Tasmanian Council of Social Service Inc.

2020/2021 TasCOSS Budget Priorities Statement (Preventing hospitalisations in Tasmania)

Supplementary Figures and Tables

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Index

Supplementary Figures and Tables

Explanation of Terms

Chronic Disease Care Plans

The Chronic Disease Management (formerly Enhanced Primary Care or EPC) — GP services on the Medicare Benefits Schedule (MBS) 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.

A chronic medical condition is one that has been (or is likely to be) present for six months or longer, for example, asthma, cancer, cardiovascular disease, diabetes, musculoskeletal conditions and stroke. There is no list of eligible conditions; however, the CDM items are designed for patients who require a structured approach, including those requiring ongoing care from a multidisciplinary team.

Whether a patient is eligible for CDM services is a clinical judgement for the GP, taking into account the patient's medical condition and care needs, as well as the general guidance set out in the MBS.

Patients who have a chronic medical condition and complex care needs and are being managed by their GP under a GP Management Plan (Medicare item 721) and Team Care Arrangements (Medicare item 723) are eligible for Medicare rebates for certain allied health services on referral from their GP.[1]

Measuring Disadvantage in Communities

A standard way to indicate the socioeconomic status of an area is by using its score against a standard index — the Census SEIFA[2] Index of Relative Advantage and Disadvantage (IRSAD).[3] This index looks at indicators such as incomes, levels of education, employment status and health: the higher the IRSAD score, the more advantaged an area is. We have looked at the SEIFA IRSAD scores for statistical areas called SA2s, which roughly correspond to many suburbs. The ABS broadly defines relative socioeconomic advantage and disadvantage in terms of people's access to material and social resources, and their ability to participate in society.

Consumer Price Index

The Consumer Price Index (CPI) measures changes in the price level of a weighted average market basket of consumer goods and services purchased by households. It includes retail goods and services and other items such as housing, government charges and consumer credit charges. It is the most commonly used statistic in the calculation of inflation.[4]

[1] https://www1.health.gov.au/internet/main/publishing.nsf/Content/mbsprimarycare-chronicdiseasemanagement.
[2] Socioeconomic Index for Areas.
[3] https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/2033.0.55.001Main+Features12016?OpenDocument.
[4] https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/MSB/feature/CPI.

The total basket is divided into 11 major groups, each representing a specific set of commodities:

- Food and non-alcoholic beverages.
- Alcohol and tobacco.
- Clothing and footwear.
- Housing.
- Furnishings, household equipment and services.
- Health.
- Transport.
- Communication.
- Recreation and culture.
- Education.
- Insurance and financial services.[5]

Potentially Preventable Hospitalisations

Potentially preventable hospitalisations (PPH) are:

- Vaccine-preventable — those that can be prevented through vaccination e.g. influenza, measles, diphtheria, hepatitis B.
- Chronic — those that can be managed through lifestyle change but also through non-hospital care to prevent deterioration and hospitalisation e.g. congestive cardiac failure, diabetes complications, angina.
- Acute — those that may not be preventable but might not result in hospitalisation if timely and adequate non-hospital care was received e.g. urinary tract infections, cellulitis, dental conditions and ear, nose and throat conditions.

[5] https://www.abs.gov.au/Ausstats/abs@.nsf/0/CFFA42B90CA68CD2CA25765C0019F281?OpenDocument.

