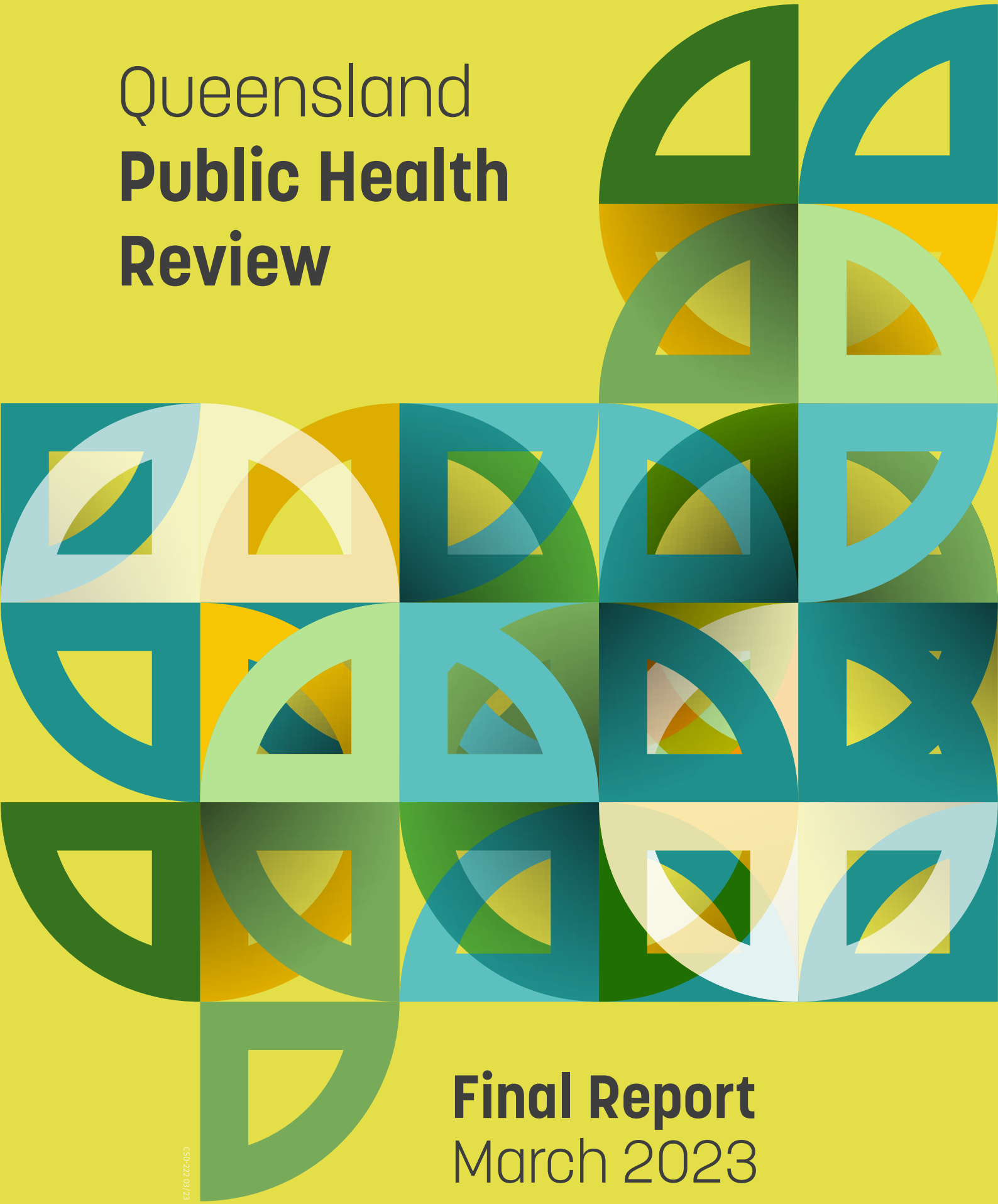
Queensland **Public Health Review**



Final Report
March 2023

Dr Tarun Weeramanthri

CSD-222037/23

Contents

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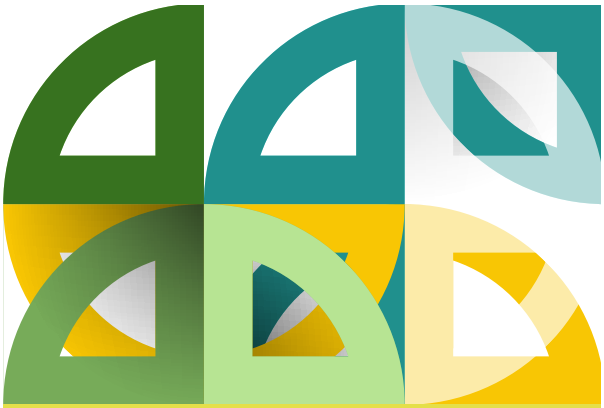
Acronyms



ACDC	Australian Centre for Disease Control
AHMAC	Australian Health Ministers Advisory Council
AHPPC	Australian Health Protection Principal Committee
AIHW	Australian Institute of Health and Welfare
AIR	Australian Immunisation Register
BBVSS	Blood Borne Viruses and Sexually Transmissible Infections Standing Committee
CDIS	Communicable Disease Information System
CDNA	Communicable Diseases Network Australia
DoH	Department of Health
enHealth	Environmental Health Standing Committee
HAI	Healthcare associated infection
HCEF	Health Chief Executives Forum
HHSs	Hospital and Health Services
HPM	Healthcare Purchasing Model
HWQ	Health and Wellbeing Queensland
IMT	Incident Management Team
KPI	Key Performance Indicator
LANA	Local Area Needs Assessment
MAPLE	Management of Applications, Permits and Licensing Events
NATSIHP	National Aboriginal and Torres Strait Islander Health Protection Sub-Committee
NHEMS	National Health Emergency Management Standing Committee
NHRA	National Health Reform Agreement
NINDSS	National Interoperable Notifiable Disease Surveillance System
NoCS	Notifiable Conditions System
PHLN	Public Health Laboratory Network
PHN	Primary Health Networks
PHU	Public Health Unit
QHAPDC	Queensland Hospital Admitted Patient Data Collection
QHNAPDC	Queensland Health non-admitted patient data collection
QPHaSS	Queensland Public Health and Scientific Services
RACI	Responsible, Accountable, Consulted, Informed
VMS	Vaccine Management System
WHO	World Health Organisation

2.0

Executive summary

This review was commissioned at the mid-point of a 20-year process that started with the system wide reforms of 2012 and will end with the Brisbane 2032 Paralympic and Olympic Games. It was conducted three years after the beginning of the COVID-19 pandemic and at the point where the health system was transitioning out of emergency settings and into a new way of working, including a newly established Queensland Public Health and Scientific Services Division (QPHaSS).

The terms of reference (Appendix 1) were both broad and long-term. Therefore, the outcomes of the review will be maximised if the review itself is seen as one part of a bigger change process, and if the review is read as a whole, rather than simply as a series of specific recommendations.

Like all health systems across the world, the Queensland public health system[1] has demonstrated considerable strengths as well as some gaps and weaknesses, both prior to and during the COVID-19 pandemic. Over time, the public health system has become fragmented. The good news is there is strong support for making the current decentralised system work better, and much can be done in the short-term by returning to fundamental principles of sound system management. A decentralised system needs strong central coordination, but not over-zealous control.

The recommendations in this report set out an ambitious vision to drive systemic improvement across the sector. Achieving this vision will require strong leadership and a supportive culture to build on established technical capacity and critical partnerships, particularly between the Department of Health, Hospital and Health Services and Public Health Units.

A key feature in the report is the adoption of risk management as a central theme and there are a range of recommendations that build upon this idea, including to calibrate investment and effort around risk, and promote regulatory excellence. Action on First Nations health equity, pandemic preparedness and climate change should all be proportionate to known risks.

The associated 10-year roadmap (Supplement 1) provides a timeline to develop a state-of-the-art public health system. The sequencing of the change process will be critical. Somewhat paradoxically, the initial emphasis in the roadmap is on clarity of relationships, and support for operations (including through a revision of the Public Health Practice Manual). Bigger picture strategic reform is recommended slightly later, as it will need a stronger base than exists currently to be sustained and successful.

A number of other suggestions are contained in this review (including on data, performance, and workforce) and their prioritisation, feasibility and acceptability should be determined over time through the planning, partnership and governance process overseen by the new Queensland Public Health and Scientific Services Board of Management and the QPHaSS executive, and in light of other developments such as the establishment of an Australian Centre for Disease Control.

[1] Note that 'public health system' is used throughout this report in reference to the public health functions/services of the health system. It is NOT synonymous with public hospitals, publicly funded health services or the overall Queensland health system.

3.0

Acknowledgements

The review team would like to thank all who contributed to this review, with stakeholders across the state generously sharing their reflections, ideas and aspirations through face-to-face meetings, focus groups, opportunistic conversations, written information, and survey responses. This review could not have been possible without these thoughtful and insightful perspectives.

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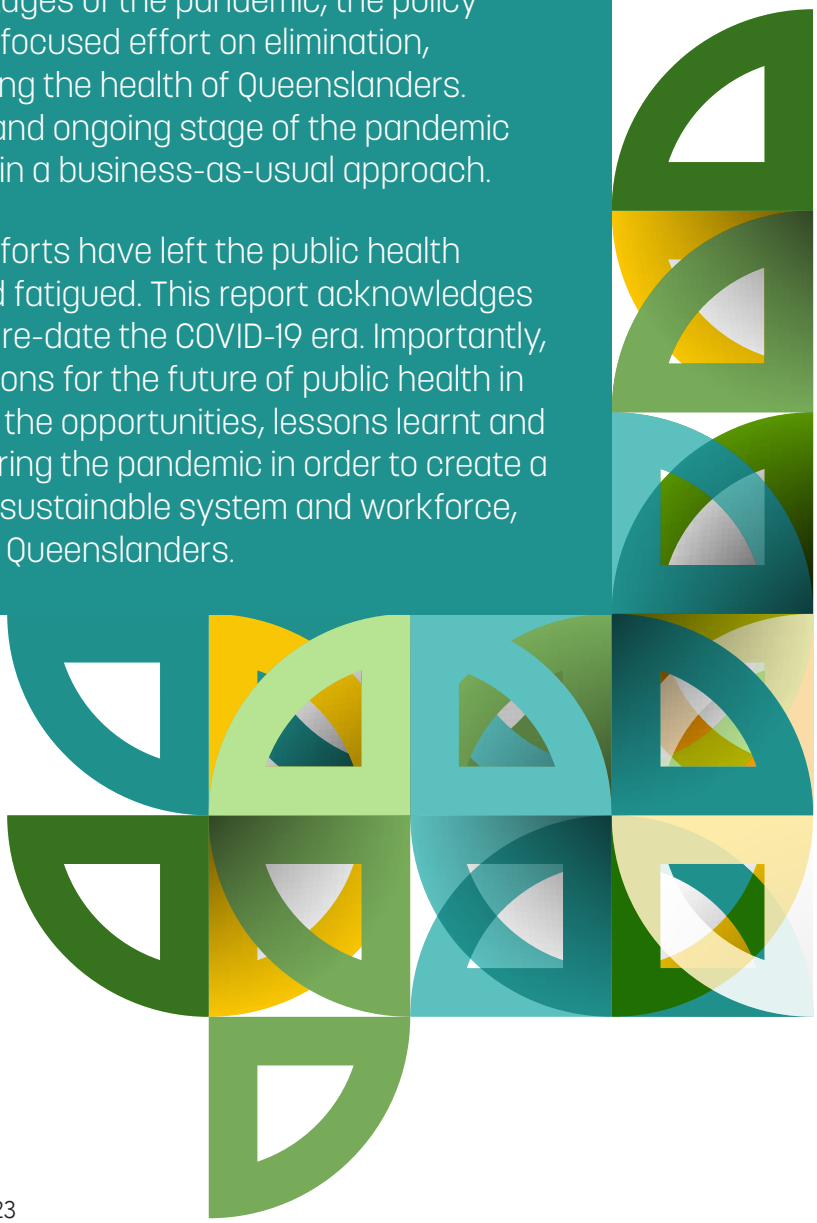
4.0

Introduction

The COVID-19 pandemic has presented an unprecedented and ongoing challenge to Queensland's health system. Throughout the early stages of the pandemic, the policy settings in Queensland focused effort on elimination, prevention and protecting the health of Queenslanders. The focus of the latter and ongoing stage of the pandemic is on management within a business-as-usual approach.

Concerted pandemic efforts have left the public health workforce depleted and fatigued. This report acknowledges that many challenges pre-date the COVID-19 era. Importantly, it makes recommendations for the future of public health in Queensland building on the opportunities, lessons learnt and innovation achieved during the pandemic in order to create a more collaborative and sustainable system and workforce, and better health for all Queenslanders.



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Organisational context

Queensland Health consists of the Department of Health and 16 independent Hospital and Health Services (HHSs) situated across the state. *The Hospital and Health Boards Act 2011* provides the overarching framework for the delivery of publicly funded health services in Queensland.

Department of Health

The department is the system manager for the Queensland health system. In addition to the legislative responsibilities of HHSs under the *Hospital and Health Boards Act 2011*, the Act authorises the Chief Executive of the department to issue health service directives[2] to HHSs for the purposes of specific requirements of, or outcomes to be achieved by HHSs. Health service directives of relevance to public health services include:

- healthier food and drinks at healthcare facilities
- declaration and management of a public health event of state significance
- tuberculosis control.

A realignment of the department was completed in October 2022. As part of this realignment, the QPHaSS Division was established. The QPHaSS Division leads the statewide planning and coordination of programs and services to prevent or control health-related diseases, and promote the overall wellbeing of Queenslanders.

QPHaSS branches include:

- **Communicable Diseases Branch**—responsible for the surveillance, prevention and control of communicable diseases in Queensland.
- **Health Protection Branch**—seeks to safeguard the community from potential harm or illness caused by exposure to environmental hazards, diseases and harmful practices. The branch has both a regulatory and health risk assessment focus and works across a range of program areas.
- **Cancer Screening Branch**—drives increased participation in the three national cancer screening programs for the early detection of bowel, breast and cervical cancer.
- **Healthcare Regulation Branch**—responsible for providing strategic advice on matters related to private facilities, medication management services, drug approvals, healthcare legislation and policy, medicinal cannabis and blood, human tissue and related products.
- **Forensic and Scientific Services**—the Public and Environmental Health team play a critical role in the response to epidemics, civil emergencies and public health threats.
- **Pathology Queensland**—statewide comprehensive diagnostic pathology service.

Other divisions across the department which are integral to public health services include:

- Office of the Chief Health Officer
- Office of the Chief First Nations Health Officer
- Prevention Strategy Branch, Strategic Policy and Reform Division
- Disaster Management Unit.

[2] Health service directives | Queensland Health

Hospital and Health Services

HHSs are responsible for the delivery of public health services as independent statutory bodies, each governed by their own professional Hospital and Health Board and managed by a Chief Executive. Each of the 16 HHSs in Queensland has developed a strategic plan to identify its vision, purpose, objectives and performance indicators.

The HHS strategic plans are underpinned by the Local Area Needs Assessment (LANA). The LANA is a detailed assessment of health needs, based on an analysis of local level data across domains. It aims to guide health service planning, models of care development and service commissioning in partnership with Primary Health Networks (PHN), Aboriginal and Torres Strait Islander Community Controlled Health Organisations and other local partners and consumers. The LANA supports an integrated commissioning approach whereby available resources are targeted at locations and populations with greater unmet needs to improve equity.[3]

There is a service agreement[4] in place between the department and each HHS. The service agreement sets out the services to be provided by the HHS and the funding the HHS will receive for the delivery of these services. It also defines the outcomes that the HHS will deliver and how its performance will be measured. The current service agreement covers the period from 1 July 2022 to 30 June 2025.

Delivery of public health services by the HHSs is a function of a range of services and programs including public health units (PHUs), sexual health services, tuberculosis services, immunisation services, BreastScreen Queensland and other cancer screening programs. Public health activity also occurs through oral health and work undertaken with regard to injury prevention. Pathology Queensland and Forensic and Scientific Services provide a range of public health functions that underpin the public health system including diagnostics, genomics and other laboratory testing.

The 2022-2023 HHS service agreement describes:

Prevention services and population health services

(a) The HHS will provide a range of services with a focus on the prevention of ill health and disease, including:

   i. specialist PHUs
   ii. preventive health services
   iii. immunisation services
   iv. sexually transmissible infection services (including HIV and viral hepatitis)
   v. tuberculosis services
   vi. population health screening including, but not limited to, cancer screening services and newborn blood spot screening

(b) Services will be provided in line with public health related legislation and the service delivery and reporting requirements outlined in the *Public Health Practice Manual*, as these relate to the services provided.

[3] Local Area Needs Assessment (LANA) Framework
[4] Service agreements and deeds of amendment, Queensland Health

Healthy South West Region

Health and Wellbeing Queensland is working with South West Hospital and Health Service (SWHHS) to contribute to shared outcomes for a healthier South West region and a coordinated regional approach to obesity prevention, nutrition, and physical activity initiatives.

Based on a memorandum of understanding between SWHHS and HWQ, a shared Implementation Plan has been developed and a Strategic Oversight Group established to oversee shared responsibilities and to stimulate networking, knowledge sharing and cross promotion opportunities.

Options are being explored to increase access to preconception information for clinicians and consumers, increase access to prevention programs for people at high/medium risk of chronic disease, and to encourage physical activity in the workplace.

Health and Wellbeing Queensland

Health and Wellbeing Queensland (HWQ) is a statutory body established in 2019 to improve the health and wellbeing of the Queensland population by reducing the burden of chronic diseases through targeting risk factors for those diseases, reducing health inequity and by other measures.[5]

HWQ works collaboratively with the Prevention Strategy Branch and leads Queensland's response for obesity prevention and improved healthy weight outcomes as described in the *Queensland Health Prevention Strategic Framework 2017-2026*.

Additionally, as outlined in the *Department of Health Strategic Plan 2021-2025*, HWQ will lead the development of a Queensland Equity Framework that will work with clinicians, organisations, government and other partners to address the foundational causes of inequitable life outcomes and improve health and wellbeing for all. The Equity Framework harnesses these partners to drive a shared understanding, common goals and integrated action to improve life outcomes for all Queenslanders.

[5] *Health and Wellbeing Queensland Act 2019*

6.0

National context

The *National Preventive Health Strategy 2021-2030*[6] recognises that our health system is fundamentally focused on the treatment of illness and disease and there is a need to rebalance the health system to invest more in prevention. The Strategy addresses the third pillar of *Australia's Long Term National Health Plan*[7] and will align to the *2020-25 National Health Reform Agreement*.[8] It will also require alignment with several other whole of government approaches, including for primary care and First Nations health.

Australian Centre for Disease Control

The Australian Government is delivering on its election commitment to establish an Australian Centre for Disease Control (ACDC) and has commenced national consultation via a consultation discussion paper and undertaken a series of targeted key stakeholder workshops. The Australian Government has committed that the ACDC's focus will be on ensuring Australia is prepared for future pandemics and take an 'all hazards' approach to strengthening Australia's ability to respond to a range of public health threats.

A staged rollout of the ACDC will occur prioritising the following areas for implementation by early 2024:

- Further developing the national medical stockpile.
- Developing a national, enhanced communicable disease surveillance and emergency management system.
- Communicable disease surveillance, prevention and response.

Australian Health Protection Principal Committee

Integral to the establishment of the ACDC will be collaboration with the existing national structure for health protection, the Australian Health Protection Principal Committee (AHPPC). AHPPC provides advice to the Australian Health Ministers Advisory Council (AHMAC) and Health Chief Executives Forum (HCEF) on health protection matters and national priorities. AHPPC is also tasked with mitigating emerging health threats related to infectious diseases, the environment, natural and human made disasters.

Queensland's Chief Health Officer represents Queensland Health on AHPPC with other departmental staff representative on several targeted subcommittees including:

- Communicable Diseases Network Australia (CDNA)
- Public Health Laboratory Network (PHLN)
- Environmental Health Standing Committee (enHealth)
- National Health Emergency Management Standing Committee (NHEMS)
- Blood Borne Viruses and Sexually Transmissible Infections Standing Committee (BBVSS)
- National Aboriginal and Torres Strait Islander Health Protection Sub-Committee (NATSIHP).

[6] National Preventive Health Strategy 2021-2030
[7] Australia's Long Term National Health Plan
[8] 2020–25 National Health Reform Agreement (NHRA)

7.0

Legislation

The department administers a suite of portfolio and general legislation that underpins the management of the health system and the delivery of services across Queensland.[9] The department's *Portfolio and general legislation compliance management policy*[10] describes the legislative compliance management framework for the roles and responsibilities related to planning, monitoring and reporting for legislative compliance. Some QPHaSS senior officers are delegated Legislation Custodians and Compliance Managers responsible for administering and managing compliance for a particular Act or part of an Act.[11]

Legislation and guidance specifically related to public health services include:

- *Environmental Protection Act 1994*
- *Food Act 2006* and Food Regulation 2016
  - The Food Pantry | Health and wellbeing | Queensland Government
- *Health and Wellbeing Queensland Act 2019*
- *Hospital and Health Boards Act 2011*
- *Medicine and Poisons Act 2019* and Regulations (Medicines; Poisons and Prohibited Substances; Pest Management Activities)
  - New medicines, poisons and pest management regulatory framework
- *Public Health Act 2005* and Public Health Regulation 2018
- *Public Health (Infection Control for Personal Appearance Services) Act 2003* and Public Health (Infection Control for Personal Appearances) Regulation 2016
  - Public Health (Infection Control for Personal Appearance Services) (Infection Control Guideline) Notice 2013
  - *Public Health (Infection Control for Personal Appearance Services) Act 2003* - a guide for local governments (August 2014)
  - Infection control guidelines for personal appearance services 2012
- *Radiation Safety Act 1999* and Radiation Safety Regulation 2021
  - *Queensland Health Radiation Safety Act 1999*: Strategy to achieve compliance (May 2013)
- *Tobacco and Other Smoking Products Act 1998* and Tobacco and Other Smoking Products Regulation 2021
- *Water Fluoridation Act 2008* and *Water Fluoridation Regulation 2020*.

[9] Health Portfolio Acts and Subordinate Legislation, Queensland Health
[10] *Portfolio and general legislation compliance management policy*
[11] Queensland Health ('Department of Health') Portfolio and general legislation schedule

8.0

Policy context

A range of Queensland Health policy, strategic plans, review documents and manuals have laid the foundations for and guided the review process. Specifically, the *Unleashing the potential: an open and equitable health system* (August 2020),[12] aligned with the restructure of the department, called for the lessons learnt early in the COVID-19 pandemic response to be embedded, and to make prevention and public health a system priority that emphasises equity, high value care, innovation, opportunity and leadership.

Specifically, Recommendation 2 of *Unleashing the potential* states:

1. Amend the *Hospital and Health Boards Act 2011* to add prevention and population health as activities and responsibilities of the HHSs, working in partnership with other local agencies to improve population health outcomes.
2. Include an incentive in the Queensland Health funding and purchasing model to reward HHSs for improvements in care and outcomes.
3. Develop an approach that sustains increased focus on population health, health promotion and secondary prevention activities across the health system, including within HHSs.
4. Establish additional prevention and public health capacity in, and for, Cape York, and Torres Strait, and in, and for Western Queensland.
5. Create a public health and prevention clinical network.
6. Develop and deliver a multidisciplinary Queensland public health training program in consultation with Queensland universities and relevant professional bodies.
7. Expand immunisation capacity across Queensland, especially to prepare for a COVID-19 vaccine.

Key documents reviewed and considered in the review process are outlined below and further detail is available at Appendix 2.

- *Unleashing the potential: an open and equitable health system, August 2020*
- *Department of Health Strategic Plan 2021-2025*
- *Prevention Division Strategic Directions 2020-2023*
- Hospital and Health Service strategic plans
- *Public Health Practice Manual, January 2016*
- Chief Health Officer Report
- *Prevention Strategic Framework 2017-2026*
- *Cancer Screening Strategic Framework 2019 to 2026*
- *Digital Plan 2020-2025*, Prevention Division
- *Advancing health service delivery through workforce: a strategy for Queensland, 2017-2026*
- *My health, Queensland's future: Advancing health 2026*
- *Making Tracks Together - Queensland's Aboriginal and Torres Strait Islander Health Equity Framework, October 2021*
- *Role and functions of an Australian Centre for Disease Control, 10 November 2022*

[12] *Unleashing the Potential-an open and equitable health system*

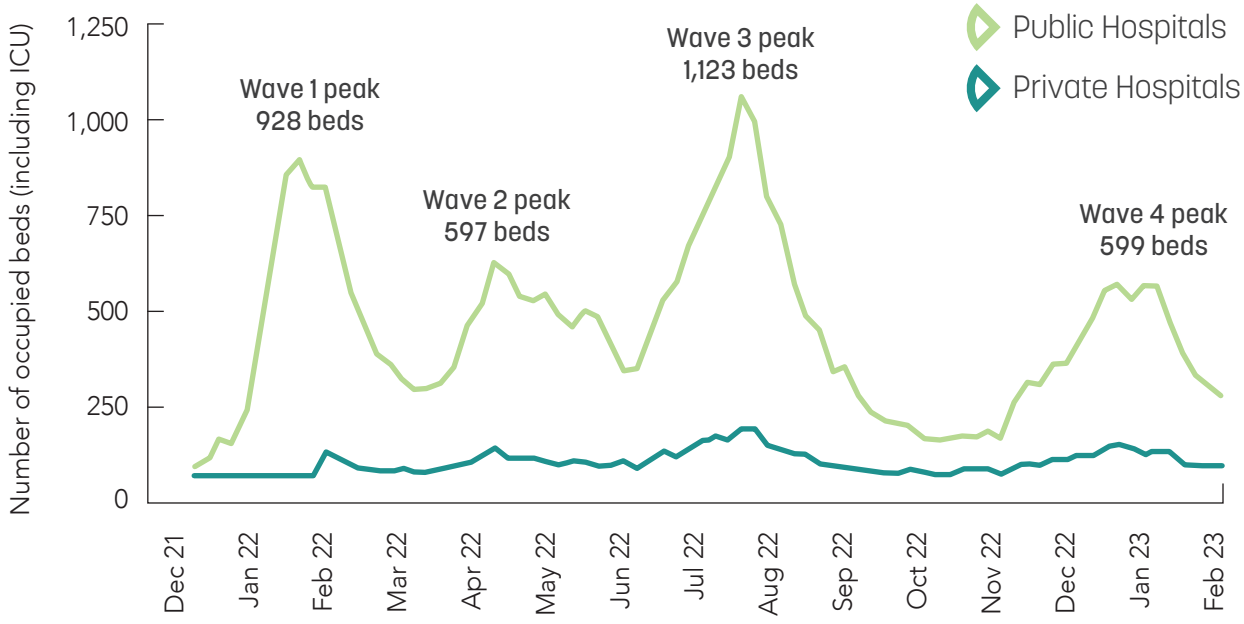
9.0

Situational context

In 2021, 5.2 million people were usual residents of Queensland with 4.6 per cent of Queenslanders identifying as being of Aboriginal and/or Torres Strait Islander origin.[13] Queensland's population is increasing primarily by natural growth and further increasing through interstate and overseas migration.

The COVID-19 pandemic changed the landscape of public health priority and activity both by the health system and consumers. The effects of border closures, lockdowns, isolation, quarantine and protective measures such as mask wearing impacted disease patterns and affected preventive measures such as immunisation uptake. Since the state borders opened on 13 December 2021, Queensland has experienced four waves of COVID-19 with the highest peak of hospitalisations in the third wave in August 2022 at 1,123 beds (Figure 1). The impact of COVID-19 on our future is yet to be fully understood but it will likely result in ongoing impacts to the health system and the health of Queenslanders.

Figure 1: COVID-19 hospital bed occupancy reported since 13 December 2021

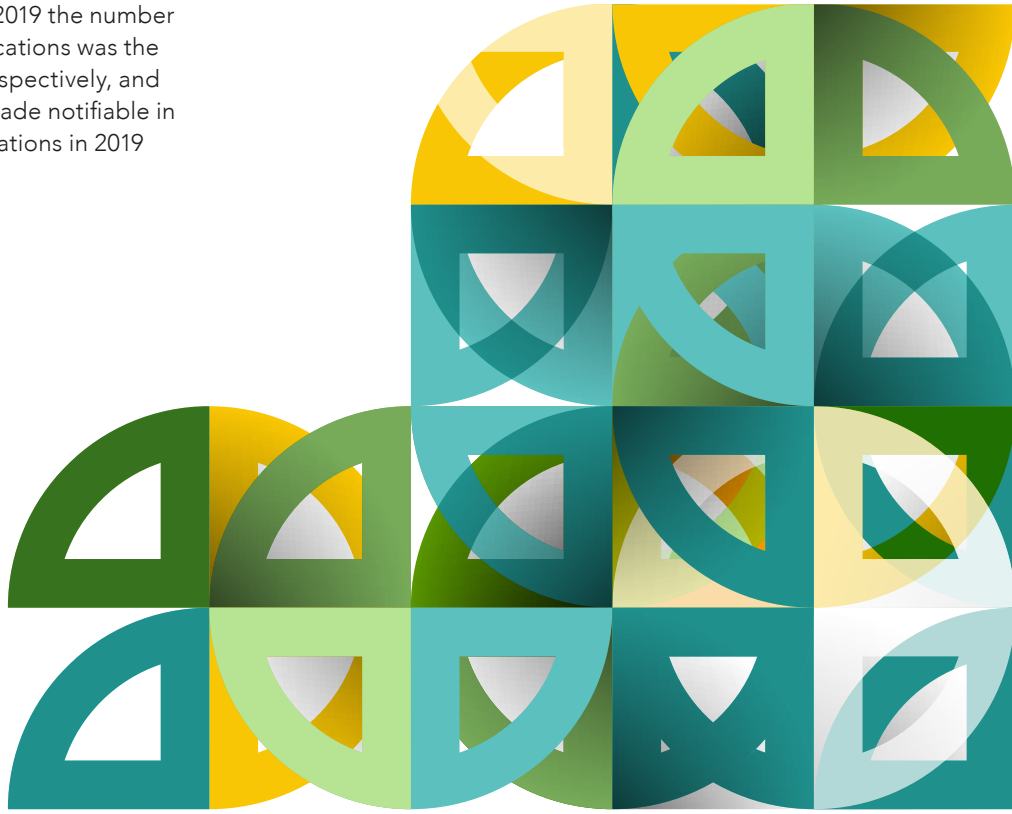


Source: Manual compilation of inpatient reports by HHSs

[13] Snapshot of Queensland | Australian Bureau of Statistics
[14] Chief Health Officer report | Queensland Health

The biennial report of the Chief Health Officer Queensland, *The Health of Queenslanders*[14], provides a broad overview of the Queensland population and our health services. The next biennial report of the Chief Health Officer will be available in early 2023. As part of this review, a range of population health data from the 2020 report in the 'pre-COVID' era was considered as the baseline for the public health priorities and activities in Queensland. 2020 CHO Report population data includes, but is not limited to:

- **Demographic data**—16 per cent of Queenslanders were aged 65 years and older, with associated health challenges. Population was declining in the northern, central and south western regions of the state.
- **Hospitalisations**—causes of hospitalisation in 2019-2020 were 3 per cent lifestyle related, and 7 per cent of hospitalisations were potentially preventable. Queensland's potentially preventable hospitalisations rate was 22 per cent higher than the national rate.
- **Deaths**—36 per cent of deaths 2017-2019 were lifestyle related.
- **Notifiable communicable diseases**—notification rates for HIV declined by 24 per cent from 2015 to 2019, infectious syphilis notifications almost doubled from 2015 to 2019, in 2019 the number of measles and influenza notifications was the highest since 1997 and 2001 respectively, and rheumatic heart disease was made notifiable in 2018 with 64 per cent of notifications in 2019 in First Nations people.
- **Risk and protective factors for health**
  - **Smoking**—the proportion of adults smoking daily halved since 2002 to 10 per cent of adults in 2020. 13 per cent of adults had ever tried an e-cigarette in 2018-2019. 12 per cent of women smoked during pregnancy, which was a consistent decline from previous years.
  - **Cancer screening**—participation rates in breast screening have been decreasing and were marginally above the national average at 54.3 per cent. Participation rates for bowel screening were lower than the national average at 40.8% (2017-2018).
  - **Immunisation**—rates of fully immunised children were 94.2 per cent at 1 year old, 91.9 per cent at 2 years and 94.4 per cent at 5 years.
  - **Overweight and obesity**—25 per cent of children and 66 per cent of adults were overweight or obese. Tobacco, overweight and obesity, diet and high blood pressure were the leading risk factors for overall disease burden (including chronic diseases and cancer).



