



Housing and deprivation preceding rheumatic fever: A descriptive NZ case study

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Outline



- Survey of 55 new ARF patients
- Evidence that housing & SES affect ARF risk
- Aims
- Methods
- Findings
- Conclusions & Implications

ARF risk factors



Knowledge of ARF risk factors limited

-> interventions impaired

ARF assoc. w. age, ethnicity,

home dampness, Δ residence, body weight<normal,
freq. sore throat, low education of mother, family hx,
#children in home

RHD assoc. w. low SES, sometimes crowding

Ecological evidence: ARF assoc. w. SES, living
conditions, access to healthcare, 1° prevention

Descriptive case study



- 1/3 ARF cases arise in HNZ homes
- Where are the rest?

Aims:

1. Investigate housing tenure of ARF cases at the time of diagnosis
2. Investigate the housing conditions, crowding exposure to tobacco smoke at the time of diagnosis

Methods



- PHU staff contacted recent cases
- Questionnaire based on pre-existing surveys
Covers demographics, housing circumstances, conditions, heating, crowding and smoking
- 41 Questions
- Anonymous telephone interviews offered
- Comparison data presented where possible

Results



160 initial ARF notifications
73 contact details received
- 55 interviewed

Study pop. representative of notified cases

Interview & notification data linked

- 35 Māori, 19 Pacific, 1 NZ Euro.
- 82% NZ Dep >6
- 80% 5-14 years, 20% 15-30

Results



Lower rates of home ownership

- 25% owner occ., 40% private rental, 35% HNZ
- **76% experienced ≥ 1 indicator of damp housing**
 - 50% owner-occ., 90% in HNZ and private rental sectors

Dampness or mould on walls/ceiling
of bdrms/living areas in patient's home
Musty smell in bdrms/living areas

Results

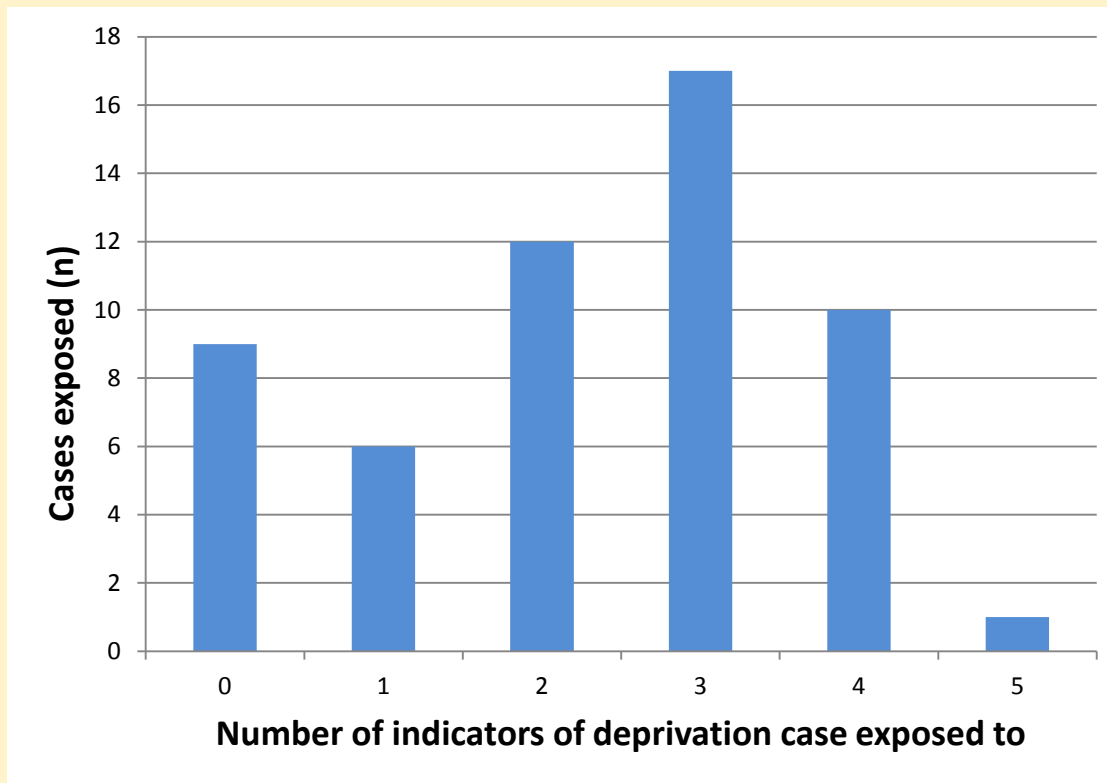


- **82% experienced ≥ 1 indicators of cold housing**
 - 43% in owner-occ. 91% private rental, 100% HNZ
 - Feeling colder than comfortable inside patient's home
 - Feeling cold to save \$
 - Sleep in same room as others just to keep warm
- 17% did not heat living room in Winter, 75% did not heat bedroom
- 65% 'acceptable' heating in living rooms
 - Electric heaters, heat pumps, central heating, flued gas, enclosed fire
 - 16% used unflued gas heaters

Results



- **83.6% experienced ≥ 1 indicator of deprivation**
 - Owner-occ:, 85% ≥ 1 indicator, 36% ≥ 2
 - HNZ: 95% ≥ 2 indicators
 - Private rental: 91% ≥ 1 indicator, 82% ≥ 2



Results



Exposure to household crowding common

60% had ≥ 1 bedroom deficit, 35% ≥ 2

Owner-occ: 42% ≥ 1 deficit, Private rental: 50%, HNZ: 69%

Mean 2.1 deficit; IRQ: 1-3

- **69% shared bedroom;**
 - mean 2.3 others
- **49% shared bed;**
 - mean 1.8 other people

71% lived with smoker/s,

Fewer older cases smoked than in Youth '12 survey

Conclusions & Implications



Need for **warm, dry, non-crowded** homes,
esp. **Māori and Pacific** children

Small sample size, consistent themes
No control pop. -> case-control study

Policy change: ARF whānau fast-tracked on HNZ
waiting lists

Summary



Deprivation & household crowding widespread among ARF cases

Reliance on rental housing

- Improve private rental and social housing.
 - Minimum enforceable standards (WoF)
 - Explore interventions more widely in NZ context
 - Potential for widespread benefits:
health, well-being, equity, social justice

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Tēnā koutou katoa