

**Gold Coast Primary Health Network
NEEDS ASSESSMENTS 2020**

PERSISTENT PAIN



phn
GOLD COAST

An Australian Government Initiative

PERSISTENT PAIN

Local health needs and service issues

- High rates of musculoskeletal conditions in Southport, Coolangatta, Ormeau-Oxenford and Gold Coast-North
- Ageing population means more musculoskeletal conditions projected
- Pain management frequently focusses on medication
- High levels of opioid dispensing across region, particularly Southport
- Need for more awareness and support for prevention and self-management
- Focus on multidisciplinary and coordinated care



PERSISTENT PAIN

Key findings

Persistent pain is pain that lasts beyond normal healing time after injury or illness—generally 3 to 6 months. It is a common and complex condition, and the pain experienced can be anything from mild to severe. The defining characteristic of chronic pain is that it is ongoing and experienced on most days of the week.

While prevalence data on persistent pain at a regional level is limited, it was estimated that around one in five Australians aged 45 years and over reported having persistent pain¹. Persistent pain is often linked to chronic musculoskeletal conditions, which have a slightly lower prevalence in the Gold Coast PHN region compared to national rates. However, an ageing Gold Coast population combined with predictions that the prevalence of musculoskeletal conditions will rise in Australia over the next few decades means that there is likely to be increasing cases of persistent pain in the Gold Coast region.

Persistent pain has a large effect on a person's life and on the Australian economy more broadly. The financial cost of persistent pain in 2018 was an estimated \$73.2 billion . This included:

- \$48.3 billion (66%) for productivity costs, reflecting the impact on a person's ability to work, work performance and employment outcomes
- \$12.2 billion (17%) for direct health system costs (where known cause and unknown cause of chronic pain estimates are the same).

There are increasing concerns about the trend in prescribing opioid medications, dependency and addiction issues and possible long-term adverse effects. Rates of opioid medication prescriptions in the Gold Coast region are slightly higher than the national average.

Recommended treatment for persistent pain promotes self-management and involves an integrated multidisciplinary approach. There are several specialist pain clinics on the Gold Coast and a range of primary care providers, but consultation indicates issues exist with service access and coordination.

An initiative delivered by the Gold Coast PHN found that an integrated self-management model of care can lead to improved perceptions on pain, health service access, safe and effective medication use, ability to perform everyday activities and coping, as well as a reduction in hospitalisations.

Evidence

Prevalence

In 2016, it was estimated that around one in five Australians aged 45 years and over reported having persistent pain². Persistent pain increased with increasing age, to almost 1 in 4 adults (24%) aged 85 and over. If this rate were to remain stable today, a crude estimate would be that 51,217 Gold Coast residents aged 45 and over have reported having persistent pain based on 2016 census population.

Measuring how many people have chronic pain in Australia is difficult³. Pain is a subjective experience, and the few national data sources that include measures of chronic pain use different definitions.

According to the Bettering the Evaluation and Care of Health (BEACH) study, more people are seeing GPs for persistent pain. Between 2006-07 and 2015-16, the rate of GP visits for chronic back pain or unspecified chronic pain were managed during the visit increased 67%, representing about 400,000 more encounters for both conditions⁴.

There are many conditions that cause persistent pain, with most being chronic musculoskeletal conditions such as osteoarthritis, back and neck pain, osteoporosis, and fibromyalgia. In Australia, the burden of disease attributed to musculoskeletal conditions is ranked second amongst all chronic health conditions in terms of years of healthy life lost due to disability.

Modelling conducted by Arthritis and Osteoporosis Victoria⁵ in 2013, predicated the prevalence of arthritis and other musculoskeletal conditions in Australia:

- As Australia's population ages over the next two decades, the prevalence of musculoskeletal conditions will rise significantly.
- By 2032, it is projected that the number of cases of arthritis and other musculoskeletal conditions will increase by 43% to 8.7 million, affecting 30.2% of the population.
- The number of people with osteoarthritis and osteoporosis is projected to increase the fastest (58% and 50% growth respectively), however back problems will remain the most prevalent condition.
- The age group with the most cases of arthritis and other musculoskeletal conditions is currently 55-64 years, however this will change to the 75+ age group by 2032.

