



# Evaluation of hepatitis C treatment-as-prevention within Australian prisons: The SToP-C study

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# Disclosure

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## Study partners:



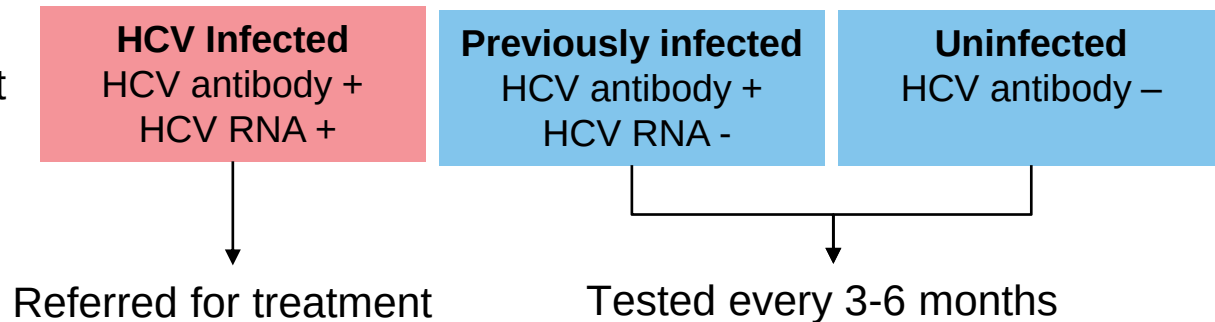
# Methods

## *Participants – Four prisons (3 male prisons; 1 female prison)*

- All prison inmates ( $\geq 18$  years) were eligible for enrolment  
*irrespective of HCV infection status, risk behaviours, or sentence/remand status.*

## *Study assessments:*

- HCV testing at enrolment



# Methods

**Initial phase (pre-DAA treatment scale-up):**

- Treatment through the prison health service

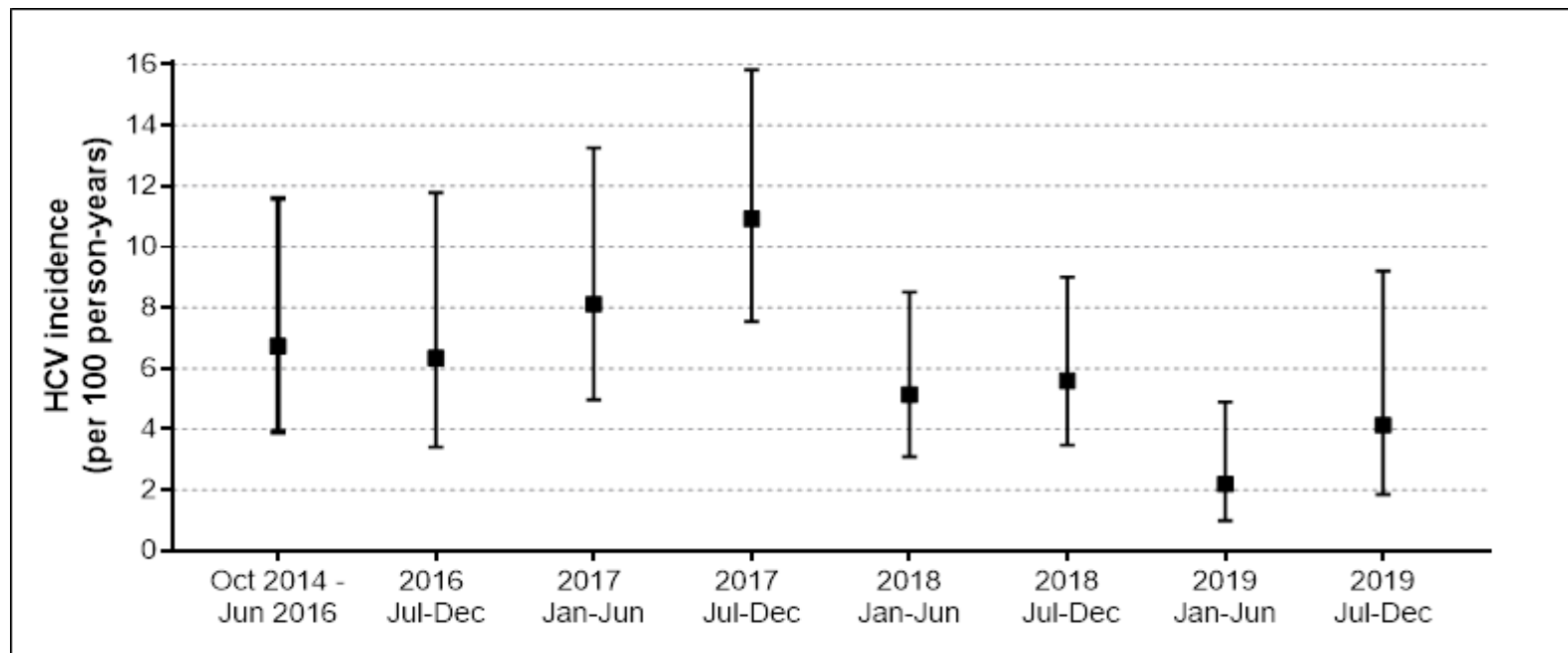
**Second phase (DAA treatment scale-up):**

