

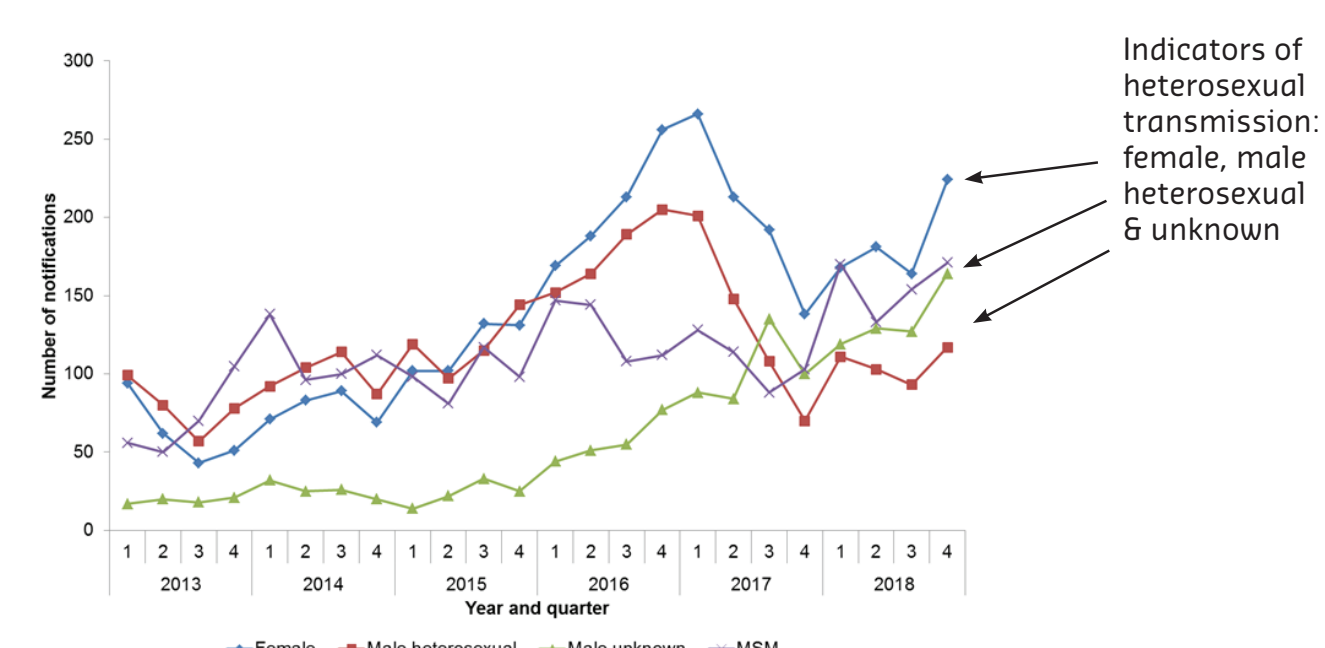
# INCORPORATING QUALITATIVE INQUIRY INTO THE PUBLIC HEALTH INVESTIGATION OF A GONORRHOEA OUTBREAK IN PERTH, WESTERN AUSTRALIA

Mak DB<sup>1,2</sup>, Shearer J<sup>1,3,4</sup>, Hallett J<sup>3,4</sup>, Lobo R<sup>3,4</sup>

<sup>1</sup>Communicable Disease Control Directorate, WA Dept of Health. <sup>2</sup>School of Medicine, University of Notre Dame, Fremantle. <sup>3</sup>Sexual Health and Blood-borne Virus Applied Research and Evaluation Network (SIREN), School of Public Health, Curtin University. <sup>4</sup>The Collaboration for Evidence, Research, and Impact in Public Health (CERIPH), School of Public Health, Curtin University.

## THE PROBLEM: INCREASING HETEROSEXUAL GONORRHOEA NOTIFICATIONS IN METROPOLITAN PERTH, WA

Number of gonorrhoea notifications in metropolitan Perth by exposure category and time period



- Gonorrhoea notification rate in metro non-Aboriginal people ↑ed 612% in females & 358% in males from 2007 to 2016.<sup>1</sup>
- Number of metro, heterosexual gonorrhoea notifications in 2017 (1 331) was also 50% higher than the preceding five-year mean (890) cases over a 12-month period.<sup>1</sup>

<sup>1</sup> Unpublished data, Western Australia Department of Health.

