

Aboriginal and Torres Strait Islander Environmental Health Plan 2019–2022





Acknowledgement

The Queensland Government acknowledges and respects Traditional Owners and Aboriginal and Torres Strait Islander Elders past and present, on whose land we work to support the provision of safe and quality healthcare.

Queensland Health recognises the social and cultural differences that exist between and within communities of Aboriginal and Torres Strait Islander people.

Queensland Aboriginal and Torres Strait Islander Environmental Health Plan 2019–2022

Published by the State of Queensland (Queensland Health), March 2019



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

© State of Queensland (Queensland Health) 2019

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

For more information contact:

Environmental Hazards Unit, Health Protection Branch, Prevention Division, Department of Health, GPO Box 48, Brisbane QLD 4001, email environmentalhazards@health.qld.gov.au, phone 07 3328 9818.

An electronic version of this document is available at www.health.qld.gov.au.

Disclaimer

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

Artwork produced for Queensland Health by Gilimbaa.





Contents

Message from the Chief Health Officer	iv
Vision	v
Introduction	1
Policy context	2
What is environmental health and why is it important?	3
What are the challenges?	5
What is making a difference?	6
Next steps	7
Priority area 1	8
Priority area 2	10
Priority area 3	11
Building an evidence base	12
Appendix 1 – ABS 2016 Census Population Figures for Aboriginal and Torres Strait Islander Local Government areas included under the Plan	14
Appendix 2 – Community Location Map	15
Appendix 2a – Detailed Community Location Map	16
Abbreviations	17
Glossary	18
References	21

Tables

Table 1 – Key priority areas, their challenges and focus	7
Table 2 – Key actions for partnerships	8
Table 3 – Key actions for primary and environmental health care	10
Table 4 – Key actions for workforce	11
Table 5 – Performance reporting	13

Figures

Figure 1 – National and state health planning for Aboriginal and Torres Strait Islander peoples	2
Figure 2 – Environmental health conditions and associated health implications	3
Figure 3 – Evidence collection and reporting under the Plan	12





Message from the Chief Health Officer

There is a great deal of focus on Aboriginal and Torres Strait Islander health with recognition of widespread health issues culminating in shorter lifespans for Australia's First Peoples and the challenge of closing the gap. The most recent reports highlight that in Queensland, we have improved Indigenous lifespans and infant mortality but we are still not meeting the 'Closing the Gap' targets as set ten years ago.

The Queensland *Aboriginal and Torres Strait Islander Environmental Health Plan 2019 – 2022* is the third iteration (previously 2001– 2006¹, 2008 –2013²) of environmental health planning for Queensland's Aboriginal and Torres Strait Islander remote and discrete communities. This plan reflects what has been learnt since 2001 and acknowledges the need to continue learning.

The need for environmental health action has grown since 2001. In the current National Aboriginal and Torres Strait Islander Health Plan (2013–2023)³ it is noted that “between one third and one half of the life expectancy gap may be explained by differences in social determinants”. These determinants are acknowledged as including: housing, water services, diet and food hygiene practices, education, employment, and waste and disease vector management services, among others. Further, the need for an environmental health focus is highlighted in recent Steering Committee for the Review of Government Service Provision reports, *Overcoming Indigenous Disadvantage: Key Indicators (2016)*⁴ and *National Indigenous Expenditure Report (2014)*⁵.

Our learnings to date encompass the need to maintain, and where possible, grow our environmental health programs and provide ongoing capacity in the Indigenous environmental health workforce. We have also seen the need to track and assess our services as well as environmental health services provided by other participants so that we can provide evidence based leadership and set health management priorities. This Plan is strongly aligned with past Queensland environmental health strategies as well as the current national priorities. The key focus of this Plan is to deliver on environmental health actions through developing partnerships between environmental health and clinical care, providing environmental health advocacy across government, and supporting workforce development. It will also provide an evidence base so that we can measure the benefits achieved and inform future actions.

Dr Jeannette Young PSM
Chief Health Officer
March 2019



Vision

Environmental health services that support the achievement of equality of health outcomes for all Aboriginal and Torres Strait Islander people in Queensland.

Principles

Queensland Health acknowledges the importance of building mutual trust and respect with Aboriginal and Torres Strait Islander people in order to effectively implement and achieve the outcomes envisioned in this Plan.

The following principles have been developed to guide Queensland Health's actions and decisions in the development and delivery of environmental health programs and services. These are consistent with the *National Aboriginal and Torres Strait Islander Health Plan 2013-2033*³ as well as the *Queensland Health Aboriginal and Torres Strait Islander Cultural Capability Framework 2010-2033*⁶.

Cultural respect

Environmental health programs and services are developed and delivered with regard and respect for the cultural diversity, rights, values and expectations of Aboriginal and Torres Strait Islander people.

Health equality

Support Aboriginal and Torres Strait Islander people in attaining an equitable standard (compared to the broader Australian population) of physical, mental, emotional, cultural, spiritual and social wellbeing, and community capacity and governance.

Partnership

Improving environmental health will only be achieved through constructive partnerships and shared ownership between Aboriginal and Torres Strait Islander people communities, governments at all levels, and providers of health infrastructure and services.

