.



Dr Tony Russell

Reducing unwarranted clinical variation – lessons from the NSW Reducing Unwarranted Clinical Variation Taskforce

Raj Verma, Director, Clinical Program Design and Implementation, NSW Agency for Clinical Innovation (ACI)

- Variation is multi-dimensional and elements (for example clinical practice, cost, LoS) are often inter-related.
- Arises for a range of valid reasons including complexity of a patient's illness and burden of illness in different populations.
- ACI Reducing Unwarranted Care Variation Taskforce overseeing 15 past and current projects including mortality, LoS and cost, and interventions for chronic disease.
- Investigating whether variation is unwarranted is currently a very manual process.
- Approaches and lessons:
 - Engage early with clinicians about methodology, keep clinicians involved
 - Encourage analyses by different “groups” and at different levels (e.g. system, clinical group, hospital)
 - Provide ‘non-judgemental’ data to sites/clinicians for validation and comment as early as possible
 - Use analytics but recognise limitations of administrative datasets
 - Model of care/Standards – system-wide, e.g. Hip/stroke (agreed care processes)
 - For big projects undertake a formative evaluation so that changes to approach can be made from early ‘lessons’.
 - Ongoing system reporting and benchmarking and provide sites with data, a way to monitor and tools.

‘The presence of variation does not mean that variation is unwarranted.’

Raj Verma, NSW Agency for Clinical Variation



Pic: James Dunne, Sarah Dalton and Raj Verma (far right) from the Agency for Clinical Innovation, with Dr David Rosengren (second from right), Queensland Clinical Senate Chair

Strategies to improve unwarranted variation

Opportunities and recommendations for improvement

Dr Anne Duggan, Senior Medical Advisor, Australian Commission on Safety and Quality in Health Care

- Mapping variation is an invaluable tool for understanding how our healthcare system is providing care, but gathering the data is only the first step.
- Understanding the underlying reasons for marked differences in the use of some health services across Australia, and considering how we can improve, are key for translating this work into better outcomes for patients.
- The patterns shown in the maps in this Atlas and the accompanying commentaries show that there are many opportunities for making meaningful changes in Australia's delivery of health care.
- The recommendations in the second Atlas highlight that action is needed at all levels – from addressing the social determinants of health through to better data collection, system changes and providing the best supports for individual clinician–patient interactions.
- These goals are ambitious, but the recommended changes have the potential to result in meaningful progress in defining and delivering appropriate care – and improving patient outcomes.
- There are enormous opportunities with health literacy.
- The second edition of the National Safety and Quality Health Service Standards includes actions required of the system to help drive the change towards reducing unwarranted variation and improve health outcomes.
- The Commission develops clinical care standards to inform patients about the care they can expect to receive, and provide guidance to health professionals.

'We need to really think about the impact that not getting it right is having on the community – people not getting care they need and people getting care they don't need and the harm that causes.'

Anne Duggan, Australian Commission on Safety and Quality in Health Care

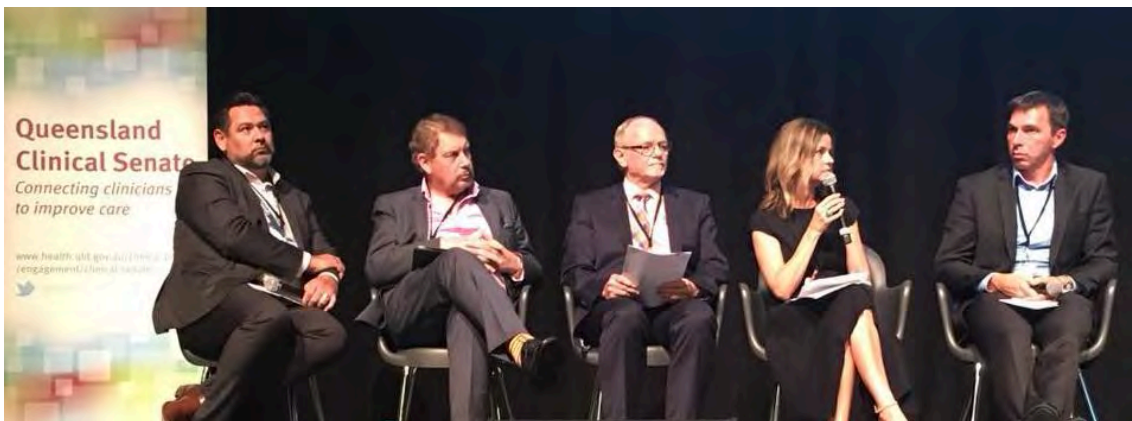
Potentially preventable hospitalisations KPIs

Jane Partridge, Director, Healthcare Purchasing and Performance Division, Queensland Health

- The only measure of the functioning of the health system.
- National performance measure (National Healthcare Agreement, Performance and Accountability Framework)
- Important indicator of:
 - Care accessibility
 - Care effectiveness

- Care equity
- Care integration.
- Two components to reporting:
 - Whole of population rate
 - Aboriginal and Torres Strait Islander PPH rate.
- Each HHS has an individual 'target' PPH rate, with the overall goal of improving own performance.
- At statewide level for whole of population reporting, rate trend is static/very slightly up, with only 6/15 HHSs recorded improvement (most of <1%).
- For Aboriginal and Torres Strait Islander reporting, at statewide level rate marginally (0.5%) improved over same period, with 7/15 HHSs recorded improvement.