- Treatment through SToP-C: DAA therapy (12 wks sofosbuvir/velpatasvir)

|                                      | 2014 |   |   |                                           | 2015 |   |   |   | 2016 |   |   |   | 2017 |                    |   |   | 2018 |   |   |   | 2019 |   |   |   |
|--------------------------------------|------|---|---|-------------------------------------------|------|---|---|---|------|---|---|---|------|--------------------|---|---|------|---|---|---|------|---|---|---|
|                                      | 1    | 2 | 3 | 4                                         | 1    | 2 | 3 | 4 | 1    | 2 | 3 | 4 | 1    | 2                  | 3 | 4 | 1    | 2 | 3 | 4 | 1    | 2 | 3 | 4 |
| Max. Security prison 1<br>(Goulburn) |      |   |   | HCV incidence and prevalence surveillance |      |   |   |   |      |   |   |   |      |                    |   |   |      |   |   |   |      |   |   |   |
|                                      |      |   |   |                                           |      |   |   |   |      |   |   |   |      | Treatment scale-up |   |   |      |   |   |   |      |   |   |   |
| Max. Security prison 2<br>(Lithgow)  |      |   |   | HCV incidence and prevalence surveillance |      |   |   |   |      |   |   |   |      |                    |   |   |      |   |   |   |      |   |   |   |
|                                      |      |   |   |                                           |      |   |   |   |      |   |   |   |      | Treatment scale-up |   |   |      |   |   |   |      |   |   |   |
| Med. Security prisons                |      |   |   | HCV incidence and prevalence surveillance |      |   |   |   |      |   |   |   |      |                    |   |   |      |   |   |   |      |   |   |   |
|                                      |      |   |   |                                           |      |   |   |   |      |   |   |   |      | Treatment scale-up |   |   |      |   |   |   |      |   |   |   |
|                                      |      |   |   |                                           |      |   |   |   |      |   |   |   |      |                    |   |   |      |   |   |   |      |   |   |   |

