

## Impacts of COVID-19 on BBVSTI testing, care and treatment: Medicare data analysis

**Updated data to December 2020**  
(extracted March 2021)

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## Summary findings

- There have been substantial decreases in **hepatitis screening, chlamydia/ gonorrhoea screening and hepatitis B monitoring during the COVID-19 era**. Some increases have been seen after initial declines, but rates remain below 2019 levels.
- Based on these trends, so far in 2020 approximately **176,000 fewer people have been screened for hepatitis**; an estimated **90,000 fewer people have been screened for chlamydia/gonorrhoea**; and **2,200 fewer people have received a hepatitis B monitoring test**.
- Declines in **hepatitis and chlamydia/gonorrhoea screening** were seen in **all states and territories**, but were greatest in **NSW, VIC, and TAS**.
- **Trends in hepatitis C treatment** were stable in some states and territories, but **more rapid declines** compared to prior years were seen in **VIC, NSW, ACT, and NT**. **Hepatitis C monitoring showed more rapid negative trends in NSW, ACT, and SA**.
- The number of scripts dispensed for HIV PreP continued to increase in all **states and territories except VIC**. **HIV treatment** trends fluctuated, with **decreases occurring in VIC, SA, ACT and TAS**. However, at the national level, strategic targets for HIV care and treatment had been met or exceeded by 2018.
- **Treatment uptake was only minimally impacted for hepatitis B**, potentially due to the enactment of effective telehealth strategies which allow remote prescribing (not possible for testing). However lower rates of diagnosis and management will likely have flow on impacts.
- If these declines are not reversed, considerable impacts will likely be seen on **progress toward National Strategy Targets for hepatitis B and STIs** in particular, as substantial increases are needed in diagnosis and subsequent clinical care.
- Further declines in hepatitis C monitoring **could lead to more rapid decreases in hepatitis C treatment uptake**, which need to remain stable in order to reach **National Strategy Targets**.

Measure	Previous trend	Trend during COVID-19
Hepatitis screening	Increase (+3.4%)	Decrease (19.1%)
Hepatitis B monitoring	Increase (+4.1%)	Decrease (-8.7%)
Hepatitis B treatment	Increase (+9.7%)	Stable (+3.6%)
Hepatitis C monitoring/workup	Decrease (-27.1%)	Decrease (-30.1%)
Hepatitis C treatment	Decrease (-23.2%)	Decrease (-27.9%)
Chlamydia/gonorrhoea screening	Increase (+4.7%)	Decrease (-16.5%)
HIV treatment	Increase (+5.2%)	Stable (+2.5%)
HIV PrEP	Stable (0%)	Stable (0%)

*Previous trend = Percentage change in test or script numbers between April-December 2018 and April-December 2019; COVID-19 trend = Percentage change in test or script numbers between April-December 2019 and April-December 2020.*

## Summary of methods and data sources

### MBS/PBS items used

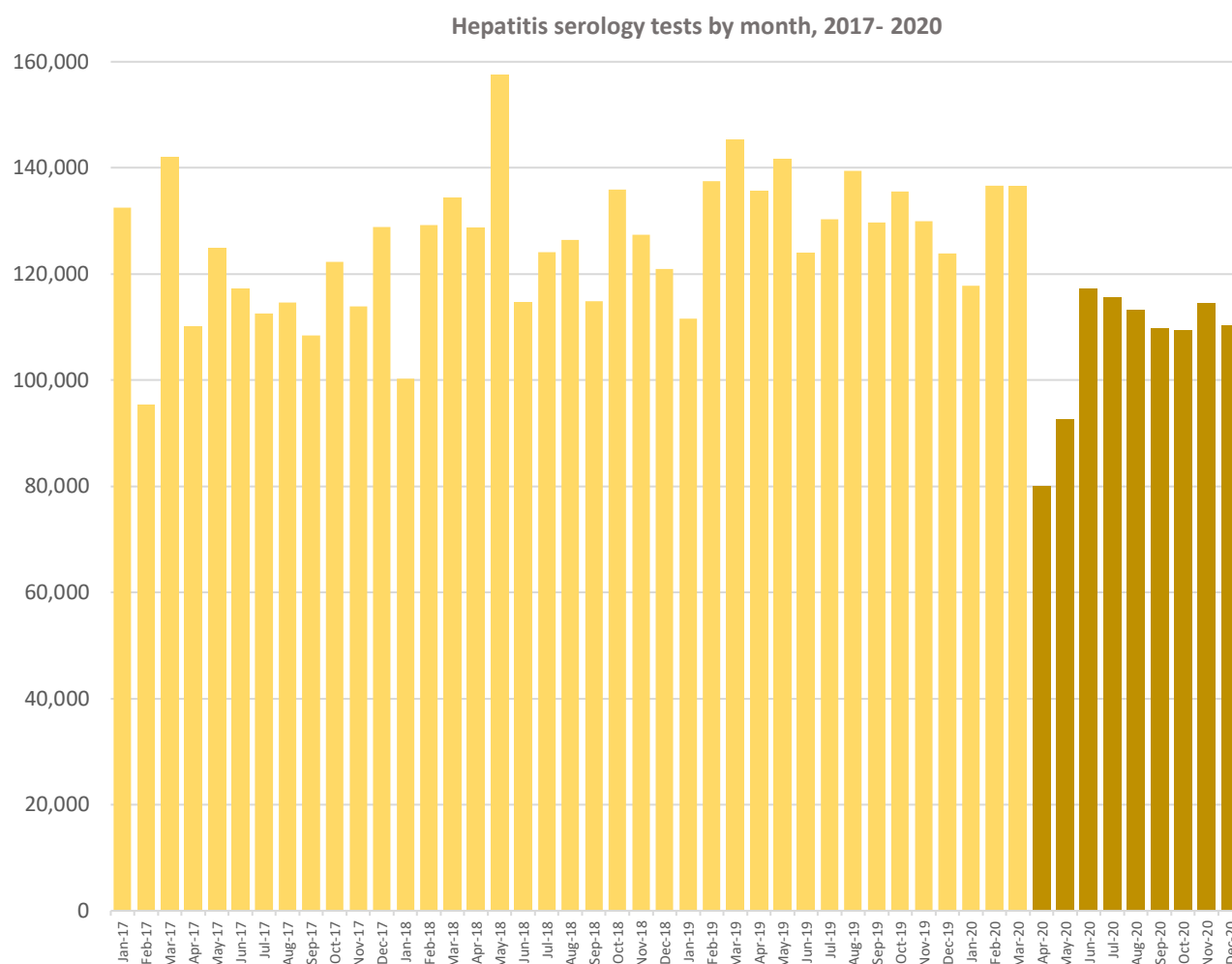
<b>Measure</b>	<b>Description of item/s</b>	<b>Item number/s</b>
Hepatitis B & hepatitis C screening	Hepatitis serology items (unspecified, but mostly B and C)	69475, 69478, 69481
Hepatitis B monitoring	Hepatitis B viral load test (while not on treatment)	69482
Hepatitis C monitoring / workup	Hepatitis C viral load / detection test (while not on treatment)	69488, 69489, 69499, 69500
Hepatitis B treatment	PBS items for hepatitis B treatment	10279B, 10290N, 10310P, 10315X, 10317B, 10353X, 11142K, 11155D
Hepatitis C treatment	PBS items for hepatitis C treatment	10628J, 10668L, 10670N, 10653Q, 10672Q, 10679C, 10661D, 10667K, 10669M, 11147Q, 11144M, 11145N, 11658N, 11659P, 11665Y, 11011M, 11021C, 10979W, 10991L, 10978T, 10986F, 11344C, 11353M, 11354N, 11337Q, 11346E, 11355P, 11332K, 11333L, 11345D, 10624E, 10657X
Chlamydia & gonorrhoea screening	Chlamydia detection item Chlamydia detection & unspecified microbial detection (used for gonorrhoea)	69316, 69317, 69319
HIV PrEP	PBS items (specific for HIV PrEP)	11276L, 11296M, 11306C
HIV treatment	PBS items (specific for HIV treatment)	10345L, 11649D, 11114Y, 10283F, 11113X, 11104K, 08896F, 10303G, 10286J, 10273Q, 10903W, 11099E, 10297Y, 10357D, 10367P, 10347N, 10329P, 10301E, 11540J, 11248B