Capacity

Build the capability of the health system to foster responsive services and infrastructure that are delivered in a coordinated and integrated way to ensure more efficient and effective use of resources.

Accountability

Environmental health programs and services will be delivered with processes in place for the regular monitoring and review of services, as measured against indicators of success, with these communicated to share knowledge on what works.



Introduction

The Queensland Aboriginal and Torres Strait Islander Environmental Health Plan 2019–2022 (hereafter referred to as The Plan) aligns with Queensland’s commitment under the National Aboriginal and Torres Strait Islander Health Plan 2013-2023³. In Queensland, Making Tracks toward closing the gap in health outcomes for Indigenous Queenslanders by 2033⁷ provides the overarching policy direction to guide the long-term effort towards closing the health gap to 2033. The Investment Strategy⁸ looks to develop culturally capable health services through targeted programs to tackle chronic disease. Environmental health is one of these target areas.

The Plan is also strongly aligned with the national Environmental Health Committee (enHealth) Strategic Plan⁹ which focusses on equitable access to healthy environments for Aboriginal and Torres Strait Islander people.

The Plan takes a multi-strategy approach to improving environmental health conditions in Aboriginal and Torres Strait Islander local governments. Work under the Plan is focussed on supporting healthy living environments through developing partnerships between environmental health and clinical care, providing advocacy across government, and supporting workforce training. It seeks to influence partners to ensure environmental health considerations are embedded in planning and delivery of services that influence healthy environments.

Implementation of actions under the Plan is focussed on the 16 discrete Aboriginal and Torres Strait Islander local governments where the Queensland Health Aboriginal and Torres Strait Islander Public Health Program is in operation (Appendices 1 and 2). These communities are mainly in remote locations and are relatively new local governments without the ability to generate income through a rate base. Funding under the ATSIPHP is provided to these local governments to employ local workers to maintain oversight and management of environmental health aspects in their communities. Building healthy environments in these communities is key to the realisation of health targets for ‘closing the gap’.



Policy context

It is estimated that 30 to 50% of health inequalities experienced by Aboriginal and Torres Strait Islander peoples can be attributed to poor environmental health³. The burden of disease of Aboriginal and Torres Strait Islander people is estimated as 2.2 times that of the broader Australian population¹⁰ but is even higher for remote and very remote Indigenous communities across central and northern Queensland¹¹.

In 2015, 70% of Indigenous people were affected by chronic diseases including circulatory disease, diabetes, cancer, respiratory disease, and kidney disease¹². Many of these diseases are preventable and can be related to adverse environmental health conditions. Remote communities are also recognised as experiencing hygiene-related diseases at rates higher than the wider Australian population¹³ with infections now acknowledged as the major reason for hospitalisation¹⁴. Poor housing and crowded living conditions are recognised infection risk factors^{15,16} with almost a third (31%) of Indigenous Australians in remote Queensland locations living in overcrowded households while 14% of Queensland Indigenous housing is considered to have poor access to working facilities¹².

Queensland Health has a number of clinical policy initiatives that seek to reduce the burden of preventable disease in Aboriginal and Torres Strait Islander populations. These include programs for rheumatic heart disease (RHD)¹⁷, ear health, eye health and diabetes and renal health. These initiatives focus on clinical areas where Aboriginal and Torres Strait Islander health outcomes are much poorer than the general population.

The Plan seeks to contribute to closing the gap in health status of Aboriginal and Torres Strait Islander peoples through building healthy environments. It underpins both Queensland and Commonwealth health policy initiatives (Figure 1) that seek to reduce the burden of preventable disease in Aboriginal and Torres Strait Islander populations that have an environmental health basis.



Figure 1 – National and state health planning for Aboriginal and Torres Strait Islander peoples



What is environmental health and why is it important?

Living environments have a direct impact on human health, and management of these can reduce our risk of disease and support good health outcomes.

The scope of environmental health management includes the quality and reliability of water supply and sewage services, adequate housing with working facilities, controlling disease vectors like mosquitos, healthy and well cared for domestic animals, control of dust and waste, and good food hygiene practices. Diseases known to be influenced by environmental factors include acute rheumatic fever (ARF), rheumatic heart disease, trachoma, gastroenteritis, diarrhoea, sepsis, pneumonia, respiratory disease, and ear infections (including suppurative otitis media) (Figure 2).

Improving environmental health conditions is particularly important in remote Indigenous communities where poorer environmental health management is contributing to higher levels of communicable diseases and hospitalisation rates than for the broader Indigenous community across Queensland.

