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Trends in the use of Opioid Agonist Treatment in Tasmania, 2013-2022





Trends in the use of Opioid Agonist Treatment in Tasmania, 2013-2022

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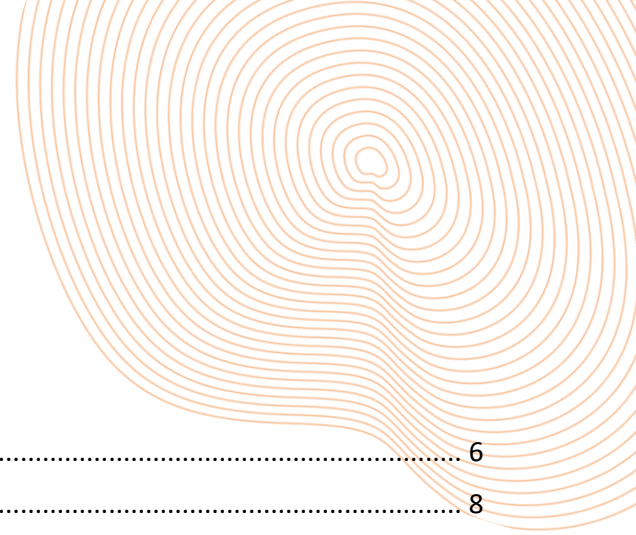


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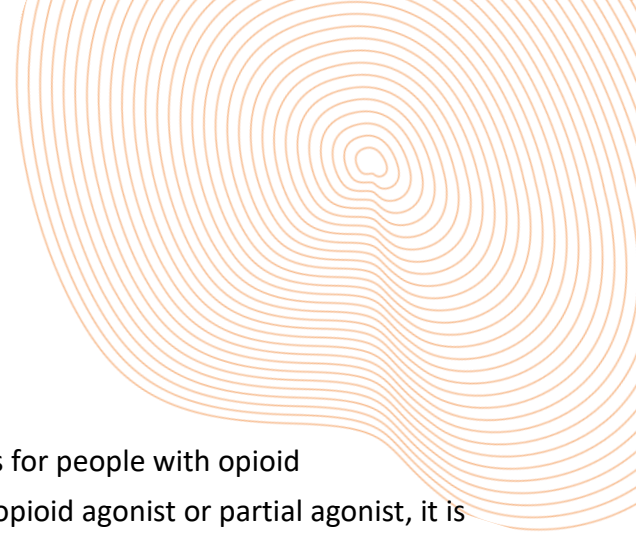


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1. Executive Summary

Opioid agonist treatment (OAT) is one of the main treatments for people with opioid dependence¹. Involving long-term pharmacotherapy with an opioid agonist or partial agonist, it is well established that OAT reduces non-medical use of opioids, injecting and injecting-related injuries, criminal activity, and overall mortality, particularly overdose mortality²⁻⁵. The World Health Organization lists both methadone and buprenorphine^{6,7} as essential medicines for opioid dependence⁸. In Australia, there are currently four OAT formulations subsidised through the Pharmaceutical Benefit Scheme (PBS), including methadone liquid (PBS listed in 1974), sublingual (SL) buprenorphine (2001), SL buprenorphine-naloxone (2005) and long-acting injectable (LAI) buprenorphine (2019)⁹.

LAI formulations of buprenorphine represent a relatively new addition to OAT in Australia¹⁰, having been listed on the PBS since September 2019. LAI buprenorphine is administered via weekly¹¹ or monthly^{12,13} subcutaneous injections, providing an alternate OAT option that reduces the frequency of dosing visits compared to oral and sublingual OAT alternatives. It's unclear what impact the introduction of LAI buprenorphine and policy changes in response to the COVID-19 pandemic had on patterns of OAT medicine use.

This technical report describes 10-year trends in the sales of OAT medicines in Tasmania (TAS). Aggregate monthly sales were used to estimate the number of OAT clients per month, based on average doses.

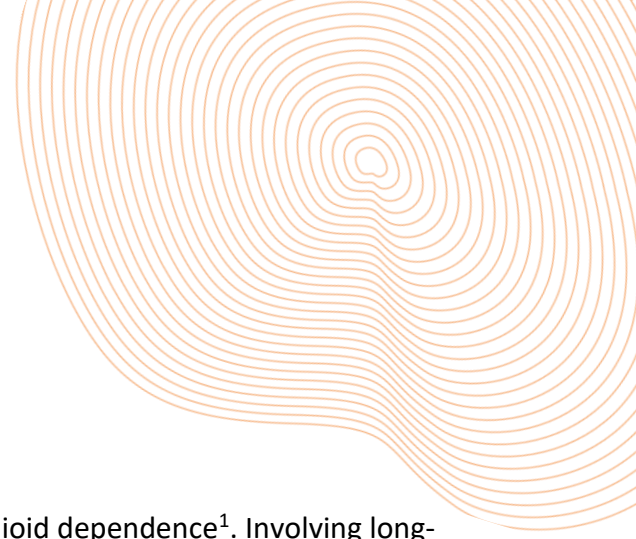
Key findings

- The estimated number of OAT clients in TAS fluctuated between 567 and 754 clients across the decade.
- Per capita, TAS saw an increase in rates of use between January 2013 and December 2016, from 12 to 15 OAT clients per 10,000, before declining to 12 per 10,000 by the end of the study period.
- Patterns of OAT medicines in TAS also changed over this time. There was:
 - a decline (-47%) in clients receiving methadone (2013-2022),
 - an 66% increase in clients receiving SL buprenorphine (2013-2022), and

- significant uptake of LAI buprenorphine following its introduction (14 clients in April 2020 to 159 clients in Dec 2022).
- Consequently, the distribution of OAT medicines has shifted in TAS:
 - In January 2013, 69.7% of OAT clients received methadone with the remainder receiving SL buprenorphine (30.4%).
 - In December 2022, 36.1% of clients received methadone and 63.9% buprenorphine (41.6% SL buprenorphine and 22.3% LAI buprenorphine).
- Across the decade in TAS, trends in the distribution of OAT clients by remoteness and socioeconomic status remained relatively consistent:
 - Majority (65-70%) of OAT was accessed in inner regional areas, followed by outer regional (24-31%), and remote/very remote (4-6%) areas.
 - Around 31-41% of clients received OAT in the most disadvantaged areas and 4-8% in the most advantaged areas.
- The majority (88-96%) of OAT in TAS was accessed through community pharmacies, however access from non-community pharmacy settings increased since 2020. For example, the proportion of clients accessing OAT from the hospital setting (including outpatient drug and alcohol service) increased from <5% in 2013 to 10% in 2022.
- The majority of clients in community pharmacy received methadone until 2020, when buprenorphine became the most common OAT used. By the end of the study most (89.2%) clients accessing OAT from hospital received LAI buprenorphine.

Conclusions

Patterns of OAT use have changed in TAS over the past decade, with buprenorphine now replacing methadone as the most common OAT used. There has been an increase in access to OAT in non-community pharmacy settings since 2020, coinciding with uptake of LAI buprenorphine. It is now important to determine the clinical outcomes of these changes, in terms of benefits, harms and cost effectiveness.



2. Background & Methods

2.1. Background

Opioid agonist treatment (OAT) is a first-line treatment for opioid dependence¹. Involving long-term pharmacotherapy with an opioid agonist or partial agonist, it is well established that OAT reduces non-medical use of opioids and related harms³. For example, there is strong evidence to show that OAT is effective at reducing injecting and injection related injuries, blood-borne viral spread, overdoses and overall mortality²⁻⁵, as well as improving physical health, social functioning and economic productivity¹. Methadone and buprenorphine are both listed by the World Health Organization as essential medicines for this indication⁸. In Australia, four formulations of OAT are approved by the Therapeutics Goods Administration (TGA) and subsidised through the Pharmaceutical Benefit Scheme (PBS) for the treatment of opioid dependence. These include methadone liquid (PBS listed in 1974), sublingual (SL) buprenorphine (2001), SL buprenorphine-naloxone (2005: tablets, 2011: films) and long acting injection (LAI) buprenorphine (September 2019)⁹.

LAI formulations of buprenorphine have recently become available for the treatment of opioid dependence¹⁰, having been listed on the PBS since September 2019. Depending on the formulation, LAI buprenorphine is administered via weekly¹¹ or monthly^{12,13} subcutaneous injections, providing an alternate OAT option to daily methadone and SL buprenorphine, that reduces the frequency of dosing visits and increases flexibility^{14,15}. LAI buprenorphine may offer a number of benefits including increased quality of life, employment, and treatment satisfaction¹⁶, however, the shift to monthly dosing may result in unintended consequences as well¹⁷⁻¹⁹. In Australia, the roll-out of LAI buprenorphine was stepped up during the COVID-19 pandemic in an effort to reduce face-to-face interactions and the frequency of visits by OAT clients to health services. National interim guidance developed by professional and consumer groups also recommended increasing the number of take-away doses, greater use of telehealth appointments, and home delivery, including third party collections for clients in quarantine²⁰. These recommendations addressed logistical barriers to OAT engagement, including the travel burden



associated with attending services²¹. Although their implementation was not mandated, and varied across jurisdictions, understanding the extent to which these changes in guidance impacted access to OAT will help determine the adaptability of the program to support clients.

Each year, a summary of medicines used on snapshot day/s in OAT programs around Australia are published.²² Intermittent data capture, such as this, limits a nuanced understanding of changes to the profile of individual medicines over time and changes to overall utilisation in different settings (e.g., community vs. prison, regional v. remote). Monthly sales data provide a novel means to examine longitudinal trends of OAT.

This report aims to describe sales of OAT medicines in Tasmania (TAS) over time and to consider factors that may have affected patterns of access.

2.2. Aims

This report aims to:

1. Examine trends in the estimated number of clients on all OAT medicines in TAS between 2013 and 2022, and
2. Examine variation in the estimated number of OAT clients by jurisdiction, remoteness, socio-economic status and setting.

2.3. Methods

2.3.1. Study design and time period

This is a descriptive study of trends in the sales of OAT medicines (methadone, SL buprenorphine, SL buprenorphine-naloxone and LAI buprenorphine) in TAS from January 2013 to December 2022.

2.3.2. Data source

Data was provided by IQVIA (iqvia.com) on sales of medicines by pharmaceutical wholesalers and manufacturers to community pharmacies, hospitals and other providers, including prisons. IQVIA claims around 97% coverage of the Australian community pharmacy and hospital settings²³. Data on all formulations of OAT medicines sold in TAS between January 2013 and December 2022 were included. Due to the legal requirements for secure storage and monitoring of OAT medicines in pharmacies, the number of packs sold over a 12-month period should closely approximate the number of medicines used by clients in the TAS OAT Program.

2.3.3. Medicines

Available OAT medicines, by formulation and strength, are summarised in Table 1. Formulations of methadone and buprenorphine used only for opioid dependence were included. In the rare event that methadone is used for analgesia, methadone tablets (which can be crushed) are generally preferred over liquid, in both the community and hospital setting. Methadone liquid 200mL, indicated for both analgesia and opioid dependence in Australia, was included because most use was assumed to be for opioid dependence. Sales of LAI buprenorphine were disaggregated into five groups relative to strength and injection frequency - weekly low and high strengths, and monthly low, medium and high strengths (see 'LAIB Group' in Table 1). These groups were selected to provide high level trends without identifying individual brands.

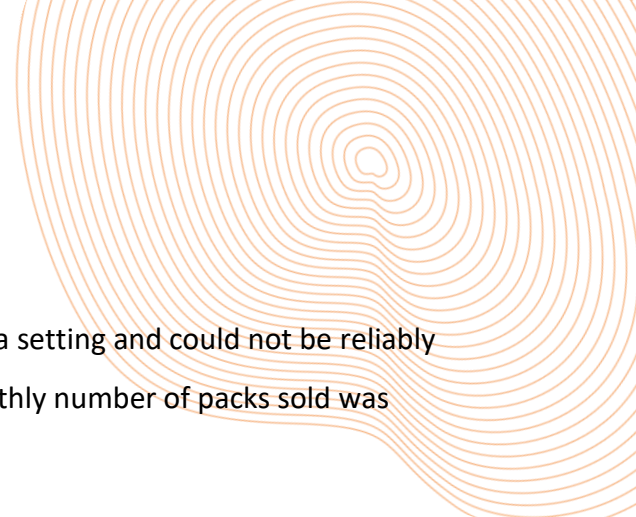
Table 1. Medicines available in the Australian opioid agonist treatment programme.

Active Ingredient	Form	Brand name	Strength (mg)	LAIB [†] Group	Entry to market [‡]
Methadone	Oral (liquid)	Biodone Forte, Methadone Syrup	5mg / mL	N/A	1974 ²⁴
Buprenorphine	Sublingual tablet	Subutex	0.4, 2, 8	N/A	2001 ²⁵
Buprenorphine / naloxone	Sublingual tablet / film	Suboxone	2/0.5, 8/2	N/A	2005: Tablets ²⁶ 2011: Films ²⁷
Buprenorphine	Long acting injection	Buvidal weekly	8, 16	Weekly LAIB - low	September 2019 ²⁴
Buprenorphine	Long acting injection	Buvidal weekly	24, 32	Weekly LAIB - high	September 2019 ²⁴
Buprenorphine	Long acting injection	Buvidal monthly	64	Monthly LAIB - low	September 2019 ²⁴
Buprenorphine	Long acting injection	Buvidal monthly	96, 128	Monthly LAIB - med	September 2019 ²⁴
Buprenorphine	Long-acting injection	Buvidal monthly	160	Monthly LAIB - high	May 2022 ²⁴
Buprenorphine	Long-acting injection	Sublocade	100	Monthly LAIB - low	May 2020 ²⁴
Buprenorphine	Long-acting injection	Sublocade	300	Monthly LAIB - high	May 2020 ²⁴

[†]LAIB: Long-acting injection buprenorphine, [‡] Entry to market based on PBS listing as part of the Australian Opioid Dependence Treatment Program

2.3.4. OAT clients per month

Describing OAT utilisation based solely on packs sold does not enable a like-for-like comparison between different medicines. In some cases, one pack may be used to treat one or multiple clients - for example, one pack of LAI buprenorphine treats one client over 28 days, whereas one pack of methadone syrup (1 L) may treat several clients. Oral morphine equivalents (OME) were



considered less relevant for comparing OAT in a non-analgesia setting and could not be reliably estimated for LAI buprenorphine. For these reasons, the monthly number of packs sold was converted into an estimate of OAT clients per month.

For SL buprenorphine and methadone formulations, OAT clients per month were estimated by summing the total milligrams (mg) contained in the packs sold that month and dividing by the average dose (mg) to treat a single person for 28 days e.g.,

$$\text{OAT clients per month} = \frac{[\text{mg per pack} \times \text{Total number of packs sold that month}]}{[\text{Average daily dose (mg) for a single person} \times 28 \text{ days}]}$$

Average doses were estimated from previous research (see Table 2). For LAI buprenorphine formulations, estimates of clients per month were based on the number of packs (injections) sold. Specifically, one pack of weekly and one pack of monthly LAI buprenorphine were assumed to treat 0.25 and 1 client, respectively, over a 28-day period, aligning with the recommended dosing schedules¹¹⁻¹³. A chart review of three Australian OAT providers verified these dose estimates aligned with real-world LAI buprenorphine dosing schedules²⁸. To account for small fluctuations in sales data, reflecting the ordering behaviour (such as stockpiling) of pharmacies rather than actual fluctuations in OAT client numbers, three-month moving averages are presented.

