

Ethnicity and access to prescription medicines

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Metcalf et al's paper¹ in this issue tackles a key question in New Zealand healthcare: does the health system alleviate or exacerbate health disparities between Māori, Pacific and other New Zealanders?

Previous studies in New Zealand and elsewhere have shown differential outcomes from the health system for ethnic minorities.²⁻⁴ Metcalf et al look at prescription medicines, which are probably the most common treatment modality in healthcare. Previous research has found differences in access to prescription medicines. For example, we have found that Māori (particularly in rural areas) receive fewer antibiotic dispensings than non-Māori,⁵ and other researchers have noted greater levels of suboptimal pharmaceutical asthma treatment in Māori compared to non-Māori.^{6,7}

Metcalf et al¹ conclude that rates of prescription medicine use amongst Māori, Pacific and other New Zealanders are roughly similar, until rates of illness in the different ethnic groups are taken into account.

Because Māori and Pacific people have greater rates of illness, they ought to have much higher rates of use of prescription medicines. However they do not, and the authors estimate that Māori missed out on 1 million prescriptions in the year studied. There are many complexities in adjusting for levels of illness, and the authors acknowledge the limitations of their approach, including the use of historical burden of disease data. Nonetheless the results are another indication that the health system may potentially be exacerbating disparities in health status between ethnic groups.

When we published our work on variations in medicines use by ethnicity^{5,8,9} some GPs contacted us because they felt that we were accusing them of racism, i.e. treating Māori patients differently because of their ethnicity. But whether a person gets a prescription medicine or not is the result of complex chain of events in a process.

Firstly patients have to identify that something is wrong with their or their family member's health, or that something needs to be checked, and decide that this justifies a visit to a prescriber. Clearly social circumstances are going to affect the likelihood of identifying a bodily change as a symptom of illness, and of this being high enough up the list of concerns to warrant action. People who are struggling with paying the bills, feeding their families and dealing with other ill family members needing care and attention, are less likely to do this. High rates of poverty and poor health make this the reality for many Māori and Pacific families.

Secondly patients have to get to a prescriber. This is likely to be influenced by things like geographical location, ability to get time off work, financial circumstances, user charges, availability and cost of transport, availability and cost of care for dependents. While Māori are not more likely to report deferring a GP visit because of cost¹⁰ other

issues like geographic distance and poor transport are likely to be a problem for rural Māori in particular.

Thirdly, the interaction with the prescriber has to result in a prescription. Cultures differ in what they define as normal bodily functioning, how they interpret symptoms, define illnesses, and how they think they should be treated. There are cultural differences in interaction style, and these may affect mutual understanding and rapport in clinical interactions.¹¹ This may result in different outcomes for different groups without implying racism.

Fourthly, the patient has to take the prescription to a pharmacy (or have it sent there), and they have to pick up the medicine. User charges are a significant barrier to picking up prescriptions, and previous research has shown that these are more likely to prevent Māori and Pacific people from obtaining their medicines.¹² These ethnic differences persist after adjusting for socioeconomic deprivation. Factors such as transport and time off work are also likely to affect whether people pick up prescriptions.

Attempts to ensure greater equity in prescription medicines use could be targeted at any of these stages. For example the Sore Throats Matter campaign (www.hpa.org.nz/what-we-do/rheumatic-fever/sore-throats-matter) targets the first stage, by communicating that sore throats can lead to rheumatic heart disease, and the second stage, by making appropriate care for sore throats simple to access.

Cultural competence training for healthcare practitioners focusses on reducing barriers at the third stage by increasing understanding of possible cultural differences in understandings of health and illness, how these are expressed, and how to respond to them. The fourth stage has become more problematic recently with the increase in prescription charges.

Metcalf et al's work¹ provides a promising framework for monitoring ethnic disparities in access to prescription medicines specifically by explicitly adjusting for disease burden. The data collection used by Metcalf et al, the Pharmaceutical Collection, collects information on subsidised medicines dispensed by community pharmacies. As such, it provides a useful window into which people are actually receiving what prescription medicines, rather than just which people are prescribed medicines. This is a more accurate metric of access to prescription medicines.

