Gold Coast Primary Health Network

NEEDS ASSESSMENTS 2020

CHRONIC DISEASE

phn GOLD COAST

An Australian Government Initiative

CHRONIC DISEASE

Local health needs and service issues

• Better systems to support care coordination.

• Referral pathways and care coordination including self-management systems.

• Need for greater focus on prevention, early identification, and self-management.

• High numbers of people with chronic disease in Ormeau-Oxenford and Gold Coast North.

• High rates of smoking and harmful alcohol intake across the region.

• High Chronic obstructive pulmonary disease rate with highest numbers of people in the northern Gold Coast areas.

CHRONIC DISEASE

Key findings

While certain non-modifiable factors such as age, genetics, gender, and ethnicity can contribute to chronic disease, many of the conditions can be prevented or managed by addressing common modifiable risk factors. These include smoking, obesity, excessive alcohol intake, physical inactivity, poor nutrition, and high blood pressure.

Addressing modifiable risk factors and improving the coordination of care for people with a chronic condition may prevent them from being hospitalised. Reducing potentially preventable hospital admissions is a national PHN priority. Effective clinical management of the condition combined with health service coordination, patient health literacy, self-management and variations in healthcare can contribute to better chronic disease outcomes.

The Gold Coast PHN population has a higher relative standard of health when compared to Australian averages. However, rates of cardiovascular disease across the region are higher compared to national levels. Coronary heart disease and cerebrovascular disease were in the top three leading causes of death for the Gold Coast population, both of which are related to modifiable risk factors and effective chronic disease management. The Gold Coast recorded a higher rate of potentially preventable hospitalisations due to chronic disease compared to the national rate. The number of MBS-funded items claimed by GPs for chronic disease management on the Gold Coast has been increasing steadily in recent years and is above the national rate.

The community and stakeholders from the service system recognise that there are issues relating to community capacity and development, service access, health professional capacity and capability development, coordination and integration and system barriers that are required to be addressed through a variety of measures.

Evidence

Health status | People with reported disease

Overall, when compared to national averages, the Gold Coast population has a high relative standard of health. The proportion of adults who self-reported excellent, very good or good health in the Gold Coast PHN region in 2017-18 was 88.4%, compared to the national average of 86.2%.

The proportion of adults who reported having a long-term health condition on the Gold Coast in 2017-18 was less than the national average at 43.1% and 50.1% respectively. This Gold Coast rate has decreased from 45.6% in 2015-16. There was no marked difference in life expectancy at birth for either males or females on the Gold Coast compared to the national average for all people (82.6 vs 82.1), with life expectancy slightly higher for females mirroring national trends.

Table 1: Number and age-standardised rate (ASR) per 100 of people with reported chronic diseases, by type and SA3 region, 2017-18

Region	Diabetes Mellitus		Heart, stroke and vascular disease		Chronic obstructive pulmonary disease		Asthma	
	Number	ASR	Number	ASR	Number	ASR	Number	ASR
National	1,182,600	4.9	1,156,500	4.8	598,800	2.5	2,705,100	11.2
Gold Coast	24,382	3.9	26,796	4.3	20,890	3.4	68,400	11.4
Broadbeach-Burleigh	2,630	3.6	3,120	4.1	2,597	3.6	6,816	10.5
Coolangatta	2,645	4.1	2,909	4.3	2,335	3.8	6,524	11.6
Gold Coast- North	3,707	4.2	3,890	4.3	2,618	3.3	8,201	11.7
Gold Coast Hinterland	757	3.2	877	3.8	743	3.4	2,182	11.1
Mudgeeraba-Tallebudgera	1,101	3.3	1,258	4	1,086	3.3	3,792	10.6
Nerang	2,938	4.3	3,127	4.5	2,532	3.7	8,558	12.1
Ormeau-Oxenford	4,222	4	4,651	4.7	3,827	3.3	15,203	11.5
Robina	1,874	3.7	2,232	4.4	1,668	3.2	5,719	11.4
Southport	2,538	4.1	2,862	4.5	2,259	3.7	7,073	11.7
Surfers Paradise	1,970	3.8	1,870	3.7	1,460	3	4,332	9.8

Source: PHIDU, social health atlases by primary health networks

There are several findings from this data:

• Higher numbers of people living with chronic diseases in the areas of Ormeau-Oxenford, and Gold Coast North.