Models of Connected Care

Sustainability and Transformation Plan, National Health Service, Kent and Medway Councils, UK[6]

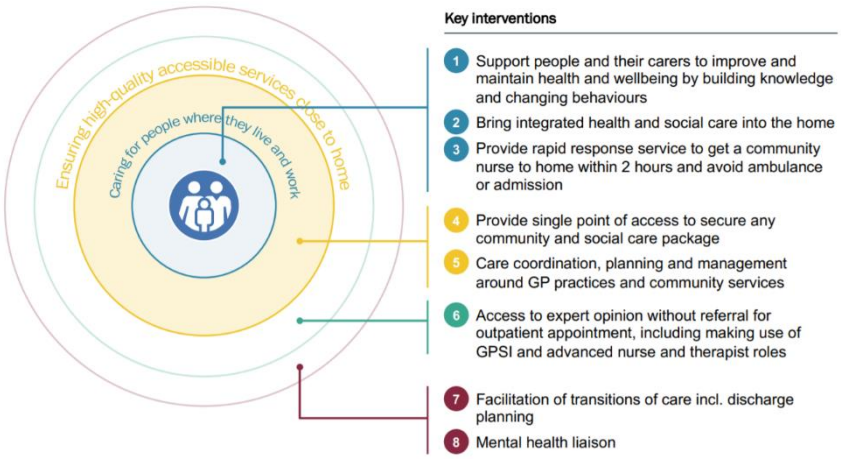
The Sustainability and Transformation Plan (STP) aims to improve outcomes for the community as well as reduce demand on clinical services. The STP brings together primary, community, mental health and social care, and redirects some elements of traditional acute hospital care into the community.[7] The aim is to provide joined-up care that sees the individual holistically, not in health or social care silos.

To achieve this, the STP enhances primary care by wrapping community services around a grouping of GP practices. The approach is built on clinical evidence that many patients who are currently cared for in an acute hospital are better cared for in other settings. It is also built on achieving population-level outcomes through the prevention of ill health and the promotion of good health.[8]

The transformation of care for patients will centre on four areas:

1. Prevention, particularly of cardio-vascular disease and diabetes.
2. Care closer to home for integrated primary, acute, community, mental health and social care.
3. Hospital transformation to improve capacity and quality of specialised, acute, community and mental health care.
4. Integrating physical and mental health services and supporting people to live fuller lives.

Key Interventions[9]



[6] http://kentandmedway.nhs.uk/wp-content/uploads/2017/03/20161021-Kent-and-Medway-STP-draft-as-submitted-ii.pdf.
[7] http://kentandmedway.nhs.uk/wp-content/uploads/2017/03/20161021-Kent-and-Medway-STP-draft-as-submitted-ii.pdf, p.1.
[8] http://kentandmedway.nhs.uk/wp-content/uploads/2017/03/20161021-Kent-and-Medway-STP-draft-as-submitted-ii.pdf, p.1.
[9] http://kentandmedway.nhs.uk/wp-content/uploads/2017/03/20161021-Kent-and-Medway-STP-draft-as-submitted-ii.pdf, p.15.

Bundled Care, Canada[10]

Bundled payments are an alternative method for funding healthcare services, where a single funding amount is used to fund the total amount of care related to a condition or medical event for a fixed time period. A bundle of care encompasses all aspects of a patient's care across multiple providers and settings, over a fixed period of time, including pre-acute, acute, and post-acute care spanning healthcare settings and providers.

For example, if a patient has a joint replacement, the bundle of care could be all care provided during an episode, from entering the hospital to 90 days after discharge. If the cost to providers of treating a patient is more than the set funding amount for the bundle, providers must cover the difference; if the cost of treating a patient is less than the set amount, providers keep the surplus. This arrangement gives providers the incentive to deliver efficient, effective, and high-quality care to avoid costly readmissions and re-hospitalisations.[11]

The goal of bundled payments are to increase the coordination of care across the continuum of providers and settings, reducing fragmented and siloed care, which lowers the quality of care delivered to patients. Bundled payments promote a more integrated model of healthcare funding, and are a promising strategy to improve coordination between providers and settings of care by aligning financial incentives, resulting in improved quality of care and access to services.