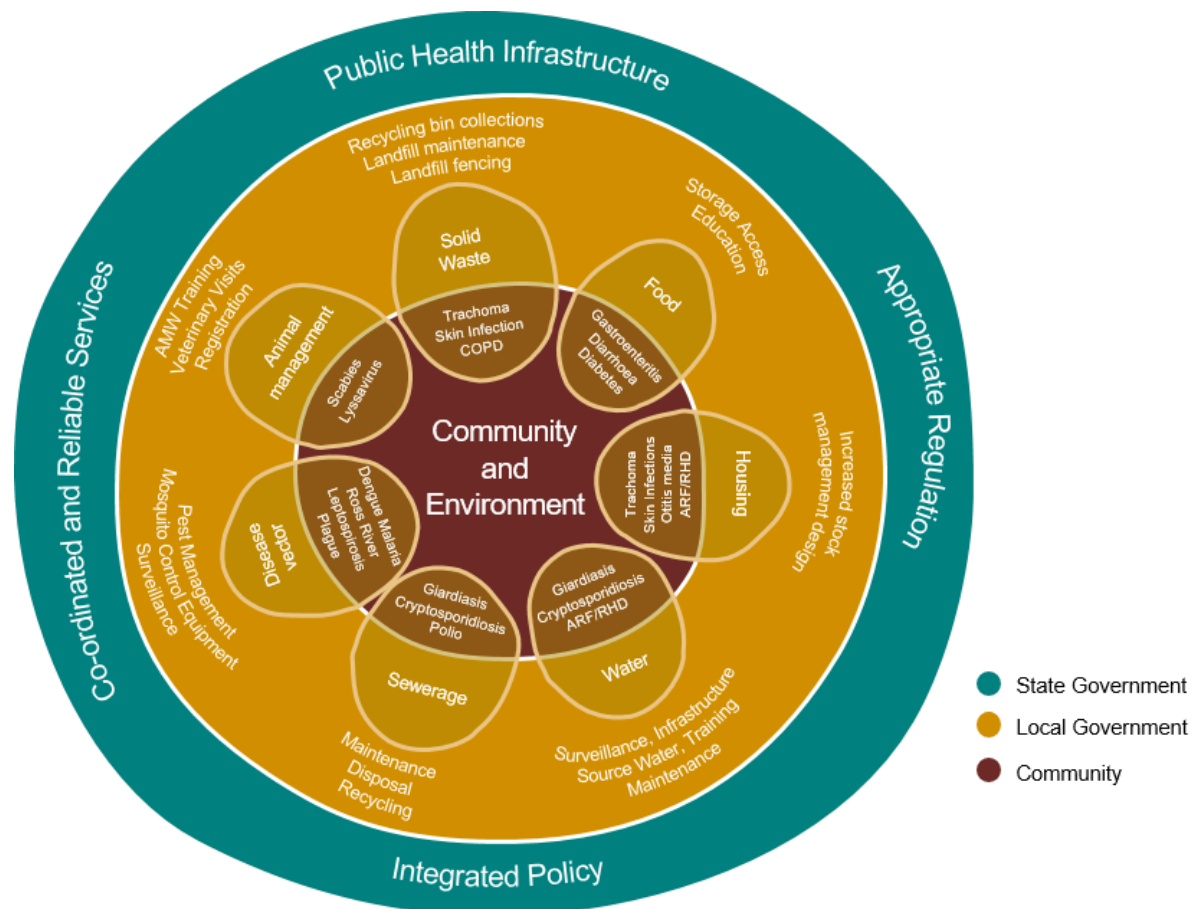


Figure 2 – Environmental health conditions and associated health implications



Consequently, key environmental health focus areas for these communities will include functional housing, disease vector control, water and sanitation, food hygiene, animal management and communicable disease controls. For example, reducing overcrowding and ensuring home hygiene hardware (kitchen, laundry, toilet and showers) is adequate and operates reliably, can lead to significant improvements in household health outcomes¹⁹.

Many of the diseases linked to poor environmental health are both chronic and repetitive with long term health impacts resulting from repeated cycles of infection. Improving environmental health conditions has broader implications for communities such as increased lifespan and productivity, positive employment status, improved children's health with increased school attendance, and reduced health costs.



What are the challenges?

For Queensland Aboriginal and Torres Strait Islander local governments, the expectation that they will provide a standard of environmental health comparable to mainstream local government authorities, is valid but also challenging.

Specific challenges for local governments are:

- Their ability to develop sustainable administrative systems and programs to support workforce planning and training;
- The capacity of local government personnel and community members to interact with government stakeholders to manage the numerous programs and funding sources that contribute to maintenance of community health;
- Difficulties in attracting and retaining skilled staff where an understanding of cultural issues, and engaging successfully with community members, are considered vital skills;
- Engagement of community with environmental health issues. Sustainable change relies on engaging and empowering communities as a whole;
- The higher costs incurred due to their remote location²⁰ (e.g. as for capital and maintenance costs for housing).

In addition to Queensland Health, a number of Queensland agencies have accountabilities across housing, sanitation and waste infrastructure and management, asset maintenance and service delivery, and training and employment in Aboriginal and Torres Strait Islander local governments. Effective and coordinated action across these diverse areas can only be achieved through improved communications and a willingness to integrate areas of related policy in favour of a net benefit to these communities.

For positive and sustainable environmental health outcomes it is important that communities are listened to and involved, that all levels of government collaborate, and that health concerns are objectively prioritised and addressed.



What is making a difference?

Queensland Health has an ongoing commitment to achieving a standard of environmental health for Aboriginal and Torres Strait Islander people which is comparable to that of other Queenslanders. It is generally recognised that effective and sustainable environmental health programs will realise gains in health outcomes for communities.

Queensland Health introduced the environmental health program for the Aboriginal and Torres Strait Islander local governments in 2006. This recognised the disadvantage of these local governments in terms of their ability to effectively fund and manage environmental health issues.