10.0

Scope and methodology

A mixed methodology was used in this review including a key document review as outlined in the *Policy Context* and focused consultation activities for example, stakeholder meetings and internal public health staff consultation survey. Details of consultation activities can be found in Appendix 3.

Due to the relatively short time period for the review, consultation activities were focused, and included continuous feedback and testing of findings and themes with the steering committee, staff and stakeholders, with the underlying principle that there should be 'no surprises' in the final report. In addition to focused consultation activities, the review team accepted written material as voluntarily provided without a specific call for submissions.

Public health services were primarily identified as those health services outlined in the HHS service agreement including PHUs, sexual health services, tuberculosis services, immunisation services and cancer screening services.

Although mental health, oral health and scientific services are foundational contributors to the public health system and better public health in Queensland, the review team have focussed on services which fall under the description of *prevention services and population health services* in the current service agreement. Similarly, activities related to injury prevention and road safety were not examined but it was identified that some injury prevention activity is conducted by Children's Health Queensland and road safety activity is led by the Department of Transport and Main Roads with the Department of Health participating as a key stakeholder. The review did not attempt to formally identify lessons learnt from the COVID-19 response, though the experience of that response naturally informed stakeholder perspectives.

11.0

Findings and recommendations

1. Defining public health

Findings:

The definition of 'public health' as written in the *Public Health Practice Manual* is widely accepted.[15] *The Public Health Practice Manual* defines public health using the National Public Health Partnership definition (1997). Within this definition, public health has a wide diversity of functions that focus on addressing the range of risks and protective factors that determine the health of our community, many needing highly technical and specialised professional expertise, and a variety of statutory, regulatory and policy responsibilities.

The range and extent of public health risks are different in each region and the key challenge for public health in Queensland is managing the diversity of risk across the system. Local conditions are highly variable and regionalised, which ultimately means a one size fits all approach for public health will never be fit for purpose.

Public health risk management is practiced on a daily basis by many areas of the QPHaSS Division and by the PHUs. Although the work of PHUs is focused on local risks, understanding the macro system-wide risks and the threat they pose to the broader health system is a critical function of the system manager.

For example, as Queensland prepares for the 2032 Olympics, a myriad of risks will emerge across the state. For public health services to be able to respond to and mitigate these risks, a shared understanding of purpose and priority will be necessary along with a conceptual framework around risk.

The current *Public Health Practice Manual* definition of public health lacks explicit mention of risk management, despite risk management being an essential component of daily health protection practice, for example, in environmental health, communicable disease control, and disaster management.

[15] Definition is "The organised response by society to protect and promote health, and to prevent illness, injury and disability. The starting point for identifying public health issues, problems and priorities, and for designing and implementing interventions, is the population as a whole, or population sub-groups'. This definition was developed by the National Public Health Partnership in 1997.

West Moreton Health Prevention Plan

West Moreton Health (WMH) has embraced public health and prevention as reflected in the WMH Strategic Plan 2021-2025 under the strategic action Enhance the health of our communities by focusing on health promotion and disease prevention. The West Moreton PHU has been charged with developing and implementing a WMH Prevention Plan.

The draft WMH Prevention Plan will recognise prevention as everybody's business and reflect a strong focus on local needs assessment, equity, stakeholder engagement, data and evaluation.

Embedding a risk management framework is essential to support future pandemic planning, disaster and emergency management response planning and planning for major events. The COVID-19 pandemic represents an excellent example of how public health risks are realised, where a risk of low to moderate likelihood resulted in extreme consequences for the whole health system.

Collectively working to the 'top of scope'[16] will require public health to influence and shape systemic responses to the drivers of public health risk which, in turn generate risk to the health system more broadly. To achieve this, a shared vision and purpose needs to be established first. From this basis, public health can seek to influence priorities and contribute to the sustainability of the broader health system. This sentiment is echoed in the consultation feedback. For example, one PHU Director proposed their PHUs vision statement as '*maximise the influence of our people for the health of our population*'. This vision was repeated in consultation feedback with an expectation that the public health review should strengthen public health.

Public health services aim to protect health gains; prevent disease, illness and injury; and promote health and wellbeing. The addition of 'manage risk' into the operational definition of public health will allow for continued support of critical functions which fall under the 'low probability but high consequence' category (e.g. pandemic planning), and assessment of other emergent risks (including climate change).

[16] Top of scope refers to those roles, functions and responsibilities that professionals are competent and authorised to perform. The full scope of a profession is set by professional standards and in some cases legislation. Top of scope for an employee is determined by the role description of their position.

Therefore, it is recommended:

1.1 Complement the accepted traditional definition of public health by adopting a three-part functional description of public health—'promote health, prevent disease and manage risk'.

1.2 Introduce the conceptual and definitional change of public health into all major documents, notably the *Public Health Practice Manual* in the first instance, and later into a review of the *Public Health Act 2005*.

1.3 Develop a matrix of risk drivers for public health to inform an investment framework.

Then:

- Risk management becomes embedded as a driver of public health value.
- Public health can meaningfully contribute to resilience and sustainability of the health system more broadly.
- Public health will be best placed to respond to emergent risks and to integrate public health with emergency management and disaster preparedness.
- Investment and effort can be calibrated around risk.

This needs to be done because:

- The drivers of public health risk pose an increasing threat to the whole health system.
- Public health includes a diversity of functions with many critical functions that could be considered low probability but high consequence.
- Public health planning, investment and growth must be shaped and informed by broader system risk.
- A shared understanding of risk as a driver of public health is foundational to understanding the role public health plays in managing health system risk.

2. Realising the opportunity

Findings:

There is a long-standing context for public health operations in the department and HHSs. Despite a reduction of services and scope for public health activity from 2013, the public health workforce across Queensland Health is experienced, passionate and dedicated. There is an appetite for reform and a general shared willingness to drive systemic improvement. Many of those who participated in this review saw it as an opportunity to drive improvement and welcomed the momentum it could bring.

All states and the Northern Territory have moved to a predominantly decentralised public health model, with public health services accountable to local area health services. This is particularly evident in Queensland, where each HHS has its own board, and financing and accountability for public health is provided through the HHS. This 'solid line' arrangement between a PHU and HHSs was introduced in 2012, and allows for local needs assessment, priority setting and responsiveness (see Figure 2). The model is now broadly understood and supported with only a handful of staff wanting to return to the previous centralised model. PHUs see a 'dotted line' relationship with various parts of the department, primarily in the QPHaSS Division, which needs to be strengthened. A similar relationship exists for other public health services including cancer screening and sexual health.

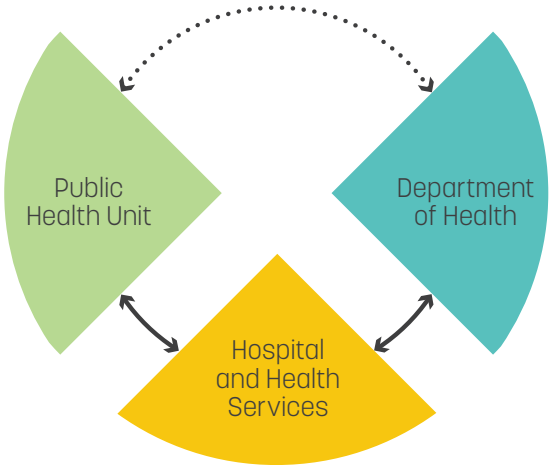


Figure 2: Public Health Unit relationship across the health system

One of the clearest messages to come out of the regional consultations was the need for the department as the system manager to take a much more active role in guiding and providing direction for public health, but without seeking to control or micro-manage local activities. There was a general sense that the department had lost sight of the work that happens at the 'coal face' and was distracted by bureaucracy and responding to government business.

From within the HHSs, there is a significant desire and motivation to address these challenges. However, it is evident this is coupled with frustration and mistrust of the system manager to steward and advocate at a system level, which undermines attempts to strengthen services locally. Throughout the consultation, a noted breakdown of trust and confidence was observed. This was a bi-directional phenomenon with the system manager not trusting the HHS and the HHS not trusting the system manager. One of the clearest messages from the frontline was the need to engage them. This could be described in a general sense of 'do things with us and not to us'. It was generally felt that the opportunity to draw on expert advice from the HHS when developing policy was a missed opportunity.

There are many areas of public health which cannot be easily separated into distinct 'set and forget' responses. Many of these areas will require review every few years or in response to emerging trends or risks. Strategy, operational tactics and outcomes need to closely inform each other and there is great benefit that could be realised by having a closer connection with frontline staff to refine operational and strategic policy.

One of the key learnings from COVID-19 was the benefit of a dedicated policy, liaison and engagement function. In a rapidly changing environment that attracted significant interest from government and the community, this allowed operational business areas of the department to focus on matters of operational policy but still allowed them to contribute expertise and advice to the strategy. Though some would argue this did not go far enough, there is clearly an opportunity for the department to better harness expertise from the frontline.

This review has built momentum and an appetite for change. If the recommendations in this report are accepted, there will be a significant piece of work to drive reform across the public health system. Many of the recommendations contained in this report require collaborative development across the department and with HHSs. The associated roadmap for reform prioritises the establishment of mechanisms to drive collaboration. This will require leadership, effective engagement and dedicated resources.

Therefore, it is recommended:

2.1 Maintain and strengthen the current decentralised public health model.

2.2 Establish a Public Health Strategy and Support Unit in the Office of the General Manager, QPHaSS to support the system manager function, lead governance, strengthen the relationships between strategic and operational elements of the public health system and lead collaborative reform.

2.3 Define the public health system manager role to include:

a. statewide leadership, assurance and stewardship

b. delivering practical support, guidance, tools and training for public health and

c. drawing on the expert skills and experience of frontline staff.

Then:

- Trust between the system manager and the operational elements of the public health system will be strengthened.
- The foundations for a more sophisticated public health system that is strategically oriented, risk driven, effectively led and future focused can be established.
- Strategy, tactics and outcomes will closely inform each other.

This needs to be done because:

- A solid foundation between the system manager and operational elements is critical to strengthen public health now and into the future and to mitigate system risk.
- Unrealised potential from within the department and HHSs should be harnessed.
- A robust public health response that addresses broader system risk and demand is critical to reorient the health system to one in which public health is a whole of system priority.

3. Strengthening the mandate

Findings:

One of the core public health functions is the administration of public health legislation, and the exercise of statutory responsibilities, including a compliance function, carried out by authorised officers. Under the federal system and the Australian constitution, the states are responsible for the vast majority of public health functions, with the Commonwealth responsible primarily for quarantine or biosecurity at international borders. This was evident through the COVID-19 pandemic response, with emergency powers mostly enacted through state emergency provisions or public health Acts.

New public health law is quintessentially about risk management, rather than the proscription of particular offences and the prescription of specific remedies. This approach is common to modern environmental and occupational health legislation. The scope of public health law includes not just the broad *Public Health Act 2005*, but also specific Acts or regulations dealing with food safety, water quality and fluoridation, air quality, radiation, poisons and pesticides, infection control, vaccination, disasters, transplants, anatomy and cremation.

Though Queensland's *Public Health Act 2005* was extensively modified in response to COVID-19, the Queensland legislation is now somewhat dated compared to other jurisdictions. Unlike more modern Acts, the Queensland legislation sets out a single object and could be strengthened to support the reforms outlined in this report. Most importantly, an amended Act should set out a risk-based approach to public health and this approach could be used to harness key players, such as local government to engage in collaborative planning and action that supports the health of Queenslanders.

The *Medicines and Poisons Act 2019* came into effect from September 2021. A review of the Food Regulation 2016 was delayed in late 2022 and is now planned for February 2023. Amendments to the Tobacco and Other Smoking Products Regulation 2021 are currently being considered by the Queensland Government. Frequent delays in the legislative process are preventing implementation of clear and responsible legislation reflective of community expectations.

Given the complexity of the various pieces of legislation, and the long timeframes required to amend legislation, there should always be a rolling and prioritised plan to modernise legislation. The period after introduction of new or amended legislation is always busy for authorised officers, who have to work with the new provisions, and explain them to businesses and the public.

Therefore, it is recommended:

3.1. Prepare a plan for public health legislative reforms to be progressed over the three time periods 2022-2024, 2024-2028 and 2028-2032.

3.2 Immediately commence a major review and updating of the *Public Health Act 2005* in the lead up to its 20-year anniversary in 2025. In particular, the following should be considered:

a. Incorporation of risk management directly into the objectives of the Act.

b. Addition of guiding principles, such as proportionality, the precautionary principle, the importance of equity, the link to environmental protection and the role of local government.

c. Requirement for statewide and regional/local public health plans.

Then:

- The impost created by new legislation can be anticipated, planned for and managed across the public health system.
- There will be an appropriate head of power to drive systemic reform.
- Vertical alignment between public health legislation and public health reform will be strengthened.

This needs to be done because:

- Contemporary legislation is necessary to position Queensland to best respond to emerging public health risks.
- Key players such as local government must be mobilised to support public health.

4. Working together

Findings:

Understanding the role of public health in the broader health ecosystem is critical to progressing an improvement agenda for public health. One of the biggest impediments to this is unclear roles and responsibilities. Given the structure of Queensland Health, and ongoing support for a decentralised approach, improvement must be achieved through collaborative endeavour. Underpinning that endeavour must be a clear articulation of roles and responsibilities within the public health system across the department and HHSs.

The system manager must 'guide, direct and steward' public health across the health system. However, a major relationship gap has developed in key areas between the department and the PHUs. PHUs are vocal in wanting more active support from the department, requiring QPHaSS to refresh its understanding and commitment to being an active, rather than hands-off system manager.

Throughout the review, frontline staff called for better and more coordinated guidance, direction and support from the system manager. In the absence of coordinated guidance, direction and support, a number of risks were identified where different HHSs were operating to different guidelines or using different operational systems. This was apparent across both public health and sexual health services and creates a reputational and system risk for Queensland Health. It also creates significant duplication across the system as multiple HHSs work to develop their own solutions to the same or similar problems and challenges. This theme recurred across multiple areas including the development of guidelines, operating protocols, information systems, resources and advice for stakeholders etc. This presents a significant opportunity to realise efficiencies through more effective system management and support.

There were accounts of individual relationships between frontline and departmental staff mitigating this duplication and this appears indicative of individuals seeking to drive more effective relationships. However, it was acknowledged that these relationships were often work-arounds and not sustainable. Although there was a general sense that the system manager had become too 'hands off' and 'out of touch', there were also examples where collaborative planning was occurring. For example, there is greater consistency and coordination with respect to regulatory compliance activities, with oversight and guidance from the Health Protection Branch. There are regular meetings of the Environmental Health Forum, and common compliance planning between Health Protection and PHUs. There is also a regulatory 'toolbox' for public health units.

This collaborative approach was welcomed by HHSs, and it was indicated these exercises and structures should be duplicated across a range of functions to build relationships and collaboration across the whole system. Departmental sponsorship and engagement in professional collaborative networks (see Appendix 4) and planning must become a cornerstone of the system management function.

> **Independently assess systems, processes and protocols across the state and start the process of standardisation so that the PHUs can work as a properly co-ordinated network rather than being a collection of unrelated entities.**

Epidemiologist

Diphtheria outbreak across multiple HHSs

From 1 January 2022 to 30 June 2022 there were 17 cases of cutaneous diphtheria and 2 cases of pharangeal diphtheria notified in Queensland. Of the 17 cutaneous cases, 14 cases were reported from Townsville HHS, two from Torres and Cape HHS and one from Cairns and Hinterland HHS. All cases were in Aboriginal and Torres Strait Islander people. Vaccination status was variable, with the majority of cases having 3 or more doses of diphtheria vaccine and two cases having no documented diphtheria vaccination.

In response to the increased cases, Townsville and Cairns PHU established an Incident Management Team (IMT) to manage the outbreak locally. The Communicable Diseases Branch provided Departmental liaison, participated in the IMT and facilitated access to diphtheria antitoxin and vaccines as well as keeping the CHO and Office of the Chief First Nations Officer briefed.

Unsurprisingly, there are many public health challenges that cross HHS boundaries. An added complexity is when HHSs wish to collaborate or where, out of necessity, one HHS is providing public health services to another. There are historical standing arrangements whereby one HHS supports another for delivery of public health services. Examples include relationships between Cairns and Hinterland and Torres and Cape, between Townsville and Mackay, between Townsville and North West, between Central Queensland and Central West, and between Darling Downs and South West.

Only a minority of these across HHS arrangements are formally embedded or described in any detail in the HHS service agreements. This is a major problem in terms of clarity of responsibilities, and does not allow for performance monitoring, or planned change or growth. As the system manager, the department must articulate a preferred model of service for these types of arrangements. This is necessary so that HHSs who rely on another HHS for service can be assured of the services they can expect to receive.

A number of barriers were noted including challenges with credentialling and risk management for staff working across HHSs that are employed by separate entities.

This red tape was reported as a significant barrier to collaboration and stifled opportunities for HHSs to work together. In regional areas, this has significant implications, especially when seeking staff to backfill. More importantly, it stifles the opportunity for HHSs to exchange staff, nurture and attract talent and renders the prospect of cross-HHS exchange or professional development opportunities unachievable. Given skilled workforce shortages, or limited resourcing in some regions there are some public health functions that are critically dependent on a single individual in a PHU. Limited workforce mobility only serves to amplify this risk.

Conversely, there are some legacy alliances between some HHSs based on shared issues and historical alliances and some PHUs have built newer cooperative alliances. For example, to support on-call arrangements and to provide services to HHSs without a PHU. There are also some pieces of work such as the Queensland Syphilis Surveillance Register, activities of the *North Queensland Sexually Transmissible Infections Action Plan 2016-2021*, the Rheumatic Heart Disease Register and more recently the functions of the HIV Public Health Team that operate across several HHSs or on a north Queensland and south Queensland division.

Therefore, it is recommended:

4.1 In consultation with the HHSs, QPHaSS use a RACI framework to identify which party is primarily accountable for which public health functions, and which parties are responsible. A similar approach should be used to clarify delegated responsibilities and ensure reporting upwards of the exercise of those delegations.

4.2 The proposed Public Health Strategy and Support Unit map, review and evaluate all collaborative networks between the department and HHSs, and a formal approach to liaison and engagement be developed collaboratively with the HHSs drawing on clearly identified responsibilities and accountabilities.

4.3 Where arrangements currently exist across HHSs for the delivery of public health services, QPHaSS articulate a preferred model of service and formalise HHS support arrangements via inclusion in service agreements, or as service level agreements between HHSs.

4.4 The department work with HHS executives to reduce barriers to cross-HHS operations for public health activity.

4.5 The department, in collaboration with the HHSs, consider how 'single critical employee risks' can be mitigated via cover from another HHS or department and/or regional arrangements.

4.6 The department and HHSs develop a specific trigger, mechanism or protocol to respond to new and emerging public health issues that involve more than one HHS.

Then:

- Roles and responsibilities will be clearly identified and communicated.
- There will be an uplift in the standard of governance for collaborative networks.
- Mechanisms will be in place to collaboratively plan, develop and disseminate guidance and work collaboratively to develop system level responses.
- Red tape will be reduced.
- Responsibility and accountability for cross-HHS public health activity will be increased.

This needs to be done because:

- Poor communication and unclear roles and responsibilities creates risk and inefficiency across the public health system.
- Fragmentation caused by red tape is stifling innovation and the greatest use of precious public health resources.

5. Articulating the strategy and vision

Findings:

There is broad consensus that part of the role of the department is to lead the strategy, policy and vision for public health. The lack of a clearly articulated strategic vision was most often cited as a challenge and limiting factor for staff across both HHSs and the department. By extension, the department has a key role to play in thought leadership and direction setting and this requires a 'big picture' view of public health and a whole of system focus.

PHUs often reported that their role and function was misunderstood and undervalued within the HHS. The absence of a broad overarching strategy was considered a contributor to this. The absence of a clear strategy and vision was also reported as part of the cause of the narrowing scope and declining visibility of public health.

Part of the role of the system manager is to provide clarity of purpose and vision. Critical to the development of strategy is a vision and outlook that is future focused, proactive and anticipates threats. Elevating the profile and value of public and preventative health is a necessary remedy for ever increasing demand across the health system.

We do not have clarity of strategy... throughout the system from state authorities to HHS management to local unit there is no clarity of the scope or expectations of public health. As a result, we are woefully unable to drive the goal of a healthy population.

Doctor

Therefore, it is recommended:

5.1 QPHaSS commence development of an overarching public health strategy and evaluation framework, in collaboration with HHSs, that provides a clear direction for public health policy and programs for the next 10 years.

5.2 The public health strategy should be owned and overseen by the QPHaSS Board of Management.

Then:

- Public health will have a clear direction and imprimatur.
- Public health is better placed to respond to emerging risks.

This needs to be done because:

- People perform at their best with a collective purpose and shared vision.
- The system is disjointed and lacking clear direction.
- The absence of a clear vision impedes priority setting and the capacity of the system to flex and respond to emerging risks and priorities.

A vision for public health services in Queensland, with clarity of roles and a broader remit for public health activities.

Doctor

6. Understanding the scope of public health

Findings:

For the purpose of this review, the review team have focussed their efforts on PHUs and sexual health services. Consideration has also been given to cancer screening services, oral health and tuberculosis services. However, all Queensland Health services can contribute to better public health. To embed prevention and health promotion as major system strategy to curb demand, all services should actively be considering how prevention and promotion can be embedded into core business. For public health services, this will require them to work to the top of their scope and take an active role in influencing and championing the value of public health within their local health system.

There is a great deal of variability of operational practice between different PHUs and sexual health services across Queensland. While some of this is desirable in terms of responding to local needs, much of the variability has a significant cost without discernible benefit.

The work undertaken by PHUs has shifted over time and it was frequently reported that they were primarily operating as health protection services. This shift in the role of PHUs and the narrowing of their scope has had significant implications for their growth and sustainability and how the business of public health was valued locally in HHSs and as a contributor to the health system more broadly.

A similar shift has occurred in sexual health services, with focus shifting away from primary prevention towards tertiary prevention and treatment. This shift is also apparent in oral health. The role of all these services have become predominately reactive with very little or no capacity to be proactive. This shifting scope has been driven by increasing demand and limited growth, and not by design. For PHUs, new and changing legislation, and outbreaks of new communicable diseases, such as Japanese encephalitis and COVID-19, have contributed to this shift in scope.

All PHUs are committed to maintaining a strong focus on health protection, but wish to embrace a broader preventive health mandate, given adequate resourcing and non-duplication of roles with external stakeholders (including local councils, HWQ, NGOs etc.).

Currently, HHS responsibilities for public health are set through the service agreement with the department, which includes a clause that the *Public Health Practice Manual* is to be followed, but with very few specific key performance indicators specific to public health. Generally, hospital and other acute health services dominate daily business within a HHS, and it can be difficult for public health services to be 'noticed'. However, during this review, HHS executive staff actively indicated their support for public health and priorities, while recognising the difficulty in providing growth funds through stretched HHS budgets.

A minority of PHUs contribute to HHSs needs assessment and planning processes, but a majority would welcome the opportunity to be involved and feel they have the skills to contribute effectively.

Blood Borne Virus clinical pathway in a prison setting—West Moreton Health

Implemented in 2018, this nurse practitioner led program has provided hepatitis C treatment for more than 1900 prisoners across six adult correctional centres and two youth detention centres in the West Moreton Health region.

The program uses a blood borne virus clinical pathway to test and treat detainees. The program has improved access to timely care and reduced treatment times in the prison setting.

Therefore, it is recommended:

6.1 The department build its relationship with HHSs to strengthen HHS focus on public health and in particular, its associated risk management function.

6.2 All PHUs should map delivery (who, what, where) of the full range of public health functions within their HHS boundaries and align with the new public health strategy and revised *Public Health Practice Manual*.

6.3 QPHaSS actively participate in performance meetings with HHSs to ensure that HHS performance accounts for the delivery of prevention and population health services which respond to local and systemic risks.

Then:

- The purchaser/provider relationship between the department and HHSs is harnessed to drive better public health across Queensland.
- The department can adopt a more proactive system manager role.
- Executive accountability for public health activity is increased.
- Public health staff are empowered to engage with HHS executive to raise the profile of public health and priorities to manage risk to HHSs.
- The work of PHUs will be vertically aligned.
- Oversight for investment is increased.

This needs to be done because:

- A key mitigation to system wide risk for the entire health system is for HHSs to give attention to public health as an essential activity.

7. Improving governance and advocacy

Findings:

The potential to underestimate the value of public health activity by department and HHS executives and policy makers is real and a genuine concern for staff that was echoed across the state. Across all dimensions of public health, staff generally felt that their work was not fully valued or understood. Frontline HHS staff were clearly of the view that this was reflected in static or shrinking investment. Across the state, there was a palpable frustration and sense of disempowerment with calls for the system manager to advocate for public health to support local efforts. Specifically, there needs to be a renewed and sustained focus on profile building for public health.

It is often and truly stated that public health and preventive activity is invisible (especially compared to acute care services) if it leads to the avoidance of events in a population, rather than responses to individuals, which can be summed and counted.

However, public health played and continues to play a critical role in Queensland's response to COVID-19, and this unprecedented challenge put the value of public health and its contribution to the broader health system front and centre.

Quantifying the dividends to the health system arising from public health activity will be critical to strengthening public health now and into the future. Advocacy by the system manager and demonstrable value propositions will be necessary in an environment of competing demands and a focus on acute care.

Although HHSs maintain responsibility for funding local public health activity and have the latitude to determine investment in public health, the newly established QPHaSS Board of Management will have an increasing role in advocating for public health across the health system. Some HHSs strongly advocated for health economics capability in PHUs to identify priorities and demonstrate the value of public health activities. Health economics capability would enable services to provide an evidence-based case for preventative health activities to improve the health of their local communities and reduce the increasing burden on the acute care system.

As the system manager, the department needs to look up and out, as well as down and across. For example, drawing on local intelligence and expertise to represent the interests of Queensland and asserting influence through national forums. As the statewide lead, the department has a key role to build collaboration with other Australian jurisdictions and facilitate national dialogue around public health.

The department also has key role to play in liaison and engagement by developing and strengthening cross agency relationships and collaboration to support system priorities and approaches. For example, implementing a One Health approach in partnership with the Department of Agriculture and Fisheries.

> **Development and implementation of a transparent, evidence-based, detailed and fair Queensland Health public (population) health services resourcing model.**
>
> *Epidemiologist*

The advent of the new ACDC and the planning for the 2032 Olympics will increase the demand for the QPHaSS Division to provide consolidated and considered strategy and advice on matters relating to public health. This will require the ability to source specialist expertise, produce and analyse technical data, and synthesise this information to support the business of government.

Clinical staff within the department often complained about bureaucracy and 'busy government work' that took them away from their content expertise. It is important to distinguish corporate support tasks such as procurement and human resources from tasks essential to public administration, such as correspondence, information requests and briefings. Both functions require good systems and coordination.

Whereas a multi-disciplinary approach to public health was considered a strength of QPHaSS branches, public health staff rarely acknowledged the value of administrative work, and this is reflected in the current workforce composition. This results in clinical and technical experts working on primarily administrative tasks and an underutilisation of their professional expertise.

Staff in HHSs often complained that departmental staff were more focussed on satisfying departmental managers and had lost visibility of PHU operations and a sense of the 'work on the ground'. It was also indicated that QPHaSS branches were not engaged in collaborative planning to resolve issues that crossed portfolios.

Therefore, it is recommended:

7.1 Establish a health economics capability in QPHaSS.

7.2 QPHaSS commission the development of a public health value proposition.

7.3 Undertake a functional realignment of QPHaSS to align and consolidate like functions.

7.4 QPHaSS lead statewide engagement with local government.

Then:

- The department is better placed to advocate for the interests of Queensland.
- The profile and value of public health can be elevated within Queensland.
- PHUs can be equipped to drive change locally and strengthen their negotiating position, build their capacity and contribute to better system-wide outcomes.

This needs to be done because:

- An established value proposition to underpin investment is critical to efforts to increase the profile of and understanding of public health.
- Functional alignment will combat fragmentation which generates conflicting priorities.
- The system has limited resources, and these must be used effectively.

8. Defining a public health program

Findings:

The *Public Health Practice Manual* was developed in 2013 (updated 2016) after the decentralisation of health protection, communicable disease and epidemiology functions from the department to HHSs. *The Public Health Practice Manual* aims to articulate a framework for delivery of public health functions in Queensland by describing the complementary and interdependent roles of the department and HHSs.

Although the detailed description of principles and functions included in this manual are of value, it is widely agreed that the current *Public Health Practice Manual* is not detailed enough to guide prioritisation or day to day operations across the department and the HHSs. The manual also does not include key performance indicators (KPIs) or a monitoring and reporting framework. A review of the *Public Health Practice Manual* was planned for 2020 and did not progress.

Within the current HHS service agreement, outcome and performance measures related to prevention services and population health services are limited. To build accountability for public health activity, and discharge its obligation of good system governance, the department requires mechanisms to monitor the effective use of investment for public health.

Future investment in public health must be informed by risk to the broader health system. One of the most often cited limiting factors for growth in public health was a lack of understanding of the risk that good public health intervention mitigates. Going forward, growth of any kind, both in HHSs and the department, needs to align to a mitigation of system risk. An investment framework that articulates the drivers of public health risk must be developed that articulates both tangible and intangible risks.

Development of reportable public health KPIs with input of PHUs and the department to focus the HHSs attention to public health outcomes and deliverables in an attempt to enhance interest and support of public health from HHS executives and boards.

Environmental Health Officer

Program logics should sit under the investment framework which define how inputs drive outputs and outcomes. The main outcomes being a mitigation of system risk as population health improvements are difficult to attribute and difficult to measure. For example, the prevention and cancer screening strategic frameworks include program logics to illustrate the pathway for medium to long term outcomes and benefits of improved health and social outcomes. The program logics guide a performance management plan to monitor the outputs, impacts and outcomes of the strategic frameworks.

The *Unleashing the Potential* report specifically recommends making 'prevention and public health a system priority', and emphasises equity, high value care, innovation, opportunity and leadership. This concept of high value care has been introduced into the health service lexicon over the last decade and can be extended to public health. High value public health could include the following: interventions supported by a strong established evidence base, particularly those that measure population health outcomes; those assessed through formal health economic analyses; measures assessed through a standardised risk approach (designed to address low risk/high consequence events); and activities that have a strong program logic that lead to discrete desired outputs and outcomes.

The *Australian Government, Report on Government Services 2021*[17] provides a general performance indicator framework (Figure 3) to analyse and provide information on the equity, efficiency and effectiveness of government services in Australia. The framework reflects the process through which inputs are transformed into outputs and outcomes to achieve objectives.

