

Issue: [No. 4, December 2007](#)

Comparing the U.S. and Canadian Health Care Systems

In discussions of health care reform, the Canadian system is often held up as a possible model for the U.S. The two countries' health care systems are very different-Canada has a single-payer, mostly publicly-funded system, while the U.S. has a multi-payer, heavily private system-but the countries appear to be culturally similar, suggesting that it might be possible for the U.S. to adopt the Canadian system.

Much of the appeal of the Canadian system is that it seems to do more for less. Canada provides universal access to health care for its citizens, while nearly one in five non-elderly Americans is uninsured. Canada spends far less of its GDP on health care (10.4 percent, ver-sus 16 percent in the U.S.) yet performs better than the U.S. on two commonly cited health outcome measures, the infant mortality rate and life expectancy.

In "**Health Status, Health Care, and Inequality: Canada vs. the U.S.,**" (NBER Working Paper [13429](#)) **June O'Neill** and **Dave M. O'Neill** take a closer look at the performance of the U.S. and Canadian health care systems. The authors examine whether the Canadian system delivers better health outcomes and distributes health resources more equitably than the U.S. system.

The authors begin by examining the evidence on health outcomes. They note that the infant mortality rate and life expectancy are affected by many factors other than the health care system. For example, low birthweight-a phenomenon known to be related to substance abuse and smoking-is more common in the U.S. For babies in the same birthweight range, infant mortality rates in the two countries are similar. In fact, if Canada had the same proportion of low birthweight babies as the U.S., the authors project that it would have a slightly higher infant mortality rate. Thus, the authors conclude that differences in infant mortality have more to do with differences in behavior than with the health care systems.

A similar argument may be made for life expectancy. The gap in life expectancy among young adults is mostly explained by the higher rate of mortality in the U.S. from accidents and homicides. At older ages much of the gap is due to a higher rate of heart disease-related mortality in the U.S. While this could be related to better treatment of heart disease in Canada, factors such as the U.S.'s higher obesity rate (33 percent of U.S. women are obese, vs. 19 percent in Canada) surely play a role.

To compare how the countries perform on other health outcome measures, the authors use the Joint Canada/U.S. Survey of Health, a survey of about 9,000 residents of the two countries

conducted in 2002-2003. The authors begin by comparing self-reported health status. While this measure is subjective and may be influenced by factors outside the health care system, it is widely used by researchers. They find that self-reported health status is similar in the two countries-if anything, more people report themselves to be in excellent health in the U.S.

Next, the authors examine three other outcome measures: an index of overall health, a depression index, and a pain indicator. Focusing on whites (to sidestep differences in the racial composition of the two populations and the problem of racial disparities in health outcomes), they find that the two countries score similarly on the overall health index and pain indicator, while the U.S. has a slightly higher incidence of depression.

The final health status measure examined is the incidence of chronic conditions like high blood pressure, heart disease, and asthma. These measures are less subjective, but also are known to be influenced by behavior and other factors outside of the health care system. The authors find that the incidence of these conditions is somewhat higher in the U.S. However, respondents with these conditions are some-what more likely to be treated in the U.S.-in the case of emphysema, the treatment rate is twenty percentage points higher in the U.S.

Turning their attention to the availability of health care resources, the authors examine the use of cancer screenings including mammograms and PAP smears (for women), PSA screenings (for men), and colonoscopies. They find that the use of these tests is more frequent in the U.S. - for example, 86 percent of U.S. women ages 40 to 69 have had a mammogram, compared to 73 percent of Canadian women. The U.S. also is endowed with many more MRI machines and CT scanners per capita. The authors find evidence of the possible effectiveness of higher levels of screening and equipment by examining mortality rates in both countries for five types of cancer that could be affected by early detection and treatment. Because the incidence of cancer may differ for reasons other than the health care system, they compare the ratio of the mortality rate to the incidence rate - a lower ratio corresponds to a lower death rate for those with the disease. They find that the ratio is lower in the U.S. for all types of cancer except cervical cancer, suggesting that the U.S. health care system is generally more successful in the detection and treatment of cancer.

The authors also examine wait times, which are often cited as a problem in Canada. Though comparative information is limited, available data indicate much longer waits in Canada than in the U.S. to consult a specialist and to have non-emergency surgery like knee re-placements. The authors can also draw some inferences from a question about unmet medical needs. While the incidence of unmet needs is slightly lower in Canada (11 percent, vs. 14 percent in the U.S.), it is interesting to note that waiting time is cited as the reason by over half of Canadians who report unmet needs. By contrast, cost is cited as the reason by over half of Americans. The importance of long waits in Canada was recently highlighted by the Chaoulli case in Quebec which successfully challenged the government ban on private provision of medical services covered by the Canadian system. Private services are expected to alleviate shortage of facilities under the system and reduce wait times. Cases are being brought in other provinces.

In the final section of their paper, the authors consider several measures of the success of the two health care systems. The first and perhaps simplest measure is the level of satisfaction reported

by patients. Americans are more likely to report that they are fully satisfied with the health services they have received and to rank the quality of care as excellent.

Finally, the authors examine whether Canada has a more equitable distribution of health outcomes, as might be expected in a single-payer system with universal coverage. To do so, they estimate the correlation across individuals in their personal income and personal health status and compare this for the two countries. Surprisingly, they find that the health-income gradient is actually more prominent in Canada than in the U.S.

The authors conclude that while it is commonly supposed that a single-payer, publicly-funded system would deliver better health out-comes and distribute health resources more fairly than a multi-payer system with a large private component, their study does not provide support for this view. They suggest that further comparisons of the U.S. and Canadian health care systems would be useful, for example to explore whether the higher expenditures in the U.S. yield benefits that are worth their cost.

The authors acknowledge financial support from the Achelis Foundation and the Weismann Foundation.