The program provides funded employment opportunities for workers from within the community to implement and monitor environmental health services. These Environmental Health Workers (EHWs) and Animal Management Workers (AMWs) oversee and monitor a range of local government programs to detect possible public health risks and assist in their management. Areas of additional Queensland Health support to the program includes provision of training opportunities and on the ground mentoring and technical advice.

The program has been adopted by 100% of targeted communities and has provided Certificate and Diploma level training to close to over one hundred workers.

The impact of the program across the relevant local governments has seen moderate improvements in environmental health conditions in some areas, with greatest impacts in the areas of animal management and waste (landfill) management. In many communities, excessive numbers of stray and pet dogs have been managed through veterinary supervised programs to limit numbers and stop breeding. Nevertheless, these gains have not always been sustainable and, until recently, have not been consistently measured. More work is required to ensure consistent and measurable gains in environmental health outcomes including the use of sound program intelligence and reliable performance indicators.



Next steps

With environmental health programs well established in most communities, the next stage will be to engage more closely with partners. The priorities under this Plan highlight the need for a whole of government response to achieve integrated health services. This will include:

- whole of government and partner engagement on health infrastructure needs in areas such as water, housing and waste disposal, improved asset maintenance, operations and related services for these same areas;
- improved collaboration between primary health-care providers and the environmental health workforce to break the cycle of repeat infections from unhealthy environments; and
- growing and developing the Indigenous workforce to sustainably improve environmental health conditions.

Key challenges for priority areas under the Plan, and the focus areas of response to those challenges, are summarised below (Table 1).

Table 1 – Key priority areas, their challenges and focus

Priority areas	Challenges	Focus
1. Advocacy across government for appropriate public health infrastructure	Working with multiple levels of government, and varied legislative and policy settings.	Seek collaborative working opportunities with partner agencies in all levels of government to enable effective and efficient provision of environmental health services and infrastructure.
2. Alignment of primary care with environmental health	Developing relationships between EHWs and primary health care providers so that environmental and clinical health practices reinforce one another.	Improve education and structural arrangements so that the environmental health practices of the whole community through to household level are routinely considered an integral part of health care.
3. Workforce growth and training	Ensuring the availability of suitable and culturally appropriate training opportunities for EHWs and AMWs.	Work in partnership with stakeholders and training organisations to provide workforce training and extension opportunities. Provision of mentoring and support to ensure a capable, sustainable and stable environment health workforce.



Priority area 1

Advocacy across government for appropriate public health infrastructure

Queensland Health is the lead government agency overseeing environmental health management, however, other government stakeholders have carriage of infrastructure and services that strongly influence health outcomes.

Stronger engagement with government stakeholders to develop a shared agenda focussed on disease prevention will improve stakeholder understanding of links between community infrastructure and health outcomes. Recognising areas of risk and managing the solutions will require both a policy and a cultural shift by health services and infrastructure based services such as housing, roads, water supply, wastewater treatment, and solid waste management, all of which strongly influence preventive health management.

A major focus of this Plan is to influence improvements in housing construction and maintenance. Programs elsewhere (NSW Housing for Health) have demonstrated significant improvements in health outcomes when repair and maintenance of health hardware has been improved^{19,21}. This includes such things as the ability to wash (people and clothes), safe removal of waste (drains and toilets), and the ability to store and cook food and to clean dishes. Overcrowding is also a significant issue where housing numbers are insufficient and construction has not considered cultural issues.

Construction and maintenance of environmental health infrastructure for water, wastewater, and solid waste management is also a focus. Queensland Health will work with partner agencies to embed environmental health considerations into design and maintenance of this infrastructure. A recent project between Tropical Public Health Services, Health Protection Branch, and Aboriginal and Torres Strait Islander local governments has significantly improved reliability of water services in some communities. Critical mentoring is also being provided to support and improve operating capabilities and skills.

Table 2 below identifies partnership actions included under the Plan.

Table 2 – Key actions for partnerships

Key actions	Lead ¹	Partners ¹	By when
Establish environmental health as a critical component of 'closing the gap' response in Queensland.	ATSIHB	PD	Dec 2019
Work with housing providers to identify home environment risk factors that contribute to adverse health outcomes.	HHSs	LG DHPW	June 2019
Apply evidence of health risk factors to advocate for the development of a culturally appropriate housing code and review housing maintenance arrangements for improved domestic hygiene.	PD	DHPW LG HHSs	Dec 2019



Key actions	Lead ¹	Partners ¹	By when
Build on successful existing programs to permanently embed consideration of environmental health risk factors into the planning and operations of water and wastewater services for improved health outcomes.	PD	DLGRMA DNRME LG HHSs	Dec 2020
Apply evidence to include consideration of health risk factors and disease prevention in local government waste management planning, service delivery and licensing requirements.	PD	HPB HHSs DES LG	Dec 2020

1 See abbreviations table p17 for explanation of all Table abbreviations.



Priority area 2

Alignment of primary care with environmental health

The national definition of primary health-care clearly acknowledges the priorities for improved community health, disease prevention and reduced hospital presentations²². Improved management of communicable and infectious diseases will depend on cooperative solutions across hygiene management, water and waste water services, animal management (including animal health), and vector control among others.

The delivery of adequate primary health-care and clinical services continues to be a key focus for Queensland Health under the Making Tracks Policy and Accountability Framework⁷ and the National Aboriginal and Torres Strait Islander Health Plan³.

