

Gout in Aotearoa New Zealand: the equity crisis continues in plain sight

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In January 2016 we reported growing prevalence of identified gout in the general population, while the numbers of those regularly receiving appropriate long-term preventive treatment (urate-lowering therapy such as allopurinol) had remained low and static for three years.¹

Data to 2014 from the New Zealand Atlas of Healthcare Variation by the Health Quality & Safety Commission (the Commission) showed not only were Māori and Pacific populations with greater gout prevalence being treated least appropriately compared to other ethnicities, but large numbers were being treated with repeated prescriptions of non-steroidal anti-inflammatory drugs (NSAIDs), a poor and potentially dangerous stopgap.

Gout in Aotearoa New Zealand was growing and being mismanaged with differential prevalence and treatment by ethnicity.

We asked the question: “Gout in Aotearoa New Zealand: are we going to ignore this for another three years?”¹

New data for 2018—and the answer is “yes”

Gout is the most common form of inflammatory arthritis affecting adults. It is a chronic disease of monosodium urate (MSU) crystal deposition, typically presenting as recurrent attacks of severe joint inflammation. Gout causes severe joint pain, work disability and reduced social participation. Untreated, tophi can develop, leading to joint damage. Gout is independently associated with cardiovascular disease, diabetes, kidney disease and overall mortality.^{2,3} Gout can be effectively managed with long-term urate-lowering therapy such as allopurinol. Colchicine, often used to treat gout flares,

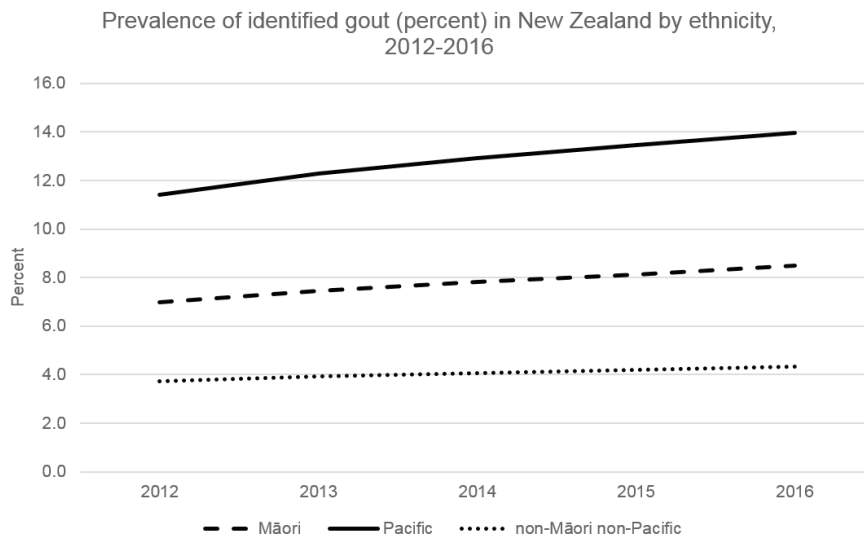
still has a role, particularly to prevent gout flares during initiation of long-term urate lowering therapy. Oral steroids are increasingly used to manage acute flares, to limit use of NSAIDs. Rheumatology guidelines recommend that urate-lowering therapy be continued long-term to reduce serum urate levels to <0.36mmol/L, at which point MSU crystals dissolve.

The gout domain of the Atlas of Healthcare Variation publishes data by district health board (DHB) on six indicators of gout prevalence and treatment. Data including 2016 just published show an escalating crisis in inequity: there is more gout nationwide, and worse and less treatment for Māori.⁴ A similar picture exists in terms of inequity for Pacific peoples. As partners under the Treaty of Waitangi, there is a governmental obligation to ensure Māori have at least the same level of health as non-Māori.⁵ Under Article 24 of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP),⁶ to which New Zealand became a signatory in 2010, Māori, as the indigenous people of Aotearoa New Zealand, “have an equal right to the enjoyment of the highest attainable standard of physical and mental health”.

New data from the atlas: increasing prevalence, worse treatment, more hospitalisations

Prevalence of identified gout in Pacific peoples across New Zealand continues to climb more steeply than other ethnicities and remains more than three times higher than European/other ethnicities. Prevalence of gout in Māori is twice as high as European/other, and still climbing. Administrative health data suggest at least 182,000 people across the country now struggle with the condition, up from 145,443 in 2012, from 4.5% to 5.35% of the population (Figure 1).

Figure 1: Prevalence of identified gout in New Zealand, by ethnicity, 2012–2016.



Gout treatment is inequitable. Though Māori and Pacific peoples were more affected by gout, the new Atlas data show Māori and Pacific peoples continue to be less likely to receive regular urate-lowering therapy such as allopurinol. While by count the number of people with gout regularly receiving allopurinol has increased by 16,435 people since 2012, more people have been identified with gout. Rates of this best treatment have effectively remained static over time, and by ethnicity are inversely proportional for those most affected (Figure 2).