Institute for Urban Indigenous Health Multidisciplinary Clinics, Queensland[12]

The Institute for Urban Indigenous Health has developed a model of service delivery, known as the IUIH Model of Care, which aims to deliver accessible, efficient, effective and appropriate comprehensive primary health care. The IUIH model takes a systemic approach to community-controlled health. The model of care is based on six principles:

- Location: anchoring health services where they are needed and easily accessed by indigenous communities.
- Integration: providing an integrated suite of medical and allied health services in a culturally appropriate way.
- Prevention: complementing health services with preventative community education and behaviour change campaigns.
- Collaboration: collaborating with mainstream health services to ensure they meet their care responsibilities for Indigenous people.
- Professional education: developing a skilled and responsive Indigenous health workforce.
- Self-sufficiency: achieving greater financial self-sufficiency and less dependence on government grants, to ensure sustainability and the capacity to grow to meet future health needs.[13]

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[10] http://healthcarefunding.ca/key-issues/bundle-test-2/.
[11] Bundled payments are not a funding method that is currently suitable for all conditions. Bundled payments are best suited for conditions or procedures which have clear clinical pathways. Bundled payments are less suitable for complex cases that have a variety of possible clinical pathways and costs as well as procedures with low volumes, or few providers of care. As with many funding policies, accurate, timely, and linkable data must be available across all healthcare settings to properly establish a proper bundled payment amount.
[12] http://www.iuih.org.au/Services/Clinical-Service-Delivery.
[13] http://www.iuih.org.au/Portals/0/Skins/iuih-resp/pdf/corporate-profile.pdf.

Each of the clinics across South East Queensland provide a comprehensive range of multidisciplinary primary health care services. These services are delivered by teams of doctors, nurses, Aboriginal and Torres Strait Islander health workers, community liaison officers, receptionists, and a wide range of specialised health professionals.

Services include:

- Preventive health checks.
- Chronic disease screening, management, and ongoing care.
- Care coordination for clients with complex care needs.
- Mums and bubs services including antenatal care for pregnant women and their families, post-natal care in the clinic or home, and early childhood screening and development services.
- Social health services including community-based mental health, alcohol and other drug services.
- Visiting specialist and allied health services.
- Tele-health services.
- Dental and oral health services.
- Aged care services.

All clinics offer transport for clients needing assistance.

Tasmania's Most Disadvantaged Communities

In 2016, Tasmania's most advantaged SA2 was Taroona/Bonnet Hill, with an IRSAD score of 1089.[14] The state's most disadvantaged SA2 was Bridgewater/Gagebrook with an IRSAD score of 722. By way of contrast, Australia's highest scoring SA2 (Pymble, NSW) has an IRSAD score of 1178; the lowest (Yuendumu, NT) has a score of 604.

In 2016, Tasmania's 24 most disadvantaged SA2s — the SA2s with the 20 lowest SEIFA IRSAD scores (including ties) — were:

Figure 1: *Tasmania's most disadvantaged communities*

1) Bridgewater/Gagebrook (IRSAD score: 722)
2) Ravenswood (731)
3) East Devonport (818)
4) Risdon Vale (827)
5) Rokeby (828)
6) Acton/Upper Burnie (833)
7) Newnham/Mayfield (840)
8) Mowbray (843)
9) Glenorchy/Mornington/Warrane (845)
10) New Norfolk (849)
11) George Town (850)
12) West Coast (859)
13) Invermay/Burnie-Wivenhoe (868)
14) Devonport (876)
15) Derwent Park-Lutana/Beauty Point-Beaconsfield (877)
16) West Ulverstone (879)
17) Claremont (880)
18) Waverley-St Leonards (881)
19) Central Highlands/Berriedale-Chigwell (884)
20) Smithton (887)

In 2016, these areas made up 25.15% of the state's population.[15]

[14] The Taroona/Bonnet Hill SA2 corresponds roughly to the Taroona/Kingston Beach Population Health Area to which PHIDU data refers. PHIDU, Social Health Atlas of Australia by Population Health Area, 2019.
[15] ABS Census 2016.

