



## PHARMAC and cardiovascular health in New Zealand

The recent analysis by Stewart et al<sup>1</sup> again demonstrates how socioeconomic factors are important determinants of health outcomes.<sup>2</sup> The additional comparison between New Zealanders and Australians in the LIPID study is interesting, in that from the data available no single point of difference can be identified. It is unfortunate that the study design did not identify ethnicity, as it is well recognised that Māori and Pacific people (even in higher socioeconomic groups) do not fare as well as New Zealand Europeans.<sup>3-6</sup>

It was therefore disappointing to see that the accompanying editorial (Ellis and Hamer)<sup>7</sup> focused at least in part on a criticism of PHARMAC's historical stance on the prescribing of statins. These criticisms have been answered on a number of occasions in the *Journal*,<sup>8-11</sup> and these responses should be read as part of the debate.

Ellis et al use relative international pharmaceutical expenditure figures to argue that New Zealand spends too little on medicines. In fact this is a meaningless statistic, as the price of medicines varies enormously between countries and depends on their negotiating ability. They then congratulate PHARMAC for containing costs and insisting<sup>12</sup> on best value for money.

The usage of statins in New Zealand was closely monitored between 1993 to 2002 using Special Authority approvals data. During that time, access was progressively widened; however at no time did we achieve a greater than 40% uptake for the targeted groups (20% at the time of the LIPID study). We have calculated the loss of life from non-uptake in eligible patients was 26% higher than that from road traffic crashes over that time.\* If we are going to improve our population health status then the most fertile area is to ensure that those who are in need really do access appropriate care. By comparison, the potency of statins is a relatively minor issue.

Ellis et al refer to unnecessary death and morbidity. The price of statins in 1996 was so high that to treat everyone advocated by the 1996 NHF dyslipidaemia guidelines would have cost some an extra \$147 million each year for 137,000 patients; more than one-quarter of all community pharmaceutical spending at that time. For context, this level of spending is much higher than the entire cumulative year-by-year new investments PHARMAC has made over the last nine years†—forgoing the health gains and costs savings to the rest of the health sector from funding gabapentin for neuropathic pain, beta-interferon, erythropoietin beta, atypical antipsychotics, venlafaxine, clopidogrel, lamivudine, low-dose aspirin, alendronate, and imatinib, to name but a few.

It should also be remembered that the original evidence<sup>13</sup> for the use of statins was for secondary prevention, and good evidence for the benefits in primary prevention is relatively recent. It is not appropriate to use today's evidence to judge yesterday's standards.

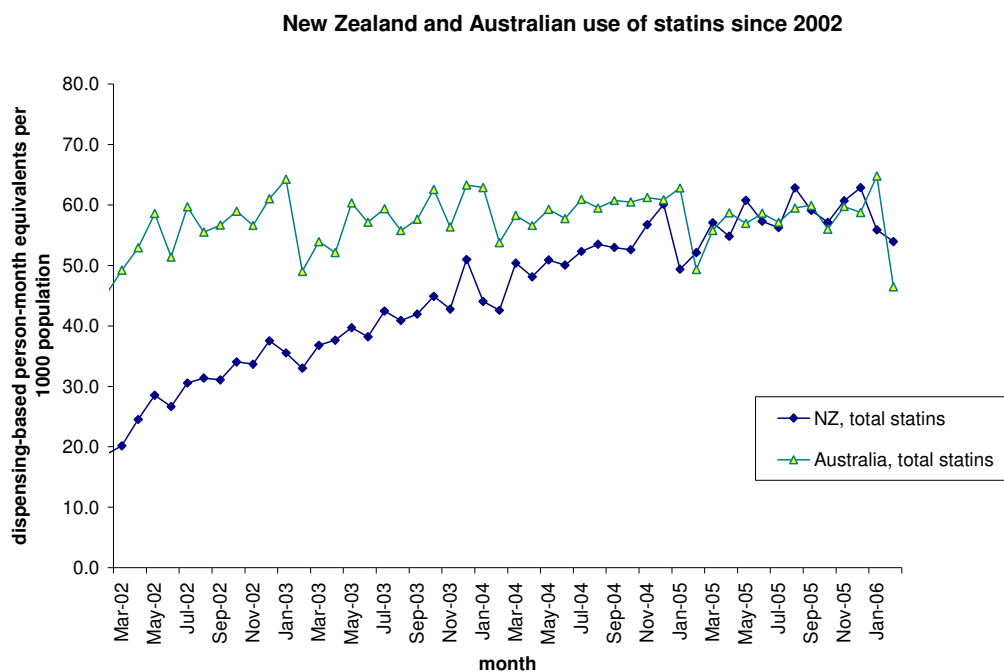
Since 2003 there have been no restrictions on the use of simvastatin in New Zealand, and our usage now outstrips Australia<sup>9</sup>—where there are still prescribing constraints (see graphs below).

