

Evaluating strategies for STI management in remote Indigenous communities of Australia

STIs in remote Indigenous communities

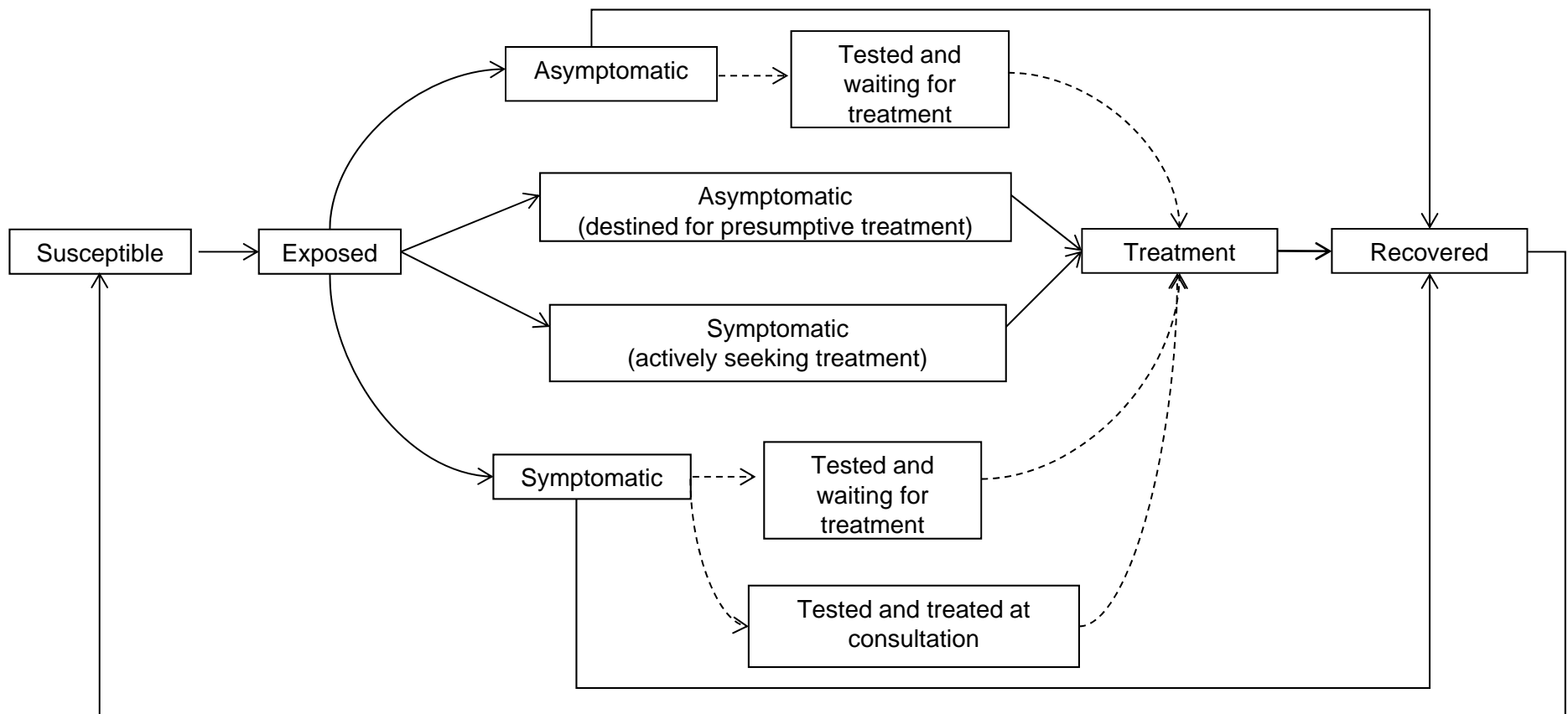
Age group	Gonorrhoea prevalence	Chlamydia prevalence
16-19	13.5%	17.4%
20-24	7.6%	8.2%
25-29	2.8%	6.0%
30-34	4.3%	3.5%
16-34	7.2%	9.0%