Health Costs and Incomes

Table 1: *Changes to selected costs and benefits (2009-19)*

	2009	2019	% change
CPI (Hobart)[16]	94.1	114.7	21.9%
Health costs[17]	92.1	144.1	56.5%
Medical and hospital services costs[18]	89.9	164.8	83.3%
Health insurance[19]	100.0	166.0	66.0%
Aged/disability pensions[20]	$307.90 pw	$425.50 pw	38.1%
Newstart/Youth Allowance[21]	$228 pw	$279.50 pw	22.6%

Table 2: *Changes to median weekly household incomes: disparities between Tasmania's four most/least disadvantaged communities (2006-16)*[22]

Median weekly household income	2006	2016	% change
Most Disadvantaged Community A (South)	$579	$783	35%
Most Disadvantaged Community B (North)	$580	$733	26%
Most Disadvantaged Community C (North-West)	$580	$804	39%
Community D (Most Advantaged)	$1,142	$1,678	47%
Tasmania	$801	$1,100	37%

[16] ABS Cat No 6401.0, Consumer Price Index, September 2019.
[17] ABS Cat No 6401.0, Consumer Price Index, September 2019.
[18] ABS Cat No 6401.0, Consumer Price Index, September 2019.
[19] Department of Health, Average Premium Increases, https://www1.health.gov.au/internet/main/publishing.nsf/Content/privatehealth-average-premium-round.
[20] Australian Government, Social Security Guide, https://guides.dss.gov.au/guide-social-security-law.
[21] Australian Government, Social Security Guide, https://guides.dss.gov.au/guide-social-security-law.
[22] ABS Cat No 2916.0, Census of Population and Housing — QuickStats, 2006, 2011, 2016.

The Health of Tasmania's Communities

Table 3: *Health outcomes in Tasmania's four most/least disadvantaged communities*[23]

	Most Disadvantaged Community A (South)	Most Disadvantaged Community B (North)	Most Disadvantaged Community C (North-West)	Community D (Most Advantaged)	Tasmania
Fair or poor self-assessed health (2014-15)	29.5	26.5	22.8	12.5	18
People with profound or severe disability living in the community (2016)	9.2%	6.9%	8.1%	3.9%	5.9%
Prevalence of selected chronic diseases per 100 (2014-15)					
• Type 2 diabetes	6.6	5.4	5.1	3.1	4.2
• Circulatory system diseases	19.7	27.8	23.9	18.5	22.6
• Respiratory system diseases	34.4	34.1	35.2	35	34.1
• Musculo-skeletal diseases	36	40.8	38.8	33	35
• Mental and behavioural problems	22.5	24.4	23.6	20.6	20.6
Prevalence of selected acute diseases per 100,000 (2006-10)					
Colorectal cancer	97.3	91.9	74.3	87.6	81
• *Males*	113.5	103.3	98.9	87.1	87.6
• *Females*	--	81.6	--	88.1	74.4
Lung cancer	109.4	69.6	63.2	44.9	52
• *Males*	159.4	76.6	90.7	52.3	61.9
• *Females*	--	63.3	--	37.7	42.2

[23] PHIDU 2019.

	Most Disadvantaged Community A (South)	Most Disadvantaged Community B (North)	Most Disadvantaged Community C (North-West)	Community D (Most Advantaged)	Tasmania
Premature mortality per 100,000 (2011-15)	424.4	383.7	367.9	188.8	285
Median age of death (2010-14)	66	78.5	79	84	80
Avoidable deaths per 100,000 (2011-15)					
• Cancer	54.6	40.2	53	29.3	32.9
• Diabetes	16.5	12.4	--	6.3	7.9
• Circulatory system	78.6	57.4	79.2	20.3	42.7
• Respiratory system	40.2	21.7	16.1	--	14.9
• External (including suicide)	--	21.2	--	7.7	16.1