### Notes on data

- Medicare numbers extracted from Department of Human Services public data (on 4/Mar/21)
- Extraction included data from January 2017 to December 2020 (note PrEP scripts began in 2018)
- Raw data represents scripts (for treatment) or tests (for testing and monitoring), not individuals. Inference on the likely number of individuals tested/provided treatment is based on previous data extractions of individual-level records, which allow calculation of average tests or scripts per person
- Rates are provided for state and territory analyses, using ABS estimated resident population data for December 2019. Rates are per 1,000 population for hepatitis screening and chlamydia / gonorrhoea screening, and per 10,000 population for hepatitis B and C testing and treatment
- Date reflects date of processing by Medicare Australia, and may not reflect date of dispensing / service provision
- Data in charts are highlighted from April 2020 onwards, reflecting the period affected by COVID-19 and restrictions in Australia
- Notifications data extracted from Department of Health publicly available data (9/Mar/21) regarding unspecified (chronic) hepatitis B and C, and chlamydial and gonococcal infection
- Specific data regarding HIV screening and STI treatment are not available for analysis due to lack of specificity in MBS/PBS items for these services

## Hepatitis screening (serology testing)

### National findings



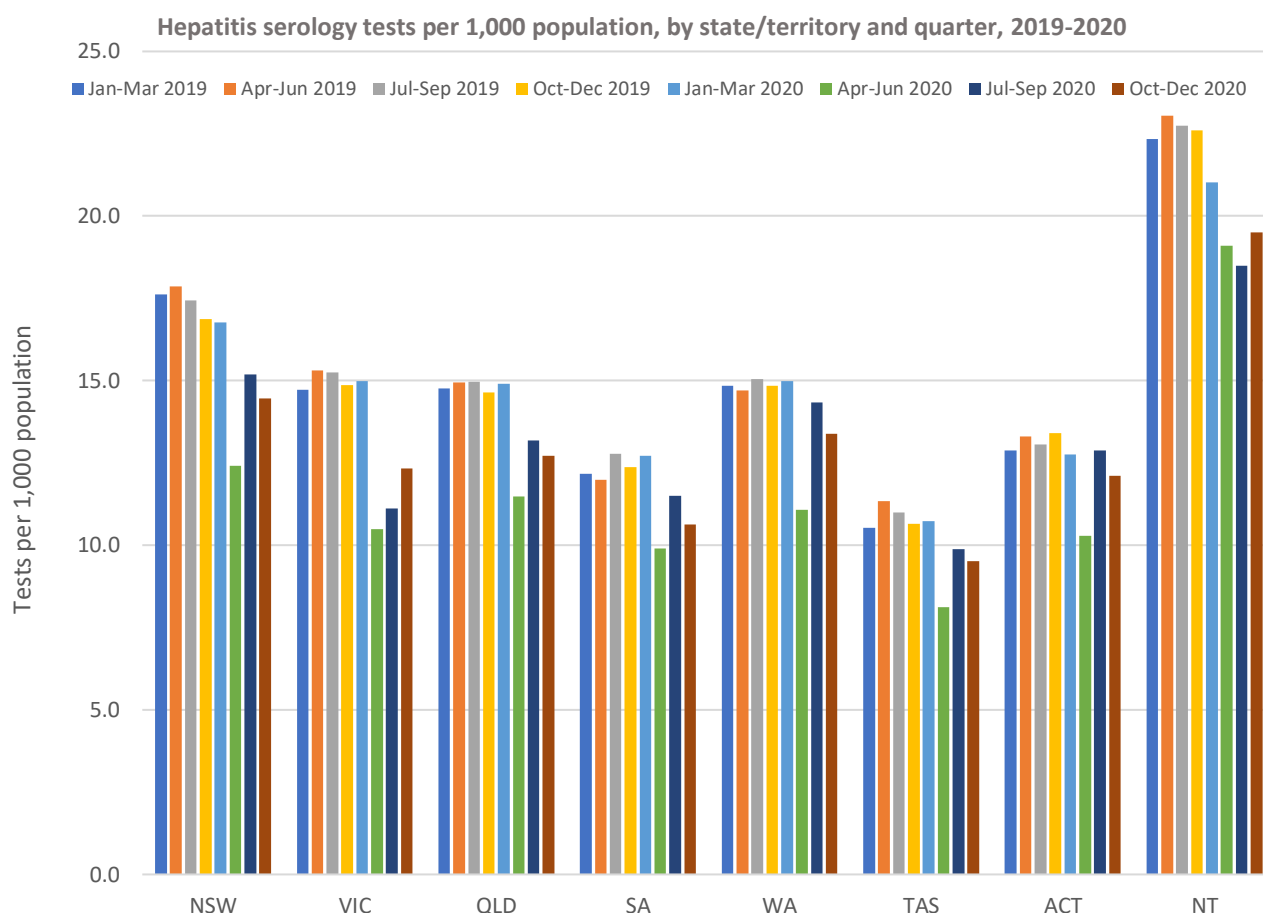
- The number of hepatitis serology tests **declined by 19.1%** during April-Dec 2020 compared to April-Dec 2019. Testing numbers increased after the initial decline, but have not yet returned to prior levels and appear to have stabilised at a level 15% lower than during 2019.
- There were **227,000 fewer hepatitis serology tests** performed compared to the previous year, representing an estimated **176,000 fewer individuals** receiving testing.
- This decline in the number of tests was in contrast to the increasing trend seen between April-Dec 2018 and April-Dec 2019, of 3.4%.
- In both males and females, the decline was largest among those **aged 15-35 years**.

### Impact on diagnosis

- This decrease in testing was reflected in a **14.8% decline in chronic hepatitis B diagnoses (notified cases)** during Apr-Dec 2020 compared to Apr-Dec 2019, which represents at least 300 fewer new diagnoses of hepatitis B during this period.
- If the trend continues, this decline will impact on reaching Australia's National Strategy Target, which is to have 80% of people living with chronic hepatitis B diagnosed by 2022. **62,000 further people need to be diagnosed with their hepatitis B** in order to reach the target.
- This decline in chronic hepatitis C diagnoses during this period (16.5%) was consistent with prior trends (13.8%). This is consistent with estimates that the proportion undiagnosed for hepatitis C is considerably lower than for hepatitis B.