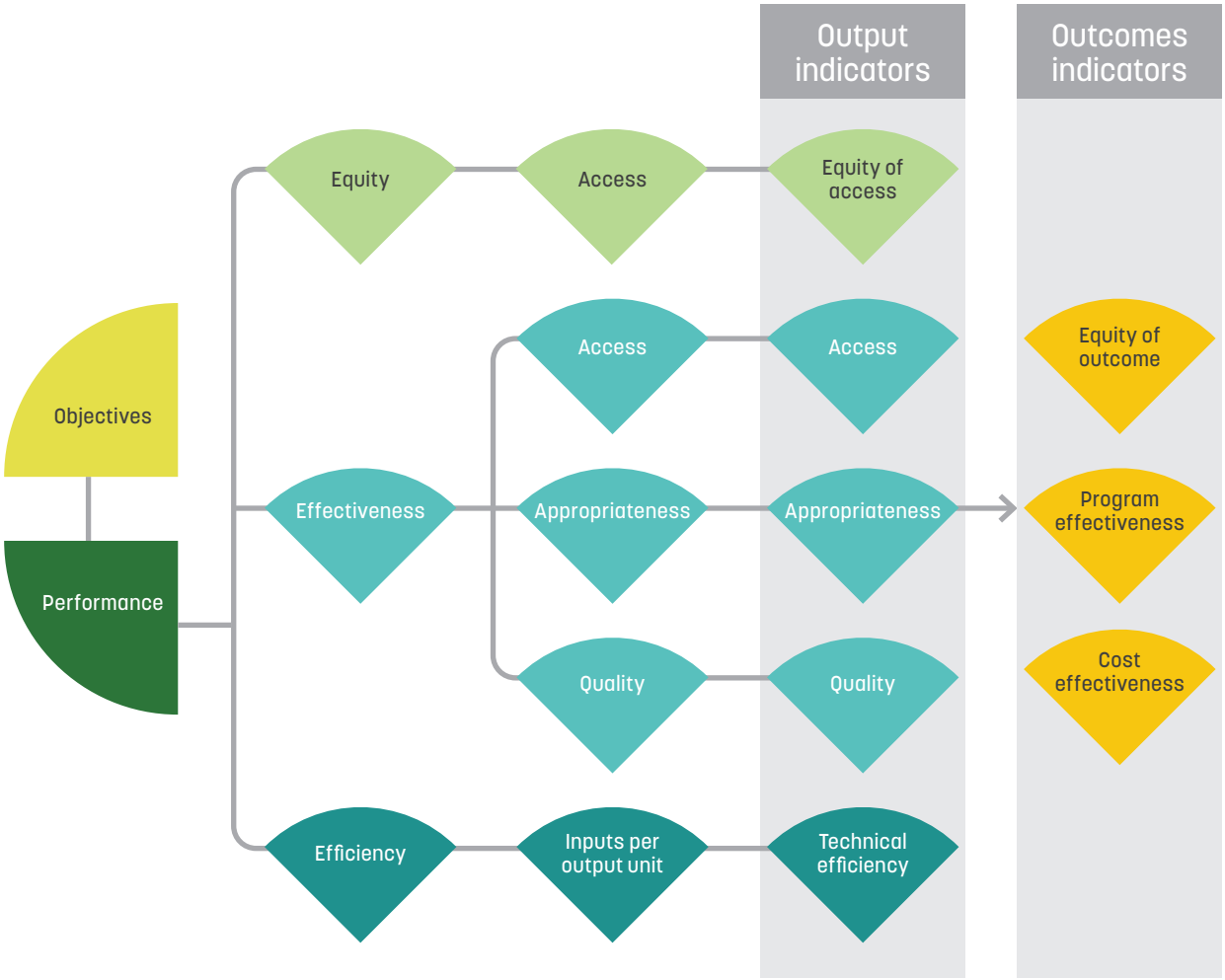


Figure 3: General performance indicator framework

[17] *Approach to performance measurement - Report on Government Services 2021 – Productivity Commission*

Citizen Science – Zika Mozzie Seeker Project

Since early 2017, the Metro South PHU innovative Zika Mozzie Seeker project has recruited community members to trap mosquito eggs in their backyards to be tested for exotic diseases such as Zika, dengue or chikungunya. The screening technology was developed by Queensland Health and is a world first for mosquito monitoring.

The project is designed to enhance the ability to detect invasions of *Aedes aegypti* mosquitoes into South East Queensland. The success of the project depends on the high participation of community members to place traps in many locations as the mosquito does not fly more than 500 metres.

Previous attempts (across Australia and internationally) to develop standardised KPIs for public health, have failed to result in any generally accepted KPI set suitable for highly developed countries, in part because they fail to capture the full range of public health activities, and in part because many other factors influence outcomes over time. Nevertheless, public health should be able to demonstrate a strong investment logic, with an understandable (if not always quantifiable) connection between inputs, activities, outputs and outcomes.

Understandably, HHSs have a bigger stake in outputs and activity measures or process indicators and through consultation called for greater accountability of their activity. The department should be responsible for coordinating, measuring, monitoring and advocating for the outcomes that logically flow from the outputs. Currently there are a range of performance measures captured across population health services in Queensland, including as defined within the *Queensland Health Performance and Accountability Framework*[18] in HHS service agreements (Appendix 5).

For definitional purposes, the risks which threaten public health can be understood at a macro level and include political, economic, social, technological, legal and environmental risks which all contribute to increasingly complex public health threats and response.

Consultation across the state revealed how these risks manifest in a local context. At a local level, public health practice is shaped by the manifestation of these macro risks which translates into how PHUs respond to industry, agriculture, migration, population growth, people movement, shipping, social and economic disadvantage, remoteness, rurality, natural disasters and other factors.

Given the regional variance, and the multiple drivers of public health risk, a matrix of risk drivers, aligned to a prescribed set of public health functions, sub functions and system enablers needs to be articulated (Table 1). Although HHSs should and will continue to retain decision making for local investment, this decision making can be informed by broader system risk implications. Such an approach will also afford the department visibility of public health investment at the whole of system level and ensure its alignment with system risk.

> **Next to cybersecurity, public health sits as one of the highest HHS risks.**
>
> *Audit and risk committee member, HHS Board*

[18] Performance and Accountability Framework

Table 1: Public health system and functions

Core functions	Sub-functions	System enablers
Promote health	Public awareness campaigns	• Vision and strategy • Effective governance (planning, finance, establish standards, manage) • Leadership and accountability • Legislation, regulation and compliance • Data and intelligence (including population level epidemiology, surveillance and monitoring) • Communication • Performance monitoring, evaluation, evidence and research • Workforce capacity (numbers, skills and distribution)
	Community engagement and participation	
	Focus on health and wellbeing	
	Promote health equity	
	Address wider determinants of health (social, economic, commercial) via intersectoral action	
	Create supportive environments	
Prevent disease	Early detection, including screening	
	Immunisation	
	Secondary and tertiary prevention (in association with clinical providers following diagnosis)	
	Chronic disease and cancer prevention (and links to tobacco, alcohol, nutrition and physical activity)	
	Sexual health and blood borne viruses	
Manage risk	Communicable disease threats (including outbreak response and pandemic planning)	
	Environmental and occupational hazards	
	Food safety	
	Air and water quality	
	Chemical and radiation hazards	
	Emergency management, including major events	
	Climate adaptation	

Therefore, it is recommended:

8.1 Immediately commence a review of the *Public Health Practice Manual* and redesign it as an operational manual underpinned by an investment framework and program logics for core functions and sub functions of public health.

8.2 Develop a performance framework for each program logic that articulates performance indicator metrics.

8.3 Collaborate with HHSs on the review of the *Public Health Practice Manual*, and development of investment and performance frameworks.

8.4 Link high value care to needs analysis, efficiency, effectiveness and equity at a population level.

8.5 Assess potential to contribute to demand management and new models of care (relevant to public health interface with acute care, and primary care services).

Then:

- Program expectations can be clarified.
- The department can strengthen its capacity to lead the system.
- The department has a basis to monitor program performance and oversight program delivery.
- PHUs will have greater clarity about functions they are expected to deliver, and practical guidance on methods of delivery.
- HHSs can be bound to deliver against those expectations and contractual levers can be used to drive performance and accountability.

This needs to be done because:

- Driving value in public health drives value for the whole health system.
- The public health program is complex and difficult to oversight.
- Good governance is founded on clear expectations and performance monitoring.
- Better oversight is necessary to identify and respond to system gaps and pressures.

9. Planning, delivering and monitoring the program

Findings:

Taking account of national and system-wide priorities, the department is uniquely placed to steward statewide operational planning. This will require the establishment of a planning architecture for public health which is integrated into existing system planning mechanisms. This serves two critical functions. Firstly, it supports the integration of public health interests into local planning and decision making. Secondly, it provides central oversight for system wide objectives and enhances transparency of the system manager role.

Ultimately, the department as the system manager is responsible for performance across the system and achievement of objectives. Throughout the consultation, there were calls for increased performance monitoring and accountability.

There was broad support from HHSs to find ways to achieve system wide accountability while continuing to operate a decentralised model. The investment logics and associated performance indicator metrics developed as part of the recommendations under *Section 8: Defining a public health program* provide a mechanism to monitor HHS level outputs and activity.

Consistent with a planning framework that accounts for system-wide and local priorities, system measures need to be collated by the department and published. This serves to provide oversight for different elements of the system, identifying strengths and deficits of the system as a whole and is essential to inform and guide future planning. It also creates an opportunity for the department to engage in comparative analysis across the system and analyse where to assert influence and effort.

One of the key functions of the department is to oversee funding, program and contract management. It is essential that these activities are considered as part of the whole system and to understand how these activities relate to the broader system strategy and contribute to system objectives.

Operating with a decentralised system that is responding to conflicting priorities brings challenges of equity across the system. Resourcing and support for public health is highly variable across HHSs. To combat this, the system manager has a key role to promote transparency, accountability and drive outputs and outcomes.

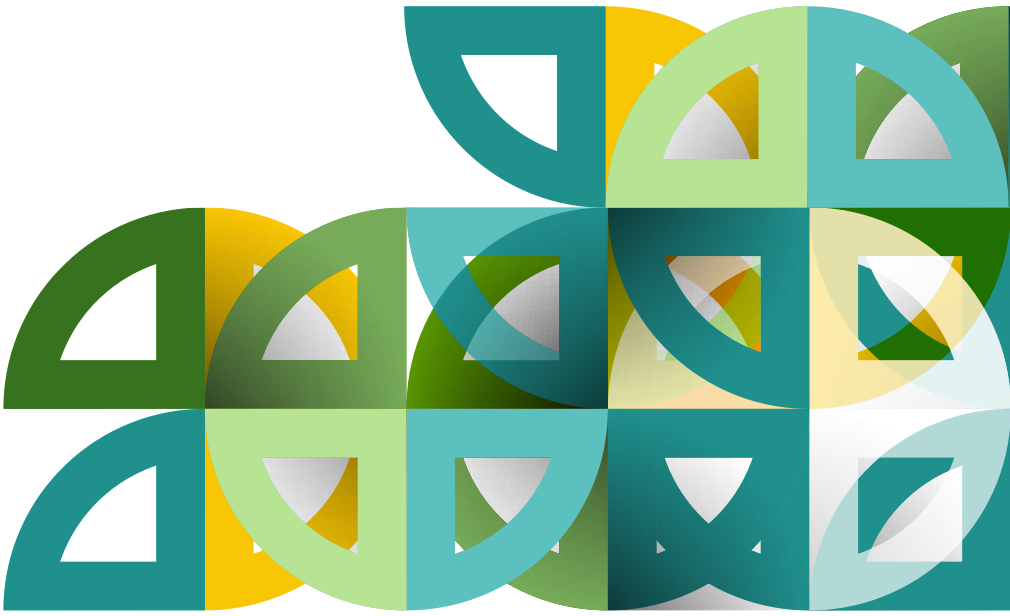
The primary concern for PHUs was an absence of clarity around how public health was funded locally. The ability of PHUs to be able to influence local funding decisions was a critical concern and the varying success of this is observable in the varying size and scope of PHUs across the state. Although differential investment across the state should be expected, PHU Directors noted the inconsistency in the level and structure of their accountability and reporting within their HHS and the duality in reporting 'via a dotted line' to the department.

> **Drive a 'can do' approach to public health.**
>
> *Manager*

It was often reported that there was a lack of knowledge by HHS senior executives of what public health does, resulting in an oversimplification of issues and needs that negatively impacted on decision making. Some PHUs expressed that where the director directly reported to a HHS executive position such as the chief operating officer, they felt better supported and able to gain leverage to address issues and drive innovation.

This is not to suggest that differential investment and regional variation should not be expected. Indeed, the drivers of public health risk vary across the state and PHUs expressed a level of satisfaction in local autonomy and decision making in responding to local need. However, in a system with coordinated governance and leadership this variance should be representative of and reflect the variance in drivers of public health risk. Instead, it appears that factors such as proximity to decision makers, critical mass, capacity to influence and historical success in advocating for increased investment in public health all play a role.

It was often reported that the current funding model for public health created barriers to growth in the face of increasing demand. Queensland is one of the few jurisdictions that has experienced net population growth in recent years, primarily as a result of interstate migration during the COVID-19 pandemic. Where growth in local investment has not kept pace with risk, this creates a risk for the whole system with areas of the state underserviced and with limited capacity to respond to incidents of statewide significance.



A seat at the 'high level HHS decision table' to advocate and discuss public health issues, plans, funding and goals. A united and collaborative approach to preventative health in our health service. We often feel that we are not a part of the HHS and sit quite removed.

Doctor

Therefore, it is recommended:

9.1 The department articulates in the updated *Public Health Practice Manual* key functions and performance measures which can assist in the operational management of public health services and their integration into HHSs.

9.2 The department embeds public health into existing planning mechanisms and requires/advocates for participation by public health services in the development of LANAs and health equity planning.

Then:

- Public health is integrated into local planning mechanisms.
- Accountability and transparency for funding public health is built and minimal service levels can be established.

This needs to be done because:

- The drivers of public health risk include both local and system threats.
- The system manager must be able to exert influence across the system.
- The absence of coordinated and consistent planning creates the potential for gaps and poses a risk to the system.
- Innovation in public health must be tried, tested, and harnessed to strengthen the health system.

10. Coordinating effort

Findings:

One of the clear challenges with delivering public health services is the breadth and depth of content. The technical expertise across multiple subject areas creates a challenge for leading a public health program. This has resulted in a public health response that is specialised or siloed, and often appropriately so. Instances where integration was valuable, and inappropriate silos were broken down were also shared. Where this was done well, it was typically attributable to relationships with significant effort and investment put into those relationships.

The system manager plays a key role in joining up service responses and promoting integration where valuable. One participant in the consultation described the key problem as 'everyone sticking to their own knitting'. Be it knitting, swim lanes, boxes, or silos, this theme came up over and over through the consultation. It came up in both the HHS and the department and it was often observed that a siloed program (or as it was often described, multiple smaller programs operating independently of each other) results in siloed delivery.

There is a notable absence of joint operational and strategic planning, particularly where there are significant overlaps in terms of public health goals. This results in multiple areas of the QPHaSS Division progressing similar initiatives independently of each other. For example, in training, web publishing and strategic communications. It was often reported that success with these endeavours was not forthcoming as there was a lack of critical mass behind them.

Strategic communications are a vehicle to drive better public health outcomes and are fundamental to supporting the core functions of public health. Many staff, in both the department and HHSs, commented on the lack of capability in strategic public health communications. The current communications approach in Queensland Health was characterised as not prioritising public health (with the exception of COVID-19), and not allowing public health staff to do any more than check the literal accuracy of any content (although there were some examples of good proactive and ongoing briefing of communications staff by business areas). Consumer representatives identified that public communication is generally not meeting community expectations of a state health department, nor targeted to the issues of most concern in the community.

The various branches within QPHaSS have distinct operating cultures. The QPHaSS Division will need to build a common identity over time. This process will be quicker if critical cross-divisional functions and joint planning mechanisms are established early on.

Therefore, it is recommended:

10.1 QPHaSS establish joint operational and strategic planning mechanisms.

10.2 QPHaSS, as part of its functional realignment, consider the consolidation of functions including training, web publishing and strategic communications.

Then:

- QPHaSS is better positioned to deliver coordinated cross portfolio advice.
- Opportunities to collaborate and drive shared improvements can be more readily identified.
- Frontline services will experience greater consistency.
- Critical mass will generate efficiency and sustainability for critical program support functions.

This needs to be done because:

- Reducing duplication and maximising efficiency is critical in a resource constrained environment.
- The system manager must model collaborative practice and embed collaboration and coordination as foundational principles to support systemic reform.

Infection control and anti-microbial resistance

Infection prevention and control (IPC) refers to "evidence-based practices and procedures that, when applied consistently in healthcare settings, can prevent or reduce the risk of transmission of microorganisms to healthcare providers, clients, patients, residents and visitors".[19] Infection control practitioners employ a risk management framework and the practice of IPC is always contextual. Standard and transmission-based precautions underpin the practice of infection prevention.

As part of the system manager role, the Communicable Disease Branch collates and reports some information for performance reporting. However, there is an ongoing gap in the reporting, and limited capacity to analyse the full suite of hospital acquired infection (HAI) surveillance data from across the state. A business case is currently in development which proposes the establishment of a centralised service to strengthen statewide IPC, hand hygiene and antimicrobial stewardship support to HHSs. It is envisaged this centralised service would be established in the Communicable Diseases Branch.

The anti-microbial resistance strategy and policy functions is currently housed in the Healthcare Regulation Branch, however, integrating this function into the statewide IPC service would enable end to end oversight and add value by consolidating policy, strategy and tactics, stakeholder liaison and engagement functions.

The proposal to establish a centralised service for IPC neatly aligns to the recommendations in this report to strengthen the role of the system manager to steward state level responses to communicable diseases. It is likely that a centralised service for IPC would benefit from many of the recommendations in this report that seek to strengthen and consolidate centralised functions, including recommendations relating to governance, public health intelligence, regulatory practice, the integration of antimicrobial resistance functions and better system stewardship.

[19] Infection prevention and control, Clinical Excellence Commission, NSW Government

Therefore, it is recommended:

10.3 A centralised service for IPC be established in the Communicable Diseases Branch.

10.4 The anti-microbial resistance functions of strategy development and policy coordination in the Healthcare Regulation Branch be integrated into the Communicable Diseases Branch.

Then:

- There will be a coordinated and standardised statewide approach to the collection, analysis, and reporting of HAI which would facilitate analysis and enable the department to meaningfully participate in research regarding HAIs.
- Value will be added by integrating policy, strategy and tactics, stakeholder liaison and engagement functions. This, in turn, could minimise the cost of HAIs.

This needs to be done because:

- Robust systems and increased capability support quality improvement and patient safety.
- There is currently no coordinated statewide approach to the collection, analysis, and reporting of HAI caused by antimicrobial resistant organisms in Queensland Health.
- There is limited capability in detecting system wide emergence of infections of concern, including antimicrobial resistant organisms.
- There is limited ability for the department to support research related to HAI.

Medical Entomology

As the focus of medical entomology is on insects of public health significance, and more globally, arthropods that impact human health, it has many links with veterinary entomology and environmental science in a 'planetary health' concept.

Although medical entomology can be housed within a communicable diseases function, many of the operational functions align better to a health protection function. The principles of vector control employed in medical entomology are closely aligned with the health protection function in PHUs and local government, with vector control staff closely connected to the environmental health function. The Health Protection Branch currently issues authorities, oversees the implementation of regulatory standards and coordinates compliance programs for vector control across Queensland. Health Protection Branch has a strong relationship with the local government sector across all programs.

> **Improve invasive urban mosquito and virus surveillance—emerging issue with climate change, risk is escalating e.g. Japanese encephalitis.**
>
> *Entomologist*

Therefore, it is recommended:

10.5 Medical entomology functions in Communicable Diseases Branch be integrated into the Health Protection Branch.

Then:

- Medical entomology can leverage strategic and operational engagement with local government that is facilitated through the health protection function.

This needs to be done because:

- Streamlined liaison and engagement allows for more effective partnerships which support the delivery of public health outcomes.

11. Promoting public health regulatory excellence

Findings:

The system manager is responsible for the administration of portfolio legislation and the provision of policy advice and guidance. Public health legislative policy is provided by and managed across several branches within the department. This means that HHSs have multiple touch points with the department, but the responses from those touch points are often not aligned or are in some cases contradictory.

It is critical that regulatory policy is informed by regulatory practice. There is a perception that HHS views and their practical experience of regulatory compliance is not sufficiently acknowledged, resulting in legislation that is difficult to implement operationally.

In addition, relationships with local government are critical to support delegated operational activity. For example, administration of the *Public Health (Infection Control for Personal Appearances Services) Act 2002* has been delegated to local government. PHUs have encountered challenges when providing advice and support to local governments regarding their responsibilities to administer the Act due to the nuances across this legislation and its intersect with Chapter 4 of the *Public Health Act 2005* and relevant areas of the *Private Health Facilities Act 1999*. These Acts do not currently align smoothly creating regulatory gaps and issues in their administration. These issues and gaps are exacerbated via rapid innovation and changes by industry introducing services not contemplated when the current legislation was developed.

Alignment of public health regulatory activity in the department was highlighted by HHSs as an opportunity to create genuine operational efficiencies, assist their engagement with business and industry, support compliance planning and provide a single point for a whole-of-system view for regulatory practice.

Within the department there is significant expertise around regulation. Consolidating the system manager functions that support public health regulatory practice into a single hub creates an opportunity to oversight practice and identify gaps and opportunities. Data, systems, tools, networks and relationships can then be drawn upon to drive practice improvement. It will also be important for a public health regulatory practice hub to maintain close relationships with related policy areas such as infection control to provide relevant clinical expertise.

Such a consolidation would enable the learnings from one policy area to be evaluated, implemented or adapted for application in another area. For example, the Water Unit have implemented an approach to more effectively use data to support regulatory activity. This experience could be leveraged and combined with an approach that has been trialled in one HHS to implement a data driven approach to pharmacy audits. This would support more effective practice by better targeting the effort of environmental health officers across the state.

Vaping—medicine or poison?

Vaping devices (electronic cigarettes) and the liquid used in these devices can contain nicotine, or not, and it is often difficult to determine if nicotine is present. Vapes and liquids containing nicotine are illegal unless on prescription and supplied from a pharmacist or through Therapeutic Goods Administration (TGA) processes. No vaping products containing nicotine have been approved as a therapeutic good by the TGA for sale in Australia. However, it is known that vapes and liquids used in vaping containing nicotine can be readily purchased outside pharmacies and are often not labelled as containing nicotine. As a result, users of vapes are at risk of unknowingly becoming affected by or addicted to nicotine.

In Queensland, vaping crosses over several portfolio areas, with links to the *Tobacco and Other Smoking Products Act 1998* and the *Medicines and Poisons Act 2019* (MPA). Three branches within the department are responsible for vaping issues:

1. The Prevention Strategy Branch is responsible for tobacco policy and the sale of smoking products. Vaping products which do not contain nicotine are regulated under the *Tobacco and Other Smoking Products Act 1998*.
2. Healthcare Regulation Branch is responsible for products which are supplied via prescription that are classified as a Schedule 4 medicine.
3. Health Protection Branch, QPHaSS—Under the MPA an unintended consequence of scheduled medicines (S2, S3, S4 and S8 medicines) not intended for therapeutic use (e.g. research and analysis) being dealt with as a poison means that vaping products sold for recreational use by businesses other than pharmacies may be classified as a Schedule 4 poison and managed by the Health Protection Branch.

There are clear differences in powers and regulatory options available to officers between the *Tobacco and Other Smoking Products Act 1998* and the *Medicines and Poisons Act 2019*. For example, a warrant is required under the *Medicines and Poisons Act 2019*. This makes monitoring for compliance and regulating challenging for PHUs.

Therefore, it is recommended:

11.1 QPHaSS consider establishing a Centre for Public Health Regulatory Excellence in the Health Protection Branch that allows the department to strive to be a model best practice regulator, providing consistent and effective regulatory practice for public health.

11.2 The Public Health Regulation Unit be used as a building block for the establishment of a Centre for Public Health Regulatory Excellence.

11.3 Medicines regulation be moved from Healthcare Regulation Branch to Health Protection Branch and aligned alongside poisons regulation (to allow for consistent regulatory approach to implementation of *Medicines and Poisons Act 2019*).

11.4 The Centre for Public Health Regulatory Excellence work with the Prevention Strategy Branch to jointly articulate the roles, responsibilities, and accountabilities as they relate to the *Tobacco and Other Smoking Products Act 1998* with a view to aligning all regulatory activity as much as practically possible within the existing organisational structure.

Then:

- Regulatory experience from differing approaches can be drawn upon to build excellence.
- The consolidation of regulatory practice creates a hub of operational regulatory practice expertise, operating systems and stakeholder engagement processes that can be drawn on to inform regulatory policy development and implementation.
- Existing operational networks and relationships can be drawn upon to promote regulatory excellence across the state.

This needs to be done because:

- Conflicting approaches to regulation create significant frustration and inefficiency.
- Standardisation across a range of regulatory functions such as compliance and enforcement will drive efficiency and consistency.

12. Supporting First Nations health equity

Findings:

The direction of First Nations health policy is clear, with clear leadership from the Chief First Nations Health Officer, and an understanding that all areas of Queensland Health will contribute actively as part of their core responsibilities. There is a legislative requirement for all HHSs to co-develop and co-implement a Health Equity Strategy with Aboriginal and Torres Strait Islander organisations, health services, communities, consumers and Traditional Owners.

Making Tracks Together—Queensland's Aboriginal and Torres Strait Islander Health Equity Framework supports HHSs and their partners to develop and implement a plan that will achieve health equity, actively eliminate racial discrimination and institutional racism, and influence the social, cultural and economic determinants of health.

Whilst fourteen HHSs have published their health equity strategies, very few PHUs seem to have been involved as yet in this process, even less than the number involved with the LANAs.

Queensland Aboriginal and Islander Health Council (QAIHC) are a key stakeholder in *Making Tracks Together,* as the peak body for the Aboriginal and Torres Strait Islander Community Controlled Sector. This sector led the successful response to COVID-19 in Aboriginal and Torres Strait Islander communities in Queensland and employs a number of skilled public health professionals.

Because of the overall poorer health status of Aboriginal and Torres Strait Islander people in Queensland, there are a large number of public health issues of particular concern in this population. QAIHC expressed that it was often challenging for members to focus on the full range of high priority issues as funding was often tied to specific conditions or programs.

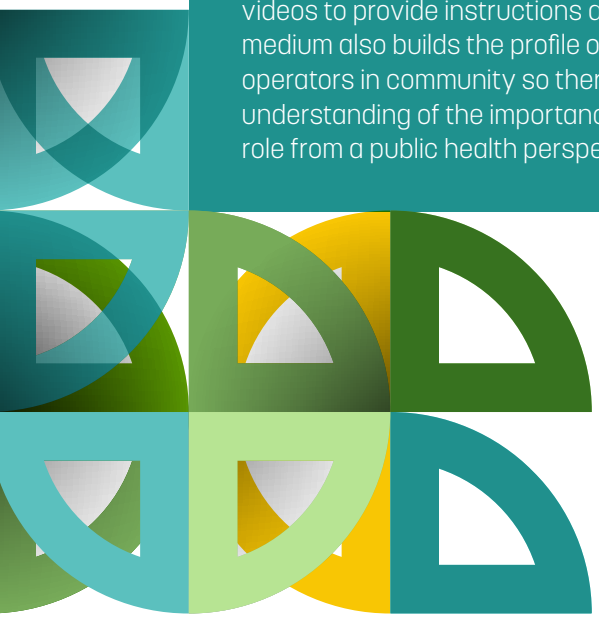
The level of engagement and depth of relationships between the Aboriginal and Torres Strait Islander Community Controlled sector and PHUs was variable across the state. The relationship was strongest where trust was built over time between individuals and organisations, particularly in remote communities, and declined when those key staff left.

There seem to be few Aboriginal and Torres Strait Islander people employed within PHUs, or in QPHaSS.

Closing the water gap

Queensland Health is ensuring that First Nations communities have access to water services that are equivalent to the general community by working closely with other Queensland government agencies (departments of water, environment, local government and infrastructure) and with full engagement of First Nations decision-makers in local government.

The Safe and *Healthy Drinking Water Program*, delivered via the Cairns, Townsville, Central QLD and Darling Downs PHUs, aims to improve the operation and management of drinking water supplies in First Nations communities to ensure public health is protected. The program trains water operators, including helping them create resources suitable for their community. Some operators use YouTube videos to provide instructions and this medium also builds the profile of the water operators in community so there is an understanding of the importance of their role from a public health perspective.



Acute rheumatic fever and rheumatic heart disease

Rheumatic Heart Disease (RHD) and its precursor, Acute Rheumatic Fever (ARF) persist in Australia, principally amongst First Nations people.

Characterised by social disadvantage including a lack of access to health care and adequate housing, the National and State *Ending RHD Strategies* align with government commitments to closing the gap and improving equitable and accessible care for First Nations people.

Key activities aiming to address ARF/RHD include the:

- Rheumatic Heart Disease Register (RHDR) to support the co-ordination and completion of patient care
- *Indigenous Healthy Housing Program*, a multi-agency initiative to address issues related to overcrowding and environmental health issues, including pests, animals and water.

Clinicians value the RHDR capabilities, however, operational activities of the Register require a clearer scope, strong leadership and defined accountabilities to provide valuable scaffolding to support ARF and RHD diagnosis, notification and care.

Therefore, it is recommended:

12.1 Public health services contribute actively to First Nations Health Equity (which should be seen as 'everyone's business').

12.2 QPHaSS accelerate action to close the gap around access to safe and healthy drinking water and the reduction of vaccine preventable diseases in remote Aboriginal and Torres Strait Islander communities.

12.3 QPHaSS lead coordinated action across government to address the environmental determinants of health in remote Aboriginal and Torres Strait Islander communities.

12.4 PHUs to specifically offer to engage in health equity planning within HHSs.

12.5 Public health networks actively and regularly link with public health professionals within the Aboriginal and Torres Strait Islander community-controlled health sector.

12.6 Public health staff in both the department and PHUs actively partner with Aboriginal and Torres Strait Islander organisations at a local level across key program areas, notably:

a. prevention of common chronic non-communicable diseases (a major cause of excess mortality)

b. planning for, preventing and responding to communicable disease outbreaks

c. specific vertical programs, such as in rheumatic fever and rheumatic heart disease, trachoma and sexual health.

12.7 Mandate uptake of cultural capability training in QPHaSS and for PHU staff.

12.8 QPHaSS develop target for employment of Aboriginal and Torres Strait Islander staff.

Then:

- Aboriginal and Torres Strait Islander public health issues are integrated in health service planning.
- Public health services and the Aboriginal and Torres Strait Islander community-controlled health sector are connected.
- Queensland Health staff improve cultural capability and are representative of First Nations people.

This needs to be done because:

- Prevention priorities for First Nations people needs to be explicitly stated and monitored.
- Communicable disease outbreaks are more common and more serious in Aboriginal communities, due to overcrowding and high numbers of vulnerable people.

13. Harnessing information technology

Findings:

Across the state, the review team heard about the need for statewide information services that are fit-for-purpose. There is an urgent need to establish fit-for-purpose information systems that meet the needs of front-end users, system owners and system administrators.

In the absence of this, multiple HHSs have invested in their own systems or workarounds to enable them to complete their work. There were clearly two different responses to this issue. Some HHSs had elected to work within and improve the existing systems with limited success and ongoing frustrations. Other HHSs had opted to develop their own systems or add-on type solutions as a way to manage their work. Neither of these approaches had effectively resolved the issues with ongoing duplication and interoperability challenges.

These local workarounds create a resourcing and risk transfer from the system manager to the HHSs. For the system manager, the cause of the proliferation of local systems could be two-fold. In the first instance, it may be that training in the use of statewide systems is deficient even though the systems could in fact meet the needs of front-end users, or it may be that the systems are not designed with enough consideration of the user experience and are not fit-for-purpose.

Regardless of the cause, over the next ten years, technological advancements will come quickly, yet many staff in public health are still using paper-based systems and managing information on whiteboards or Excel spreadsheets. As one of the priority preparations for the 2032 Olympics, the development of information systems to support public health must be prioritised.

There are several key information systems operating in the QPHaSS Division and shared with PHUs.

These include the:

- **Notifiable Conditions System (NoCS)**—purpose-built web-based application for the notification and management of notifiable conditions under the *Public Health Act 2005* and for provision of required data to the National Notifiable Disease Surveillance System (NNDSS).
- **Management of Applications, Permits and Licensing Events (MAPLE)**—statewide information management system that supports the department and PHU's licensing and compliance activities for preventing disease, illness and injury across Queensland.
- **Vaccine Management System (VMS)**—purpose-built web-based application that manages internal vaccine ordering, logistics, distribution, stock levels and cold chain breach case investigations.
- **Communicable Disease Information System (CDIS)**—developed in 2010 for two PHUs to manage cases (notifiable and non-notifiable), outbreaks and cold chain breaches. CDIS now incorporates phone call logs, staff allocations, clinical records and actions. CDIS is not centrally supported.

We heard varying accounts of the pros and cons of NoCS, MAPLE and VMS. Broadly, department staff thought they met their reporting needs, whereas some PHU staff were less convinced of their operational and field utility.

The users of CDIS identify that it is critical as a daily workload management tool as well as clinical record keeping. While not centrally supported, CDIS is currently undergoing certification to become a recognised medical records system.

Timely access to appropriate software for disease surveillance, data management and data analysis eg. NoCS, AIR, statistical software (R, Stata, SAS etc).

Epidemiologist

Where PHUs have developed their own systems as a work around, it is critical for the system manager to understand the types of problems they are seeking to solve.

The need to prioritise the development of information systems was shared. All business areas and HHSs expressed information systems and their management, including appropriate governance and IT support as a risk for Queensland Health. Given the scope of systems development required in the future, an executive with specialist experience in the design of enterprise architecture, systems design and development and benefits realisation will be required to lead this portfolio of work in collaboration with eHealth Queensland.

