A RESEARCH REVIEW™
SPEAKER SERIES

Goodfellow Symposium 2018:

The determinants of the determinants impacting on the health of Pacific Peoples in Aotearoa

Making Education Easy 2018

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Dr Api Talemaitoga is a practicing GP at Normans Road Surgery, Christchurch and in June 2015, also started at a new Practice in South Auckland. Dr Talemaitoga has in his time, contributed to the National Health Committee's advice on the management of long term conditions, worked in the Pacific both as a personal physician to Fijian leaders and, more recently across the Melanesian and Polynesian region, facilitating access to specialist services in New Zealand. Dr Talemaitoga also served on the Board of the Canterbury District Health Board, the Board of the RNZCGP from 2014-17 and was Chief Advisor, Pacific Health at the Ministry of Health 2008-13. In 2017 Api was awarded a Distinguished Fellowship for outstanding and sustained services to the College and medical profession.

Apart from clinical practice, Api Chairs the Pasifika GP Network and the Pacific Chapter of the RNZCGP.

The 2018 Goodfellow Symposium was held in Auckland in March 2018. Dr Api Talemaitoga, a GP with practices in Christchurch and South Auckland, discussed the implications for managing the health of Pacific patients at a breakfast session sponsored by Sanofi.

Many Pacific Island people move to New Zealand for better opportunities in education, employment and a perceived improved lifestyle for them and their families. Dr Talemaitoga showed that although this may be true for some, there is a sad picture painted by the majority of the Pacific families living in New Zealand with high rates of chronic disease. Dr Talemaitoga shared some personal experience and research on effective ways primary care practitioners can make our first world health system be effective for ALL New Zealanders.

Introduction

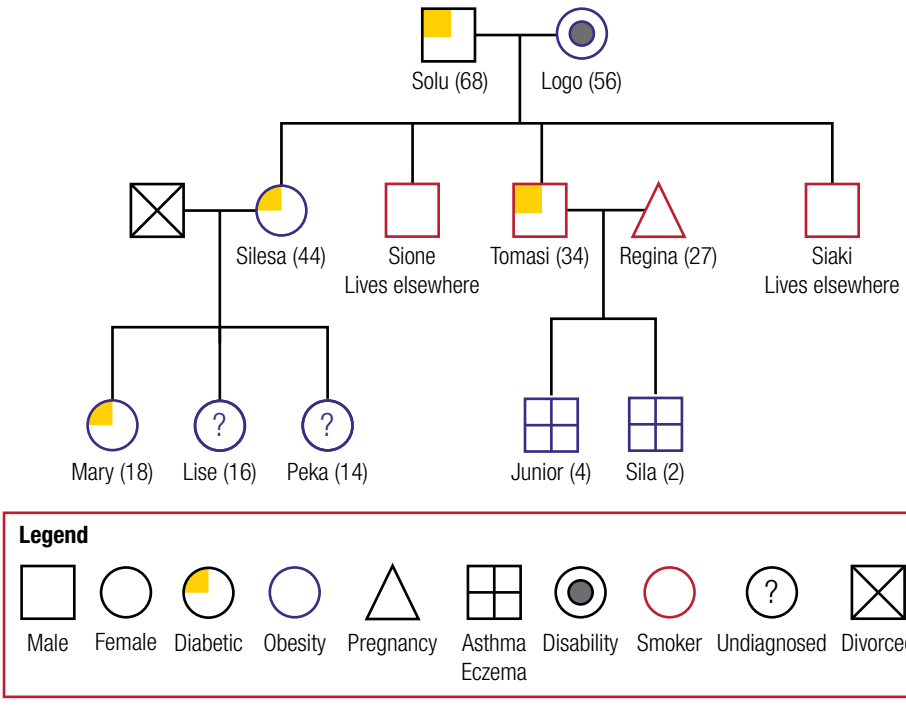
The mobility and fluidity of a population group is well illustrated in the mobility and fluidity of Pacific people between New Zealand and the Pacific islands. For example, the Tongan population consists of Tongans in Mangere, West Auckland, Porirua and Nukualofa. This is an important concept in health as mobile populations will have shared risks, e.g. an infectious disease outbreak of typhoid in Suva will be relevant to a Fijian patient in Manurewa.