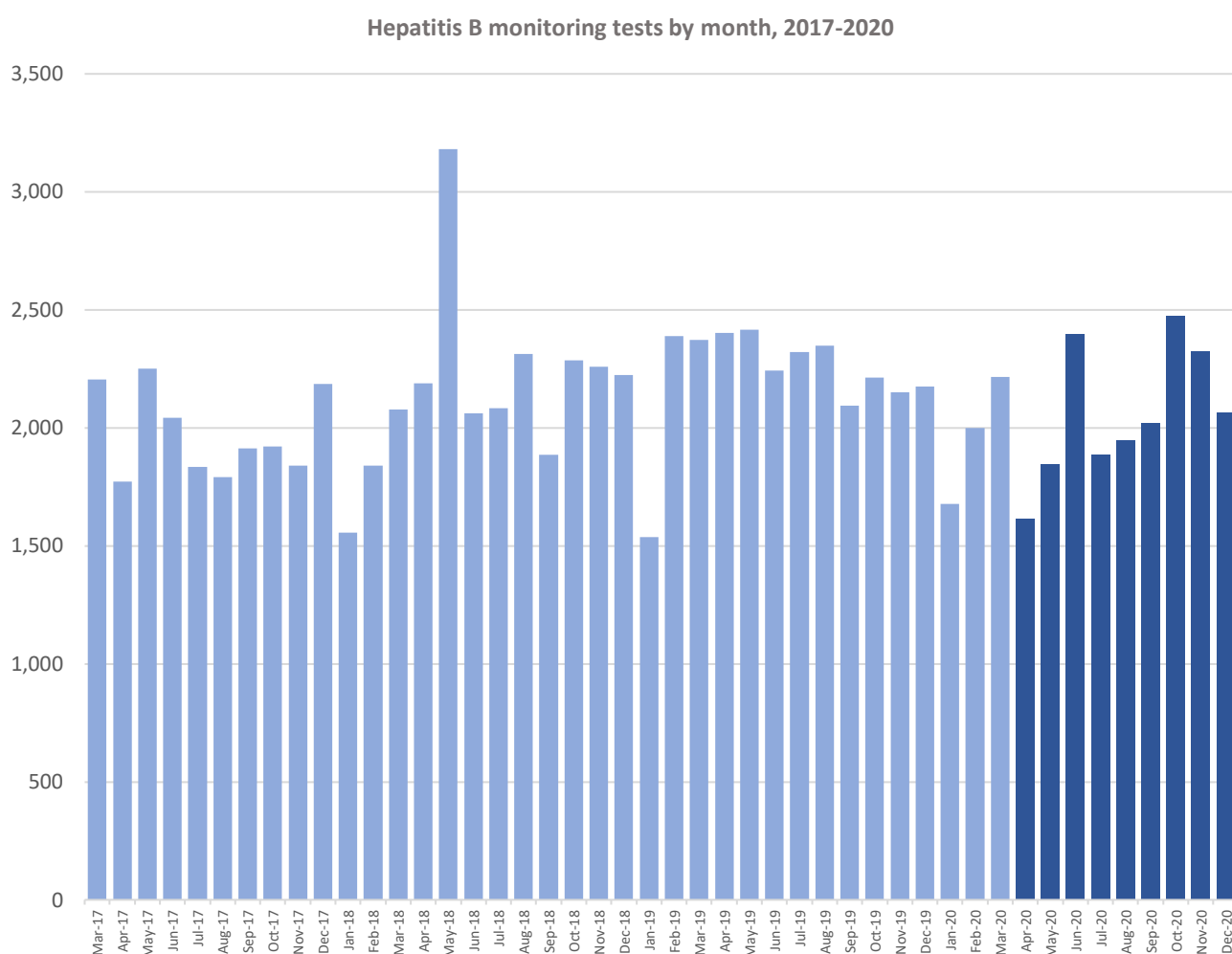
### State and territory findings

- The observed decline during Apr-Dec 2020 compared to April-Dec 2019 **occurred in all states and territories**, but varied in magnitude, from a 25.3% decline in VIC to an 11.4% decline in ACT
- Most states and territories had a decline in testing during Apr-Jun 2020 and a subsequent increase during Jul-Sep 2020, however **these increases were insufficient to offset previous declines**. In all states and territories, **testing during Oct-Dec 2020 was lower than during Oct-Dec 2019** (ranging from a 9.8% decline in WA and ACT to a 17% decline in VIC).



## Hepatitis B monitoring (viral load while not on treatment)

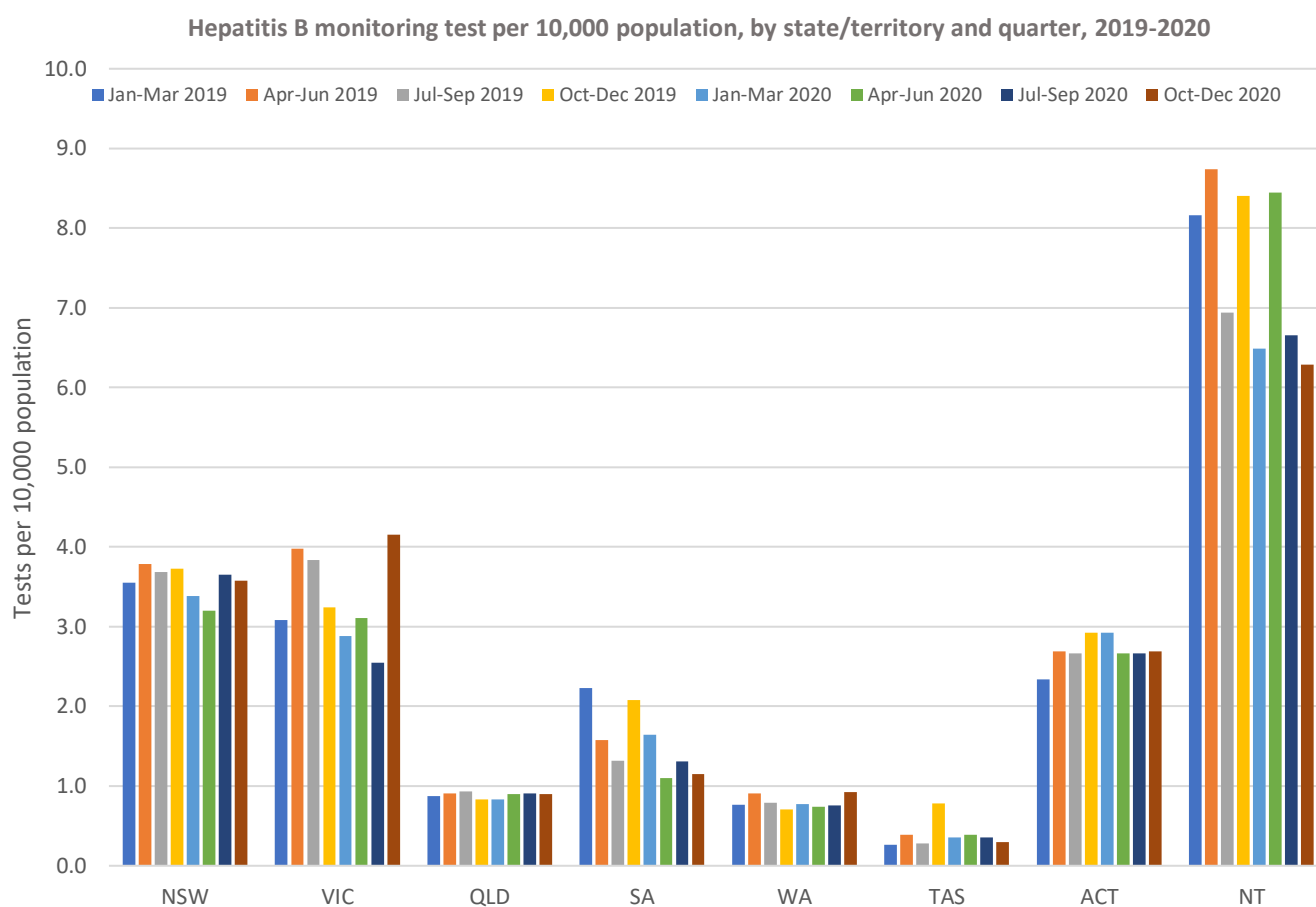
### National findings



- Fluctuations were seen in monthly numbers during the COVID-19 period, but overall an **8.7% decline** was seen in hepatitis B monitoring during Apr-Dec 2020 compared to Apr-Dec 2019.
- This was compared to an increase between Apr-Dec 2018 and Apr-Dec 2019 of 4.1%.
- This decline during 2020 represents an estimated **2,200 fewer individuals** receiving a hepatitis B viral load test compared to the previous year. This decline is likely to impact on efforts to increase hepatitis B care, as in order to meet the **National Strategy Target of 50% in care by 2020**, the number of people who receive a hepatitis B viral load test each year needs to increase by **more than 69,000**.
- An increasing trend was seen after the initial decline, with the number of monitoring tests occurring during Oct-Dec 2020 5.0% higher than the number during Oct-Dec 2019. However, a further increase is needed in order to make up for missed tests during 2020.

## State and territory findings

- The observed decline during Apr-Dec 2020 compared to Apr-Dec 2019 **occurred in all states and territories except QLD and NT**, where small increases were seen (1.5% and 0.8% respectively). Fluctuating trends in previous years limits analysis of the magnitude of the decline in smaller states, however it was larger in VIC (11.3% decline) than in NSW (6.9%).