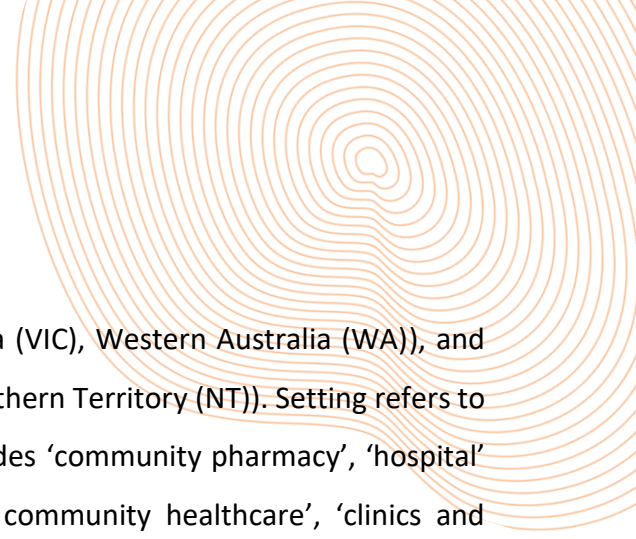
Table 2. Average doses for OAT medicines; data pooled from recent Australian cohort studies.

Measure	Methadone liquid		Sublingual Buprenorphine	
	Pooled estimate (95% CI)	Sources	Pooled estimate (95% CI)	Sources
Mean dose (mg/day)	74.06 (69.44, 78.69)	29,30	16.00 (14.39, 17.61)	30
Median dose (mg/day)	75 (47,75)	30-34	13 (13, 16)	30-35

Where applicable $I^2 = 0.0$.

2.3.5. Geographical information and setting

Monthly OAT utilisation was summarised overall and disaggregated by jurisdiction, remoteness, socioeconomic status, and setting. The Australian jurisdictions includes six states (New South Wales



(NSW), Queensland (QLD), South Australia (SA), TAS, Victoria (VIC), Western Australia (WA)), and two territories (Australian Capital Territory (ACT) and the Northern Territory (NT)). Setting refers to the provider type which purchased the medicines, and includes ‘community pharmacy’, ‘hospital’ including outpatient drug and alcohol services, ‘aged and community healthcare’, ‘clinics and medical centres’, and ‘other (including prisons)’. The Australian Bureau of Statistics (ABS) mapping of Postcode 2017 was used to map sales to the Australian Statistical Geography Standard (ASGS) Remoteness Areas 2016 data³⁶ and to the Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socioeconomic Advantage and Disadvantage (IRSAD) 2016 data³⁷ (see Appendix 6.1 Mapping to postcode). Australian remoteness categories include ‘Major Cities’, ‘Inner Regional’, ‘Outer Regional’, ‘Remote’ and ‘Very Remote’. IRSAD summarises information about the economic and social conditions of people and households within an area, with lower quintiles indicating relatively greater disadvantage and higher quintiles indicating relatively greater advantage.

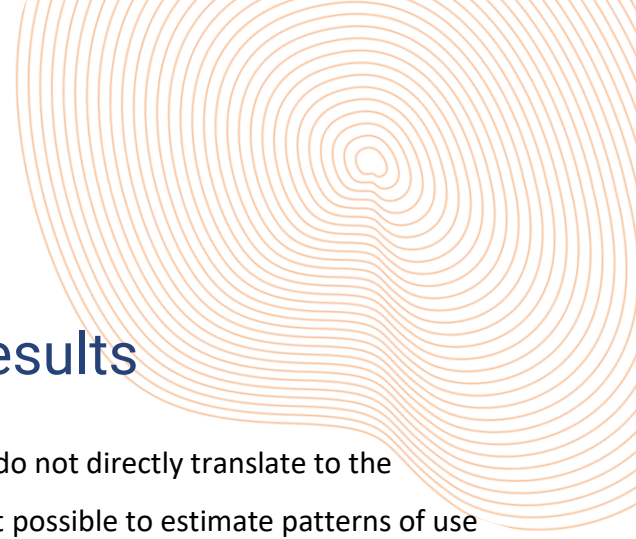
2.3.6. Statistical Analysis

Descriptive statistics and data visualisations were used to describe trends over time, and by OAT medicine, jurisdiction, remoteness, socioeconomic status and setting. The estimated number of clients receiving OAT medicines each month, overall and by individual medicines, were evaluated as a count standardised against population size and/or as a proportion (%) of the total number of OAT clients that month. Per capita estimates were based on the estimated residential population at June 30 each year, provided by the ABS³⁸, overall and by jurisdiction.

Analyses were conducted using SAS Enterprise Guide 9.4 (SAS Institute Inc., Cary, NC, USA) and Microsoft Excel for Microsoft 365 (Microsoft, Seattle, WA, USA).

Ethics approval

Ethics approval was not required as data from IQVIA were received in deidentified aggregated form.



3. Guide to interpretation of results

- It is important to acknowledge that the amounts sold do not directly translate to the amounts dispensed or used. For this reason, it was not possible to estimate patterns of use at the client level nor determine the exact number of clients engaged in OAT in each month.
- The approach used in estimating the number of clients receiving OAT per month assumes that real-world OAT doses – and the factors known to influence dose, including disorder severity - have remained stable over time and across different settings. The parameters used to derive these estimates were informed by the literature and have not been validated against population-level data on OAT doses from Australia.
- The estimates assume clients are retained in OAT over the full 28-day interval; where this is not the case, the number of clients accessing OAT at least once a month would be higher.
- This report complements the National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD), which provide a national overview of OAT pharmacotherapies used in Australia on snapshot day/s by state and territory health departments²². Where comparisons with NOPSAD show varying trends, these may be explained by differences in client ascertainment and changes in the patterns of OAT retention³⁹ during the study period.
- Furthermore, IQVIA coverage may have improved over time, which could lead to an underestimate of OAT clients in earlier years of the study.
- Capture of OAT sales to settings other than community pharmacy and hospital, e.g., other (incl. prisons), may be incomplete, leading to an underestimate of the number of clients accessing OAT in these settings.
- As the weekly low dose LAI buprenorphine formulation can be used for top-up or supplemental dosing, inclusion of these formulations may have resulted in a slight overestimate of the number of clients.

- The geographic information provided by IQVIA for non-community pharmacy/hospital settings was less granular (PHN level) so there may be some misclassification of remoteness and socioeconomic categories in these settings.
- The socioeconomic and remoteness findings reflect where OAT was received rather than where OAT clients reside, as clients may have travelled to different areas to receive OAT.



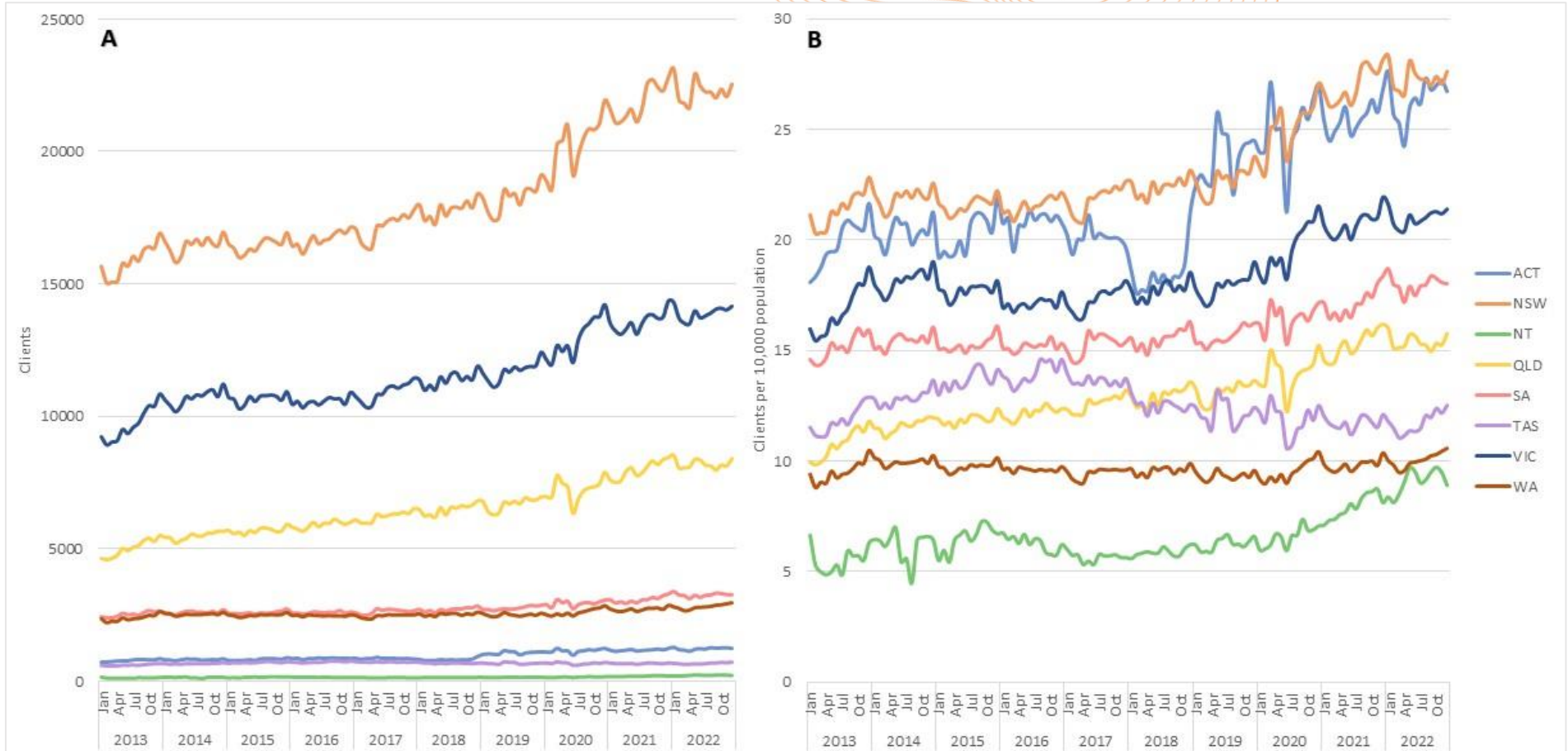
4. Findings

4.1. OAT utilisation by state/territory

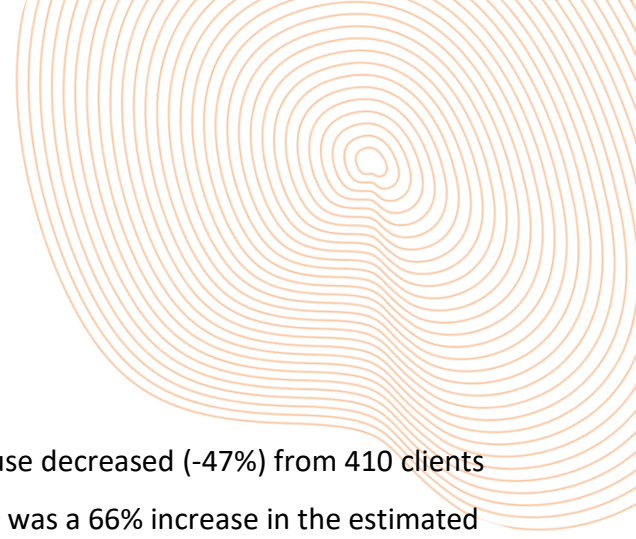
Across the decade, TAS had the second lowest number of OAT clients per month of all jurisdictions, after the NT (Figure 1A). The estimated number of clients receiving OAT each month in TAS increased from 589 clients in January 2013 to 715 clients in December 2022 (21% increase Figure 1A, Table A1). After accounting for population size, there was an increase in rates of use in TAS between January 2013 and December 2016, from 12 to 15 OAT clients per 10,000, before declining to 12 per 10,000 by the end of the study period (Figure 1B).



Figure 1. Number of OAT clients (A), and OAT clients per 10,000 population (B), per month by Australian state/territory (2013-2022).



ACT: Australian Capital Territory, NSW: New South Wales, NT: Northern Territories, QLD: Queensland, SA: South Australia, TAS: Tasmania, VIC: Victoria, WA: Western Australia



4.2. OAT utilisation in TAS

4.2.1. All OAT medicines

Patterns of OAT have changed over time in TAS. Methadone use decreased (-47%) from 410 clients in 2013 to 258 in December 2022 (Figure 2A, Table A1). There was a 66% increase in the estimated number of clients receiving SL buprenorphine, from 179 clients in January 2013 to 297 in December 2022. Following its introduction to the market, there was a substantial uptake of LAI buprenorphine in TAS from 14 clients in April 2020 to 159 clients in December 2022.

