# Is chlamydia testing in general practice sustained when financial incentives or audit+feedback are removed: a cluster RCT

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# Background – ACCEPt

- The Australian Chlamydia Control Effectiveness Pilot[1]
- A RCT that aimed to determine the impact of a complex chlamydia screening intervention in general practice on chlamydia prevalence in the population.
- Men and women aged 16 to 29 years were targeted for annual chlamydia testing in general practice.

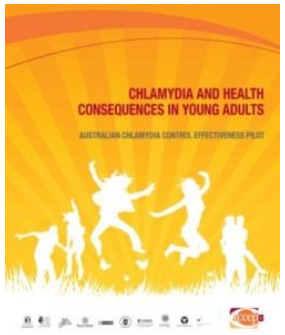

1. Lancet 2018; 392(10156):1413-1422..

# ACCEPt intervention

» Financial incentives (FI) of $5-$8 per chlamydia test


» Individual GP audit and feedback (A+F) reports of chlamydia testing rates

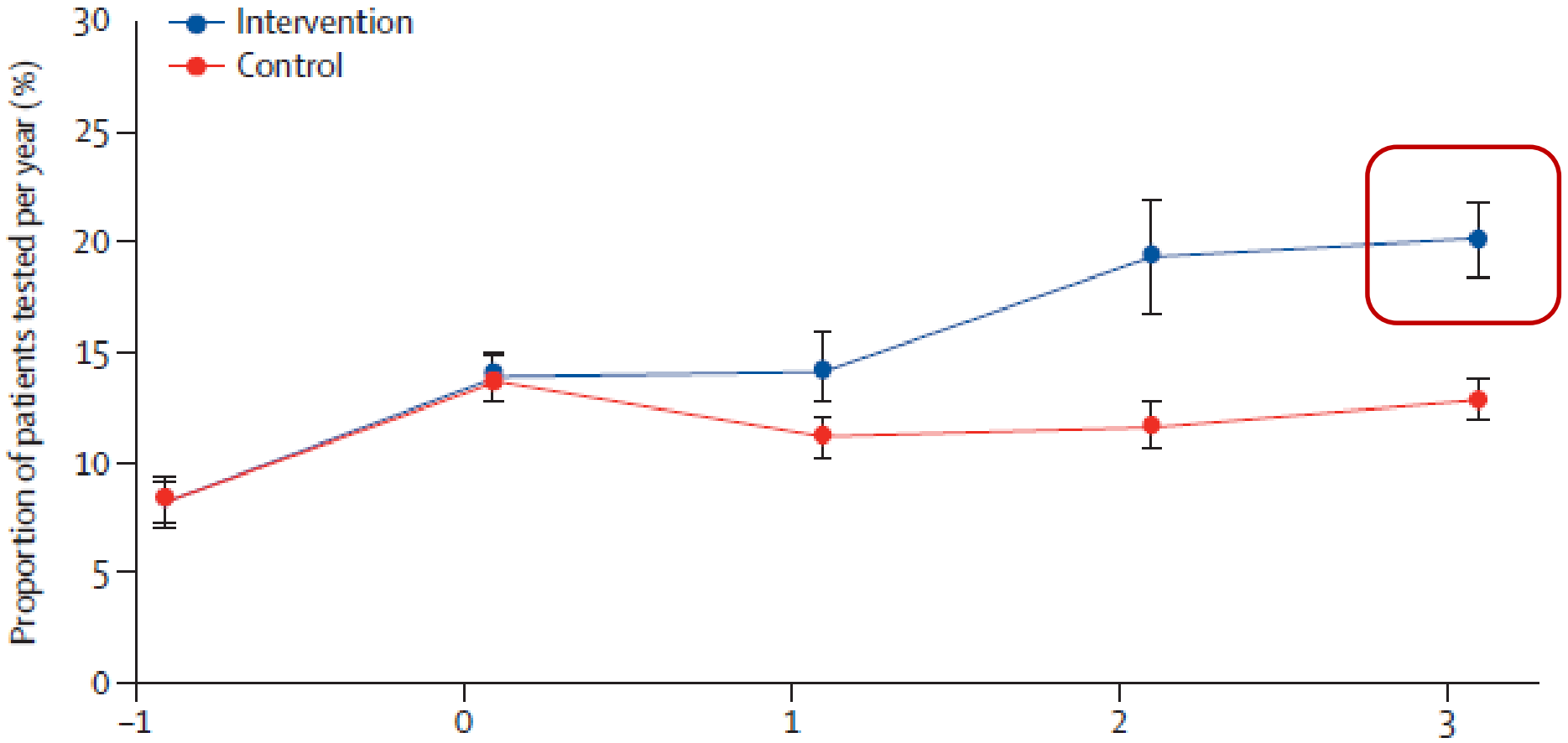
» Education, training and CPD points for GPs & nurses