Source: Guy, R., et al., *The 2010 baseline prevalence study conducted by the STRIVE trial, in Australasian Sexual Health Conference. 2011: National Convention Centre, Canberra, ACT, Australia.*

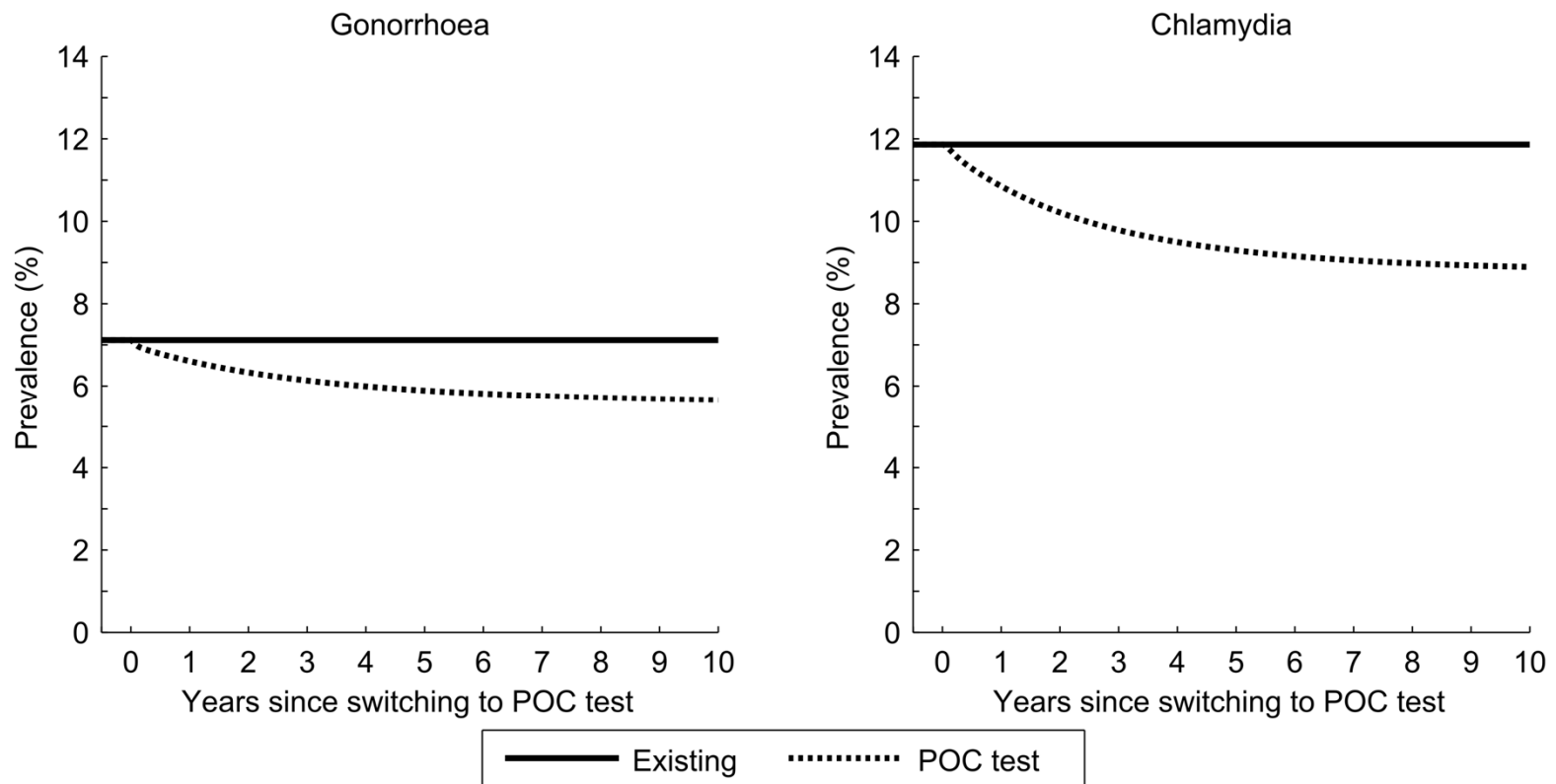
STI screening

- Robust screening test available
 - nucleic acid testing sensitivity and specificity 95%-100%
- Good coverage achievable
 - 44%+ population screened annually
- Increase screening coverage
- Point-of-care (POC) testing