When considering solutions to the health issues of mobile populations, family and community approaches are important. Health professionals need to understand that families are mobile and transnational (living in different countries), AND function as a unit. Keep in mind that our health services are configured to deal with patients as individuals and their health issues, rather than as a family unit.

The Misi family – a Pacific family model of care

Dr Talemaitoga introduced delegates to the Misi family (Figure 1). The Misi family clinical scenario is real, i.e. not a fictitious or composite case study. Names of family members have been changed to protect their privacy. The complexity of this scenario is a reality for some Pacific families in high deprivation areas and reflects the strong correlation between socio-economic status as determinants of health and health outcomes. It also helps illustrate what has been termed the determinants of the determinants as Pacific people are overrepresented in low socio-economic areas and this is closely associated with poor health status.

Figure 1. The Misi family – a Pacific family model of care



The Misi family continued

Parents

There are five adults and five children living in the three-bedroom Misi house. Sulu Misi is a 68-year-old who migrated to New Zealand from Samoa in 1960. He worked until he was made redundant in 1987 and has not worked since. He receives government superannuation. Sulu married Logo three years ago. After they married Logo migrated to New Zealand to live with Sulu. Two years ago, Sulu started to experience blurred vision, dizziness and would become easily fatigued. He did not seek medical treatment. His diabetic friend told him it sounded like diabetes but Sulu ruled this out because he is 5ft 11in and 98 kilos. Six months ago, Sulu blacked out while driving. Both Sulu and Logo were injured in the accident and the car was written off. Sulu was in the high dependency unit for two weeks. When he started to recover he was diagnosed as having type 2 diabetes and was in chronic kidney failure. He is required to go to hospital four times a week, for five hours each time for kidney dialysis.

Logo Misi is 56 years old. She migrated to New Zealand from Samoa three years ago to marry Sulu. It was the first time she had left Samoa. She has found living in New Zealand difficult and at times has been overcome with homesickness. Logo is waiting for permanent residency, so is not eligible for any benefit support. Until the car accident Logo was healthy. After the accident Logo began to experience neck and shoulder pain.

Children

Silesa Misi is 44 years old. She is the eldest of Sulu's children. She moved back home after her relationship broke up 14 years ago. She is currently employed as a kitchen aide. Silesa has type 2 diabetes and high blood pressure and receives medication for both. She is extremely overweight. She would like to have better control of her diet but does not know where to start.

Tomasi Misi is 34 years old. He does shift work and has two children with his partner Regina. Tomasi has type 2 diabetes, gout, and is a smoker.

Regina Johns is 27 years old and is 6 months pregnant with her third child. Until recently she worked but had to stop because she was diagnosed with hypertension. She also had hypertension with her previous pregnancies, with the last pregnancy progressing to pre-eclampsia. Regina has smoked throughout all her pregnancies. Regina doesn't have a midwife, she prefers to go to the doctor because access is easier.

Sione and Siaki Misi are Sulu's other sons. They no longer live at home.

Grandchildren

Mary (18), Lise (16), and Peka (14) Misi are Silesa's three daughters. Mary works and Lise and Peka go to school. Mary has type 2 diabetes, weighs 128kg and is on medication to manage her diabetes.

Junior and Sila Misi are 4 and 2 years old. They are Tomasi and Regina's sons. They do not attend early childhood education. Junior and Sila both have severe eczema and are asthmatic. Both children have had their 6 and 12-week immunisations. Neither have had their 15-month immunisations and Junior is now overdue for his B4school check and 4-year-old immunisation. At 4 years old, Junior weighs 40kg.

Health related issues within the Misi family

Health related issues within the Misi family are highlighted in Table 1. These issues are the 'lived reality' of a Pacific family and demonstrate the complexity and the challenge with addressing their health needs using current models of health care. This Pacific household of 10 people in a 3-bedroom home is not uncommon. Health issues amongst the family include diabetes, renal failure, renal dialysis, smoking, and obesity.

The family operate as a unit, sharing resources, income, cooking etc. Sulu's car was written off and his wife can't drive so now Sulu relies on hospital transport. One son has a car but works during day. Sulu and Logo don't work and their daughter-in-law recently stopped work. One 18-year-old granddaughter has a job. No-one has tertiary education.