» Computer alerts

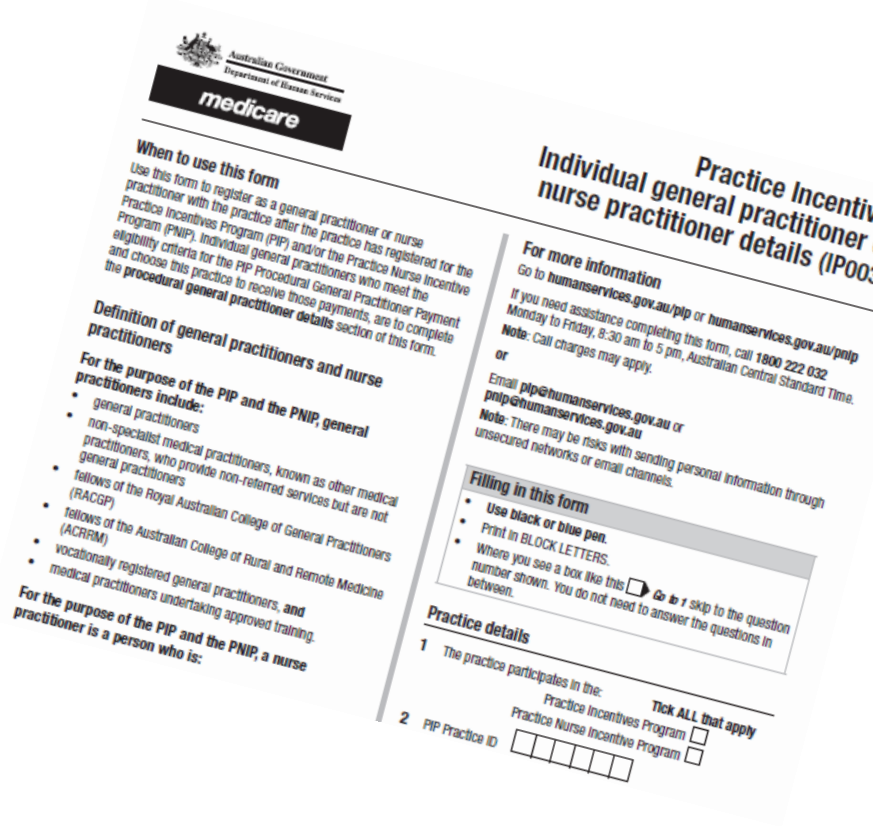
» Patient information resources

# Impact of ACCEPt on chlamydia testing



# Incentives and audit+feedback

- Financial incentives used to influence provider behaviour
  - Practice Incentive Program (PIP) – Australia
  - Quality and Outcomes Framework (QoF) – England
  - But – these payments are being removed OR thresholds raised to receive payment
- Audit + feedback
  - RACGP QI&CPD Program
- No RCT evidence of what happens when these things are REMOVED
- ACCEPt provided a unique opportunity to investigate the impact of their removal


Australian Government
Department of Human Services

medicare

Practice Incentiv
Individual general practitioner
nurse practitioner details (IP00

**When to use this form**

Use this form to register as a general practitioner or nurse practitioner with the practice after the practice has registered for the Practice Incentives Program (PIP) and/or the Practice Nurse Incentive Program (PNIP). Individual general practitioners who meet the eligibility criteria for the PIP Procedural General Practitioner Payment and choose this practice to receive those payments, are to complete the **procedural general practitioner details** section of this form.

**Definition of general practitioners and nurse practitioners**

**For the purpose of the PIP and the PNIP, general practitioners include:**

- general practitioners
- non-specialist medical practitioners, known as other medical practitioners, who provide non-referred services but are not general practitioners
- fellows of the Royal Australian College of General Practitioners (RACGP)
- fellows of the Australian College of Rural and Remote Medicine (ACRRM)
- vocationally registered general practitioners, and
- medical practitioners undertaking approved training.

**For the purpose of the PIP and the PNIP, a nurse practitioner is a person who is:**

**For more information**

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**Note:** Call charges may apply.

**or**

Email **pip@humanservices.gov.au** or **pnip@humanservices.gov.au**

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**Filling in this form**

- **Use black or blue pen.**
- Print in BLOCK LETTERS.
- Where you see a box like this ☐ **Go to 1** skip to the question number shown. You do not need to answer the questions in between.

