



Close-contact infectious diseases:  
**An increasing concern  
for Pacific peoples**

Pacific peoples have higher rates of infectious diseases than other New Zealanders.<sup>1</sup> The overall incidence has increased over the last 20 years with close-contact infectious disease being the largest contributor to this increase. Close-contact infectious diseases are spread by person-to-person contact within a community and are most often respiratory, skin or enteric (faecal-oral) infections.<sup>2</sup>

### Ethnic inequalities are marked

Hospitalisation rates for close-contact infectious disease are higher for Pacific peoples than for Europeans in New Zealand (Table 1). Ideally, only a small proportion of people who have close-contact infections should require hospital admission as the majority of cases can be treated successfully in primary care.

Health differences between ethnic groups are often a reflection of variables such as socioeconomic factors and access to healthcare services rather than due to any intrinsic differences in susceptibility to disease. Lower incomes, lower educational attainment and poorer housing contribute significantly to the health status of Pacific peoples.<sup>3</sup>

One recent example that highlights the ethnic differences within close-contact infectious diseases was the higher rates of hospitalisation reported for Māori and Pacific peoples during the 2009 H1N1 influenza pandemic. Hospitalisation rates were nearly seven times higher for Pacific peoples than for Europeans in New Zealand.<sup>4</sup>

### Socioeconomic factors increase risk

Key factors that increase the incidence of close-contact infection include crowded living conditions and lower socioeconomic status. The incidence of close-contact infectious diseases is higher among people who live in the most deprived areas (decile 10); 42% of the Pacific population live in decile 10 areas.<sup>1</sup> Pacific peoples are also more likely than other ethnic groups to be living in crowded households. It has been estimated that over 40% of Pacific peoples in New Zealand live in households needing extra bedrooms.<sup>5</sup>

### Younger and older people are more at risk

Rates of close-contact infections are highest among children aged less than five years. The Pacific population in New Zealand is a youthful population, similar to Māori. Adults aged 70 years or more are the second most vulnerable group for these types of infections.<sup>2</sup>

### Most hospitalisations are a result of respiratory or skin infections

Approximately half of all close-contact infectious diseases, that result in hospital admission, are respiratory infections.<sup>2</sup> Hospitalisation rates from close-contact skin infections, primarily bacterial in origin, have increased by 100% between 1989 and 2008. Pacific peoples have a higher incidence of this type of infection than Europeans in New Zealand.<sup>2,6</sup>

**Table 1:** Hospitalisations for infectious disease (2004–2008)<sup>2</sup>

Ethnic group	Hospitalisations for infectious disease (as a % of total hospitalisations for each ethnic group)	Hospitalisations for close-contact infectious disease
Pacific peoples	31.8%	24.3%
Māori	27.2%	20.4%
European and Others	22.5%	16.5%

## Understanding the role of antibiotics

Many people do not have a good understanding of how antibiotics work and why they are important for the treatment of infectious diseases. In a New Zealand study involving 112 Samoan people, less than 2% identified the correct purpose for antibiotics. Most thought they were used to relieve pain.<sup>8</sup> The use of antibiotics in Samoa is high, most likely due to the fact that antibiotics are available without prescription from pharmacies. This may affect Samoan and other Pacific peoples' expectations of treatment and patterns of antibiotic use in New Zealand.<sup>8</sup>

When prescribing an antibiotic treatment for a close-contact infectious disease, the following points may be discussed:

- The importance of getting the prescription filled and collecting the dispensed medicine
- Ensuring that the full course of antibiotics is completed
- Ensuring that all close contacts are identified and receive antibiotic treatment as appropriate
- Not sharing antibiotics with family members, because each person needs to complete their own full course and the prescribed medicine may not be suitable for other members of the family
- If financial barriers exist, consider options to cover the immediate cost of medicines e.g. use of Practitioner supply order

Other possible contributing factors to the high rates of skin infections among Pacific peoples include under recognition of the importance of preliminary first aid measures, lack of resources to provide this initial first aid, late identification and therefore delayed treatment of a skin infection, and factors that may limit access to healthcare including cost, language and cultural barriers.<sup>1</sup>

## Prevention and control of close-contact infectious disease requires a multifactorial approach

Measures that can help prevent and control close-contact infectious diseases can be grouped into approaches that are focused on:

1. Disease specific factors
2. The mode of transmission
3. Socioeconomic factors

### Disease specific factors

Prevention and treatment that focuses on disease specific factors includes, for example, treating sore throats early for primary prevention of rheumatic fever.