# Results – HCV incidence

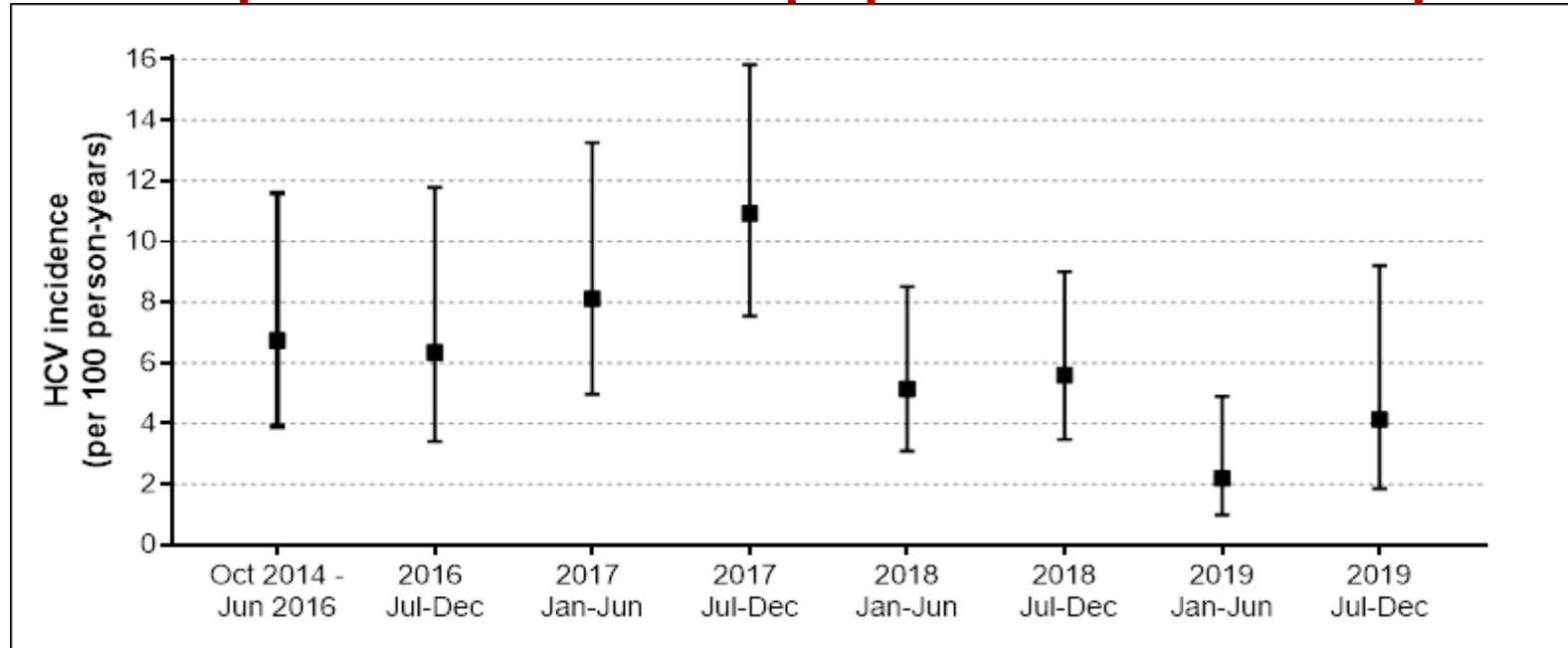
$n = 3,691$  enrolled  $\rightarrow n = 719$  HCV RNA positive  $\rightarrow n = 340$  received treatment



# Results – HCV incidence

**8.31 /100PY**  
(95%CI: 6.54, 10.55)

**4.35 /100PY**  
(95%CI: 3.24, 5.85)



# Results – HCV incidence

|                    | Person-years follow-up | Incident n | Incidence rate (95% CI), per 100 person-years | Incidence Rate Ratio (95% CI) | P value |
|--------------------|------------------------|------------|-----------------------------------------------|-------------------------------|---------|
| Total participants |                        |            |                                               |                               |         |
| 2014-17            | 807                    | 67         | 8.31 (6.54, 10.55)                            | 1.00                          |         |
| 2018-19            | 1,011                  | 44         | 4.35 (3.24, 5.85)                             | 0.52 (0.36, 0.78)             | <0.001  |

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|--------------------------------------------------------------|------------------------|------------|-----------------------------------------------|-------------------------------|---------|
| <b>Total participants</b>                                    |                        |            |                                               |                               |         |
| 2014-17                                                      | 807                    | 67         | 8.31 (6.54, 10.55)                            | 1.00                          |         |
| 2018-19                                                      | 1,011                  | 44         | 4.35 (3.24, 5.85)                             | 0.52 (0.36, 0.78)             | <0.001  |
| <b>Never injected</b>                                        |                        |            |                                               |                               |         |
| 2014-17                                                      | 458                    | 7          | 1.53 (0.73, 3.20)                             | 1.00                          |         |
| 2018-19                                                      | 541                    | 7          | 1.29 (0.62, 2.72)                             | 0.84 (0.30, 2.42)             | 0.758   |
| <b>History of injecting, but not in current imprisonment</b> |                        |            |                                               |                               |         |
| 2014-17                                                      | 126                    | 13         | 10.30 (5.98, 17.73)                           | 1.00                          |         |
| 2018-19                                                      | 171                    | 7          | 4.10 (1.95, 8.60)                             | 0.40 (0.16, 0.98)             | 0.041   |
| <b>Injected in current imprisonment</b>                      |                        |            |                                               |                               |         |
| 2014-17                                                      | 216                    | 47         | 21.74 (16.34, 28.94)                          | 1.00                          |         |
| 2018-19                                                      | 293                    | 30         | 10.25 (7.17, 14.67)                           | 0.47 (0.30, 0.75)             | 0.001   |