• The rate of diabetes mellitus was lower than the national rate in all SA3 regions on the Gold Coast.

• The rate of heart, stroke and vascular diseases was lower than the national average in all SA3 regions on the Gold Coast.

• The rate of chronic obstructive pulmonary diseases was higher on Gold Coast compared to the national rate.

• The rate of asthma on the Gold Coast was comparable to the national rate .

Chronic disease and mortality

Among the leading five causes on death on the Gold Coast from 2014-2018, four were chronic diseases.

The leading five causes on death on the Gold Coast during 2014-18 mirrored the national trend:
1. Coronary heart disease (n=2,280 or 12.4% of all deaths)

2. Dementia and Alzheimer disease (n=1,551 or 8.5% of all deaths)

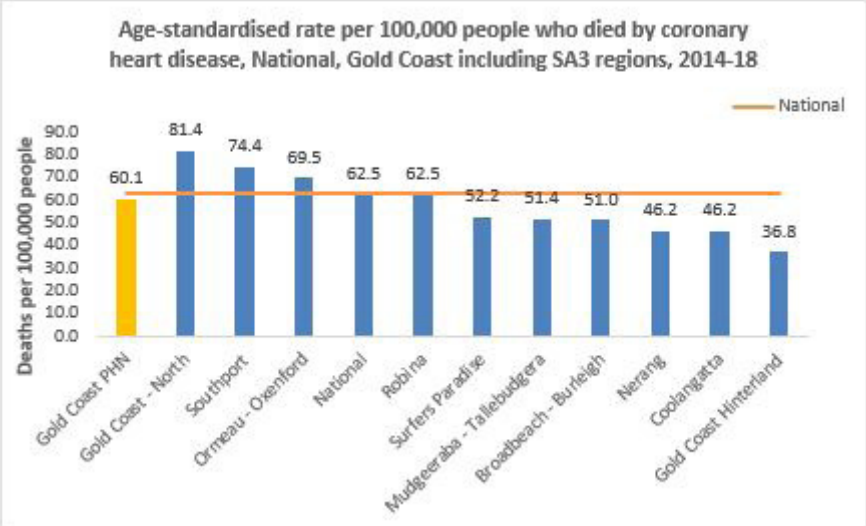
3. Cerebrovascular disease (n=1,221 or 6.6 % of all deaths)

4. Lung cancer (n=1,062 or 5.8% of all deaths)

5. Chronic obstructive pulmonary disease (n=784 or 4.3% of all deaths)

Coronary heart disease was the leading cause of death for all Australians including Gold Coast residents, between 2014 and 2018 with 2,280 deaths on the Gold Coast. Gold Coast PHN age-standardised rate (per 100,000) persons whose cause of death was coronary heart disease was 60.1 which was slightly below the national rate of 62.5. Gold Coast-North (81.4) had the highest rate per 100,000 people while Gold Coast Hinterland had the lowest (36.8).

