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MELBOURNE

# Too old for STIs?

Examining chlamydia, gonorrhoea, and  
syphilis trends among older women in  
Australia 2000-2018

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# Outline

Older adults and sexual health

This study

Methods and Analysis

Findings

Discussion

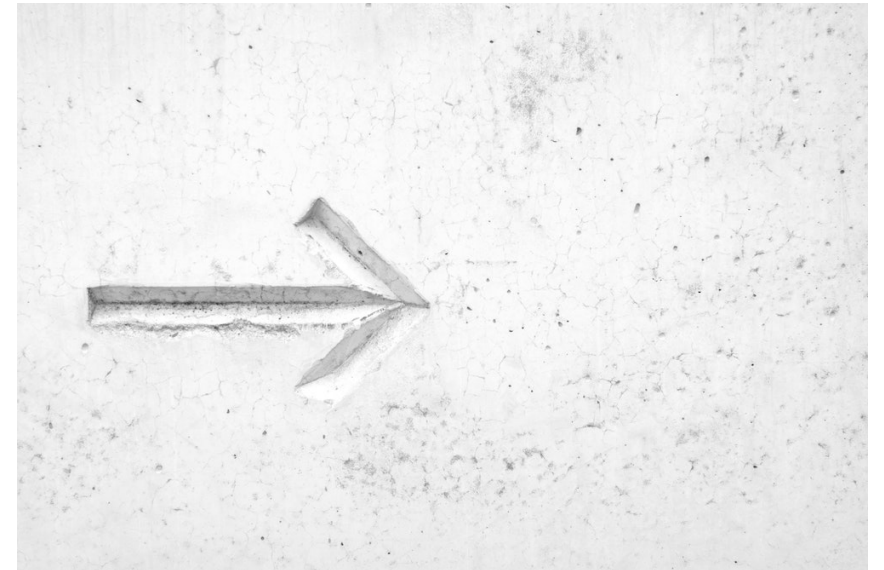


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# Older adults and sexual health

Older adults continue to be sexually active into their later years<sup>1,2,3</sup>

Sexual health needs largely unacknowledged

## STIs

- STIs increasing among older age groups<sup>4,5,6,7</sup>
- STI awareness low<sup>8,9</sup>
- STI testing low<sup>10,11</sup>
- Safer sex behaviours low<sup>12,13,14</sup>



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# This study

## **Aim:**

- Investigate chlamydia, gonorrhoea, and syphilis rates among older women in Australia 2000-2018
- Examine chlamydia testing and test positivity among older women in Australia 2009-2018

## **Data analysed:**

- National Notifiable Disease Surveillance System, ABS, Medicare
- Two older age groups: 55-64 and 65-74
- Compared with two younger age groups: 15-24 and 25-34
- Australia-wide
- Women only



# Methods and analysis

## 1. Figures

- Calculated rates and generated figures

## 2. Poisson regression

- Regression 2000-2018 chlamydia and gonorrhoea, 2004-2018 syphilis
- Regression 2009-2018 chlamydia testing and positivity
- Regression 2014-2018 all data sets to highlight most recent trends





