

# Rheumatic Fever in New Zealand

By Olivia Lewis (ID: 1000011742)

## A developing world disease in a developed country:

Why does New Zealand have one of the highest rates of rheumatic fever in the world?

### Implications for Practice

It is essential that nurses are aware of rheumatic fever and the risk factors involved. We can provide awareness, information, and advocacy for our effected or at-risk patients. Rheumatic fever is a debilitating illness. Prevention should be at the top of nurses goals, with effective treatment and efficient secondary prophylaxis for patients who have had the illness.

### Rationale

I chose this topic as childhood poverty is a relevant and pressing issue in New Zealand right now. Acute rheumatic fever (ARF) is a serious, yet preventable illness. The repercussions if RF is contracted can range from monthly penicillin injections for 10 years, heart valve replacement surgery, and even an early death. To form my research question, I utilized the PECOT model. Through understanding *why* New Zealand has such high rates of ARF, and researching into what other countries have done to tackle it, we can take measures to reduce these rates. Poster presentations are often used as a medium for health professionals, it provides a visual representation of an issue that gains attention and conveys a message (Rowe & Illic, 2011).

### Practice Issue/Literature Review

- Rates of rheumatic fever is highest amongst Maori and Pacific people in NZ (Ministry of Health, 2017).
- The main risk factors for acquiring rheumatic fever is low socio-economic status, over-crowded housing, poor living conditions (damp/cold housing), and living in an area of deprivation (Ministry of Health, 2017).
- Rheumatic fever is high in developing countries like Fiji, India and Africa.
- Rheumatic fever cases in the United Kingdom are at low levels (NHS, 2015). This is relevant as New Zealand is seen as similar to the UK in terms of standard of living and accessible healthcare.
- Other countries, like Cuba, once had high incidence rates but have lowered them through secondary prophylaxis programs, education, awareness, and media saturation (Nordet et Al., 2008).
- New Zealand is currently taking similar measures, however the rates of rheumatic fever are not decreasing (Ministry of Health, 2017).

### Recommendations

- #1:** Provide accessible information for rheumatic fever in Maori and Pacific communities.
- This can be achieved through handing out flyers and targeting local events, meeting places (e.g. Marae, churches).
  - Creating easy-to-read information in case of health illiteracy
  - Include warnings about house over-crowding, and the importance of a healthy home
- #2:** Provide adequate training for nurses to ensure secondary prophylaxis is adhered to.
- Train nurses in administering secondary prophylaxis, and ensure they know the risk factors for developing rheumatic fever
  - Effectively follow up patients undergoing treatment – this could include texts, calls, emails, and even home and school visits to ensure this is upheld



## Summary

Rheumatic fever is a serious problem in New Zealand, with incidence rates increasing every year. Some areas of New Zealand have higher rates than other parts, like Northland and Waikato.

Various studies have proven that poor living conditions such as over-crowded housing (where disease is easily spread), as well as damp and cold housing, contribute to rheumatic fever. If someone lives in a low decile area, it is more likely that they will acquire rheumatic fever.

Maori and Pacific people are most at risk for developing rheumatic fever. Although it has not been confirmed as to why this is the case, there have been studies showing that rheumatic fever could have hereditary elements. Maori and Pacific people in New Zealand are also more likely to reside in poor living conditions and over-crowded housing.

Currently, the New Zealand government is taking measures to provide information through the media. My first recommendation is to target high-risk communities through handing out information at local events, Maraes, and meetings. My second recommendation is to train nurses in the importance of secondary prophylaxis and following up patients to avoid reoccurrence of rheumatic fever.

Programs in countries overseas (like Cuba) have proven to be successful, through secondary prophylaxis and media saturation in getting information on rheumatic fever to the public.

PECOT MODEL	INFORMATION RELATING TO THE QUESTION	EXPLANATION
<b>POPULATION</b>	People who have acquired acute rheumatic fever in New Zealand and other countries around the world	I will be exploring the incidence rates of rheumatic fever in New Zealand and internationally, so I can compare and analyse why NZ have high ARF rates
<b>EXPOSURE</b>	People in New Zealand who have been diagnosed with acute rheumatic fever.	I am interested in people diagnosed with ARF in New Zealand, their ethnicity, and the conditions they live in.
<b>COMPARISON</b>	People in different countries around the world who have suffered rheumatic fever	Through comparing New Zealand statistics of ARF to other countries, I can grasp a better understanding of why there are high incidences in NZ
<b>OUTCOME</b>	How New Zealand can make improvements toward lowering the rate of ARF	I will explore the factors that contribute to the high ARF rates, and make recommendations as to what could be done to lower these
<b>TIME: N/A</b>		

### References

- Ministry of Health. (2017). Rheumatic fever. Retrieved from <http://www.health.govt.nz/your-health/conditions-and-treatments/diseases-and-illnesses/rheumatic-fever>
- National Health System. (2015). Rheumatic Fever. Retrieved from <http://www.nhs.uk/Conditions/Rheumatic-fever/Pages/Introduction.aspx>
- Nordet, P., Lopez, R., Duenas, A., & Sarmiento, L. (2008). Prevention and control of rheumatic fever and rheumatic heart disease: the Cuban experience. *Journal of Cardiovascular Development and Disease* (19)3, pp135-140. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/18568172>
- Rowe, N., Illic, D. (2011). Poster presentation – a visual medium for academic and scientific meetings. Retrieved from [http://www.prrjournal.com/article/S1526-0542\(11\)00012-1/fulltext](http://www.prrjournal.com/article/S1526-0542(11)00012-1/fulltext)