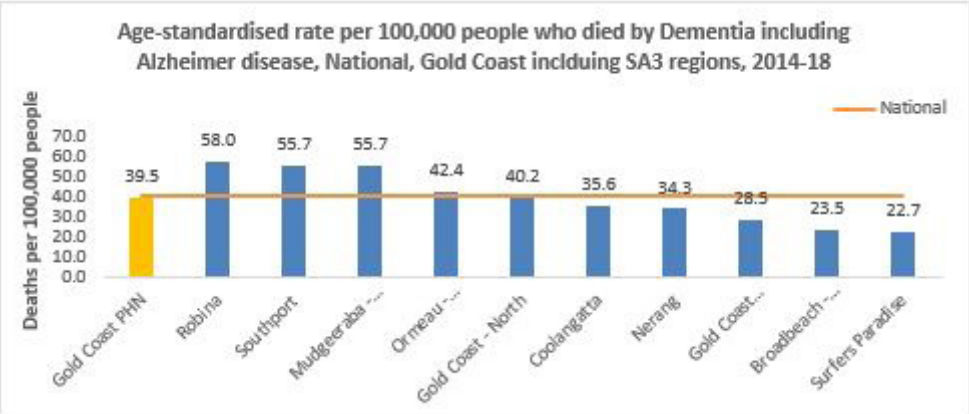
Figure 1: Age-standardised rate per 100,000 people who died by coronary heart disease, National, Gold Coast including SA3 regions, 2014-18



Source. Australian Institute of Health and Welfare 2020. Deaths in Australia. Cat. no. PHE 229. Canberra: AIHW. Viewed 07 August 2020

The second leading cause of death on the Gold Coast was Dementia including Alzheimer disease. Between 2014 and 2018 Dementia including Alzheimer disease accounted for 1,551 deaths on the Gold Coast.

Figure 2: Age-standardised rate per 100,000 people who died by Dementia including Alzheimer disease, National, Gold Coast including SA3 regions, 2014-18



Source. Australian Institute of Health and Welfare 2020. Deaths in Australia. Cat. no. PHE 229. Canberra: AIHW. Viewed 07 August 2020

Lifestyle-related risk factors

It is well established that several lifestyle-related risk factors increase the likelihood of developing chronic diseases. Understanding the levels of these risk factors within the population can provide an indication of future chronic disease burden and the level of need for health interventions focused on prevention, early identification, and management.

Chronic disease risk factors include:

- tobacco smoking
- obesity
- excessive alcohol consumption
- physical inactivity
- poor nutrition
- high blood pressure.

The rate at which several modifiable risk factors for chronic disease are present across each sub-region of the Gold Coast is shown in Table 2

Table 2: Age-standardised rates of chronic disease risk factors per 100 people aged 18 years and over, by SA3 region, 2017-18

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: PHIDU based on National Health Survey 2017-18

This data above shows that rates of obesity, smoking and harmful alcohol intake are comparable or higher for the Gold Coast PHN region than national levels. Rates of high blood pressure and obesity are particularly high in Ormeau-Oxenford. The Gold Cost PHN region fares significantly better than the national average on physical inactivity.

It should be noted that most data on chronic disease risk factors comes from self-report surveys, which have inherent limitations. There is some inconsistency across different population measures. For example, the Queensland Chief Health Officer (CHO) prepares a 'Health of Queenslanders' report every two years based on survey data. The estimate of the smoking rate for the Gold Coast region in the 2018 CHO report was 9.8%, which is quite different to the levels in Table 2, which come from the National Health Survey by the Australian Bureau of Statistics. These discrepancies are likely due to several factors such as different data items (i.e. 'daily' smoker versus 'current' smoker), different samples and possible changes over different survey periods. In addition, it should be noted that the obesity rate on the Australian Institute of Health and Welfare's My Healthy Communities website is also based on the National Health Survey which is 22.8%, lower than the national average of 27.9%. The 2018 Health of Queenslanders Report estimated the obesity rate for the Gold Coast as 16.4%, lower than the state average of 30.2% and the lowest in the state.

More objective data is available through the Gold Coast PHN's PATCAT system, which captures de-identified patient data submitted by registered general practices throughout the region. As of June 2020, 162 (79%) Gold Coast practices submitted data, there was a BMI measurement recorded in PATCAT for 138,768 patients aged 18 and over, approximately 30% of all patients in PATCAT[1]. This data shows that the rate of obesity (i.e. BMI 30 to 39.9) amongst general practices patients in the Gold Coast region aged 18 years and over is approximately 28%, while 5% were morbidly obese (i.e. BMI over 40). The data shows 34% are overweight but not obese (BMI 25 to 29.9). (Please note the accuracy of PATCAT data extracted from General Practices electronic patient records, is dependent upon each individual practices data quality procedures. Some practices electronic patient records do not have the functionality to record all the measures available in PATCAT reports).