Panel discussion: Is it fair and reasonable for HHSs to be accountable for PPHs? If so, what is a reasonable level of accountability?



Panel (Left to right): Neil Willmet, Mark Tucker-Evans, Ian Williams, Jane Partridge and Peter Gillies.

- HHSs should not be held accountable for PPHs – they do however have a role to play
- One concern is that the Atlas doesn't look at prevalence of a condition.
- PPH KPI is quite crude at the moment, could it be refined to particular cohorts that are more amenable to HHS influence or to cohorts that have had a previous contact with the HHS?
- It's time for our state to implement a patient-centered focus across the continuum so that PPHs are managed in a practical way.
- We have been socialised to accept a hospital-centric focus in our health system despite the fact that most patients rarely visit a hospital.

- We need more investment in the primary health sector and we need the primary health sector to take the challenge of PPHs so that we can make a difference.
- Care provided by Aboriginal Community Controlled Health Services (ACCHS) contributes to people not going to hospital.
- The issue of primary health care for Aboriginal and Torres Strait Islander people has been around for a long time and is one of the things the sector focuses on but we can't do it alone.
- As part of KPIs under the funding agreement with the Australian Government, funding for ACCHS is affected if there is not an improvement in health.
- ACCHS is a small player trying to improve a big problem – with better coordination, collaboration and sharing of knowledge we think we could see a big improvement and that we can reduce those rates.
- Sharing of information publicly helps to inform consumers.
- 60 per cent of our population is health illiterate – we need to start involving people from a very young age.
- The entire government budget, not just the health budget, needs to be re-aligned because a lot of what we are talking about is about the social determinants of health.
- Health isn't just about going to hospital or the GP – it's about the whole wellbeing of the person.

'I look forward to the day that the Clinical Senate recommends that rather than HHSs being accountable for PPHs, that HHSs report to the community, PHNs and the community sector, so that the community sector can be held accountable for PPHs because that is what we need to do – reorient the health care system into the community.'