2. ABS 2017. Survey of Health Care, Australia 2016. ABS cat. no. 4343.0. Canberra: ABS. Findings based on AIHW analysis of ABS microdata

3. Painaustralia 2019b. National Pain Strategy. Canberra: Painaustralia. Viewed 25 November 2019.

4. Britt H, et al. (2016) A decade of Australian general practice activity 2006-07 to 2015-16. General practice series no. 41

5. Arthritis and Osteoporosis Victoria (2013). A problem worth solving

Musculoskeletal system diseases

In 2014-15, 166,059 Gold Coast adult residents were living with a musculoskeletal condition at a rate of 29.1 per 100 people, slightly lower than the national rate of 29.9. A regional breakdown of the number and rate of people living with musculoskeletal condition can be seen in Table 1.

Table 1: Estimated number of people with musculoskeletal system diseases, 2014-15

Region	Number	Age-standardised rate per 100 people
Gold Coast	166,059	29.1
National	6,858,779	29.9
Broadbeach-Burleigh	19,542	28.4
Coolangatta	17,306	29.6
Gold Coast- North	21,655	29.5
Gold Coast Hinterland	5,847	28.2
Mudgeeraba-Tallebudgera	9,537	29.4
Nerang	19,378	29.4
Ormeau-Oxenford	29,715	29.6
Robina	14,332	29.3
Southport	16,718	29.9
Surfers Paradise	12,029	28.2

Source: Public Health Information Development Unit (PHIDU), Torrens University. Social Health Atlas of Australia: Primary Health Networks (online).
Extracted 17/07/19

Of the 166,059 Gold Coast residents living with a musculoskeletal condition, 72,906 or about 44% of cases have a form of arthritis.

There are several risk factors associated with the onset and management of chronic musculoskeletal conditions that cause persistent pain. These include age, obesity, physical inactivity, smoking and co-morbidities such as cardiovascular disease and mental health conditions. Persistent pain is also more likely to be experienced by people in low socioeconomic groups.

Due to the complex nature of persistent pain, it is often unclear whether persistent pain is the cause or the result of socioeconomic disadvantage. In the Gold Coast PHN region, there is a relatively older age profile compared to the national average, which could indicate that levels of persistent pain could increase in the region in the coming years.

Persistent pain has a significant negative effect on quality of life and contributes to wide economic costs. Financial modelling conducted in 2007 estimated that the total cost of persistent pain was \$10,846 per person with chronic pain. It is reasonable to assume these costs have increased over the last decade due to the increase in the average age of the population. Around 20% of costs impact the health system, including inpatient or outpatient hospital services, primary care, pharmaceuticals, and residential aged care⁶.

Over half of the cost of chronic pain is borne by individuals and their families and friends, with loss of productivity being a significant contributory factor. Over 90% of people with severe pain report some level of interference with the ability to work in both paid employment and housework.

Rates of paid employment for people with arthritis and other musculoskeletal conditions are 3.5% lower than the general population. Back pain and arthritis are the most common causes for people aged 45-64 years to leave the workforce, accounting for around 40% of forced retirements⁷.

6. MBF Foundation (2007) the high price of pain: the economic impact of persistent pain in Australia. Report conducted by Access Economics in collaboration with the Pain Management Research Institute- The University of Sydney/Royal North Shore Hospital
7. Schofield et al. (2012) Quantifying the productivity impacts of poor health and health interventions, Health Economics, University of Sydney

Persistent pain has been shown to lead to depression, anxiety spectrum disorders and suicide. The nature of persistent pain means that it can restrict self-management, particularly a person's capacity to manage their weight through physical activity. This can lead to co-morbidities such as type 2 diabetes and cardiovascular problems. Older people experiencing persistent pain with co-morbidities are likely to be taking multiple medications, which places them at a greater risk of an adverse drug event ⁸.