## LIMITATIONS OF CONVENTIONAL APPROACHES: QUANTITATIVE PUBLIC HEALTH INVESTIGATION

Ethics approval not required to collect data for a public health investigation

- 90% cases acquired locally in WA.
- Correct antibiotic treatment.
- No ↑ in antimicrobial resistance.
- ↑ing % metro, male notifications with missing data re exposure category, probably not MSM.
- Very limited sexual risk behaviour information.

Insufficient data to inform a public health response.

## LIMITATIONS OF CONVENTIONAL APPROACHES: QUALITATIVE RESEARCH

- Qualitative research to inform a public health response.
- Aim: 20 in-depth interviews with young, non-Aboriginal heterosexual Perth adults recently notified with gonorrhoea to determine context of sexual interactions and behaviours.
- Recruitment: Prospective, by STI clinics & general practitioners (GPs) with high gonorrhoea caseloads.

- Human Research Ethics Committee and site governance approvals for 2 government clinics took 9 months.
- Recruitment of GP (4) and non-government (1) clinics took 6 months.
- One (1) patient expressed interest but uncontactable despite multiple attempts.
- Zero (0) patients recruited after 7 months.**
- Research discontinued July 2018.**

## A DIFFERENT APPROACH: QUALITATIVE PUBLIC HEALTH INVESTIGATION

- Communicable Disease Control Directorate (CDCD) employed a project officer to undertake a qualitative public health investigation.
- Project officer experienced in qualitative inquiry & supervised by experienced qualitative researchers at Curtin University and CDCD staff experienced in outbreak investigation.
- Inclusion criteria: non-Aboriginal, metro, heterosexual 18-34 year olds notified with gonorrhoea 01/05/18 – 13/08/18.
- Notifying GP contacted first to ensure cognitive competence & English speaking ability.
- Project officer called patients from WA Department of Health mobile phone.
- Data collection until saturation.

- 18 patients recruited in <2 months** 25/07/2018 – 21/09/2018

| Characteristic               | Number         |
|------------------------------|----------------|
| Eligible notifications       | 70             |
| Answered the phone           | 33             |
| Did not consent to interview | 15             |
| Interviewed                  | 18 (10 M, 8 F) |
| Mean age                     | 27 years       |
| Residence                    | 17 suburbs     |
| Median interview duration    | 23 mins        |



## LESSONS LEARNED: A MIXED-METHODS APPROACH TO PUBLIC HEALTH INVESTIGATION

- A research approach was used to collect qualitative data because CDCD does not employ staff with skills/ experience in qualitative methods.
- However, given the time required for ethics approvals and difficulties of recruiting patients via clinics, a research approach was inappropriate in a situation where timeliness of data is critical to inform a public health response.
- Qualitative AND quantitative methods are required to inform public health responses and public health teams should include staff with skills/experience in qualitative methods.**



<https://www.facebook.com/TrustMelmAStatistician/posts/quantitative-vs-qualitative/1462370423891946/>

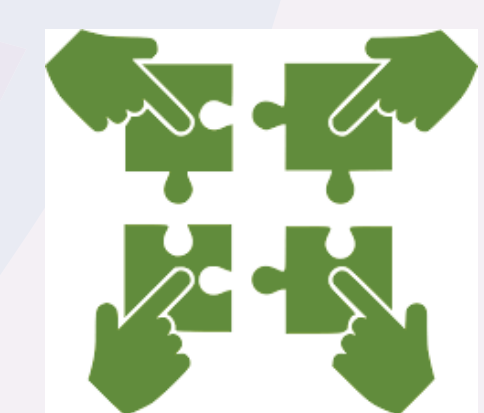
## Barriers & enablers to a mixed-methods approach to the public health investigation of this outbreak