One of the key priorities for the ACDC will be a focus on data sharing and linkage. Queensland will need to make significant improvements to its public health information systems to meaningfully contribute to this national priority.

A shift to high value care will require, where possible, systems automation to drive value. For example, when demand increased as a result of COVID-19, some efficiencies were realised by harnessing automation such as case surveys, SMS notifications, and broadscale email alerts. These sorts of opportunities must be harnessed into the future and there are opportunities to drive efficiencies currently that cannot be realised due to systems limitations.

In addition to providing statewide surveillance, the NoCS is relied upon for legislative reporting and monitoring requirements under both the *Public Health Act 2005*, and the *National Health Security Act 2007* and its subordinate Agreement. Ongoing system development and enhancement is necessary to ensure that reporting requirements for data about nationally notifiable conditions to the Commonwealth's National Interoperable Notifiable Disease Surveillance System (NINDSS) can be maintained.

MAPLE undergoes continual enhancement with a limited recurrent budget for minor system changes. The system has the potential to create efficiencies in practice and a program of priority MAPLE enhancements has been planned, including online licensing and compliance, increased reporting functionality and data linkage for core functions.

The implementation of VMS was planned in two phases with phase one close to completion. To realise maximum benefit of the system, generate efficiencies and meet the business requirements, phase two needs to be completed. There are significant efficiencies that cannot be achieved if phase two is not implemented. However, the delay in implementation of phase two also creates an opportunity to revisit the business requirements and determine if further enhancements, delivered concurrently, could deliver additional benefit.

In addition to data systems primarily used by PHUs, QPHaSS Division manages other applications and contributes to a range of other information sources including the national breast and bowel screening registers and the Queensland Pap Smear Register. The register is a central database that contains a complete history of pap smears and other related test results for women in Queensland. The register commenced operations on 8 February 1999. This register is a confidential 'opt-off' central database of pap smears and related follow-up tests including human papillomavirus (HPV) DNA results. Data from the register is used to report participation rates in the *Queensland Cervical Screening Program* among Queensland women.

With the reforms proposed in this report, data to manage system performance and activity, identify gaps and drive improvement will need to be considered. This will be critical if the ambitious goal to develop a world class public health system is to be achieved by 2032.

NoCS User Advisory Group (NUAG)

NUAG is a collaborative statewide mechanism to ensure the response to NoCS faults, change requests and enhancements through Service Now has considered the benefits and risk for statewide users and the organisation prior to approval by the application manager.

NUAG was established during the COVID pandemic after implementation of the NoCS upgrade to respond to issues and provide a collaborative forum to communicate with other users and provide feedback to the NoCS data managers. The group has enabled continuous improvement of NoCS to ensure a suitable statewide system for the notification of communicable diseases.

COVID-19 App—Gold Coast Public Health Unit (GCPHU)

At the beginning of the pandemic, it became clear that there was no statewide solution to assist PHUs operationalise case, contact and quarantined traveller management. Each PHU developed their own system of spreadsheets, whiteboards and other methods.

With the support of GCHHS Executive and the help of a team of internal and external IT specialists, the GCPHU COVID-19 app was developed. The specialists worked closely with staff from GCPHU to make sure the app met their needs, and this relationship was maintained through training and system enhancements.

The app is a web-based management system for cases, contacts and travellers, securely accessible by staff across the PHU and the quarantine hotels. The app enabled recording of demographics, exposure information, isolation or quarantine details (e.g. dates, location) and testing dates and results, and allowed automatic generation of isolation or quarantine directions. Recording of notes, client interactions, emails and other information was easily visible to the next staff member contacting the person. Data was able to be exported for reporting or for other response actions e.g. SMSs for daily symptom monitoring.

While this system was not perfect, it was a key component in a successful COVID response, and allowed GCPHU to manage large numbers of cases, contacts and travellers, and to help other PHUs with their case and contact management.

Ultimately, the system manager is responsible to procure, develop, maintain, improve, and retire statewide information systems to support population health. In addition to ensuring systems offer appropriate functionality to support frontline operations, consideration of back-end functions to monitor activity and performance will also be required.

The COVID-19 pandemic response highlighted significant challenges around data and information for the purposes of investigation, regulation and clinical management. The burden on public health staff to collect enhanced surveillance information about cases and contacts increased considerably, heightened by the need for manual processes to obtain data across systems.

As a mitigation strategy to ensure information flows into NoCS could be maintained, a process to undertake data linkage of clinical and administrative datasets with notifiable conditions records in NoCS was developed to ensure that the public health risk could be characterised and better understood.

After appropriate authority from the respective data custodians, linked data sets included: vaccination records from the Australian Immunisation Register (AIR); cases of COVID-19 in persons in residential aged care facilities obtained from the Australian Institute of Health and Welfare (AIHW); records of deaths with COVID-19 from the Register of Births, Deaths, and Marriages; and comorbidity data from the Queensland Hospital Admitted Patient Data Collection (QHAPDC) and Queensland Health non-admitted patient data collection (QHNAPDC). The linkage relied on automated bulk upload processes and manual data checking for quality control purposes.

A goal of the *Queensland Health Digital Health 2031 Plan*[20] is to promote wellbeing via targeted advice for communities through better data collection and analytics on population data, with the aim to provide statewide digital capability to prepare for future pandemic responses. The capability to target population insights means that services can customise health promotion and prevention initiatives to target populations.

[20] *Digital Health 2031*

Therefore, it is recommended:

13.1 QPHaSS identify priorities and invest in information system enhancements to be undertaken immediately to enable fast tracking of systems maturity and efficiencies in practice.

13.2 QPHaSS, as part of its functional realignment, consolidate all statewide data and information systems administration, leadership, design, and development activity into a single business unit that provides a service to all QPHaSS branches.

13.3 Appoint an executive lead to lead the development of an appropriate systems architecture that facilitates enterprise systems development and improvement.

13.4 Develop, cost, fund and implement a public health information systems improvement plan as a priority action for the 2032 Olympics planning to respond to the end-to-end business requirements of HHSs and the department.

13.5 The public health information systems plan should identify ongoing system review and enhancements for statewide information systems.

Then:

- Consolidation will allow for a coordinated and systemic approach to the development and enhancement of systems that are strategically aligned, interoperable and fit for purpose.
- Consolidated functions allow for cross fertilisation of ideas, sharing of experience and mitigation of business continuity risks.
- Practice around systems design and development can be optimised and learnings shared for the benefit of the QPHaSS Division.
- Consolidation of expertise will allow for career progression for technical staff including data officers and systems administrators.

This needs to be done because:

- High value public health is intimately linked with harnessing technological innovation.
- The development of local solutions drives fragmentation and inefficiency.
- Public expectations around technological capability and the capacity of QPHaSS to produce data to support government business has increased since the COVID-19 response and will likely continue to increase.
- Critical mass will drive efficiency by consolidating like functions.
- Siloed development of information systems results in systems with limited functionality.
- Olympics readiness planning will require priority system improvements.
- As the public health program evolves, its design and performance must be based on accurate data managed through effective systems to reduce the administrative burden for the system manager and services.

14. Using data to enable better practice

Findings:

Overwhelmingly, the review team heard about challenges in accessing, managing, and producing quality and timely data in a statewide coordinated and consistent manner. Real time access to comprehensive quality data was expressed as one of the most critical enabling functions of good public health. The previous section has highlighted several data systems that support public health activity. There are also several other systems across the division and HHSs, including the Queensland Syphilis Surveillance Register, Rheumatic Heart Disease Register and Cancer Screening Services data systems.

Internally and externally, many staff expressed an increasing appetite for enhancing data driven policy and action to strengthen consistent and evidence based public health practice, capture and build on learnings, and develop and implement innovative service delivery models, underpinned by evaluation frameworks. Regional consultation revealed that PHU epidemiologists were variously involved in producing data for local use. This varied from responding to ad hoc requests to the development of sophisticated dashboards and surveillance tools.

The COVID-19 pandemic has demonstrated the critical importance of data and technology as an essential tool in preparedness and response. The investment in systems and linkages that supported visibility of case and contact data, rapid communication to cases and contacts, and robust epidemiological data was vital to track and evaluate the impact of public health interventions.

Similarly, the outbreak of Japanese encephalitis virus in early 2022 has reinforced the need for One Health surveillance systems to detect pathogens of concern in disease vectors and animals, including cross linkages with other agencies' surveillance data to enhance visibility of and respond to detections of zoonotic pathogens of public health concern. These systems should be incorporated into the day-to-day business of Communicable Diseases Branch and have scalable capability to respond to outbreaks or incidents of public health concern.

Statewide surveillance and monitoring are system manager responsibilities and essential to identify emerging threats and provide information for system performance. This function of 'public health intelligence' requires systems, skills and expertise including epidemiology, data linkage, data analysis, visual dashboards and geographic information system (GIS) capability.

GIS in the health field enables the identification and mapping of vulnerable populations, health outcomes, risk factors and the relationships between them. GIS technology can be used to enhance real-time situational awareness and assist with evidence based informed decision-making to help protect the health of the population. The Health Protection Branch has undertaken an assessment across 12 business units that identified opportunities to enhance and integrate existing data to improve analysis capability, decision making in the management of public health risks and health service planning with the introduction of an integrated GIS platform. Currently, Health Protection Branch is preparing to procure training resources to develop staff capabilities.

There is substantial public health intelligence capacity across HHSs and in different parts of QPHaSS and some program areas are better served by this function than others. Some areas such as the Cancer Screening Branch have their own epidemiology and data capabilities but most of the epidemiological and data analysis capability sits within the Communicable Diseases Branch for management of notifiable conditions.

Non-government organisations (NGOs) identified the value in data sharing to and from the department and HHSs. Reports and other data were seen as critical for NGOs and other community partners to develop programs and measure outcomes to meet the needs of their target populations and reporting requirements to the department.

Implementing effective evidence-based interventions

Feedback from the consultation identified many opportunities to act on evidence-based interventions to prevent disease and improve outcomes for those already with disease. Several potential communicable disease examples were provided, that with further analysis and action could focus on conditions/activities where there is a serious outcome including:

- overseeing/supporting hepatitis C treatment, based on notification data/PBS treatment data
- accelerating the drive to HIV elimination through notification and resistance sequence data to provide clinicians and community groups with data about clusters, and better support clinicians managing individuals on treatment to maximise those with a suppressed viral load
- identifying high risk categories (ie largely age dependent) for COVID-19 death/hospitalisation using local data, and using this to drive booster uptake
- providing perinatal hepatitis B support to ensure neonates of mothers identified with HBV receive HBV vaccine/HBIG
- implement focussed work on maternal vaccination for COVID-19, influenza, pertussis (and potentially RSV in the future)
- supporting HPV vaccination in schools and beyond in the target age group using AIR data and local follow up activity.

Similarly, there is increased interest in collaborative reporting of notifiable diseases and actions undertaken by the communicable diseases program areas to provide a comprehensive picture of successes and challenges and inform future data driven action aligned to strategic priorities.

As the system manager function matures, there will be an opportunity to pivot from retrospective reporting of communicable diseases to a focus on anticipating and responding to public health risk. This will work through the integration and analysis of real-time linked data, and a specific focus on key data insights relevant to policy and practice. This will require a different configuration of multi-disciplinary expertise.

Limited data linkage between platforms (NoCS, AIR, patient records etc.) and unreliable data in NoCS (e.g. enhanced surveillance) make it difficult to conduct research that could enhance public health measures.

Epidemiologist

Therefore, it is recommended:

14.1 Establish a public health intelligence function which consolidates public health data and analytic resources across the QPHaSS Division under the executive lead appointed to develop the public health information systems improvement plan.

14.2 Map business and user requirements collaboratively with HHSs to develop a standard set of surveillance and decision-support tools.

14.3 Identify and invest in systems to provide statewide capability for data insights including GIS and dashboards.

Then:

- There will be greater alignment between systems design and system functionality to support the development of useful data systems, research, evaluation and quality improvement.
- Queensland Health is better placed to prevent, monitor, prepare for, and quickly respond to public health events, including the early identification of potential threats.
- Standardised tools improve efficiencies and reduce duplication across the system.

This needs to be done because:

- Public health intelligence is critical to meet expectations around evidence informed practice.
- Precise and efficient planning of service delivery and infrastructure provides a more agile and timely response to areas of high need—locally, regionally and statewide.
- Greater and more equitable access to data and analytics expertise can support collaborative endeavour and increase capability across HHSs and all QPHaSS branches.

15. Financing and growing the public health sector

Findings:

Predominantly due to the lack of an agreed standard performance framework (see *Section 9: Planning, delivering and monitoring the program*), there is no public health equivalent to activity-based funding which is used in other parts of the health service. Therefore, funding for public health at all levels is 'block-funded' and set at historical levels, despite an evident growth in workload (for example, arising from new compliance requirements, new policy areas, or simply population growth).

This situation has not changed over the last decade. In addition, there seems to be no mechanism in place to allow for any planned growth into the future beyond periodic pleas from PHUs to HHSs for more funding. These funding requests are based on business cases which are often rejected as the overall HHS budget is already allocated. There is also a great variability between HHSs, with respect to PHU budgets and workforce numbers (again, often historical).

Through consultation, public health services called for clarity of scope and expectations that aligned to investment. This was coupled with calls for transparency and accountability for investment decisions to counter significant inequity across the system.

Previous versions of the HHS service agreements offered greater specificity, for example, in the description of cancer screening activity. The inclusion of this level of detail in the new and revised *Public Health Practice Manual* will be essential to clarify scope and build transparency. It will also enable the system manager to work with HHSs through existing commissioning mechanisms and drive accountability and transparency.

Temporary and short-term funding cycles were also identified as a systemic barrier to improving service delivery. Non recurrent funding allocations resulting in temporary contracts for staff were often identified as a barrier to attracting and retaining talent.

All Australian governments have agreed to progress long-term system-wide health reforms under the 2020-2025 National Health Reform Agreement (NHRA). There are six reforms outlined in Schedule C of the NHRA many of which are applicable to public health.

The reforms are:

1. **Empowering people through health literacy**—person-centred health information and support will empower people to manage their own health well and engage effectively with health services.
2. **Prevention and wellbeing**—to reduce the burden of long-term chronic conditions and improve people's quality of life.
3. **Paying for value and outcomes**—enabling new and flexible ways for governments to pay for health services.
4. **Joint planning and funding at a local level**—improving the way health services are planned and delivered at the local level.
5. **Enhanced health data**—integrating data to support better health outcomes and save lives.
6. **Nationally cohesive health technology assessment**—improving health technology decisions will deliver safe, effective and affordable care.

The department's *Healthcare Purchasing Model* (HPM)[21] provides a system view of health services purchased by the department. It tracks all historical funding allocations since 2013 when the HHSs were established in accordance with the *Hospital and Health Boards Act 2011*. The HPM generates the funding tables underpinning the service agreements and reports all purchased activity for Queensland in accordance with the NHRA to the Administrator of the National Health Funding Pool. There are a number of specifications supporting the HPM.

At the time of this review, the HPM did not include a specification for Prevention Services and Public Health. Now the QPHaSS Division has been established, and consistent with the directions previously outlined in this report, QPHaSS must actively embrace the role of system manager to bring clarity and detail to the purchasing of public health and prevention services.

[21] Queensland public hospital services purchasing and funding models | Queensland Health

An analysis of current HHS service agreements indicates that in 2022/23, the department invested approximately $113 million in prevention services and population health across the state. Prevention services and population health are described in the service agreements as:

i. specialist PHUs
ii. preventive health services
iii. immunisation services
iv. sexually transmissible infections including HIV and viral hepatitis
v. tuberculosis services
vi. population health screening including, but not limited to, cancer screening services and newborn blood spot screening.

A little under half of the overall investment (approximately $54 million) is invested in specialist PHUs (Appendix 6). To determine the adequacy of this investment, it will be necessary to clearly define the scope of the PHUs within the broader public health program and ensure that investment is calibrated to the drivers of public health risk.

Therefore, it is recommended:

15.1 Develop a long-term funding model for public health that would allow for planned growth, via the following steps:

a. development of an investment and performance framework (see Section 9) to give decision-makers greater confidence in the value of the investment

b. mapping of high value public health activity to need, risk and demand

c. QPHaSS facilitate greater transparency of current resources available at a HHS/PHU level (including budget, workforce and population served)

15.2 QPHaSS work with Healthcare Purchasing and System Performance to optimise existing funding and commissioning mechanisms, maximise accountability and calibrate public health investment around system risk and demand.

Then:

- Accountability for investment will be increased.
- The scope of work and which public health functions are prioritised and funded will be clearer.
- Historical and inequitable investment across the public health system will be addressed.

This needs to be done because:

- Planned growth and investment forecasting requires a clear foundation.
- Public health risk is not static and an investment approach that responds to changing risks is necessary to keep pace with shifting workloads driven by new and emerging risks.
- The system manager can incentivise innovation and collaboration through existing commissioning mechanisms.

16. Building the workforce

Findings:

Scope and functions

Workforce capability is critical to all aspects of public health policy and delivery. The scope of what counts as 'public health workforce' is dependent on defining the scope of public health functions.[22]

Achieving public health outcomes requires an appropriately skilled, knowledgeable, experienced, expert and trained multidisciplinary workforce that is available broadly across HHSs. Such a workforce will have clarity of their role, purpose, functions and accountabilities.

There are a number of key conceptual frameworks that could inform planning for a future public health workforce in Queensland. In 2022, the World Health Organisation (WHO) released a roadmap *National workforce capacity to implement the essential public health functions including a focus on emergency preparedness and response.*[23] It conceptualises the public health workforce as three overlapping circles: a core group of public health professionals with specific training and accreditation; health and social care workers who contribute to public health functions as part of their clinical or care roles; and personnel from other occupations who address the wider determinants of health.

The roadmap has three action areas:

1. defining essential public health functions and sub-functions
2. strengthening competency-based education
3. mapping and measuring occupations who deliver the key functions.

There is no single national agreed public health workforce plan or strategy in Australia, though the need for such a strategy is recognised in the ACDC discussion paper, and in many of the submissions made in response. National Cabinet also committed to boosting the public health workforce in Australia at multiple points in the COVID-19 response, though subsequent concrete budget commitments have not eventuated. A national review of public health workforce is currently being conducted and will feed into the ACDC discussions.

The *Queensland Health Workforce Strategy 2017-2026* identifies prevention as a priority and the need for strategic long-term preventive health workforce planning to deliver priority health services. Specifically, adaptable workforce models and skills will be required to stem the increase in chronic disease and a growing focus on preventive and primary healthcare. A key strategy is to develop programs targeting key future health skills, including in preventive health.

The Royal Australasian College of Physicians updated their role statement for public health physicians in 2020,[24] emphasising leadership in complex situations, support for populations and health systems, integration of medical and public health expertise, ability to develop and access evidence, advocacy for health equity, and statutory responsibilities for health protection and disease prevention.

The consultation echoed the need to define role key skills and develop core competency frameworks and assessments across all disciplines. Key skills should include the ability to lead and/or contribute to public health research activity.

[22] See Table 1: Public Health Functions
[23] *National workforce capacity to implement the essential public health functions including a focus on emergency preparedness and response*, WHO, 17 May 2022
[24] *Public Health Physicians: Protecting, Promoting and Improving Health for the Whole Community*, RACP, November 2020

> **Lack of succession planning and professional development opportunities in QLD… there are no statewide junior public health professional development training/program opportunities.**

Nurse

Training

There were calls during this review for clearer training (both academic and workplace based) and career pathways for three distinct professional groups working in public health or related roles: non-medical public health professionals, or public health officers; medically trained public health physicians; and other health professionals such as allied health professionals or laboratory/scientific/technical professionals.

The *Unleashing the Potential* report found that Queensland does not have a broad public health training program. To build workforce capacity, the report recommended that a multi-disciplinary public health training program be developed in consultation with Queensland universities and professional bodies. Consultation through this review revealed a number of distinct professional training streams – for public health physicians, non-medical public health officers, nurses and epidemiologists. Other professionals also work in public health but have less well-defined career pathways.

Staff expressed and supported a need to build the multidisciplinary workforce and ensure that people are recruited and appointed to positions where they have the appropriate skills, experience, expertise and associated qualifications, where relevant. Training and professional development pathways at undergraduate and postgraduate levels require review to build a workforce of the future. As an example, public health training pathways for all disciplines including medical, nursing, environmental health, epidemiologist, data officers and others should be developed/enhanced and include a focus on project management, data management, strategy, policy and planning for public health where relevant.

Unlike Victoria and NSW who offer training pathways for a range of disciplines, current public health training pathways in Queensland are limited to public health medical registrar training and trainee environmental health officers at a few PHUs. Additionally, there is no formal training or competency assessment for public health nurses, with most having developed knowledge and skills 'on the job' and some having completed dual undergraduate degrees or post-graduate public health qualifications.

The *NSW Health Public Health Training Program* offers a three-year training program for medical and non-medical applicants that have completed a masters or doctoral degree in a public health field. The program aims to build the capacity of the workforce, including surge capacity, through placing trainees across the NSW health system to develop public health competencies while addressing strategic and operational priorities of the NSW health system. The program is underpinned by a Competency Framework.[25]

Across the state, there is an opportunity to build the competency of the public health workforce by facilitating the exposure of staff across the system to share knowledge and skills and build resilience into both the statewide and local systems. For example, providing staff work placement and exchange opportunities as a part of their induction process, professional development plans or competency assessment.

Training is a method to develop and retain valuable staff and build the strength of the statewide and local public health systems. Across the state, staff expressed a desire to develop and participate in training activities relevant to their discipline and general public health functions. Some staff identified the difficulties in progressing within the Health Practitioner (HP) stream, particularly for those recruited at HP3. Training and work placement or exchange in this context is an opportunity to develop and retain a highly skilled workforce.

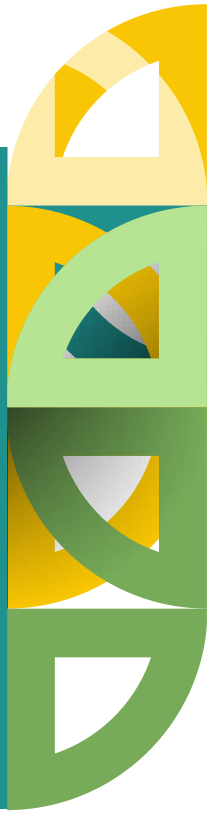
Training needs across the state are essentially the same, with some regional differences due to population or risk activities of the geographical area. Centrally developed and locally adapted training materials are beneficial to reduce duplication of effort and resources.

[25] *NSW Public Health Training Program: Competency Framework*, October 2014

Contact tracing training

In 2020, the Incident Management Team (IMT), in collaboration with PHUs, delivered statewide contact tracing training for 305 public servants. The training materials were developed centrally based on existing materials provided by PHUs. To facilitate ongoing training and ensure surge capacity, an easily accessible, self-directed and high-quality online contact tracing officer course was developed and made available to Queensland Government and local government employees. A further 58 public servants were trained using the online training modules and onsite mentoring at QTrace: central contact tracing service.

The online course was led by IMT in collaboration with PHUs and structurally developed by the Clinical Skills Development Service (CSDS). The basic components of the online course were developed to be future-proof while the additional COVID-19 specific components could be easily adapted to include other notifiable conditions, e.g. measles, should the need arise in the future.



Leadership and management

Management and administration are distinct functions with a specific set of attributes and skills. There are a variety of management arrangements across PHUs in Queensland including where the senior manager is also the senior public health practitioner of a discipline.

Department and HHS staff expected managers to provide and be focused on strategic direction, processes and structures. They expected clarity of roles, transparent and timely information sharing and a manager that empowered and trusted them to operate autonomously and to the level expected of their role. Some staff disliked what they saw as excessive review and approval processes that resulted in workplace frustration and dissatisfaction.

The roles of senior manager, and public health professional, should be separated on a functional basis, not conflated. Job descriptions for senior management positions should not be over-narrow in requiring a specific professional background. Some staff reflected that managers were at times appointed based on their discipline or technical/clinical skills as a priority over their ability and skill to strategically lead a team. This often led to frustration and dissatisfaction of team members with strategic leadership skills.

Succession planning

Overwhelmingly, staff expressed the critical need for succession planning. The COVID-19 pandemic has had significant impacts on experienced staff with many reducing to part time, retiring or exploring new opportunities. Additionally, activities/services that rely on a sole staff member must plan for the future for example, environmental health activities in rural areas or an expert clinician as is the case for the Queensland Syphilis Surveillance Service. There are also a range of highly specialised functions within public health, such as environmental toxicology, which require special consideration when planning a workforce pipeline.

Harnessing expertise

Given the challenges in supporting a sustainable multidisciplinary workforce across public health, it is critical that skills and expertise are harnessed for maximum impact. This requires workforce structures that optimise clinical and technical skills, and ensure that the workforce is meaningfully engaged, practicing within their discipline, and working to a scope of practice consistent with their role, qualifications and expertise.

The system manager function will be greatly enhanced if the connection between operational elements of public health and the system manager function are better integrated. Opportunities for professional development or rotations between the QPHaSS branches and HHSs should be actively promoted.

Workforce Strategy Branch provided data on a wide range of occupations and settings relevant to public health workforce. However, there are inconsistencies in naming conventions and counting rules that complicate comparative analysis. A full analysis of the data is beyond the scope of this review but should form the basis of a public health workforce plan.

Therefore, it is recommended:

16.1 Develop a public health workforce plan that aligns roles and functions with appropriate stream, consideration of distinct career pathways, competency sets, and training and accreditation requirements.

16.2 QPHaSS to identify gaps and critical workforce shortages and advocate for the inclusion of appropriate workforce supply pathways to fill these gaps to be included in the department's workforce strategy currently in development.

16.3 QPHaSS sponsor the development of an options paper developed collaboratively with HHSs and implement a preferred approach to on-call.

16.4 Ensure staff are engaged in the performance development framework, including individual career success planning.

16.5 Offer professional development opportunities across QPHaSS branches, and between the department and HHSs.

16.6 Undertake a skills audit across QPHaSS and implement a policy regarding the filling of vacancies to ensure skills alignment with business objectives.

16.7 Build a culture to support leadership capability at all levels.

Then:

- Knowledge and skills across the state are enhanced and staff are exposed staff to experiences in variable settings for example, rural and metropolitan.
- Connectedness and trust can be built between the system manager and operational elements of the system.
- The public health system becomes resilient and more responsive to emerging issues.

This needs to be done because:

- A public health multidisciplinary team is essential across the system manager and HHSs.
- Workforce capacity and flexibility needs to be built in the lead up to 2032 Olympics.
- Job satisfaction and opportunities for career progression are critical to workforce attraction and retention.
- A broader system view and capacity for cross fertilisation of ideas needs to be built

17. Planning for the future

Findings:

Pandemic preparedness

The occurrence of infectious diseases falls on a continuum from a single or few cases, to an 'outbreak' or localised spike or cluster of cases, to an 'epidemic' affecting a bigger area or larger number of victims, and finally to a 'pandemic' that affects multiple countries and tens of thousands of people.[26] Recent pandemics include SARS (2002-2003), influenza (2009) and COVID-19 (2020-present day).

The COVID-19 pandemic has challenged our public health systems, but this has provided opportunities for innovation and identified where further work is required to build public health capability.

There is widespread agreement in Australia that firstly, the current COVID-19 pandemic is not over while the virus circulates and replicates globally, and that we will experience another pandemic in the next 10 years (whether from an influenza virus, a coronavirus, or another micro-organism altogether).

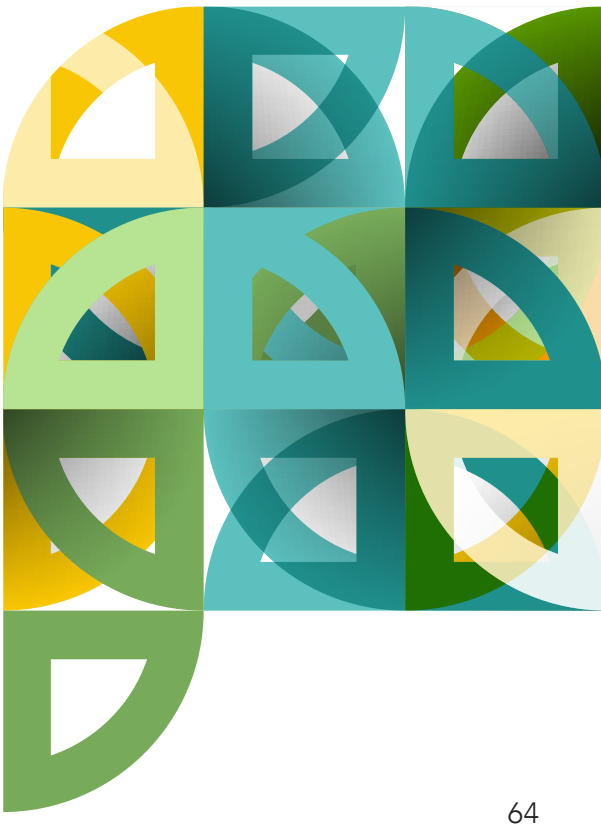
Pandemic preparedness was highlighted consistently through the review and in particular a desire to rapidly identify and act on lessons identified from the COVID-19 response. There is a strong desire to invest in and strengthen preparedness, response and resilience to outbreaks and public health emergencies through emergency response policy and guidelines.

This review places a strong emphasis on good public health risk assessment and management. Pandemic preparedness should be an integral element.

Lessons learnt activities and 'reviews' of the COVID-19 pandemic response have been undertaken at some levels of the health system response in Queensland. For example, the COVID-19 Incident Management Team (IMT) conducted a lessons management process and identified lessons across the themes of strategy, workforce and culture, and communications and engagement. Key findings from this process as they relate to the public health review are outlined at Appendix 7.

Following each pandemic, there is a determined resolution to 'be more prepared next time', and there are both success stories and lessons that need to be learnt at all levels of response (local, state, national and international) but for a combination of reasons (political and financial in the main), recommendations from lessons learnt exercises are most often not implemented, as other priorities take precedence in the shorter term, and the pandemic fades from memory.

The COVID-19 response required a flexible workforce, particularly where staff were stood down from specific clinical roles such as dental and surgical services, and seconded and trained in response roles including contact tracing activities and hotel quarantine. For example, HHSs recognised the value of dental staff and rapidly trained staff to support contact tracing activities across some of the larger HHSs. The staff were well placed to rise to the challenge, using their frontline clinical expertise and knowledge of infection control to support public health activities.



[26] Drawn from 'Epidemics and Society' by Frank M. Snowden, Yale University Press, 2020.

Workforce Surge Capacity

The IMT coordinated the development of the *Deployment Plan: Increasing Queensland's contact tracing capacity* (24 December 2020) in consultation with HHSs, the Employee Mobilisation (EMS) Service Public Service Commission (PSC), Health Protection Branch, Health Contact Centre (HCC) and the SHECC.

The plan outlined the expected roles and responsibilities of Queensland Health and other Queensland Government agencies to respond to a range of triggers to prepare increased contact tracing capacity and to mobilise rapidly.

The model relied on a flexible approach ranging from mobilising HHS trained staff to local needs to activating a central contact tracing service (QTrace) staffed by Queensland Government employees trained in contact tracing and supported by the IMT and HHS staff.

QTrace was stood up seven (7) times, as well as a four (4) month secondment. Deployments also included supporting Victoria and NSW Health contact tracing efforts. These activities enhanced skills and increased the capacity within Queensland to deliver a rapid contact tracing response to emerging outbreaks.

Experience from the COVID-19 pandemic response has demonstrated the importance of being able to draw on both a standing workforce and a surge workforce in times of crisis. Planning for such a surge workforce will be critically dependent on:

- agreed lessons learnt from the COVID-19 response so far (2020-2022), including any changes to working from home arrangements
- state and national plans for ongoing COVID-19 response (2023-2024 at least) and for future pandemics (in particular, any triggers for expanded contact tracing, whether surge staff will be drawn from across the public sector or from existing Queensland Health staff, and any proposed use of third parties such as HealthDirect)
- discussions on the role of the ACDC and ability to provide support across jurisdictional boundaries.