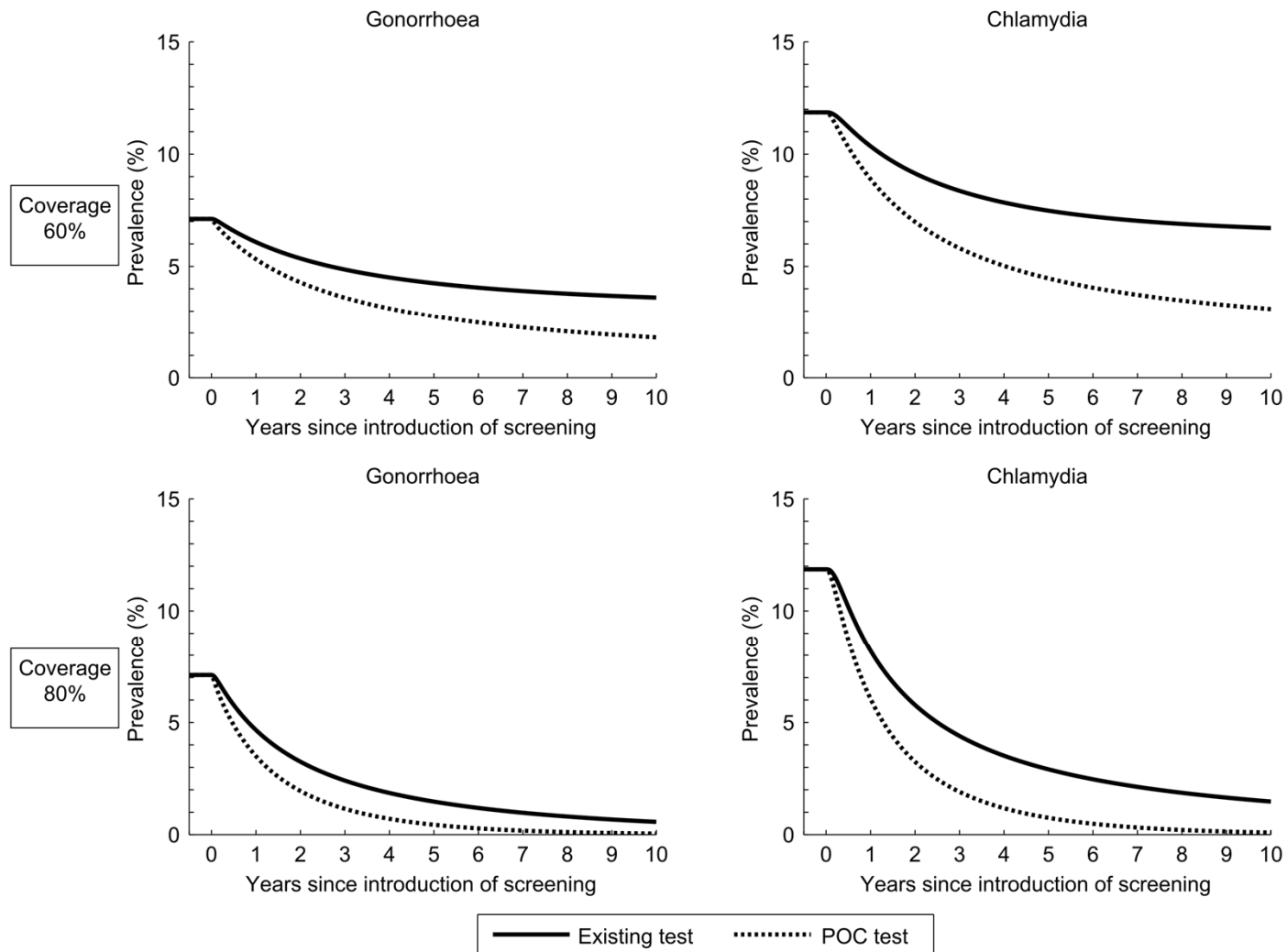
STI screening and interventions



POC testing



POC testing with increased screening coverage



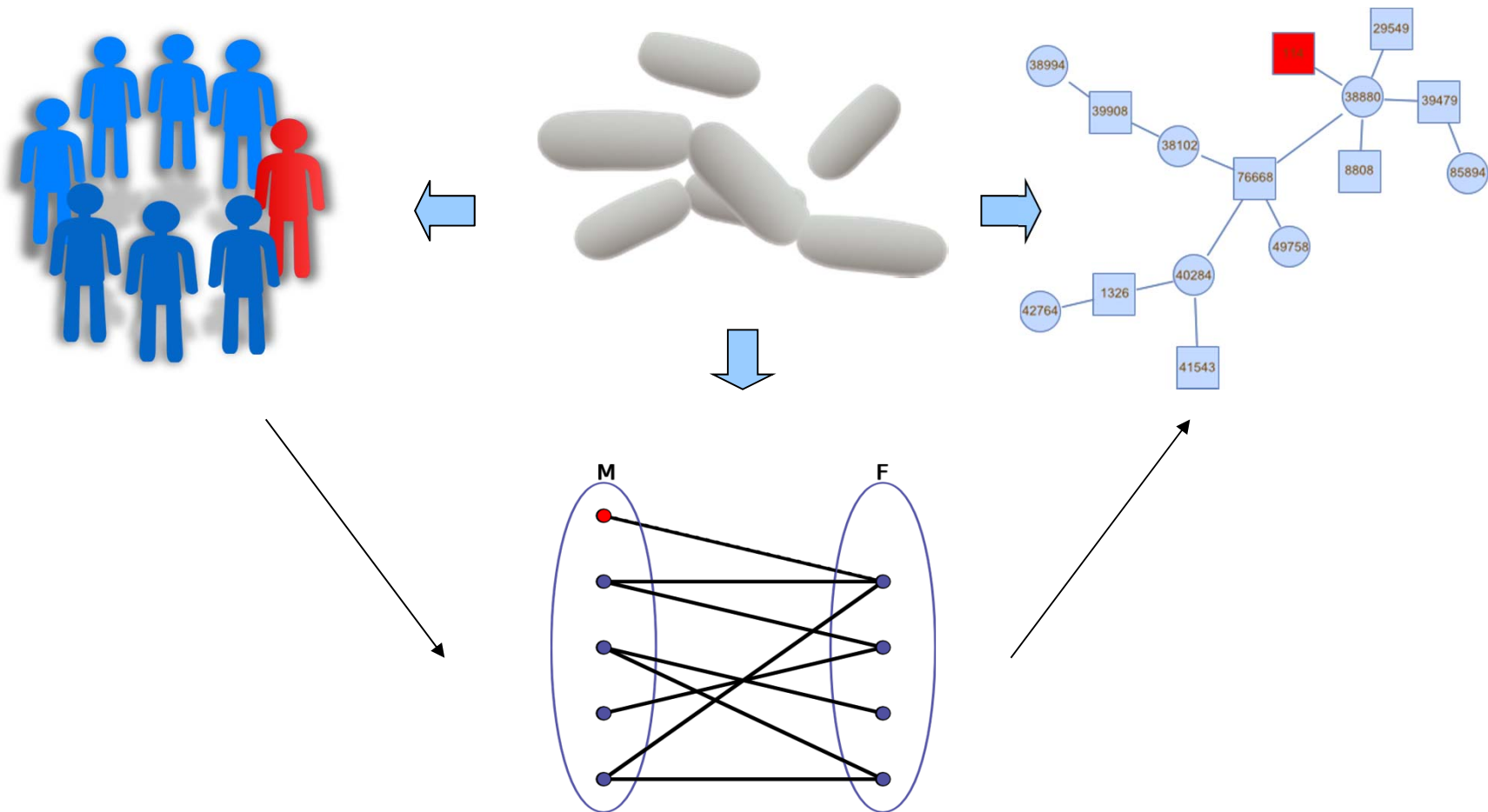
Findings

- Point-of-care tests have the potential to be especially beneficial for populations where the probability of a patient returning for a screening result and to receive treatment is low.
- Modelling suggested STI prevalence in remote community can be drastically reduced with increased STI screening coverage and the uses of point-of-care test.
- Cost?