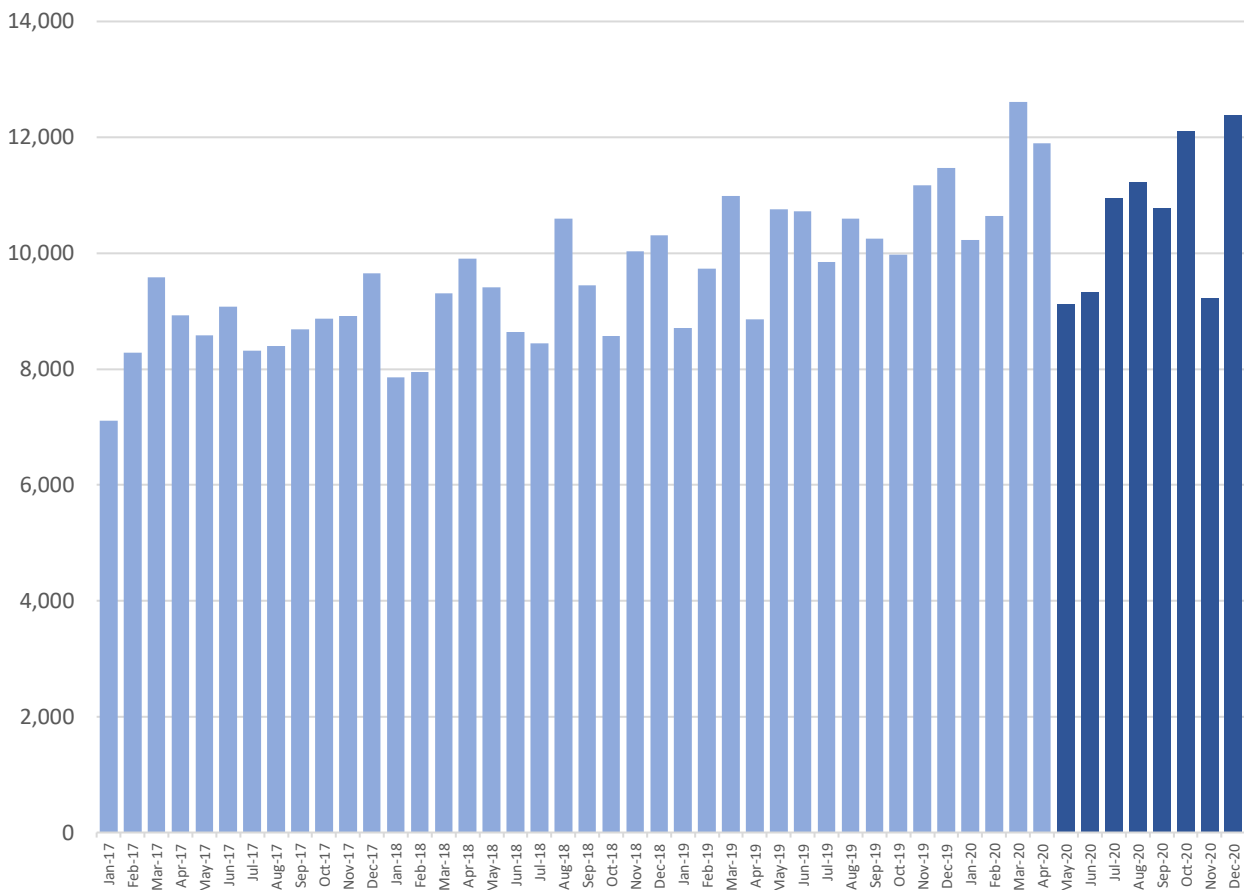


## Hepatitis B treatment

### National findings

- The number of hepatitis B treatment scripts dispensed during Apr-Dec 2020 increased by 3.6% compared to 2019, however this increase was **substantially smaller than the magnitude of increase in the previous year (9.7%)**.
- This represents approximately 640 fewer patients on hepatitis B treatment compared to the expected trend, which could have substantial impact, given a **further 25,000 people require treatment** to meet the 2022 National Strategy Target.

Hepatitis B treatment scripts by month, 2017-2020

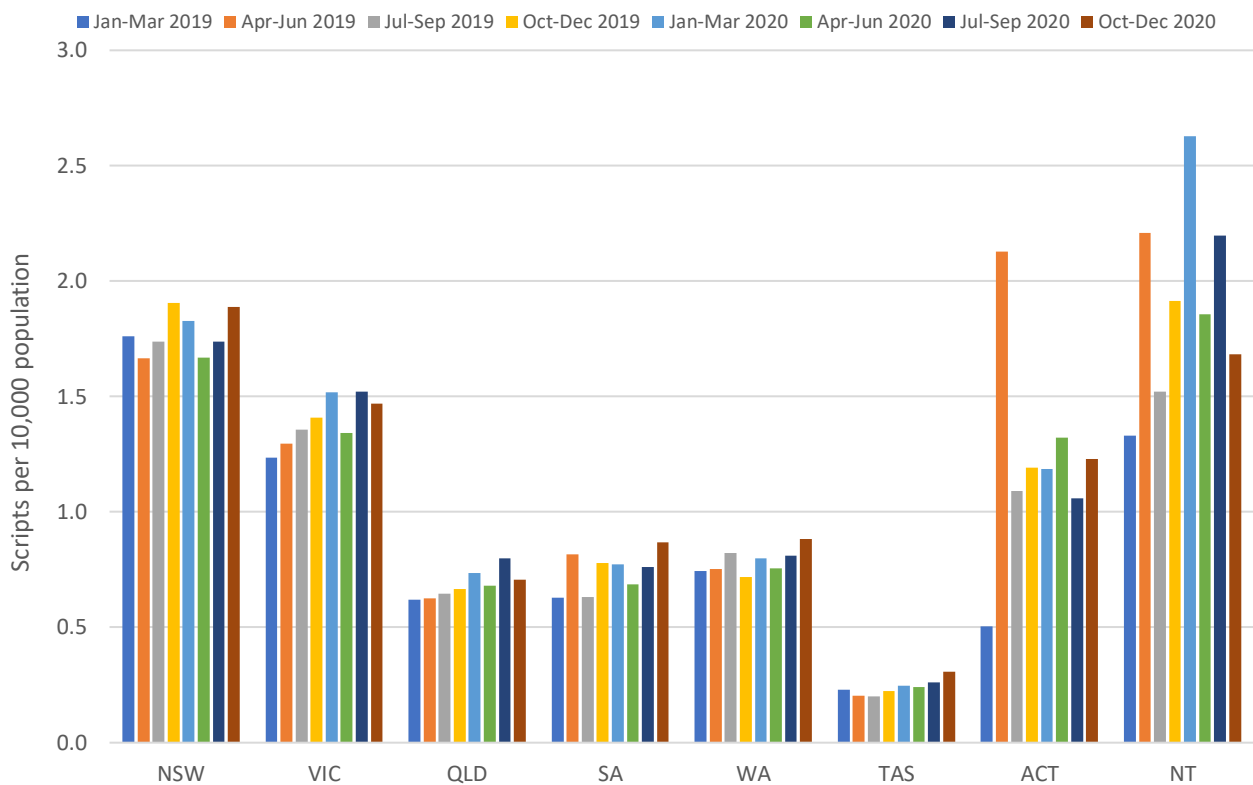




## State and territory findings

- Hepatitis B treatment script trends varied considerably according to state and territory. Previous trends were maintained in TAS, VIC and QLD, however in all other states and territories, treatment numbers declined (NSW and ACT) or increased by a smaller magnitude than during 2019 (SA, WA, NT).

Hepatitis B treatment scripts per 10,000 population, by state/territory and quarter, 2019-2020