A key challenge for remote Indigenous communities is the management of communicable and infectious diseases. Partnerships across primary health-care and the environmental health workforce are essential if the health of local communities is to be improved.

The imperative is to work with primary health professionals to establish a clinical referral framework so that treatment of recurring diseases includes advice and targeted communications to the patient on the causes of the disease, its future implications, and the ways in which it can be avoided in the home if health is to be improved and the cycle of recurrence broken. The Rheumatic Health Disease Action Plan targets this referral framework to environmental health as a key action to help reduce the incidence of that disease.

Work is needed to influence the provision of primary care to include recognition of the impact of environmental conditions on health and for environmental health staff to provide education at both community and household levels to break infection cycles. In their community based role, the local environmental health workforce provides a unique link between their communities and clinical services. Table 3 identifies actions under the Plan for improved recognition of environmental health within the primary care sector.

Table 3 – Key actions for primary and environmental health care

Key actions	Lead ¹	Partners ¹	By when
Investigate and evaluate programs in other jurisdictions for potential approaches to improve alignment of primary care with environmental health.	PD	Other States Health Departments	June 2019
Establish a clinical referral framework between primary health care and the environmental health workforce to improve health outcomes and embed environmental health considerations into primary health care practice.	PD	Primary Health Care providers HHSS ATSIHB, LG	Dec 2020
Educate community groups and individuals on interactions between the environment and human health.	HHSS	LG Primary Health Care providers Community	Jan 2020

¹ See abbreviations table p17 for explanation of all Table abbreviations.



Priority area 3

Workforce growth and training

Building capacity of the environmental health workforce within Indigenous communities is crucial if an awareness of health risks is to be developed and maintained, and appropriate community supported mitigations implemented.

Access to training opportunities is a priority if the environmental health workforce is to be adequately maintained and its capacity grown. Training opportunities need to be culturally focussed and encompass a range of extension opportunities as well as the minimum training requirements. Mentoring and support is also essential.

Maintaining commitment and job satisfaction of the environmental health workforce needs improved effort if staff turnover is to be reduced and program continuity maintained. Recognition of this workforce and the benefits they provide across the broader health services delivery framework would improve job satisfaction and provide opportunities for them to support other health service providers within their communities. This recognition would also help attract new environmental health workers to available positions within their communities.

On the job support is also vital to provide upskilling for the workforce and to maintain their commitment. As an example, Health Protection Branch, in partnership with Tropical Public Health Services, Aboriginal and Torres Strait Islander Local Governments and local water operations staff, are working together to improve reliability of water services to local communities. Critical mentoring and support is being provided under this program to improve operating capabilities and skills, and to increase workforce confidence in decision making and actions. Table 4 identifies key workforce actions under the Plan.

Table 4 – Key actions for workforce

Key actions	Lead ¹	Partners ¹	By when
Identify and support opportunities for access to flexible and sustainable education and training opportunities for the Indigenous environmental workforce	PD LGAQ	HHSS, LG DLGRMA DATSIP	Jan 2021
Embed mentoring programs into mainstream employment conditions of the environmental health workforce	HHSS LG	Industry Skills Councils, DOE DATSIP HPB	Dec 2020
Establish initiatives in environmental health which raise the profile of the profession within communities e.g. Primary care referral system to retain and grow the Indigenous environmental health workforce	PD HHSS	LG, QH Local communities State Agencies Federal Gov.	Jan 2020

¹ See abbreviations table p17 for explanation of all Table abbreviations.



Building an evidence base

Queensland Health has a strong advocacy role across government to deliver healthier communities in Aboriginal and Torres Strait Islander local governments. Other government stakeholders must be influenced to change the focus of their services towards reducing incidence of disease and protecting health using evidence.

In the past, availability of, and access to, relevant data and the timeliness of data provision has been a challenge. This has made it difficult not only to assess the progress of programs within communities but to engage partners and stakeholders. Under this Plan, it is expected that a broader range of data sources and greater emphasis on data gathering will provide a clearer picture of environmental conditions and, in time, changes to health outcomes (Figure 3). This evidence-based approach to program delivery will be integrated into program review.



Figure 3 – Evidence collection and reporting under the Plan

The biennial Queensland Health Report will consolidate information from a wide range of sources to provide a broad overview of environmental health in Aboriginal and Torres Strait Islander communities. A baseline of infectious diseases and hospitalisation rates for the 16 Aboriginal and Torres Strait Islander Local Government area will be compiled as part of the evidence gathering. This data will be used to set health performance indicators for environmental health actions and is expected to help inform action priorities. It will also be used to engage government stakeholders with clear evidence of the interactions between environments and disease to strengthen our shared agendas.

Providing evidence of successful programs and initiatives and lessons learned from past programs allows for sustained support of high value activities and expansion of proven best practice models. Future reporting will include success stories to help promote environmental health with partners. Table 5 identifies reporting outcomes under the Plan.



Table 5 – Performance reporting

Key actions	Who ¹	Partners ¹	By when
Prepare the biennial Queensland Health Report – Environmental Health in Aboriginal and Torres Strait Islander Local Governments using a broad range of data sources	PD	HHSs, LG	June 2019
Use epidemiological data to set a baseline and set health performance indicators for environmental health actions	PD	HHSs	Annual
Promote environmental health program achievements to celebrate successes and secure stronger stakeholder engagement.	PD HHSs	All	Dec 2021

¹ See abbreviations table p17 for explanation of all Table abbreviations.