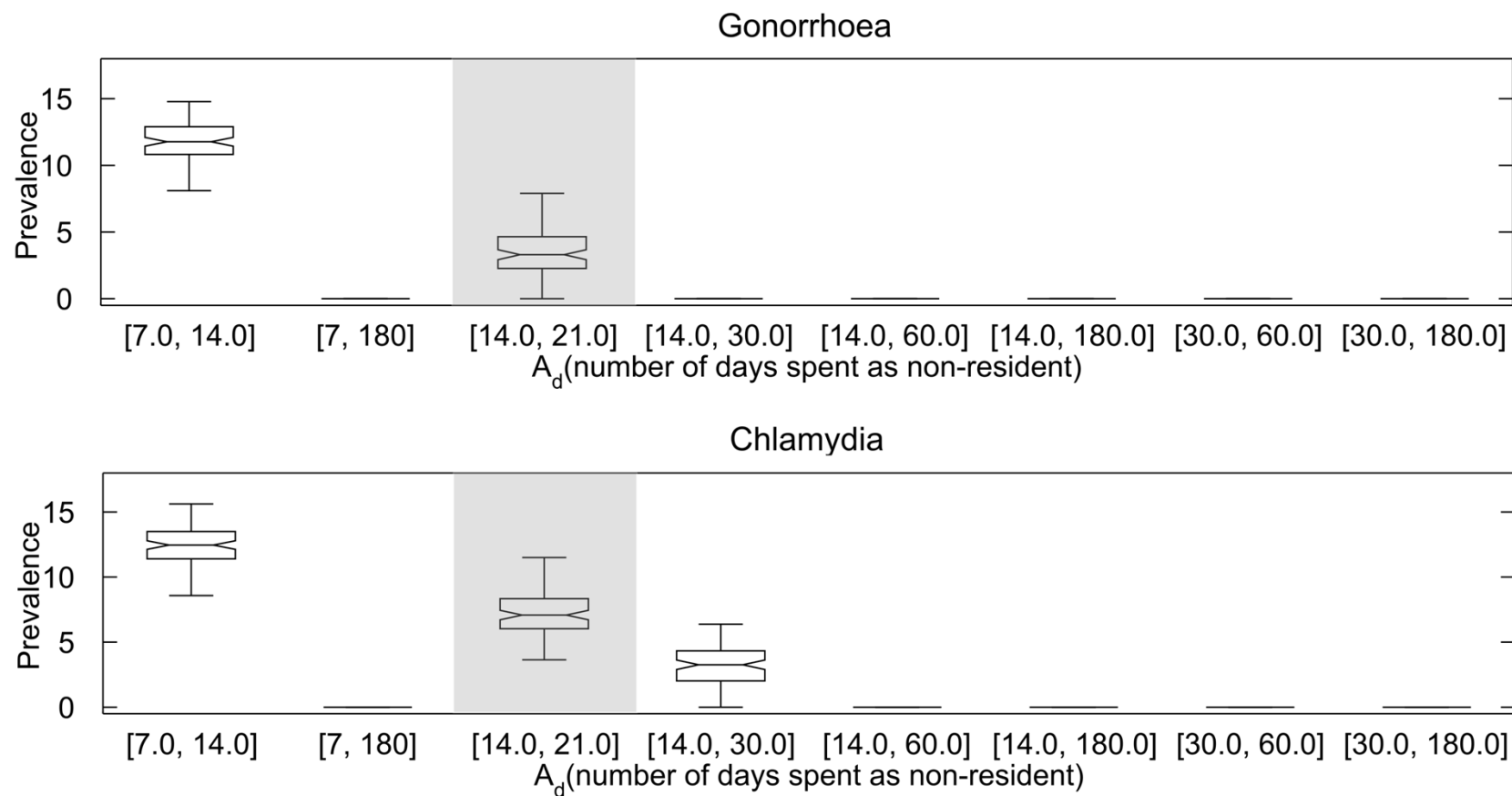
STI persistence in remote community

- Both gonorrhoea and chlamydia persist in these communities, despite:
 - Infections only last for 1-2 years even without treatment
 - High background testing and treatment rate
 - Small population
- High population mobility
 - In 2006, 8-10% of 15-45 years old are temporarily away from their usual place of residence during census night
 - Number of screening > Number of residents in population
 - Screening coverage of more than 100%!