Service utilisation

Pain Australia, the peak advocacy body for pain-related conditions in Australia, estimates that less than 10% of people with persistent non-cancer pain gain access to effective care, despite the fact that current knowledge would allow 80% to be treated effectively if there was adequate access to pain services⁸.

On the Gold Coast during 2009–2013, 5% of GP consultations were specifically for the management of arthritis or chronic back pain, compared to 6% for a cardiovascular condition and 7% for anxiety or depression.

The most common treatments resulting from consultations for arthritis or chronic back pain were:

- Medication prescribed (69%)
- Imaging ordered (18%)
- Referred to a health professional (13%)

Data from the BEACH study of general practice in Australia found that persistent pain affects around 1 in 5 patients attending GP consultations and increases with age, which is consistent with broader population estimates. Around 86% of patients managed persistent pain with at least one medication, with that rate increasing to 93.4% of patients in the 65 years and over age group. In this age group, about a third of those prescribed medications for management of persistent pain included opioids (including low dose combination products). Opioids such as codeine and oxycodone are often prescribed to relieve and treat pain symptoms.

According to a report published by Australian Commission on Safety and Quality in Health Care¹⁰ into the prescribing and dispensing of opioid medicines:

- current evidence does not support using opioid therapy for chronic pain
- the prescribing of opioids for chronic pain is increasing
- evidence is growing of the adverse effects of long-term use of opioids.

This report found considerable variation in the levels of prescribing opioids across regions of Australia with no apparent explanation for the cause. A 2016 report by the Alcohol and Drug Foundation¹¹ stated that the number of fatalities from drug overdoses by pharmaceutical opioids in Australia has risen significantly over the past decade. The report suggests that opioids are overused and overprescribed and is causing increases in the rates of drug dependency, injury, and death.

8 National Health Survey. Australian Bureau of Statistics, 2017-18

9 Pain Australia (2016). Prevalence and the Human and Social Cost of Pain, Pain Australia Fact Sheet 2

10 Australian Commission on Safety and Quality in Healthcare, the First Australian Atlas of Healthcare Variation.

11 Alcohol and Drug Foundation (2016) Is there a pill for that? The increasing harms from opioid and benzodiazepine medication, Prevention Research

Pharmaceutical Benefits Scheme

Statistics from the Pharmaceutical Benefits Scheme (PBS) indicate that 65,681 prescriptions for opioids were filled across the Gold Coast PHN region in 2016-17 per 100,000, up from 59,939 prescriptions in 2013-14, an increase of over 9%. The rate was higher in the Gold Coast PHN region compared to national rate. Table 2 below provides a breakdown of opioid prescriptions dispensed across sub-regions of the Gold Coast. The region with the highest rates of opioid per 100,000 people use was Southport.

Table 2: Age-standardised rate of PBS prescriptions dispensed for opioid medicines per 100,000 people, by SA3 region, 2013–14 to 2016-17.

Region	Age-standardised rate per 100,000 people, 2016-17	Age-standardised rate per 100,000 people, 2013-14
Gold Coast	65,681	59,939
National	58,595	55,123
Broadbeach-Burleigh	61,740	55,050
Coolangatta	64,090	59,592
Gold Coast- North	69,981	64,000
Gold Coast Hinterland	68,729	60,279
Mudgeeraba-Tallebudgera	66,132	60,082
Nerang	68,019	59,844
Ormeau-Oxenford	69,950	62,761
Robina	54,078	51,875
Southport	77,673	73,571
Surfers Paradise	58,214	52,337

Source: ACSQHC, Australian Atlas of Healthcare Variation

Unnecessary treatments

Concerns have also been raised about potentially ineffective and unnecessary treatments, such as medical imaging for chronic back pain and surgical interventions for osteoarthritis. Table 3 shows the rate of CT scans performed for low back pain was higher in all Gold Coast regions than Queensland and Australian averages.