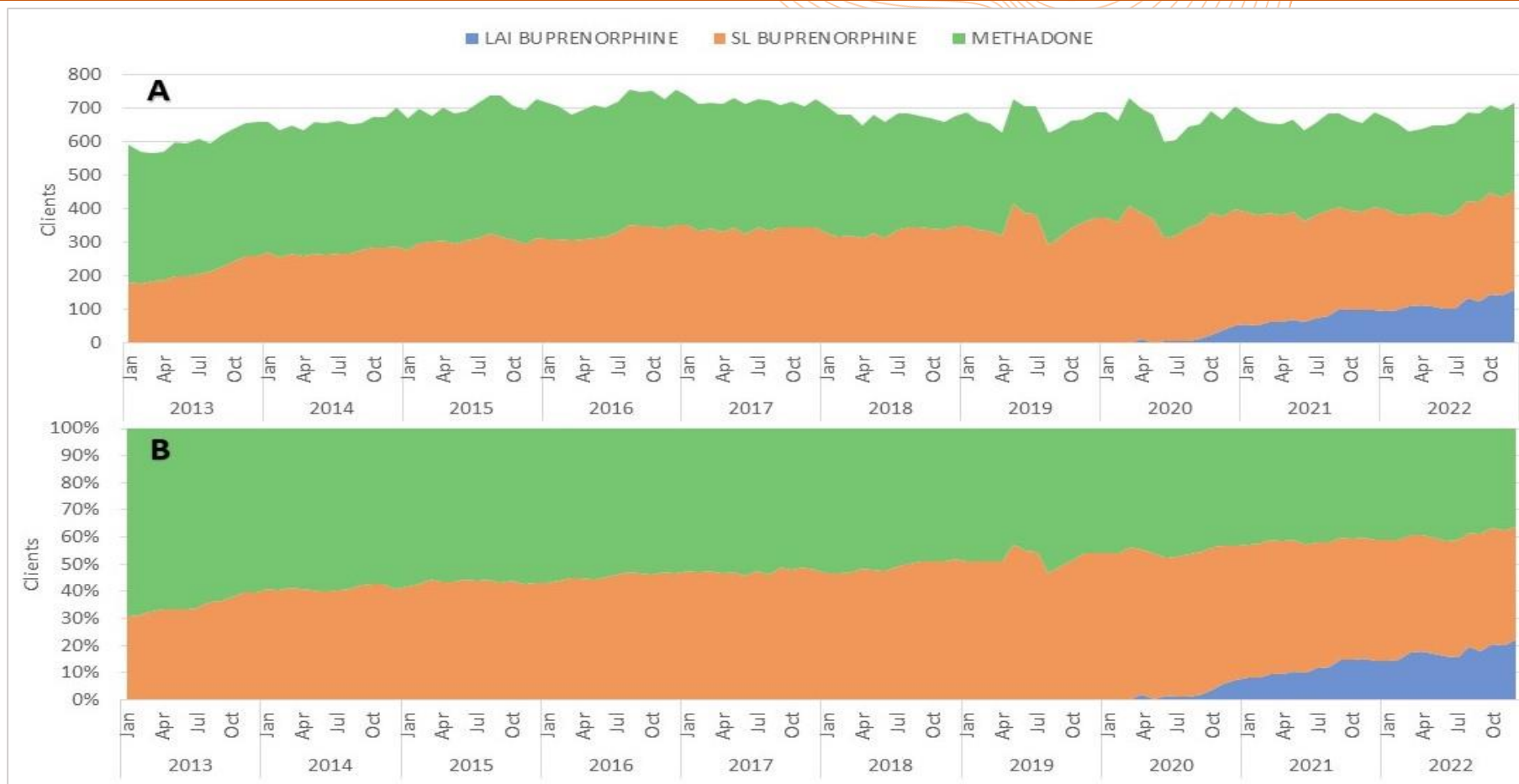
Subsequently, the distribution of medicines in the TAS OAT program evolved over time (Figure 2B). In January 2013, 69.6% of the estimated number of OAT clients in TAS received methadone with the remainder receiving SL buprenorphine (30.4%). In December 2022, 36.1% of clients received methadone, 41.6% SL buprenorphine, and 22.3% LAI buprenorphine (Figure 2B, Table A1).

4.2.2. LAI buprenorphine

Since the introduction of LAI buprenorphine, the majority of use was for monthly rather than weekly formulations (Figure 3, Table A2). The formulations in the 'Monthly LAIB – medium' group were used most commonly, with 'Monthly LAIB – low' and 'Monthly LAIB – high' used less frequently (Figure 3, Table A2).



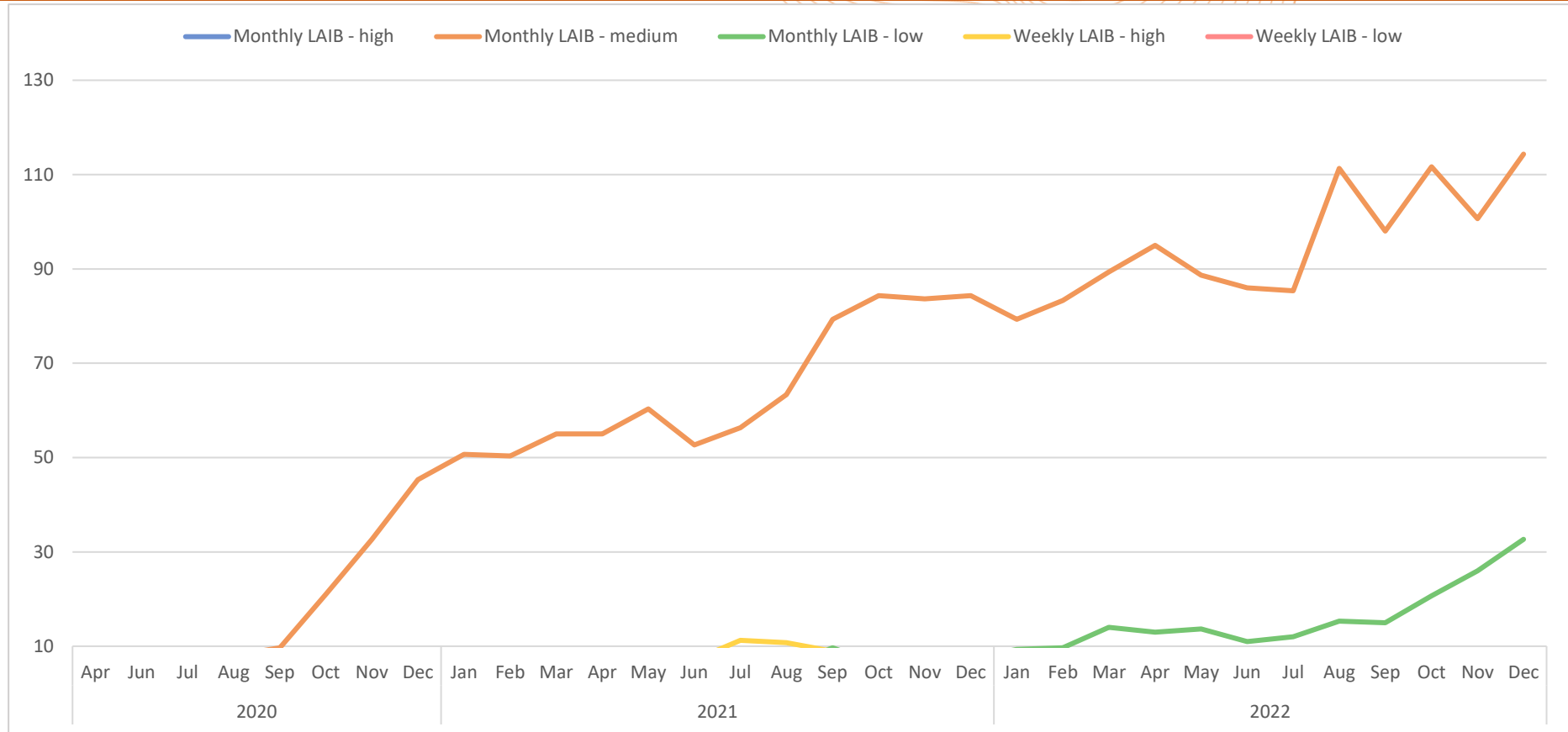
Figure 2. Cumulative number of OAT clients (A) and proportion of total OAT clients (B), per month by medicine (TAS, 2013-2022).



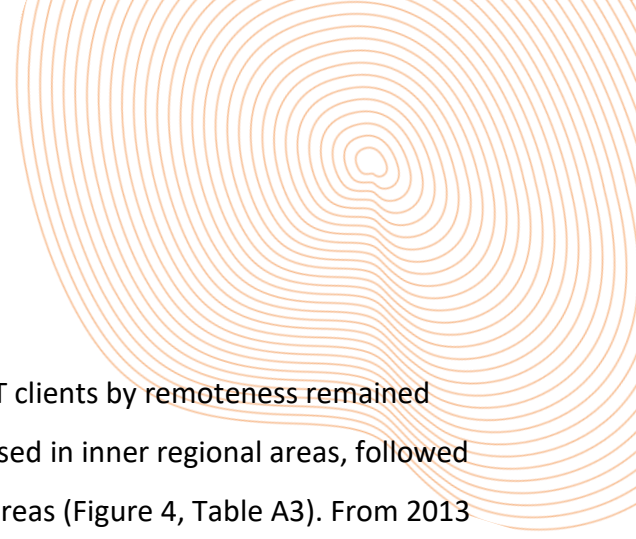
LAI: Long Acting Injection, OAT: Opioid Agonist Treatment, SL: Sublingual



Figure 3. Number of OAT clients by LAI buprenorphine (LAIB) group* (TAS, 2020-2022).



* LAIB groups are defined in Table 1



4.2.1. Remoteness

Over the study period in TAS, trends in the distribution of OAT clients by remoteness remained relatively consistent. The majority (65-70%) of OAT was accessed in inner regional areas, followed by outer regional (24-31%), and remote/very remote (4-6%) areas (Figure 4, Table A3). From 2013 to 2022, greater increases in OAT utilisation were observed in inner regional areas (379 to 487 clients: +28.5%) compared with outer regional areas, which decreased by 3.1% from 185 clients in January 2013 to 179 in December 2022 (Figure 4, Table A3).

4.2.2. Socioeconomic status (IRSAD)

Across the decade in TAS, trends in the distribution of OAT utilisation by socioeconomic status remained relatively consistent. Around 31-41% of the estimated number of clients received OAT in the most disadvantaged areas and 4-8% in the most advantaged areas (Figure 5, Table A4). From 2013 to 2022, the greatest increases in OAT use were observed in the second most disadvantaged areas (IRSAD quintile 2; +144%: 377 to 183 clients) compared with the most advantaged areas, which decreased by -32% from 44 clients in January 2013 to 30 in December 2022 (Figure 5, Table A4).



Figure 4. Number of OAT clients per month by remoteness (TAS, 2013-2022).

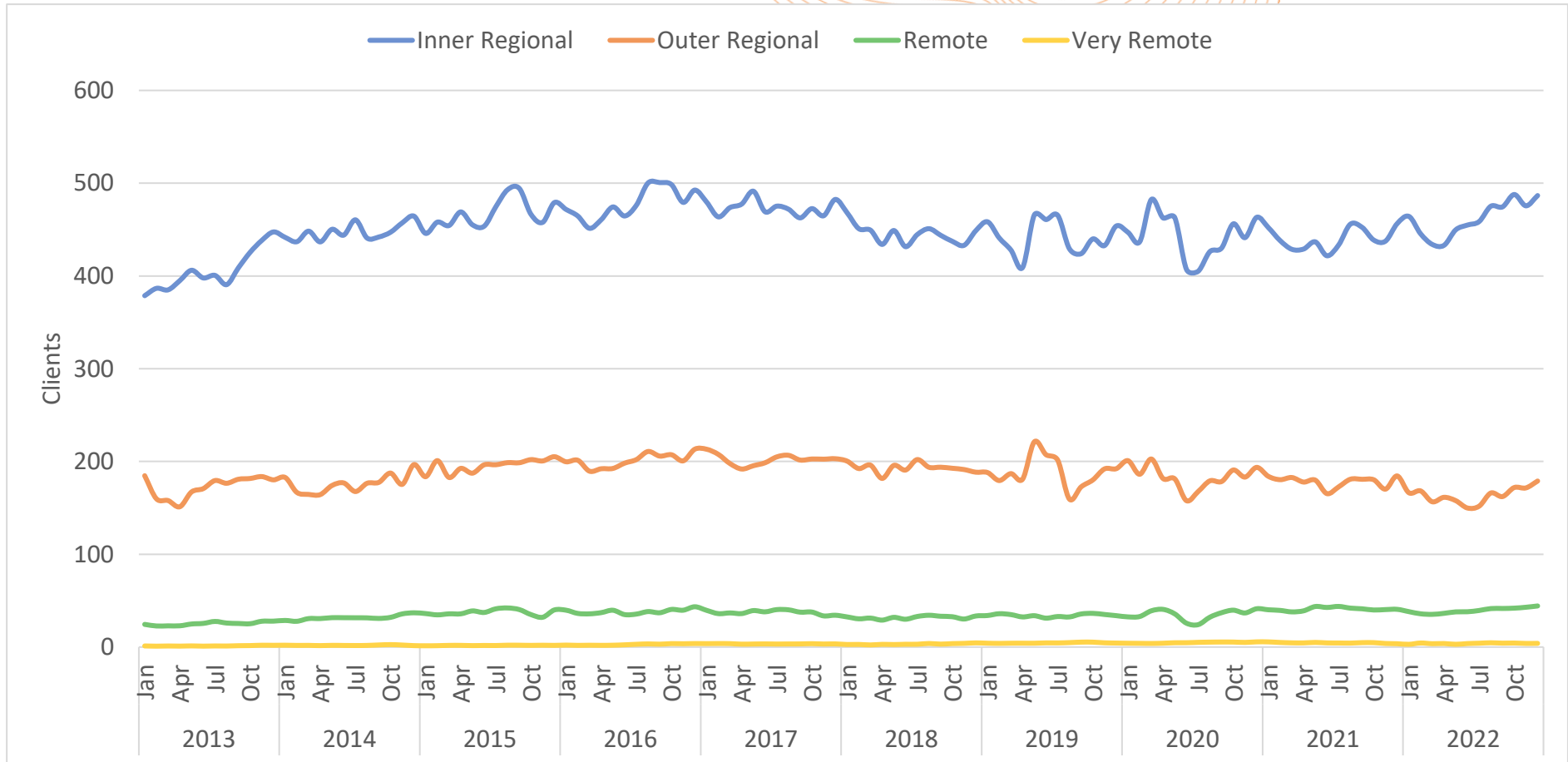
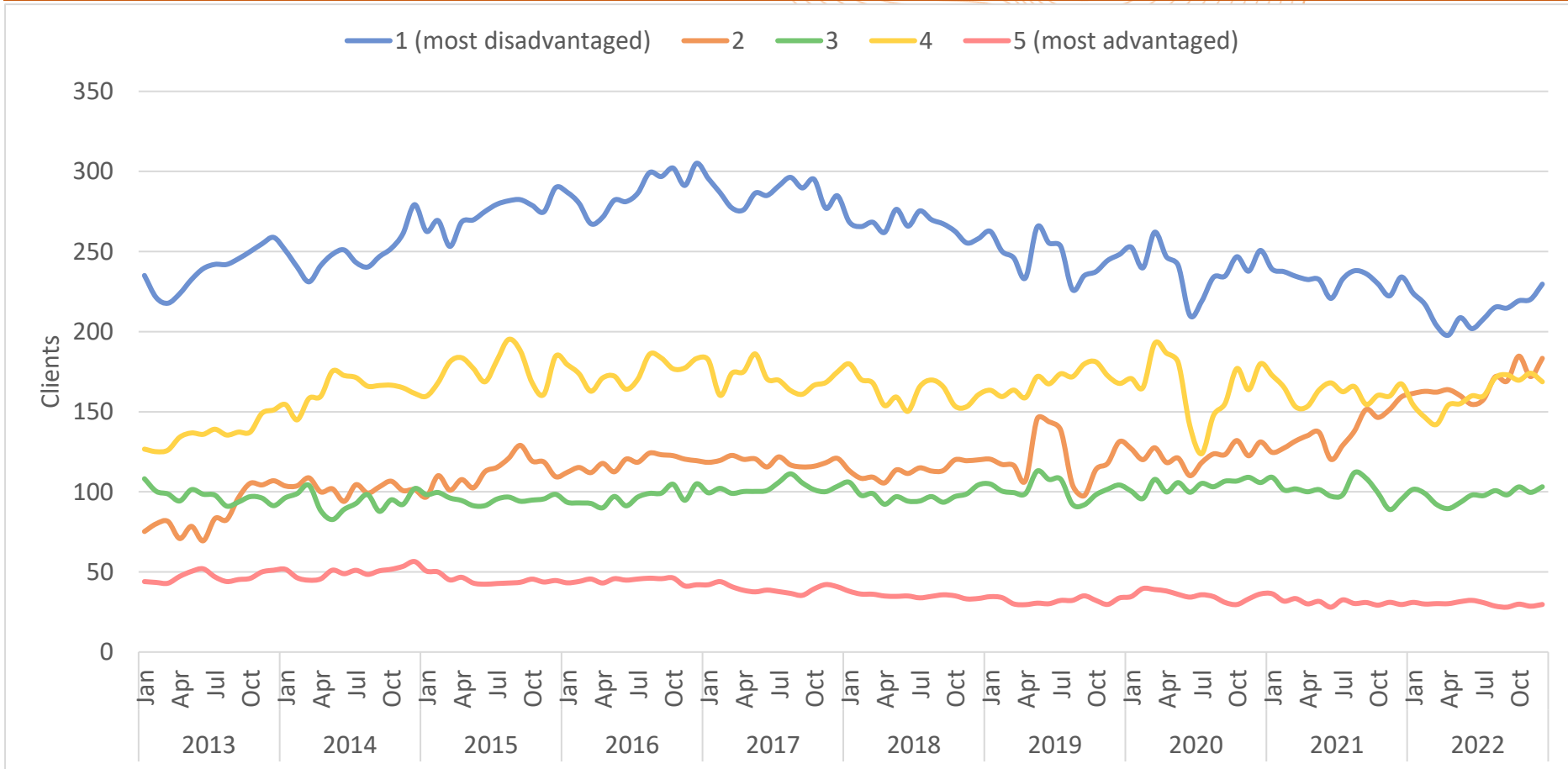
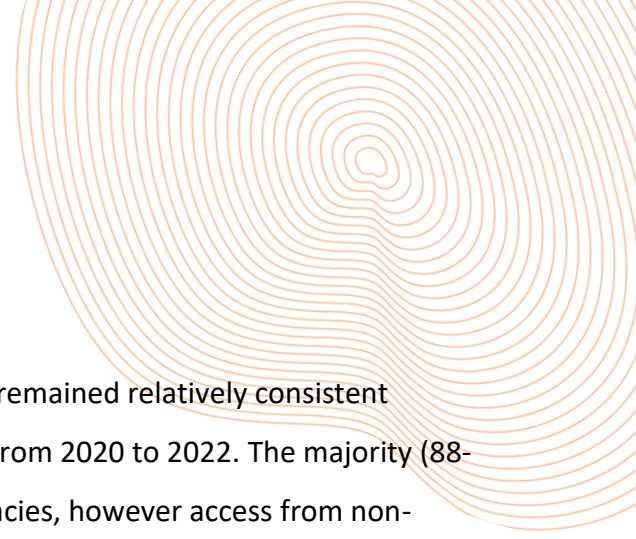