**Practice details**

1 The practice participates in the: **Tick ALL that apply**
Practice Incentives Program ☐
Practice Nurse Incentive Program ☐

2 PIP Practice ID

# Aims

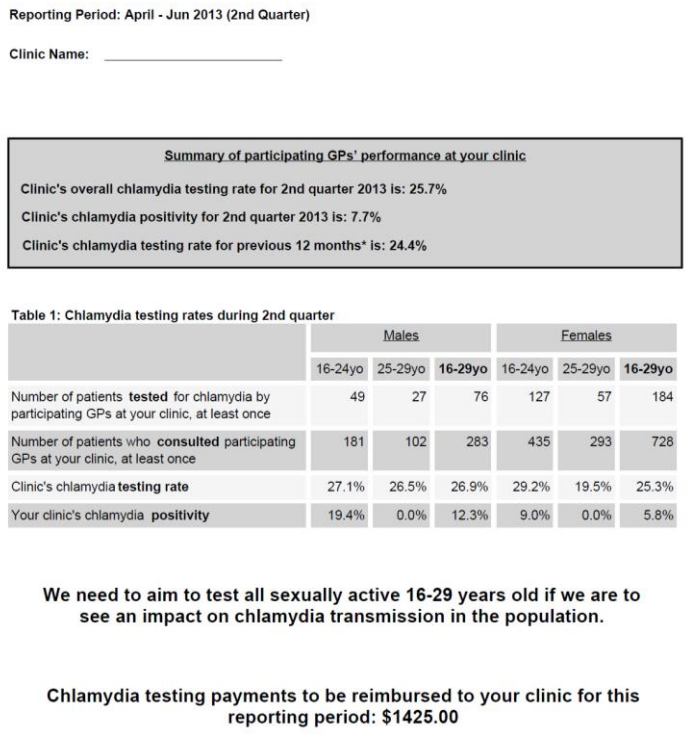
To investigate the impact of

- removing financial incentives

**OR**

- removing external audit plus feedback

on chlamydia testing rates in general practice, following implementation of a preventive care intervention that includes financial incentives and audit plus feedback .



Reporting Period: April - Jun 2013 (2nd Quarter)

Clinic Name: _____

**Summary of participating GPs' performance at your clinic**

**Clinic's overall chlamydia testing rate for 2nd quarter 2013 is: 25.7%**

**Clinic's chlamydia positivity for 2nd quarter 2013 is: 7.7%**

**Clinic's chlamydia testing rate for previous 12 months* is: 24.4%**

**Table 1: Chlamydia testing rates during 2nd quarter**

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | 16-24yo | 25-29yo | **16-29yo** | 16-24yo | 25-29yo | **16-29yo** |
| Number of patients **tested** for chlamydia by participating GPs at your clinic, at least once | 49 | 27 | 76 | 127 | 57 | 184 |
| Number of patients who **consulted** participating GPs at your clinic, at least once | 181 | 102 | 283 | 435 | 293 | 728 |
| Clinic's chlamydia **testing rate** | 27.1% | 26.5% | 26.9% | 29.2% | 19.5% | 25.3% |
| Your clinic's chlamydia **positivity** | 19.4% | 0.0% | 12.3% | 9.0% | 0.0% | 5.8% |

**We need to aim to test all sexually active 16-29 years old if we are to see an impact on chlamydia transmission in the population.**

**Chlamydia testing payments to be reimbursed to your clinic for this reporting period: $1425.00**

# Study design

- Factorial cluster randomised controlled trial
- Intervention clinics from ACCEPt were re-randomised into 1 of 4 intervention groups
- Followed for up to 2 years
- Primary outcome :
  - annual chlamydia testing rates among 16 to 29 year olds attending general practice