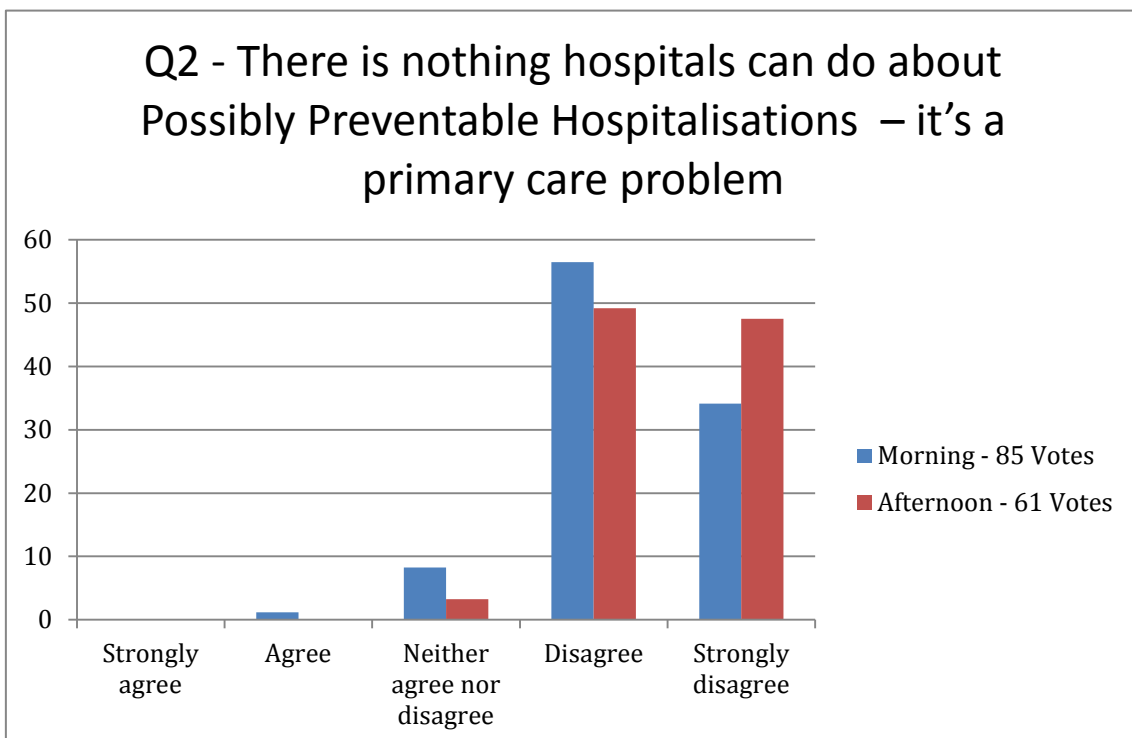
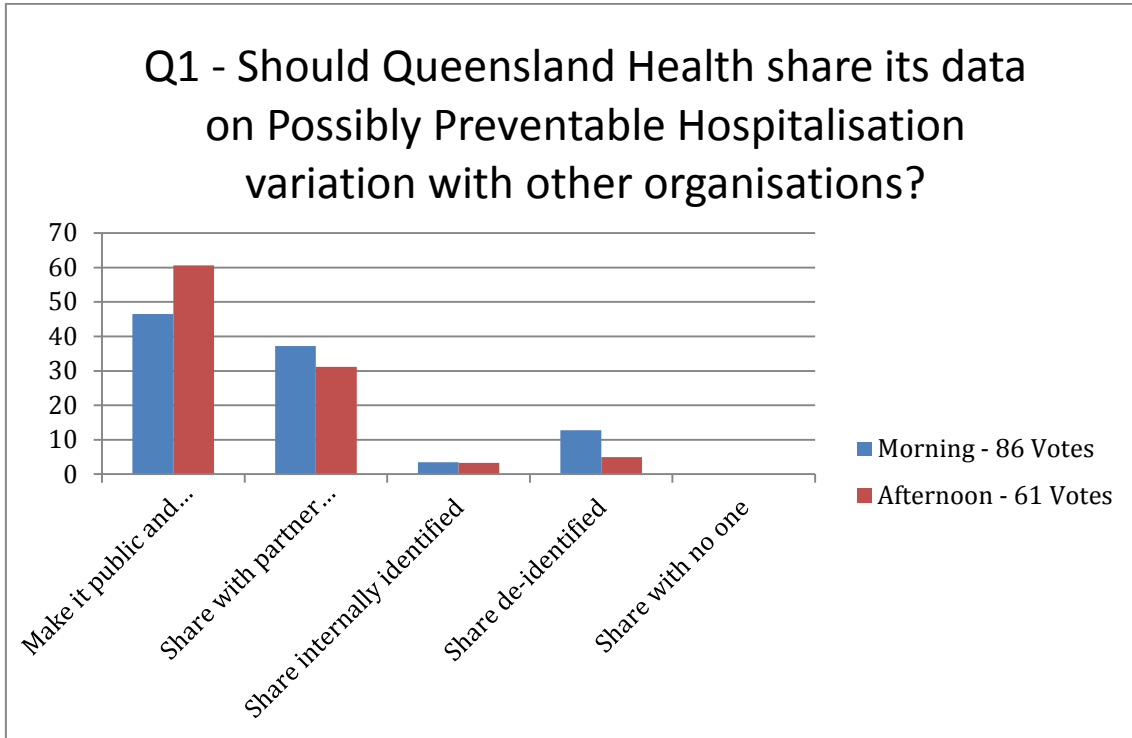
Ian Williams, South Brisbane Primary Health Network, Board Chair