# Findings



# Key findings on STI rates

STI rates much lower among older women than among younger women

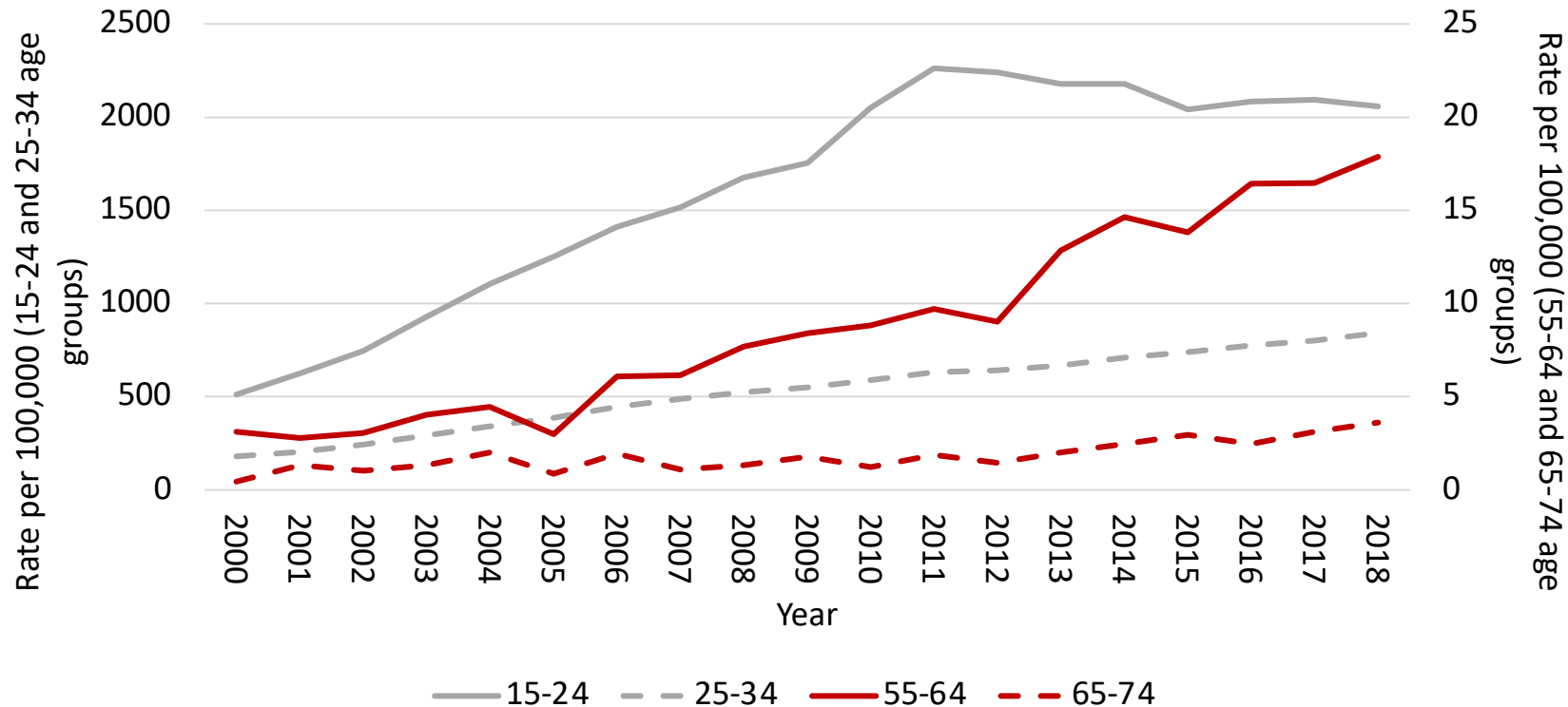
STIs increased among all age groups

However, ***STI rates increased most sharply among older women***



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# Chlamydia trends among older women in Australia 2000-2018