In response to the increased rate of hospitalisation for serious skin infections in Pacific and Māori children, programmes were implemented in Auckland (the Glen Innes Serious Skin Infection Prevention Project) and Wellington (the Reducing Serious Skin Infections project). These projects aim to reduce serious skin infections and focus on providing patient information in a number of key areas including:

- When to go to the doctor
- The importance of hygiene, especially hand washing
- Specific skin infections and their management

### The mode of transmission

Prevention measures that focus on the modes of transmission include, for example, education about



effective hand-washing, cough etiquette and reducing both active and passive smoking.

Practical advice can be offered to minimise the spread of infection after a family member has contracted a close-contact infectious disease. This may include discussion around the following points:

- If someone in the family has a skin infection it is important that they have their own towels, clothing or linen to avoid transmission of the disease to others
- Linen should ideally be washed in hot water and thoroughly dried. If this is impractical, e.g. for financial reasons, the use of bleach solution in the

wash or hot ironing can also reduce bacterial load

- Sores should be covered, especially when going to preschool, school or playing sports
- Prophylactic treatment for the whole family, where appropriate, can prevent the spread of the infection

### Socioeconomic factors

Primary prevention through addressing the underlying determinants of health is extremely important, although can be challenging as it is usually outside the direct scope of the health sector.

Primary health care is often a patient's first point of contact with health services and can provide an access point for

## Common beliefs and practices among Pacific peoples

It should not be assumed that all Pacific peoples share a Western understanding of medical treatments and healthcare. Conversely, it should also not be assumed that all Pacific peoples share the same views. The key is to ensure that Pacific peoples, like all people, understand the importance of seeking treatment and understand the role and correct use of medicines for their condition. It is also important that an open dialogue is created so that any culturally specific beliefs can be discussed. In some cases, it may be appropriate to continue traditional treatments alongside conventional healthcare and in other cases, careful explanation may be required as to why a traditional treatment should be discontinued.

Some issues may include:

- A lack of understanding or appreciation of the severity of infections and potential complications if left untreated, e.g. sepsis, endocarditis, glomerulonephritis. This is especially an issue in patients with co-morbidities such as diabetes.
- Traditional Pacific medicines may be used, such

as plant material for wound dressing. This can potentially cause problems if the preparation of these materials is not carried out in a sterile environment.

- There is an increasing use of traditional Chinese herbal medication among Pacific peoples in South Auckland, especially in those with pre-existing chronic illness. Some of these preparations are potentially toxic and can interact with long-term medication.
- Conventional first-aid measures may not be understood or followed. For example, leaving boils or wounds exposed to "dry out" rather than using a sterile dressing.
- Sharing of medicines between family members is common, including half-used courses of antibiotics. This can lead to under-treatment of infections and potential antibiotic resistance.
- In some cases, Pacific peoples may believe that antibiotics are a "cure all" and no other care is required. It may be necessary to stress the importance of continued wound care.

other social services, such as financial assistance or housing and accommodation entitlements.<sup>3</sup>

It is important that all members of the household are receiving their full and correct entitlements from Work and Income as many families are not aware of the assistance they may be eligible for. This can include assistance with meeting the costs of treatments. Providing help to make initial enquires with a case manager may be very beneficial.

Taking steps to reduce overcrowding is likely to be the most effective strategy to prevent the spread of skin infections, particularly highly contagious diseases such as scabies and impetigo. Again, assisting with initial enquiries to Housing New Zealand and Work and Income may be helpful.

Measures undertaken on a national level can address socioeconomic status in general and involve programmes that are aimed at reducing overcrowded living conditions such as the Healthy Housing initiative.<sup>7</sup>

The following series of articles address the prevention and treatment of close-contact infections including rheumatic fever, bronchiectasis, cellulitis, impetigo and scabies.

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