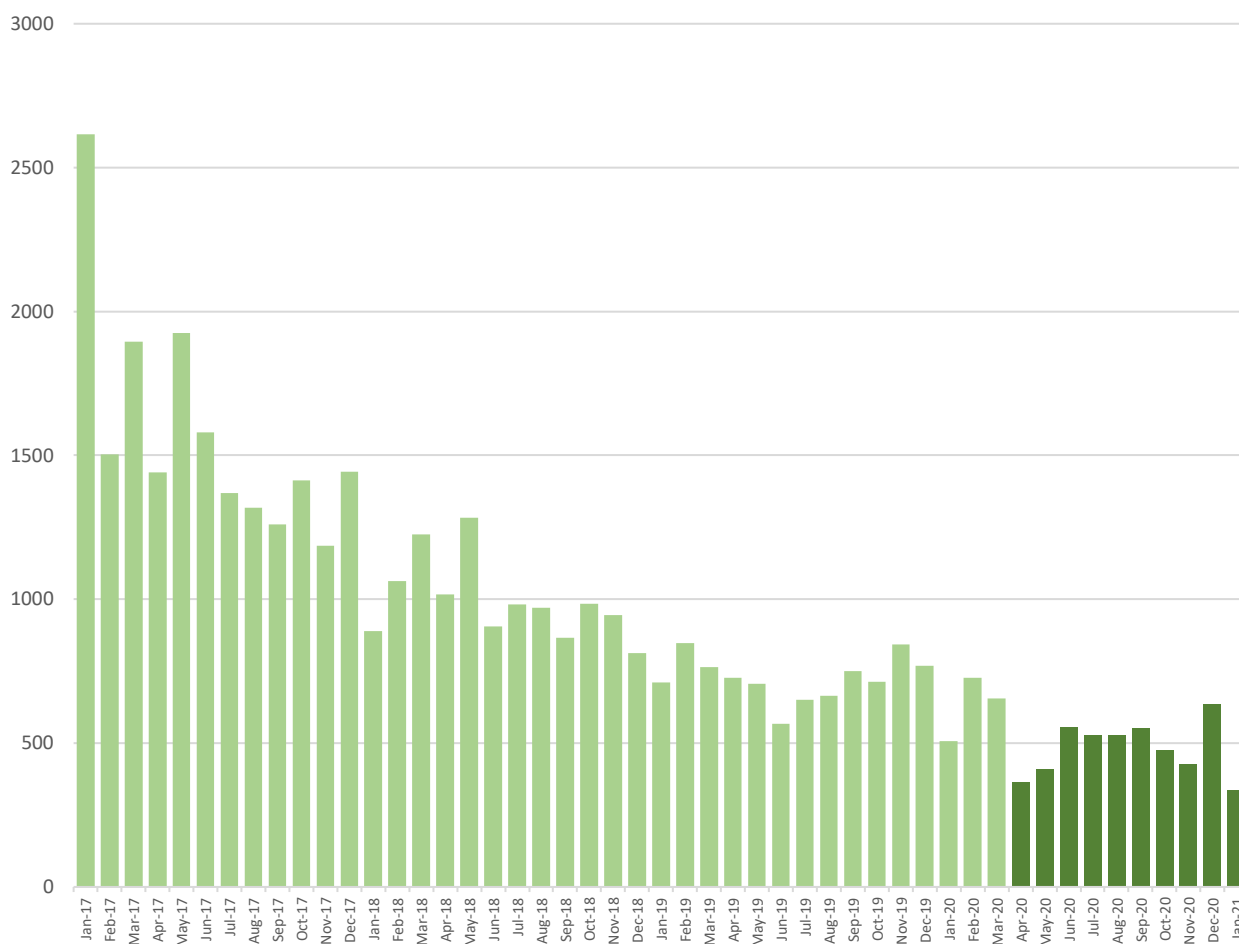


## Hepatitis C monitoring / workup (PCR test while not on treatment)

### National findings

- The number of hepatitis C monitoring tests was **30.1% lower during Apr-Dec 2020** compared to Apr-Dec 2019, a decline of similar magnitude to that seen between 2018 and 2019 (27.1%). However, this decline was not consistent according to state and territory (see below).
- As these tests are used to provide diagnostic assessment and evaluation prior to treatment, any changes could have substantial impact, given at least **20,000 more people require treatment** to meet the 2022 National Strategy Target.

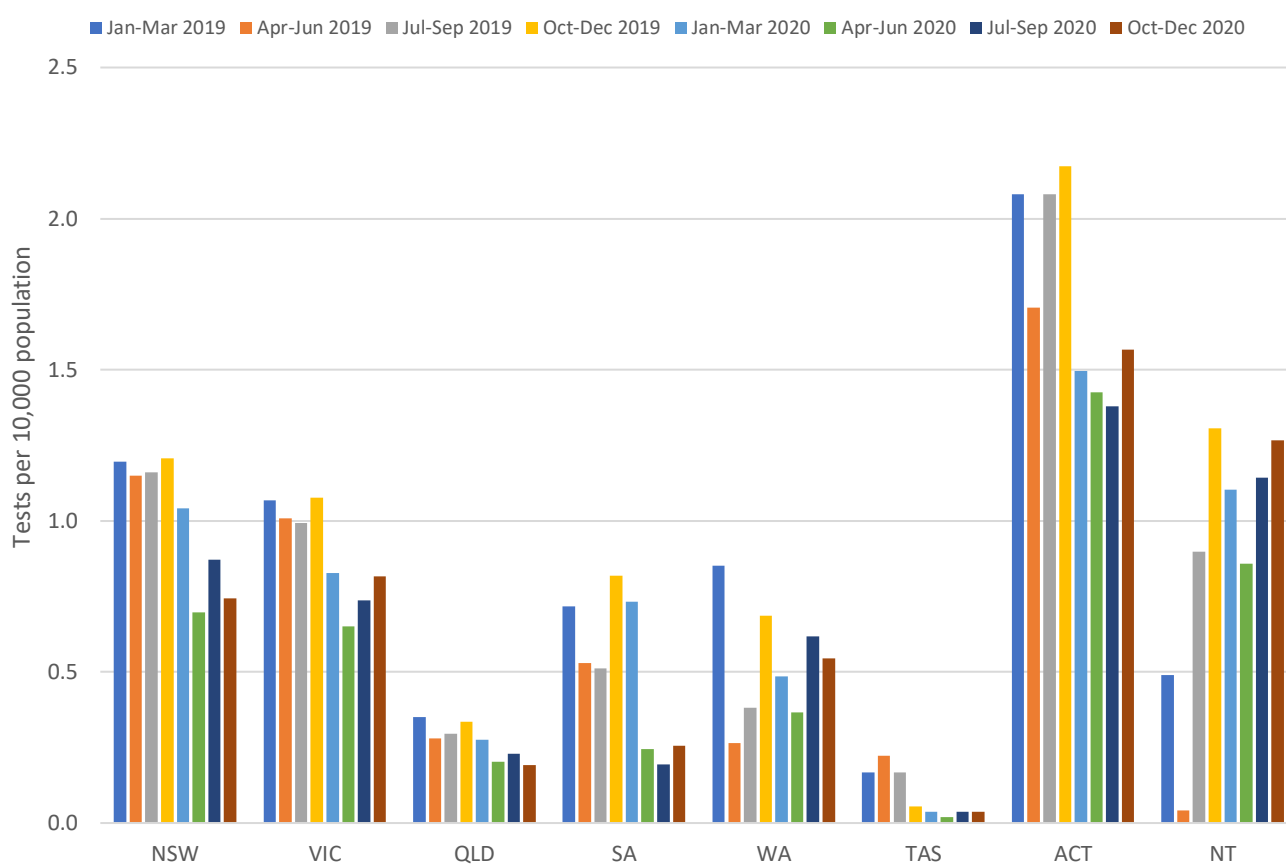
Hepatitis C monitoring tests by month, 2017-2020



## State and territory findings

- In some states and territories (NSW and QLD), the decline seen in hepatitis C monitoring was stable compared to what was seen between 2018 and 2019. However the decline was substantially greater compared to previous years in VIC (-34.3% compared to -17.8%). Increased testing was seen in WA and NT. Widely fluctuating rates in SA and ACT during 2019 limited analysis of trends.

Hepatitis C monitoring tests per 10,000 population, by quarter and state/territory, 2019-2020

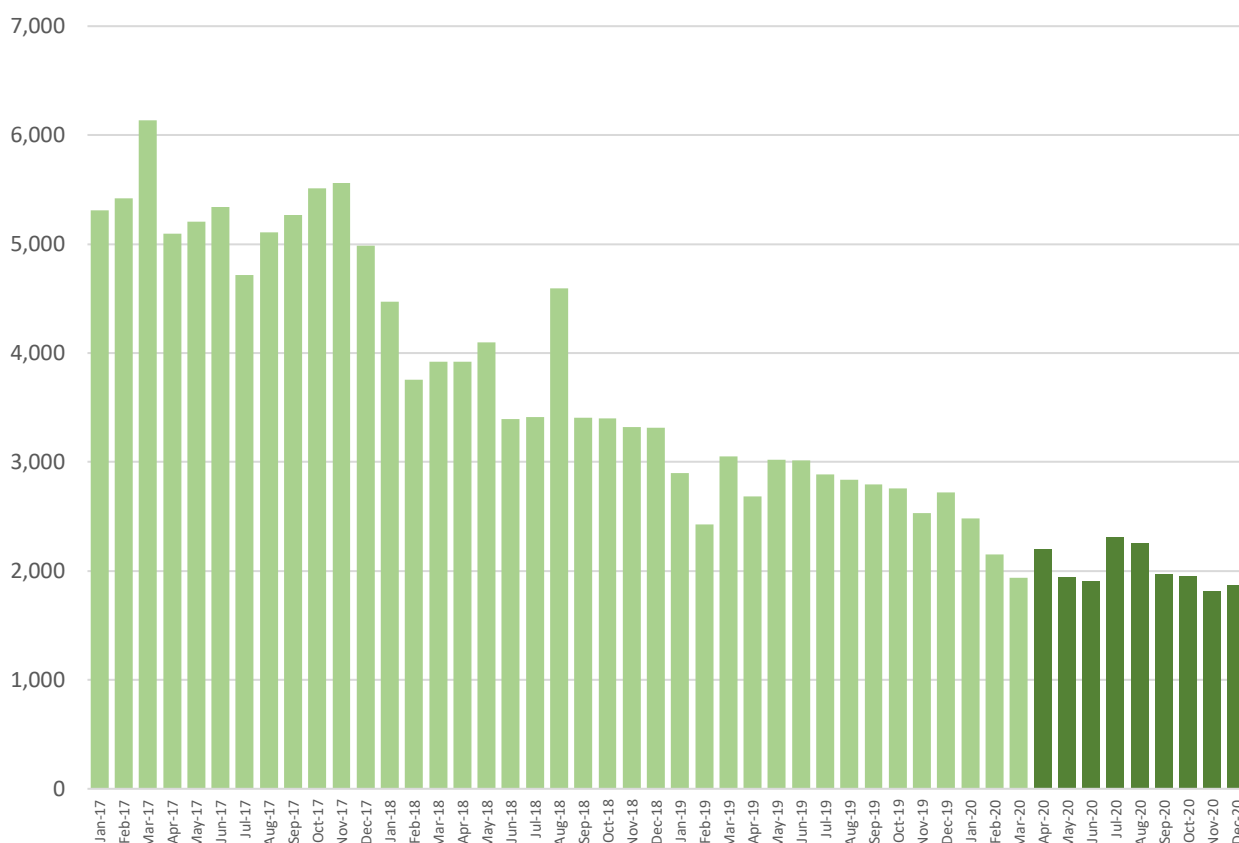


## Hepatitis C treatment

### National findings

- The number of hepatitis C treatment scripts during Apr-Dec 2020 was 27.9% lower than in Apr-Dec 2019, compared to a 23.2% reduction in the previous year. Although the magnitude of this change nationally was relatively minor, in some states and territories the differential was significant (see below).
- Script numbers for hepatitis C treatment are affected by the relative number of 8, 12, 16 and 24 week courses, as these proportions have shifted over time. When accounting for average course length, it is estimated that the number of people receiving hepatitis C treatment during 2020 has reduced to 9,400, from 12,500 in 2019.