Future COVID-19 lessons learnt exercises or reviews will inform public health practice, and importantly capacity building in Queensland. The findings of such exercises will likely mirror some of the findings in this review, namely the importance of strong leadership, adequate investment for public health, planning for and building a multi-disciplinary public health workforce, need to improve disease surveillance, and use of new technologies (in particular real-time diagnostics, genomic sequencing and novel vaccines).[27]

Given that most new pandemics arise from zoonotic spill over of viruses and other micro-organisms from animals to humans, and climate change is contributing to dramatic changes in ecosystems which expose humans to more of these risks, there is also a link between pandemic preparedness, climate action and One Health approaches.[28]

[27] See CSIRO report *Strengthening Australia's Pandemic Preparedness* (2022), which identifies six key science and technology areas
[28] See for example *A One Health Approach to Climate Change and the COVID-19 Pandemic*

Therefore, it is recommended:

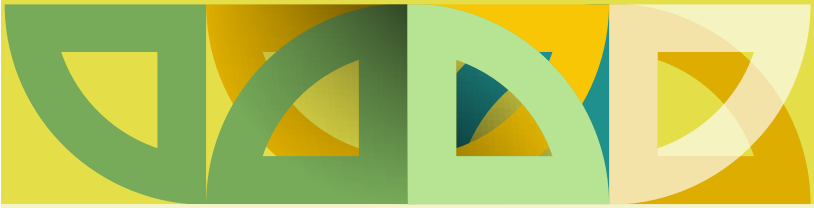
17.1 Turn 'lessons identified' from the COVID-19 response into 'lessons (actually) learnt' projects, with follow-through on recommendations.

17.2 Integrate COVID-19 response lessons with previous pre-COVID-19 pandemic preparedness plans into a new and updated Queensland Health Pandemic Preparedness Plan, with defined roles and responsibilities and agreed governance.

17.3 Work with other state government agencies on an updated whole-of-government pandemic preparedness plan, aligned to agreed disaster and emergency management frameworks.

17.4 Contribute to ongoing work at a national level, through AHPPC, and establishment of the ACDC.

17.5 Track what is happening at an international level (including response to report of Independent Panel for Pandemic Preparedness and Response, rewrite of International Health Regulations, and extensive work on a new Pandemic Prevention, Preparedness and Response Treaty or Convention).



Then:

- The health system has an evidence-based plan and is prepared for future pandemics.
- Partner agencies have defined and agreed roles and responsibilities.
- Queensland is actively contributing to the national disaster and emergency response planning and action.
- Current awareness and consideration of international responses is factored in state planning.

This needs to be done because:

- Future pandemics are inevitable.
- The COVID-19 pandemic experience has tested our pandemic preparedness, and future planning must incorporate valuable lessons learnt, including cross agency activities.
- Queensland's public health system needs to develop to meet the expectations and requirements for the 2032 Olympics.

Climate change

The Australian Government introduced the *Climate Change Act 2022* to set out Australia's greenhouse gas emissions reduction targets.

All sectors in all states and territories will need to contribute to meet these targets. The health sector contributes approximately 7% of Australia's total emissions, and it will be a major challenge to move as fast as all other sectors and government departments, requiring monitoring and regular reporting of emissions, and rapid sharing of successful mitigation initiatives, particularly across hospitals and health services.

The Queensland Government have made three overarching climate commitments:

1. 50% renewable energy by 2030
2. achieving zero net emissions by 2050
3. achieving an intermediate emission reduction target of at least 30% by 2030.

These are to be achieved through collaborative efforts of the infrastructure and asset life cycle, through energy management and maintenance, and smart financial strategies.

The Queensland Government made an election commitment in 2020 to establish the Office of Hospital Sustainability (OHS) in Queensland Health. This office (established in 2021) has a particular focus on reducing emissions through improved energy management, green infrastructure, procurement reform and staff engagement.

OHS has recently been realigned into Health Protection Branch, and this new structure allows for integration of climate mitigation (via health services) and climate adaptation (via health protection and disaster management) in climate health planning.

Issues related to climate change, including water quality and mosquito control due to increased flooding, were highlighted across the state during the course of this review.

The Australian Government committed $3.4 million in 2022-23 federal budget to develop a National Health and Climate Strategy (expected to be released in 2023) and establish a National Health Sustainability and Climate Unit (now up and running in early 2023). The new federal structure and strategy will offer new opportunities and allow for improved collaboration across all jurisdictions.

Queensland has also committed to delivering the first 'climate-positive' Olympic Games.[29]

[29] Climate positive Games, Queensland Government

Therefore, it is recommended:

17.6 QPHaSS provide leadership to Queensland Health in climate action combining mitigation efforts led by the Office of Hospital Sustainability, and adaptation efforts led by other parts of the Health Protection Branch.

17.7 Queensland Health participate actively in the consultation phase of the *National Health and Climate Strategy* (discussion paper not yet released, as of end February 2023)

Then:

- Queensland efforts will align to the *National Health and Climate Strategy*.

This needs to be done because:

- Mitigation and adaption are fundamental response to emerging public health risks brought about by climate change.
- Queensland Health must contribute to whole of Government effort to deliver a 'climate positive' Olympic Games.

Influencing the national agenda

One Health is an integrated, unifying approach to balance and optimise the health of people, animals and the environment. One Health involves the public health, veterinary and environmental sectors and communities to develop actions that address causes and create long term sustainable solutions. The One Health approach is particularly relevant for food and water safety, the control of zoonoses and combating antimicrobial resistance.

While not a new approach, it has been part of the response to Japanese encephalitis virus at state and local levels. Reorienting public health activities with a greater focus on One Health will be critical to preparedness for future outbreaks, biosecurity and addressing emerging environmental issues and threats.

An ACDC will commence in 2024 and its initial focus will be on future public health outbreaks, the National Medicines Stockpile, communicable disease surveillance, One Health, an all hazards approach to public health issues, greater data sharing and data linkage, and surge capacity for public health workforce.

States and territories will be central to the development and implementation of both the ACDC and the national climate and health strategy. Queensland has significant experience in a number of areas and has a key role to play nationally to shape the agenda of the ACDC.

Consistent with the level of ambition inherent in bidding for and winning an Olympics, there is an opportunity for Queensland to submit an offer to lead nationally in specific public health areas within the ACDC.

Dengue in far north Queensland

The Wolbachia release strategy, implemented 2012-2015 in far north Queensland, involves the release of mosquitoes infected with the dengue-blocking *Wolbachia bacterium* as a method to reduce dengue transmission risk. This novel strategy has produced good results in some *Aedes aegypti* populations in far north Queensland.

Japanese encephalitis

The Queensland Japanese encephalitis One Health Taskforce was established in April 2022 to provide governance and oversight to the response to the detection of Japanese encephalitis virus in Queensland and to ensure congruence and relatedness to the Joint National Japanese encephalitis virus Response Plan.

The taskforce is chaired by the Chief Health Officer, and membership is comprised of representatives from across Queensland Government including Queensland Health, Department of Agriculture and Fisheries, Department of Premier and Cabinet, Biosecurity Queensland and individuals identified with expertise and resources to support the response.

The Taskforce ensures that the Queensland Government is delivering a One Health approach to the detection of Japanese encephalitis in people and animals, by implementing joined up strategies to support public health outcomes.

Therefore, it is recommended:

17.8 Queensland Health submit an offer to be the national lead within the new ACDC on any or all of the following:

a. One Health
b. antimicrobial resistance
c. tropical infectious diseases
d. mosquito control.

Then:

- Queensland can draw on its definite advantages with respect to geography, skills mix, disease challenges, health system capacity and academic institutions which can contribute to national priorities.

This needs to be done because:

- Mitigation and adaption are fundamental
- A national commitment will drive flow on benefits for the Queensland public health system.

Major events and mass gatherings

The lead up to the 2032 Olympics is a unique opportunity to align health and wellbeing within a wider agenda. Queensland Health will be expected to speak with a single voice on key health service and public health issues during the extensive planning process.

The Commonwealth Games on the Gold Coast were a great success in 2018, and the public health response stood up well to multiple infectious disease outbreaks. Public health commenced planning for the GC2018 in 2015 with the establishment of the GC2018 Public Health Coordination Group (GC2018 PHCG) that reported to the GC2018 Medical Executive Steering Committee Co-Chaired by GOLDOC and Queensland Health. The aim of the GC2018 PHCG was to protect and promote the health and wellbeing of the community at the GC2018 through minimising the risk of illness and harm arising from communicable diseases, food safety, water quality and environmental health hazards. Establishing a syndromic surveillance system through emergency departments, and a legislative framework protocol for health and local government roles and responsibilities were important components of Gold Coast preparedness.

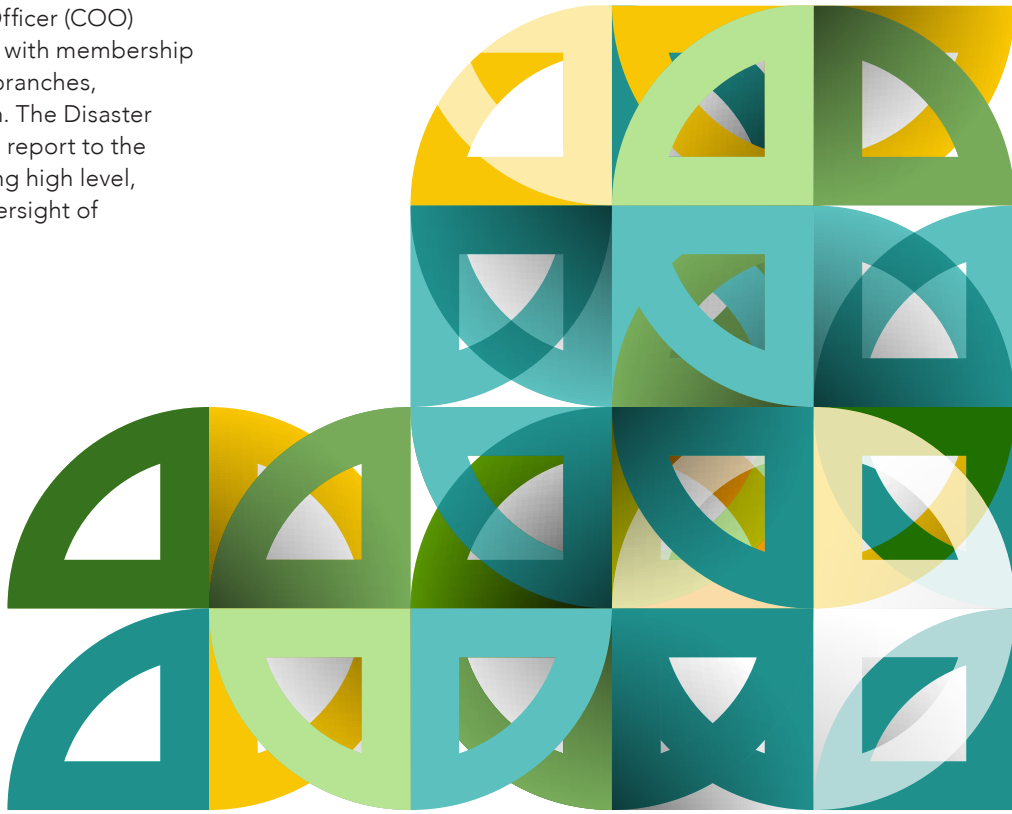
A new Queensland Health disaster management governance structure is currently being established to ensure strategic oversight of disaster management functions and align with the Integrated Systems Governance model. The new structure reflects the benefits of the regular HHS and departmental collaboration during the COVID-19 response.

The Disaster Management Committee (DMC) will report to the Chief Operating Officer (COO) Leadership Group and COO Forum with membership from HHSs, relevant departmental branches, clinical networks and primary health. The Disaster Management Advisory Network will report to the DMC and is responsible for providing high level, strategic review and operational oversight of disaster management activities.

Current planning for the 2032 Olympics is being led by the Disaster Management Branch. The Disaster Management Branch has new whole-of-systems responsibilities, and now reports directly to the COO. This branch focuses on health services planning for major events and emergency response, so integration with QPHaSS is still vital for other public health functions (risk assessments, water quality, food safety, communicable disease outbreaks etc.).

Health Protection Branch staff carry out a number of risk assessments and plan for major events and mass gatherings, in conjunction with local councils, but have not yet consolidated their expertise as have other states. In collaboration with the Disaster Management team, such a capacity could assist with coordinating public health advice and input into a range of major sporting and cultural events, which will increase in size and complexity in the run up to 2032.

With an international event such as the 2032 Olympics, there will be a heightened emphasis on biosecurity and border issues (including with Papua New Guinea), requiring close cooperation with the Australian Government.



Therefore, it is recommended:

17.9 Health Protection Branch, in collaboration with Communicable Diseases Branch, build capacity to coordinate public health advice for major events and mass gatherings, working with and not duplicating key leadership functions of the Disaster Management Branch.

17.10 Foster a culture of iterative learning based on lessons from major events held in Queensland each year.

17.11 Communicable Diseases Branch consult with Gold Coast PHU early in planning for the 2032 Olympics and consider extension of a syndromic surveillance system statewide prior to the event.

Then:

- Consideration of communicable disease and environmental health threats will be factored into the planning of mass gatherings and major events.
- Quality improvement processes are implemented to prevent future issues.
- Early warning for emerging disease threats and impact on health services can be implemented.

This needs to be done because:

- Communicable disease and environmental health threats are heightened at mass gatherings and major events.
- Systems quality improvement will be very valuable in the build-up to the 2032 Olympics.

18. Working with others

Findings:

Strong high functioning, collaborative and cooperative relationships with stakeholders supports coordinated delivery of services. Queensland Health public health staff and external partners across local government, primary care, academia and non-government organisations stressed that to fulfill the scope of public health functions, it was critical to engage a range of partners and clearly define roles and responsibilities within this broader health ecosystem. Stakeholders clearly identified the value and broad roles of other partners, including Queensland Health, although their expectations were not always met. Some frustration was expressed with the waxing and waning of partnerships following changes in organisational structures or staffing.

Local Government

The Local Government Association of QLD (LGAQ) described the relationship with the department as excellent but advised their members have a variable relationship with the local HHS. Most often this occurred where different HHSs provided inconsistent messages across councils that create confusion and affect their operations. LGAQ supported their member councils when requested only on specific technical topics or via advocacy on statewide issues that they may advocate on directly with the department.

Internal stakeholders identified local government as a key partner for public health teams with connectedness to local community and industry, including in health protection (via legislation), public health incidents/ disasters, and communications. Partnerships were seen to function most effectively if aligned at a state and local level.

A community's health and wellbeing are a function of their environment, and local government recognises that planning and service delivery influence local public health outcomes. The interrelationship between community, local and state government can inform an integrated approach to support better health outcomes into the future, including across the devolved legislative functions of local government for example, surveillance and control of disease vectors. Councils can also be proactive in supporting local communities to provide preventive health care, including through provision of facilities and grants for programs. Communities demand health and wellbeing services and the local council often becomes the provider where no other government service is available, particularly in regional and remote areas.

Councils operate under many pieces of legislation. The primary legislation is the Local Government Act 2009 and the Local Government Regulation 2012. Brisbane City Council operates under the *City of Brisbane Act 2010* and the City of Brisbane Regulation 2012. Local governments have responsibility for a range of devolved regulatory functions across food, water, waste, infection control etc.

Empowering communities to identify risks

Since 2006, Tropical Public Health Service (TPHS), Cairns delivers the *Aboriginal and Torres Strait Islander Public Health Program (ATSIPHP)* to work in partnership with Queensland Health and local government to establish environmental health and animal management programs to improve public health in communities. Workers are trained, mentored and supported to identify public health risks in their communities and initiate community education and awareness; control measures; and referral for advice to TPHS as required. The program aligns with the *Queensland Health Aboriginal and Torres Strait Islander Environmental Health Plan 2018-2021* and supports other policy initiatives to reduce the burden of preventable diseases.

LGAQ on behalf of members expressed that the interdepartmental siloing of the regulatory approach was difficult to navigate and has a significant impact on the operations of local councils. With eleven councils in southeast Queensland having formally partnered for the 2032 Olympics, defining clear roles and responsibilities and a process for monitoring of regulatory approaches needs to be determined collaboratively with the department and HHSs.

A range of documents have previously provided a framework for the local and state government public health relationship and could inform a renewed partnership for Queensland communities, including:

- Inter-governmental Agreement Establishing Principles to Guide Inter-Governmental Relations on Local Government Matters.
- Protocol Establishing roles and responsibilities of the State Government and Local Government in the Queensland System of Local Government.
- Public Health Partnership Protocol between Public Health Services (Queensland Health), Local Governments of Queensland and the Local Government Association of Queensland Inc.
- MOU between the Local Government Association of Queensland, the Department of Local Government, Planning, Sport & Recreation and Queensland Health Population Health Services.

Primary Care

Primary health care refers to services provided within the community and is often the first place a person will access care including from a general practitioner, physiotherapist or pharmacist. Primary health care is an integral partner in preventive and population health services at the individual level, including for example smoking cessation, immunisation, cancer screening, promoting physical activity and outbreak control.

As a trusted voice for the local community and strong patient advocates, primary health care providers have the potential to reduce the population risk of chronic disease through the provision of preventive care to individuals and small groups. Internal and external stakeholders advised that the barriers to accessing care in the community, including availability of appointments and cost, were contributing to an increasing burden on the acute care system. Many also saw this burden as related to workforce gaps in primary care that prevent full delivery of preventive health services such as nurse practitioners or medical assistants to complement and support general practitioners.

A strong and integrated relationship between primary care and state based public health services is critical for public health measures to be implemented to help ensure a safe and healthy population. The relationship should be consultative and collaborative to embed prevention across primary care and provide the policy, systems and processes to support the workforce for example, referral pathways, information and training.

The Australian Medical Association Queensland (AMAQ) as the state's peak representative body of Queensland doctors identified the critical importance of engaging professional bodies in health system and service planning. Strengthening the collaboration between primary health services and Queensland Health would assist in defining governance of primary care and the entry and exit points within the health system.

Primary Health Networks (PHNs) described the LANA process as a missed opportunity for HHSs to align more closely with primary care who have been undertaking needs assessments of their local communities for many years. Similarly, HWQ as part of development of the Queensland Equity Framework have created a Partnership Governance Group that represents twenty-four government agencies and three commissions and a Community Governance Group of people with lived expertise of inequity. These groups will help to explore the system and surface insights on why the system is stuck, what is holding it in place and importantly, the challenges and opportunities to make a difference for equity.

Increasing participation in cancer screening programs

The Cancer Screening Branch has a multi-strategy approach, in collaboration with the primary health care sector, to increase participation in the breast, cervical and bowel cancer screening programs through:

- Partnering with software companies to improve the functionality for GPs to identify patients due or overdue for screening.
- Partnering with Primary Health Networks (PHNs) to:
  - plan and deliver quality improvement projects with GPs
  - provide marketing and communication materials to promote cancer screening among GPs
  - deliver pilot projects to understand barriers and enablers to promoting cancer screening or uptake of new cancer screening policies (e.g.cervical screening self-collection).
- Developing interactive videos which can be used by PHNs and GPs to promote a better understanding of what's involved in screening with their patients.
- Providing a bowel screening participant follow-up function, which supports patients and GPs to ensure that participants who have a positive bowel screening result complete all their appropriate follow up appointments (e.g. GP visit and referral for colonoscopy).
- Providing free CPD accredited online education for GPs on population screening and the three national cancer screening programs.

Embedding a 'treatment as prevention' model within primary and acute care health services aims to reduce the burden on the health system by creating informed and healthier individuals and communities. HWQ have named their approach to this as 'clinical prevention' and are developing a Queensland Clinical Prevention Strategy which will outline a systems approach through innovative models of care, digital integration, education and training, all informed by data and evidence.

The HWQ Clinical Prevention Strategy is one of four strategic frameworks that underpin "*Generation Queensland (GenQ)*" that aims to create an opportunity to change the trajectory of children's lives.[30] HWQ are supporting the GenQ vision with specific actions including a population data platform; grants scheme; community insights panel; and Health and Wellbeing Centre for Research Innovation.

Unleashing the Potential recommends the creation of a 'public health and prevention clinical network'. While recognising the benefits of clinical networks, many public health staff across the state are of the view that clinical networks lack ability to make decisions and affect change. Furthermore, activities of public health are broader than clinical practice and multidisciplinary. Further consideration should be given to the role and functions of the group, and the formalisation of existing discipline specific forums and how they can be effectively harnessed to drive reform.

[30] *Changing the odds: why equity is our goal for next gen* – Health and Wellbeing Queensland

Strategic partnership for addressing BBVs and STIs

Coordinated by the Communicable Diseases Branch, the *Queensland Sexual Health Framework* and supporting Queensland BBV/STI Action Plans for HIV, hepatitis B, hepatitis C and STIs provide a whole of government cross-sector mandate for collaborative action on these priority issues. An annual stakeholder engagement forum hosted by the Sexual Health Ministerial Advisory Committee (SHMAC) collaboratively discusses priority areas of need and makes recommendations.

Encouraging translational research is a priority action in the Framework and action plans and supported through departmental funding of an HIV and STI Professorial Chair (University of QLD) and the Sexual Health Research Fund (SHRF) of the SHMAC. Established in 2018, the SHRF provides seed funding (up to $100,000) for translational research activities aligned to the Framework and action plans. The fund is administered by the Australasian Society for HIV Medicine (ASHM) on behalf of the department.

In 2019, a cross-sector collaborative research priority setting workshop was convened by the HIV and STIs Professorial Chair to advance a common agenda for future BBV/STI research. The workshop stressed the need for research in Queensland to capitalize on gains made in reinvigorating the research culture, growing collaborations and effective research partnerships. These BBV/STI research priorities have informed the work of the SHMAC Research Sub-Committee, whose mandate for the SHRF covers sexual health more broadly.

Consumer and non-government organisations

NGOs play an important role in engaging local communities, advocating, independent research and funding, promotion and awareness, and co-designing and delivering local and statewide strategies within their remit. Stakeholders had a shared understanding of the critical importance of strong relationships based on a shared purpose and vision.

A range of NGOs receive funding from the department to deliver defined programs or projects often targeting vulnerable and hard to reach communities underserved by the primary care system. Several NGOs are contracted to deliver programs across QPHaSS branches with most of the funding coming from the BBV and STI Program, Communicable Diseases Branch. NGO partners reported effective relationships with the department and in the delivery of services across HHSs. They described a clear statewide strategic framework led by the department in collaboration with key partners and appreciated a streamlined contracting process and five-year terms that allow them to plan strategically and evaluate longer term outcomes.

Consumer views are a valuable contribution to service planning, implementation and evaluation for the Queensland health system and services. Health Consumers Queensland (HCQ) provide systems advocacy and build partnerships to influence and lead improvements for better health delivery for all Queenslanders. Consumers contributed to the COVID-19 pandemic response at a systems level and this engagement and participation has demonstrated the importance of meaningful consumer engagement.[31] Additionally, NGOs identified that they engage consumers for peer led activities and regularly in program development and evaluation.

[31] *Evaluation of the impact of consumer engagement during COVID-19*, Health Consumers Queensland

Increase communication and partnerships related to early intervention, prevention and health promotion.

Nurse

Therefore, it is recommended:

18.1 QPHaSS approach Queensland Clinical Senate to consider hosting a public health focused discussion in 2023 (For example, on high value public health care, and its links to acute and primary care).

18.2 HHSs identify, invite and actively engage primary care, consumer and non-government service providers in the HHSs LANA process.

18.3 QPHaSS actively strengthen relationships with external partners through shared strategic purpose and action.

Then:

- Integrated priorities for public health are identified to inform action.
- HHS plans are representative of the views of consumers and other local organisations and create a shared vision for improved health outcomes.
- The relationships are built on a common goal.

This needs to be done because:

- Prevention must be integrated at all opportunities across acute and primary care to reduce the impact of disease and improve health outcomes.
- Local area planning should be a shared activity of community partners that provides benefits for all and avoids duplication.
- Internal and external partners have unique and valuable knowledge and skills to contribute to the common goal.

19. Working towards excellence

Findings:

The goal to develop a truly world-class public health system in Queensland by 2032 or earlier is ambitious but achievable. Over the next 10 years, the context for public health will change and new policies and practices will emerge both in Queensland and elsewhere.

Any system that 'stays still', fails to adapt to such changes, and does not adopt best practice quickly from elsewhere, will fall behind. A vital part of a dynamic, innovative, high-performing public health system is the ability to monitor performance, take feedback, share successes and challenges, learn from others, make changes and thereby continuously improve.

Such sentiments came through strongly from stakeholders in this review, in both interviews and through the survey. It was captured by terms such as 'striving for excellence', 'supporting innovation' and 'building a culture of evidence-informed practice'. There were a wide array of tools and approaches suggested, all of which are backed up by sound theory, many years of use, and demonstrated outcomes. Tools include formal evaluations, audits, quality assurance and benchmarking against like organisations. Some of these tools are used routinely within current regulatory compliance frameworks.

Collaborative networks and less formal approaches across Queensland public health services can provide a forum to share successes and challenges to both inform and seek the views of peers for development of solutions and continuous improvement (Appendix 4).

There was a good understanding that strong evidence generated in academia, so called 'Big R Research', is one essential building block of continuous improvement, but there are many other 'small r research' and evaluation-like activities that practitioners can and should instigate at a local level.

University and research bodies have significant capacity to support public health in investigating and initiating new models of service although difficulties in data sharing can hinder this. Academic expertise was identified as underutilised by and for the public health system despite many reasons to engage collaboratively. There is a perceived bias toward clinician researchers with little opportunity for funding or support for non-clinician researchers.

Queensland Health public health staff identified an interest in strengthening internal and academic relationships to further contribute to the evidence base and support the continuing professional development of individuals and teams.

Queensland academic success in overall grant funding from the NHMRC and the Medical Research Future Fund (MRFF) in 2021 was 13 per cent and 12 per cent respectively, falling well below matching Queensland's 20 per cent proportion of the national population. The proportion of public health projects is difficult to determine.

Queensland Health provides an annual pool of research funding for a range of internal staff to advance clinical research as well as discipline specific grants including for doctors, nurses, midwives and health practitioners. Many projects are collaborative activities with academia. However, these pools of research funding do not specifically extend to public health research nor to public health practitioners.

Queensland Alliance for Environmental Health Science

Established in 2015, the current partnership agreement (due to end in June 2023) between the University of Queensland and Queensland Health facilitates collaboration between environmental health science researchers and Queensland Health public health staff (QHPaSS including Health Protection Branch, Communicable Diseases Branch, Forensic and Scientific Services and PHUs).

Partnership provides opportunity for:

- Queensland Health to influence environmental health science research agenda
- participation in research projects
- undertaking further study (Master of Environmental Health Science, one-off courses, PhD)
- access to academics to inform 'edge of evidence' and emerging issues
- translating research into policy, human health risk assessment and technical advice.

The 2021-22 Queensland Health's contribution of $688K leveraged $14million in new funding ($3.2M NHMRC, $2.1M ARC and $5.1M contract research, $3.6M other grants).

See the website: Queensland Alliance for Environmental Health Sciences (QAEHS) and the latest annual report.

Therefore, it is recommended:

19.1 QPHaSS state an explicit ambition to develop an innovative and world-class public health system.

19.2 QPHaSS lead and foster a culture of continuous improvement, by legitimating time spent on (and overcoming barriers to) such activities.

19.3 QPHaSS harness the expertise of the academic sector through explicit partnerships; and establishing expert advisory groups where appropriate.

19.4 QPHaSS facilitate opportunities and lead a culture that celebrates and shares successes and learnings at a local, state and national level.

19.5 QPHaSS advocate for including public health within the scope of established departmental research funding schemes.

Then:

- Systemic improvement will be embedded in the public health system's foundations.
- The Queensland public health system will be able to evolve over time.

This needs to be done because:

- High value public health is driven by evidence-based best practice.

12.0

Summary of recommendations

1. Defining public health

1.1 Complement the accepted traditional definition of public health by adopting a three-part functional description of public health—'promote health, prevent disease and manage risk'.

1.2 Introduce the conceptual and definitional change of public health into all major documents, notably the *Public Health Practice Manual* in the first instance, and later into a review of the *Public Health Act 2005*.

1.3 Develop a matrix of risk drivers for public health to inform an investment framework.

2. Realising the opportunity

2.1 Maintain and strengthen the current decentralised public health model.

2.2 Establish a Public Health Strategy and Support Unit in the Office of the General Manager, QPHaSS to support the system manager function, strengthen the relationships between strategic and operational elements of the public health system and lead collaborative reform.

2.3 Define the public health system manager role to include:

a. statewide leadership, assurance and stewardship

b. delivering practical support, guidance, tools and training for public health

c. drawing on the expert skills and experience of frontline staff.

3. Strengthening the mandate

3.1 Prepare a plan for public health legislative reforms to be progressed over the three time periods 2022-2024, 2024-2028 and 2028-2032.

3.2 Immediately commence a major review and updating of the *Public Health Act 2005* in the lead up to its 20-year anniversary in 2025. In particular, the following should be considered:

a. incorporation of risk management directly into the objectives of the Act

b. addition of guiding principles, such as proportionality, the precautionary principle, the importance of equity, the link to environmental protection and the role of local government

c. requirement for statewide and regional/local public health plans

4. Working together

4.1 In consultation with the HHSs, QPHaSS use a RACI framework to identify which party is primarily accountable for which public health functions, and which parties are responsible. A similar approach should be used to clarify delegated responsibilities and ensure reporting upwards of the exercise of those delegations.

4.2 The proposed Public Health Strategy and Support Unit map, review and evaluate all collaborative networks between the department and HHSs, and a formal approach to liaison and engagement be developed collaboratively with the HHSs drawing on clearly identified responsibilities and accountabilities.

4.3 Where arrangements currently exist across HHSs for the delivery of public health services, QPHaSS articulate a preferred model of service and formalise HHS support arrangements via inclusion in service agreements, or as service level agreements between HHSs.

4.4 The department work with HHS executives to reduce barriers to cross HHS operations for public health activity.

4.5 The department, in collaboration with HHSs, consider how 'single critical employee risks' can be mitigated via cover from another HHS or department and/or regional arrangements.

4.6 The department and HHSs develop a specific trigger, mechanism or protocol to respond to new and emerging public health issues that involve more than one HHS.

5. Articulating the strategy and vision

5.1 QPHaSS commence development of an overarching public health strategy and evaluation framework, in collaboration with HHSs, that provides a clear direction for public health policy and programs for the next 10 years.

5.2 The public health strategy should be owned and overseen by the QPHaSS Board of Management.

6. Understanding the scope of public health

6.1 The department build its relationship with HHSs to strengthen HHSs focus on public health and in particular, its associated risk management function.

6.2 All PHUs should map delivery (who, what, where) of the full range of public health functions within their HHS boundaries and align with the new public health strategy and revised *Public Health Practice Manual*.

6.3 QPHaSS actively participate in performance meetings with HHSs to ensure that HHS performance accounts for the delivery of prevention and population health services which respond to local and systemic risks.

7. Improving governance and advocacy

7.1 Establish a health economics capability in QPHaSS.

7.2 QPHaSS commission the development of a public health value proposition.

7.3 Undertake a functional realignment of QPHaSS to align and consolidate like functions.

7.4 QPHaSS lead statewide engagement with local government.

8. Defining a public health program

8.1. Immediately commence a review of the *Public Health Practice Manual* and redesign it as an operational manual underpinned by an investment framework and program logics for core functions and sub functions of public health.

8.2 Develop a performance framework for each program logic that articulates performance indicator metrics.

8.3 Collaborate with HHSs on the review of the *Public Health Practice Manual*, and development of investment and performance frameworks.

8.4 Link high value care to needs analysis, efficiency, effectiveness and equity at a population level.

8.5 Assess potential to contribute to demand management and new models of care (relevant to public health interface with acute care, and primary care services).

9. Planning, delivering and monitoring the program

9.1 The department articulates in the updated *Public Health Practice Manual* key functions and performance measures which can assist in the operational management of public health services and their integration into HHSs.

9.2 The department embeds public health into existing planning mechanisms and requires/ advocates for participation by public health services in the development of LANAs and Health Equity Planning.

10. Coordinating effort

10.1 QPHaSS establish joint operational and strategic planning mechanisms.

10.2 QPHaSS, as part of its functional realignment, consider the consolidation of functions including training, web publishing and strategic communications.

10.3 A centralised service for IPC be established in the Communicable Diseases Branch.

10.4 The anti-microbial resistance functions of strategy development and policy coordination in the Healthcare Regulation Branch be integrated into the Communicable Diseases Branch.

