Is 'Moral Hazard' Inefficient? The Policy Implications Of A New Theory

ABSTRACT

"Moral hazard" refers to the additional health care that is purchased when persons become insured. Under conventional theory, health economists regard these additional health care purchases as inefficient because they represent care that is worth less to consumers than it costs to produce. A new theory, however, suggests that much of moral hazard is actually efficient. When the care that was deemed to be welfare-decreasing is reclassified as welfare-increasing, health insurance becomes much more valuable to consumers than health economists have hitherto thought it was. As a result, there is a new argument for national health insurance: efficiency. [PUBLICATION ABSTRACT]

TESTO COMPLETO

Headnote

A large portion of "moral hazard" health spending actually represents a welfare gain, not a loss, to society. ABSTRACT: "Moral hazard" refers to the additional health care that is purchased when persons become insured. Under conventional theory, health economists regard these additional health care purchases as inefficient because they represent care that is worth less to consumers than it costs to produce. A new theory, however, suggests that much of moral hazard is actually efficient. When the care that was deemed to be welfare-decreasing is reclassified as welfare-increasing, health insurance becomes much more valuable to consumers than health economists have hitherto thought it was. As a result, there is a new argument for national health insurance: efficiency.

INSURERS CALL THE CHANGE IN BEHAVIOR that occurs when a person becomes insured "moral hazard." Moral hazard occurs, for example, when an in' sured person spends an extra day in the hospital or purchases some procedure that he or she would not otherwise have purchased. Insurers originally viewed moral hazard unfavorably because it often meant that they paid out more in benefits than expected when setting premiums-hence the negative term.

Economists also viewed moral hazard negatively because, under the conventional theory, the additional health care spending generated by insurance represents a welfare loss to society.1 When people become insured, insurance pays for their care. In economists' view, insurance is reducing the price of care to zero. When the price is reduced in this way, consumers purchase more health care than they would have purchased at the normal market prices-this is the moral hazard. But because consumers purchase care when the price drops to zero that they would not have purchased at the market price, economists interpret this behavior as revealing that the value of this care to consumers is less than the market price. The additional care, however, is still costly to produce. The difference between the high cost of the resources devoted to producing this care (reflected in the high market price) and its low apparent value to insured consumers (reflected in the low insurance price) represents an inefficiency. Thus, health care spending increases with insurance, but the value of this care is less than its cost,

generating an inefficiency that economists call the "moral-hazard welfare loss."

Since 1960, health insurance coverage in the United States has increased from less than 45 percent to about 83 percent of the population. Over the same period, the percentage of U.S. gross domestic product (GDP) attributable to personal health care has risen from 4.4 percent to more than 11 percent.[2] The causal relationship between Americans' becoming insured and rising health care spending is obvious. Conventional health insurance theory provided a ready evaluation of this increased spending: It represents a welfare loss and should be reduced.

Conventional insurance theory also provided the policy solution: Impose coinsurance payments and deductibles to increase the price of medical care to insured consumers and reduce these inefficient expenditures. In the 1970s many insurers adopted copayments to reduce health care spending. In the 1980s and 1990s economists also promoted utilization review and capitated payments to providers as further ways to reduce moral hazard. The managed health care system we have now is largely a product of this theory.

The Welfare Ambiguity Of Moral Hazard

A fundamental ambiguity exists, however, in the welfare implications of moral hazard, which economists have, perhaps, always suspected but could never voice because they did not have the appropriate theory to explain it. That is, conventional theory makes sense for health care such as cosmetic surgery or drugs to improve sexual functioning or designer-style prescription sunglasses, but not for serious treatments such as coronary bypass operations or organ transplants. Clearly, insured people would purchase more of all these procedures than would uninsured people, so they would all be considered moral hazard to insurers. But there is a fundamental difference between the welfare implications of the liver transplant that the insured person with liver failure purchases to save his or her life and the welfare implications of the breast implant that a healthy woman with insurance purchases to improve her appearance.

Mark Pauly, one of the architects of the conventional insurance theory, recognized this ambiguity as early as 1983.[3] He pointed out that his original theory of moral-hazard welfare loss was intended to apply only to "routine physician's visits, prescriptions, dental care, and the like" and that "the relevant theory, empirical evidence and policy analysis for moral hazard in the case of serious illness has not been developed. This is one of the most serious omissions in the current literature."[4] This distinction, however, has been lost on most health economists. For example, health economics textbook writers continue to present moral hazard as being unambiguously welfare decreasing, and health policy analysts continue to use the conventional theory in developing their recommendations for optimal cost-sharing rates, managed care programs, and other policies designed to curb U.S. health care costs.