The current system focuses on the individual – e.g. Sulu has had significant medical intervention, and cost of taxis to dialysis and access to dietitians but the system does not take into account the fact that the family works as a unit.

Table 1. Health related issues within the Misi family

Long term conditions	Maternity/ child health	Risk Factors	Disability
• Diabetes • Renal failure • Asthma • Eczema • Gout	• Hypertension • History of pre-eclampsia • Pregnancy • Behind with immunisation	• Smoking • Obesity • Oral health issues • Low income • Overcrowding • Transportation • Multiple primary care providers • Literacy	• Neck injury

Pacific people: not an insignificant minority

Pacific people like all New Zealanders demand and deserve the very best of quality from our health service. Ensuring quality means equity for all. In 2026, nine percent of working age people in New Zealand will have Pacific ethnicity.[1] There is still a view among Pacific people that they are moving to New Zealand for better education and better income – if not for them then for their children. This has worked out well for some, but not for all. Unfortunately, despite a first world health system, Pacific people in New Zealand are not enjoying the same benefits as the rest of New Zealand and are suffering from the twin burdens of noncommunicable diseases and infectious diseases, and a health system that is not fully responsive to them as a functioning family unit.

Pacific people in New Zealand

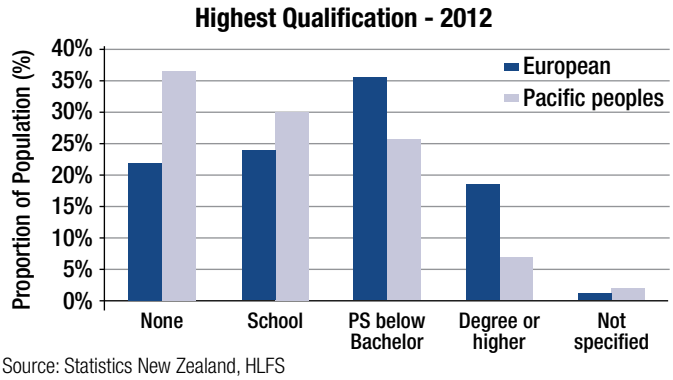
Pacific people in New Zealand are experiencing a high population growth and the majority are young and urbanised. Sixty-six percent of Pacific people in New Zealand live in Auckland.[2] However, Pacific people in this country have low levels of income, employment, labour force participation, and educational attainment (Figure 2).[3]

There is now a good understanding of the determinants of health (employment, education, income, housing/overcrowding). Without a good educational basis, the lack of a pathway and difficulty getting into good employment with a good income is already set. Intergenerational achievement or more appropriately – underachievement – is set. New Zealand rates of unemployment have been steady or dropping – but the rates of Pacific unemployment have barely dropped since 2008.

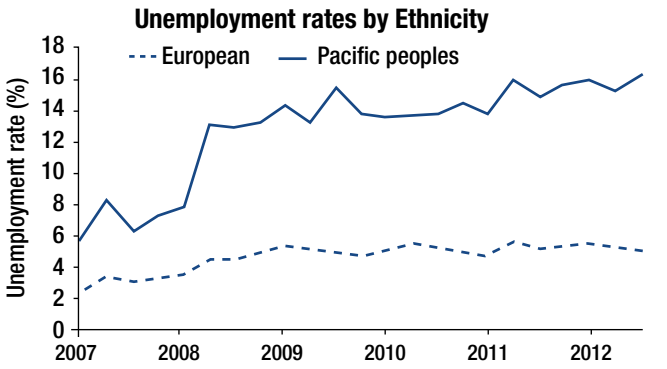
However, there is less commentary on the determinants of the determinants of health – the complexity, compromise and politics which are associated with managing programmes for diverse populations:

- The individual within a family unit.
- Intergenerational poverty.
- Intergenerational dependency.
- Role of traditional healing.
- Health literacy – understanding the infrastructure of the health system.

