PHARMAC
Pharmaceutical Management Agency

Do differences in funding cancer medicines in Australia and New Zealand impact on people's health?

A report of a study commissioned by PHARMAC

Why do a study?

PHARMAC wants to ensure the decisions it makes achieve the best health outcomes for New Zealanders. Recent reports on the difference in the number of cancer medicines funded across countries have been used to suggest that New Zealanders are missing out on important health gains[1]. This is despite other research clearly showing that a key driver of the difference in life expectancy is that New Zealanders do not have their cancer diagnosed as early as Australians[2]. Shortening the time to diagnosis and treatment plays a significant role in cancer outcomes. The government is investing heavily in improvements in this area to ensure timely access to already funded, effective treatments.

The interest in New Zealand's access to cancer medicines prompted PHARMAC to commission research assessing potential health gains achievable from cancer medicines currently funded in Australia but not in New Zealand.

What did we find?

We found that New Zealand funded 101 cancer medicines, and Australia funded 110.

This included 88 cancer medicines that New Zealand and Australia both funded. We also found that both countries funded cancer medicines that the other didn't: Australia funded 22 medicines that weren't funded in NZ, and NZ funded 13 medicines that weren't funded in Australia.

Is there a difference to people's health?

Most of the additional medicines funded in Australia but not in New Zealand **do not** offer health gains that would be considered clinically meaningful[3] by international cancer specialists in recent research. Some of the medicines offer poorer health outcomes than the established NZ funded standard of care.

Few of the cancer medicines funded in Australia but not in NZ offer clinically meaningful gains for patients. PHARMAC has received funding applications for many (but not all) of these medicines, and they are undergoing assessment and consideration for funding alongside treatments for other conditions.

Should New Zealand fund the same cancer medicines as Australia?

New Zealand spends $131 million annually (gross cost) on its cancer medicines. Careful selection of these medicines has enabled us to avoid additional costs of at least NZ$80 million per annum, much of which would not help people with cancer any more than at present. Australia pays at least AU$400 million per annum for those medicines not funded in New Zealand. The report explains that, with one exception, those unfunded cancer medicines offer

[1] http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11395945

[2] Phyu S. Elwood J, Stevanovic V. (2014) "Comparison of cancer survival in New Zealand and Australia, 2006-2010" *New Zealand Medical Journal* December 19, 2014 vol. 127 no 1407 http://www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2014/vol-127-no-1407/6385

[3] Lee M. Ellis et al (2014) "American Society of Clinical Oncology Perspective: Raising the Bar for Clinical Trials by Defining Clinically Meaningful Outcomes" *Journal of Clinical Oncology* April 20, 2014 vol. 32 no. 12 1277-1280

relatively low, or no evidence of, clinically meaningful benefit. PHARMAC routinely incorporates other important measures of health gains, harms and resource efficiencies into our overall measure of health gain in terms of Quality Adjusted Life Years. But where the evidence of survival gains are weak we take a cautious approach, especially where the asking price of a medicine is high.

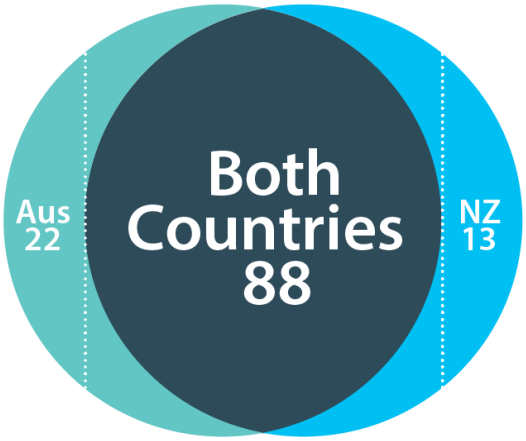
How many cancer medicines are funded?

Australia funds 110 medicines for cancer and New Zealand funds 101 (as of 25 March 2015). In New Zealand funding for cancer medicines for named patients in exceptional circumstances is also managed by PHARMAC, but this funding was not included in the comparison.

Both countries had 88 medicines in common that were funded, and each funded some that the other didn't. Since the study was completed Australia has funded pertuzumab, trastuzumab emtansine, crizotinib, trametinib, pomalidomide and pembrolizumab; while New Zealand has added abiraterone.

Because of the way that Australia makes its decisions to fund medicines, it is likely that it will usually have more medicines listed than in New Zealand in any area of treatment. PHARMAC works to a fixed budget which means we make careful choices to fund medicines providing the best health gain. So there are likely to always be differences between the two countries.