New Theory

In The Theory of Demand for Health Insurance, I present a new theory, which explains the welfare implications of moral hazard that is sometimes represented by expensive, life-saving treatments for the seriously ill and sometimes by discretionary, even frivolous, procedures for the healthy.[5] This theory can be summarized as follows: People buy health insurance to obtain additional income when ill. When a person purchases insurance, he pays a premium into an insurance pool in return for a contract that obligates the insurer to pay for his care out of the same pool, if he were to become ill. Because not all who pay in become ill, the consumer needs to pay in only a fraction of the cost of his or her medical care when ill. In essence, the insurance contract obligates the insurance company to transfer income from the many who pay into the pool and remain healthy to the few who become ill enough to need medical care.

If insurers actually transferred income to an ill person in one lump-sum payment, the welfare implications of moral hazard would be unambiguous. For example, consider Elizabeth, who has just been diagnosed with breast cancer. Without insurance, she would purchase only the $20,000 mastectomy required to rid her body of the cancer. If she had purchased an insurance policy for $4,000 that paid off with a $40,000 cashier's check upon diagnosis of breast cancer, she might purchase the $20,000 mastectomy and also a $20,000 breast reconstruction procedure. For economists, this behavior implies that the additional $40,000 in income from the insurance pool had increased her willingness to pay for the breast reconstruction so much that it is now greater than the $20,000 market price, causing her to purchase the second procedure. This moral hazard is efficient because she could have spent the additional $40,000 on anything she chose but opted to purchase the breast reconstruction. The purchase of this additional procedure represents a moral-hazard welfare gain to the extent that with the additional $40,000 in income, she would have now been willing to pay more than the $20,000 that it cost to produce the procedure.

Health insurance policies, however, generally pay off by paying for the ill person's care. The welfare ambiguity arises because of this payoff mechanism. For example, if Elizabeth had instead paid $4,000 for insurance that simply paid for her health care when ill, she might also purchase the same two $20,000 procedures, resulting in the same payout of $40,000 from the insurance pool. But it is not clear whether she is responding to the zero price by opportunistically purchasing a breast reconstruction procedure that she barely values, or responding in the same way that she would have responded if the insurer had written her a check for $40,000. As a result, we cannot tell whether this additional moral-hazard spending represents a welfare loss or a welfare gain.

If we could observe what Elizabeth would have done with a $40,000 cashier's check instead, we would know. If she would have purchased the same additional $20,000 breast reconstruction with her original income plus the additional $40,000 from insurance, then this moral hazard is a welfare gain. If not, then it is a welfare loss. But such information would be difficult to obtain. We could ask Elizabeth hypothetically what she would have done if she were paid off with a $40,000 check instead, but this approach is not completely reliable because people sometimes behave differently than they say they will. The point is that there is some unknown portion of patients who would respond to insurance paying for their care in exactly the same way that they would respond to insurance paying them a cashier's check for the same amount. For these patients, moral hazard is efficient and represents a welfare gain.

Implications For Policy

* Cost sharing often not appropriate. Because some of the moral hazard that was considered a welfare loss under the conventional theory must now be reclassified as a welfare gain, health insurance under the new theory is generally much more valuable to consumers than economists have thought it was. Many of the more serious procedures-organ transplants; trauma care; many cancer treatments; and, indeed, a large portion of the costly, life-saving medical care that people could only afford to purchase with insurance-would now be tallied in a welfare gain column instead of a welfare loss column when determining the value of insurance.6 Because such a large portion of moral hazard spending represents a welfare gain, the recategorization of losses as gains dramatically changes the welfare calculations.

Changes would also occur in policy prescriptions. Economists, who based their calculations on conventional theory that all moral hazard is welfare-decreasing, have traditionally called for cost sharing to reduce moral hazard and thus health care costs. For example, one study suggested that imposing coinsurance rates of 66 percent on all health care expenditures would reduce moral hazard and increase welfare.7 More recently, a coinsurance rate of almost 50 percent, with no maximum on out-of-pocket spending, was found to be optimal.8 But who would regard

an insurance policy that requires a $150,000 out-of-pocket payment (on a $300,000 liver transplant) as optimal?

The new theory suggests that cost-sharing policies have been directed at problems that largely do not exist. Furthermore, it suggests instead that coinsurance is too blunt a policy instrument and that it should be refined to focus only on the inefficient moral hazard. Moral hazard that generates welfare gains should be left alone or even encouraged. That is, for those with serious illnesses, whose care might also be associated with a great deal of pain and suffering anyway, it makes little sense to apply copayments. For example, few if any people would frivolously choose to endure coronary bypass surgery just because the price had dropped to zero. Therefore, imposing any coinsurance payment (let alone a 50 percent copayment) on the patient with coronary heart disease to limit his or her purchases of bypass procedures simply does not make sense. Insurance contracts should be restructured so that this type of care is completely covered.