# How it works: 2x2 factorial design - 4 groups

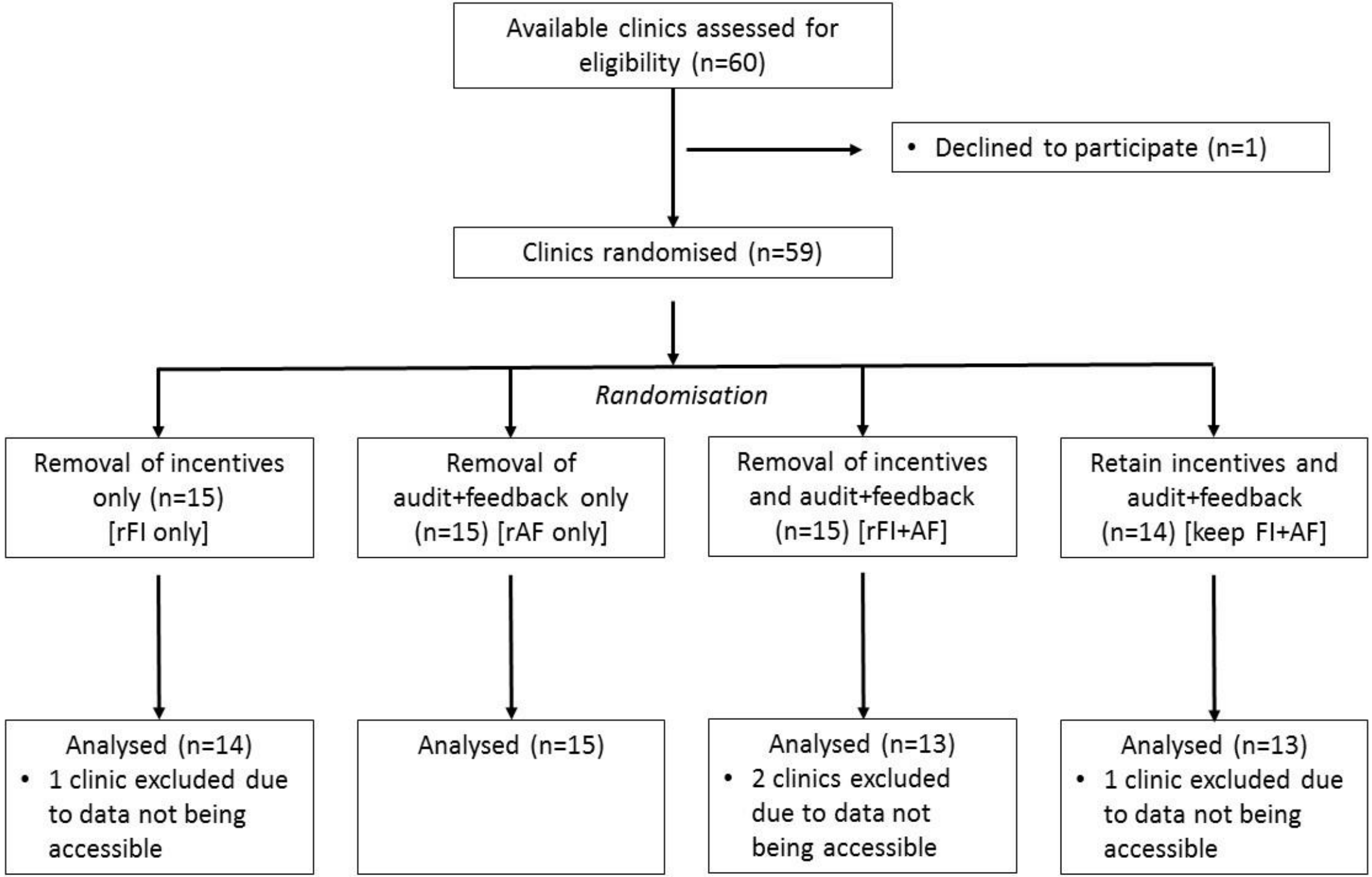
(A ) Remove Financial incentives

(B) Remove audit+feedback

(C) Remove incentives and audit+ feedback

(D) Keep incentives and audit+feedback

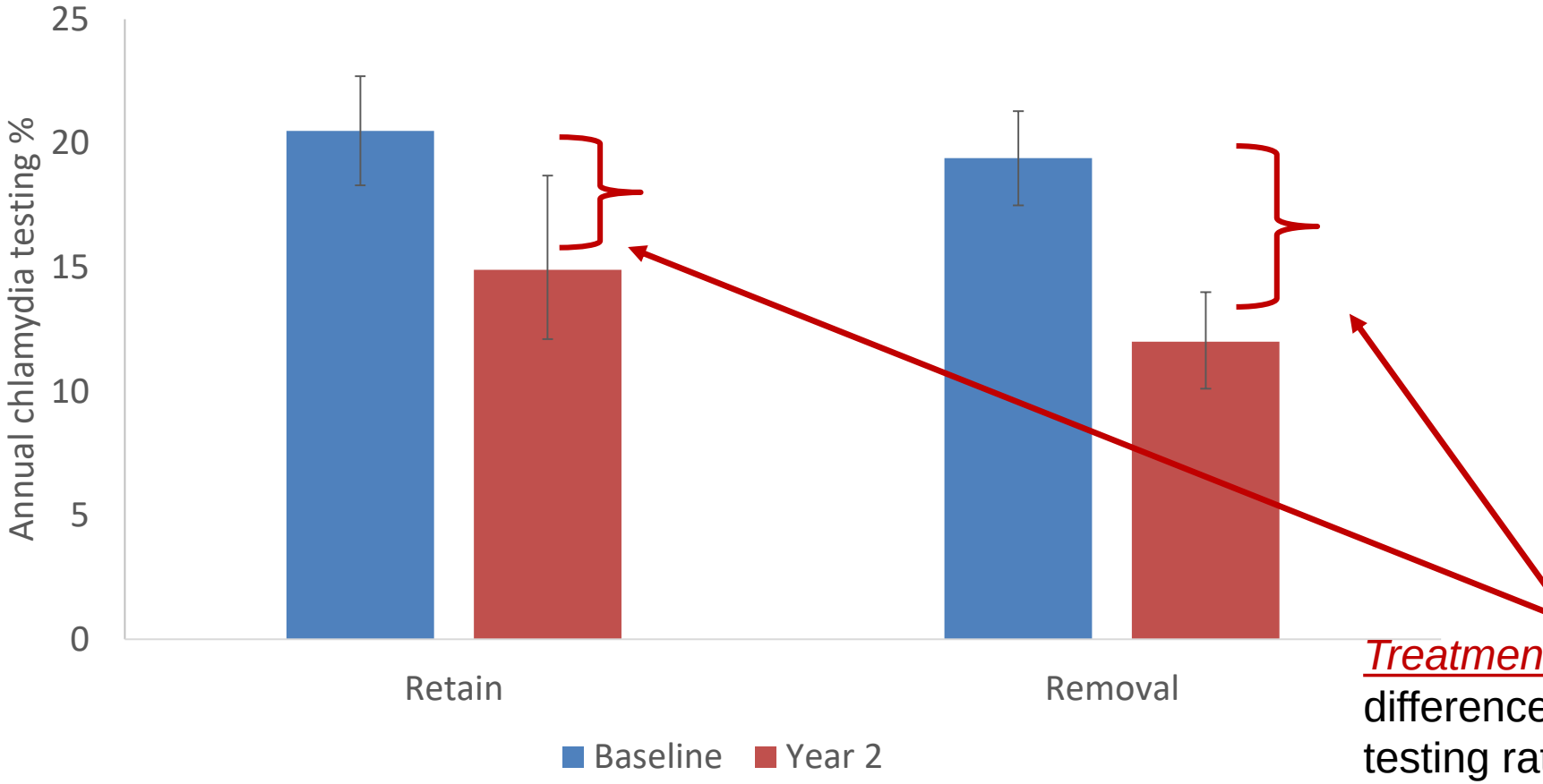
| Comparisons | |
|---|---|
| Removal of incentives | Groups A&C versus groups B&D |
| Removal of audit+feedback | Groups B&C versus groups A&D |


Available clinics assessed for eligibility (n=60)
• Declined to participate (n=1)
Clinics randomised (n=59)
Randomisation
Removal of incentives only (n=15) [rFI only]
Removal of audit+feedback only (n=15) [rAF only]
Removal of incentives and audit+feedback (n=15) [rFI+AF]
Retain incentives and audit+feedback (n=14) [keep FI+AF]
Analysed (n=14)
• 1 clinic excluded due to data not being accessible
Analysed (n=15)
Analysed (n=13)
• 2 clinics excluded due to data not being accessible
Analysed (n=13)
• 1 clinic excluded due to data not being accessible

# Baseline characteristics

| | Removal of incentives (A+C) | No removal of incentives (B+D) | Removal of audit/feedback (B+C) | No removal of audit/feedback (A+D) |