Adjusting for disease burden also gives a more accurate overall picture of how well the health system might be meeting the specific health needs of an ethnic group through prescription medicines, and which disease categories might need further investigation. In this sense, Metcalf et al's work provides a refinement on the ways in which we might monitor the performance of the health system to evaluate how it is addressing health disparities.

While Metcalf et al's approach is useful for giving an overall feel for how well the health system is addressing ethnic health disparities through access to prescription medicines, there are a number of caveats to be mindful of using their approach. The authors do a good job of raising these in their discussion of limitations and caveats. For example, many prescription medicines are used to treat a range of diseases, limiting the usefulness of one-to-one therapeutic group-disease code mappings at times. The authors note this as a potential limitation, using two anticonvulsants as an

example of how this problem might bias their findings. The point applies more broadly to other medicines, however.

The broad groupings used may also obscure potential disparities in important areas, such as antibiotic use and acute rheumatic fever in young Māori. Practitioner supply orders (PSOs) and the use of depots (where prescription medicines are delivered for collection by patients in rural areas, but often remain uncollected)¹³ in rural areas also complicate interpretation. There may also be variation in the use of non-pharmaceutical treatment modalities for certain diseases.

Together, these highlight that the approach used by Metcalfe et al shows promise for monitoring the overall performance of the health system with regard to prescription medicines access, but is limited when a finer-grained picture is needed. It complements and adds to, rather than replaces, other research into disparities in prescription medicines access.

A potential weakness of using Pharmaceutical Collection data going forward is its vulnerability to changes in pharmaceutical policy, particularly co-payment charges. If the subsidy payable for a medicine is less than the co-payment, no claim for reimbursement is made by the dispensing pharmacy as the amount which would be claimed has already been covered by the co-payment. The Pharmaceutical Collection only records dispensings where a reimbursement claim has been made by the pharmacy, so dispensings where the subsidy is less than the co-payment will not be recorded.

With the recent increase in co-payments from \$3 to \$5, more medicines will not be recorded in the Pharmaceutical Collection. For example, common short-course antibiotics and a standard maintenance dose of some statins attract a subsidy which is less than the \$5 co-payment. Examining trends and disparities in access to these medicines will be seriously hampered, since it is impossible to identify whether a shortfall is due to people not receiving prescription medicines or due to claims not being submitted to the Pharmaceutical Collection. This is not a limitation of Metcalfe et al's study alone; it is a potential problem for any research based upon the Pharmaceutical Collection and will continue to be so as long as there is no central repository for all prescription medicine dispensings, regardless of subsidisation.

The increase in co-payment from \$3 to \$5 raises more concerns than data capture issues. As noted above, Māori are more likely to defer collecting prescription medicines than Pākehā (New Zealanders of European descent) because of cost when the co-payment stood at \$3. We cannot see increasing the co-payment to \$5 being likely to do anything other than to make this worse.

The Pharmaceutical Subsidy Card scheme, where prescription medicines are essentially free after the first 20 items per calendar year, is not going to mitigate against this. It did not remove the disparity when co-payments were \$3—it is hard to see why it would do so now. There is a certain irony in the fact that, by increasing the co-payment to \$5, the Government is likely to be increasing disparities in access to prescription medicines whilst reducing the ability of the only national public prescription medicines data collection to detect them.

It is encouraging to see New Zealand's Pharmaceutical Management Agency (PHARMAC), as the organisation charged with 'achieving the best health outcomes

from the use of publicly-subsidised medicines within available funding', actively engaging in research to monitor the success of their activities. PHARMAC is in a unique position to undertake this research, and Metcalfe et al's paper is a promising step forward.

The authors' point regarding considering disease burden when interpreting pharmaceutical dispensing data is an important one for researchers and health data consumers alike. We look forward to an update of the research described in this paper with more contemporary data and, hopefully, extended into Pacific and other ethnic groups.

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