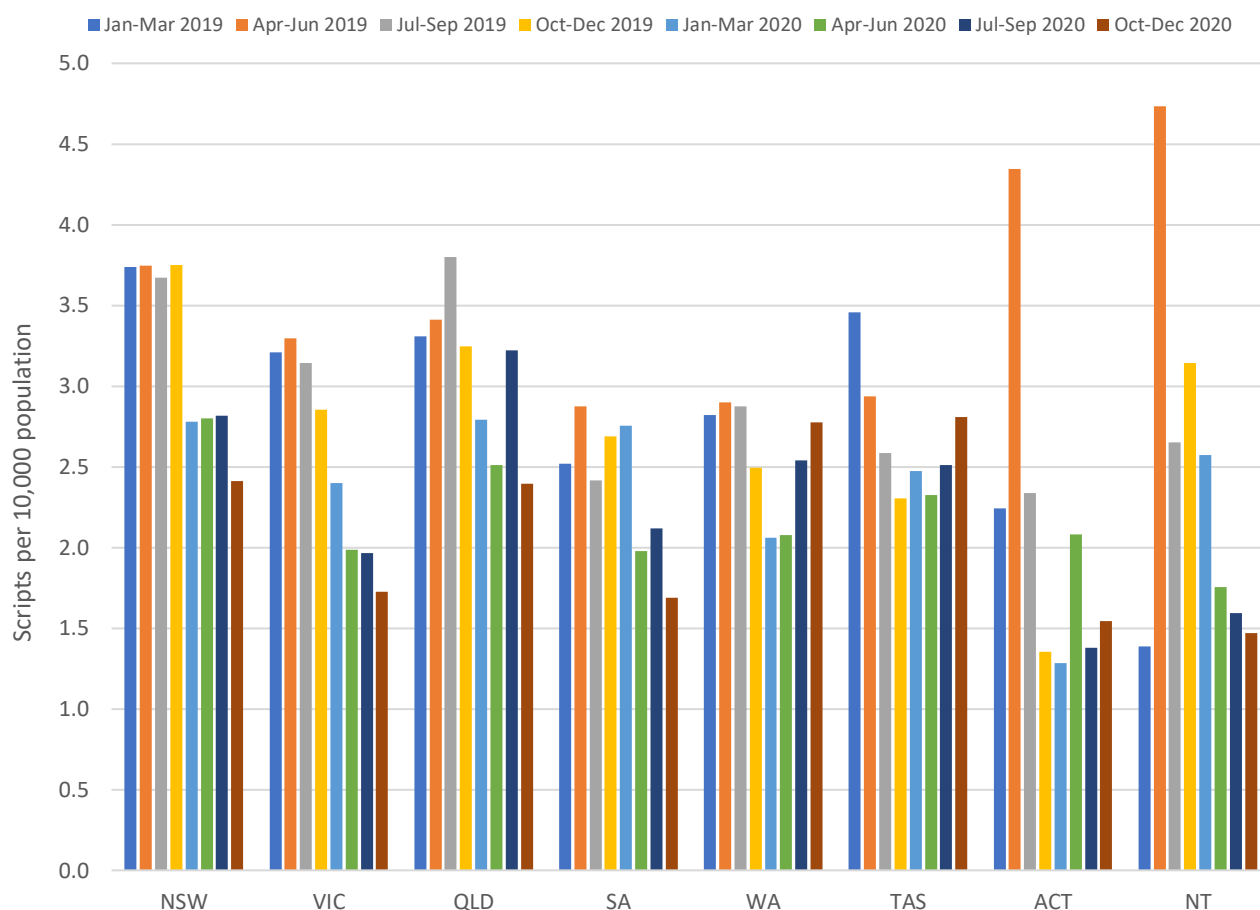
Hepatitis C treatment scripts by month, 2017-2020



## State and territory findings

- The decline in treatment uptake during 2020 was considerably greater than in 2019 in **VIC (-28.1% decline compared to -17.8%), NSW (-38.9% compared to -27.8%) and ACT (-37.8% compared to -30.4%)**. Some states saw an improvement in trends, with a smaller decline during 2020, notably WA (10.6% compared to 26.9%) and TAS (2.4% compared to 52.4%).
- Trends in hepatitis C treatment fluctuated widely in many jurisdictions during 2019-2020 (most notably in NT, ACT, and SA), limiting discernment of comparative trends in those states.

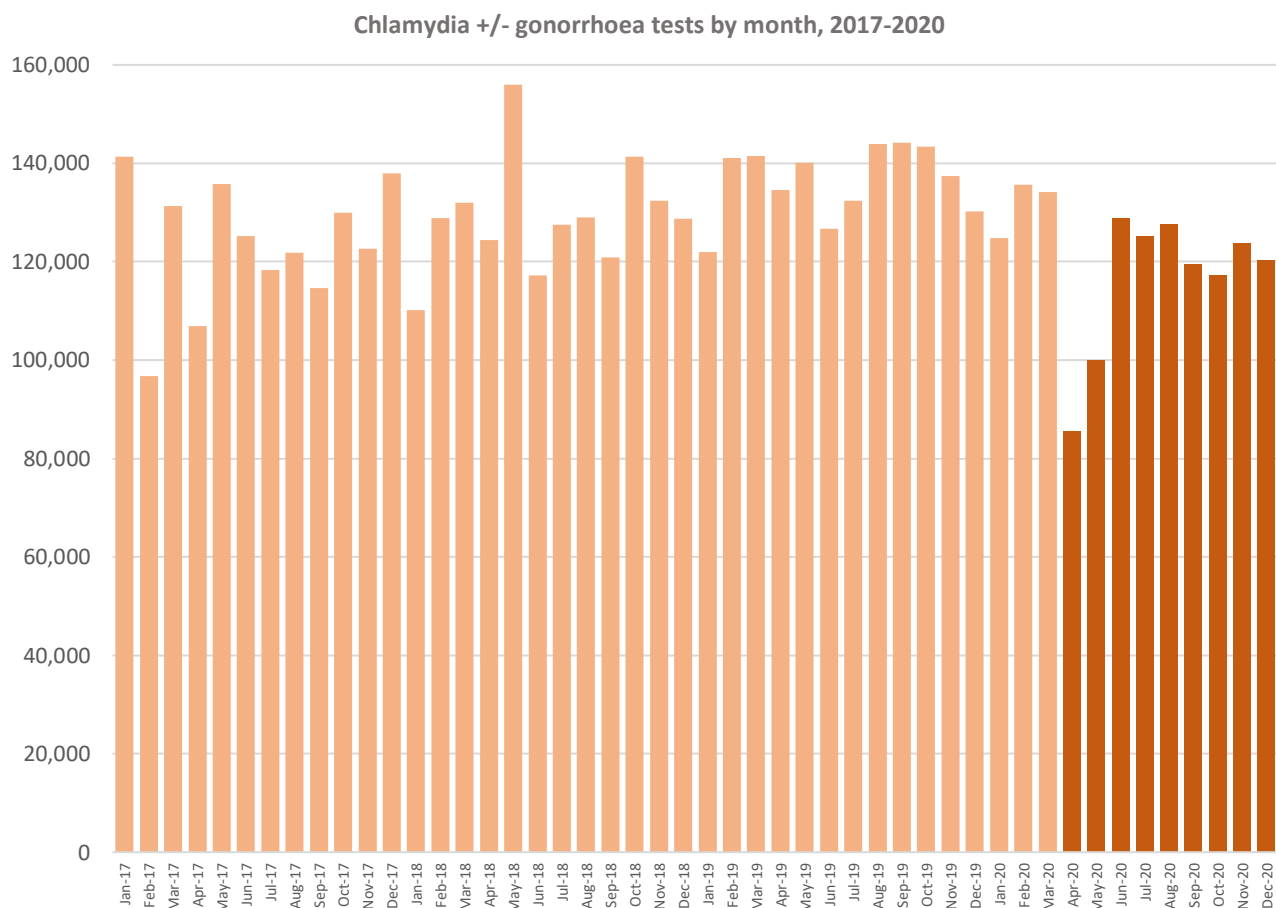
Hepatitis C treatment scripts per 10,000 population, by quarter and state/territory, 2019-2020