|---|---|---|---|---|
| **Number of patients** | 22780 | 26172 | 23522 | 25430 |
| **Patient age, n (%)** | | | | |
| **16-20** | 6995 (30.7) | 8008 (30.6) | 7218 (30.7) | 7785 (30.6) |
| **20-24** | 8091 (35.5) | 9335 (35.7) | 8295 (35.3) | 9131 (35.9) |
| **25-29** | 7694 (33.8) | 8829 (33.7) | 8009 (34.0) | 8514 (33.5) |
| **Patient gender, n (%)** | | | | |
| **M** | 9587 (42.1) | 10721 (41.0) | 10089 (42.9) | 10219 (40.2) |
| **F** | 13193 (57.9) | 15451 (59.0) | 13433 (57.1) | 15211 (59.8) |
| **Chlamydia testing rate in the 12 months prior to the trial, n (%, 95%CI)** | 4430 (19.4) (17.5 to 21.3) | 5359 (20.5) (18.2 to 22.7) | 4894 (20.8) (18.6 to 23.0) | 4895 (19.2) (17.2 to 21.3) |
| **Number of clinics** | 28 | 27 | 27 | 28 |
| **Disadvantage quintile, n (%)** | | | | |
| **1** | 5 (17.9) | 7 (25.9) | 7 (25.9) | 5 (17.9) |
| **2** | 19 (67.9) | 16 (59.3) | 17 (63.0) | 18 (64.3) |
| **3** | 2 (7.1) | 2 (7.4) | 1 (3.7) | 3 (10.7) |
| **4** | 2 (7.1) | 1 (3.7) | 1 (3.7) | 2 (7.1) |
| **5** | 0 (0.0) | 1 (3.7) | 1 (3.7) | 0 (0.0) |

