cepr
CENTER FOR ECONOMIC AND POLICY RESEARCH

Reducing Waste with an Efficient Medicare Prescription Drug Benefit

BY DEAN BAKER*

When Congress was debating the Medicare drug benefit in 2003, there were many who advocated that Medicare provide the benefit as part of the traditional hospital insurance program. This was expected to save money both due to lower administrative costs and also as result of Medicare's ability to use its market power to directly negotiate lower prices with the pharmaceutical industry. The plan that was passed instead required beneficiaries to purchase insurance from private insurers who would be subsidized by the government.

It has been widely noted that the drug benefit has cost considerably less than expected. In 2004, the Medicare Trustees projected that the Part D benefit would cost $131.4 billion in 2011, the most recent year for which data is available. In fact, the benefit cost $67.4 billion in 2011, just 51.3 percent of the originally projected cost.[1]

While advocates of using private insurers have claimed that lower than projected costs vindicate their design for the benefit, in fact the main reason that costs have been less than projected is that drug costs in general have risen much less rapidly than had been projected. In 2005, the Center for Medicare and Medicaid Services (CMS) projected that the country would spend $403.7 billion on prescription drugs in 2014.[2] (These were the first projections that incorporated the impact of the Medicare prescription drug benefit, and 2014 is chosen because the projections jump from 2006 to 2014.) The 2011 projections showed expenditures of $308.7 billion for 2014, or 59.2 percent of the 2005 projection.[3]

While there are undoubtedly many factors underlying the slower than projected increase in drug costs, the main factor is a decline in the pace of innovation. The Food and Drug Administration (FDA) rates the importance of new drugs in their approval process. It fast tracks drugs that are considered "priority" drugs, meaning that they are potentially a qualitative improvement over existing drugs. In the 1990s, there was an average of 13.4 priority approvals a year of new molecular entities. This fell to 10.0 a year between 2004 and 2009, a 25 percent drop.[4] Given the expected increase in expenditures on prescription drugs, and the increase in research spending claimed by the industry, it would have been expected that instead of falling, the number of priority approvals would have

Center for Economic and Policy Research
1611 Connecticut Ave, NW
Suite 400
Washington, DC 20009
tel: 202-293-5380
fax: 202-588-1356
www.cepr.net

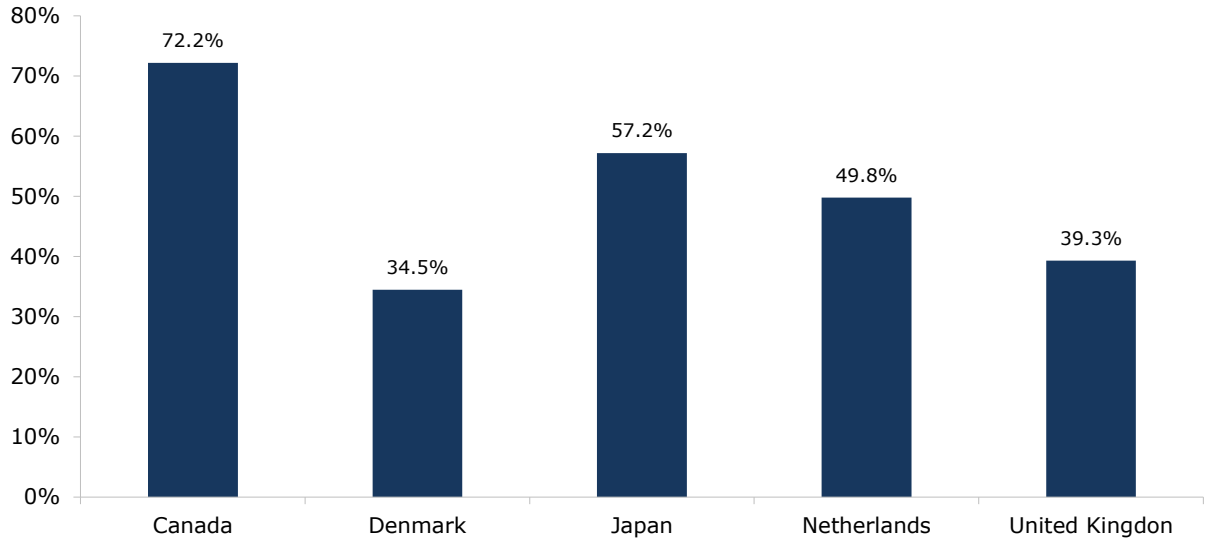
* Dean Baker is an economist and the Co-Director of the Center for Economic and Policy Research, in Washington, D.C.

increased substantially.

With fewer important new drugs being developed and patents expiring on many important existing drugs, it should not have been surprising that the increase in drug expenditures would slow. It is likely that this slower pace of innovation in the drug industry is a more important factor in explaining lower than projected costs than the role of private insurers in delivering the benefit.