Appendix 1 – ABS 2016 Census Population Figures for Aboriginal and Torres Strait Islander Local Government areas included under the Plan

Community [#]	Population	% Male	% Female	Median age	No. of households	People per household
Aurukun	1,144	49	51	27	221	4.6
Badu ¹	698	49	51	22	177	3.6
Bamaga ²	957	48	52	21	234	4.0
Boigu ¹	235	46	54	21	48	4.1
Cherbourg	1,249	50	50	21	280	3.9
Dauan ¹	169	50	50	19	36	3.5
Doomadgee	1,313	50	50	20	236	4.7
Erub ¹	310	52	48	26	72	3.5
Hammond ¹	243	46	54	21	56	3.9
Hope Vale	891	53	47	25	228	3.5
Iama ¹	296	49	51	24	58	4.2
Injinoo ²	533	48	52	17	102	4.7
Kowanyama	856	47	53	28	217	3.7
Kubin ¹	187	54	46	23	49	3.3
Lockhart River	631	49	51	23	130	4.1
Mabuiag ¹	203	50	50	21	43	4.4
Mapoon	269	48	52	26	71	3.5
Masig ¹	270	53	47	24	72	3.7
Mer ¹	424	50	50	24	81	4.1
Mornington	983	49	51	24	203	4.1
Napranum	907	50	50	24	228	3.8
New Mapoon ²	344	49	51	22	84	3.7
Palm Island	2,298	50	50	23	455	4.4
Pormpuraaw	633	49	51	29	175	3.3
Poruma ¹	155	49	51	27	46	3.2
Saibai ¹	400	55	45	16	72	5.0
Seisia ²	201	49	51	21	55	3.5
St Pauls ¹	237	48	52	25	62	3.7
Ugar ¹	72	59	41	19	20	3.3
Umagico ²	403	48	52	18	80	4.6
Warraber ¹	232	51	49	24	48	4.5
Woorabinda	906	48	52	22	236	3.5
Wujal	264	45	55	28	66	3.4
Yarrabah	2,494	50	50	22	450	4.9
TOTAL	21,407**					19,062*

Source data from QuickStats at www.abs.gov.au/census

All listed communities are also a local government area unless otherwise indicated

1 Torres Strait Island Regional Council

2 Northern Peninsula Area Regional Council

* This total population estimate is based on reported ABS persons per household numbers multiplied by persons per household for each community. This differs from the stated total population in column 2

** The difference between columns 2 and 7 is likely due to under reporting of household numbers in column 7



Appendix 2 – Community Location Map

Map of resident populations in Aboriginal and Torres Strait Islander communities (mainland Queensland)





Appendix 2a – Detailed Community Location Map

Map of resident population in Torres Strait Island communities (enlarged detail map).





Abbreviations

ARF	Acute rheumatic fever
ATSIHB	Aboriginal and Torres Strait Islander Health Branch, Queensland Health
AMW	Animal Management Worker
COAG	Council of Australian Governments
COPD	Chronic Obstructive Pulmonary Disease
DATSIP	Department of Aboriginal and Torres Strait Islander Partnerships
DES	Department of Environment and Science
DOE	Department of Education
DHPW	Department of Housing and Public Works
DLGRMA	Department of Local Government, Racing and Multicultural Affairs
DNRME	Department of Natural Resources, Mines and Energy
EH	Environmental Health
EHW	Environmental Health Worker
enHealth	National Environmental Health Standing Committee
HCAT	Health Community Assessment Tool
HHSs	Hospital and Health Services, Queensland Health
HPB	Health Protection Branch
LGAQ	Local Government Association of Queensland
LG	Local Government
PD	Prevention Division
PH	Public Health
PHU	Public Health Unit
QH	Queensland Health
RHD	Rheumatic heart disease
WHO	World Health Organisation