Table 3: Age-standardised rate of MBS-funded services for CT imaging of the lumbar spine per 100,000 people, by SA3 region, 2013–14

Region	Age-standardised rate per 100,000 people
Queensland	1,381
National	1,282
Broadbeach-Burleigh	1,597
Coolangatta	1,786
Gold Coast-North	1,879
Gold Coast Hinterland	1,798
Mudgeeraba - Tallebudgera	1,641
Nerang	1,683
Ormeau - Oxenford	1,841
Robina	1,598
Southport	1,935
Surfers Paradise	1,584

Source: ACSQHC, Australian Atlas of Healthcare Variation

The Australian Commission on Safety and Quality in Health Care (ACSQHC) suggests that the rate at which GPs refer patients with low back pain for diagnostic imaging, particularly CT scans, may be excessive based on current guidelines and potentially exposing patients to radiation unnecessarily. Modelling done by PriceWaterhouseCoopers predicted annual savings to the MBS because of disincentivising unnecessary imaging for chronic low back pain to be over \$100 million

Surgical interventions

Similarly, ACSQHC has identified that the rates at which some surgical interventions are being used to treat conditions associated with persistent pain vary widely across locations, indicating possible over-reliance in lieu of conservative treatments. Such interventions include lumbar spinal fusion and spinal decompression for low back pain, and knee arthroscopy or replacement for osteoarthritis. Table 4 below shows that rates of hospitalisations for these procedures are generally higher than national averages across the Gold Coast.

Table 4: Age and sex-standardised rate of hospitalisations for selected surgical interventions per 100,000 people aged 18 years and over, by SA3 region, all data 2014-15 except knee arthroscopy (2012-13)

Region	Knee arthroscopy (55 years and over)	Knee replacement	Lumbar spinal decompression	Lumbar spinal fusion
Queensland	496	266	75	30
National	560	257	81	26
Broadbeach - Burleigh	562	217	67	37
Coolangatta	663	268	67	37
Gold Coast - North	578	293	70	43
Gold Coast Hinterland	501	238	104	38
Mudgeeraba - Tallebudgera	685	267	70	37
Nerang	460	293	74	48
Ormeau - Oxenford	573	298	73	43
Robina	511	285	70	35
Southport	604	252	62	37
Surfers Paradise	589	257	71	43

Source: ACSQHC, Australian Atlas of Healthcare Variation

Low back pain

Estimates from the Australian Bureau of Statistics 2017-18 National Health Survey estimate four million Australians (16% of the population) have back problems. It is estimated that 70-90% of people will suffer from lower back pain in some form at some point in their life¹³. Back problems include a range of conditions linked to the bones, joints, connective tissues, muscles, and nerves of the back.

From July 2019 to June 2020 there were 1,115 presentations to Emergency Departments at Gold Coast Public Hospitals for low back pain of which females consisted of 53% of patients while male presentations were 47%. The age group with the largest rate of presentations to Gold Coast Public ED's for low back pain was 30-39 years old's (17%) and 40-49-year old (17%).

Table 5: Presentations to Gold Coast Public Hospitals Emergency Departments with back issues, July 2019 to June 2020

Age cohort	Number of ED presentations with low back issues	Rate of ED presentations among age cohorts for low back pain
0-19	54	5%
20-29	162	15%
30-39	194	17%
40-49	190	17%
50-59	180	11%
60-69	128	11%
70-79	120	11%
80+	87	8%

Source: Queensland Emergency data, January 2018 to July 2019

Opioid prescriptions for persistent pain

Codeine has historically been Australia's most used opioid¹⁴. From February 2018, Australians can only purchase codeine in Australia with a prescription, before then, Australian's could buy low strength (up to 15mg per tablet) in combination with paracetamol, ibuprofen and aspirin over the counter at pharmacies. Higher strength codeine has always required a prescription.