1. Disclaimer: While there are limitations to general practice data in PATCAT (PenCS – data aggregation tool), the data is still able to provide valuable insights into population cohorts that access primary care in the Gold Coast PHN region. Adjusted figures are used for total patient population to reduce the duplication of patient data as patients can visit multiple practices.

Service utilisation

Medicare benefits schedule

There are a number of chronic disease management items listed on the Medicare Benefits Schedule (MBS) that enable GPs to plan and coordinate the health care of patients with chronic or terminal medical conditions, including patients with these conditions who require multidisciplinary, team-based care from a GP and at least two other health or care providers. Table 3 provides statistics from Medicare Australia on the number of chronic disease management items claimed by GPs in the Gold Coast region between 2015-16 to 2018-19

This data shows services relating to the preparation, coordination, and review of a GP Management Plan for patients with a chronic or terminal medical condition. Services also include the coordination and review of Team Care Arrangements and contribution to Multidisciplinary Care Plans.

Table 3 identifies the number of MBS services per 100 people claimed for GP chronic disease management plans from 2015-16 to 2018-19. The Gold Coast rate in 2018-19 was 44.1 services per 100 people which was above the national rate of 37.6. The Gold Coast rate has increased from 34.7 services per 100 people in 2015-16 which mirrors national trends.

Gold Coast-North SA3 region has had the highest rate of MBS services for GP chronic disease management plan per 100 people from 2015-16 to 2018-19. The data in table 3 is mapped to the patients Medicare postcode.

Table 3 Number of MBS services per 100 people claimed for GP chronic disease management plan, 2014-15 to 2018-19

	2018-19	2017-18	2016-17	2015-16
Gold Coast	44.1	41.7	38.8	34.7
National	37.6	36.4	33.4	30.3
Broadbeach - Burleigh	41.0	38.0	36.6	33.4
Coolangatta	43.9	43.6	41.7	36.6
Gold Coast - North	60.2	57.3	52.1	47.5
Gold Coast Hinterland	47.0	45.8	41.3	39.9
Mudgeeraba - Tallebudgera	38.1	34.5	34.4	30.1
Nerang	38.7	36.1	34.6	29.3
Ormeau - Oxenford	43.2	41.6	38.9	33.7
Robina	41.3	37.3	34.3	31.1
Southport	45.8	42.5	38.9	36.0
Surfers Paradise	39.8	36.8	31.3	29.0

Source: Australian Institute of Health and Welfare (AIHW) analysis of Department of Health, Medicare Benefits claims data 2014–15, 2015–16, 2016–17, 2017–18 and 2018-19

Potentially Preventable Hospitalisations

Potentially preventable hospitalisations (PPH) are certain hospital admissions that potentially could have been prevented by timely and adequate health care in the community. The term PPH does not mean that a patient admitted for that condition did not need to be hospitalised at the time of admission. Reducing hospitalisations for these conditions might involve vaccination, early diagnosis, and treatment, and/or good ongoing management of risk factors and conditions in community settings.

There are 22 conditions for which hospitalisations is considered potentially preventable, across three broad categories:

- Chronic
- Acute
- Vaccine-preventable

Table 4 below shows that the Gold Coast had a higher rate of potentially preventable hospitalisations (PPHs) for chronic conditions when compared to Australia (1,439 vs. 1,233 per 100,000 people).