However even with lower than projected costs, the United States still is spending far more per person on prescription drugs than other wealthy countries. In 2012 the United States was projected to spend $883 per person on prescription drugs.[5] This is nearly twice as high as per person spending in other wealthy countries. **Figure 1** shows the ratio of per person spending on prescription drugs in the United States to spending in Canada, Denmark, Germany, and the United Kingdom. For example, Canada spends a bit over 70 cents for each dollar spent in the U.S. per person on prescription drugs. The United Kingdom spends just under 40 cents, and Denmark only about 35 cents per dollar spent in the U.S.

FIGURE 1
Ratio of Per Capita Prescription Drug Spending to U.S. Spending, 2008, Selected Countries.



Source: Author's calculations and OECD Health Care Statistics. See appendix for details.

The reason that other countries spend so much less on prescription drugs is that their governments negotiate prices with the pharmaceutical industry. While governments are granting the industry patent monopolies that prevent competitors from selling the same drug at a lower price, they do not allow drug companies to charge whatever price they want. In principle, the U.S. government could adopt the same approach with Medicare. Medicare provides a huge market, far larger than most countries. This should allow it to negotiate prices that are the same or lower prices than what other countries pay.

Table 1 and **Table 2** show the projected saving to the government and to beneficiaries if Medicare were to pay the same amount for prescription drugs as other countries. In the low savings case, where the United States spends as much on drugs as Canada, the cumulative savings to the federal government over the next decade would be $229.7 billion. In addition, the savings to state governments would be $30.8 billion, while beneficiaries would save $47.7 billion in lower premiums.

TABLE 1
Source of Payment for Medicare Part D (in billions)

	Beneficiaries' Premiums	Federal Government	State Governments
2013	$10.7	$59.8	$8.9
2014	12.5	63.5	9.2
2015	14.4	68.1	9.5
2016	15.6	74.9	10.2
2017	17.4	81.2	10.9
2018	19.1	88.4	11.8
2019	21.1	96.4	12.7
2020	23	106.4	13.8
2021	24.2	116.7	15.1

Author's calculations, Medicare Trustees Report, and Congressional Budget Office. See appendix for details and methodology.

TABLE 2
Savings from Negotiated Drug Prices (in billions)

	Savings to Beneficiaries	Savings to Federal Government	Savings to State Governments
(a) Low Savings (Canadian Prices)			
2013	$2.8	$15.5	$2.3
2014	3.2	16.5	2.4
2015	3.7	17.7	2.5
2016	4.1	19.5	2.7
2017	4.5	21.1	2.8
2018	5.0	23.0	3.1
2019	5.5	25.1	3.3
2020	6.0	27.7	3.6
2021	6.3	30.3	3.9
2022	6.6	33.3	4.3
Total	$47.7	$229.7	$30.8
(b) High Savings (Danish Costs)			
2013	$6.6	$36.6	$5.5
2014	7.7	38.9	5.6
2015	8.8	41.7	5.8
2016	9.6	45.9	6.2
2017	10.7	49.8	6.7
2018	11.7	54.2	7.2
2019	12.9	59.1	7.8
2020	14.1	65.2	8.5
2021	14.8	71.5	9.3
2022	15.6	78.4	10.1
Total	$112.4	$541.3	$72.7

Source: Author's calculations, Medicare Trustees Report, and Congressional Budget Office. See appendix for details and methodology.

In the high saving case, where we paid the same amount for our drugs as people in Denmark, the savings to the federal government over the next decade would be $541.3 billion. The saving to the states would be $72.7 billion, and beneficiaries would save $112.4 billion.

It is worth briefly discussing an objection that the pharmaceutical industry often makes to allowing Medicare to negotiate lower drug prices. It claims that the high prices in the United States provide much of the revenue and incentive to finance research into new drugs. While it is true that the profits from patent monopolies do provide an incentive to conduct research, they also provide an incentive to market drugs for uses that may be inappropriate and to misrepresent evidence on the quality and safety of drugs. This is the reason that there have been so many scandals in recent years such as the one involving Vioxx, where it is alleged that Merck concealed evidence that the drug increased the risks of heart attacks and strokes.[6] The perverse incentives created by patent monopolies also have led to the corruption of scientific research, which is a widely recognized problem among medical researchers.[7]

Lower profit margins will reduce the incentive for this sort of corruption, which presumably means that we can anticipate that the drug companies will be more honest in marketing their drugs and revealing their research findings. There are alternative mechanisms for supporting biomedical research that are less susceptible to the same sort of corruption. The government already funds $30 billion a year in biomedical research through the National Institutes of Health. While most of this research is focused on more basic science, there is no reason in principle that additional funding could not be directed toward developing drugs and bringing them through the Food and Drug Administration's approval process.[8]

Nobel Laureate Joseph Stiglitz has suggested that the government finance the clinical testing portion of the drug development process.[9] This is the area most prone to corruption. It is also the area in which full public disclosure of data is likely to offer the greatest benefits. Full disclosure would allow doctors to know the overall effectiveness of drugs relative to competitors. It would also enable researchers to mine data to find interaction effects between drugs and evidence that some drugs might be more effective for particular types of patients than others.