* Subsidizing insurance premiums is beneficial. Second, under conventional theory, consumers are made worse off when they voluntarily purchase full insurance coverage.9 Therefore, subsidizing insurance premiums encourages more people not only to buy insurance, but also to purchase insurance with inefficiently low cost-sharing provisions. With conventional theory in mind, 372 health economists (including me, before I came to a better understanding of the theory) called for the repeal of the law that subsidizes employee health insurance by permitting premiums to be paid for with pretax income.10 Until recently, only a few U.S. economists-principally, Thomas Rice and Uwe Reinhardt-have been vocal supporters of any form of national health insurance (but for different reasons than those explained here).

The new theory suggests that health insurance generally makes the consumer better off. Therefore, the subsidies that encourage consumers to purchase insurance voluntarily, or a national health insurance program for the entire U.S. population, would improve society's welfare. This is especially true because we as a society are altruistic and benefit when all who become ill have access to modern medical care. That the United States is alone among all developed countries in not providing some form of national health insurance to its citizens is evidence of how mistaken we have been.

* High prices are harmful. Third, under conventional theory, high health care prices are not bad. Indeed, a few economists have even argued that high prices should be encouraged because they reduce moral hazard.11 For example, patients who face a 20 percent coinsurance rate would have higher out-of-pocket payments if the market price of a procedure were $100,000 instead of $50,000 and would therefore purchase fewer additional procedures. And, according to conventional theory, any reduction of moral hazard is a welfare gain.

Under the new theory, the high prices that providers charge because they have market power would again be considered harmful. Many health care providers hold monopolies because of the exclusive privileges granted to them by law. For example, only physicians may prescribe drugs, admit patients to hospitals, or perform surgeries. Pharmaceutical companies have patents that give them exclusive rights to sell the drugs they develop. State legislatures have given exclusive rights to perform certain tasks to individuals with specific training. Economists would usually focus their analyses on weighing the benefits of these laws against the reduction of care and lack of access caused by the resulting high monopoly prices.

However, with the preoccupation with moral hazard, some analysts have concluded that the high prices are good precisely because of the reduction in care that they cause for the insured. With the new theory, however, economists would be able to revert to the standard analysis that monopoly pricing causes an undesirable reduction in use, even for the insured. And for the forgotten uninsured, a reduction in monopoly pricing would generate an even greater benefit because the high prices often prohibit the purchase of any care at all.

MORE THAN ANYTHING ELSE, the new theory suggests that health insurance provides an economy wide redistribution of income from those who remain healthy to those who become ill. Those who become ill use this income either to cover the costs of health care that they would otherwise purchase, or to purchase more care, often care that they would not be able to afford without insurance. Those who remain healthy simply pay into the system, but they do so voluntarily because everyone has a chance of becoming ill. Because people value the additional income they receive from insurance when they become ill more than they value the income they lose when they pay a premium and remain healthy, and because everyone has in theory an equal chance of becoming ill, this national redistribution of income from the healthy to the ill is efficient and increases the welfare of society. Thus, the new theory identifies efficiency as a new justification for adopting some form of national health insurance.

Sidebar

"The new theory identifies efficiency as a new justification for adopting some form of national health insurance."

Footnote

NOTES
1. M.V. Pauly, "The Economies of Moral Hazard: Comment," American Economie Review 58, no. 3 (1968): 531-537.
2. Centers for Medicare and Medicaid Services, "Table 1: Personal Health Care Expenditures, by Source of Funds: Selected Calendar Years 1960-2000," www.cms.gov/review/supp/2001/tablel.pdf (19 July 2004).
3. Pauly, "The Economics of Moral Hazard."
4. M.V. Pauly, "More on Moral Hazard," Journal of Health Economics 2, no. 1 (1983): 83.
5. J.A. Nyman, The Theory of Demand for Health Insurance (Stanford, Calif.: Stanford University Press, 2003).
6. J.A. Nyman, "The Value of Health Insurance: The Access Motive," Journal of Health Economics 18, no. 2 (1999): 141-152.
7. M.S. Feldstein, "The Welfare Loss of Excess Health Insurance," Journal of Political Economy 81, no. 2 (1973): 251-280.
8. W.G. Manning and M.S. Marquis, "Health Insurance: The Tradeoff between Risk Pooling and Moral Hazard," Journal of Health Economics 15, no. 5 (1996): 609-640.
9. Ibid.
10. G.M. Arnett, ed., Empowering Health Care Consumers through a Tax Reform (Ann Arbor: University of Michigan Press, 1999), 229-250.
11. See, for example, M. Crew, "Coinsurance and the Welfare Economics of Medical Care," American Economic Review 59, no. 5 (1969): 906-908; and M.V. Pauly, "When Does Curbing Health Costs Really Help the Economy?" Health Affairs 14, no. 2 (1995): 68-82.

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