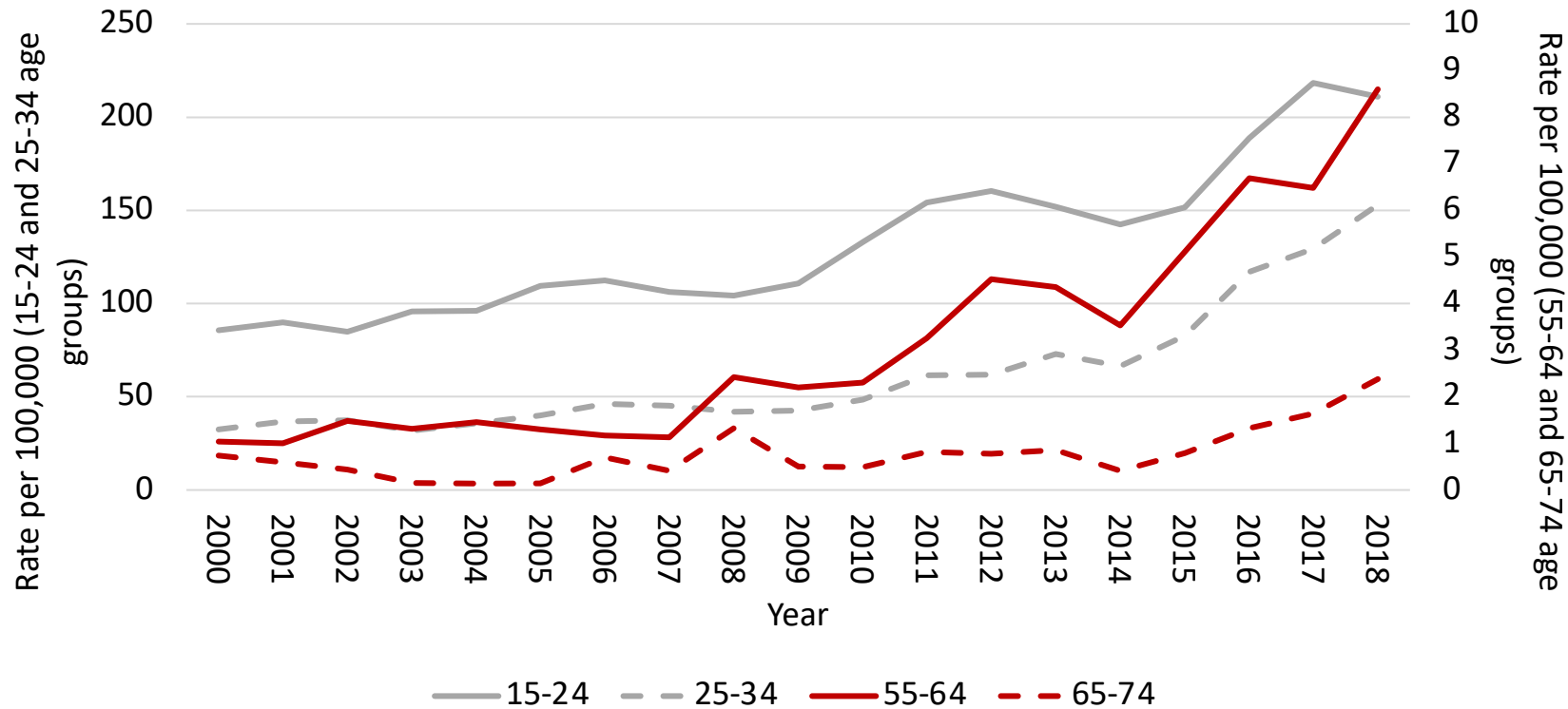


	Analysis	15-24	25-34	55-64	65-74
Chlamydia	IRR (95%CI) 2000-2018	1.06 (1.06, 1.06) p<0.001	1.07 (1.07, 1.07) p<0.001	1.11 (1.10, 1.12) p<0.001	1.07 (1.05, 1.10) p<0.001
	IRR (95%CI) 2014-2018	0.99 (0.99, 0.99) p<0.001	1.04 (1.04, 1.05) p<0.001	1.06 (1.02, 1.10) p<0.006	1.09 (0.97, 1.22) p=0.131

IRR=incidence rate ratio



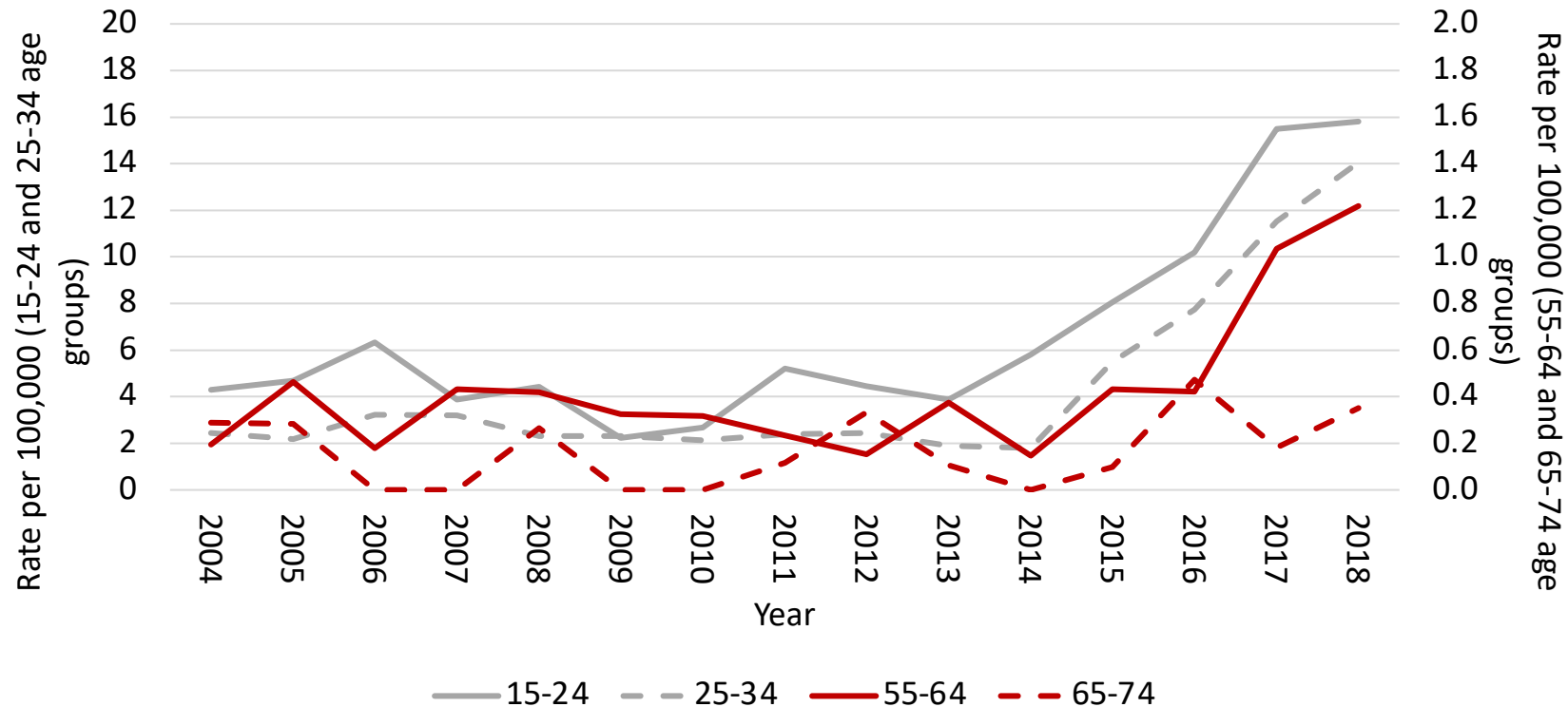
# Gonorrhoea trends among older women in Australia 2000-2018