Conclusion

Patients in the United States pay far higher prices for prescription drugs than do people in other wealthy countries. This is true for the Medicare prescription drug program also. If Medicare negotiated drug prices so that beneficiaries paid the same amount as people in other countries, there would be enormous potential savings. For example, if beneficiaries paid the same prices as people in Canada, the federal government would save almost $230 billion over the next decade, along with states saving $31 billion and beneficiaries saving $48 billion. If the program negotiated the same prices as are paid in Denmark, the savings to the federal coffers would be $541 billion. States would save $73 billion and beneficiaries would save $112 billion.

The effect of such price reductions on the innovation process would be mixed. While there would be less incentive to develop new drugs, there would also be less incentive to improperly market drugs and to misrepresent research findings. In the longer run, it would be desirable to develop a more efficient system for financing drug research which would eliminate the sort of corruption that is an inevitable result of government granted patent monopolies.

Appendix

Figure 1 takes per capita spending in purchasing power parity dollars from the OECD's Health Care Statistics 2012, available at http://stats.oecd.org/Index.aspx?DataSetCode=SHA. The bars show the ratios for 2008, the most recent year for which data is available.

Table 2 uses the projected sources of revenues from the 2012 Medicare Trustees Report, Table III.D3. The 2022 numbers are taken by projecting the growth rate from each source of revenue from 2020 to 2021 on the 2021 numbers. The savings are calculated by applying the ratio of drug spending in Canada (low savings) and Denmark (high savings) to actual spending on drugs in Part D. To get spending on drugs, the direct administrative costs of the Medicare program were subtracted from total spending (found in Table III.D3) as were the administrative costs of the insurers providing the benefit. The latter were projected as 6 percent of the cost of the program by the Congressional Budget Office.[10] Together, the projected cost of the drugs purchased under the program was assumed to be 93.5 percent of spending. The saving from lower cost drugs are assumed to be proportional to what beneficiaries, the federal government and state governments paid into the program.

---

1 These figures are taken from Table II.C20 of the 2004 Medicare Trustees report [http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/tr2004.pdf] and Table III.D5 of the 2012 Medicare Trustees report [http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/TR2012.pdf].

2 Heffler, Stephen, Sheila Smith, Sean Keehan, Christine Borger, M. Kent Clemens and Christopher Truffer. 2005. "Trends: U.S. Health Spending Projections For 2004-2014 Health Affairs." *Health Affairs*, Exhibit 1. http://content.healthaffairs.org/content/early/2005/02/23/hlthaff.w5.74.citation

3 Center for Medicare and Medicaid Services. 2005. National Health Care Expenditures Projections: 2004-2014, Table 2. http://www.sehn.org/tccpdf/health-cost_projections2004-2014.pdf

4 U.S. Food and Drug Administration. NDA Approvals by Therapeutic Potential and Chemical Type. http://www.fda.gov/Drugs/DevelopmentApprovalProcess/HowDrugsareDevelopedandApproved/DrugandBiologicApprovalReports/ucm121102.htm

5 Centers for Medicare & Medicaid Services. National Health Expenditure Projections 2011-2021, Table 11. http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/Proj2011PDF.pdf

6 See Berenson, Alex. 2007. Merck Agrees to Settle Vioxx Suit for $4.85 Billion. *New York Times*, November 9. http://www.nytimes.com/2007/11/09/business/09merck.html

7 See Whoriskey, Peter. 2012. As drug industry's influence over research grows, so does the potential for bias. *The Washington Post*, November 25. http://www.washingtonpost.com/business/economy/as-drug-industrys-influence-over-research-grows-so-does-the-potential-for-bias/2012/11/24/bb64d596-1264-11e2-be82-c3411b7680a9_story.html

8 Baker, Dean. 2004. "Financing Drug Research: What Are the Issues?" Washington, DC: Center for Economic and Policy Research. http://www.cepr.net/index.php/Publications/Reports/financing-drug-research-what-are-the-issues

9 Jayadev, Arjun, and Joseph Stiglitiz. 2009. "Two Ideas to Increase Innovation and Reduce Pharmaceutical Costs and Prices." *Health Affairs*, Vol. 28, No. 1, pp. 165-168. http://content.healthaffairs.org/content/28/1/w165.short

10 Congressional Budget Office. 2004. "A Detailed Description of CBO's Cost Estimate for the Medicare Prescription Drug Benefit," Washington, DC: Congressional Budget Office. http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/56xx/doc5668/07-21-medicare.pdf