Figure 5. Number of OAT clients per month by IRSAD quintile (TAS 2013-2022).



IRSAD: Index of Relative Socioeconomic Advantage and Disadvantage



4.2.3. Setting

In TAS, trends in the distribution of OAT utilisation by setting remained relatively consistent between 2013 and 2019, with some small changes observed from 2020 to 2022. The majority (88-96%) of OAT in TAS was accessed through community pharmacies, however access from non-community pharmacy settings increased since 2020. The estimated number of clients accessing OAT each month in community pharmacy increased by 11% from 566 in January 2013 to 626 in December 2022, remaining relatively stable to the end of 2022 (Figure 6). In contrast, the estimated number of clients accessing OAT in hospital settings remained relatively stable from 2013 to 2019/2020, before increasing (Figure 6, Table A5). At the beginning of the study period less than 5% of clients accessed OAT from hospital settings but between 2019 and 2022 this figure rose to 10% (January 2013 to December 2022; +222%: 23 to 74 clients) (Table A5).

The distribution of medicines in the TAS OAT program varied by setting (Figure 7, Table A6). Between 2013 and 2019, the majority of clients accessing OAT in community pharmacy each month received methadone whereas majority attending hospital services received SL buprenorphine. Since 2020, the majority of clients accessing OAT in community pharmacy received SL buprenorphine and the majority at hospitals received LAI buprenorphine. In TAS in December 2022 (Figure 7, Table A6):

- 636 clients accessed OAT from community pharmacy, of whom 255 (40.1%) received methadone, 293 (46.0%) SL buprenorphine and 88 (13.9%) LAI buprenorphine, and;
- 74 clients accessed OAT from hospitals, including outpatient drug and alcohol services, of whom 66 (89.2%) received LAI buprenorphine.



Figure 6. Number of OAT clients per month, by setting (TAS, 2013-2022).

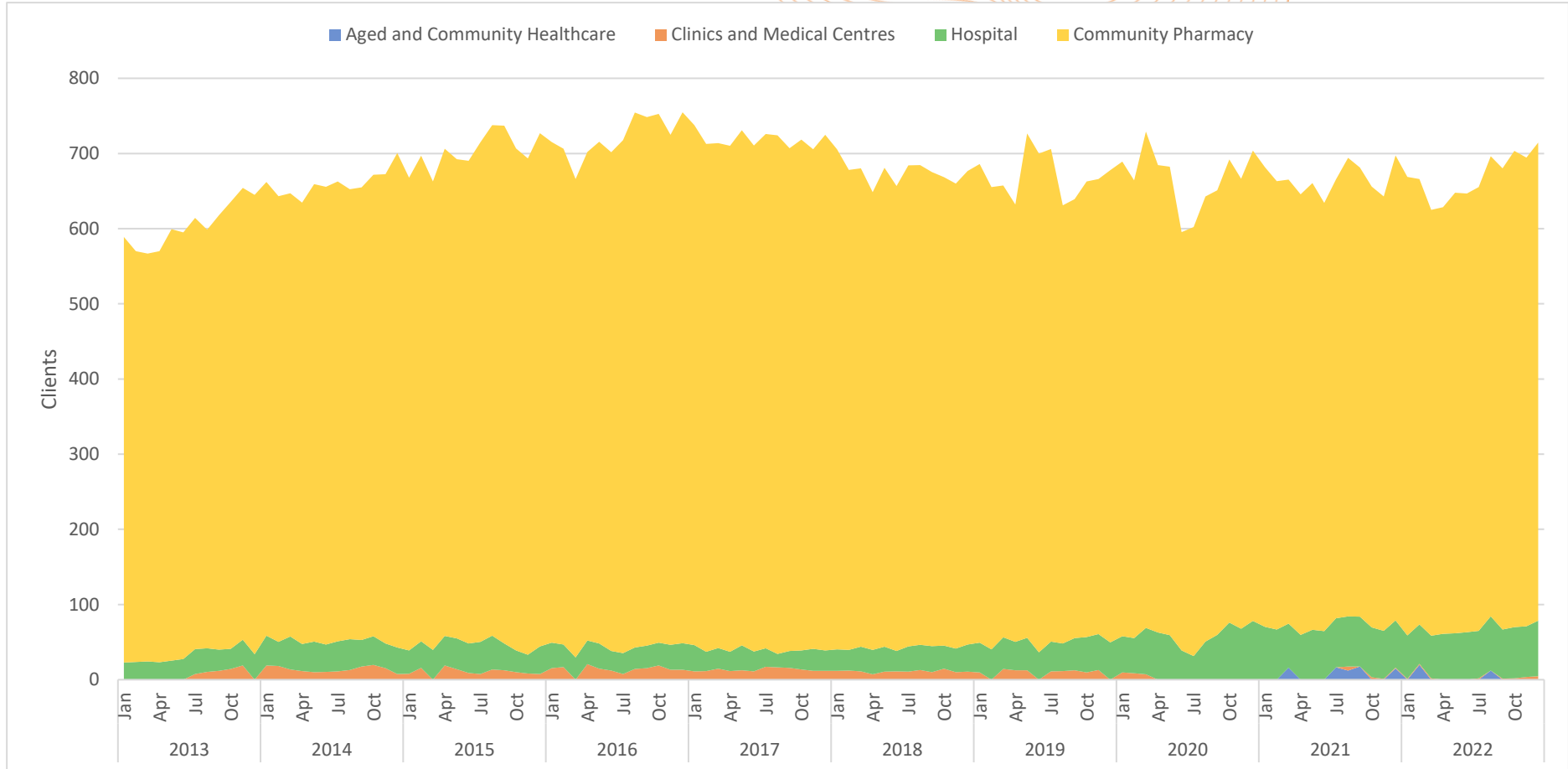
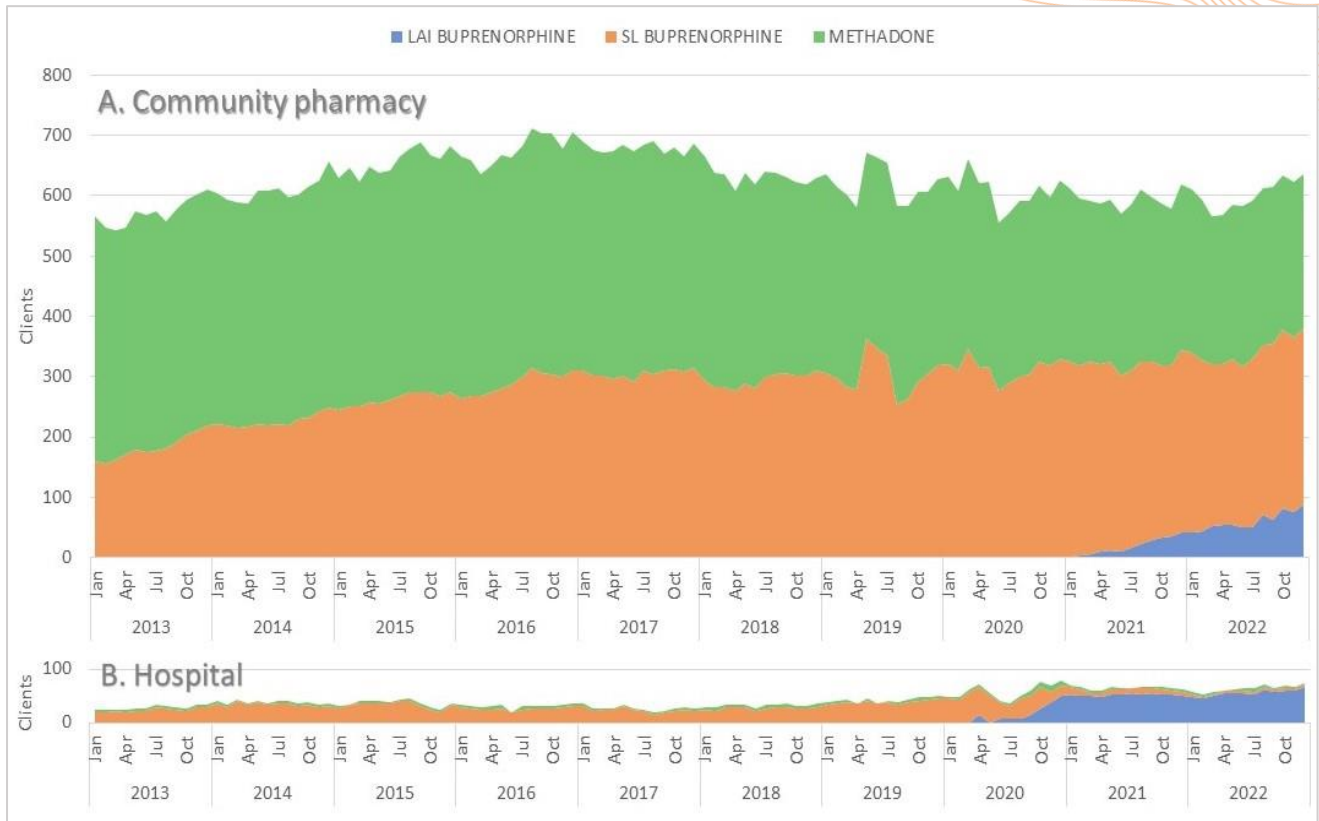
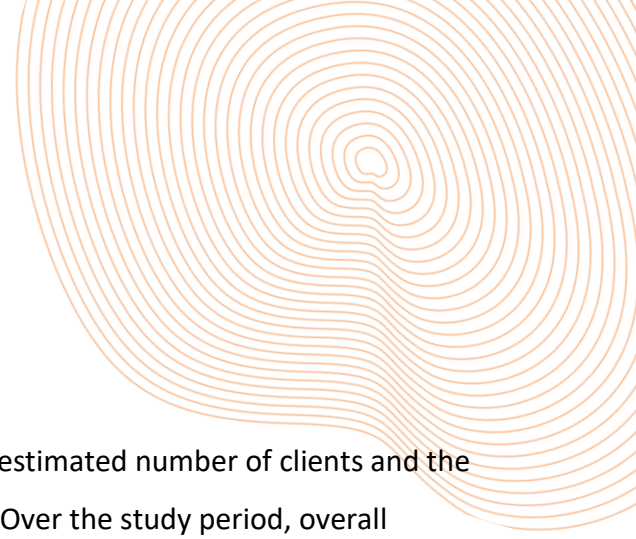




Figure 7. Number of OAT clients per month by medicine in: community pharmacy (A), hospitals (B), and other (including prisons) (C) (TAS, 2013-2022).





5. Discussion

This report used monthly sales data to evaluate trends in the estimated number of clients and the types of OAT medicines used in TAS between 2013 and 2022. Over the study period, overall utilisation of OAT fluctuated moderately, with a decline in the per-capita number of OAT clients between 2016 and 2022. The pattern of OAT medicines used in TAS changed over time with the most common medicine for OAT being methadone in 2013, and buprenorphine in 2022. Increases in OAT access were observed, in hospital settings (including outpatient drug and alcohol services) in 2020 – coinciding with the introduction of LAI buprenorphine and the COVID-19 pandemic.

Importantly this report demonstrates uptake of LAI buprenorphine for OAT in TAS. Between September 2019 (the month LAI buprenorphine was PBS-listed) and December 2022, the estimated number of clients accessing LAI buprenorphine increased, eventually accounting for over a fifth of all TAS OAT clients. By the end of the study period (2022), most (89.2%) OAT clients at hospital settings received LAI buprenorphine. As discussed previously, scale-up of LAI buprenorphine was accelerated during the COVID-19 pandemic in an effort to reduce exposure to infection, and help adhere with social distancing²⁰.

With this significant uptake of LAI buprenorphine there has been a shift in the distribution of OAT, buprenorphine (incl. SL and LAI buprenorphine formulations) now surpasses methadone as the most common OAT in TAS. The estimated proportion of all OAT clients receiving buprenorphine increased from a third (30.4%) in January 2013 to two-thirds (63.9%) of all estimated OAT clients in December 2022. Given the estimated number of clients receiving methadone over the study period decreased, this finding aligns with previous reports that buprenorphine is increasingly the medicine most OAT clients initiate on in Australia³⁹.