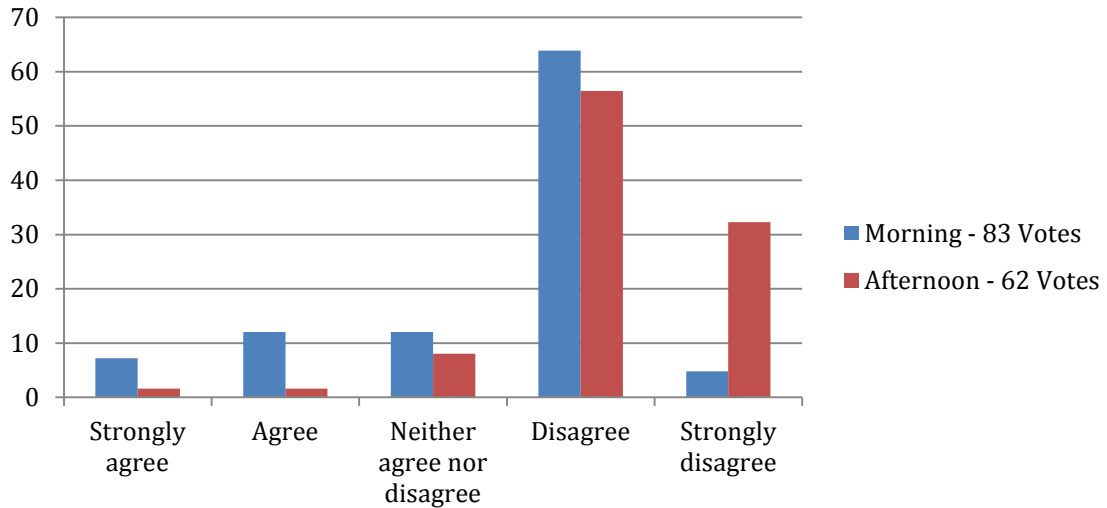
'Dare to compare' meeting delegates

Appendix 1

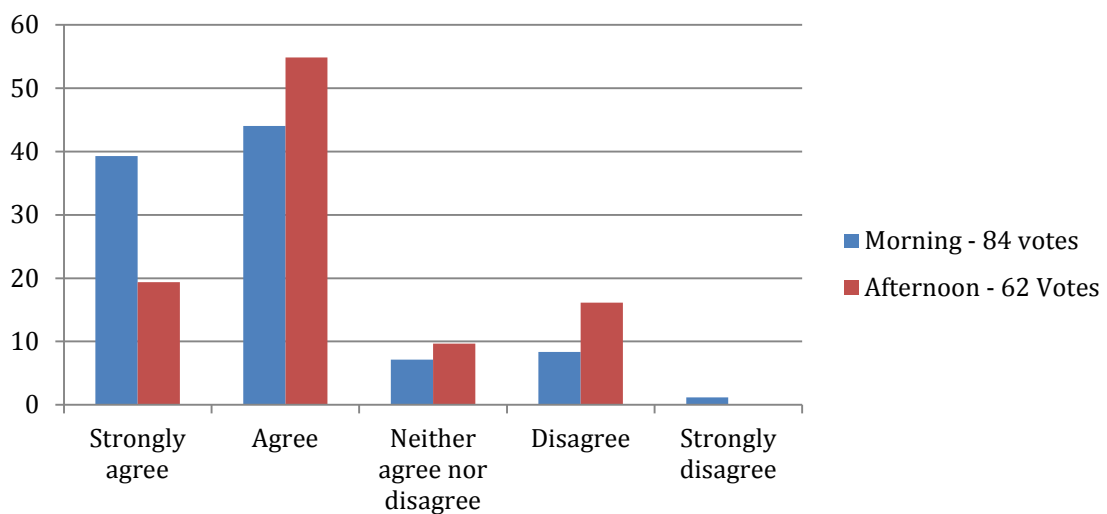
At the beginning and end of the Friday session, delegates were asked their opinion on five questions. The data is presented as percentages of the total votes in each session.

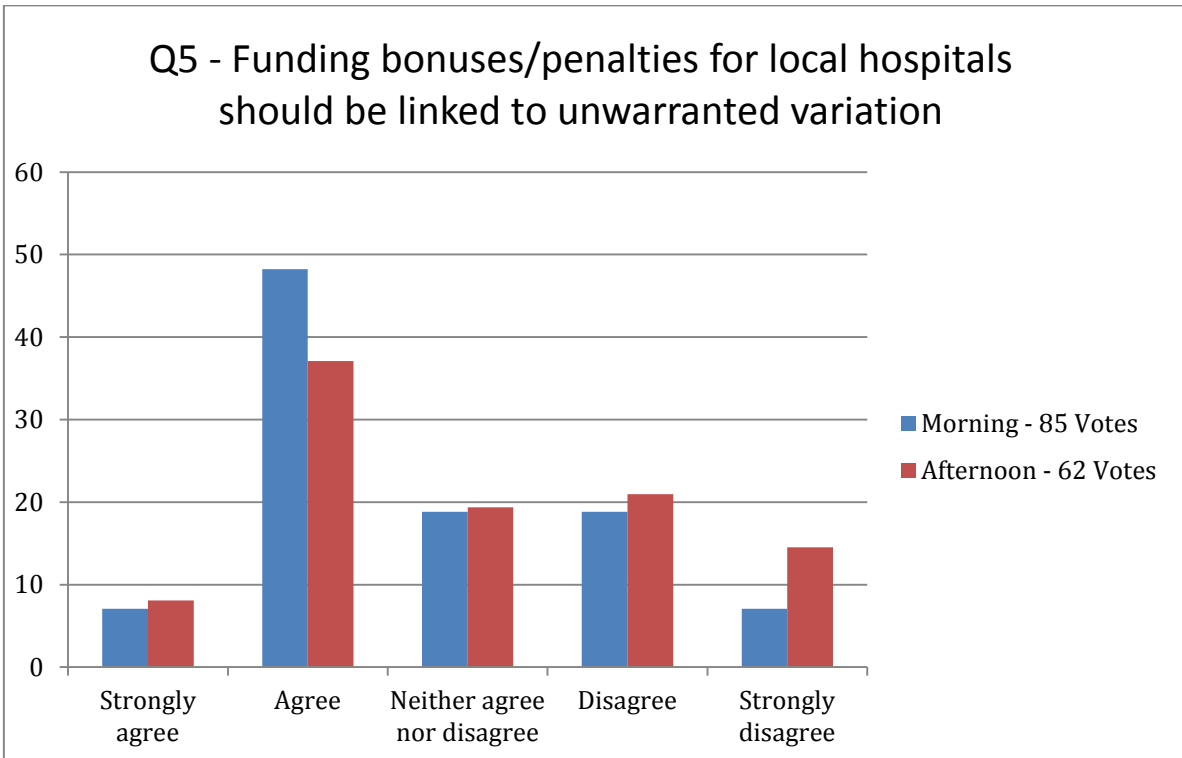


Q3 - By the time someone turns up at hospital with a Possibly Preventable Hospitalisation it's too late to do anything