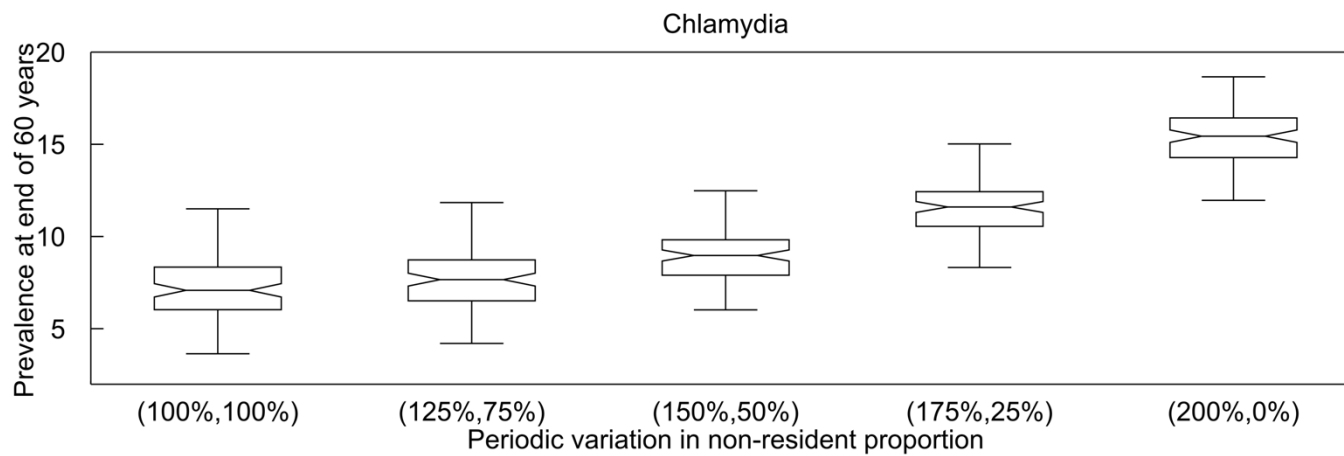
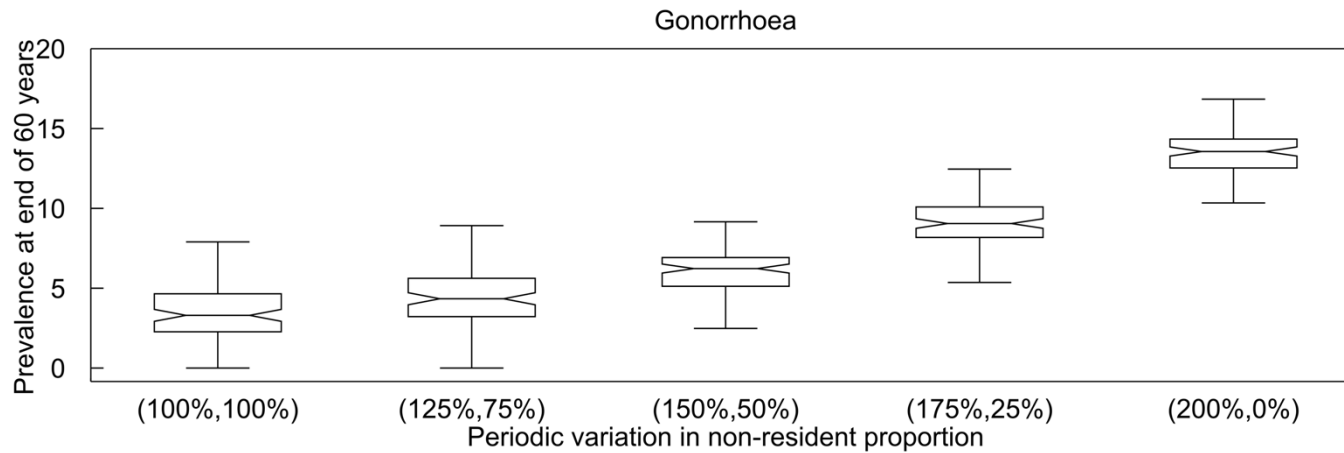
Individual based model