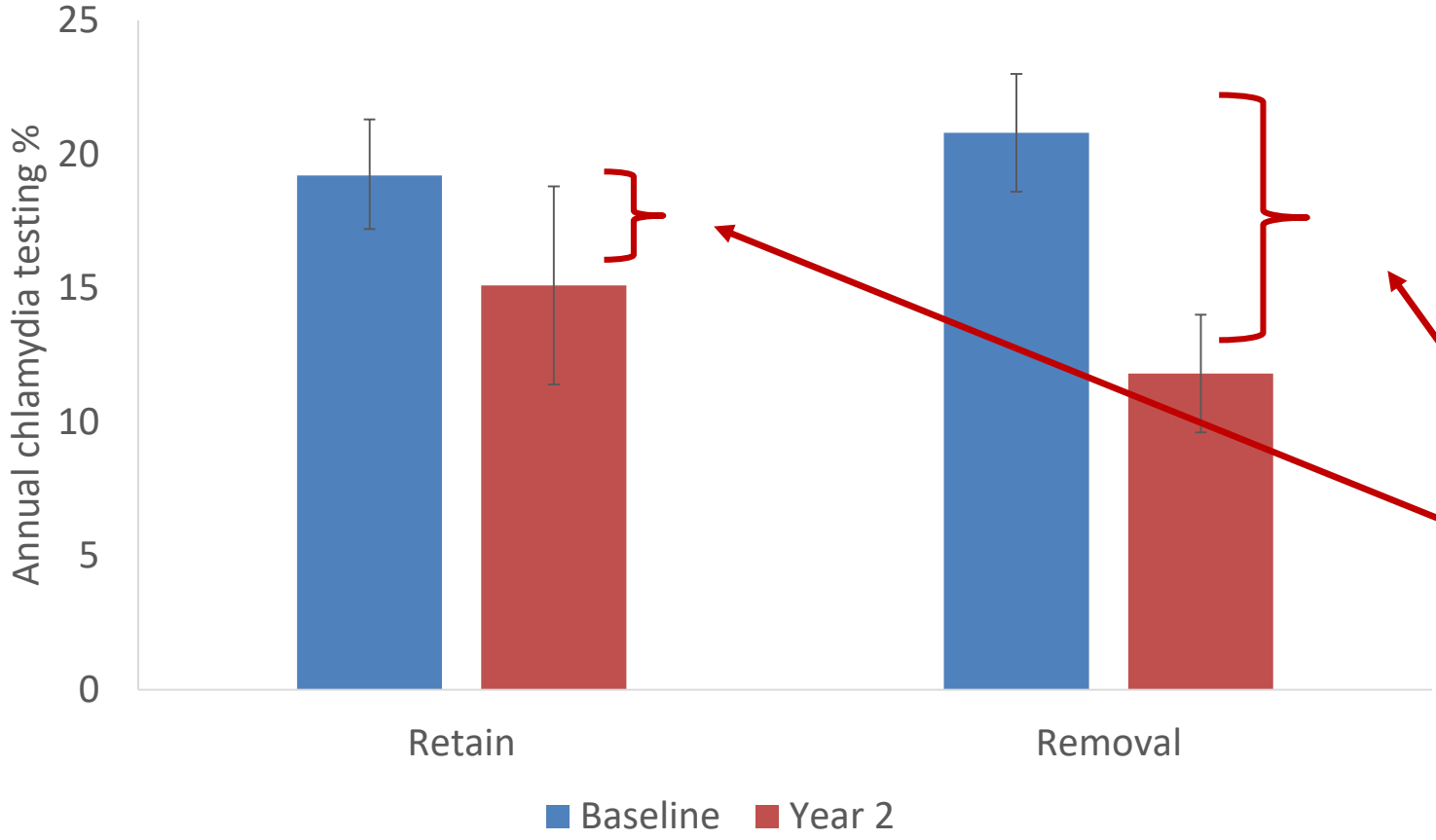
# Removal of financial incentives




*Treatment effect –*
difference in change in testing rate

Treatment effect:
1.9% (95%CI: -1.7, 5.5; p=0.30)
No difference in change in chlamydia test rates between groups