10.5 Medical entomology functions in Communicable Diseases Branch be integrated into the Health Protection Branch.

11. Promoting public health regulatory excellence

11.1 QPHaSS consider establishing a Centre for Public Health Regulatory Excellence in the Health Protection Branch that allows the department to strive to be a model best practice regulator, providing consistent and effective regulatory practice for public health.

11.2 The Public Health Regulation Unit be used as a building block for the establishment of a Centre for Public Health Regulatory Excellence.

11.3 Medicines regulation be moved from Healthcare Regulation Branch to Health Protection Branch and aligned alongside poisons regulation (to allow for consistent regulatory approach to implementation of *Medicines and Poisons Act 2019*).

11.4 The Centre for Public Health Regulatory Excellence work with the Prevention Strategy Branch to jointly articulate the roles, responsibilities, and accountabilities as they relate to the *Tobacco and Other Smoking Products Act 1998* with a view to aligning all regulatory activity as much as practically possible within the existing organisational structure.

12. Supporting First Nations Health equity

12.1 Public health services contribute actively to First Nations Health Equity (which should be seen as 'everyone's business').

12.2 QPHaSS accelerate action to close the gap around access to safe and healthy drinking water and the reduction of vaccine preventable diseases in remote Aboriginal and Torres Strait Islander communities.

12.3 QPHaSS lead coordinated action across government to address the environmental determinants of health in remote Aboriginal and Torres Strait Islander communities.

12.4 PHUs to specifically offer to engage in health equity planning within HHSs.

12.5 Public health networks actively and regularly link with public health professionals within the Aboriginal and Torres Strait Islander community-controlled health sector.

12.6 Public health staff in both the department and PHUs actively partner with Aboriginal and Torres Strait Islander organisations at a local level across key program areas, notably:

a. prevention of common chronic non-communicable diseases (a major cause of excess mortality)

b. planning for, preventing and responding to communicable disease outbreaks

c. specific vertical programs, such as in rheumatic fever and rheumatic heart disease, trachoma and sexual health.

12.7 Mandate uptake of cultural capability training in QPHaSS and for PHU staff.

12.8 QPHaSS develop target for employment of Aboriginal and Torres Strait Islander staff.

13. Harnessing information technology

13.1 QPHaSS identify priorities and invest in information system enhancements to be undertaken immediately to enable fast tracking of systems maturity and efficiencies in practice.

13.2 QPHaSS, as part of its functional realignment, consolidate all statewide data and information systems administration, leadership, design, and development activity into a single business unit that provides a service to all QPHaSS branches.

13.3 Appoint an executive lead to lead the development of an appropriate systems architecture that facilitates enterprise systems development and improvement.

13.4 Develop, cost, fund and implement a public health information systems improvement plan as a priority action for the 2032 Olympics planning to respond to the end-to-end business requirements of HHS and the department.

13.5 The public health information systems plan should identify ongoing system review and enhancements for statewide information systems.

14. Using data to enable better practice

14.1 Establish a public health intelligence function which consolidates public health data and analytic resources across the QPHaSS Division under the executive lead appointed to develop the public health information systems improvement plan.

14.2 Map business and user requirements collaboratively with HHSs to develop a standard set of surveillance and decision-support tools.

14.3 Identify and invest in systems to provide statewide capability for data insights including GIS and dashboards.

15. Financing and growing the public health sector

15.1 Develop a long-term funding model for public health that would allow for planned growth, via the following steps:

a. Development of an investment and performance framework (see Section 9) to give decision-makers greater confidence in the value of the investment.

b. Mapping of high value public health activity to need, risk and demand.

c. QPHaSS facilitate greater transparency of current resources available at an HHS/PHU level (including budget, workforce and population served).

15.2 QPHaSS work with Healthcare Purchasing and System Performance to optimise existing funding and commissioning mechanisms, maximise accountability and calibrate public health investment around system risk and demand.

16. Building the workforce

16.1 Develop a Public Health Workforce Plan that aligns roles and functions with appropriate stream, consideration of distinct career pathways, competency sets, and training and accreditation requirements.

16.2 QPHaSS to identify gaps and critical workforce shortages and advocate for the inclusion of appropriate workforce supply pathways to fill these gaps to be included in the department's Workforce Strategy currently in development.

16.3 QPHaSS sponsor the development of an options paper developed collaboratively with HHSs and implement a preferred approach to on-call.

16.4 Ensure staff are engaged in the Performance Development Framework, including individual Career Success Planning.

16.5 Offer professional development opportunities across QPHaSS branches, and between the department and HHSs.

16.6 Undertake a skills audit across QPHaSS and implement a policy regarding the filling of vacancies to ensure skills alignment with business objectives.

16.7 Build a culture to support leadership capability at all levels.

17. Planning for the future

Pandemic preparedness

17.1 Turn 'lessons identified' from the COVID-19 response into 'lessons (actually) learnt' projects, with follow-through on recommendations.

17.2 Integrate COVID-19 response lessons with previous pre-COVID-19 pandemic preparedness plans into a new and updated Queensland Health Pandemic Preparedness Plan, with defined roles and responsibilities and agreed governance.

17.3 Work with other state government agencies on an updated whole-of-government pandemic preparedness plan, aligned to agreed disaster and emergency management frameworks.

17.4 Contribute to ongoing work at a national level, through AHPPC, and establishment of the ACDC.

17.5 Track what is happening at an international level (including response to report of Independent Panel for Pandemic Preparedness and Response, rewrite of International Health Regulations, and extensive work on a new Pandemic Prevention, Preparedness and Response Treaty or Convention).

Climate change

17.6 QPHaSS provide leadership to Queensland Health in climate action combining mitigation efforts led by the Office of Hospital Sustainability, and adaptation efforts led by other parts of the Health Protection Branch.

17.7 Queensland Health participate actively in the consultation phase of the *National Health and Climate Strategy* (discussion paper not yet released, as of end February 2023).

Influencing the national agenda

17.8 Queensland Health submit an offer to be the national lead within the new ACDC on any or all of the following:

a. One Health

b. antimicrobial resistance

c. tropical infectious diseases

d. mosquito control

Major events and mass gatherings

17.9 Health Protection Branch, in collaboration with Communicable Diseases Branch, build capacity to coordinate public health advice for major events and mass gatherings, working with and not duplicating key leadership functions of the Disaster Management Branch.

17.10 Foster a culture of iterative learning based on lessons from major events held in Queensland each year.

17.11 Communicable Diseases Branch consult with Gold Coast PHU early in planning for the 2032 Olympics and consider extension of a syndromic surveillance system statewide prior to the event.

18. Working with others

18.1 QPHaSS approach Queensland Clinical Senate to consider hosting a public health focused discussion in 2023 (For example, on high value public health care, and its links to acute and primary care).

18.2 HHSs identify, invite and actively engage primary care, consumer and non-government service providers in the HHSs LANA process.

18.3 QPHaSS actively strengthen relationships with external partners through shared strategic purpose and action.

19. Working towards excellence

19.1 QPHaSS state an explicit ambition to develop an innovative and world-class public health system.

19.2 QPHaSS lead and foster a culture of continuous improvement, by legitimating time spent on (and overcoming barriers to) such activities.

19.3 QPHaSS harness the expertise of the academic sector through explicit partnerships; and establishing expert advisory groups where appropriate.

19.4 QPHaSS facilitate opportunities and lead a culture that celebrates and shares successes and learnings at a local, state and national level.

19.5 QPHaSS advocate for including public health within the scope of established departmental research funding schemes.

Appendices

Appendix 1:
Terms of Reference

Queensland Health

Public Health Review

Terms of Reference

Context

The management of public health has changed fundamentally over the last 2 years. The Australian Government is progressing the establishment of an Australian Centre for Disease Control to improve Australia's ongoing response to current and emerging public health emergencies.

The Department has recently undergone a restructure with the newly established division of Queensland Public Health and Scientific Services. The Division brings together key system support functions in the surveillance, prevention and control of communicable diseases in Queensland – leading the statewide planning and coordination of programs and services to prevent, or control, health-related diseases, and promote the overall wellbeing of Queenslanders. Within this transformation, COVID-19 management has transitioned to business as usual, with the intent that new ways of working incorporated within the ongoing delivery of public health services.

Purpose and scope of the review

This purpose of the review is to provide:

- An understanding of the current operation, scope, workforce profile and the effectiveness of public health strategy and activity across the Queensland health system;
- Recommendations of what the states approach to Public Health should be over the next 10 years, supported by a detailed roadmap to guide implementation.

Key aspects of the review will include:

- A current state assessment of public health services across the Department of Health and Hospital and Health Services (HHSs);
- A definition of what public health services in Queensland should include;
- An understanding, and potential refresh, of the respective roles of the Department of Health and primary/community care sector;
- A gap analysis of current and projected public health services to 2032;
- Identification of high priority improvements to form part of a 2023/24 budget submission for immediate implementation; and
- The delivery of a roadmap (over three horizons for implementation 2024, 2028, 2032), for the improvement of public health services up to 2032, with a supporting implementation plan.

The roadmap will consider Queensland's:

- Ongoing pandemic preparedness.
- Ability to prevent and respond to communicable (infectious) diseases.
- Protecting population health.
- Preventing disease, illness and injury.
- Promoting health and wellbeing at a population or whole of community level.
- Opportunities for integration and operating models for public health functions.
- Processes and engagement at a national level.
- Required workforce composition and potential future skills to inform a public health workforce plan.

The scope of the review will be the current public health system (HHSs and Department of Health).

The review will:

- Take cognisance of the lessons learnt through COVID and the current transition of COVID responsibilities into the Public Health pillar of the newly formed Queensland Public Health and Scientific Services (QPHaSS) Division;
- Understand the potential implications of the proposed establishment of the Centre for Disease Control in Canberra (further details expected December 2022);
- Have regard to 'Unleashing the potential: an open and equitable health system', the recent changes from the Departments Business Case For Change process, the *Public Health Act 2005* (Qld) and other key documents, such as the Department of Health Workforce Strategy (currently under development).

Process and Timescale

The review will be undertaken via a range of mechanisms, including interviews with key staff and stakeholders (including HHSs), documentation review, and with reference to the current Public Health Practice Manual.

The review will be overseen by a Steering Committee consisting of the Chief Operating Officer, the Chief Health Officer, the General Manager QPHaSS, and the Senior Director, Health Disaster Management Unit.

The Steering Committee will report into the newly formed QPHaSS Board of Management.

The review will commence in October 2022 and be completed no later than 28 February 2023.

Appendix 2:
Policy context

1. Unleashing the potential: an open and equitable health system, August 2020

   Advice prepared for the Director-General and the Deputy Premier and Minister for Health and Minister for Ambulance Services on how best to harness the opportunities arising from the COVID-19 pandemic response to support the best possible health and healthcare for all Queenslanders. The report identifies that to embed the gains made and unleash the potential, prevention and public health need to be made a system priority and emphasises equity, high value care, innovation, opportunity and leadership.

2. Department of Health Strategic Plan 2021-2025

   Planning document that outlines the strategies for supporting health and well being of Queenslanders. Objective 1 is public health focused to promote and protect health and includes performance indicators for immunisation rates, healthy weight and screening programs.

3. Prevention Division Strategic Directions 2020-2023

   Aligns to the Department of Health Strategic Plan identifying the purpose, challenges and opportunities for the former Prevention Division.

4. Hospital and Health Service strategic plans

   The HHS strategic plan aims to identify its vision, purpose, objectives and performance indicators and outline how HHS strategies support the health and wellbeing of local communities.

5. Public Health Practice Manual, January 2016

   Developed in 2013 after the decentralisation of health protection, communicable disease and epidemiology functions of PHUs from the department to HHSs. *The Public Health Practice Manual* aims to articulate a framework for delivery of public health functions in Queensland by describing the respective roles of the department and HHSs.

6. Chief Health Officer Report

   Biennial report since 2006 to provide a public assessment of the health status and burden of disease of the population; be a reference document for health practitioners; and inform strategic policy and planning in Queensland Health. The 2022 CHO Report is in development.

7. Prevention Strategic Framework 2017-2026

   The framework provides a pathway for reducing chronic diseases and improving health, focusing on key modifiable behaviours of unhealthy eating and physical inactivity, tobacco smoking and unsafe sun exposure. The framework identifies the key partners for implementation leadership.

8. Cancer Screening Strategic Framework 2019 to 2026

   Provides a prevention and early detection pathway for improved cancer outcomes for Queenslanders. The framework focuses on increasing participation in the three national cancer screening programs (i.e., breast, bowel and cervical) and ensuring timely, safe and high-quality health service provision across the entire participant screening pathway.

9. Digital Plan 2020-2025, Prevention Division

Sets out the strategic objectives, transformation activities and digital capabilities to promote and protect the health and well-being of the Queensland population through digital innovation. This plan has been endorsed by the Prevention Division Executive Leadership Team (PELT) on 12 January 2021. In September 2022, PELT agreed that the Digital Plan will be reviewed and updated in early 2023.

10. Advancing health service delivery through workforce: a strategy for Queensland, 2017-2026

Sets out the overarching priorities and strategies for building the future health workforce for Queensland. The Strategy overarches the *Medical Practitioner Workforce Plan for Queensland* and *Queensland's Aboriginal and Torres Strait Islander Health Workforce Strategic Framework*.

11. My health, Queensland's future: Advancing health 2026

Articulates a 10-year vision and strategy for Queensland's health system

12. Making Tracks Together – Queensland's Aboriginal and Torres Strait Islander Health Equity Framework, October 2021

Supports HHSs to develop and implement new Health Equity Strategies. The new strategies will outline the actions HHSs will deliver to achieve health equity, actively eliminate racial discrimination and institutional racism, and influence the social, cultural and economic determinants of health by working with Aboriginal and Torres Strait Islander organisations, health services, communities, consumers and Traditional Owners. *The Hospital and Health Boards Act 2011* and the Hospital and Health Boards Regulation 2012 require Hospital and Health Services to partner with Aboriginal Torres Strait Islander peoples and organisations to design, deliver and monitor the delivery of healthcare in Queensland. Fourteen HHSs have published their health equity strategies.

13. Role and functions of an Australian Centre for Disease Control, released 10 November 2022

The discussion paper outlines the draft mission and purpose statements for the proposed national Centre for Disease Control (CDC). It includes an outline of its potential scope of functions, examples of how it could improve public health in Australia, and principles guiding its design.

Appendix 3:
Stakeholder consultation

Table 2 details the interviews and meetings as summarised below that were conducted internally with department and HHS staff and externally with primary care, community and non-government organisations and union representatives.

3a. Internal

QPHaSS and other departmental senior and executive leaders

Initial interviews were conducted with members of the Steering Committee, executive directors across the QPHaSS Division and other staff as nominated by the executive directors and other departmental executives. The purpose of the meeting was to focus on a 'current state assessment' as per the initial terms of reference of the review. Participant's views were sought on the current operation, scope, workforce and effectiveness of public health strategy and activity in Queensland in relation to their business area and specifically:

1. the functions and activities of the business area, including successes and challenges
2. key relationships and partnerships with other areas inside Queensland Health as well as external partners
3. the vision for public health over the next 10 years, and how the business area might contribute.

The information was used to inform the broader statewide consultation phase including a QPHaSS staff consultation survey (Appendix 3c).

Further information and clarification were sought directly from managers and other staff across QPHaSS Division and other business areas of the department. Additionally, staff were encouraged to discuss the review with the project team and/or directly email information and queries.

Consultation survey

The consultation survey was developed by the review team to engage staff in the review process and seek their views to inform the review and further consultation activities. The survey was distributed via executive leaders to staff across QPHaSS Division, Disaster Management, Office of the Chief First Nations Health Officer, Prevention Strategy Branch and staff working in HHSs including, staff working in PHUs, sexual health services, BreastScreen or other cancer screening activities, health promotion officers, Indigenous health workers and departmental officers focussed on public health activities.

The survey included multiple-choice questions and unlimited free text responses. All questions were optional, and responses were anonymous, unless staff opted to provide their name and other details. The survey was initially available for one week and extended an additional week.

Overall, 289 responses were received across the department (n=97) and HHSs (n=190) and the information informed the HHS consultation phase and review report. A detailed summary of survey responses and participants is outlined at Appendix 3d.

3b. External

Targeted forums with CDB and HPB

Survey information was extracted for CDB and HPB and targeted forums held with these branches on 5/12/2022. The forums aimed to provide feedback on the high-level themes gathered from the consultation survey and check that the themes are reflective of the functions, enablers, and challenges for the branch; and to collectively identify opportunities for the future of public health in Queensland.

HHS consultation

In October 2022, the Chief Operating Officer advised HHS Chief Executives of the review and invited them to nominate a representative for future consultation activity. Nominated representatives were briefed about the review and subsequently contacted by the review team and requested to prepare a schedule for consultation with relevant HHS staff across public health services. The review team met with all HHS selected staff over a two-week period with most meetings being face to face. HHS selected staff included chief executives, HHS executives, directors PHUs, PHU staff across all disciplines (e.g. PHPs, nurses, EHOs), sexual health physicians and health promotion officers.

Division and HHS staff advice and network forums

The review team actively consulted and sought expert advice from public health services staff across QPHaSS and HHSs. In addition to individual input, feedback was provided and information sought via a range of collaborative forums and network meetings. The activities across these forums is outlined in Table 2.

Primary care, community and non-government organisations

Key external agencies were informed of the review process on 16/11/2022 and advised that the review team would seek their views on the roles and responsibilities of key players in the public health system and how Queensland Health works with key partners to deliver its mission of better public health outcomes for all Queenslanders. Individual organisation and roundtable meetings were conducted over a two-day period with chief executive officers, their delegates and other nominated staff as detailed in Table 2.

The review team accepted written information as provided by external stakeholders to inform the analysis of stakeholder roles and responsibilities and describe current initiatives and collaborations across Queensland.

Unions

The Union Consultative Committee members were informed of the review process on 16/11/2022 and provided a copy of the Terms of Reference. The advice acknowledged the timing of the review in the context of the restructure of the department and the post-COVID-19 pandemic response phase. An overview of the consultation methodology was provided. The review team attended the Union Consultative Committee in early December 2022 to provide an overview of the review process and answer queries from members.

Together Union submitted two email enquiries and a written submission on behalf of members that were responded to and considered by the review team.

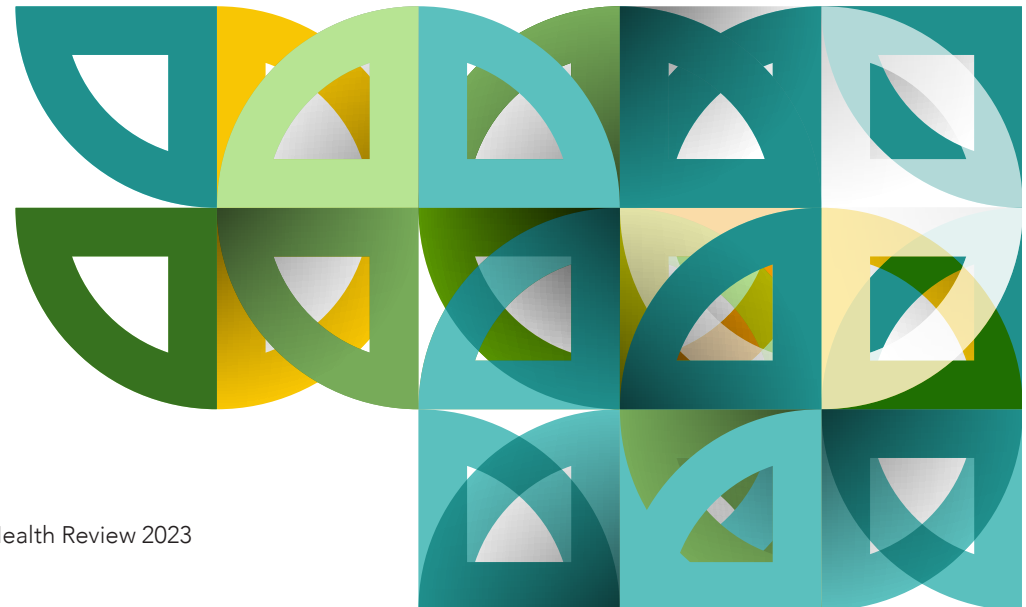
Table 2: Schedule of consultation activities

Position(s) / Forum	Activity	When
Executive leadership (Steering Committee)		
Chief Operating Officer	Initial consultation interview	8/11/22
General Manager, QPHaSS	Initial consultation interview	7/11/22
Chief Health Officer	Initial consultation interview Provided consultation survey for distribution to OCHO staff	7/12/22 15/11/22
Senior Director, Disaster Management	Initial consultation interview Provided consultation survey for distribution to all staff and key internal stakeholders	8/11/22 15/11/22
Executive and senior officers, QPHaSS		
QPHaSS Divisional Leadership Team Executive Directors, QPHaSS branches General Manager, QPHaSS Executive Director, Office of the GM	Initial consultation interviews Provided consultation survey to EDs for distribution to all staff Briefing and discussion at DLT	7-9/11/22 15/11/22 Weekly
QPHaSS ICT Portfolio Office Divisional Portfolio Director Digital Systems Manager Program Management Office Manager	Interview and discussion of ICT portfolio	3/2/23
Communicable Diseases Branch Executive Director Managers-BBVSTIs, CDIM, Immunisation, Epidemiology Medical Advisers (TB, Research) Senior Medical Officer, CDIM TB Public Health Nurse Business Intelligence COVID-19 Epidemiology All staff	Initial consultation interviews (ED and senior staff) Consultation survey All staff forums Key staff interviews Email feedback Key document review and fact checks Provided case study information	7-9/11/22 15/11/22 2/12/22
Health Protection Branch Executive Director Managers-Food Safety, Radiation, Water, Public Health Regulation Water Unit EHOs All staff	Initial consultation interviews (ED and senior staff) Consultation survey All staff forums Email feedback Key document review and fact checks Provided case study information	7-9/11/22 15/11/22 2/12/22

Position(s) / Forum	Activity	When
Executive and senior officers, QPHaSS		
Cancer Screening Branch Director All staff	Initial consultation interview (Director) Consultation survey Email feedback Key document review and fact checks Provided case study information	7-9/11/22 15/11/22
Healthcare Regulation Branch Executive Director All staff	Initial consultation interview Consultation survey	7-9/11/22 15/11/22
Forensic and Scientific Services All staff	Consultation survey Email feedback	15/11/22
Pathology Queensland All staff	Consultation survey Email feedback	15/11/22
Prevention Strategy Branch		
Executive Director All staff	Initial consultation interview Consultation survey	7-9/11/22 15/11/22
Office of the First Nations Chief Health Officer		
Chief First Nations Health Officer Public Health Physician Senior Medical Officer All staff	Initial consultation interview Consultation survey Email feedback Key document review	7-9/11/22 15/11/22
Queensland Ambulance Service		
Queensland Ambulance Service Medical Director Clinical Nurse Consultant	Initial consultation interview Consultation survey	9/12/22 15/11/22
Health Contact Centre Director, Clinical Safety and Quality Public Health Nurse	Initial consultation interview Consultation survey Email feedback Key document review	9/12/22 15/11/22

Position(s) / Forum	Activity	When
Hospital and health services		
Chief Executives	COO memo to introduce review, the consultant, terms of reference and request for nominated HHS representative	17/10/22
HHS nominated representatives	HHS representative briefing meeting	15/11/22
All staff (public health)	Initial consultation survey (distributed via HHS representatives)	15/11/22
HHS public health services staff including PHUs, sexual health services, cancer screening services and other public health facing services	Face to face and virtual meetings as scheduled by the HHS representative with relevant staff	28/11/22 – 16/12/22
Statewide public health staff forums		
Directors, PHUs	• Email advice to disseminate to all staff – Initial consultation survey and introduction of review, the consultant and terms of reference (1 week period) • Monthly meeting - Update on progress of review	15/11/22 20/12/22 17/1/23 20/2/22
Public Health Physicians Forum	Consultation – annual face to face meeting Update on progress of review	17/11/22 19/1/23
Public Health Nurse Network Meeting	Monthly meeting – Update on progress of review	7/2/23
Immunisation Program Meeting	Monthly meeting – written update on progress of review for inclusion in minutes	2/2/23
Environmental Health Forum	Monthly meeting – Update on progress of review	19/1/22
Environmental Health Lunchbox Seminar Program	Fortnightly meeting – Update on progress of review	3/2/23
Epidemiology and Data Management Forum	Monthly meeting – Update on progress of review	22/2/23

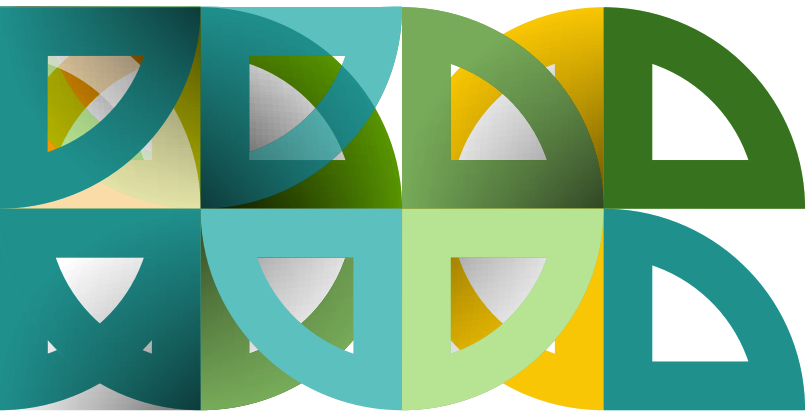
Position(s) / Forum	Activity	When
Unions		
• QLD Nurses and Midwives Union (QNMU) • Together • Australian Medical Association of QLD (AMAQ) • Australian Salaried Medical Officers' Federation QLD (ASMOFQ)	Email advice to inform of review purpose, scope and outcomes Discussion at Union Consultative Committee	16/11/22 17/11/22
Together Union Industrial Officer	Response to email queries on behalf of members Acceptance of written submission on behalf of members	8/12/22, 14/2/222 21/12/22
Queensland Sexual Health Clinical Network		
Co-chairs	Emailed project team of their interest in review. Advised to provide submission by 8/2. Submission not received.	24/1/23



Position(s) / Forum	Activity and when		
External stakeholders			
Health and Wellbeing QLD Chief Executive Officer Director, Health Promotion	**1. Email advice of review purpose, scope and outcomes** 16/11/22	**2. Consultation interviews offered** 3/1/23	**3. Consultation interviews conducted** 24-25/1/23
Primary Health Networks[32] Chief Executive Officers (or delegate) and other nominated staff			
Local Government Association of QLD Lead, Public Health and Waste			
Queensland Aboriginal and Torres Strait Islander Health Council Policy Adviser Senior Medical Officer			
Health Consumers Queensland Chief Executive Officer Senior Engagement Advisor			
Australian Medical Association of QLD[33] Chief Executive Officer President			
Australasian Society for HIV Medicine (ASHM) Clinical Nurse Lead			
True Relationships Chief Executive Officer			
Hepatitis Queensland Chief Executive Officer			
Institute for Urban and Indigenous Health Chief Executive Officer (delegate) and other nominated staff			

[32] The project team did not specifically meet with general practitioners
[33] The project team did not specifically meet with general practitioners

Position(s) / Forum	Activity and when		
External stakeholders			
QLD Injectors Health Network (QuIHN) Chief Executive Officer	**1. Email advice of review purpose, scope and outcomes** 16/11/22	**2. Consultation interviews offered** 3/1/23	**3. Consultation interviews conducted** 24-25/1/23
Respect Inc. State Coordinator President			
QLD Positive People Chief Executive Officer			
QLD Council for LGBTQI Health Chief Operating Officer			
Ethnic Communities Council of QLD Chief Executive Officer (delegate)			
Prof. Penny Webb QIMR Berghofer Medical Research Institute			



3c. Consultation survey

The purpose of the survey was to invite public health services staff and nominated representatives to share their views about public health services in Queensland. The information they provided was used to inform the review and define a broader statewide consultation phase, including face to face consultation in some locations.

Questions were optional with free text responses. All responses were anonymous unless the respondent opted to provide their name and other details.

Question Text

Please tell us about your role and the work you do:

1. Do you work in a Hospital and Health Service (HHS) or the Department of Health?
2. What branch or service do you work in?
3. What is the main function of your public health role?
4. Briefly outline three (3) enablers for you to be successful in your public health role.
5. Are there any challenges for your role?
6. If yes, please briefly describe the top three (3) challenges for your role.

Please tell us about what you would like to see from the Public Health Review:

7. Can you briefly describe three (3) opportunities to strengthen public health services in your HHS or in your branch/service?
8. How would you like to contribute to the public health review? For example, provide evidence and/or examples, a written submission addressing the terms of reference, participate in focus groups or interviews etc.
9. What is your main expectation from the review of public health services in QLD?

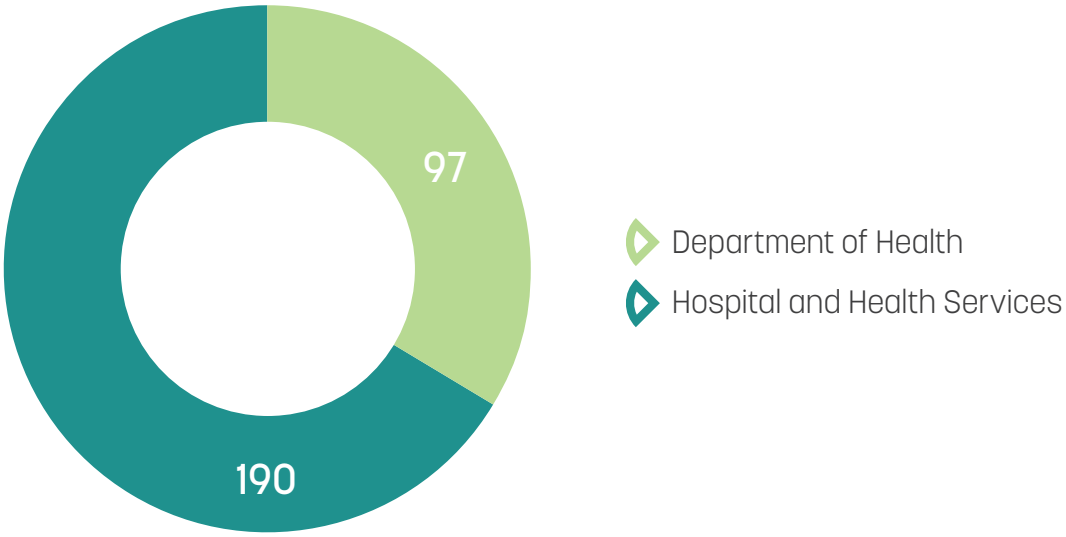
Please share with us some thoughts about the public health system:

The Public Health Practice Manual describes public health services as services that focus on addressing the range of risks and protective factors that determine the health of our community. Public health services aim to protect health gains; prevent disease, illness and injury; and promote health and wellbeing.