Table 4: *Health services in Tasmania's three most disadvantaged communities*

	Community A (South)	Community B (North)	Community C (North-West)
GP?	Yes	Yes	Yes
GP taking new patients?	No	No	Yes
Bulk-billing GP?	Yes, for existing patients, however not taking new patients. Medicare does not permit bulk-billing for all types of consults or procedures.	Yes, for existing patients, however not taking new patients. Medicare does not permit bulk-billing for all types of consults or procedures.	Yes
Out of pocket cost for standard consultation for adult concession card holder	$40	Unwilling to say	Bulk-billed
Bulk-billing GPs taking new patients nearby on bus routes?	No	Yes	No

Emergency Department Presentations

Table 5: *Emergency Department presentations: Tasmania's 24 most disadvantaged SA2s*[24]

2018-19	24 most disadvantaged SA2s	Tasmania	Proportion of Tasmanian total represented by 24 most disadvantaged SA2s	Proportion of Tasmanian population represented by 24 most disadvantaged SA2s (2016)
Total ED episodes of care	33,455	118,991	28%	25%
Total semi-urgent & non-urgent ED episodes of care	17,939	63,339	28%	25%
Proportion of ED episodes of care represented by semi-urgent and non-urgent cases	54%	53%	--	--
Total ED patients	21,696	79,407	27%	25%
Total semi-urgent & non-urgent ED episodes of care	13,505	48,273	28%	25%
Proportion of ED patients represented by semi-urgent and non-urgent cases	62.2%	61%	--	--

[24] Representing Tasmania's lowest 24 SEIFA IRSAD scores. PHT, 21 November 2019.

Table 6: *Emergency room presentations: disparities between Tasmania's four most/least disadvantaged communities*

	Most Disadvantaged Community A (South)	Most Disadvantaged Community B (North)	Most Disadvantaged Community C (North-West)	Community D (Most Advantaged)
Population (2018)	7,353	3,585	4,802	3,709
ED episodes of care (2018-19)	2,254	1,518	2,698	350
ED patients (2018-19)	1,478	924	1,449	274
Crude ED patient rate per 100	20.1	25.7	30	7.4
ED episodes of care (2018-19)	2,254	1,518	2,698	350
• Semi-urgent	895	694	1,322	142
• As a proportion of ED episodes of care	40%	45.7%	50%	40.6%
• Non-urgent	270	132	208	33
• As a proportion of ED episodes of care	12%	9%	8%	23%
Semi-urgent and non-urgent combined as a proportion of ED episodes of care	52%	54.7%	58%	63.6%
ED patients (2018-19)	1,478	924	1,449	274
• Semi-urgent	724	533	910	125
• As a proportion of ED patients	50%	58%	63%	46%
• Non-urgent	241	123	160	33
• As a proportion of ED patients	16%	13%	11%	12%
Semi-urgent and non-urgent combined as a proportion of ED patients	66%	71%	74%	58%

Potentially Preventable Hospitalisations

Table 7: *Potentially preventable hospitalisations: Tasmania's 24 most disadvantaged SA2s*[25]

2018-19	Potentially preventable episodes of care Tasmania	Proportion of potentially preventable episodes of care represented by 24 most disadvantaged SA2s	Potentially preventable bed days Tasmania	Proportion of potentially preventable bed days represented by 24 most disadvantaged SA2s
TOTAL	9,808	34.1%	26,901	39.7%

Table 8: *Potentially preventable hospitalisations: disparities between Tasmania's four most/least disadvantaged communities*[26]

	Most Disadvantaged Community A (South)	Most Disadvantaged Community B (North)	Most Disadvantaged Community C (North-West)	Community D (Most Advantaged)	Tasmania
Hospitalisations for potentially preventable conditions, per 100,000 (2016-17)	4,286	3,116	3,680	1,636	2,469
• For potentially preventable acute conditions	1,462	1,075	1,829	1,062	1,147
• For potentially preventable chronic conditions	3,452	1,994	1,786	558	1,204
• For potentially vaccine-preventable conditions	131.3	112.6	--	50.7	117.6

[25] PHT, 20 November 2019.
[26] PHIDU, 2019.