## Chlamydia & gonorrhoea testing

### National findings

- The number of chlamydia/gonorrhoea screening tests **declined by 15.0%** during Apr-Dec 2020 compared to Apr-Dec 2019.
- This decline was in contrast to the **increasing trend seen between 2018 and 2019, of 4.7%**.
- This change represents **185,000 fewer tests** being conducted during 2020 compared to the expected number. Although it is not known how many individuals this represents, given recommendations for testing vary from quarterly to annually depending on the population, it likely **represents at least 90,000 people**.
- The decline was largest among those **aged 35-54 years**.
- Testing patterns indicate a greater decline in combined testing (chlamydia + one other test) as opposed to chlamydia alone.
- Although not used exclusively for STI testing, we note that the MBS item 69387 for two unspecified antibody tests (commonly used for HIV and syphilis serology) has also had a 27.4% decline during Apr-Dec 2020.

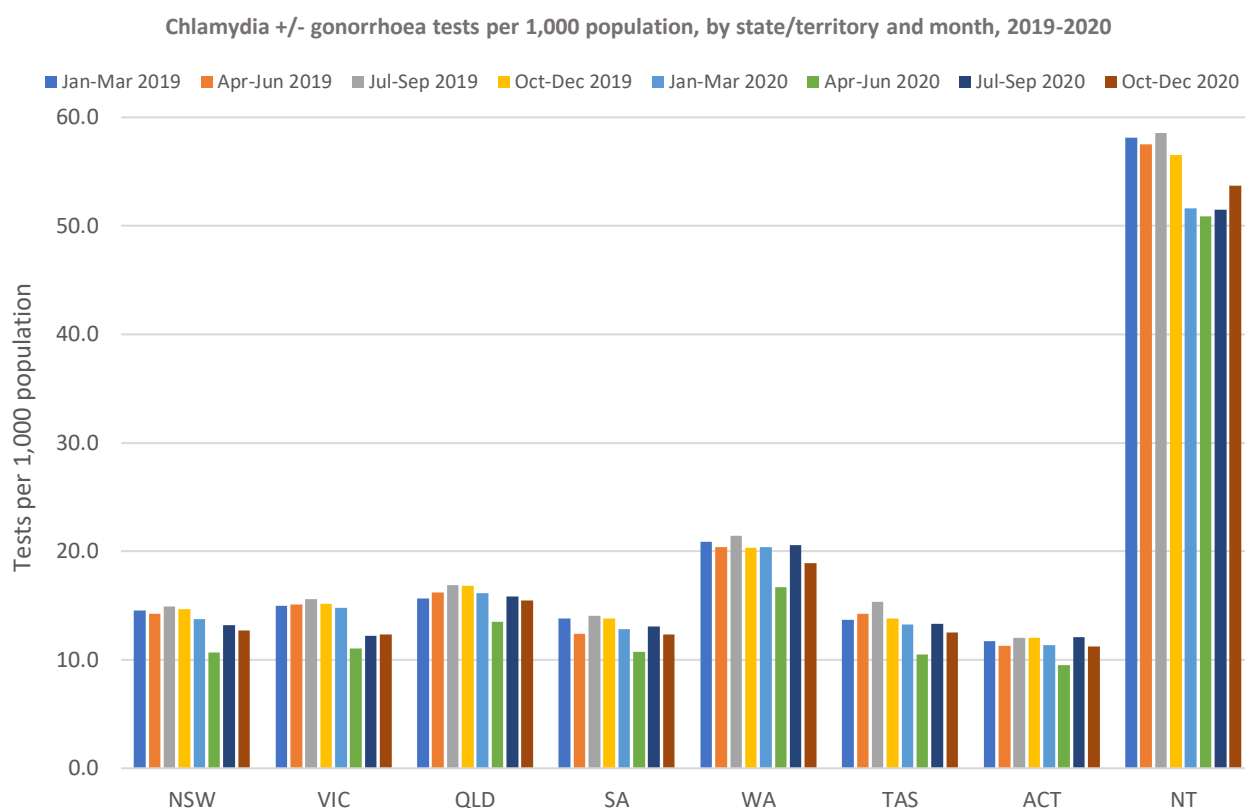


### Impact on diagnosis

- Based on data from notified cases, there was a **20.4% decrease in chlamydia diagnoses** and an **18.3% decline in gonorrhoea diagnoses** during Apr-Dec 2020 compared to 2019. This was in contrast to trends that were stable (for chlamydia) or increasing (for gonorrhoea) between 2018 and 2019.
- When combined with information about declining testing, it suggests that these decreases relate to reduced screening as opposed to reduced incidence. Given **>50% of people living with chlamydia or gonorrhoea are estimated to be undiagnosed**, this reduction in screening will have impacts for improving the cascade of care.

### State and territory findings

- These declines were seen in all states and territories, however they were the most pronounced in VIC (24.3% decrease), NSW (-16.5%), and TAS (-16.3%).

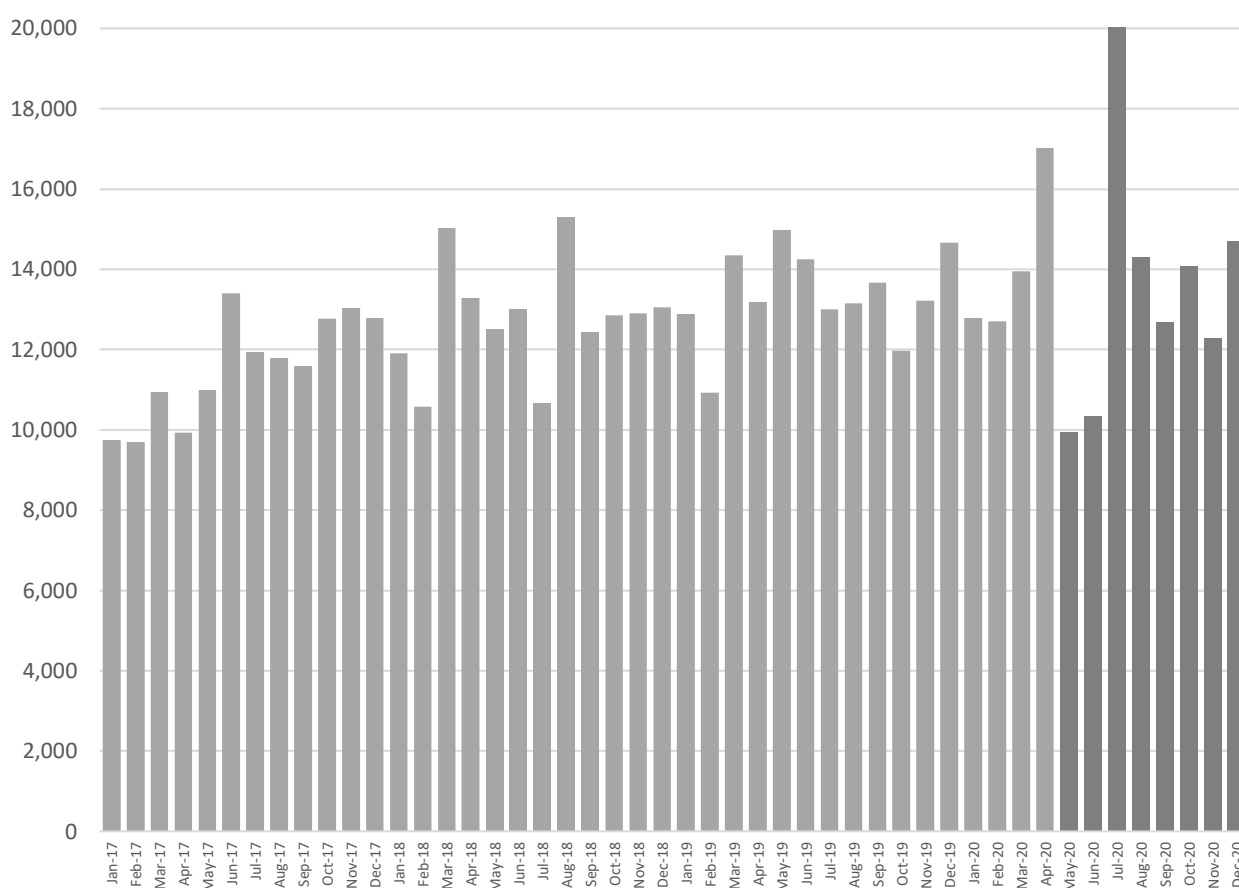


## HIV treatment (non-PrEP)

### National findings

- The number of HIV treatment scripts dispensed during Apr-Dec 2020 was relatively stable compared to Apr-Sep 2019, **increasing by 2.5%**. This was compared to an **increase of 5.2% between 2018 and 2019**. Although an initial sharp decrease was seen in scripts dispensed during May/June, this was offset by record-high prescribing during July, and prescribing numbers during Aug-Dec 2020 were similar to 2019.