Table 4. Rate of potentially preventable hospitalisations for selected chronic conditions per 100,000 people, age-standardised, 2017-18

Condition	GOLD COAST	AUSTRALIA
All chronic conditions	1,439	1,233
Angina	124	110
Asthma	140	134
Bronchiectasis	41	28
Congestive cardiac failure	183	206
Chronic obstructive pulmonary disease	296	267
Diabetes complications	201	187
Hypertension	72	40
Iron deficiency anaemia	363	241
Nutritional deficiencies	4	3
Rheumatic heart disease	15	17

Source: Potentially preventable hospitalisations in Australia by small geographic areas

Data on PPHs at the sub-region level identifies that Southport has the highest overall rate of PPHs for chronic conditions. For types of chronic diseases, Mudgeeraba-Tallebudgera has high rates of PPHs for COPD and Nerang has high rates for diabetes complications.

Many presentations to Gold Coast Health emergency departments for iron deficiency are referred by general practice. There is cause for further investigation to determine if iron deficiency is the reason for referral, or if people are being referred to determine the underlying cause of iron deficiency
(i.e. gut bleeding).

COVID-19 and Chronic Disease

Chronic diseases account for a high proportion of consultations in general practice [1]. There is increasing evidence that care of patients with chronic illness requires a structured multidisciplinary approach across services, involving systems for patient recall, auditing and monitoring, as well as educating and supporting patients in the self-management of their condition [2].

Data from the Medicare Benefits Schedule (MBS), analysed by the Heart Foundation, revealed a 10% decrease in GP visits for the management of chronic disease in March 2020, equating to 96,000 fewer visits compared to the same time last year. Data showed GPs had claimed more than one million telehealth items in March 2020, yet only a small proportion of GP visits for the management of chronic disease were delivered via telehealth An 18% decrease in Aboriginal and Torres Strait Islander health checks compared to the same time last year was also identified in the MBS data while New South Wales Pathology data revealed a 28% decrease in cholesterol test being processed in March compared with February 2020.

The decline in GP visits for the management of chronic disease and cholesterol test being processed adds to a growing narrative about care delays during the COVID-19 pandemic, as well as cancer screening [3].

While it is unlikely that numbers of patients will suddenly require urgent care as a result of delaying or cancelling their GP visits for the management of chronic disease, a number of patients who might have otherwise been detected and treated earlier may ultimately present to the ED. However, the real concern is the longer-term population-based consequences of failure to detect, prevent, and treat chronic conditions.

1. Mathers C, Vos T, Stevenson C. The burden of disease and injury in Australia. Canberra: Australian Institute of Health and Welfare, 1999. (AIHW Catalogue No. PHE 17.)
2. Campbell SM, Hann M, Hacker J, et al. Identifying predictors of high quality care in English general practice: observational study. BMJ 2001; 323: 784-787.
3. Nickson C, Procopio P, Deij S, Velentzis L, COVID-19 scenario modelling for cancer screening programs, the BreastScreen Australia Program, May 2020.

Service System

Services	Number in the GCPHN region	Distribution	Capacity discussion
General practices	207	Clinics are generally well spread across Gold Coast; majority in coastal and central areas	• GP services include preparation of chronic disease management plans, team care arrangements, medication prescribing and management, health checks and plan review
Special interest general practices	24	Peppered throughout Gold Coast	• These practices offer only a limited range of services such as skin cancer checks, cosmetic clinics and other specific health areas
My Heath for Life	State-wide programs	• Currently 6 providers (may expand) and telephone option	• Evidence-based lifestyle modification program provided by trained facilitators including dietitians and exercise physiologists, who have a keen interest in preventive health.
COACH and Get Healthy services, Queensland Health	State-wide programs	• Free phone services	• Both programs focus on reducing avoidable admissions through prevention and self-management • Get Healthy service provides advice and coaching on leading a healthy lifestyle by qualified health coaches • COACH Program involves qualified health coaches discussing treatment with patients with a diagnosed chronic condition (e.g. medication compliance, risk factor management, follow-up appointments with physicians) • Reported referrals into COACH are very low on the Gold Coast. However, limited capacity to accept new referrals
Quitline	Region-wide	Phone service	• Quitline (13 78 48) is a confidential, free service for people who want to quit smoking • Quitline counselors provide advice on settinggoals to quit, and quitting methods such as nicotine replacement therapies
Diabetes resource centre, Gold Coast Health	4	Palm Beach, Southport, Robina and Helensvale	• Focus on promoting self-management skills • Provides care, education and support for people with diabetes and their carers as well as community education (e.g. schools, community groups) • Multidisciplinary service for inpatients and outpatients • No information online regarding eligibility or access