Table 9: *Potentially preventable hospitalisations by six most frequent conditions: Tasmania's most disadvantaged SA2s*[27]

	Proportion of all potentially preventable hospitalisations	Proportion of potentially preventable episodes of care represented by most disadvantaged SA2s	Proportion of potentially preventable bed days represented by most disadvantaged SA2s	Proportion of potentially preventable hospital patients represented by most disadvantaged SA2s
Chronic Obstructive Pulmonary Disease (COPD)	16%	37.7%	36.5%	40.2%
UTIs including pyelo-nephritis	8.8%	40.3%	30.7%	36%
Cellulitis	9.1%	37%	36.2%	35.7%
Diabetes complications	10%	31.2%	30.1%	40%
Congestive cardiac failure	8.7%	35.8%	33.6%	36.2%
Asthma	9.1%	26.8%	34.3%	33.8%
TOTAL	62%			

[27] PHT, 20 November 2019.

Table 10: *Rate of claims for Medicare Item Number 721 (Preparation of a GP Management Plan)*[28]

Medicare item 721 claims, per 100,000 (2018-19)[29]	Tasmania	New South Wales	National average	Tasmania as proportion of New South Wales	Tasmania as proportion of national average
0-4	924.5	3,186.5	2,551	29%	36%
5-14	1,645	3,934.5	3,273	42%	50%
15-24	2,468.5	4,278	3,740.5	58%	66%
25-34	3,596.5	6,001	5,207.5	60%	69%
35-44	5,098	8,462.5	7,614	60%	67%
45-54	8,280.5	12,415	11,189,5	67%	74%
55-64	13,249.5	18,885.5	16,895	70%	78%
65-74	22,710	28,387	25,837	80%	89%
75-84	36,377.5	37,202	35,455.5	98%	100%
85+	33,685.5	32,357	31,160.5	100%	101%
TOTAL	10,061	12,392	11,082	81%	91%

[28] TasCOSS calculations; figures are approximate. Contact TasCOSS for methodology.

[29] http://medicarestatistics.humanservices.gov.au/statistics/do.jsp?_PROGRAM=/statistics/mbs_item_age_gender_report&VAR=services&STAT=percapita&PTYPE=finyear&START_DT=201807&END_DT=201906&RPT_FMT=by+time+period+and+state&GROUP=721.

Risk Factors

Table 11: *Risk factors: disparities between Tasmania's four most/least disadvantaged communities*[30]

	Most Disadvantaged Community A (South)	Most Disadvantaged Community B (North)	Most Disadvantaged Community C (North-West)	Community D (Most Advantaged)	Tasmania
At least one of four risk factors [current smoker, high risk alcohol, obese, inactive] (2014-15)	88.2%	84.5%	84%	71%	79%
Smoking (2014-15)	39%	25%	26%	11.5%	19.4
• *Males*	42.1%	28.4%	29.4%	13.8%	22.6%
• *Females*	38.3%	22.9%	23.6%	9.8%	17.1%
Smoking during pregnancy (2012-14)	40%	27.8%	33.8%	5.2%	14.8%
Obesity (2014-15)	36.3%	36.4%	35.1%	22.6%	31.3%
• *Males*	39.8%	36.6%	38.3%	24.8%	34.3%
• *Females*	33.1%	33.4%	31.9%	20.4%	28.4%
Adequate fruit (2014-15)	37%	43.6%	40.5%	50.7%	46.5%
Inadequate exercise (2014-15)	78.4%	75.6%	78.2%	65.5%	68.4%
Risky alcohol (2014-15)	18.9%	14.2%	18.6%	20.1%	17.5%
Participation in National Bowel Cancer Screening Program, % of people invited (2014-15)	31.3%	38.7%	45.3%	53.4%	46.4%
Private health insurance cover rates (2014-15)	17.1%	31.6%	25.1%	69%	44.5%

[30] PHIDU 2019, 2014-15 data. Originals presented as age-standardised rates per 100.