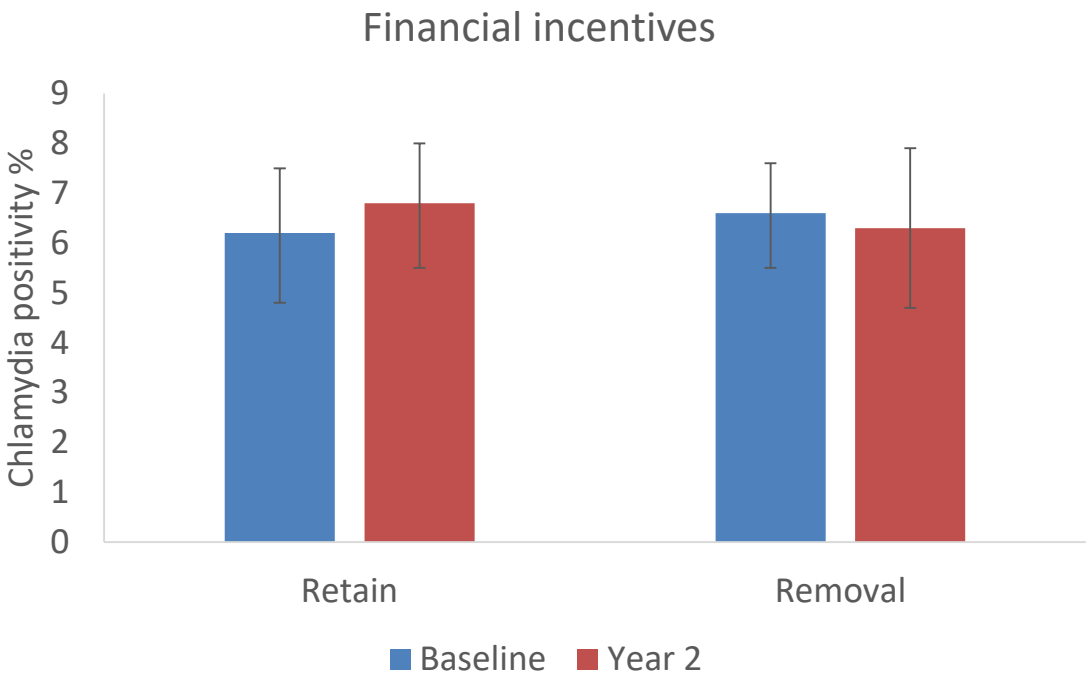
# Removal of audit + feedback




*Treatment effect –*
difference in change in testing rate

Treatment effect:
4.8% (95%CI: 1.4, 8.3; p=<0.01) Change in chlamydia test rates greater for group with removal

