

From Hospital Beds to Healthy Lives: The Impact of Innovative Medicines

The Effect of New Medicines Provided by the PBS on Mortality and Hospital Utilisation in Australia, 2002-2019



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The Lichtenberg Report

The Effect of New Medicines Provided by the PBS on Mortality and Hospital Utilisation in Australia, 2002–2019, is a report that tracks long-term changes in the number of medicines available on the Pharmaceutical Benefits Scheme (PBS) and the effect this had on mortality and hospital utilisation in Australia.

Key Findings

Increasing the Number of New Medicines Reduced Premature Mortality and Hospital Utilisation

- Between 1992 and 2021, the number of medicines¹ available on the PBS increased by 49%, from 636 to 949.
- Each additional medicine on the PBS for a disease reduced the Years of Life Lost² from the disease before age 85 by about 2%.
- The greater the number of medicines added to the PBS for a disease, the greater the decline in hospital utilisation.

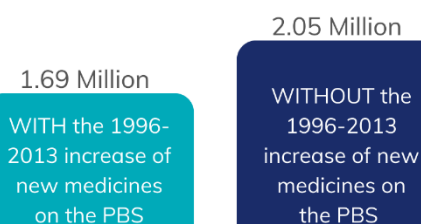
¹Classified as WHO Anatomical Therapeutic Chemical (ATC) chemical substances.

²Years of Life Lost or YLL, is a measure used in public health statistics to estimate the number of years of life lost due to premature death.

Innovative Medicines Reduced Mortality

The increase of new medicines added to the PBS between 1996 and 2013 greatly reduced mortality. It **reduced the Years of Life Lost before the age of 85 in 2019 by 21.2%**, which equates to saving **359,026 years of life**.

Years of Life Lost before age 85 in 2019



Innovative Medicines Reduced Mortality in Younger People Sooner

The addition of medicines to the PBS reduced mortality in **younger people** sooner than it reduced mortality in **older people**. Newer medicines added to the PBS are also more likely to be of higher quality than older drugs.

The calculations in the Lichtenberg Report account for a 10-year lag because utilisation of a drug tends to be lower in the first few years after becoming available on the PBS. Additionally, some drugs may have to be utilised for several years to have their maximum impact on mortality.

Acknowledgements

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Innovative Medicines Saved Hospitals Money

The reduction in hospital utilisation due to new medicines reduced hospital expenditure in 2019 by **\$5.97 billion**.

Diseases where there was a larger growth in the number of PBS medicines had larger reductions in average length of hospital stay.

The number of **hospital days per 100,000 population declined by 4.3%** between 2002 and 2019. Lichtenberg estimates that, if the number of PBS drugs had not increased from 1996 to 2013, the number of hospital days per 100,000 population would have **increased** by 9.1% between 2002 and 2019.

The number of **hospital days per 100,000 population** would have been **10.6% higher** had the number of medicines not increased in the same timeframe. That is an **extra 2.48 million days spent in hospital** per 100,000 population in 2019.

Number of Hospital Days in 2019

23.38 Million Days

WITH the 1994-2011 increase of new medicines on the PBS

25.89 Million Days

WITHOUT the 1994-2011 increase of new medicines on the PBS

Innovative Medicines are Cost-effective

The Lichtenberg report also looked at the cost effectiveness of prescribed medicine expenditure. Between 2002 and 2019, per capita prescribed medicine expenditure increased by **\$255**, from \$380 to \$635, to a total of **\$6.47 billion**.

The reduction in hospital expenditure of **\$5.97 billion** nearly offsets the **\$6.47 billion** increase in prescribed medicine expenditure (by \$498 million).

The cost per life-year before age 85 gained in 2019 due to new medicines is estimated to be **\$1388** (\$498 million / 359,026 life-years). This figure is **less than 2% of Australia's per capita GDP**, which the WHO considers **very cost-effective**.

Policy Recommendations

Professor Lichtenberg's research highlights the health and economic benefits of investing in the latest medicines. The current Review of Health Technology Assessment (HTA) Policy and Methods is an opportunity to maximise these benefits.

Bold reform of the reimbursement system is required to reduce the patient access gap – the time between TGA registration and patient access – so that the benefits are realised earlier.

Reform should also include methodologies for the transparent inclusion of broader societal, health and economic benefits.