	Analysis	15-24	25-34	55-64	65-74
Gonorrhoea	IRR (95%CI) 2000-2018	1.05 (1.05, 1.06) p<0.001	1.10 (1.09, 1.10) p<0.001	1.14 (1.12, 1.16) p<0.001	1.10 (1.06, 1.14) p<0.001
	IRR (95%CI) 2014-2018	1.12 (1.10, 1.13) p<0.001	1.22 (1.21, 1.24) p<0.001	1.21 (1.13, 1.30) p<0.001	1.47 (1.23, 1.77) p<0.001

IRR=incidence rate ratio

# Syphilis trends among older women in Australia 2004-2018



	Analysis	15-24	25-34	55-64	65-74
Syphilis	IRR (95%CI)	1.12 (1.11, 1.13)	1.17 (1.15, 1.19)	1.11 (1.05, 1.17)	1.06 (0.96, 1.18)
	2004-2018	p<0.001	p<0.001	p<0.001	p=0.216
	IRR (95%CI)	1.29 (1.23, 1.35)	1.49 (1.41, 1.58)	1.58 (1.25, 1.99)	1.44 (0.92, 2.38)
	2014-2018	p<0.001	p<0.001	p<0.001	p=0.107

IRR=incidence rate ratio



# Key findings on chlamydia testing and positivity

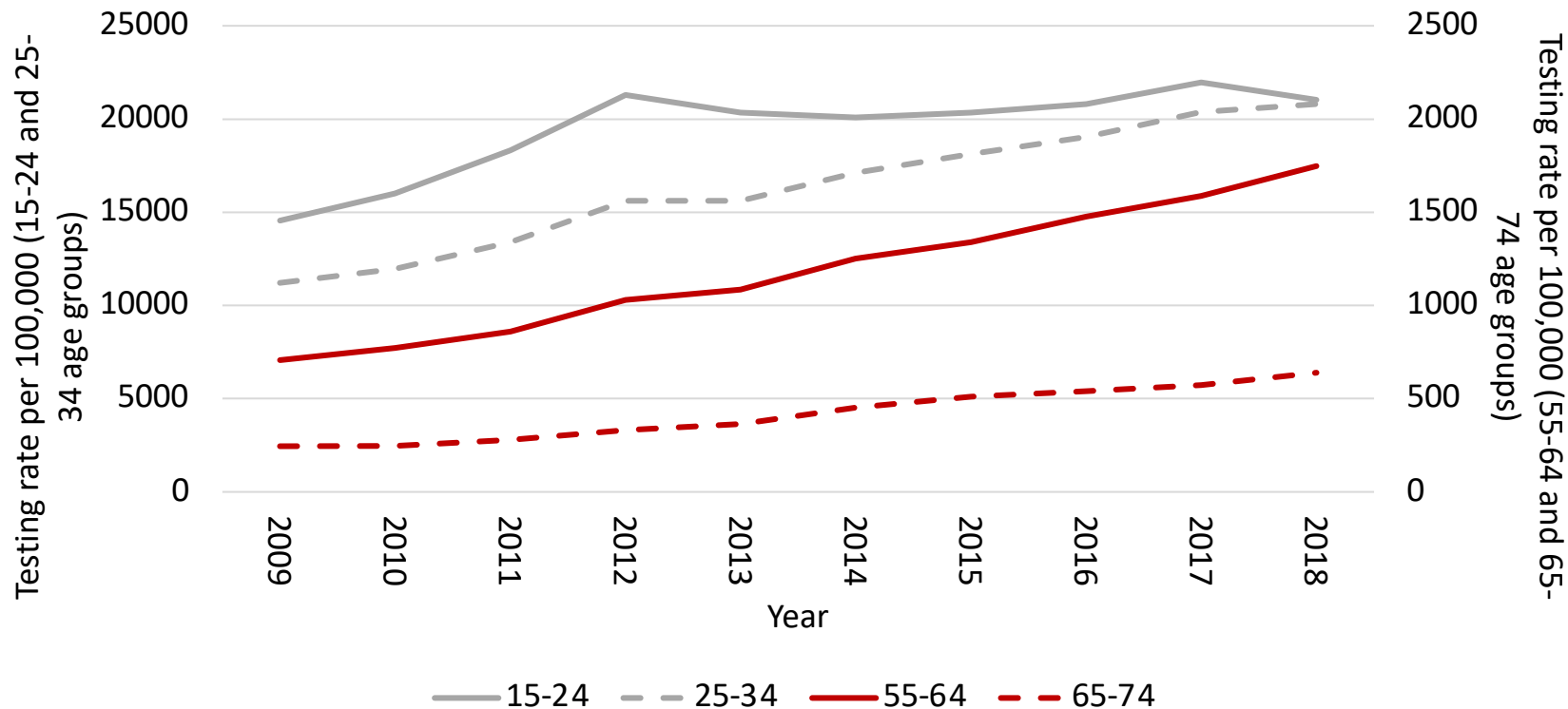
Chlamydia testing much higher for young women than older women

Testing increased among all age groups

Test positivity declined among younger women, but stable among older women



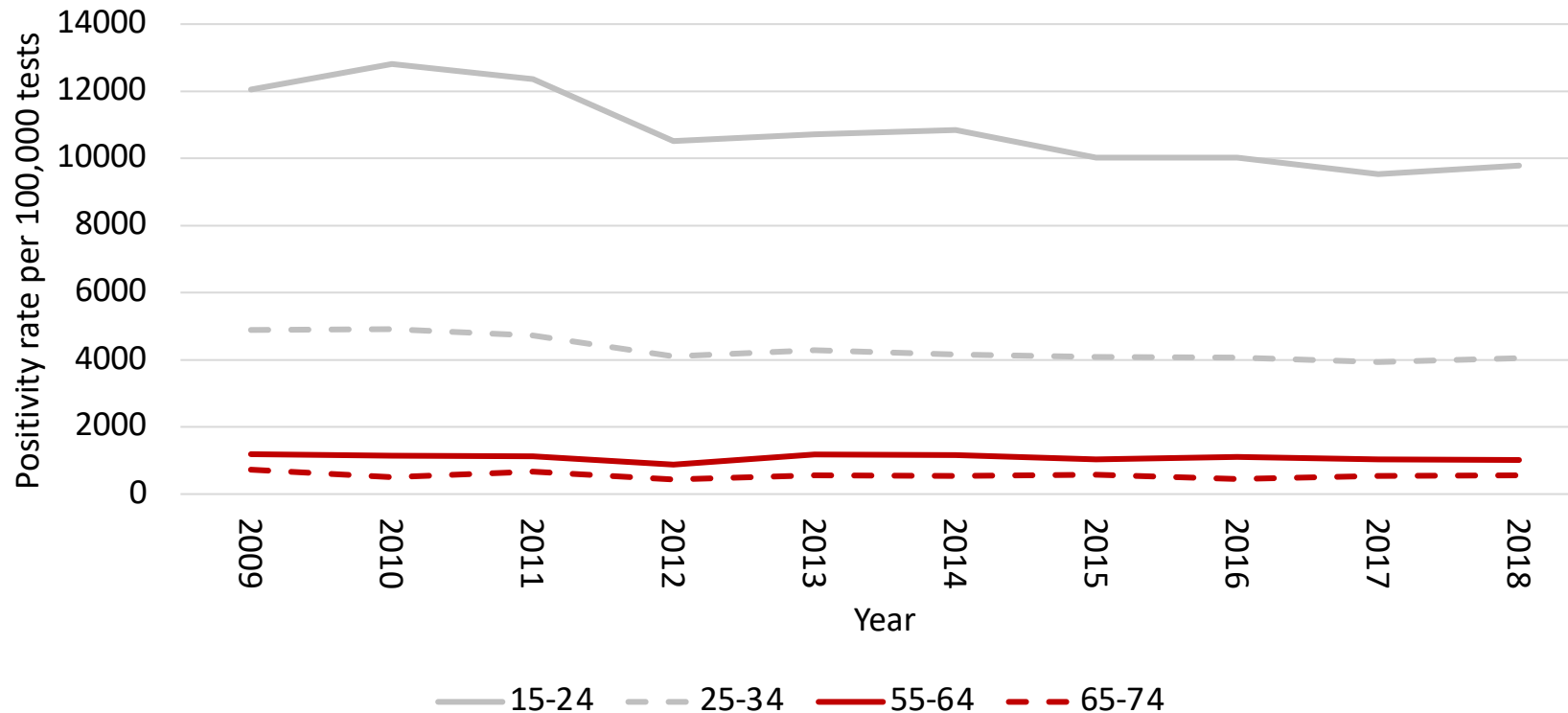
# Chlamydia testing rates for older women in Australia 2009-2018