We should remember that the LIPID study data is now 10 to 18 years old, and it is now time to look forward and address the problems. Our first priority should be addressing the equity issues, and to that end PHARMAC has already initiated the *One Heart Many Lives* campaign. This is a joint approach with DHBs and with close cooperation from the National Heart Foundation. It focuses on Māori and Pacific people and promotes general cardiac health, while at the same time using statin usage as a surrogate measure of outcome.

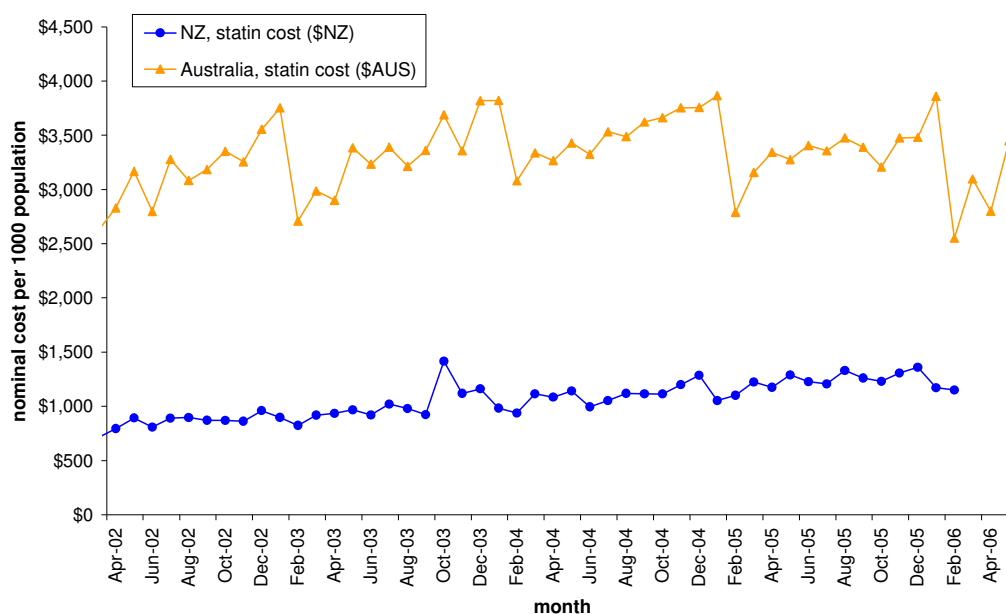
Ellis and Hamer quite correctly argue for greater clinical involvement in decision-making for heart disease. If well done, real health gains and efficiencies could be made. However, if clinicians do take a stronger role, they will also have to take responsibility for the budget, not only for cardiac disease but also negotiate with other areas of the Health Sector for a fair and equitable distribution—just like the managers have to do now.

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**Graphs:**



### New Zealand and Australian costs of statins since 2002



**Sources:** PHARMAC analysis of (1) NZHIS PharmWarehouse dispensings and scripts data for statins, and (2) PBS services data at

[http://www.medicareaustralia.gov.au/statistics/dyn\\_pbs/forms/pbs\\_tab1.shtml](http://www.medicareaustralia.gov.au/statistics/dyn_pbs/forms/pbs_tab1.shtml), using PBS codes (<http://www9.health.gov.au/pbs/scripts/search.cfm>) for atorvastatin, fluvastatin, pravastatin and simvastatin (codes 8213G, 8214H, 8215J, 8521L, 8023G, 8024H, 2833D, 2834E, 8197K, 2011W, 2012X, 8173E, 2013Y, 8313M, 2831B). Population denominators obtained from <http://www.stats.govt.nz/> and <http://www.abs.gov.au/>

#### Footnotes:

\*Historical burden of disease from statin non-uptake in eligible patients, estimated from the gaps between estimated eligibility and actual dispensings, i.e. the estimated numbers of non-uptaking eligible people, and the consequent QALY losses from untreated cardiovascular disease (when compared with statin treatment, according to the eligibility criteria in place each month). Statin non-uptake over the 10-year period July 1991 to June 2001 meant that there were 6,930 ‘statistical deaths’ in New Zealand through missed opportunities to gain QALYs, from 115,000 potential QALY gains not realised. This number is 26% higher than the number of road deaths reported to the LTSA during the same time period (5,499).