One in five in five Australians aged 45 years and older had chronic pain in 2016. During the two past decades, opioids have been pushed to treat chronic pain, expanding the patient base from palliative care and cancer patient. In Australia, dispensing of these opioids rise 15-fold between 1992 and 2014, with around 16% of the Australian population prescribed an opioid annually as of 2019^{15 16}. For further information on opioids please see the Alcohol and other drugs needs assessment.

Data extracted through GCPHN Primary Sense data extraction and Population health Management Clinical Audit Tool identified that the Gold Coast rate of increasing opioid prescriptions mirrors national trends of the 81 general practices submitting data through the tool¹⁷.

COVID-19 and Persistent Pain

Throughout the outbreak of COVID-19, many Gold Coast health patients who had previously been attending the Persistent Pain Centre at Robina used virtual consultations to help manage their persistent pain. The virtual clinics improve the consultation experience for both patients and the medical teams overseeing their care by allowing patients to wait for the telehealth video conference appointment in the own home without having to worry about getting to clinic. An additional benefit of the telehealth model is the medical team can see the patient within their home environment and watch them do everyday task. As of the 12th of June, the persistent pain clinic at Gold Coast health had over 700 telehealth consultations since the COVID-19 pandemic began.

¹⁴ Degenhardt L, Gisev N, Cama E, Nielsen S, Laranje B, Bruno R. The extent and correlates of community-based pharmaceutical opioid utilisation in Australia. *Pharmacoepidemiol Drug Saf.* 2016;25(5):521-538. doi:10.1002/pds.3931

¹⁵ Blanch B, Pearson SA, Haber PS. An overview of the patterns of prescription opioid use, costs and related harms in Australia. *Br J Clin Pharmacol.* 2014;78(5):1159-1166. doi:10.1111/bcp.12446

¹⁶ Lalic S, Ilomäki J, Bell JS, Korhonen MJ, Gisev N. Prevalence and incidence of prescription opioid analgesic use in Australia. *Br J Clin Pharmacol.* 2019;85(1):202-215. doi:10.1111/bcp.13792

¹⁷ GCPHN Primary Sense is a highly advanced IT tool that will support general practices to make timely decisions for better health care for their respective populations. Primary Sense is loaded onto the practice's server and de-identified data

Service System

Services	Number in the GCPHN region	Distribution	Capacity discussion
Turning Pain into Gain program, Gold Coast PHN	1	Physical service at Varsity Lakes Education sessions mobile across various locations including Southport, Robina, and Kirra.	<ul style="list-style-type: none"> • No cost but limited places in each program • Must be referred by a GP • Previous increases in funding led to an increase in patients able to access program and decreased cost per person • 292 Clients referred, enrolled, and received the service in 2018-19 • There is currently a wait time of around 4-5 weeks • Increasing demand—more GPs referring into the program each year • 2015-2016 evaluation shows positive outcomes in ability to perform everyday activities and self-management, and 78% reduction in hospitalisations. The 2016-2017 data showed a statistically significant reduction in morphine equivalent use.
Interdisciplinary Persistent Pain Centre, Gold Coast Health	1	Physically located at Robina	<ul style="list-style-type: none"> • No cost to access • Eligibility criteria include impairment, no ongoing investigations or claims, no acute psychiatric condition and residing within catchment area • GCH specialist wait list is long and approximately 8 – 12 months
Persistent Pain and Rehabilitation Clinic, Griffith University	1	Physically located at Southport	<ul style="list-style-type: none"> • Fee-for-service, rebate available through private health or chronic disease management plan • Multi-disciplinary team care approach involving physiotherapy, exercise physiology, dietetics, and psychology
The Pain Centre of Excellence, based at Spendelove Private Hospital	1	Physically located at Southport	<ul style="list-style-type: none"> • Multi-disciplinary approach including pain and rehab specialists, OTs, pharmacists, and physios • Treatment available as either a day patient or inpatient • Program completed over 2 weeks with outpatient follow up for up to 3 months • Cost fully covered by private insurance • Anyone experiencing pain for more than 3 months can apply