NSAIDs can improve the symptoms of the gout flare, but repeated courses of NSAIDs without urate-lowering therapy represent poor care, due to the risk of kidney disease and other complications. It is thus striking to see 37% of people identified as having gout were dispensed an NSAID compared

with 23% for the resident adult population in 2016. Māori and Pacific people aged 20–44 with gout were dispensed NSAIDs more than other ethnic groups. Forty-seven percent of Pacific peoples and 41% of Māori with gout were dispensed an NSAID in 2016, compared with 34% of those identifying as European/Other ethnicities.

The cumulative effect of increased prevalence and differential poor treatment appears as presentation to acute services—in 2016, Māori and Pacific peoples had four to nine times as many hospital admissions due to gout than those of European/other ethnicities. Furthermore, the rate of hospitalisation of Pacific people for gout continues to climb in the new data, while the rate of European/other admissions remains low and static (Figure 3).

Figure 2: Regularly receiving urate-lowering therapy in New Zealand, by ethnicity, 2012–2016.

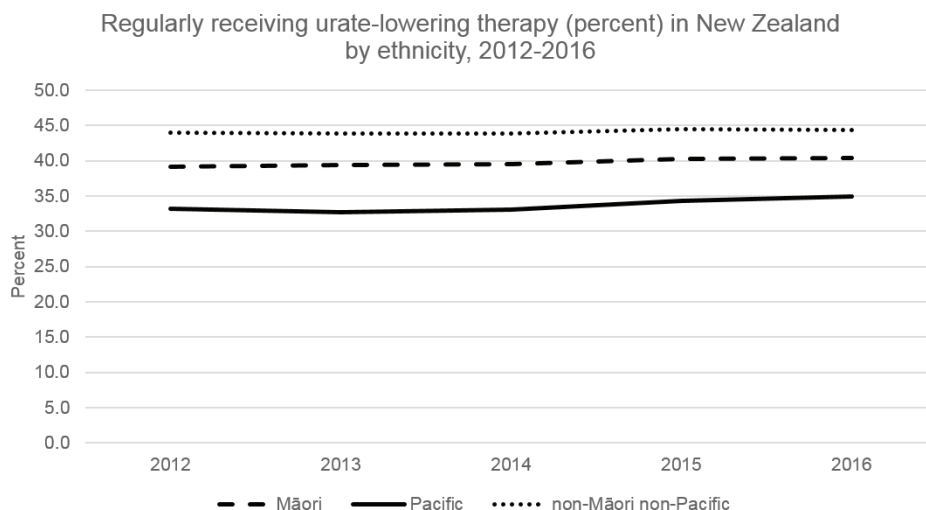
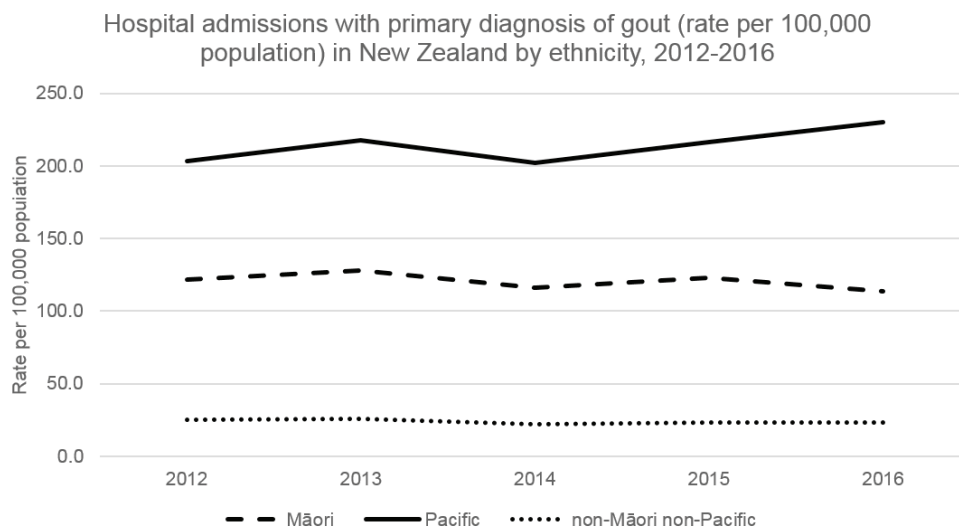


Figure 3: Hospital admissions with primary diagnosis of gout, by ethnicity, per 100,000 population.



Estimates using PHARMAC methodology costing (\$730 for a day stay or emergency department admission and \$1,000 for a medical ward bed night) suggest avoidable gout admissions and hospital length of stay cost the health system more than \$3.8m in 2016.^{7,8}

What’s driving these poor results?

Gout prevalence, inequity and failures in treatment that further differentiate and exacerbate inequitable outcomes appear to be the product of barriers to access to primary care and health literacy dynamics, including professional failure to build comprehension and awareness of the condition and its treatment in people with gout.^{9,10}

Structural barriers to proper diagnosis, treatment and adherence appear in part to be financial. Allopurinol requires a three-monthly co-payment from the patient of \$5. Each quarter, the patient must incur further costs including GP or prescriber appointment fees, transport and time off work.