Community programs, City of Gold Coast	Region-wide	Varied locations (parks, sports centres, community centres)	• Range of free and low-cost physical activity and healthy eating programs • There is low referral to these programs from health care providers.
National Prescribing Service	National	Phone or online	• Free Clinical e-Audits to help GPs review prescribing for patients with certain conditions compared with best practice guidelines • NPS Medicinewise have produced a free application to assist consumers with managing their medications (MedicineList+) • NPS also operate a help line to answer consumer questions about medicines
VIP Diabetes	1	Runaway Bay	• Targeted allied health and coordination for people with diabetes • Referral required from GP, self-referrals will be directed to involve GP • Home medicine review is free for people with a Medicare card and who are referred by their GP for a review • GP case conference Medicare funded • Insulin support programs are fully funded
Diabetes Queensland	2	Helensvale, Robina	• Self-referral • Targets newly diagnosed—new registration on national diabetes patient register will trigger an invite • Free to those with a Medicare card
Other private and NGO services	Various	Various	• There are a number of services offering support for people with chronic disease. • Service types include medication management and review, care coordination, care planning, self-management, allied health, nursing, respite, peer support, social and community activities. • Access is varied with many fee-for-service, some claimable through Medicare or other government avenues (e.g. DVA, aged care, disability services) • Limited information available on the demand for and outcomes of these services
Community Health Services Gold Coast Health	3	Robina Health Precinct Southport Health Precinct Helensvale Community Centre	

Consultation

This information has been collated from various sources including: 2017 GCPHN Primary Care Opinion Survey, GCPHN Primary Health Care Improvement Committee, direct liaison with practice staff, GCPHN Community Advisory Council.

Community capacity and development

Many factors complicate one's capacity to self-manage their chronic condition including cultural barriers, homelessness, alcohol and drug use, obesity, socio-economic status, health literacy and knowledge of available support.

Stakeholders suggest that improvements in community capacity could enhance chronic disease early identification, self-management and medication management, specifically:

• More support from health professionals is required for people to manage their own health, navigate the current system and empower them to share ownership of personal health outcomes.

• Patients want support from GPs and health teams to make management decisions and goals that are realistic for their individual circumstances, moving from a medical model of care planning to a patient focussed model.

• Gold Coast Health held a community jury in June 2017 specifically focussed on the topic of obesity. The jury determined that obesity should be a priority for all key agencies, citing stigma as a key issue. In addition, collaboration was across agencies was recommended.

• Early education is required to ensure that patients fully understand the long-term nature of chronic disease and are not waiting to access services until their condition is acute.

• Clearly communicating the benefit of prevention and engaging in your health care. Many GPs use health assessments (particularly 75plus) as opportunity to raise issues such as advanced care planning, some patients may be reluctant to have health assessments because they don't see the immediate value. For people who work, they may be unwilling to prioritise a health assessment, when they don't feel unwell or have concerns, over work and other family commitments.

Service Access

Stakeholders suggest that improved service access is required to ensure effective management of chronic disease, including:

• Enhanced access to chronic disease screening and early identification via age-appropriate health checks, particularly health checks for those at risk of developing cardiovascular disease and type 2 diabetes for those aged 40-49 years old. A barrier to this has been participation because individuals may not prioritise proactive health checks.

• Simplified criteria and referral pathways to enable access to chronic disease self-management courses and programs.