FIGURE 1 Number of cancer medicines funded in Australia and New Zealand, as at 25 March 2015



In New Zealand we are also careful to look at what alternative treatments are available. If a new medicine does not offer better health outcomes than what's already available it might not be approved for funding. Instead, the money is used to fund other medicines that offer more benefit.

Source: Australian Pharmaceutical Benefits Schedule and the New Zealand Pharmaceutical Schedule

How did the report measure the difference to people's health?

The report looked carefully at how much benefit there would be for patients taking the medicines available in Australia, but not in New Zealand.

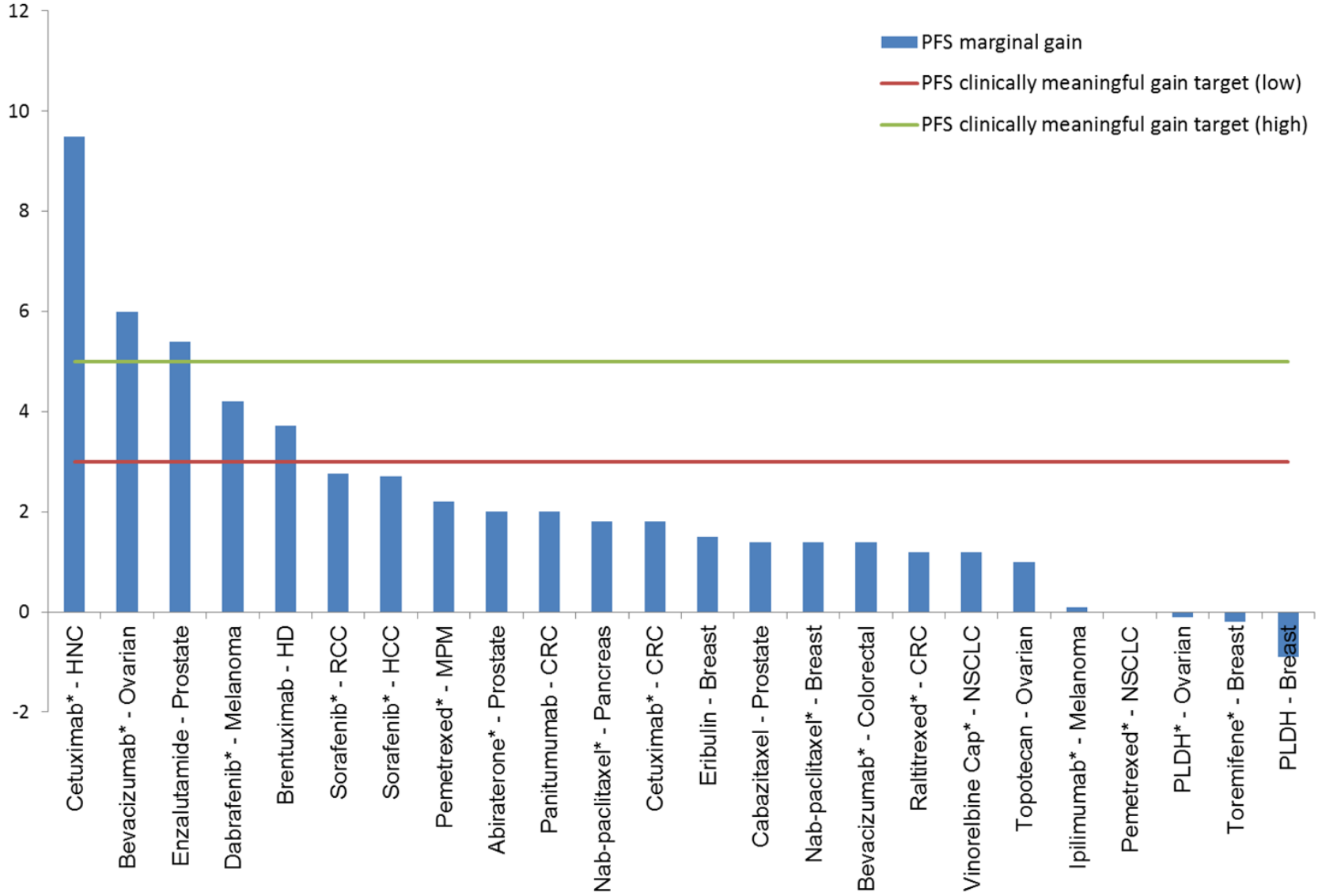
It used published research which measures progression-free survival (PFS) and median overall survival (OS) for each medicine.