The trends seen in this report largely align with the annual summaries from the NOPSAD collection, however the client estimates in this report are slightly lower than those reported in NOPSAD²². At the beginning of the study period the estimated number of OAT clients in TAS in this report was 9.7% lower than the figure quoted by NOPSAD (June 2013: 595 clients vs 659 clients in NOPSAD) and by the end of the study period they were 11.2% lower than NOPSAD (June 2022: 647

clients vs 729 clients in NOPSAD). Both data sources found increasing per-capita OAT use between 2013 and 2016 followed by a decline to 2022. From 2013 to 2016, data indicate per capita OAT use in TAS increased, from 12 to 15 OAT clients per 10,000 in this report and from 13 to 15 per 10,000 in NOPSAD. From 2016 to 2022 per capita OAT use in TAS decreased, in this report from 15 to 11 OAT clients per 10,000 and 15 to 13 clients according to the NOPSAD collection²². These differences may be explained by differences in the methods used for client ascertainment, changes in the patterns of OAT retention during the study period³⁹, and incomplete capture of sales data from settings other than community pharmacy and hospital (e.g., prison) used in this report. NOPSAD collects data on clients receiving OAT on specific day/s per year, whereas the client estimates in this report are based on a conversion of packs sold into clients treated over a month, with the assumption that clients are retained in OAT over the full 28-day interval. As some attrition from OAT is expected this report may underestimate the total number of clients accessing OAT over the month, however, if OAT retention rates have improved over time³⁹ the potential for this source of underestimation would have diminished over the study time period.

In conclusion, the findings in this report suggest that in TAS, patterns of OAT use have changed over the past decade, with buprenorphine now replacing methadone as the most common OAT used. There has been an increase in access to OAT in non-community pharmacy settings since 2020, coinciding with uptake of LAI buprenorphine. It is yet to be determined if these changes in OAT utilisation are associated with net benefits or harms for people with opioid dependence. Future work on the overall costs and cost effectiveness of OAT would assist in future service planning.



6. Appendices

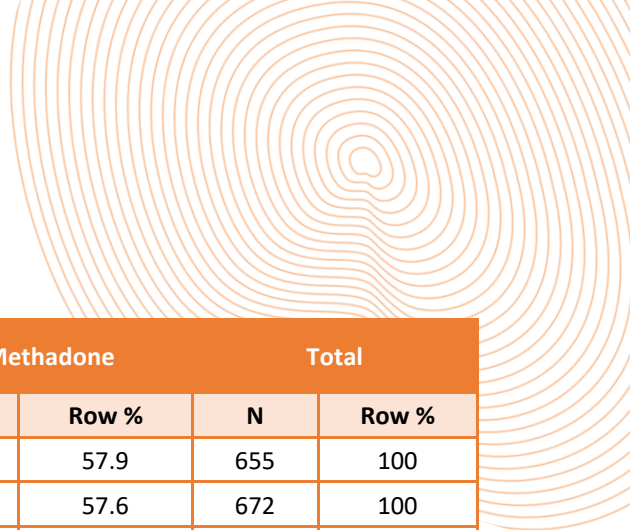
6.1. Mapping to postcodes

Data on sales to community pharmacy and hospitals were provided in ‘bricks’, which are geographic boundaries developed by IQVIA containing clusters of pharmacies, for medicine sales and distribution purposes across Australia. Data on sales to all other settings were provided at the Primary Health Network (PHN) level. Sales bricks and PHNs were mapped to postcodes.

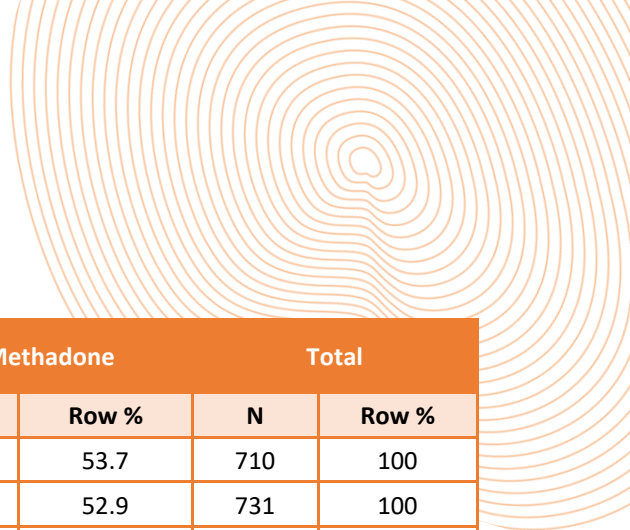
6.2. Appendix Tables

Table A1. Estimated number and proportion of OAT clients per month (TAS, 2013-2022)

Time period	LAI Buprenorphine		SL Buprenorphine		Methadone		Total	
	n	Row %	n	Row %	n	Row %	N	Row %
2013								
January			179	30.4	410	69.6	589	100
February			177	31.0	393	69.0	570	100
March			184	32.4	383	67.6	567	100
April			190	33.2	381	66.8	570	100
May			200	33.4	399	66.6	599	100
June			198	33.2	397	66.8	595	100
July			206	33.9	403	66.1	609	100
August			214	36.0	381	64.0	595	100
September			226	36.6	392	63.4	618	100
October			240	37.8	395	62.2	636	100
November			259	39.6	395	60.4	654	100
December			260	39.4	399	60.6	659	100
2014								
January			269	40.9	388	59.1	657	100
February			257	40.5	378	59.5	634	100
March			268	41.3	380	58.7	647	100
April			260	41.0	375	59.0	635	100
May			267	40.5	392	59.5	659	100
June			261	39.8	394	60.2	656	100
July			266	40.2	396	59.8	663	100
August			266	40.8	386	59.2	652	100

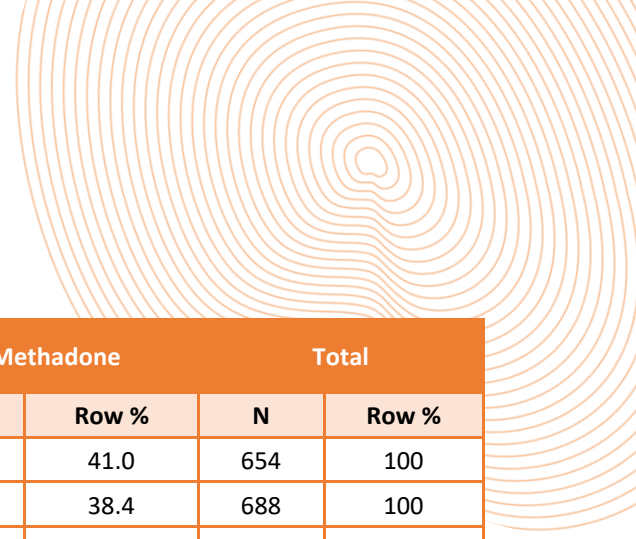


Time period	LAI Buprenorphine		SL Buprenorphine		Methadone		Total	
	n	Row %	n	Row %	n	Row %	N	Row %
September			276	42.1	379	57.9	655	100
October			285	42.4	387	57.6	672	100
November			285	42.4	388	57.6	672	100
December			286	40.8	414	59.2	701	100
2015								
January			278	41.7	390	58.3	668	100
February			298	42.7	399	57.3	697	100
March			300	44.4	376	55.6	677	100
April			305	43.6	396	56.4	701	100
May			296	43.3	388	56.7	684	100
June			305	44.2	385	55.8	690	100
July			314	43.9	401	56.1	715	100
August			327	44.4	410	55.6	738	100
September			318	43.1	419	56.9	737	100
October			309	43.7	398	56.3	707	100
November			295	42.5	399	57.5	694	100
December			314	43.2	413	56.8	727	100
2016								
January			309	43.2	406	56.8	715	100
February			310	43.9	396	56.1	706	100
March			306	45.0	374	55.0	681	100
April			310	44.7	384	55.3	693	100
May			314	44.2	396	55.8	710	100
June			318	45.3	384	54.7	702	100
July			330	46.0	388	54.0	718	100
August			353	46.8	401	53.2	754	100
September			347	46.3	402	53.7	748	100
October			347	46.1	405	53.9	753	100
November			340	47.0	385	53.0	725	100
December			353	46.8	402	53.2	755	100
2017								
January			351	47.6	386	52.4	738	100
February			334	46.8	379	53.2	713	100
March			340	47.6	374	52.4	714	100



Time period	LAI Buprenorphine		SL Buprenorphine		Methadone		Total	
	n	Row %	n	Row %	n	Row %	N	Row %
April			329	46.3	381	53.7	710	100
May			344	47.1	387	52.9	731	100
June			325	45.7	386	54.3	711	100
July			346	47.6	380	52.4	726	100
August			334	46.2	390	53.8	724	100
September			343	48.6	364	51.4	707	100
October			345	48.1	373	51.9	718	100
November			343	48.7	362	51.3	706	100
December			346	47.7	379	52.3	725	100
2018								
January			327	46.3	378	53.7	705	100
February			315	46.4	363	53.6	678	100
March			321	47.2	360	52.8	680	100
April			313	48.2	336	51.8	649	100
May			327	48.1	354	51.9	681	100
June			313	47.6	344	52.4	657	100
July			337	49.3	347	50.7	684	100
August			344	50.3	340	49.7	684	100
September			345	51.1	330	48.9	675	100
October			340	50.8	329	49.2	668	100
November			337	51.0	323	49.0	660	100
December			350	51.7	327	48.3	677	100
2019								
January			350	51.0	336	49.0	686	100
February			338	51.1	323	48.9	661	100
March			334	50.9	322	49.1	656	100
April			321	51.1	307	48.9	628	100
May			416	57.3	310	42.7	726	100
June			386	54.8	318	45.2	704	100
July			384	54.5	321	45.5	706	100
August			293	46.7	334	53.3	627	100
September			315	49.3	324	50.7	639	100
October			341	51.5	322	48.5	663	100
November			360	54.0	307	46.0	666	100

Time period	LAI Buprenorphine		SL Buprenorphine		Methadone		Total	
	n	Row %	n	Row %	n	Row %	N	Row %
December			372	54.3	313	45.7	685	100
2020								
January			372	54.3	313	45.7	685	100
February			358	54.2	302	45.8	660	100
March			409	56.2	320	43.8	729	100
April	14	2.0	373	54.1	312	45.3	690	100
May			368	53.8	312	45.6	685	100
June	8	1.3	305	51.2	285	47.9	595	100
July	7	1.1	313	52.0	286	47.6	602	100
August	7	1.1	338	52.6	298	46.4	643	100
September	14	2.2	340	52.3	297	45.6	651	100
October	26	3.7	364	52.5	303	43.8	692	100
November	39	5.9	338	50.8	289	43.4	666	100
December	51	7.3	348	49.5	304	43.2	704	100
2021								
January	55	8.1	335	49.2	291	42.7	682	100
February	54	8.1	328	49.4	281	42.4	663	100
March	62	9.4	324	49.6	268	41.0	655	100
April	62	9.5	319	49.1	270	41.4	651	100
May	70	10.5	322	48.3	274	41.1	666	100
June	62	9.7	302	47.6	270	42.6	634	100
July	75	11.5	304	46.4	276	42.1	655	100
August	83	12.1	314	45.9	288	42.0	684	100
September	101	14.8	305	44.8	275	40.4	682	100
October	98	14.7	296	44.4	272	40.8	665	100
November	99	15.1	291	44.5	264	40.3	653	100
December	98	14.3	307	44.8	281	40.9	686	100
2022								
January	95	14.1	302	44.9	276	41.0	672	100
February	98	14.9	288	43.9	270	41.2	655	100
March	109	17.2	273	43.3	249	39.5	630	100
April	115	18.0	272	42.8	249	39.1	635	100
May	109	16.8	280	43.2	260	40.1	649	100
June	103	16.0	274	42.3	270	41.7	647	100

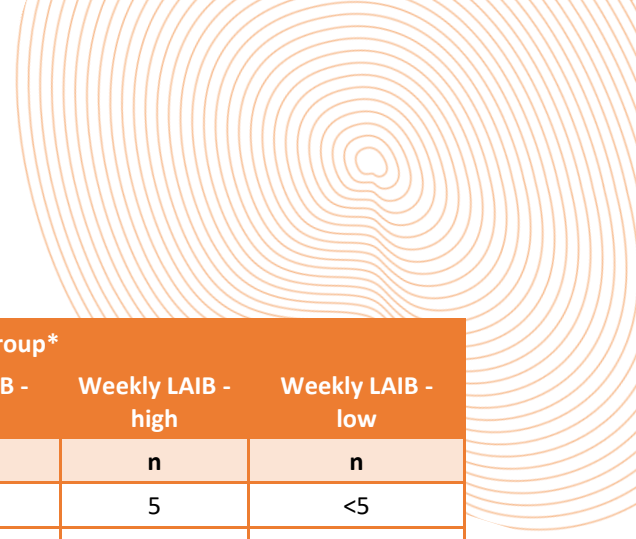


Time period	LAI Buprenorphine		SL Buprenorphine		Methadone		Total	
	n	Row %	n	Row %	n	Row %	N	Row %
July	103	15.8	283	43.2	268	41.0	654	100
August	135	19.6	289	42.0	264	38.4	688	100
September	123	18.0	296	43.3	264	38.7	683	100
October	146	20.7	302	42.8	258	36.5	707	100
November	140	20.2	293	42.2	261	37.6	694	100
December	159	22.3	297	41.6	258	36.1	715	100

LAI: Long acting injectable, SL: Sublingual

Table A2. Estimated number of LAI buprenorphine clients per month (TAS, 2020-2022)

Time period	LAI Buprenorphine group*				
	Monthly LAIB - high	Monthly LAIB - medium	Monthly LAIB - low	Weekly LAIB - high	Weekly LAIB - low
	n	n	n	n	n
2020					
April		12		<5	<5
May					
June			<5		
July		7			<5
August		8		<5	
September		10		<5	
October		21	<5	<5	
November		33	<5	5	
December		45	<5	<5	<5
2021					
January		51		<5	
February		50	<5	<5	<5
March		55	<5	<5	<5
April		55	<5	<5	
May		60	<5	5	<5
June		53		7	<5
July		56	6	11	<5
August	<5	63	6	11	<5
September		79	10	9	<5
October	<5	84	6	5	<5

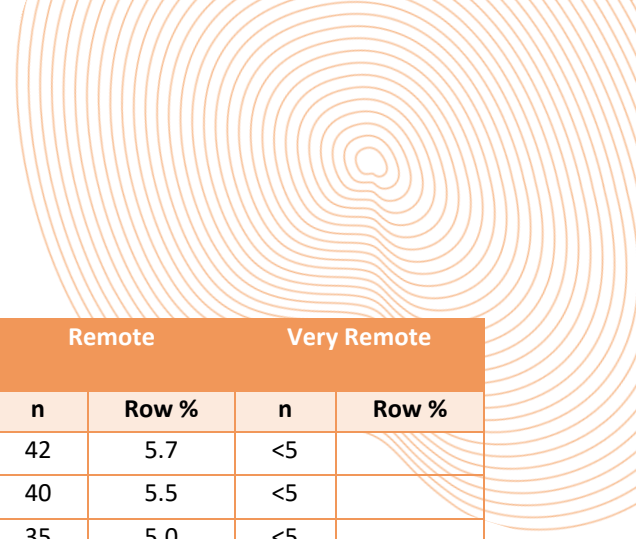


LAI Buprenorphine group*					
Time period	Monthly LAIB - high	Monthly LAIB - medium	Monthly LAIB - low	Weekly LAIB - high	Weekly LAIB - low
	n	n	n	n	n
November	<5	84	9	5	<5
December	<5	84	7	5	<5
2022					
January	<5	79	9	<5	
February	<5	83	10	<5	<5
March	<5	89	14	<5	<5
April		95	13	<5	<5
May	<5	89	14	<5	<5
June	<5	86	11	<5	<5
July	<5	85	12	<5	<5
August	<5	111	15	<5	<5
September	<5	98	15	<5	<5
October	<5	112	21	6	<5
November	<5	101	26	6	5
December	<5	114	33	5	<5