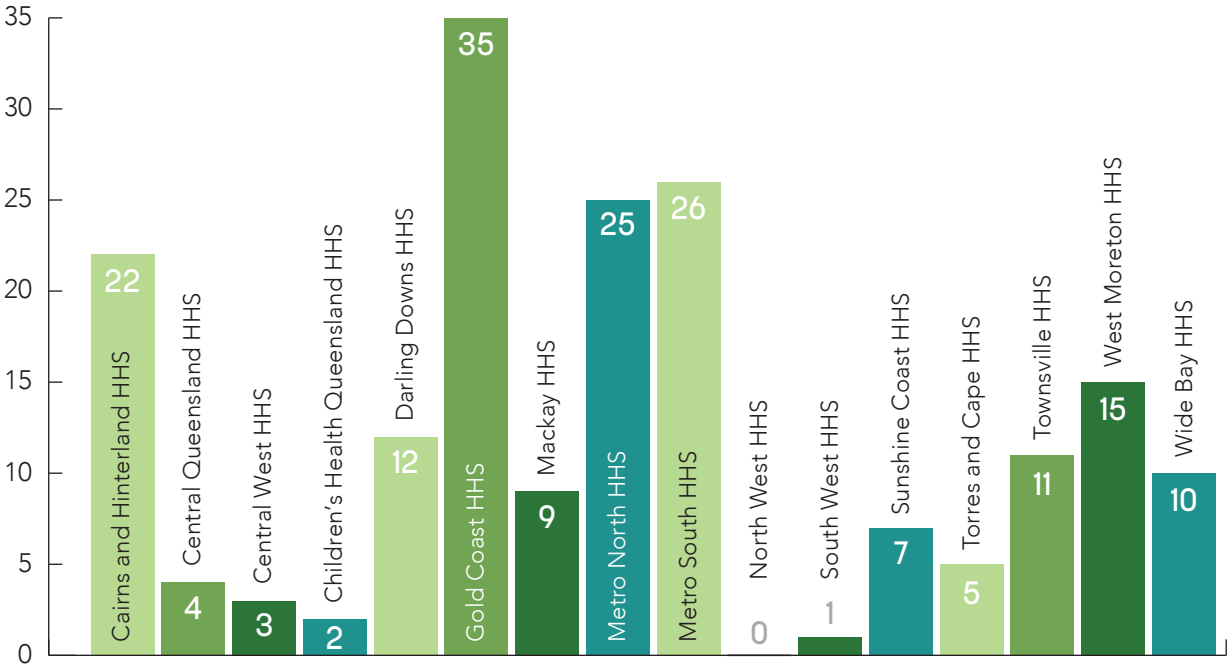
10. Do you agree with this description of public health services?
11. If no, please briefly describe what should be included or excluded?
12. Thinking about the statewide public health system, what should the respective roles and responsibilities of the Department of Health, HHSs, local government, the primary care and non-government sector be?
13. How should public health activity, outputs and outcomes be measured or accounted for?
14. What is your discipline or position?
15. Name (optional)

3d. Consultation survey summary

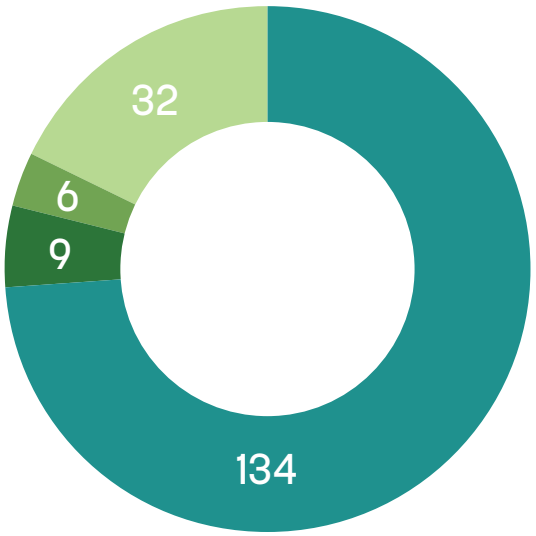
1. Do you work in a Hospital and Health Service (HHS) or the Department of Health?



2. Which HHS?

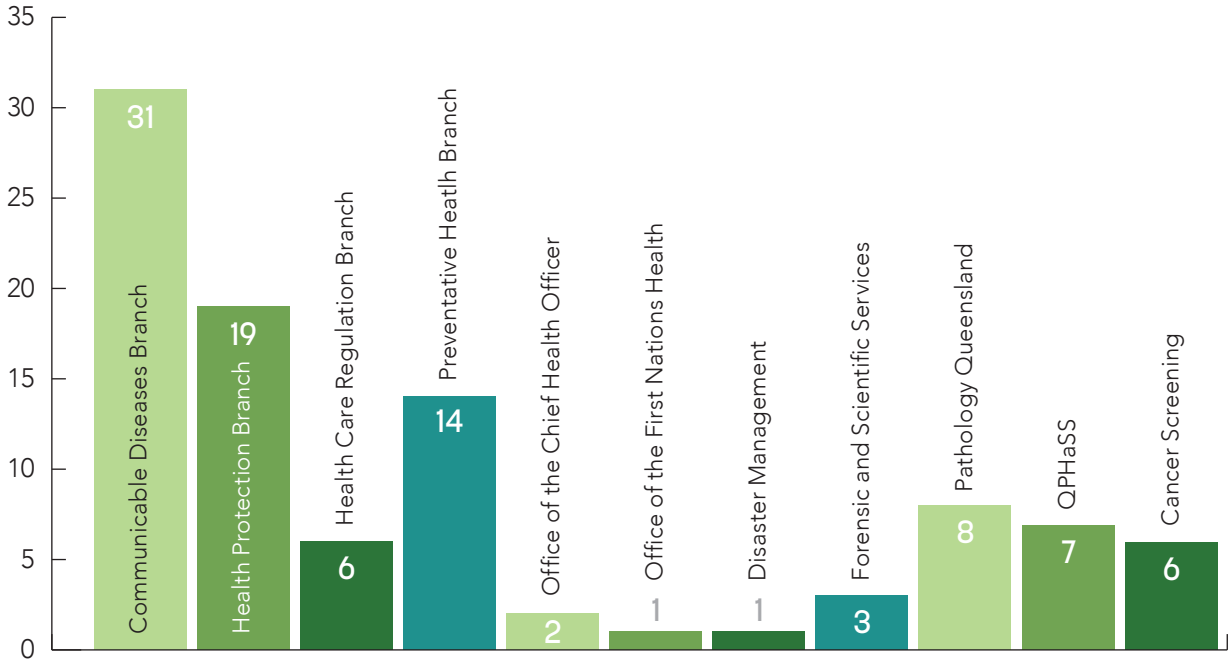


3. What service do you work in?

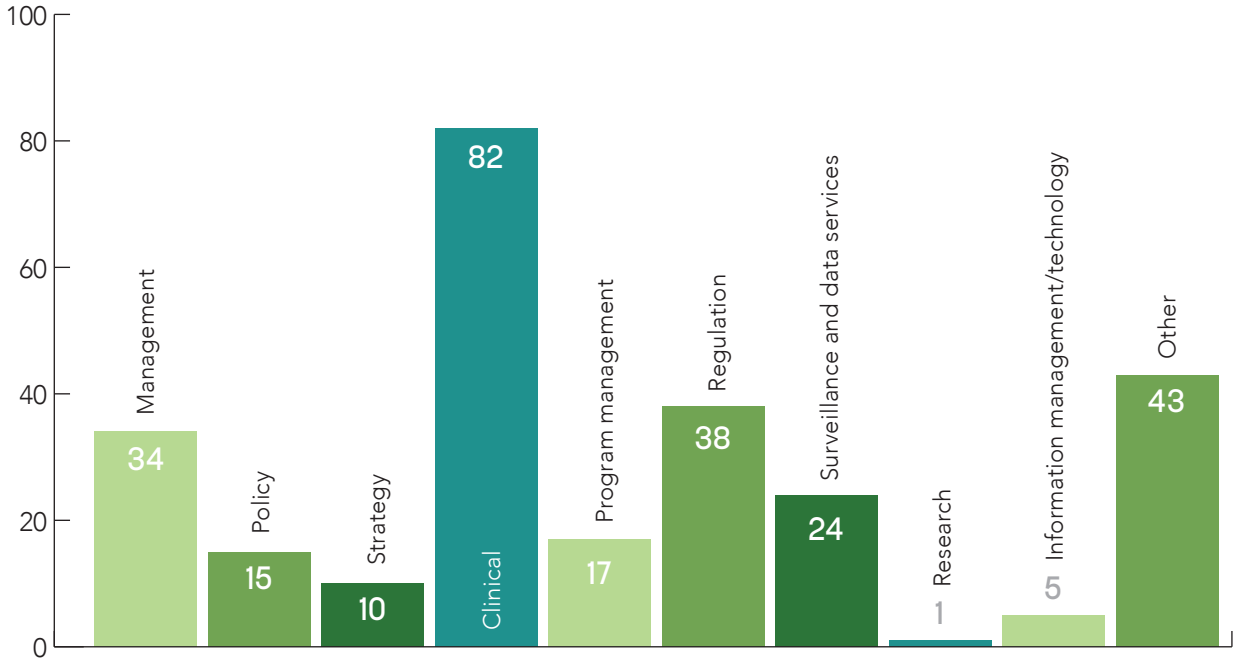


- Public Health Unit
- Sexual Health Services
- BreastScreen Queensland
- Other
  - 3 Disaster Management
  - 1 Corporate Office
  - 1 Prevention and Prison Health
  - 1 Men's and Women's Health
  - 1 Research
  - 1 Primary Health Services
  - 8 Pathology Queensland
  - 1 Better Health NQ
  - 3 Executive
  - 1 Mental Health
  - 1 Strategic Communication and Engagement
  - 1 Patient Flow
  - 2 Hospital
  - 4 Bowel Screening
  - 1 Allied Health
  - 2 Medical Services

4. What branch do you work in?



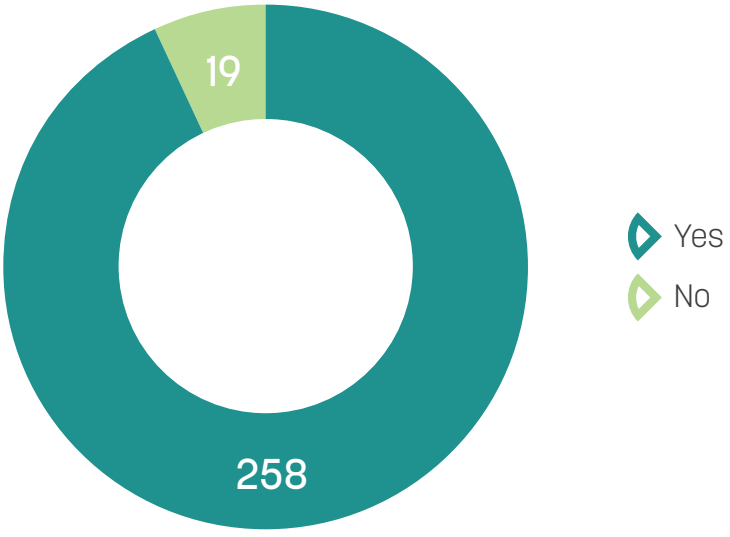
5. What is the main function of your public health role?



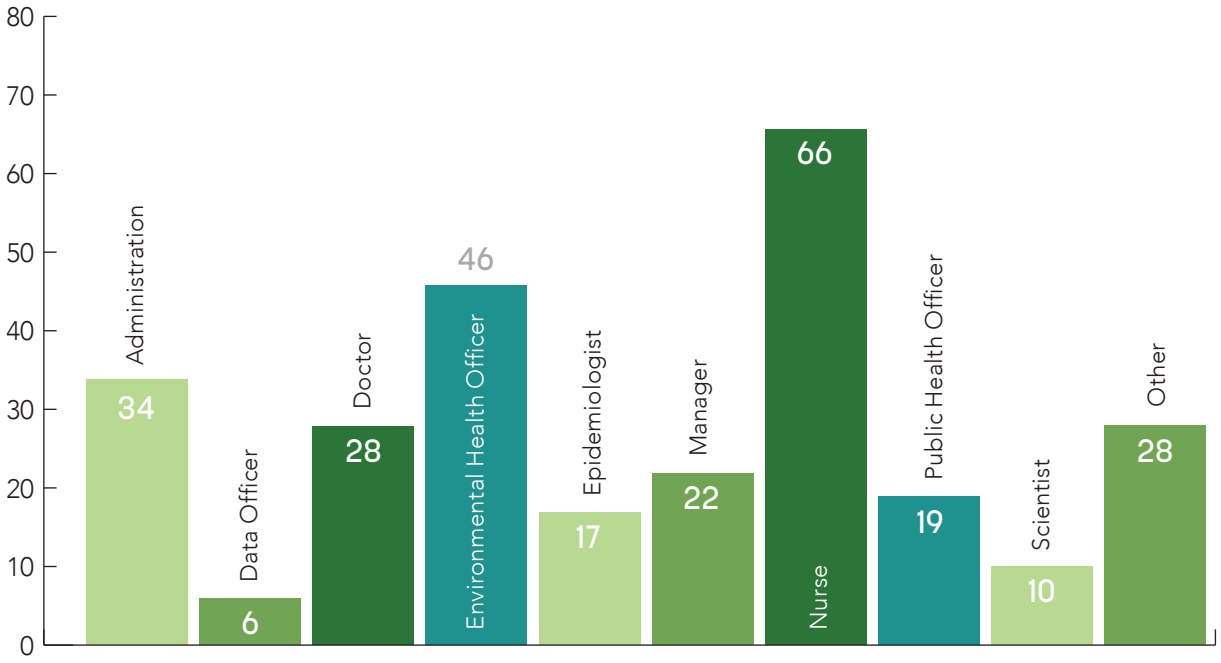
Other

2	Finance and administration
2	Enforcement, compliance, education
2	Research leadership and development
1	Epidemiology
3	Scientific services
1	Strategy, research, health promotion
3	Pathology
1	Communication, consumer and community engagement
2	Administration
5	Health promotion
1	Training
1	Discharge planning

6. Are there any challenges for your role?



7. What is your discipline or position?

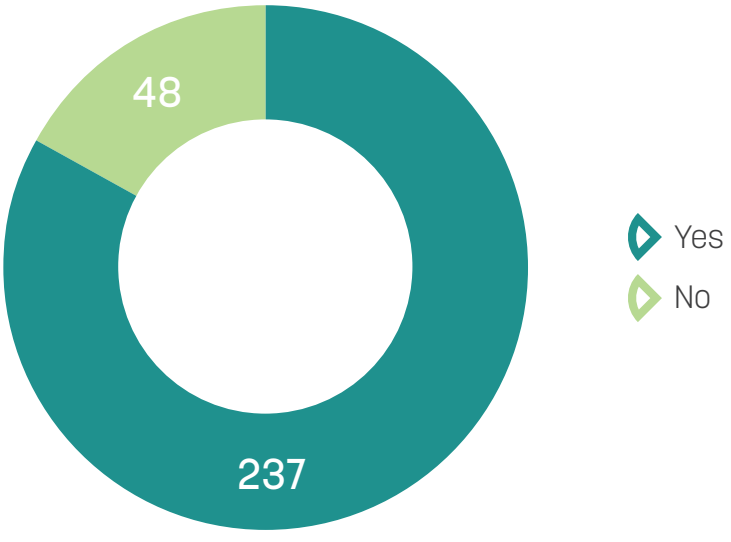


Other

1	Director Medical Services
8	Health promotion
2	Data manager
1	Manager/health promotion/nutrition
1	Clinical assistant
3	Environmental health scientist
1	Pathology
1	Systems development
5	Health practitioner
1	Health physicist
3	Allied health
1	Disaster manager

8. Do you agree with this description of public health services?

The Public Health Practice Manual descibes public health services as services that focus on addressing the range of risks and protective factors that determine the health of our community. Public health service aim to protect health gains; prevent disease illness and injury; and promote health and wellbeing.



Appendix 4:
Public health collaborative networks

Purpose[34]	Lead	Attendees	Frequency
PHU Directors Forum			
Provide strategic leadership, advice and/or coordination of actions associated with the delivery of public health services in Queensland. The forum acknowledges the arrangement where directors of PHUs and executive directors QPHaSS Division need to work collaboratively to provide effective public health leadership and management for the best interests of the Queensland community.	Chair: elected annually amongst members Secretariat: provided via elected Chair	PHU directors and QPHaSS representatives	Monthly (3rd Tuesday, 8.30-9.30am)
Environmental Health Forum			
Statewide technical and professional governance group operating within the context of the Public Health Practice Manual (PHPM) to: • Provide a statewide forum to develop recommended approaches and policy advice on significant and emerging environmental health (regulatory and non-regulatory) issues and risks. • Promote effective communication and collaboration between PHUs and Public Health Program Areas, on significant operational and strategic issues relevant to environmental health. • Provide a coordinating mechanism for the timely development and review of intelligence driven public health compliance plans (encompassing negotiated national, state and local priorities) for relevant portfolio legislation. • Identify and promote professional capability development across the Queensland Health environmental health workforce.	Chair: elected annually amongst members Secretariat: Public Health Regulatory Systems Unit, HPB	Directors/ Managers EH PHU Executive Director and Program Area Directors HPB Select Program Area Directors • CDB • HPB • Prevention Strategy Branch	Monthly (3rd Thursday, 2-4pm)

Purpose[34]	Lead	Attendees	Frequency
Lunchbox Seminar Program			
• Provide an opportunity to participate in learning and development activities, share information and discuss areas of interest and may include: – Communication about topical issues and key unit or branch activities – Educational sessions and updates on policies and strategies – Presentation of recent case studies, including incidents and outbreaks, investigations and prosecution learnings – Feedback from conferences, meetings, webinars or other professional development events – Reviews of books and journal articles. • This program is an important mechanism for strengthening communication and relationships.	Health Protection Branch PHU staff Other interested key stakeholders (30 minutes maximum, including question time) via Teams	Health Protection Branch Fortnightly informal, brief presentation	
Immunisation Program Meeting			
Statewide forum to share information related to current issues/practice in delivery of the National Immunisation Program.	Immunisation Program, CDB (*no TOR)	PHU Directors, PHPs, PHNs	Monthly (1st Thursday, 2 hours)
Public Health Physicians (PHP) Forum			
Provide strategic and technical leadership, advice and/or coordination of actions associated particularly with communicable disease issues relating to the delivery of public health in Queensland.	Chair: Executive Director, CDB Secretariat: ESO, EDCDB	PHPs PHUs and OFNHO Invited guests	Monthly (3rd Thursday, 11.00am-12.00pm

[34] As outlined in Terms of Reference where available.

Purpose[34]	Lead	Attendees	Frequency
Public Health Nurse (PHN) Network Meeting			
Statewide forum to share knowledge and information related to current issues/ practice in communicable disease prevention and control. Enable public health nurses (CDC) to collaborate in planning and implementing projects, research and other initiatives related to communicable disease prevention and control.	CDIM, CDB Secretariat: rotating PHU	PHNs (CDB and PHU)	Second monthly (1st Tuesday, 2 hours) Annual F2F Meeting
QLD Tuberculosis Nurses Network			
Enable TB nurses to share knowledge and information, collaboratively plan and implement projects, research and other initiatives related to tuberculosis prevention and control.	Secretariat: CDIM, CDB	TB Nurses	Monthly (2nd Thursday, 9-10am)
Epidemiology			
Statewide forum to share knowledge and information related to current epidemiological and data service issues/ practice for communicable disease prevention and control.	Epidemiology and Research Unit, CDB	Epidemiologists and data managers	Monthly
NoCS User Advisory Group (NUAG)			
Inform and provide expert and transparent technical and subject matter input into faults, change requests and enhancement issues logged through Service Now, including recommendations papers. Contribute informed and accurate recommendations based on operational needs to move toward best and where appropriate consistent statewide practices for all NoCS users. Act as the conduit for information and communication to and from their stakeholders and users.	Chairperson: IT, CDB Secretariat: Training Development and Change Management Officer, CDB	One representative of any discipline from each PHU, CDB representatives Subcommittees established for specific tasks Invited guests attend to provide specialist technical knowledge	Fortnightly, 90 minutes *(at 1/2/2023 NUAG is on hold due to reduced staffing)*

Appendix 5:
Performance measures

Queensland Health

1. Queensland Budget 2022-23 – Queensland Health Service Delivery Statement

   Prevention, primary and community care service standards aim to measure effectiveness of activity to prevent illness and injury, address health problems or risk factors and protect the good health and wellbeing of Queenslanders. Services include health promotion, illness prevention, disease control, immunisation, screening, oral health services, environmental health and research.

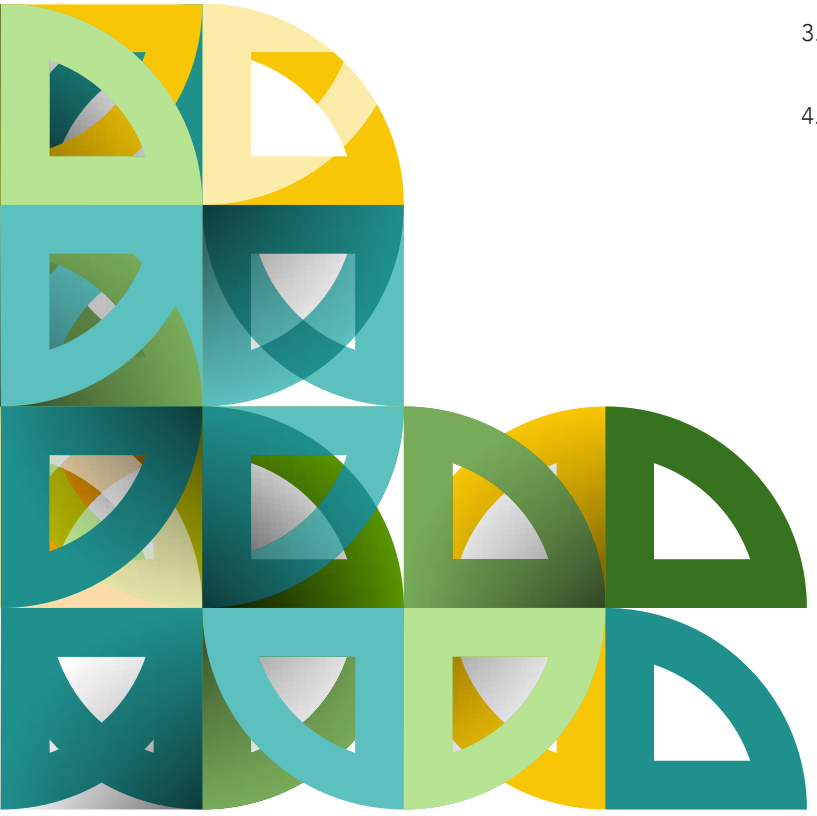
2. Draft HealthQ32: a vision for Queensland's health system

Vision

1. **Maximising wellbeing**—improve the health and wellbeing of all Queenslanders.
2. **Care in the community**—strengthen access to care in the community and closer to home.
3. **Care in hospital**—optimise delivery of safe, appropriate and timely hospital care.

System outcomes

1. Queenslanders have access to quality and safe healthcare and equitable outcomes.
2. Queenslanders have overall improved health, a good start to life, healthy ageing and a good end of life experience.
3. Queensland has an innovative, connected and sustainable health system.
4. The Queensland Health workforce are valued, respected and empowered to lead the delivery of world-class health services; each working to the top of their scope of practice.



Department of Health

1. Department of Health Strategic Plan 2021-2025 (2022 update)

Objective:

Promote and protect the health of all Queenslanders where they live, learn, work and play.

Performance indicators:

1. Queensland's childhood vaccination rates improved.
2. Testing results delivered within clinically recommended timeframes.
3. Increase in proportion of Queenslanders with a healthy body weight.
4. Increased participation rates for population-based screening programs.

Other performance indicators:

1. Effective prevention and management of rheumatic heart disease.
2. Chronic health outcomes in Queensland improved.

2. Chief Health Officer Report

- The biennial report aims to provide an assessment of the health status of the population, be a reference document for health practitioners and to inform strategic policy and planning.
- The report demonstrates performance of the health system through reporting of health status and burden of disease of Queensland's population.

3. Making Tracks – Policy and Accountability Framework

- Section 3 of Making Tracks articulates the accountability framework to measure progress against the health targets and indicators included in the Council of Australian Governments (COAG) National Indigenous Reform Agenda as well as a range of other indicators by which achievement of sustainable health gains can be measured over time.
- Reporting on progress of health performance measures is undertaken where data is available through national reports prepared by the Australian Institute of Health and Welfare and specific Queensland Health data collections.

4. Prevention Strategic Framework 2017-2026

- Priorities are healthy weight, smoking prevention and skin cancer prevention.
- Leadership of smoking prevention, skin cancer prevention, certain food and nutrition policy advice, strategy governance and evaluation is provided by Preventive Strategy Branch.
- Leadership of obesity prevention and improved healthy weight outcomes is provided by Health and Wellbeing QLD.
- Our Future State: Advancing Queensland's Priorities is to increase the proportion of adults and children with a healthy bodyweight by 2026.
- State budget papers identify targets for reducing smoking prevalence, sun exposure and other risk factors.
- The program logic guides a performance management plan to monitor the outputs, impacts and outcomes.

5. Cancer Screening Strategic Framework 2019-2026

- Performance of the framework is measured against targets for participation in the three cancer screening programs—breast, bowel and cervical—and quality measures for follow-up diagnostic health services (e.g. timeliness, safety and quality).

6. Queensland Sexual Health Framework

The framework is underpinned by five Queensland Blood-Borne Viruses and Sexually Transmissible Infections (BBV/STI) action pPlans which align with National BBV/STI strategies.

1. HIV Action Plan
2. Hepatitis B Action Plan
3. Hepatitis C Action Plan
4. STI Action Plan
5. Aboriginal and Torres Strait Islander BBV/STI Action Plan

Hospital and Health services

Queensland Health Performance and Accountability Framework

- Details the government's approach to the performance management of public sector services in Queensland and aligns to the performance measures (outcome indicator and key performance indictor) and purchasing incentives identified in the HHS service agreement unless otherwise specified.
- HHSs are also required to report against the agreed key performance measures in their Health Equity Strategy.
- Specific indicators and incentives related to public health services are:

Outcome indicators

a) **General oral healthcare for First Nations people**
The number of weighted occasions of services (WOOS) related to general courses of oral health care for First Nations patients. Benchmark—1.00% increase over previous financial year.

b) **Oral health activity which is preventive (metro and regional)**
The percentage of oral health activity (weighted occasions of service, WOOS) which are preventive, for patients of all ages.

c) **Smoking cessation clinical pathway**
The number and proportion of in-scope public hospital admitted episodes of care, dental clients and community mental health episodes that have a reported smoking status, and the number and proportion of identified current smokers for whom a Smoking Cessation Clinical Pathway has been completed.

d) **Adolescent vaccinations administered via the statewide School Immunisation Program**

e) **Care pathway in place for patients with identified co-morbidities**—(Central West, North West, South West, Torres and Cape HHS only)

Key performance indictors (KPI)

a) **Oral health activity which is preventive**
(rural and remote) The percentage of oral health activity (weighted occasions of service, WOOS) which are preventive, for patients of all ages.

b) **Access to oral health services (adult)**
The proportion of adult patients (aged 18 years and over) on the general care dental waiting list who are waiting for less than the maximum clinically recommended time of two years—85% target.

c) **Access to oral health services (children)**
The proportion of eligible children (0-17 years) who receive a comprehensive initial (item number 011) or periodic (012) dental examination within the reporting period. Proportion for each geographic area with HHS boundary is within +/- 10% of HHS average.

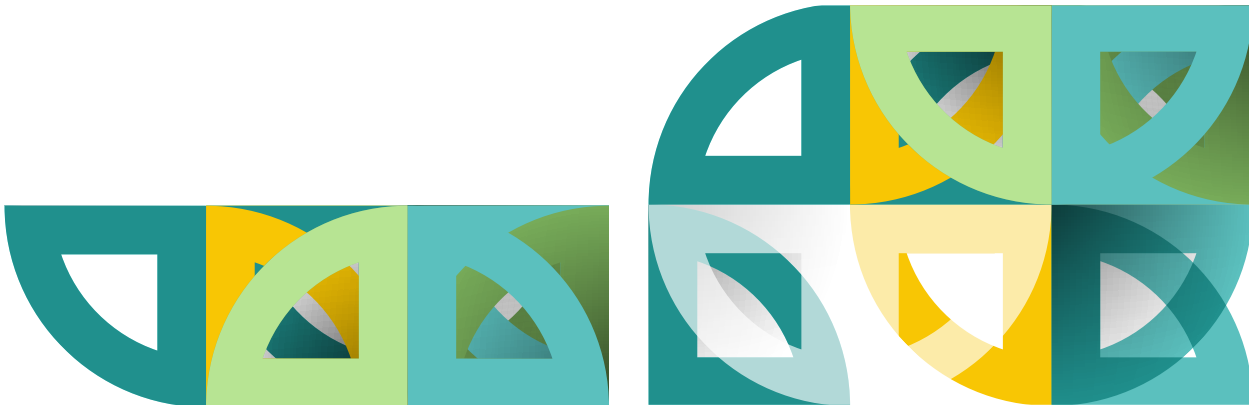
d) **Potentially preventable hospitalisations (PPH)—Aboriginal and/or Torres Strait Islanders:** selected conditions

e) **Patients whose smoking status has been recorded**
New performance indicator for Central West, North West, South West, Torres and Cape HHS (no target in first 12 months).

Purchasing incentives

a) Quality Improvement Payment
- Antenatal care for First Nations women—payment for achieving Closing the Gap target for women who stop smoking by 20 weeks gestation.

b) Activity Based Funding model localisations
- Smoking cessation—community mental health and inpatients.



Appendix 6:
Prevention and public health services investment

HHS	2022/23 Public Health Unit operating	Other 2022/23 Prevention Services and Public Health activities	TOTAL 2022/23 Prevention Services and Public Health purchased activity[35]	BreastScreen services[36]
Cairns and Hinterland	$9,646,047	$13,567,287	$23,213,334	$4,628,216
Central QLD	$3,452,776	$1,562,698	$5,015,474	$2,797,116
Central West		$11,181	$11,181	
Children's Health		$108,151	$108,151	
Darling Downs	$5,027,713	$4,254,775	$9,282,488	$3,820,060
Gold Coast	$4,926,518	$5,513,695	$10,440,213	$5,763,973
Mackay	$1,588,412	$471,759	$2,060,171	$2,154,770
Metro North	$8,876,417	$14,361,450	$23,237,867	$7,676,552
Metro South	$5,792,013	$5,919,803	$11,711,816	$7,737,764
North West		$973,042	$973,042	
South West		$24,624	$24,624	
Sunshine Coast	$3,114,104	$2,595,545	$5,709,649	$6,018,886
Torres and Cape		$2,896,381	$2,896,381	
Townsville	$4,514,084	$5,955,999	$10,470,083	$3,798,985
West Moreton	$2,860,304	$923,705	$3,784,009	$2,694,114
Wide Bay	$2,175,137	$1,937,108	$4,112,245	$2,995,758
TOTAL	**$51,973,525**	**$61,077,203**	**$113,050,728**	**$50,086,194**

[35] Source: 2022/23 HHS service agreements
[36] PHU operating excludes non-recurrent Rheumatic Heart Disease (RHD), *North QLD Sexually Transmissible Infections Action Plan*, PNG and albopictus

Appendix 7:
COVID-19 Incident Management Team (IMT)—Lessons Management snapshot

Strategic

Lesson identified

1. Develop a clear structure of IMT and roles with interim IMT processes that can be customised for future IMT, including a prolonged incident. This should include who are the decision makers and the decision-making process and allow for a multi-disciplinary team.
2. Operationalising planning and preparedness work should be supported and prioritised.
3. Ensure planning at the outset considers all aspects of the response that could be automated to alleviate inefficient processes and considers having sufficient skilled staff to conduct work.
4. Establish a complaints and privacy breach register at the outset of response and Privacy Impact Assessments undertaken for all activities.
5. Early planning for right tools and software for data management and analysis combined with assessment of stakeholder requirements will mitigate information management risk and build on understanding and capability of data system requirements among staff.
6. IT infrastructure should be fit-for-purpose, prioritised and considered in partnership with planning/preparedness activities.

Communication and engagement

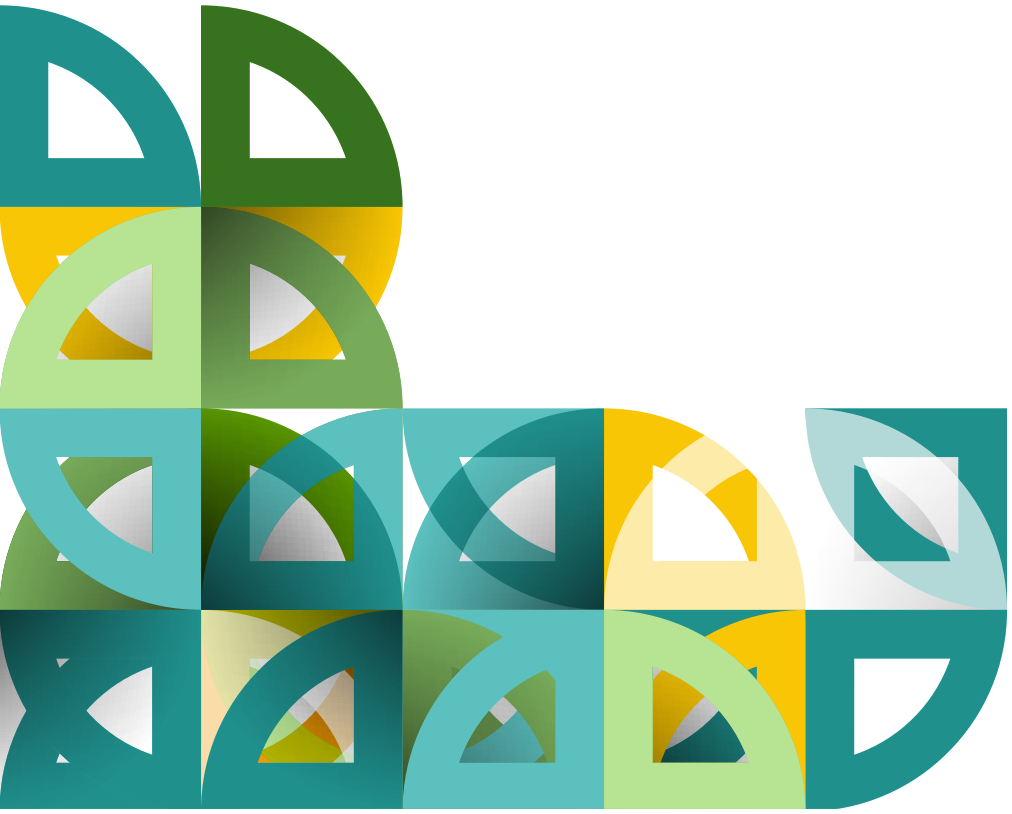
Lesson identified

1. Communication with key stakeholders is essential and is most effective when it is at multiple position levels/disciplines, not just at the executive level.
2. Communication with key internal and external stakeholders, especially regarding any information challenges and limitations, and to gain an understanding of communication needs to help manage expectations.
3. Clarity of roles and responsibilities of IMT/PHUs and other teams in the response is essential, particularly regarding information and reporting and any duplication of activities.