• Engagement with pharmacies to enhance the role they play in supporting chronic disease management.

• Eliminating cost barriers to enable patients to access care in general practice or the community, for example:
    - o Some wound care clients are not able to afford treatment in the community setting and are returning back to the hospital for further follow up.
    - o Limited fully subsidised chronic pain programs exist to manage pain in the community setting and prevent hospitalisations.
    - o The cost of the wound management products (consumables such as particular bandages and dressings) that are used to treat the patient is a barrier to delivery of these services by general practice.

Health professional capacity and capability development

Stakeholders consistently report the need for capacity and capability development amongst health professionals in the Gold Coast region relating to multidisciplinary team care approaches, collaborative planning and case conferencing.

• Chronic disease management including holistic and lifestyle approaches (as opposed to prescribing medication)

• Awareness-raising about the kinds of services already available to support people with chronic conditions

• Chronic pain and pain management (e.g. integrated care systems in primary care, referral pathways, back pain and role specific evidence-based treatment practices).

• Each professional needs to own their own gaps in service delivery, by identifying where there are gaps in their service delivery based on evidence and guidelines available and addressing the issues.

• There have been many improvements in recent years in pharmacological treatments for iron deficiency administered through general practice, education and upskilling for general practice could be required.

• The cost for the consumables for iron deficiency is a problem for general practice which can limit delivery of these services

• In the 2017 GCPHN Primary Care Opinion Survey the following were identified most frequently for future education:
    - o General practitioners – Wound management, emergency medicine women's health
    - o Practice nurses- Wound management, diabetes, chronic disease and COPD

Coordination and integration

Stakeholders report that:

• Poor mental health means people are more likely to be smoking and abusing drug and alcohol so include as part of screening

• Link into existing programs like Active and Healthy

• Care coordination does not always effectively engage the person and their family. A full briefing will help to ensure information understood and actions required known.

• Service access and coordination is being hindered by suboptimal information sharing between hospital and primary care including lack of timeliness of discharge summaries and outpatients.

• Fragmentation between services at primary and tertiary levels of the health system creates difficulties for communication and information sharing between providers and also with patients. This is particularly evident in discharge planning and procedures.

• Further developments and enhancements for digital health, including data integration may improve care coordination.

• Wound care services lack clearly defined pathways, formalised linkages and information sharing between different providers.

• Chronic disease risk stratification processes could be better implemented to:
    - o target and identify patients with increasing risk of hospitalisation, particularly for diabetes complications, pyelonephritis and COPD
    - o ensure engagement and effective treatment with patients at a stage before their condition becomes acute.
    - o Pulmonary rehabilitation is an effective evidence-based treatment for COPD, and it is currently quite readily accessible.

System barriers

Common barriers reported by stakeholders at a system level include:

• GPs are currently not remunerated adequately for non-contact time spent planning and supporting care for patients with chronic conditions.

• Difficult to identify at risk patients through current software systems making practice care difficult.

• Case conferencing MBS items are not well utilised

• Similarly, the current Practice Nurse Incentive Payment does not sufficiently support Practice Nurses to invest time in care-coordination for patients with chronic disease.

• GP management plans have limitations, such as:

- o plans requested for access to team care arrangement, there is limited emphasis on review to ensure goals and actions are addressed by patients
- o plans not always individualised or patient-centred meaning that goals and actions set are not achievable or meaningful to patients.

• GPs are less engaged to lead or participate in quality improvement activities than practice nurses or practice managers. For example, feedback from general practice is that preparing for health care homes is challenging as non-clinical contact is not funded (for staff doing the work).

Gold Coast Primary Health Network
Primary Care Gold Coast (ABN 47152953092), trading as the Gold Coast Primary Health Network.

Level 1, 14 Edgewater Court, Robina 4226 | PO Box 3576 Robina Town Centre QLD 4230
P: 07 5635 2455 | F: 07 5635 2466 | E: info@gcphn.com.au | www.gcphn.org.au

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