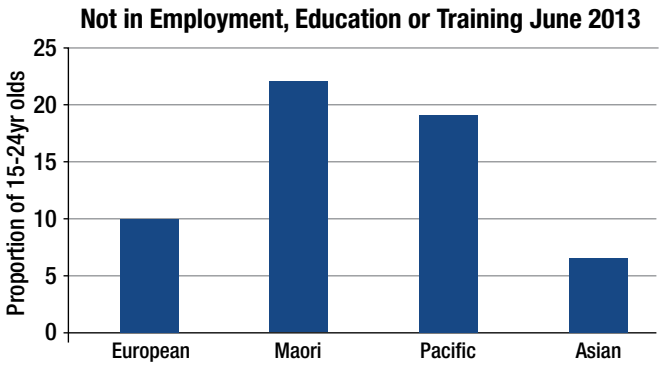
Figure 2. Pacific people: Education and unemployment



Source: Statistics New Zealand, HLFS



Source: Statistics New Zealand



Source: Statistics New Zealand

The paradox of Pacific health

As a group, Pacific people have had several gains in health care including high immunisation and cervical screening rates, similar diabetes and chronic care attendance rates to the total population and a small gain in life expectancy over the past decade (Table 2). But challenges remain. Children with asthma attend the emergency department several times and still come home without inhaled corticosteroids, cancer survival rates are not improving, and the 6 to 7-year difference in life expectancy compared to the total population is widening. Furthermore, Pacific people have the highest rates of mortality for diabetes, and in young Pacific adults with renal failure, life expectancy is less than 50 years.

Table 2. The paradox of Pacific health

Gains	Challenges
Immunisations rates >98%	Children with asthma not on corticosteroids even after hospitalisation
Cervical screening 77%	5 and 10-year cancer survival rates are not improving
Diabetes/chronic care attendance – similar to total population	Highest rates of mortality for diabetes Renal failure in young Pacific adults, life expectancy < 50 years
Small gain in life expectancy over the past decade	Life expectancy gap 6-7 years, gap is widening

The problem is more than access to care

Pacific people with diabetes are attending health care clinics, and receiving medications, monitoring and testing, but have vastly different outcomes to the total population (Table 3).[4] Broken down into different DHBs, Pacific people have similar rates of annual diabetes checks to the total population but the percentage of Pacific people achieving their HbA1c targets are much lower. They attend clinics, but are they actually filling prescriptions and taking medications? This is the challenge for health professionals.

Table 3. Medications, testing and outcomes in Pacific diabetes patients[4]

Guidelines	Pacific	Total
On diabetic medications (all ages)*	60%	58%
On lipid lowering medications (age 30-70)*	55%	55%
On BP lowering medications (age 30-79)*	61%	61%
Timely monitoring with HbA1c*	78%	79%
Tested for microalbuminuria and on ACE/ARB*	66%	62%
Annual diabetes check		
Waitemata DHB	59%	61%
Auckland DHB	68%	59%
Counties Manukau DHB	104%	82%
HbA1c of 64 mmol/mol or less		
Waitemata DHB	55%	73%
Auckland DHB	60%	75%
Counties Manukau DHB	50%	62%

*Includes Northland DHB in addition to metro-Auckland DHBs

Rheumatic fever

Five years of effort and funding have been put into cutting the high rates of rheumatic fever in New Zealand, but the sector has fallen well short of reaching the targets set.[5] Once again, Pacific children are over-represented in rheumatic fever statistics. From 2000-2009, rates of hospital admission for rheumatic fever in children aged 5-14 years for Pacific were 81.2% and for all children were 17.2% per 100,000.[6] Maori and Pacific children comprised 30% of children aged 5–14 years but accounted for 95% of new hospital admissions for rheumatic fever. Almost 90% of index cases of rheumatic fever were in the highest five deciles of socioeconomic deprivation and 70% were in the most deprived quintile. The Rheumatic Fever Prevention Programme has now ceased.

Research by Debbie Ryan and colleagues at Pacific Perspectives was designed to capture Pacific patient and family perspectives of rheumatic fever services and provide insight to the broader social circumstances and health, wellbeing and care journeys that family experience. Almost all families were enrolled with a primary care provider. Directly prior to rheumatic fever diagnosis, children often had multiple visits to their GP with the same complaint but reported dismissal of concerns and delayed diagnosis. In lieu of making a complaint, they changed health providers (a simple resolution for the family). Children often were unwell and unable to walk (most common symptom was sore and swollen joints) before they were admitted to hospital. Families respected their GPs but wanted more input – they found a 15-minute consultation was very limiting, particularly taking into account communication and language barriers.