Workforce and culture

Lesson identified

1. A multidisciplinary team is very important where individuals' skills, expertise, experience, strengths and ideas are identified and utilised.
2. Data officer/analyst roles and expertise were critical to improve the coordination, flow, storage and utilisation of information.
3. Staff rotation through PHUs/department would enhance the understanding of roles and potential barriers, reduce the 'us and them' culture and develop a sustainable workforce capacity.
4. Duration of deployments in long term incidents must be managed including by utilising opportunity as a professional development and training experience with appropriate support structures before, during and after the event.
5. Provide training in between incidents for staff across all disciplines to upskill and increase personnel pool that can be drawn on in an incident and enhance skills of people previously involved in an IMT.
6. A review of the public health workforce across the department and HHSs should be conducted and implemented including a surge capacity strategy for future preparedness.
7. A single public health incident branch is required for future incidents that combines communicable diseases (IMT) and environmental health (compliance) to reduce competition for limited public health workforce and allows a more collective and streamlined public health response for the PHUs and other stakeholders.
8. Routine incident management training be incorporated into all public health roles to maintain readiness for future incidents, including temporary placement in a PHU or the department where appropriate.



Supplement 1

Roadmap for action

Queensland **Public Health Review**

Roadmap for action 2023-2032

Dr Tarun Weeramanthri

Executive Summary

This review was commissioned at the mid-point of a 20-year process that started with the system-wide reforms of 2012 and will end with the Brisbane 2032 Paralympic and Olympic Games. It was conducted three years after the beginning of the COVID-19 pandemic and at the point where the health system was transitioning out of emergency settings and into a new way of working, including a newly established Queensland Public Health and Scientific Services (QPHaSS) Division. The outcomes of the review will be maximised if the review itself is seen as one part of a bigger change process, and if the review is read as a whole, rather than simply as a series of specific recommendations.

Over time, the public health system has become fragmented. The good news is there is strong support for making the current decentralised system work better, and much can be done in the short-term by returning to fundamental principles of sound system management. A decentralised system needs strong central coordination, but not over-zealous control.

This roadmap provides a timeline to develop a state-of-the-art public health system. The sequencing of the change process will be critical. The recommendations set out an ambitious vision to drive systemic improvement across the sector. Achieving this vision will require strong leadership and a supportive culture to build on established technical capacity and critical partnerships, particularly between the Department of Health, Hospital and Health Services (HHS) and Public Health Units (PHU).

CSD-222 03/23

Public Health Roadmap 2023-2032

Purpose: This roadmap and the associated public health review set out an ambitious vision and series of actions to develop a world class public health system for Queensland by 2032.

Definition

Public health functions:

- promote health
- prevent disease
- manage risk

High level indicators of success

Success is achieved over a long timeframe, but some key indicators will be visible as reform progresses.

We will know we have achieved our objectives when:

- the public health system is effectively governed, coordinated and led
- planning and investment is aligned to mitigate system risks
- accountability is increased and performance can be measured
- system enablers are embedded to support public health functions
- public health works to the top of its scope to mitigate broader health system risks
- public health services are empowered and enabled to engage, and mobilise partners to drive better public health.

Services

All Queensland Health services can contribute to better public health. The roadmap is primarily applicable to prevention and population health services including:

- branches in the QPHaSS Division
- PHUs
- sexual health services
- cancer screening services
- tuberculosis services.

Challenges

There are considerable strengths and opportunities, and some gaps and weaknesses, in the Queensland public health system. Over time, the system has become fragmented. To achieve the scope of reforms envisioned within this roadmap, the system foundations must be strengthened first. The initial emphasis in the roadmap is on clarity of relationships, support for operations and changes in key systems and processes. Bigger picture strategic reform is recommended slightly later, as it will need a stronger base than exists currently, to be sustained and successful.

Drivers of public health risk

There are many drivers of public health risk. If these risks are realised, they pose a threat to the whole health system. In a state as diverse as Queensland there are a range of risks that must be factored into the design and planning of a future focussed and sustainable public health system.

Some of the most pressing risks across Queensland include:

- accidents and injuries
- climate change
- food borne disease
- globalisation
- industry and mining
- lifestyle risk factors
- migration and people movement
- mosquito borne disease
- novel and resistant pathogens
- population growth
- radiological hazards
- shipping and trade
- tourism and airports
- urban encroachment
- vaccine hesitancy
- zoonotic disease.

About the roadmap

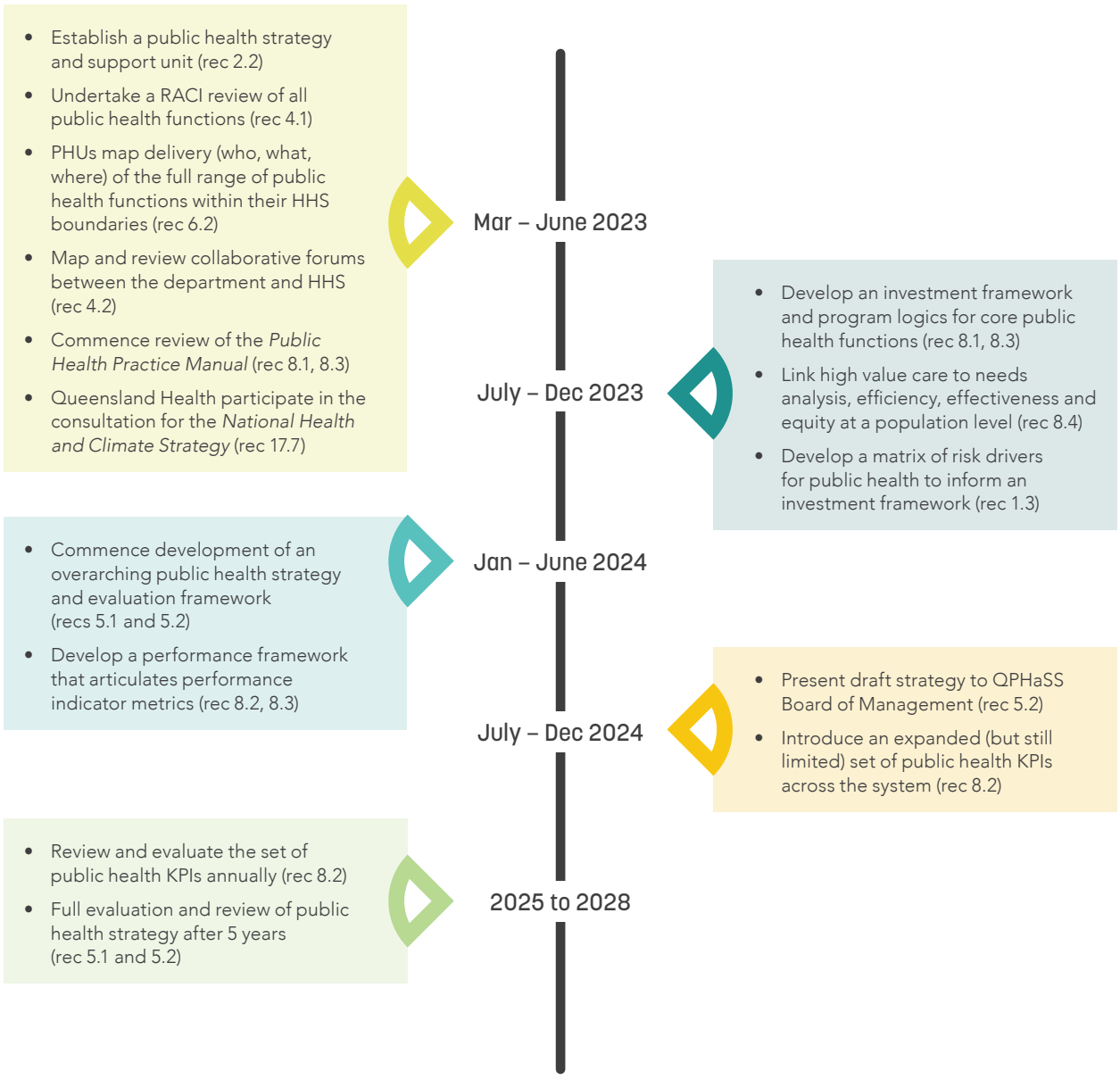
The Public Health Review Report that accompanies this roadmap sets out a vision for the Queensland public health system based around core functions, sub functions and system enablers.

This roadmap is purposefully structured around the system enablers to maximise the success of reform and sets out a sequential implementation plan to build the foundations of the Queensland public health system.

Core functions	Sub-functions	System enablers
Promote health	Public awareness campaigns	• Vision and strategy • Effective governance (planning, finance, establish standards, manage) • Leadership and accountability • Legislation, regulation and compliance • Data and intelligence (including population level epidemiology, surveillance and monitoring) • Communication • Performance monitoring, evaluation, evidence and research • Workforce capacity (numbers, skills and distribution)
	Community engagement and participation	
	Focus on health and wellbeing	
	Promote health equity	
	Address wider determinants of health (social, economic, commercial) via intersectoral action	
	Create supportive environments	
Prevent disease	Early detection, including screening	
	Immunisation	
	Secondary and tertiary prevention (in association with clinical providers following diagnosis)	
	Chronic disease and cancer prevention (and links to tobacco, alcohol, nutrition and physical activity)	
	Sexual health and blood borne viruses	
Manage risk	Communicable disease threats (including outbreak response and pandemic planning)	
	Environmental and occupational hazards	
	Food safety	
	Air and water quality	
	Chemical and radiation hazards	
	Emergency management, including major events	
	Climate adaptation	

Vision and strategy

Actions

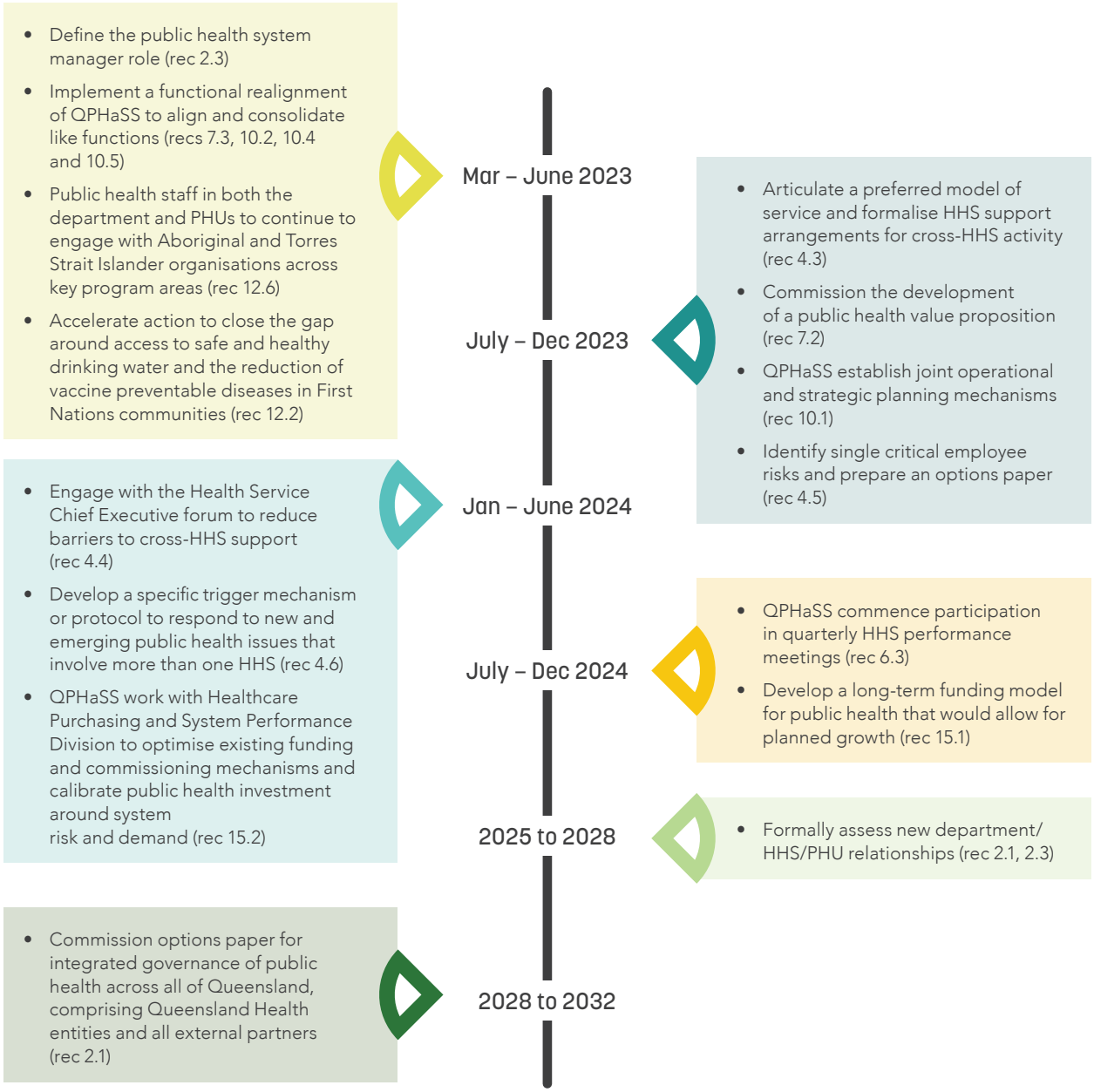


Success indicators

- A public health system that is strategically oriented and risk driven can be established.
- Trust between the system manager and the operational elements is strengthened.
- Strategy, tactics and outcomes closely inform each other.
- Risk management becomes embedded as a driver of public health value.
- Investment and effort is calibrated around risk.
- Public health will have a clear direction and imprimatur.
- Program expectations can be clarified.
- The department has a basis to monitor program performance and oversight program delivery.

Effective governance, leadership and accountability

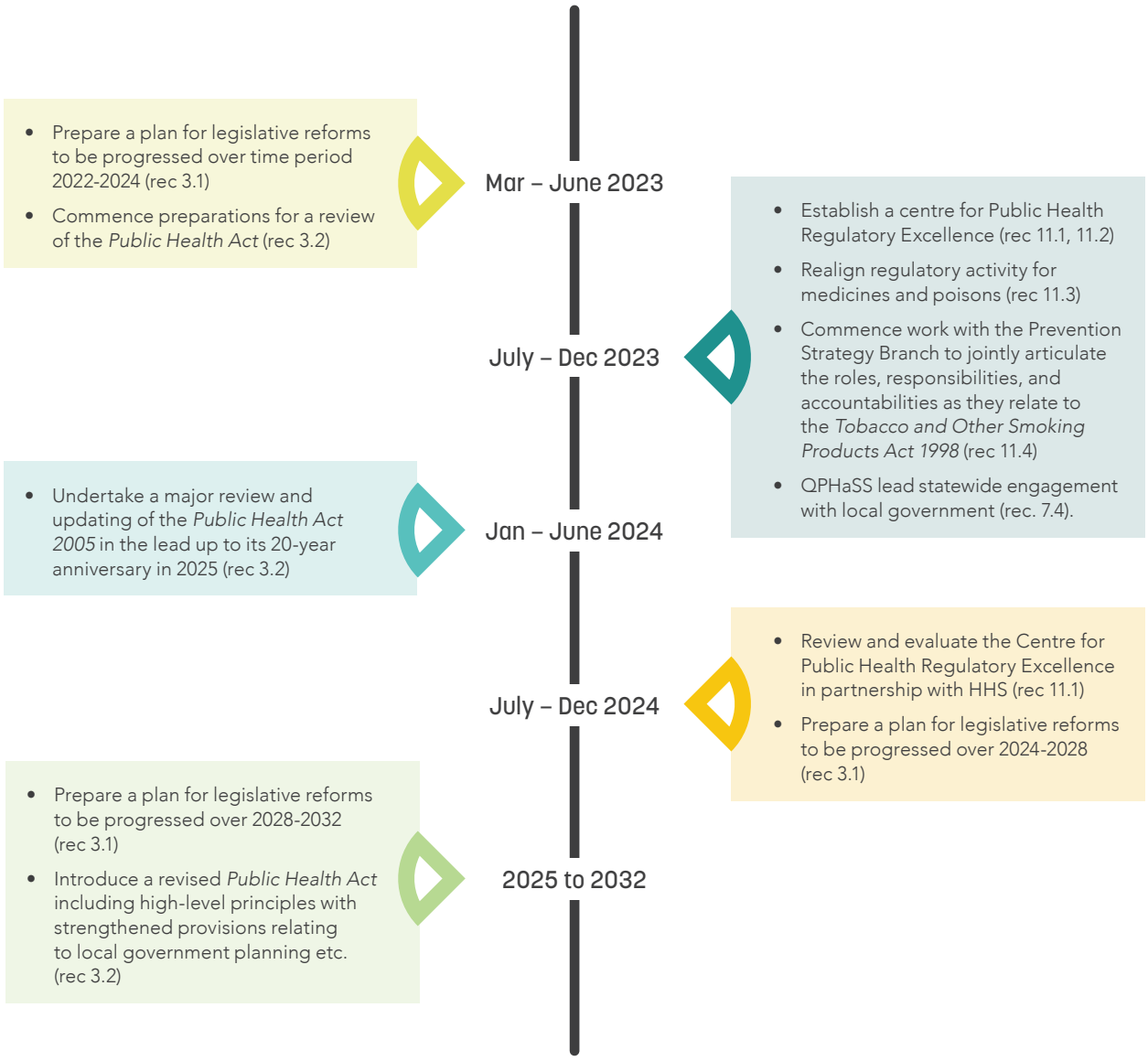
Actions



Success indicators

- Roles and responsibilities will be clearly identified and communicated.
- There will be an uplift in the standard of governance for collaborative networks.
- The purchaser/provider relationship between the department and HHS is harnessed to drive outcomes.
- The department can adopt a more proactive system manager role.
- Executive accountability for public health activity is increased.
- Oversight for investment is increased and contractual levers can be used to drive performance and accountability.
- QPHaSS delivers coordinated cross-portfolio advice.

Legislation, regulation and compliance



Success indicators

- Contemporary legislation is enacted to position Queensland to best respond to emerging public health risks.
- An appropriate head of power exists to drive systemic reform.
- Public health legislation and public health reform is vertically aligned.
- Legislative reform is anticipated, planned for and managed across the public health system.
- Regulatory experience from differing approaches is harnessed to build excellence.

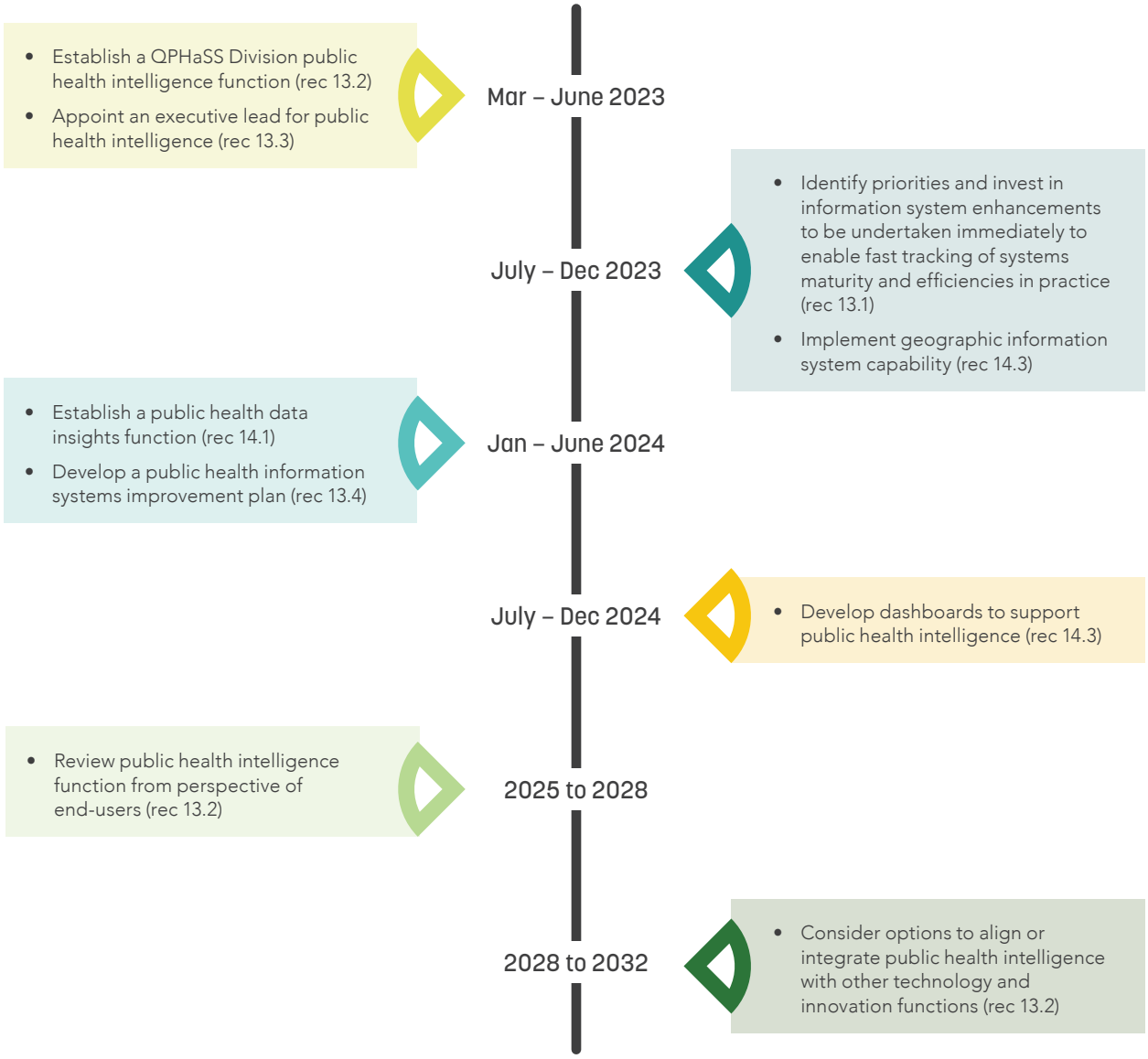
Workforce capability

Success indicators

- Knowledge and skills across the state are enhanced and staff are exposed to experiences in variable settings e.g. rural versus metro
- Connectedness and trust is built between the system manager and operational elements of the system.
- The public health system becomes more resilient and more responsive to emerging issues.

Public health intelligence

Actions

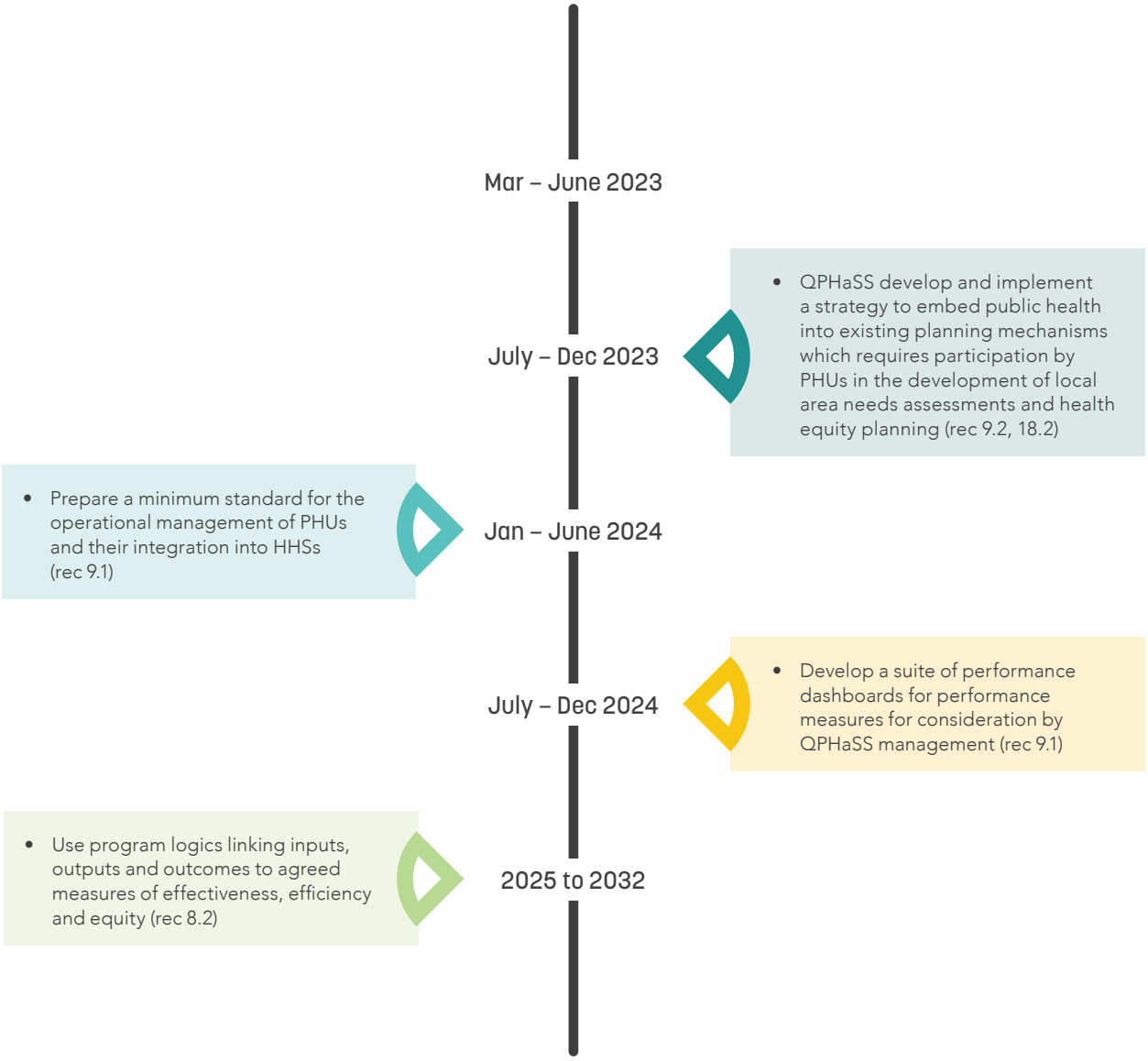


Success indicators

- Public health information systems are strategically aligned, inter-operable and fit-for-purpose.
- Staff working in public health intelligence have better opportunities for professional development and career progression.
- Business continuity risks are mitigated.
- Information systems are designed, developed and enhanced to meet corporate functions and meet the needs of end users.
- The department is better placed to harness new and emerging technologies.
- Systems design and functionality align to support the development of data insights, research, evaluation and quality improvement.

Performance, monitoring and evaluation

Actions

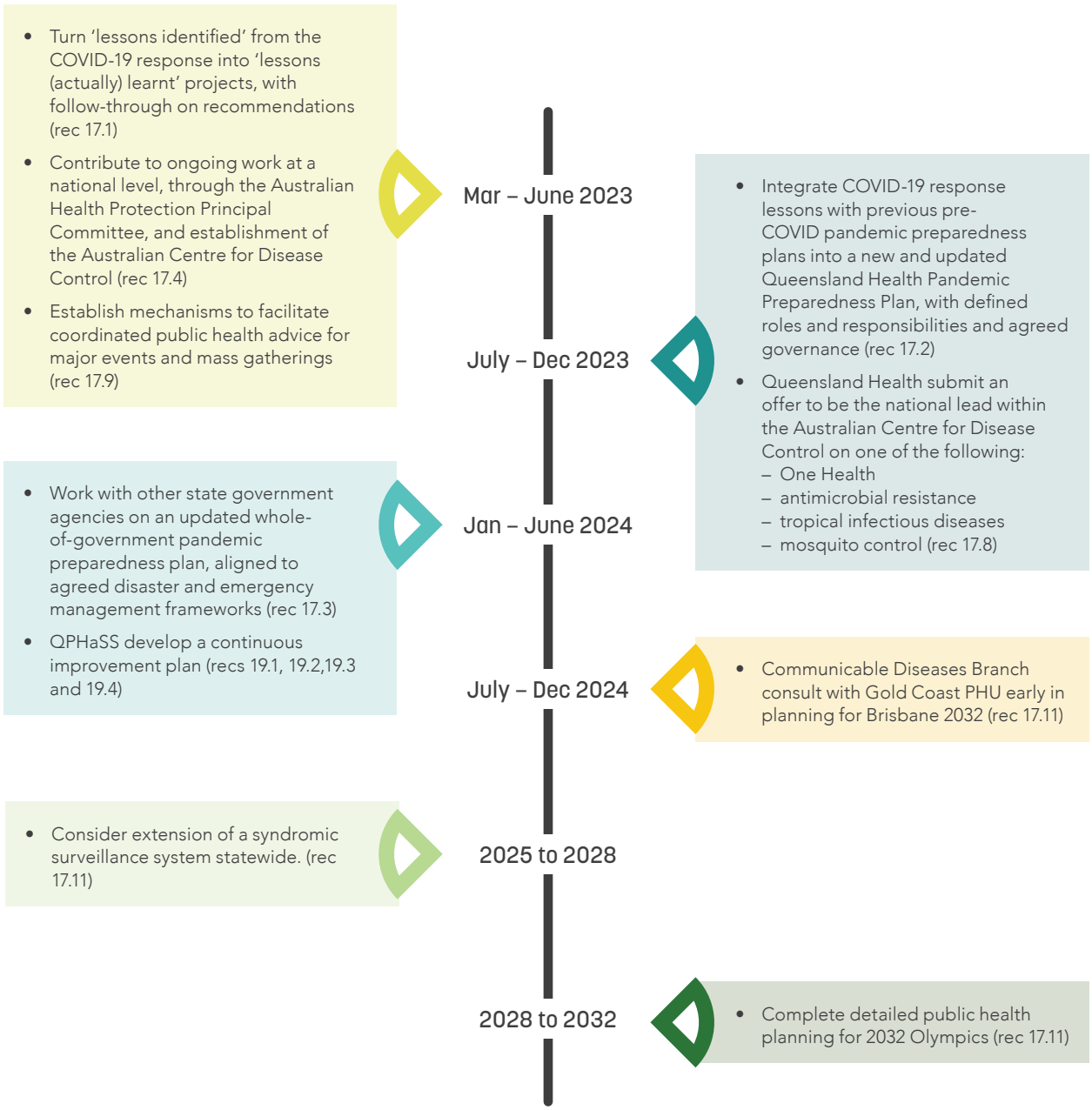


Success indicators

- Public health is integrated into local planning mechanisms.
- Accountability and transparency for funding public health is built and minimal service levels can be established.
- The system manager can incentivise innovation and collaboration through existing commissioning mechanisms.
- Innovation in public health can be tried, tested and harnessed to strengthen the health system.
- Gaps and system risks are reduced.

Future and preparedness

Actions



Success indicators

- The health system has an evidence-based plan and is prepared for future pandemics.
- Partner agencies have defined and agreed roles and responsibilities.
- Queensland is actively contributing to the national disaster and emergency response planning and action.
- Queensland draws on its definite advantages with respect to geography, skills mix, disease challenges, health system capacity and academic institutions which can contribute to national priorities.
- Consideration of communicable disease and environmental health threats will be factored into the planning of mass gatherings and major events.

Future public health eco-system