* LAIB groups are defined in Table 1

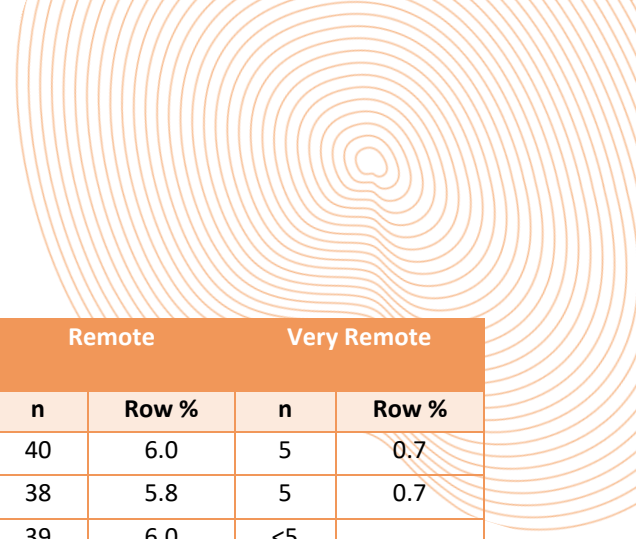
Table A3. Estimated OAT clients per month by remoteness (TAS, 2013-2022)

Time period	Inner Regional		Outer Regional		Remote		Very Remote	
	n	Row %	n	Row %	n	Row %	n	Row %
2013								
January	379	64.3	185	31.4	24	4.1	<5	
February	387	67.8	160	28.0	23	4.0	<5	
March	385	67.9	158	27.8	23	4.0	<5	
April	395	69.3	151	26.5	23	4.0	<5	
May	406	67.8	167	27.9	25	4.1	<5	
June	398	66.9	171	28.7	26	4.3	<5	
July	401	65.8	179	29.5	28	4.5	<5	
August	391	65.6	177	29.7	26	4.4	<5	
September	409	66.1	181	29.3	25	4.1	<5	
October	425	66.9	182	28.6	25	4.0	<5	
November	438	67.0	184	28.1	28	4.3	<5	
December	447	67.9	180	27.3	28	4.2	<5	
2014								
January	442	67.2	183	27.8	29	4.4	<5	
February	437	68.9	167	26.3	28	4.4	<5	
March	448	69.3	165	25.4	31	4.7	<5	
April	437	68.8	164	25.9	31	4.8	<5	
May	450	68.3	174	26.4	32	4.8	<5	
June	444	67.7	177	27.0	32	4.8	<5	
July	461	69.5	168	25.3	32	4.8	<5	
August	441	67.6	177	27.1	31	4.8	<5	
September	442	67.5	177	27.1	31	4.7	<5	
October	447	66.6	188	27.9	32	4.8	<5	
November	457	68.0	175	26.1	36	5.3	<5	
December	465	66.3	197	28.1	37	5.3	<5	
2015								
January	446	66.8	184	27.5	36	5.4	<5	
February	458	65.7	201	28.8	35	5.0	<5	
March	454	67.2	183	27.0	36	5.3	<5	
April	469	66.9	193	27.5	36	5.1	<5	
May	455	66.6	187	27.4	39	5.7	<5	
June	454	65.7	196	28.5	37	5.4	<5	
July	475	66.4	197	27.5	41	5.8	<5	



Time period	Inner Regional		Outer Regional		Remote		Very Remote	
	n	Row %	n	Row %	n	Row %	n	Row %
August	493	66.8	199	26.9	42	5.7	<5	
September	494	67.1	199	27.0	40	5.5	<5	
October	466	66.0	202	28.6	35	5.0	<5	
November	458	66.0	201	28.9	32	4.6	<5	
December	479	65.9	205	28.2	40	5.5	<5	
2016								
January	472	66.0	200	27.9	40	5.6	<5	
February	465	65.8	201	28.5	36	5.1	<5	
March	451	66.3	190	27.9	36	5.3	<5	
April	461	66.4	192	27.7	37	5.4	<5	
May	474	66.8	193	27.1	40	5.6	<5	
June	465	66.2	198	28.2	35	5.0	<5	
July	476	66.3	202	28.2	36	5.0	<5	
August	500	66.3	211	27.9	38	5.1	<5	
September	501	66.9	206	27.5	37	4.9	<5	
October	499	66.2	207	27.5	41	5.4	<5	
November	479	66.1	201	27.7	40	5.5	<5	
December	493	65.3	213	28.3	43	5.8	<5	
2017								
January	480	65.0	213	28.9	40	5.4	<5	
February	464	65.1	208	29.1	36	5.1	<5	
March	474	66.4	198	27.7	37	5.2	<5	
April	477	67.2	192	27.0	36	5.1	<5	
May	491	67.2	195	26.7	39	5.4	<5	
June	469	66.0	199	28.0	38	5.3	<5	
July	475	65.5	205	28.2	40	5.6	<5	
August	472	65.2	207	28.5	40	5.5	<5	
September	463	65.4	202	28.5	38	5.3	<5	
October	473	65.8	203	28.2	38	5.3	<5	
November	465	65.9	203	28.7	34	4.8	<5	
December	482	66.6	203	28.0	34	4.7	<5	
2018								
January	468	66.4	200	28.4	33	4.6	<5	
February	451	66.5	192	28.4	30	4.5	<5	
March	449	66.0	196	28.8	31	4.6	<5	
April	434	66.9	182	28.0	29	4.5	<5	

Time period	Inner Regional		Outer Regional		Remote		Very Remote	
	n	Row %	n	Row %	n	Row %	n	Row %
May	449	65.9	196	28.8	32	4.7	<5	
June	432	65.7	191	29.1	30	4.6	<5	
July	445	65.0	202	29.5	33	4.8	<5	
August	451	65.9	194	28.3	34	5.0	<5	
September	444	65.7	194	28.7	33	4.9	<5	
October	437	65.4	193	28.8	33	4.9	<5	
November	433	65.6	191	29.0	30	4.6	<5	
December	449	66.3	188	27.9	33	4.9	5	0.7
2019								
January	458	66.8	188	27.4	34	5.0	<5	
February	441	66.7	179	27.1	36	5.4	<5	
March	428	65.3	187	28.5	35	5.3	<5	
April	409	65.2	181	28.8	32	5.2	<5	
May	466	64.1	221	30.4	34	4.7	<5	
June	461	65.4	207	29.4	31	4.4	5	0.6
July	465	66.0	201	28.6	33	4.7	<5	
August	429	68.5	159	25.4	32	5.2	5	0.8
September	424	66.3	173	27.0	36	5.6	5	0.8
October	440	66.4	180	27.2	36	5.5	5	0.8
November	433	65.0	192	28.8	35	5.3	5	0.7
December	454	66.2	192	28.1	34	4.9	<5	
2020								
January	447	65.2	201	29.3	33	4.7	<5	
February	437	66.1	186	28.2	33	5.0	<5	
March	482	66.2	203	27.8	39	5.4	<5	
April	463	67.1	182	26.3	41	5.9	<5	
May	463	67.6	181	26.5	36	5.2	5	0.7
June	407	68.4	158	26.5	26	4.3	5	0.8
July	405	67.3	168	27.9	24	4.0	5	0.8
August	426	66.3	179	27.9	32	5.0	5	0.8
September	430	66.1	178	27.4	37	5.7	5	0.8
October	456	65.9	191	27.6	40	5.7	5	0.8
November	441	66.2	183	27.5	37	5.5	5	0.8
December	463	65.8	194	27.5	41	5.9	6	0.8
2021								
January	452	66.3	184	27.0	40	5.9	6	0.8



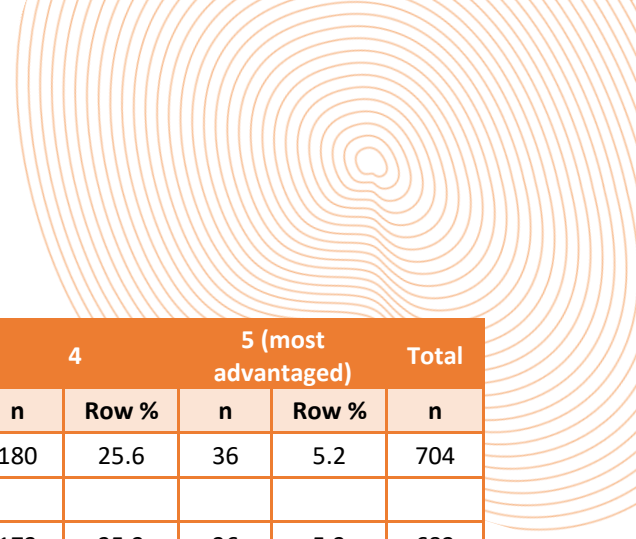
Time period	Inner Regional		Outer Regional		Remote		Very Remote	
	n	Row %	n	Row %	n	Row %	n	Row %
February	438	66.1	180	27.2	40	6.0	5	0.7
March	429	65.5	183	27.9	38	5.8	5	0.7
April	429	65.9	178	27.3	39	6.0	<5	
May	437	65.6	180	27.0	44	6.6	5	0.8
June	422	66.5	165	26.1	43	6.7	<5	
July	433	66.2	173	26.4	44	6.7	<5	
August	456	66.7	181	26.5	42	6.1	<5	
September	452	66.4	181	26.5	41	6.1	5	0.7
October	439	65.9	180	27.1	40	6.0	5	0.7
November	438	67.0	170	26.0	40	6.2	<5	
December	456	66.6	184	26.9	41	5.9	<5	
2022								
January	464	69.1	166	24.7	38	5.7	<5	
February	445	68.0	168	25.7	36	5.5	<5	
March	434	68.8	157	24.8	35	5.6	<5	
April	433	68.1	161	25.4	36	5.7	<5	
May	450	69.3	158	24.3	38	5.8	<5	
June	455	70.3	150	23.2	38	5.9	<5	
July	459	70.1	152	23.2	39	6.0	<5	
August	475	69.1	166	24.1	41	6.0	5	0.7
September	474	69.5	162	23.8	42	6.1	<5	
October	488	69.0	172	24.3	42	5.9	<5	
November	476	68.5	172	24.7	43	6.2	<5	
December	487	68.1	179	25.0	44	6.2	<5	

Table A4. Estimated OAT clients per month by IRSAD quintile (TAS, 2013-2022)

Time period	1 (most disadvantaged)		2		3		4		5 (most advantaged)		Total n
	n	Row %	n	Row %	n	Row %	n	Row %	n	Row %	
2013											
January	235	39.9	75	12.8	108	18.4	127	21.5	44	7.5	589
February	221	38.8	80	14.0	100	17.6	125	21.9	43	7.6	570
March	218	38.4	82	14.4	99	17.4	126	22.2	43	7.6	567
April	224	39.2	71	12.4	94	16.5	134	23.5	47	8.3	570
May	233	38.8	78	13.1	101	16.9	137	22.8	50	8.4	599
June	239	40.2	69	11.7	99	16.6	136	22.8	52	8.7	595
July	242	39.7	83	13.7	98	16.1	139	22.8	47	7.7	609
August	242	40.7	83	13.9	91	15.3	135	22.8	44	7.4	595
September	246	39.7	96	15.6	94	15.1	137	22.2	45	7.3	618
October	250	39.3	105	16.6	97	15.3	137	21.6	46	7.2	636
November	255	38.9	104	15.9	96	14.7	149	22.8	50	7.6	654
December	259	39.3	107	16.2	91	13.9	151	22.9	51	7.7	659
2014											
January	251	38.2	104	15.8	96	14.7	154	23.5	52	7.9	657
February	240	37.9	104	16.4	99	15.6	145	22.8	46	7.3	634
March	231	35.7	109	16.8	104	16.1	158	24.5	45	6.9	647
April	241	38.0	100	15.7	88	13.9	160	25.1	46	7.2	635
May	248	37.7	102	15.5	83	12.5	175	26.6	51	7.8	659
June	251	38.3	94	14.3	89	13.6	173	26.3	49	7.5	656
July	243	36.7	104	15.8	93	14.0	171	25.9	51	7.7	663
August	240	36.8	99	15.2	98	15.1	166	25.4	48	7.4	652
September	247	37.7	103	15.7	88	13.4	166	25.4	51	7.7	655
October	252	37.5	107	15.9	95	14.1	167	24.8	52	7.7	672
November	261	38.8	101	15.0	92	13.7	165	24.5	53	7.9	672
December	279	39.9	101	14.5	102	14.6	161	23.0	56	8.1	701
2015											
January	263	39.3	97	14.5	98	14.7	160	23.9	51	7.6	668
February	269	38.6	110	15.8	100	14.3	168	24.1	50	7.2	697
March	253	37.4	101	14.9	96	14.2	181	26.8	45	6.7	677
April	268	38.3	108	15.4	95	13.5	184	26.2	47	6.7	701
May	270	39.5	103	15.0	91	13.4	177	25.9	43	6.3	684
June	275	39.9	113	16.3	91	13.2	169	24.4	42	6.1	690