Q4 - Possibly Preventable Hospitalisations are harder to avoid in remote areas than urban areas





Appendix 2

Groups were asked to:

- Identify if any drivers were missing from the possible reasons for variation as listed in the Atlas.
- Identify the top three drivers for unwarranted variation in Queensland for each PPH.

Several drivers were common across all PPH groups and were identified by more tables as a priority than others

- Health literacy (31)
- Adherence to evidence based guidelines by clinicians and service providers (17)
- Socio-economic disadvantage (16)
- Access to services that are integrated, affordable and culturally appropriate (13)
- Diagnostic errors (incorrect/over diagnosis, coding errors etc.) was identified as the top driver for unwarranted variation for kidney and urinary tract infections (11)
- Mental health/cognitive impairment were 'missing drivers' identified by >7 tables, particularly in relation diabetes complications

Heart Failure

Drivers
<ul style="list-style-type: none">• Adherence to evidence-based guidelines by clinicians and service providers• The prevalence of risk factors for heart failure (such as coronary heart disease, rheumatic fever and rheumatic heart disease, diabetes, hypertension, obesity, smoking, diabetes, kidney disease, etc.)• Implementation of cardiac rehabilitation programs that include education, psychosocial support, exercise training and optimal pharmacotherapy• Access to evidence-based multidisciplinary heart failure services in the community• Socioeconomic disadvantage• Health literacy about medications, adherence to medications and ability to afford medications• The quality of both hospital and community care, which can be affected by suboptimal communication between clinicians• The quality, efficiency and effectiveness (and continuity) of primary health care• Access to dialysis – in areas with large Aboriginal and Torres Strait Islander populations requiring dialysis for kidney disease, inadequate access to dialysis may worsen heart failure and contribute to hospitalisation• Long distance to travel (and isolation) from home to treatment (hospital admission may be best form of treatment).
Missing drivers: <ul style="list-style-type: none">• Access to care: primary ->secondary -> post hospital -> community rehabilitation• Access to continuity of care• Engaging / including the patient in decision making• No accountability• Disease focus instead of patient focus

- Siloed health system
- Unrecognized cognitive impairment
- Discharge planning / access to services/integration
- Access to workforce
- Patients who are 'practice skipping'
- Lack of culturally safe care
- Patient centered vs patient accepted care

COPD

Drivers

- The prevalence of COPD and comorbidities
- Adherence to evidence-based guidelines by clinicians and service providers
- Access to community pulmonary rehabilitation or physiotherapy services and multidisciplinary care
- Access to secondary prevention programs such as support for regular physical activity and a healthy diet
- Inability to always afford medications and supplemental oxygen when needed
- Patients' health literacy and ability to self- manage exacerbations
- Rates of influenza and pneumococcal vaccination
- Air quality and occupational exposures
- Rates of smoking, which are influenced by socioeconomic disadvantage, people living in over-crowded conditions etc.
- Clinicians' focus on smoking cessation
- Rates of respiratory infections, which are related to socio-economic disadvantage, people living in over-crowded conditions etc.
- Primary care services that are affordable, culturally appropriate and easily accessible
- The quality, efficiency and effectiveness of primary health care received by Aboriginal and Torres Strait Islander Australians
- The proportion of people from non-English-speaking backgrounds
- Diagnostic error.

Missing drivers:

- Disintegration of care / poor integration of care / poor care coordination
- Access to support at time of exacerbation
- Cross sector funding boundaries
- Access/distance to care
- Unrecognised cognitive impairment
- Discharge planning / access to services/integration
- Relationships with primary care plus responsibility to community
- Access to the right care, right time, right place and right team
- Transport home
- Socio-economic disadvantage
- Lack of patient centered care

Kidney and Urinary Tract Infections

Drivers

- Adherence to evidence-based guidelines, including choice and length of antimicrobial treatment
- Access to primary care, including its availability, acceptability and affordability
- Access to hospital in the home and other community services
- Clustering of populations with a high risk of urinary tract infections, such as residents of aged care homes, people with type 2 diabetes, and Aboriginal and Torres Strait Islander people
- The quality, efficiency and effectiveness of primary health care; these may be lower for Aboriginal and Torres Strait Islander people
- The incidence of infection with multidrug-resistant, extended-spectrum B-lactamase-producing bacteria
- Weather; hot conditions can increase the risk of dehydration and urinary tract infections
- Diagnostic /coding error.