Glossary

Acute rheumatic fever	Acute rheumatic fever (ARF) is an illness caused by a bacterial infection with group A streptococcus, commonly called the strep bacteria. ARF affects the heart, joints, brain and skin. Damage to the heart valves may remain once the episode of ARF has resolved. Recurrent strep infections and episodes of ARF cause further damage to heart valves causing rheumatic heart disease.
Burden of Disease	Burden of disease measures the impact of living with illness and injury and dying prematurely. The summary measure 'disability-adjusted life years' (or DALY) measures the years of healthy life lost from death and illness.
Cancer	Cancer is a cellular disease that occurs when abnormal cells exhibit uncontrolled growth. These abnormal cells then invade surrounding tissues and organs damaging them. The abnormal growth is a consequence of genetic mutations in normal body cells. The exception is leukemia, this cancer causes abnormal cell division in the bloodstream interfering with normal blood function.
Circulatory disease	Circulatory disorders can arise from problems with the heart, blood vessels or the blood itself. They generally result in diminished flow of blood and oxygen supply to the tissues. Common circulatory disorders can include strokes, aneurisms, atherosclerosis and coronary heart disease, among others.
Clinical Services	Services related to the provision of medical treatment that is given to patients in hospitals and clinics as a result of a medical problem.
Closing the Gap	The goal of "Closing the Gap" is to close the health and life expectancy gap between Aboriginal and Torres Strait Islander peoples and non-Indigenous Australians within a generation. In 2008, the Council of Australian Governments (COAG) set targets aimed at eliminating the gap.
COPD	Chronic Obstructive Pulmonary Disease (COPD) is a collective term for a number of progressive lung diseases that interfere with normal breathing. These include emphysema, chronic bronchitis and asthma. Cigarette smoking is the most significant risk factor for COPD.
Cryptosporidiosis	This is an intestinal condition caused by the Cryptosporidium parasite. Infections are related to the exposure of stool from infected individuals, or to food and water supplies contaminated by infected stool. The condition can cause diarrhoea, cramps and nausea.
Dengue Fever	Dengue is a viral disease of the subtropics and tropics. It is transmitted by mosquitoes, and can cause debilitating fever and acute joint pain similar to that of a severe flu.
Diabetes	A disease in which the body's ability to produce or respond to the hormone insulin is impaired with a consequent loss in the body's ability to control high blood sugar levels. Diabetes can have a significant impact on quality of life and can reduce life expectancy through a range of associated diseases.
Diarrhoea	A condition in which faeces are discharged from the bowels frequently and in a liquid form. It often lasts for a few days and can result in dehydration due to fluid loss. The most common cause is an infection of the intestines due to a virus, bacteria, or parasite - a condition also known as gastroenteritis.
Gastroenteritis	Inflammation of the stomach and intestines, typically resulting from bacterial toxins or viral infection and causing vomiting and diarrhoea.



Giardiasis	This is an intestinal condition caused by a number of species of the Giardia parasite. Infections are related to the exposure of stool from infected individuals, or to food and water supplies contaminated by infected stool. The condition can cause severe diarrhoea or vomiting.
Hospitalisation	Admission to a hospital for treatment of a medical condition.
Infectious diseases	An infectious disease is transmissible by direct contact with an affected individual or the individual's discharges or by indirect means as through insect and animal vectors. These vectors include mosquitos, mites, and domesticated and feral animals, among others.
Kidney disease	Kidney disease is a gradual loss of kidney function over a period of months or years. Kidneys are the organs that filter waste products from the blood. They are also involved in regulating blood pressure, electrolyte balance, and red blood cell production in the body. A loss of function results in a build-up of waste products in the body which can eventually lead to life threatening levels.
Leptospirosis	Leptospirosis is a bacterial disease spread from animals to humans via direct contact with the urine of infected animals or soil and food contaminated with infected urine. It can cause fever, muscular pain and headaches. Severe conditions can result in organ failure and meningitis.
Lyssavirus	Lyssavirus is a viral infection that is transmitted from bats to humans. It is related to rabies and can result in paralysis, delirium, convulsions and death.
otitis media	Inflammation of the middle ear characterised by the accumulation of infected fluid in the middle ear, bulging of the ear drum and pain in the ear. Caused by bacterial or viral infection. Often associated with upper respiratory infections.
Plague	Plague is an infectious bacterial disease initially transmitted to humans via small infected mammals and the bite of the fleas they carry. Secondary infections can result from exposure to the body fluids of infected individuals. It is characterised by fever, inflammation and lung infections and is life threatening.
Polio	Poliomyelitis is a crippling and potentially deadly infectious disease. It is a highly contagious virus which attacks the nervous system causing muscular wasting and paralysis. It is spread through exposure to contaminated faeces or body fluids.
Pneumonia	Lung inflammation caused by bacterial, fungal or viral infection, in which the air sacs fill with pus and may become solid. Pneumonia can range in seriousness from mild to life-threatening.
Primary Health-care	Primary health is usually a person's first encounter with the health system. It includes a broad range of services, from health promotion and prevention, to treatment and management of acute and chronic conditions.
Remote communities	Remote communities have very restricted access to goods, services and opportunities for social interaction and are often defined using road distances to service centres. Most of northern and western Queensland has been defined by the Australian Bureau of Statistics (ABS) as very remote.
Respiratory disease	Any of the diseases and disorders of the airways and the lungs that affect human respiration. Respiratory diseases include chronic obstructive pulmonary disease (COPD), asthma, influenza, tuberculosis, emphysema, bronchitis, and a range of other conditions.