# Positivity

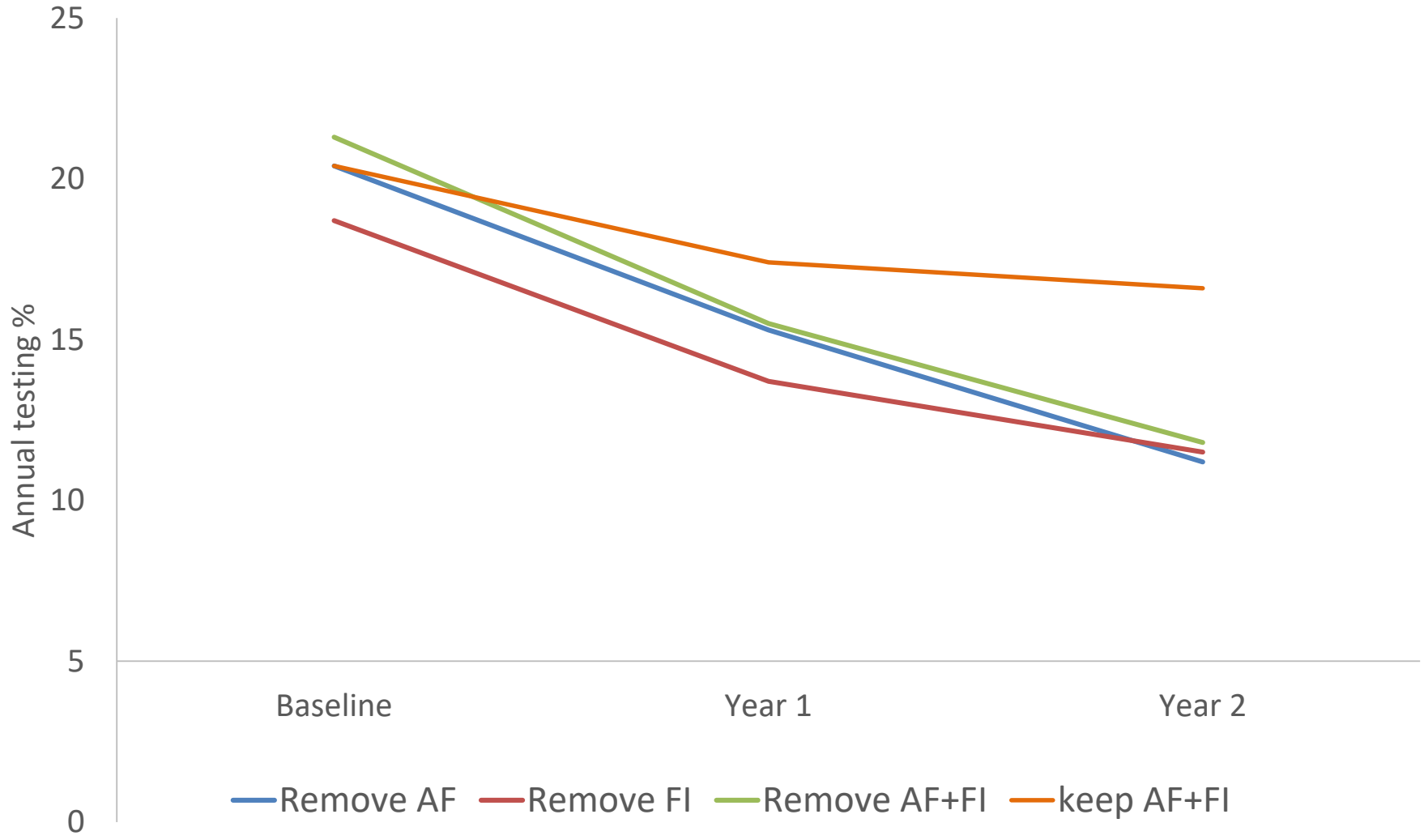




Treatment effect: 1.0% (95%CI: -1.3, 3.4)

0.5% (95%CI: -1.8, 2.9)

# Annual chlamydia testing % by intervention group



# Conclusion

- Chlamydia testing rates declined in all clinics after the end of ACCEPt.
  - ? study fatigue
- Chlamydia testing rates fell more when quarterly audit+feedback reports were removed than when financial incentives were removed.
  - Established ongoing relationships with research team and practice staff
  - Were payments sufficient?
- No impact on chlamydia positivity - no change in patient profile being tested.
- Removal of interventions aimed to modify GP clinical behavious can impact on subsequent GP performance and patient outcomes
- It is very challenging to embed, sustain or increase chlamydia testing uptake in general practice.

# Acknowledgments


- ACCEPt research team
- ACCEPt Consortium
- Participating clinics and staff

- This trial was funded by NHMRC (1063597)

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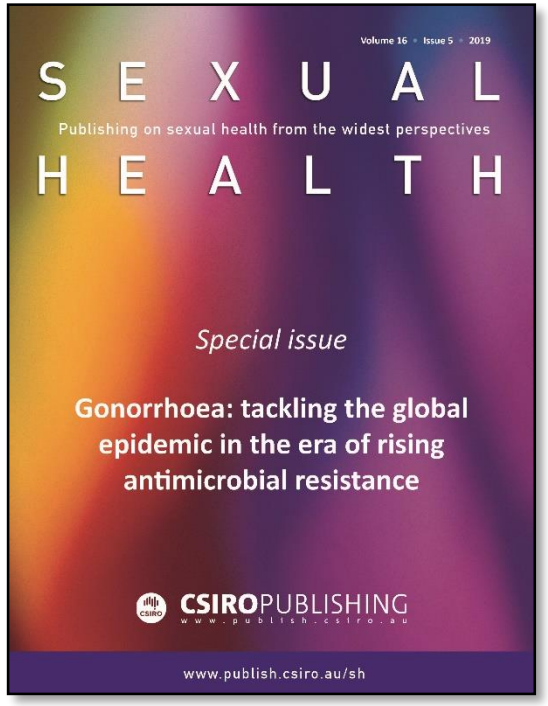


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