New Zealand Health Survey data have long shown cost barriers to primary care and prescription medicines vary by ethnicity.¹¹ The 2016/17 survey found 22.2% of Māori adults and 17.8% of Pacific adults did not visit a GP because of cost. Further, 13.8% of Māori adults and 15.5% of Pacific adults failed to pick up prescriptions due to cost. These latter proportions dropped in the latest year after increasing three years in a row.

However, recent patient experience data from the Ministry of Health and the Commission’s Primary Care Patient Experience Survey seem to suggest greater

inequities than previously identified in the Health Survey data. The Patient Experience Survey found nearly a quarter of Māori and 22% of Pacific patients identified cost as a barrier to picking up a prescription, compared with only 7% of Europeans and 15% of other ethnicities. 28.7% of Māori patients and 29.3% of Pacific patients identified that cost was a barrier to visiting a GP or nurse, compared with 18.5% in European patients.¹² Māori adults were, furthermore, less likely than Europeans to answer yes to the question “Was the purpose of the medication properly explained to you?”

Effective treatment of gout requires continuous allopurinol prescription, regular laboratory monitoring of urate levels, and allopurinol dose titration and treatment to serum urate targets. This in turn requires long-term medication adherence, patient understanding of the condition and of the different roles of their medications, and under current conditions, a co-pay and repeated presentations to a GP or prescriber for new prescriptions and monitoring.

What can be done about it? Culturally competent primary care, pharmacy and whānau empowerment programmes

Successful primary care approaches are available. A recent UK randomised controlled trial of nurse-led care using a treat-to-serum urate target approach showed major benefits in gout flare frequency, tophi and health-related quality of life compared to standard GP care.¹³ In the US, a community-based personalised pharmacist

Figure 4: Primary Care Patient Experience Survey: cost barriers to primary care by ethnicity.



Cost barriers | ethnicity

Percent of people who answered yes

Question	Māori	Pacific	Asian	European	Other
In the last 12 months was there a time when you did not visit a GP or nurse because of cost?	28.7	29.3	22.2	18.5	27.2
Has cost stopped you from picking up a prescription?	23.9	22.0	11.1	7.3	15.9



programme, which included pharmacists contacting patients by phone and use of a protocol-based structured approach to urate-lowering therapy dosing, led to maintenance of low serum urate levels in most participants in the programme.¹⁴

In Aotearoa New Zealand projects with a specific equity focus, with pharmacy and nursing input, that pursue direct engagement and empowerment of communities, have had positive effects. These include the ‘Gout Stop’ programme in Northland, a collaborative, equity-focused primary care initiative across 36 practices designed to break down barriers to primary care in Northland. ‘Oranga Rongoā’, initiated at Papakura Marae Health Clinic, is a multi-dimensional care approach to gout management. It is premised on a culturally competent and culturally safe interaction for whānau utilising a multidisciplinary team approach of GPs, nurses, prescribing pharmacist, community health workers and community champions. A decision support tool has been developed for prompting and guiding prescribers with the opportunity for direct rheumatology specialist review. Whānau empowerment-weighted approaches seem promising and acceptable to local iwi. In Opotiki direct iwi involvement was solicited to design multiple hui with pharmacists in attendance to build local champions and upskill local GPs simultaneously. Funding for such approaches, despite available and forthcoming evidence

of positive effects, remains fragmented and inconsistent.

Conclusion

The new data from the gout domain of the Atlas of Healthcare Variation show a problem that is far from stabilising, let alone waning. Biased prescribing exists throughout Aotearoa New Zealand, creating inequities in health, defined as “differences which are unnecessary and avoidable, but in addition are considered unfair and unjust”.¹⁵

Our current healthcare system contains financial and other structural barriers that restrict the number of those on effective urate-lowering therapy, diminishing the productivity and quality of life of people with gout, while increasing the costs to patients and the system through the burden on acute care services. Despite the established benefits of long-term urate lowering therapy such as allopurinol, the situation is worsening, and the health system is falling short of its obligations under the Treaty principles and the United Nations Declaration. Successful gout management takes time and effort. Barriers to effective care for patients must be addressed, including the cost of accessing long-term medications, and the necessary funding, support and training provided to clinicians in both primary and secondary care. It is long past time for effective programmes to be implemented before the next atlas update arrives.

Competing interests:

Dr Dalbeth has received speaking fees from Pfizer, Horizon, Janssen and AbbVie, consulting fees from Horizon and Kowa, and research funding from Amgen and AstraZeneca, and is currently principal investigator on a clinical trial of intensive urate-lowering therapy (funded by the Health Research Council of New Zealand). Within the last five years, she has been principal investigator on a clinical trial of febuxostat in early gout, and received consulting or speaking fees from Takeda, Menarini, and Teijin.

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