Missing drivers:

- Definition errors
- Over diagnosis
- Ascertainment issue
- Breakdown of ages / ethnicity of each population / ages of populations
- Cultural beliefs / Culturally appropriate care
- Local populations: age, education, ethnicity
- Health literacy
- Residential care – no nurses
- Unavailability of timely pathology
- Primary care co-location
- Inadequate public health education
- Access to equipment / subsidization for continence products
- Knowledge and access to specialist services for complex patients
- Prevalence of population which does not drink water – soft drink only
- Sexual health / hygiene
- Co-morbidities
- Water supply / quality?
- Housing / overcrowding
- Concern about putting inflammatory and infective conditions together
- We wonder if the data hasn't isolated the causative contributors (geography, SES)?

Diabetes complications

Drivers

- The prevalence of diabetes and risk factors for type 2 diabetes
- Adherence to evidence-based guidelines by clinicians
- Access to integrated hospital and primary care
- The availability of high-risk foot clinics and eye clinics
- The availability of diabetes educators
- The frequency of preventive checks in primary care
- Socio-economic disadvantage, health literacy and access to healthy food
- The ability to self-manage diabetes, including access to refrigeration for insulin
- The prevalence of risk factors for complications, including smoking, poor glycaemic control and dialysis (which can contribute to poor glycaemic control)
- Clustering of ethnic groups with higher prevalence of type 2 diabetes, such as Aboriginal and Torres Strait Islander people, people born in the Pacific islands, and people born in southern and central Asia
- Access to healthcare services that provide culturally appropriate care
- The quality, efficiency and effectiveness of primary health care received by Aboriginal and Torres Strait Islander Australians
- Diagnostic error.

Missing drivers:

- Mental health/cognitive impairment / substance abuse
- Co-morbidities and chronic disease
- Communication
- Workforce capability (right person, right skills, right place)
- Specialist lead care has deskilled general practice
- Lack of health care home
- Chronic wound management and education in primary care
- Education
- Lack of access to allied health care e.g. dietician, psychology
- Funding mechanism to support coordinated care
- Poor/limited screening: feet, eyes, kidneys
- Social determinates of health
- Ongoing monitoring within the community
- Unnecessary bureaucratic burden
- Cost of treatment (medication and dressings)
- Family and community support
- Lack of a sugar policy / legislation
- Access to shared records across departments (e.g. out of home care / disability, consumers in residential care)
- Workforce access to specialist skills / scope
- Limited community and hospital services integration and communication
- Level of co-ordination of community services, or case coordinator (e.g. housing issues)
- Lack of telehealth

Appendix 3

Strategies for action

Groups were asked to identify one local and one statewide strategy that could be action to improve unwarranted variation for a nominated PPH item.

Heart Failure and COPD

Driver: Preventing acute exacerbations

Strategy		Stakeholders
Statewide	<p>Technology for home monitoring</p> <ul style="list-style-type: none"> • Link to primary care • Specialist clinic info • Patient self-management/education / health literacy component <p>Provision of de-identified data for benchmarking – sharing data both ways</p>	<ul style="list-style-type: none"> • Consumers • Primary health networks • Hospital and Health Services • Department of Health • eHealth • Specialist outpatient services including ambulatory allied health etc. • Statewide Clinical Networks • CSIRO
Local	<p>Clearly articulated local care pathways</p> <ul style="list-style-type: none"> • GP, Allied Health, rehab, case manager • Face to face and telehealth <p>Consider incentive payments on determined critical elements of the pathway.</p>	<ul style="list-style-type: none"> • Consumers • Primary health networks • Hospital and Health Services • Department of Health

Driver: Reducing rheumatic heart disease and valve disease

Strategy		Stakeholders
Statewide	<p>Data cleansing and collection on heart failure presentations (to enable a better understanding of diagnosis, management, outcomes)</p> <p>Better data linkages between data sets, clinician held data and hospital held data</p>	<ul style="list-style-type: none"> • Hospital and Health Services • Department of Health • Clinicians
Local (Torres and Cape)	<ul style="list-style-type: none"> • Trained echo tech to travel around TCHHS • Bicillin administrator to conduct home visits on the 28/7 cycle (echo cardiogram, travel budget) <p>700 clients need Bicillin every 28/7 and yearly echocardiogram. At the moment only 5% full compliance with management).</p>	<ul style="list-style-type: none"> • Cardiologists (CHHS) • Rheumatic heart disease nurse TPHU • Director of Medical Services North and South TCHHS • Primary Health Director of Nursing, North and South TCHHS • Indigenous Community engagement Cape and Torres • Primary Health Network

Driver: Poorly integrated and connected care

Strategy		Stakeholders
Statewide	<ul style="list-style-type: none"> • Roll out integrated care statewide-cofounded projects with Primary Health Networks 	<ul style="list-style-type: none"> • Consumers • Primary health networks