Time period	1 (most disadvantaged)		2		3		4		5 (most advantaged)		Total
	n	Row %	n	Row %	n	Row %	n	Row %	n	Row %	
July	280	39.1	115	16.1	95	13.4	182	25.5	43	6.0	715
August	282	38.2	121	16.4	97	13.1	195	26.5	43	5.8	738
September	282	38.3	129	17.5	94	12.8	188	25.5	44	5.9	737
October	279	39.5	119	16.9	95	13.4	168	23.8	46	6.4	707
November	275	39.6	119	17.1	96	13.8	161	23.2	44	6.3	694
December	290	39.9	109	15.1	98	13.5	185	25.4	45	6.1	727
2016											
January	287	40.1	112	15.7	93	13.1	179	25.1	43	6.0	715
February	280	39.7	115	16.3	93	13.2	174	24.6	44	6.2	706
March	267	39.3	112	16.5	93	13.6	163	23.9	46	6.7	681
April	271	39.1	118	17.0	90	13.0	171	24.7	43	6.2	693
May	282	39.7	113	15.9	97	13.7	172	24.3	46	6.5	710
June	281	40.1	120	17.2	91	13.0	164	23.4	45	6.4	702
July	286	39.9	118	16.5	97	13.5	170	23.7	46	6.4	718
August	299	39.7	124	16.5	99	13.1	186	24.6	46	6.1	754
September	297	39.7	123	16.5	99	13.3	184	24.5	46	6.1	748
October	302	40.1	123	16.3	105	13.9	177	23.5	46	6.1	753
November	291	40.2	120	16.6	95	13.1	177	24.5	41	5.7	725
December	305	40.4	119	15.8	105	13.9	183	24.3	42	5.6	755
2017											
January	296	40.1	118	16.1	99	13.5	182	24.7	42	5.7	738
February	287	40.2	120	16.8	102	14.3	160	22.5	44	6.2	713
March	277	38.8	123	17.2	99	13.9	174	24.4	41	5.7	714
April	276	38.9	120	16.9	100	14.1	175	24.6	39	5.4	710
May	286	39.2	121	16.5	100	13.7	186	25.5	38	5.1	731
June	285	40.1	116	16.3	101	14.2	171	24.0	39	5.4	711
July	291	40.1	122	16.8	106	14.6	170	23.4	38	5.2	726
August	296	40.9	117	16.1	111	15.4	163	22.5	37	5.1	724
September	290	41.0	116	16.3	106	14.9	161	22.8	35	5.0	707
October	295	41.1	116	16.1	101	14.1	167	23.2	39	5.5	718
November	277	39.3	118	16.7	100	14.2	168	23.8	42	6.0	706
December	285	39.3	121	16.7	103	14.3	175	24.1	41	5.6	725
2018											
January	268	38.1	113	16.1	106	15.0	180	25.5	38	5.4	705
February	266	39.2	108	16.0	98	14.4	170	25.1	36	5.3	678

Time period	1 (most disadvantaged)		2		3		4		5 (most advantaged)		Total
	n	Row %	n	Row %	n	Row %	n	Row %	n	Row %	
March	268	39.4	109	16.0	99	14.5	168	24.7	36	5.3	680
April	262	40.4	106	16.3	92	14.2	154	23.7	35	5.4	649
May	276	40.6	114	16.7	97	14.2	159	23.4	35	5.1	681
June	266	40.5	111	17.0	94	14.3	150	22.9	35	5.3	657
July	275	40.3	115	16.8	94	13.8	166	24.2	34	4.9	684
August	270	39.4	113	16.5	97	14.2	170	24.8	35	5.1	684
September	267	39.6	113	16.8	94	13.8	166	24.5	36	5.3	675
October	263	39.3	120	18.0	97	14.5	154	23.0	35	5.2	668
November	255	38.7	119	18.1	99	15.0	153	23.2	33	5.0	660
December	258	38.2	120	17.7	104	15.4	161	23.7	33	4.9	677
2019											
January	263	38.3	120	17.6	105	15.3	163	23.8	35	5.0	686
February	250	37.8	117	17.7	100	15.2	159	24.1	34	5.1	661
March	246	37.5	116	17.8	100	15.2	164	24.9	30	4.6	656
April	234	37.2	107	17.0	99	15.8	159	25.3	30	4.7	628
May	265	36.5	146	20.0	113	15.6	172	23.7	31	4.2	726
June	255	36.2	144	20.4	108	15.3	167	23.8	30	4.3	704
July	253	35.9	138	19.6	108	15.3	174	24.6	32	4.6	706
August	226	36.1	104	16.7	92	14.7	172	27.4	32	5.1	627
September	235	36.8	98	15.3	92	14.4	180	28.1	35	5.5	639
October	237	35.8	114	17.2	98	14.8	181	27.3	32	4.9	663
November	244	36.7	118	17.7	102	15.3	172	25.9	30	4.5	666
December	248	36.2	131	19.2	104	15.2	168	24.5	34	4.9	685
2020											
January	253	36.9	127	18.5	100	14.7	171	24.9	35	5.1	685
February	240	36.3	120	18.2	96	14.5	165	25.0	40	6.0	660
March	262	35.9	128	17.5	108	14.8	193	26.4	39	5.3	729
April	247	35.8	118	17.2	100	14.5	187	27.1	38	5.5	690
May	241	35.2	121	17.7	106	15.4	181	26.4	36	5.3	685
June	210	35.3	110	18.5	100	16.8	141	23.7	34	5.8	595
July	219	36.4	118	19.6	105	17.5	124	20.6	36	5.9	602
August	234	36.4	124	19.2	103	16.0	148	23.0	35	5.4	643
September	235	36.1	123	18.9	107	16.4	155	23.9	31	4.7	651
October	247	35.7	132	19.1	107	15.4	177	25.6	30	4.3	692
November	238	35.7	123	18.4	109	16.4	164	24.6	33	5.0	666



Time period	1 (most disadvantaged)		2		3		4		5 (most advantaged)		Total
	n	Row %	n	Row %	n	Row %	n	Row %	n	Row %	
December	251	35.6	131	18.6	106	15.0	180	25.6	36	5.2	704
2021											
January	239	35.1	125	18.3	109	16.0	173	25.3	36	5.3	682
February	237	35.8	127	19.2	101	15.3	165	24.9	32	4.8	663
March	235	35.8	132	20.1	102	15.6	153	23.4	33	5.1	655
April	233	35.7	135	20.7	100	15.4	153	23.5	30	4.6	651
May	232	34.9	137	20.6	101	15.2	164	24.6	32	4.7	666
June	221	34.8	120	19.0	97	15.3	168	26.5	28	4.4	634
July	233	35.5	129	19.7	98	15.0	163	24.8	33	5.0	655
August	238	34.8	138	20.2	112	16.4	166	24.2	30	4.4	684
September	236	34.7	151	22.2	108	15.9	155	22.7	31	4.5	682
October	230	34.6	146	22.0	99	14.9	160	24.1	29	4.4	665
November	222	34.0	151	23.2	89	13.6	160	24.4	31	4.7	653
December	234	34.1	159	23.2	95	13.9	167	24.4	30	4.3	686
2022											
January	224	33.3	161	24.0	102	15.1	154	23.0	31	4.6	672
February	217	33.1	163	24.8	99	15.1	147	22.4	30	4.6	655
March	204	32.3	162	25.7	92	14.6	142	22.5	30	4.8	630
April	198	31.1	164	25.8	90	14.1	154	24.3	30	4.8	635
May	209	32.2	160	24.7	93	14.4	155	23.9	31	4.9	649
June	202	31.2	155	23.9	98	15.1	160	24.7	32	5.0	647
July	208	31.8	158	24.1	98	14.9	160	24.4	31	4.7	654
August	215	31.3	172	25.0	101	14.6	171	24.9	29	4.2	688
September	215	31.4	169	24.8	98	14.4	173	25.3	28	4.1	683
October	219	31.0	185	26.1	103	14.6	170	24.0	30	4.2	707
November	220	31.7	172	24.8	100	14.4	174	25.1	29	4.1	694
December	230	32.1	183	25.7	103	14.4	169	23.6	30	4.2	715

IRSAD: Index of Relative Socioeconomic Advantage and Disadvantage

*Australia Bureau of Statistics. Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2016. ABS: Canberra; 2018.

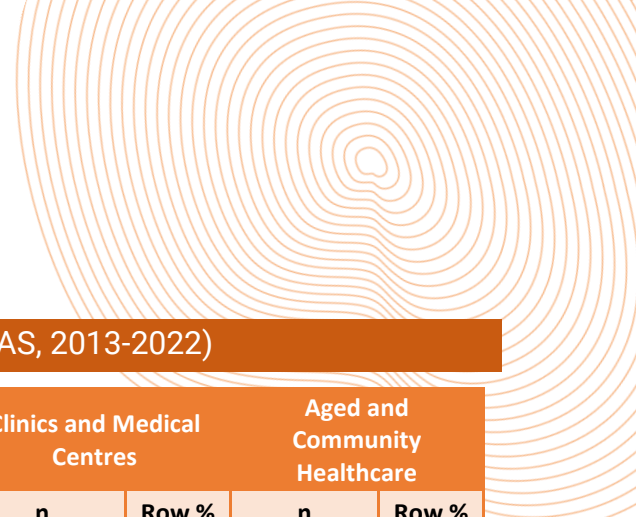
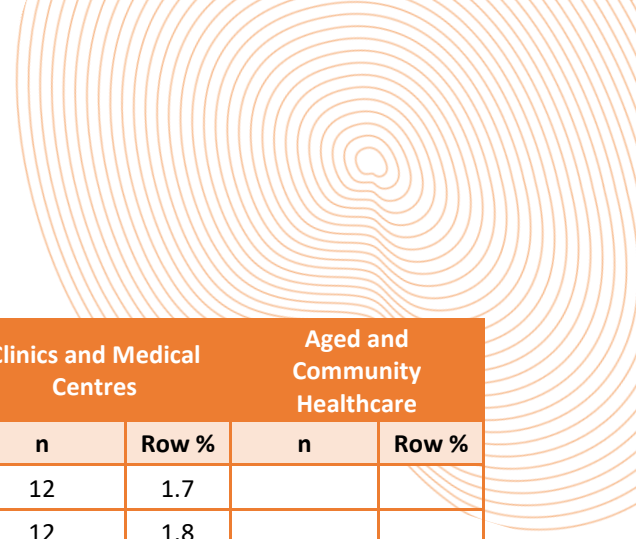


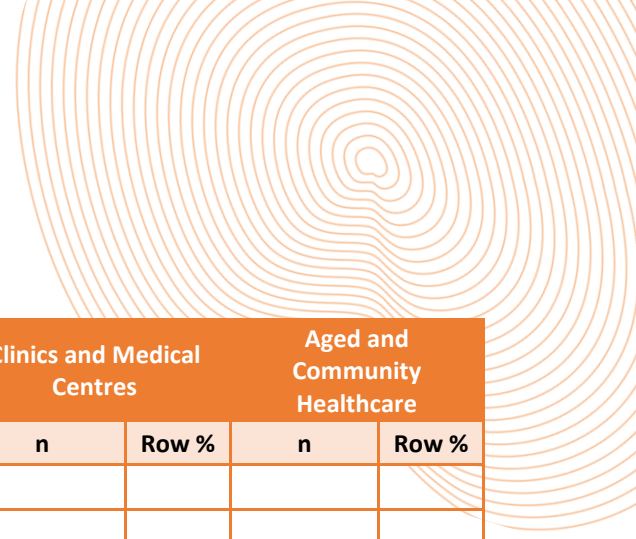
Table A5. Estimated OAT clients per month by setting (TAS, 2013-2022)

Time period	Community Pharmacy		Hospital		Clinics and Medical Centres		Aged and Community Healthcare	
	n	Row %	n	Row %	n	Row %	n	Row %
2013								
January	566	96.1	23	3.9				
February	547	95.9	23	4.1				
March	543	95.7	24	4.3				
April	547	95.9	23	4.1				
May	574	95.8	25	4.2				
June	568	95.4	27	4.6				
July	574	94.2	33	5.4	8	1.3		
August	557	93.5	32	5.3	10	1.7		
September	578	93.6	28	4.6	12	1.9		
October	594	93.5	27	4.2	14	2.3		
November	601	91.9	34	5.2	19	2.9		
December	611	92.7	34	5.1				
2014								
January	604	91.9	40	6.0	19	2.9		
February	593	93.5	32	5.1	18	2.9		
March	590	91.1	44	6.8	14	2.1		
April	587	92.5	36	5.7	11	1.8		
May	608	92.3	41	6.2	10	1.5		
June	609	92.9	36	5.6	10	1.6		
July	612	92.3	40	6.0	11	1.7		
August	598	91.7	41	6.3	13	2.0		
September	602	91.9	35	5.4	18	2.7		
October	614	91.4	38	5.7	20	2.9		
November	624	92.8	33	4.9	15	2.3		
December	658	93.9	35	5.0	8	1.1		
2015								
January	629	94.2	31	4.7	8	1.2		
February	646	92.7	35	5.1	16	2.2		
March	623	92.1	40	5.8				
April	648	92.4	39	5.6	19	2.7		
May	638	93.2	41	6.0	14	2.0		

Time period	Community Pharmacy		Hospital		Clinics and Medical Centres		Aged and Community Healthcare	
	n	Row %	n	Row %	n	Row %	n	Row %
June	642	93.0	39	5.7	9	1.3		
July	665	93.0	43	6.0	7	1.0		
August	679	92.1	45	6.1	13	1.8		
September	689	93.5	36	4.8	13	1.7		
October	668	94.5	29	4.1	10	1.4		
November	660	95.2	25	3.6	8	1.2		
December	683	93.9	37	5.0	8	1.0		
2016								
January	666	93.1	34	4.7	15	2.1		
February	659	93.4	30	4.2	17	2.4		
March	637	93.5	30	4.3				
April	650	93.7	31	4.5	21	3.0		
May	667	94.0	34	4.7	15	2.1		
June	664	94.6	26	3.7	12	1.7		
July	682	95.1	28	3.8	8	1.1		
August	712	94.3	29	3.8	14	1.9		
September	703	93.9	30	4.0	15	2.0		
October	703	93.5	30	4.0	19	2.5		
November	679	93.6	33	4.5	13	1.8		
December	706	93.6	35	4.7	13	1.7		
2017								
January	692	93.7	35	4.8	11	1.5		
February	676	94.8	25	3.6	11	1.6		
March	672	94.1	27	3.8	15	2.0		
April	673	94.8	26	3.6	12	1.6		
May	685	93.7	33	4.5	13	1.7		
June	673	94.7	27	3.7	11	1.5		
July	684	94.3	24	3.4	17	2.4		
August	690	95.3	18	2.5	16	2.3		
September	669	94.6	23	3.2	16	2.2		
October	680	94.6	25	3.5	14	1.9		
November	665	94.2	29	4.2	12	1.7		
December	686	94.6	27	3.7	12	1.6		
2018								



Time period	Community Pharmacy		Hospital		Clinics and Medical Centres		Aged and Community Healthcare	
	n	Row %	n	Row %	n	Row %	n	Row %
January	665	94.3	28	4.0	12	1.7		
February	638	94.1	28	4.1	12	1.8		
March	637	93.5	33	4.8	11	1.6		
April	609	93.9	33	5.0	7	1.1		
May	637	93.6	33	4.9	11	1.6		
June	619	94.2	27	4.1	11	1.7		
July	640	93.5	34	4.9	11	1.6		
August	638	93.2	34	4.9	13	1.9		
September	631	93.4	35	5.1	10	1.5		
October	623	93.2	31	4.6	15	2.2		
November	618	93.7	31	4.8	10	1.5		
December	630	93.1	36	5.3	11	1.6		
2019								
January	637	92.8	39	5.7	10	1.4		
February	615	93.0	40	6.1				
March	601	91.7	42	6.5	14	2.2		
April	582	92.7	38	6.0	13	2.0		
May	671	92.4	43	5.9	13	1.7		
June	664	94.2	36	5.2				
July	655	92.9	39	5.6	11	1.6		
August	583	93.0	37	5.9	11	1.8		
September	584	91.3	43	6.7	13	2.0		
October	606	91.4	47	7.1	10	1.5		
November	605	90.9	48	7.2	13	1.9		
December	628	91.7	50	7.2				
2020								
January	631	92.1	48	7.0	10	1.4		
February	609	92.2	47	7.1	9	1.3		
March	660	90.6	61	8.4	7	1.0		
April	622	90.1	63	9.1				
May	623	91.0	59	8.6				
June	556	93.4	39	6.6				
July	570	94.8	32	5.2				
August	592	92.1	51	7.9				