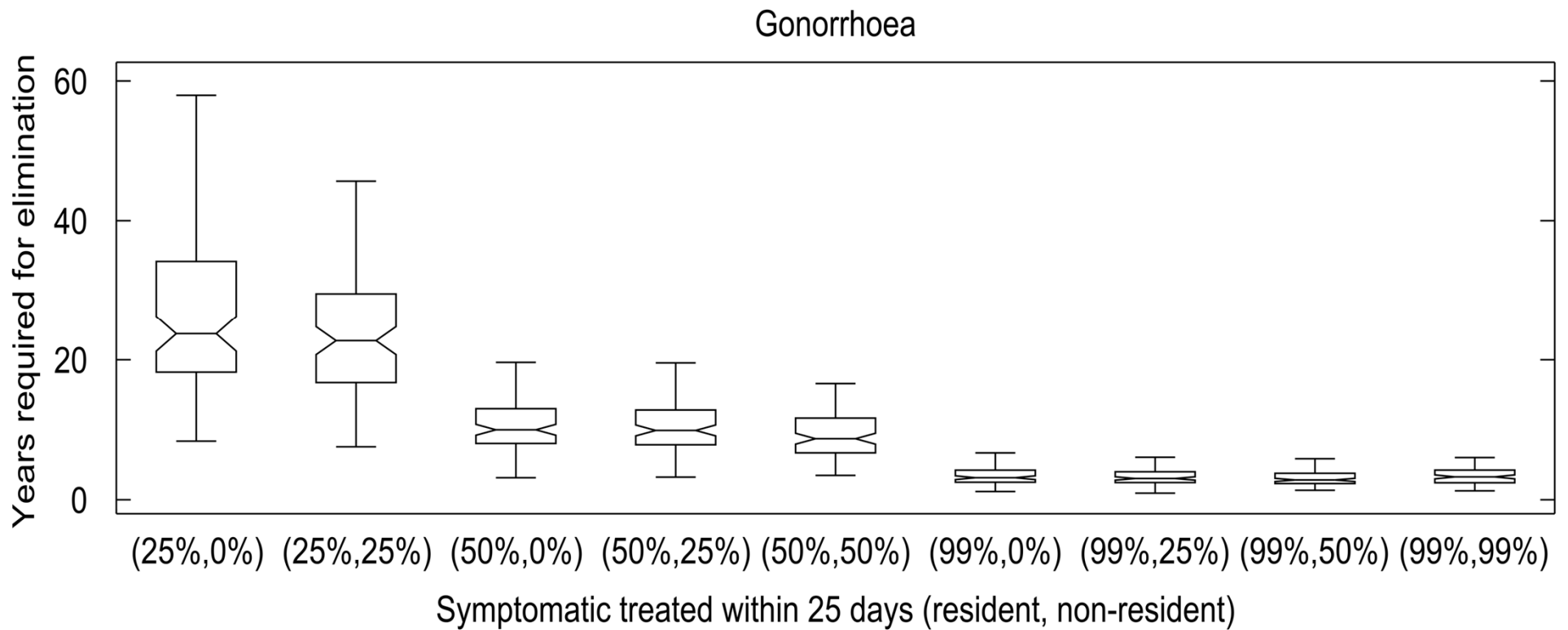
Days spent away from home location



Periodic / seasonal variations



Expanding symptomatic treatment to travellers



Finding

- Gonorrhoea and chlamydia can persist if mobile individuals spend a very short time (less than 21 days for gonorrhoea and less than 30 days for chlamydia) away from home.
- Seasonal or periodic variations in mobility pattern could increase the level of prevalence sustainable.
- The benefit of expanding symptomatic treatment to include both resident and travellers is limited. Intervention specifically designed to target high mobile intervention might be necessary.

Reference

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