### Barriers

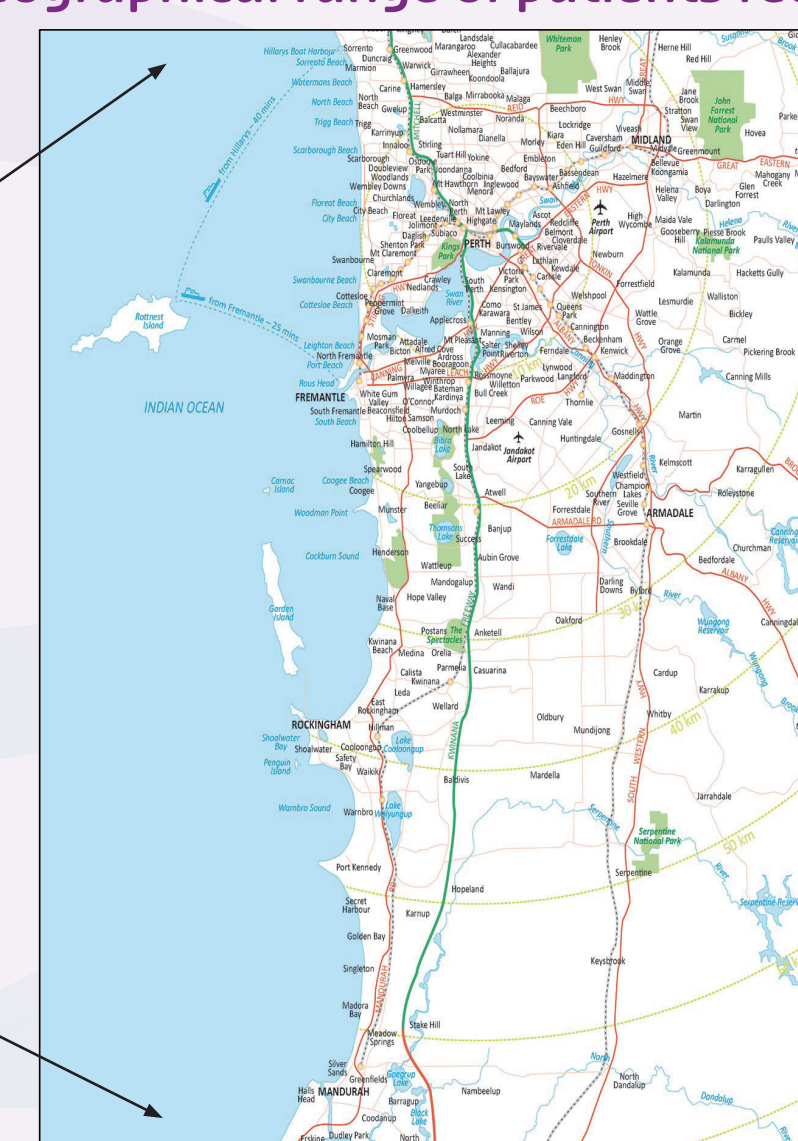
- Epidemiology (quantitative methods) are a core component of all public health courses but qualitative methods are NOT.
- Poor understanding of qualitative methods.
- Misconceptions by some epidemiologists and quantitative researchers that qualitative methods are at best "common sense" and at worst "not rigorous".
- No requirement /dedicated positions for people with skills/experience in qualitative methods in public health/communicable disease control units.
- Preponderance of staff with experience in quantitative methods in public health/ communicable disease control units.

### Enablers

- Ongoing dialogue and collaborative relationships between people experienced in quantitative and qualitative methods, e.g. via Sexual Health and Blood-borne Virus Applied Research and Evaluation (SiREN) Project.
- Organisation support incorporating qualitative data into a public health investigation and using qualitative data to inform a public health response.



### Geographical range of patients recruited



### Key findings

- Rapid/frequent partner change after relationship break-up.
- Little or no communication about sex before intercourse.
- Misconceptions that attractiveness, personal & household hygiene indicate absence of an STI.
- Condoms not used, esp. if female on contraception as pregnancy avoidance more important than STI prevention.
- Little/ no alcohol or drug use.

### Implications for a public health response

- Sexual health education to focus on communication & myth-busting incorrect risk perceptions.
- Continue to ensure availability of quality sexual health information online.
- Condom accessibility.
- Consider how to balance de-stigmatising STIs against low risk perception.