	<ul style="list-style-type: none"> • Implementation models need to enable project to roll out rapidly and at scale. • Rural and Remote: shared access to the medical record (hospital and My Health); telehealth; technology to enable the sharing of information, flagging patients requiring review, telehealth using home monitoring) 	<ul style="list-style-type: none"> • Hospital and Health Services • Department of Health • eHealth
Local	<p>Seamless transitions between hospitals and community and the seamless transfer of information</p> <ul style="list-style-type: none"> • Care in the community • iEMR: standardised care plans between primary and community care (pathways) • home monitoring technology: link back to primary care • education for patients to enable home monitoring (health and digital literacy) • Improved integration of cardiology and respiratory services (patient cohort requiring similar treatment and utilising the same equipment) 	<ul style="list-style-type: none"> • Consumers • Primary health networks • Hospital and Health Services • Department of Health • eHealth

Driver: Long distance to travel for treatment – rural and remote perspective

Strategy		Stakeholders
Statewide	<ul style="list-style-type: none"> • Tailoring health literacy resources to the community and population groups e.g. Aboriginal and Torres Strait Islander people / cultural / ethnicity • Develop community pathways i.e. health pathways to establish standards of care. • Tertiary facility partnering with a rural site to rotate skilled workforce and develop pathways (inclusive of exercise, medication, finance and access) 	<ul style="list-style-type: none"> • Hospital and Health Services • Department of Health • Primary Health Networks • General Practice • Consumers • Aboriginal Medical Services • Rural Generalists
Local	<ul style="list-style-type: none"> • Identifying existing models care an duplicating across the state where appropriate (customise to meet local need) • Transport alternatives to support transferred patients • Consumer engagement and planning resources • Health literacy programs facilitated by specific skilled workforce tailored to community groups. • Skilled workforce to support accurate and correct diagnosis (Nurse Practitioners with linkages to support these roles) • Early integration/education/ownership (physio-exercise, dietetics, smoking, 	<ul style="list-style-type: none"> • Hospital and Health Services (funding allocation) • Patients • Queensland Ambulance Service Person centred care leaders • Primary Health Networks • General Practice • Cardiac rehab • Aboriginal and Torres Strait Islander people

	pharmacy review, cost identification, transport, psychology-anxiety)	
--	--	--

Driver: Poor diagnosis- heart failure and COPD

Strategy		Stakeholders
Statewide	<ul style="list-style-type: none"> • Increase the age of smoking to 21 • Extension of S100 to other rural and remote areas (medication at no cost) 	
Local	<ul style="list-style-type: none"> • Improved access to echo and other diagnostic devices/services (support for outreach diagnostic services). • Improved primary care including diagnosis through spirometry (clinician training, outreach diagnostic) • Improved self-management skills (allied health rehab, allied health assistant, health workers, education on the use of preventative and treatment entities, education to health care practitioners and workers on education to patients on health literacy and on self-management, education to health care workers on motivational interviewing, training for 'local people' to train 'local people'. • Develop HHS strategy eg '10,000 lives' for smoking cessation programme. 	Mostly Hospital and Health Services with local partnerships (Primary Health Networks and local councils).

Driver: Reducing smoking (to reduce COPD)

Strategy		Stakeholders
Local (Torres and Cape)	<p>Reintroducing Indigenous smoking cessation teams (trained in educating; travel budget; 3 groups of 3 teams [indigenous health worker, nurse and 0.2FTE medical officer] team based in Cairns HHS, Cape and Torres. Funded:</p> <ul style="list-style-type: none"> • with the money from the smoking cessation pathway completion – resourcing critical to ensure this work is done • Primary Health Network 	<ul style="list-style-type: none"> • Respiratory physicians Cairns HHS • Aboriginal Medical Services and Northern Zone Torres Cape HHS Director of Medical Services • Primary Health Networks

Kidney and urinary tract infections

Driver: Clustering of populations with high risk of UTI (aged, young women, children)

Strategy		Stakeholders
Statewide	<p>Establishment of real-time data provision of PPHs</p> <ul style="list-style-type: none"> • Ability to enter into health records • Searchable/reportable by managers, clinicians and the public 	<ul style="list-style-type: none"> • eHealth • Consumers • Primary health networks • Hospital and Health Services • Department of Health

Local	An integrated system, population health program that is culturally appropriate and recognises prevention (hydration, post-coital voiding), early recognition of systems and completion of care with engagement of local primary care providers as available	<ul style="list-style-type: none"> • Consumers • Primary health networks • Hospital and Health Services • Department of Health • Aboriginal Medical Services
-------	---	---