The difference in these measures is important: the time you enjoy better health before the disease returns (PFS) might be superior, but you may die even earlier from the disease once it returns (OS). So it is important to understand both. There is an increasing trend in cancer research for studies to be stopped once PFS gains are shown; before the OS is known.

In a small number of cases there was no research available internationally to demonstrate any impact on people's health.

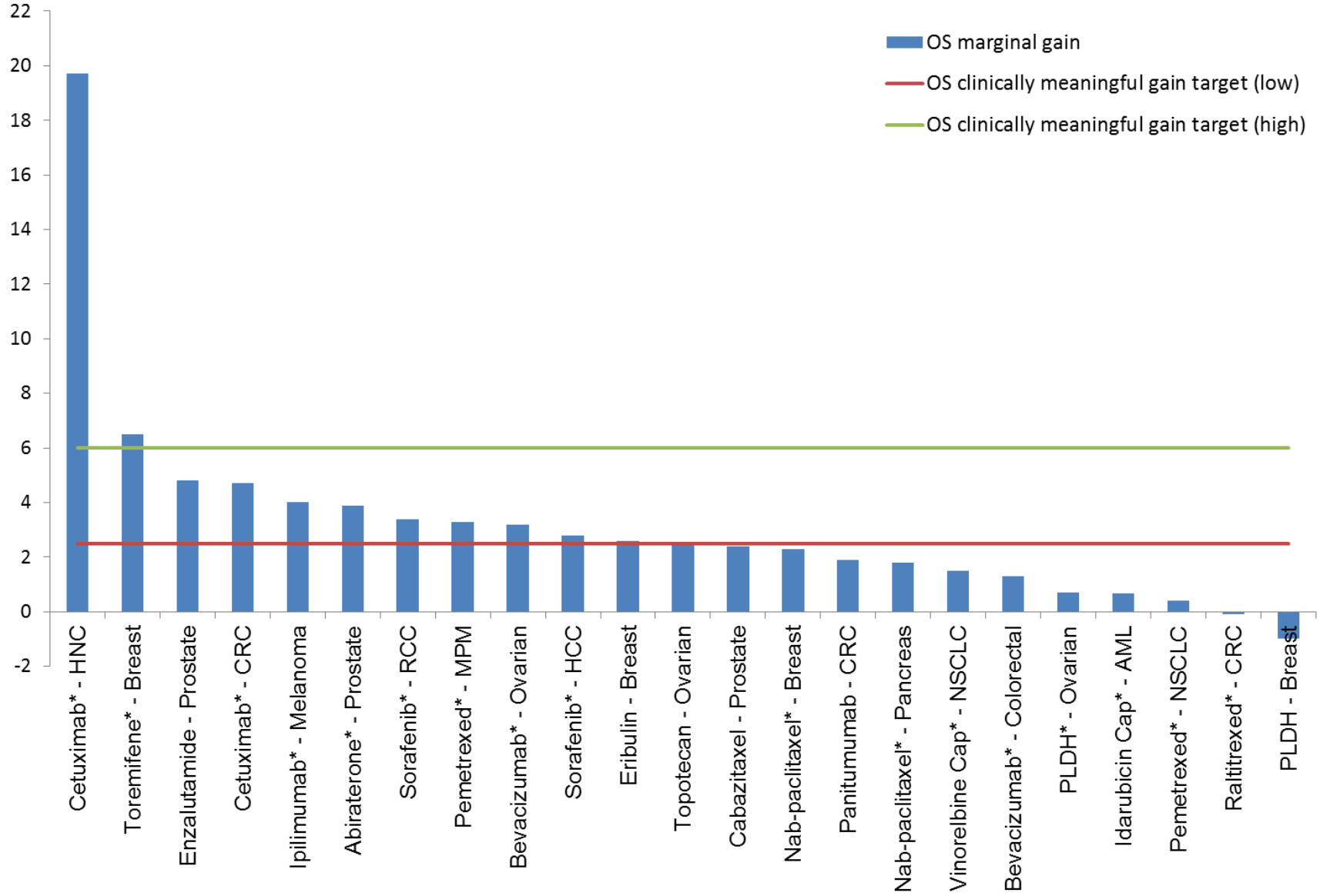
PHARMAC acknowledges the contribution of Dr Suzanne Hill, Senior Adviser Policy, Access and Use, World Health Organization Geneva, Switzerland in developing the approach to this research.

Progression Free Survival marginal gain (months) at low and high clinically meaningful thresholds[4]:



[4] Medicines marked * have been assessed and declined or remain under assessment for funding by PHARMAC

Median Overall Survival marginal gain (months) at low and high clinically meaningful thresholds[4]



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