HIV treatment (non-PreP) scripts by month, 2017-2020

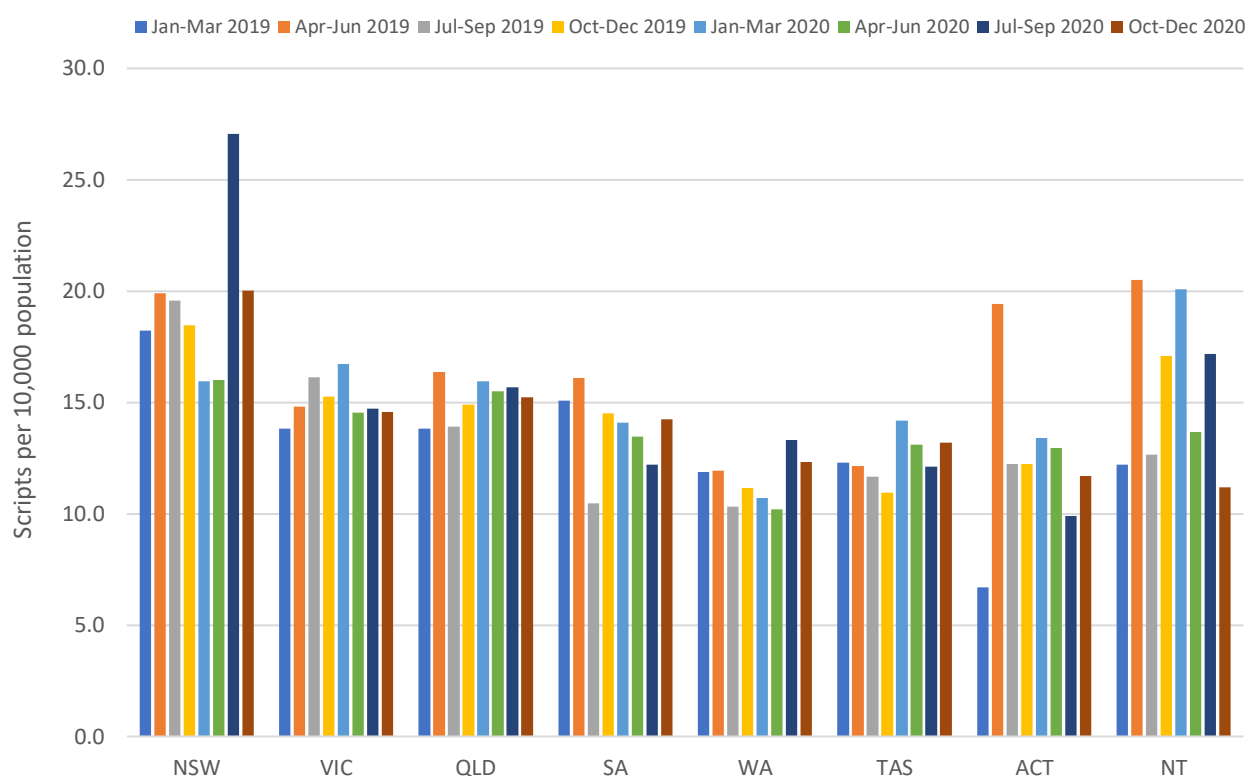




## State and territory findings

- Trends in HIV treatment scripts dispensed did vary according to state and territory, and a **decline was seen in VIC (-5.1%) and SA (-2.8%)**. Smaller numbers and wide fluctuations during 2019 prevented assessment of trends in ACT and NT.

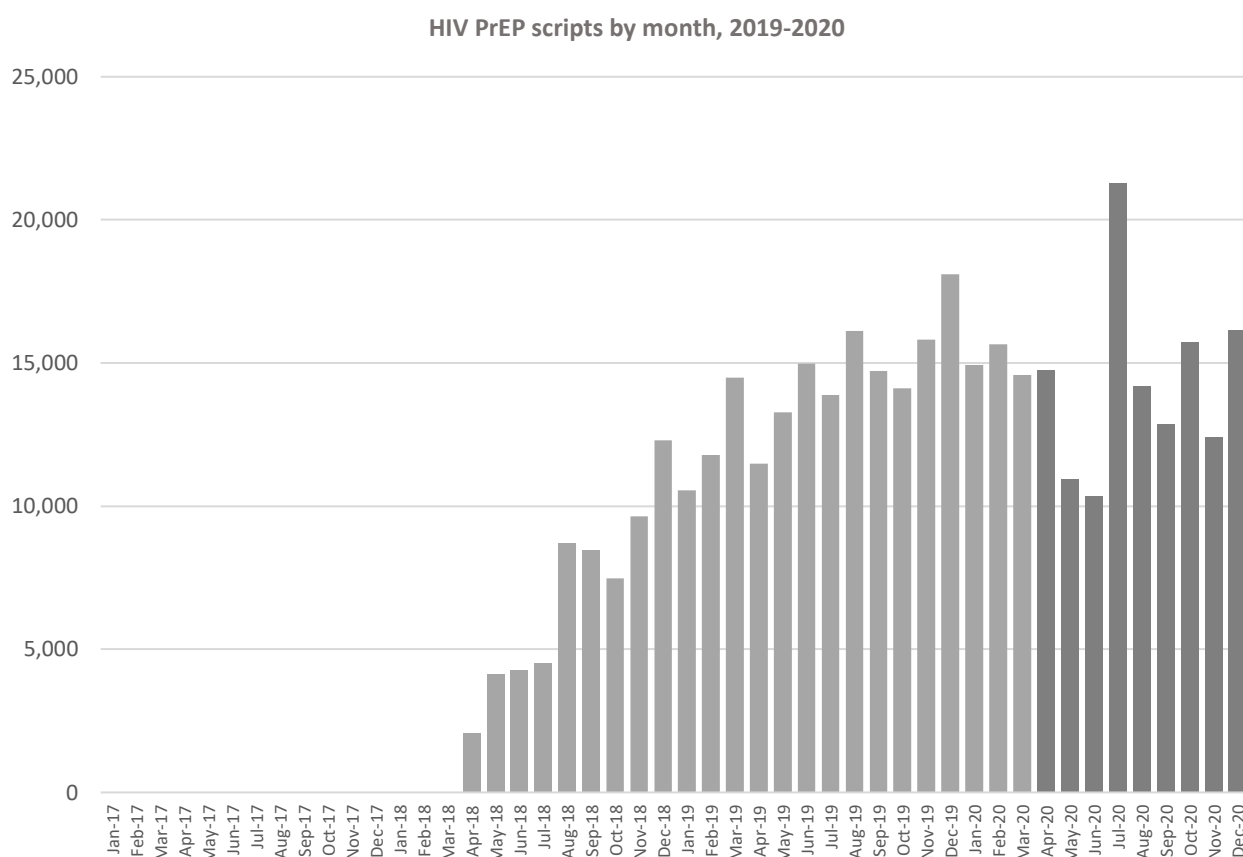
HIV treatment (non-PreP) scripts per 10,000 population, by state/territory and month, 2019-2020



## HIV PrEP

### National findings

- The number of HIV PrEP scripts dispensed during Apr-Dec 2020 fluctuated but increased overall compared to 2019, by 8.6%. As with HIV treatment, an initial sharp decrease was seen in scripts dispensed during May/June, but this was offset by record-high prescribing during July.



\* HIV PrEP listed on PBS April 2018

### State and territory findings

- All states saw an increase in HIV PrEP scripts during 2020 except for VIC, where a 20.5% decline occurred compared to 2019. Trends were relatively consistent in other states, ranging from 15-25% increases in the number scripts.
- Decline in demand for HIV PrEP may be a potential cause of reduced scripts in states with extended lockdowns limiting social contact.

HIV PrEP scripts per 10,000 population, by state/territory and quarter, 2019-2020