Driver: Poor health literacy

Strategy		Stakeholders
Statewide	<ul style="list-style-type: none"> • Change coding – delineate cystitis and nephritis • Queensland Health to facilitate support and enable acute and primary care initiatives through investment and marketing 	<ul style="list-style-type: none"> • Department of Health • Department of Health
Local	<p>Invest in health promotion (sexual health for teenage/young girls, hygiene for babies and aged care education of staff to recognise and intervene earlier</p> <ul style="list-style-type: none"> • Education to encourage access to culturally capable services • Enable means other than GP to access urinalysis test kits (e.g. vending machine) • Self diagnostic tests • Enable the patient to test own urine for follow up rather than representing to GP (so they only represent if test result is positive) e.g. develop an app to assist point of care diagnosis from MSU <p>Awareness program targeted at high risk groups: what is a UTI, how to recognise it, who to see for treatment</p> <p>Preventative and management strategies implemented in residential aged care facilities (e.g. fluid intake and indwelling catheter hygiene).</p> <p>Diagnostic and treatment strategies: nurse initiated treatments</p>	<ul style="list-style-type: none"> • Community • Aboriginal Medical Services • Other local/community services (e.g. Refugee) • Primary health networks • Hospital and Health Services • Health Promotion • General Practice • Education Queensland • School based nurses • Womens health nurses • Pharmacists

Driver: Poor early detection, prevention and management. Poor adherence to guidelines.

Strategy		Stakeholders
Statewide	<ul style="list-style-type: none"> • Public health education /advertising campaign around hydration, hygiene, early signs and symptoms • Fund clinicians time to visit aged care facilities • Algorithms available to carers and clinicians • Education re prevention and early recognition 	<ul style="list-style-type: none"> • Primary Health Networks and Department of Health • Queensland Health • QHEPS • Primary Health Networks and State -> integration funding linked with audit.
Local	<ul style="list-style-type: none"> • Reaching into aged care facilities via telehealth or awareness program through GP/nurse educators 	<ul style="list-style-type: none"> • Telehealth and clinical educators (PHN and HHS)

	<ul style="list-style-type: none"> • Regular visits to educate and recognise '10' questions checklist • Guidelines available through health pathways, QHEPS, algorithms • Education of patients/carers using simple language 	<ul style="list-style-type: none"> • Education from PHN and HHS volunteers • Primary Health Networks and Hospital and Health Services
--	---	---

Driver: Adherence to evidence based guidelines

Strategy		Stakeholders
Statewide	Flexibility of resource allocation – ability to 'smudge' commonwealth and state money and resources to ensure care is delivered in the right place and right time.	
Local	Allow GPs to have access rights (with appropriate support) to admit or retain in the community with access to pre-admission support and to hospital in the home. This would be facilitated through a clinical care standard. For economies of scale it could also be used for community acquired pneumonia.	<ul style="list-style-type: none"> • General Practice • Primary Health Networks • General medicine departments • Infectious disease services (for antimicrobial stewardship and consultative expertise) • Diagnostic providers (e.g. blood tests) • Hospital executive/boards to fund

Diabetes complications

Driver: Poor health literacy, nutrition and self-management

Strategy		Stakeholders
Statewide	<ul style="list-style-type: none"> • Change food guidelines to reduce carbohydrate and sugar intake • Include healthy eating and exercise education in the physical education curriculum of schools • Introduce a sugar tax 	<ul style="list-style-type: none"> • Department of Health • Federal Government • Dietitians • Department of education • Consumer groups
Local	Low carb high fat diets	

Driver: Diabetic foot complications

Strategy		Stakeholders
Statewide	State government policy makers and clinicians lobby the commonwealth to affect adequate reimbursement and incentive. State government savings should be reinvested into primary health settings to continue education and clinical excellence.	<ul style="list-style-type: none"> • State Government • Commonwealth Government • Clinicians • Private health insurers • Consumers
Local	HHS and PHN co-investment strategy to employ appropriately qualified clinicians to work in primary health care facilities. GPS and Aged care facilities to impart knowledge skills an abilities ensuring contemporary and best practice (e.g.	<ul style="list-style-type: none"> • Primary health networks and Hospital and Health Services as funders • General Practices • RACGP • APNA

	nurse practitioner / expert clinician funded through PHRN to spend x time and funding models).	<ul style="list-style-type: none"> • AAPM Aged Care facilities • Queensland Health – Statewide Diabetes Clinical Network • Podiatrist Association • Health Consumers Queensland • GP liaison officer • Aboriginal Medical Services
--	--	--

Driver: Poor recognition of cognitive impairment

Strategy		Stakeholders
Local	Develop tools to adapt interventions Education to consumers and carers	

Driver: Inadequate workforce

Strategy		Stakeholders
Statewide	Recruit, train and retain: GPs, nurse educators, dieticians, psychologists.	<ul style="list-style-type: none"> • Queensland health • Hospital and Health Services • Professional colleagues • Universities • AHPRA

Driver: Adherence to evidence-based guidelines by clinicians

Strategy		Stakeholders
Statewide	<ul style="list-style-type: none"> • Agreement on standards of care to improve diabetes care • Audit – use the iEMR to identify outliers 	<ul style="list-style-type: none"> • Queensland health • Hospital and Health Services • eHealth • Professional colleges • Consumers