Rheumatic heart disease	Rheumatic heart disease (RHD) is damage to one or more heart valves. It is caused by an episode or recurrent episodes of ARF, where the heart has become inflamed. Untreated, RHD may result in dizzy spells, shortness of breath, faintness, irregular pulse or serious complications.
Ross River Fever	Ross River Fever is caused by the Ross River Virus and is transmitted by mosquito bite. The mosquito is infected by feeding on infected animals. The disease is not contagious between humans. Symptoms include fever, chills, swelling and stiffness.
Sanitation	Conditions relating to public health, especially the provision of clean drinking water and adequate sewage disposal.
Scabies	Scabies is a contagious and intensely itchy skin condition caused by infestation of the skin by a microscopic burrowing mite. The mites burrow into the skin to lay their eggs. Scabies can be spread by contact with infected individuals, including their clothes and linen.
Sepsis	Sepsis is a potentially life-threatening complication of an infection. Sepsis occurs when chemicals released into the bloodstream to fight the infection trigger inflammatory responses throughout the body. This inflammation can trigger a cascade of changes that can damage multiple organ systems, causing them to fail.
Suppurative otitis media	Suppurative otitis media is middle ear inflammation of greater than two weeks that can result in perforation of the ear drum and episodes of discharge from the ear. Repeated episodes of suppurative otitis media (chronic suppurative otitis media (CSOM)) can result in partial or permanent hearing loss.
Trachoma	An infectious disease of the eye caused by <i>Chlamydia trachomatis</i> . If left untreated, it can result in scarring and blindness. Trachoma is highly infectious and is easily spread. It is generally found in dry and dusty environments, where people live in overcrowded conditions, and where personal and community hygiene are hard to maintain.
Vector	An organism, typically a biting insect or tick, that transmits a disease or parasite from one animal or plant to another



References

1. Queensland Health (2001). The Queensland Health Aboriginal and Torres Strait Islander Environmental Health Strategy 200–2006. Queensland Government, Brisbane, 43pp.
2. Queensland Health (2008). Aboriginal and Torres Strait Islander Environmental Health Plan 2008–2013. Queensland Government, Brisbane, pp36.
3. Department of Health, (2013). National Aboriginal and Torres Strait Islander Health Plan 2013–2023, Australian Government, Canberra.
4. SCRGSP (Steering Committee for the Review of Government Service Provision), (2016). Overcoming Indigenous Disadvantage: Key Indicators 2016, Productivity Commission, Canberra.
5. SCRGSP (Steering Committee for the Review of Government Service Provision), (2014). 2014 Indigenous Expenditure Report, Productivity Commission, Canberra.
6. Queensland Health (2010). Aboriginal and Torres Strait Islander Cultural Capability Framework 2010–2033. Queensland Government. Brisbane. 21pp.
7. Queensland Health (2010). Making Tracks towards closing the gap in health outcomes for Indigenous Queenslanders by 2033–policy and accountability framework. Queensland Government. Brisbane. 84pp.
8. Queensland Health (2018). Making Tracks towards closing the gap in health outcomes for Indigenous Queenslanders by 2033–investment strategy 2018–2021. Queensland Government. Brisbane. 20pp.
9. enHealth (2016). Preventing Disease and Injury through Healthy Environments: Strategic Plan 2016–2020. Commonwealth Department of Health, Commonwealth of Australia, 28 pp.
10. Queensland Health (2016). The Health of Queenslanders 2016: Report of the Chief Health Officer Queensland. Queensland Government. Brisbane, 134pp.
11. Queensland Health (2017). The burden of disease and injury in Queensland’s Aboriginal and Torres Strait Islander people 2017 (reference year 2011) Main report, Queensland Health, Brisbane.
12. AHMAC (Australian Health Ministers Advisory Council), (2017), Aboriginal and Torres Strait Islander Health Performance Framework 2017 Report, AHMAC, Canberra.
13. Foster, T. and B. Dance (2012). Water washed diseases and access to infrastructure in remote Indigenous communities in the Northern Territory. *Water* 39(4):72-78.
14. Department of Health, (2014). National Framework for Communicable Disease Control. Australian Government, Canberra. 31pp.



15. WHO, 1996. Prevention of hearing impairment from chronic otitis media. Report of a WHO/CIBA Foundation Workshop held at the CIBA Foundation, London, 19–21 Nov 1996. London: CIBA Foundation, 1996. (WHO/PDH/98.4.)
http://www.who.int/pbd/deafness/en/chronic_otitis_media.pdf
16. Booth, A. and N. Carroll (2005). Overcrowding and Indigenous Health in Australia. Centre for Economic Policy Research Discussion Paper No. 498. Canberra: Australian National University.
17. Queensland Health, (2018). Queensland Aboriginal and Torres Strait Islander Rheumatic Heart Disease Action Plan 2018–2021. Aboriginal and Torres Strait Islander Health Branch. Queensland Government, Brisbane.
18. Department of Health, (2015). Implementation Plan for the National Aboriginal and Torres Strait Islander Health Plan 2013–2023, Australian Government, Canberra
19. NSW Department of Health (2010). 10 Years of Housing for Health in NSW: An evaluation of a healthy housing intervention. Sydney, 36pp.
20. Nous Group (2017). Efficient system costs of Remote Indigenous housing: Input into the Review of the National Partnership Agreement on Remote Indigenous Housing, 4 July 2017. 49pp.
21. Hall, N., Barbosa, M.C., Currie, D., Dean, A.J., Head, B., Hill, P.S., Naylor, S. Reid, S., Selvey, L. and J. Willis (2017). Water, sanitation and hygiene in remote Indigenous Australian communities: A scan of priorities', Global Change Institute Discussion Paper: Water for equity and wellbeing series, The University of Queensland, Brisbane.
22. Standing Council on Health, (2013). National Primary Health Care Strategic Framework. Australian Government, Canberra. 26pp.
23. McDonald, E.L., Bailie, R. and T. Michel (2013). Development and trialling of a tool to support a systems approach to improve social determinants of health in rural and remote Australian communities: the healthy community assessment tool. International Journal for Equity in Health, 12:15.