Time period	Community Pharmacy		Hospital		Clinics and Medical Centres		Aged and Community Healthcare	
	n	Row %	n	Row %	n	Row %	n	Row %
September	591	90.9	59	9.1				
October	616	89.0	76	11.0				
November	598	89.8	68	10.2				
December	626	88.9	78	11.1				
2021								
January	612	89.7	70	10.3				
February	596	89.9	67	10.1				
March	591	90.3	58	8.9			16	2.4
April	586	90.0	60	9.2				
May	594	89.2	66	10.0				
June	570	89.8	65	10.2				
July	584	89.2	65	10.0			17	2.5
August	610	89.2	67	9.8	5	0.8	12	1.8
September	597	87.6	66	9.7		0.0	18	2.6
October	586	88.1	67	10.0	<5			
November	578	88.5	64	9.8	<5			
December	619	90.2	63	9.2	<5		15	2.2
2022								
January	610	90.8	58	8.6	<5			
February	593	90.4	53	8.0	<5		20	3.0
March	566	89.8	57	9.0	<5			
April	567	89.3	61	9.6				
May	586	90.4	62	9.5				
June	584	90.3	63	9.7				
July	590	90.3	63	9.7	<5			
August	612	89.0	72	10.5			12	1.8
September	614	89.9	65	9.5	<5			
October	634	89.7	68	9.7	<5			
November	623	89.8	67	9.7	<5			
December	636	89.0	74	10.3	5	0.7		

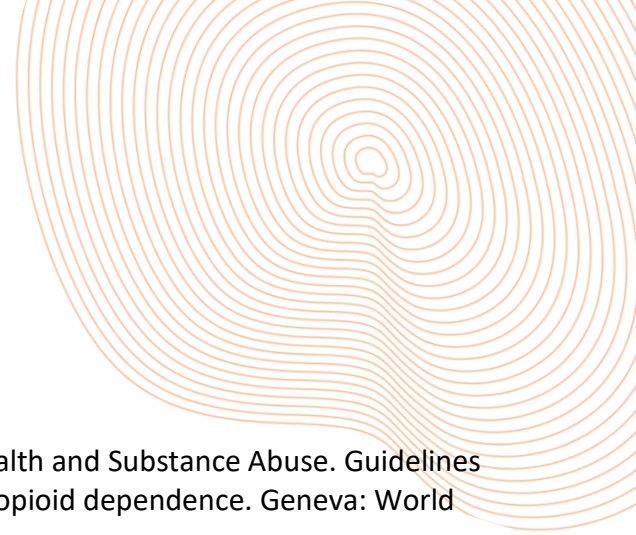
Table A6. Estimated OAT clients per month by medicine and setting (TAS, 2013-2022)

Time period	Community Pharmacy			Hospital		
	LAI	SL	Methadone	LAI	SL	Methadone
	Buprenorphine	Buprenorphine		Buprenorphine	Buprenorphine	
n	n	n	n	n	n	
2013						
January		159	407		20	<5
February		157	390		20	<5
March		163	379		21	<5
April		171	376		19	5
May		180	394		21	5
June		175	392		22	5
July		177	397		28	5
August		182	375		27	5
September		191	387		24	<5
October		203	391		22	<5
November		211	390		29	5
December		218	393		28	6
2014						
January		221	383		35	<5
February		219	374		29	<5
March		216	374		40	<5
April		217	370		33	<5
May		221	387		37	<5
June		219	390		34	<5
July		222	390		36	<5
August		220	378		36	5
September		230	372		30	5
October		233	381		33	5
November		242	383		29	<5
December		248	410		31	<5
2015						
January		244	385		27	<5
February		251	395		33	
March		251	372		36	<5
April		257	391		36	5
May		255	382		37	5

Time period	Community Pharmacy			Hospital		
	LAI	SL		LAI	SL	
	Buprenorphine	Buprenorphine	Methadone	Buprenorphine	Buprenorphine	Methadone
	n	n	n	n	n	n
June		262	380		35	<5
July		267	398		40	<5
August		274	405		41	<5
September		275	414		31	5
October		275	393		24	<5
November		267	393		20	5
December		275	408		33	<5
2016						
January		265	401		29	5
February		268	391		26	<5
March		268	368		25	5
April		275	375		24	7
May		280	387		26	8
June		287	377		20	
July		300	383		24	7
August		314	397		26	5
September		305	398		27	<5
October		303	400		27	<5
November		300	379		28	5
December		311	396		30	5
2017						
January		310	382		30	5
February		302	374		22	<5
March		302	369		24	<5
April		296	377		23	<5
May		301	384		30	<5
June		292	381		23	<5
July		310	375		21	<5
August		305	385		15	<5
September		309	360		20	<5
October		312	367		21	<5
November		309	356		24	5
December		314	372		22	5

Time period	Community Pharmacy			Hospital		
	LAI	SL		LAI	SL	
	Buprenorphine	Buprenorphine	Metadone	Buprenorphine	Buprenorphine	Metadone
	n	n	n	n	n	n
2018						
January		293	373		24	<5
February		282	356		22	5
March		283	354		28	5
April		277	332		28	<5
May		289	348		28	5
June		280	338		21	6
July		300	340		27	7
August		304	334		28	6
September		307	324		29	5
October		302	321		25	6
November		302	316		26	5
December		311	319		29	7
2019						
January		306	331		34	5
February		297	318		35	5
March		283	318		39	<5
April		278	304		35	
May		363	308		41	<5
June		346	318		36	
July		335	320		38	<5
August		252	331		33	<5
September		264	320		38	<5
October		290	316		41	6
November		304	302		43	5
December		319	309		46	<5
2020						
January		321	310		45	<5
February		309	299		44	<5
March		346	314		56	5
April		315	307	14	53	5
May		317	307		49	5
June		276	281	8	29	5

Time period	Community Pharmacy			Hospital		
	LAI	SL		LAI	SL	
	Buprenorphine	Buprenorphine	Metadone	Buprenorphine	Buprenorphine	Metadone
	n	n	n	n	n	n
July		290	281	7	24	6
August		301	292	7	37	6
September		303	288	14	37	9
October	<5	323	293	26	40	10
November	<5	318	279	38	20	10
December	<5	328	296	50	20	8
2021						
January	<5	322	287	53	13	<5
February	<5	316	277	51	12	<5
March	7	319	265	50	5	<5
April	9	311	265	47	8	<5
May	11	313	270	53	9	<5
June	10	291	268	51	11	<5
July	16	294	274	54	10	<5
August	23	303	285	53	11	<5
September	29	296	272	54	10	<5
October	32	287	267	53	9	5
November	35	284	259	53	7	<5
December	43	301	275	51	6	5
2022						
January	43	297	271	48	5	5
February	44	284	265	44	<5	<5
March	52	270	245	50	<5	<5
April	54	267	246	54	5	
May	54	275	257	54	5	<5
June	50	268	266	54	6	5
July	50	279	262	54	<5	6
August	70	283	259	61	6	5
September	63	291	260	56	5	<5
October	82	296	255	59	6	<5
November	76	290	258	61	<5	<5
December	88	293	255	66	5	<5



7. References

1. World Health Organization, Department of Mental Health and Substance Abuse. Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence. Geneva: World Health Organization; 2009.
2. Colledge-Frisby S, Jones N, Larney S, et al. The impact of opioid agonist treatment on hospitalisations for injecting-related diseases among an opioid dependent population: A retrospective data linkage study. *Drug and Alcohol Dependence* 2022; **236**: 109494.
3. Degenhardt L, Grebely J, Stone J, et al. Global patterns of opioid use and dependence: harms to populations, interventions, and future action. *Lancet* 2019; **394**(10208): 1560-79.
4. Gisev N, Bharat C, Larney S, et al. The effect of entry and retention in opioid agonist treatment on contact with the criminal justice system among opioid-dependent people: a retrospective cohort study. *Lancet Public Health* 2019; **4**(7): e334-e42.
5. Santo T, Jr., Clark B, Hickman M, et al. Association of Opioid Agonist Treatment With All-Cause Mortality and Specific Causes of Death Among People With Opioid Dependence: A Systematic Review and Meta-analysis. *JAMA Psychiatry* 2021; **78**(9): 979-93.
6. World Health Organization. WHO, UNODC, UNAIDS technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users—2012 revision. 2012.
7. Colledge-Frisby S, Ottaviano S, Webb P, et al. Global coverage of interventions to prevent and manage drug-related harms among people who inject drugs: a systematic review. *Lancet Global Health* 2023; **11**(5): e673-e83.
8. World Health Organization. WHO Model List of Essential Medicines. World Health Organization; 2017.
9. Australian Government Department of Health and Aged Care. The Pharmaceutical Benefits Scheme (PBS). 2023. <https://www.pbs.gov.au/pbs/home> (accessed 21 June 2023).
10. Lintzeris N, Dunlop A, Masters D. Clinical Guidelines for Use of Depot Buprenorphine (Buvidal and Sublocade) in the Treatment of Opioid Dependence: NSW Ministry of Health; 2019.
11. Australian Product Information: Buvidal® weekly (buprenorphine) solution for injection. Therapeutic Goods Administration, 2018.
12. Australian Product Information: Buvidal® monthly (buprenorphine) solution for injection. Therapeutic Goods Administration, 2018.
13. Australian Product Information: Sublocade (Buprenorphine). Therapeutic Goods Administration, 2019.
14. Frost M, Bailey GL, Lintzeris N, et al. Long-term safety of a weekly and monthly subcutaneous buprenorphine depot (CAM2038) in the treatment of adult out-patients with opioid use disorder. *Addiction* 2019; **114**(8): 1416-26.
15. Haight BR, Learned SM, Laffont CM, et al. Efficacy and safety of a monthly buprenorphine depot injection for opioid use disorder: a multicentre, randomised, double-blind, placebo-controlled, phase 3 trial. *Lancet* 2019; **393**(10173): 778-90.

16. Farrell M, Shahbazi J, Byrne M, et al. Outcomes of a single-arm implementation trial of extended-release subcutaneous buprenorphine depot injections in people with opioid dependence. *International Journal of Drug Policy* 2022; **100**: 103492.
17. Barnett A, Savic M, Lintzeris N, et al. Tracing the affordances of long-acting injectable depot buprenorphine: A qualitative study of patients' experiences in Australia. *Drug and Alcohol Dependence* 2021; **227**: 108959.
18. Clay S, Treloar C, Degenhardt L, et al. 'I just thought that was the best thing for me to do at this point': Exploring patient experiences with depot buprenorphine and their motivations to discontinue. *International Journal of Drug Policy* 2023; **115**: 104002.
19. Lancaster K, Gendera S, Treloar C, et al. The Social, Material, and Temporal Effects of Monthly Extended-Release Buprenorphine Depot Treatment for Opioid Dependence: An Australian Qualitative Study. *Contemporary Drug Problems* 2023; **50**(1): 105-20.
20. Lintzeris N, Hayes V, Arunogiri S. Interim guidance for the delivery of medication assisted treatment of opioid dependence in response to COVID - 19: a national response. Royal Australasian College of Physicians, 2020.
21. Hall NY, Le L, Majmudar I, Mihalopoulos C. Barriers to accessing opioid substitution treatment for opioid use disorder: A systematic review from the client perspective. *Drug and Alcohol Dependence* 2021; **221**: 108651.
22. Australian Institute of Health Welfare. National Opioid Pharmacotherapy Statistics Annual Data collection. Canberra: AIHW, 2023.
23. IQVIA Australia & New Zealand. Navigating COVID-19 Impact: An initial assessment of the pandemic's effect on Australian healthcare. *White paper series - Part 1*, 2020. <https://www.iqvia.com/-/media/iqvia/pdfs/library/white-papers/iqvia-anz-covid-19-white-paper.pdf> (accessed 20 July 2023).
24. Australian Government Department of Health and Aged Care. Post-market Review of PBS Opioid Dependence Treatment Program medicines: Interim Report to the Pharmaceutical Benefits Advisory Committee. Canberra, 2023.
25. Pharmaceutical Benefits Advisory Committee. Positive Recommendations made by the PBAC in March 2001. Canberra: Australian Government Department of Health and Aged Care; 2001.
26. Pharmaceutical Benefits Advisory Committee. Positive Recommendations made by the PBAC November 2005. Canberra: Australian Government Department of Health and Aged Care; 2005.
27. Pharmaceutical Benefits Advisory Committee. Positive Recommendations made by the PBAC March 2011. Canberra: Australian Government Department of Health and Aged Care; 2011.
28. Chidwick K, Bharat C, Gisev N, Farrell M, Degenhardt L. NDARC Technical Report: Real-world dosing intervals of long-acting buprenorphine for opioid agonist treatment. Sydney: UNSW, 2023.
29. Reece AS, Norman A, Hulse GK. Acceleration of cardiovascular-biological age by amphetamine exposure is a power function of chronological age. *Heart Asia* 2017; **9**(1): 30-8.

30. Valerio H, Alavi M, Silk D, et al. Progress Towards Elimination of Hepatitis C Infection Among People Who Inject Drugs in Australia: The ETHOS Engage Study. *Clinical Infectious Diseases* 2021; **73**(1): e69-e78.
31. Haber PS, Elsayed M, Espinoza D, Lintzeris N, Veillard AS, Hallinan R. Constipation and other common symptoms reported by women and men in methadone and buprenorphine maintenance treatment. *Drug and Alcohol Dependence* 2017; **181**: 132-9.
32. Kelty E, Hulse G. Rates of Hospital and Emergency Department Attendances in Opiate-dependent Patients Treated With Implant Naltrexone, Methadone, or Buprenorphine. *Addictive Disorders & Their Treatment* 2017; **16**(2): 39-48.
33. Larance B, Degenhardt L, Grebely J, et al. Perceptions of extended-release buprenorphine injections for opioid use disorder among people who regularly use opioids in Australia. *Addiction* 2020; **115**(7): 1295-305.
34. Larney S, Lai W, Dolan K, Zador D. Monitoring a Prison Opioid Treatment Program Over a Period of Change to Clinical Governance Arrangements, 2007-2013. *Journal of Substance Abuse Treatment* 2016; **70**: 58-63.
35. Jamshidi N, Athavale A, Murnion B. Buprenorphine not detected on urine drug screening in supervised treatment. *Journal of Opioid Management* 2021; **17**(7): 69-76.
36. Australian Bureau of Statistics. Australian Statistical Geography Standard (ASGS): Volume 5 - Remoteness Structure, July 2016 ABS: Canberra; 2018.
37. Australian Bureau of Statistics. Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2016. ABS: Canberra; 2018.
38. Australian Bureau of Statistics. National, state and territory population, September 2022. Canberra: ABS; 2023.
39. Bharat C, Larney S, Barbieri S, et al. The effect of person, treatment and prescriber characteristics on retention in opioid agonist treatment: a 15-year retrospective cohort study. *Addiction* 2021; **116**(11): 3139-52.