	Analysis	15-24	25-34	55-64	65-74
Chlamydia testing	IRR (95%CI)	1.03 (1.03, 1.03)	1.07 (1.07, 1.07)	1.10 (1.10, 1.11)	1.12 (1.12, 1.12)
	2009-2018	p<0.001	p<0.001	p<0.001	p<0.001
	IRR (95%CI)	1.02 (1.01, 1.02)	1.05 (1.05, 1.05)	1.09 (1.08, 1.09)	1.08 (1.07, 1.09)
	2014-2018	p<0.001	p<0.001	p<0.001	p<0.001

IRR=incidence rate ratio

# Chlamydia test positivity for older women in Australia 2009-2018



	Analysis	15-24	25-34	55-64	65-74
Chlamydia positivity	IRR (95%CI)	0.97 (0.97, 0.97)	0.98 (0.97, 0.98)	0.99 (0.97, 1.01)	0.99 (0.94, 1.04)
	2009-2018	p<0.001	p<0.001	p=0.252	p=0.617
	IRR (95%CI)	0.97 (0.97, 0.98)	0.99 (0.99, 1.00)	0.97 (0.93, 1.01)	1.01 (0.90, 1.12)
	2014-2018	p<0.001	p=0.002	p<0.219	p<0.915

IRR=incidence rate ratio

# Limitations

1. STIs rates underestimate true infections, only capture those tested
2. Chlamydia testing and positivity use Medicare rebate data
  - Excludes some hospitals and sexual health clinics
  - However, most testing in general practice<sup>10,11</sup>
  - Missing data likely small
  - Unclear if missing data different between ages





# Summary

STIs increasing among older women, and more sharply than for younger women

Older adults may need more attention

Chlamydia test positivity declining among young → reaching people with range of risk profiles

Test positivity stable among older women → only reaching most at risk

# Sexual health conversations in primary care

STI testing usually general practice setting<sup>10,11,15</sup>

Older patients wait for GP to initiate<sup>16,17,18</sup>

GPs wait for patient to initiate<sup>17,19,20</sup>

Stalemate → discussions rarely happening

No screening guidelines<sup>21,22</sup>

Some GPs feel they are not adequately trained<sup>19,20,23,24</sup>



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# Sexual health promotion

Limited sex education when younger

Few resources specifically for older adults

- May not consider STIs or testing



# Take home messages

Never too old for STIs

GPs: consider initiating sexual health conversations with older patients

- Determine if STI testing appropriate
- May need further training

Sexual health promotion: more resources for older adults



Photo by [Testalize.me](#) on [Unsplash](#)



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# Thank you

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