†Year-by-year between 1998/99 and 2006/07 PHARMAC has invested \$111 million for 173 new investments, for which \$91 million for 65 investments initially benefitting some 286,000 patients are for medicines where we can estimate health gains, saving some 6,460 QALYs, with \$38 million nominal savings elsewhere to the health sector (58% offsets) just in the initial 12 months of investments

#### References:

1. Stewart RA, North FM, Sharples KJ, et al. Long-term Intervention with Pravastatin in Ischaemic Disease Study Investigators. Differences in cardiovascular mortality between Australia and New Zealand according to socioeconomic status: findings from the Long-Term Intervention with Pravastatin in Ischaemic Disease (LIPID) Study. *N Z Med J.* 2008 Feb 15;121(1269):11–23. <http://www.nzma.org.nz/journal/121-1269/2931/>

2. Blakely T, Tobias M, Atkinson J. Inequalities in mortality during and after restructuring of the New Zealand economy: repeated cohort studies. *BMJ*. 2008 Feb 16;336(7640):371–5. Epub 2008 Jan 24. <http://www.bmj.com/cgi/content/full/336/7640/371>
3. Blakely T, Ajwani S, Robson B, et al. Decades of disparity: widening ethnic mortality gaps from 1980 to 1999. *N Z Med J*. 2004 Aug 6;117(1199). <http://www.nzma.org.nz/journal/117-1199/995/>
4. Robson B, Harris R. (eds). 2007. *Hauora: Māori Standards of Health IV. A study of the years 2000-2005*. Wellington: Te Rōpū Rangahau Hauora a Eru Pōmare. Chapter 4 Mortality (Robson B, Purdie G) [http://www.hauora.maori.nz/downloads/hauora\\_chapter04\\_web.pdf](http://www.hauora.maori.nz/downloads/hauora_chapter04_web.pdf)
5. Ministry of Health and University of Otago. *Decades of Disparity III: Ethnic and socioeconomic inequalities in mortality, New Zealand 1981–1999*. Wellington. Ministry of Health; 2006. [http://www.moh.govt.nz/moh.nsf/pagesmh/4702/\\$File/decades-of-disparity-III.pdf](http://www.moh.govt.nz/moh.nsf/pagesmh/4702/$File/decades-of-disparity-III.pdf)
6. Ministry of Health and Ministry of Pacific Island Affairs. 2004 *Tupu Ola Moui: Pacific Health Chart Book* Wellington: Ministry of Health; 2004. [http://www.moh.govt.nz/moh.nsf/0/5C7A9EE42F979B89CC256F0A00149B14/\\$File/pacifichealthchartbook.pdf](http://www.moh.govt.nz/moh.nsf/0/5C7A9EE42F979B89CC256F0A00149B14/$File/pacifichealthchartbook.pdf)
7. Ellis CJ, Hamer AW. Cardiovascular health in New Zealand: areas of concern and targets for improvement in 2008 and beyond. *N Z Med J*. 2008 Feb 15;121(1269):5-10. <http://www.nzma.org.nz/journal/121-1269/2927/>
8. Metcalfe S, Moodie P. PHARMAC and statins—correction is needed. *N Z Med J*. 2007 Mar 2;120(1250). <http://www.nzma.org.nz/journal/120-1250/2453/>
9. Moodie P, Dougherty S, Metcalfe S. PHARMAC and statins—getting the best population health gains. *N Z Med J*. 2006 Jul 21;119(1238). <http://www.nzma.org.nz/journal/119-1238/2092/>
10. Moodie P, Metcalfe S, McNee W. Response from PHARMAC: difficult choices. *N Z Med J*. 2003 Mar 14;116(1170). <http://www.nzma.org.nz/journal/116-1170/361/>
11. Metcalfe S, Moodie P. More about cardiovascular disease and lipid management in New Zealand. *N Z Med J*. 2002 Oct 11;115(1163). <http://www.nzma.org.nz/journal/115-1163/203/>
12. Claxton K, Briggs A, Buxton MJ, et al. Value based pricing for NHS drugs: an opportunity not to be missed? *BMJ*. 2008 Feb 2;336(7638):251–4. <http://www.bmj.com/cgi/content/full/336/7638/251>
13. Scandinavian Simvastatin Survival Study Group. Randomised trial of cholesterol lowering in 4444 patients with coronary heart disease: the Scandinavian simvastatin survival study (4S). *Lancet*. 1994;344:1383–9.