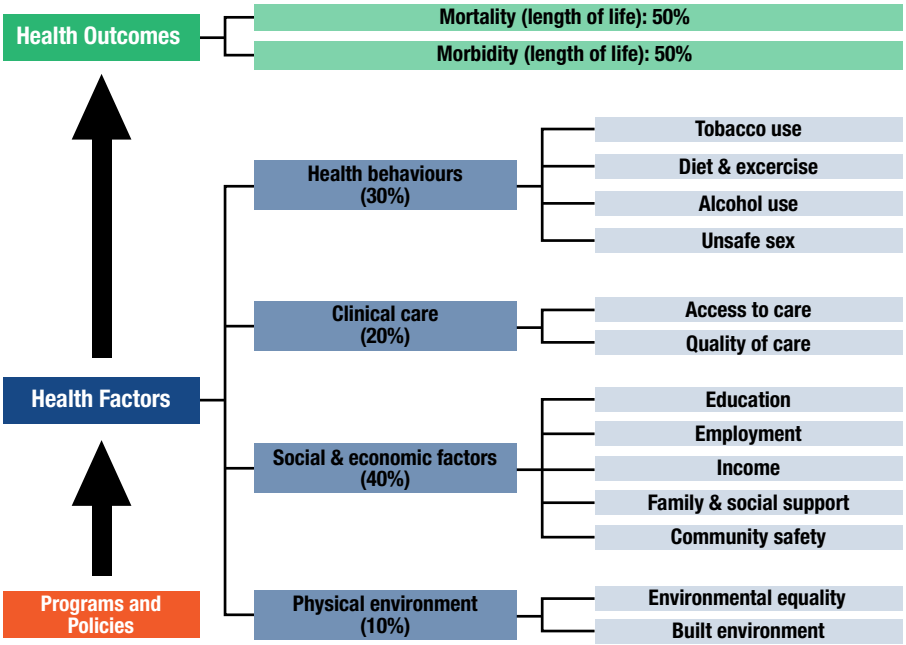
Key findings from the rheumatic fever interviews were that families are doing their best for their children in challenging circumstances. Extended families were the main source of support to children and caregivers during time of rheumatic fever diagnosis, hospitalisation and treatment. This emphasizes the level of cohesion, strength and communal responsibility within the family unit. Families struggled with extra medical, transport, and hospital parking costs, time away from work, childcare arrangements, and caring for the one sick child. Health literacy has a central role in rheumatic fever prevention. The beliefs, attitudes and previous experiences of Pacific families are key to developing a model of care for Pacific families.

Multiple determinants of health

As shown in Figure 3 there are multiple determinants of health, including health behaviours, clinical care, social and economic factors and physical environment. This model, taken from work in the USA, will be important in considering how to intervene effectively to understand what the determinants of health are for Pacific people. Of note, clinical care may only contribute to 20% of health improvement.

Models of care that address health behaviours are required – the obesity epidemic tells us that traditional models of health promotion and for example programmes premised on the fact that education or information will lead to change in behaviour do not work. There is understanding of a need to engage communities in change as well as address social and economic factors and physical environments that sit outside the health system. More integrated approaches that include social services and education systems are needed.

Figure 3. Multiple determinants of health



Effective solutions

How do we improve the health of our Pacific patients?

- Everyone has a role to play.
- We need effective policy settings and good leadership.
- We know what works e.g. immunisation.
- Community engagement is part of the solution.
- Cross sectoral cooperation is NOT optional!
- Collecting ethnic-specific data and ongoing research – we can be sophisticated with solutions.
- Train an effective workforce nurturing relationships, spirituality and family connectedness.

Take home messages

- **Pacific people are a significant population in New Zealand.**
- **Pacific people experience persisting disparities in health outcomes, higher rates of chronic disease and risk factors for health.**
- **There is growing understanding that the problems are similar for Pacific populations in the region, and for migrant populations in high income countries.**
- **Consumer voice and community engagement are an important part of the required solutions.**
- **Current health system responses are inadequate and there is limited research focused on Pacific-specific solutions.**
- **Increasing the Pacific health workforce and developing Pacific models of care must be an important response to health inequalities in New Zealand.**

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