Chronic Pain Rehabilitation Unit, Pindara Private Hospital	1	Located at Benowa Also, services John Flynn Private Hospital (Tugun) and Gold Coast Private Hospital (Southport)	<ul style="list-style-type: none"> • 11-bed chronic pain inpatient service • Pain specialists and rehabilitation consultants work with allied health services including physio, OT and exercise physiology
Arthritis Queensland Infoline	State-wide	Phone service	<ul style="list-style-type: none"> • Free call— Mon-Fri, 8.30am-4pm • Can arrange free, individualised information pack for self or family
Precision Brain, Spine and Pain Centre	1	Southport	<ul style="list-style-type: none"> • Focus on the treatment of spinal problems and other pain-causing conditions
Anglicare Better Health with Self-Management	1	Delivered at Southport and Robina	<ul style="list-style-type: none"> • Self-referral or a GP referral • Free to any HACC eligible individuals/or their partner or carer • Course teaches participants skills in day-to-day management of chronic conditions • Two- and half-hour workshops run once a week, over a period of six weeks • Not specific to persistent pain
Pain Management Network, NSW Agency for Clinical Innovation	National	Online resource	<ul style="list-style-type: none"> • Focus on self-management for chronic pain • Tailored content for youth and spinal cord injury pain • Information available for health professionals
Supporting Kids in Pain (SKIP) program	1	Not-for-profit organisation Based in Brisbane with outreach held on Gold Coast	<ul style="list-style-type: none"> • Free program for children under 14 • Requires GP or paediatrician referral • Self-management program involving assessment, education, and follow-up • Multidisciplinary approach including paediatricians, psychologists, physios, OTs

Consultation

Attendees at the Collaborating for Better Pain Management event for general practitioners and allied health professional held by Gold Coast PHN in June 2017 expressed a desire for more training related to pain, specifically:

- Developing integrated care systems in primary care
- Referral pathways
- Back pain
- Role specific evidence-based treatment practices

The GCPHN Clinical Council (Oct 2017) provided the following feedback:

- Wait time for the Gold Coast Health multidisciplinary service and private service is very long.
- Pain specialists are an important component of any multidisciplinary team and there are limited specialists.
- People who feel they have run out of options to manage chronic pain often present to the emergency department and, if admitted, as chronic pain does not ever fully resolve, patients are reluctant to be discharged.
- Changes to make codeine prescription only is likely to increase demand for primary care which could lead to better overall management for people.
- Inadvertent overdose for pain relief medication including codeine and paracetamol are quite regular presentations at emergency department.
- Limited system infrastructure to feed back to general practice of people who are potentially doctor shopping and being prescribed high doses of pain relief medication

The GCPHN Community Advisory Council (Oct 2017) provided the following feedback:

- Confirmed persistent pain is seen as a significant issue
- There is a perception general practitioner focus a lot on medication to manage persistent pain, rather than a more holistic approach. This was seen to pose significant risks of addiction to medications for people with persistent pain
- Persistent pain required a multidisciplinary approach, focused on holistic care of the patient including mental health as there is a strong link between depression and pain
- Complex and perhaps inconsistent language across different service providers leads to confusion for consumers (what is chronic, acute, persistent)
- Importance of existing programs like Active and Healthy and other exercise options
- Long wait times for some services and limited benefit once seen



Consultation

Feedback from stakeholders indicated

- A barrier to services is transport for patients, socio economic factors and the ability to manage pain while accessing public transport.
- Concern on waitlist for people with persistent pain to access services with patients reporting that they remain on the list having waited at least six months.
- Changes to medication availability has created concern and inconvenience for some people with persistent pain
- Increase in information request reported by provider for people with sub-acute pain, early intervention services may provide value for money
- Need to include a family-based model i.e family and patient holiday programs
- It has been recorded that if you have pain/ chronic pain you have 4 times the risk of depression and anxiety

Gold Coast Primary Health Network

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“Building one world class health system for the Gold Coast.”

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