

- How Insurers' Bargaining Power Affects Drug Prices in Medicare Part D
- Improving Health Insurance in Developing Countries
- Is a Poorly Functioning Health Care System to Blame for Low Life Expectancy in the U.S.?

ALSO: Short Abstracts of Recent NBER Working Papers — see page 5

NBER NATIONAL BUREAU OF ECONOMIC RESEARCH

BULLETIN ON AGING AND HEALTH

How Insurers' Bargaining Power Affects Drug Prices in Medicare Part D

The Medicare Modernization Act of 2003 expanded Medicare to include a prescription drug benefit, known as Medicare Part D. One of the most controversial features of the law is that it tasked private insurers with negotiating drug prices with retail pharmacies and drug manufacturers, rather than having Medicare negotiate a single price on behalf of all beneficiaries as some legislators would have preferred.

In “**Insurer Bargaining and Negotiated Drug Prices in Medicare Part D**” (NBER Working Paper 15330), researchers **Darius Lakdawalla** and **Wesley Yin** explore whether greater concentration among private insurers offering Part D plans allows them to obtain lower prices for their members.

This is an interesting twist on the usual situation. Increasing the market power of a firm is normally viewed as undesirable, as it may allow the insurer to charge their members a higher price. But in this case, private insurers may use their ability to deny pharmacies or drug manufacturers access to their members to extract some of the profits normally earned by these companies and may pass these on to members in the form of lower premiums. Under this scenario, greater market power may be good for consumers—the more enrollees an insurer has, the more bargaining power they have with pharmacies and drug manufacturers—so long as the market does not get so concentrated that insurers are able to charge consumers a large mark-up over their costs.

From a policy perspective, this mech-

anism creates spillover effects of Part D. Insurers that experience Part D-related increases in enrollment may negotiate lower drug prices, which extend to both their Part D plan enrollees and their population of non-Part D commercial enrollees. The sheer number of non-Part D enrollees in the marketplace magnifies the importance of these spillovers, compared to the direct effect of the program on its own enrollees.

The authors use pharmacy claims data from a large national retail pharmacy in their analysis. The data set includes the drug prices negotiated between the pharmacy and every insurer with which it contracts. The claims data covers all prescriptions filled between September 2004 and April 2007 for a 5 percent sample of the pharmacy's patients. Medicare Part D was implemented on January 1, 2006, in the middle of the sample period.

The authors' basic empirical strategy is to examine whether those insurers who experienced larger increases in enrollment following the implementation of Part D also had larger decreases in the prices they paid to pharmacies. This specification controls for any characteristics of the drug, insurer, or geographic market in which the insurer operates.

Turning to the results, the authors find that insurers that experience larger enrollment increases due to Part D implementation negotiate lower drug prices with pharmacies. Specifically, enrolling 100,000 additional members is associated with a 2.5 percent decrease in drug prices and a 5 percent decrease in

You can sign up to receive new Bulletin issues and can access current and past issues electronically, at no cost, by going to: <http://www.nber.org/aginghealth>

The NBER Bulletin on Aging and Health summarizes selected Working Papers recently produced as part of the Bureau's program of research in aging and health economics. The Bulletin is intended to make preliminary research results available to economists and others for informational purposes and to stimulate discussion of Working Papers before their final publication. The Bulletin is produced by David Wise, Area Director of Health and Aging Programs, and Courtney Coile, Bulletin Editor. To subscribe to the Bulletin, please send a message to: abb@nber.org.

pharmacy profits earned on prescriptions filled by enrollees of that insurer.

Insurers also negotiate directly with drug manufacturers, as manufacturers may offer rebates in exchange for including their drugs in the insurer's formulary (set of covered drugs) or placing them on a more desirable “tier” (assigning them a lower copayment). The authors do not directly observe drug manufacturers' prices and profits. However, economic theory indicates that when an insurer obtains greater bargaining power, the profits and markups of both pharmacies and drug manufacturers will move in the same direction. Thus their estimates of the effect of enrollment on pharmacies represent a lower bound on the effect of enrollment on total drug costs.

Next the authors explore whether their results differ by type of drug. They find that for both generic drugs and

branded drugs with therapeutic substitutes, enrollment increases lead to larger declines in prices and profits—a 7 to 9 percent drop in profits, for example, as compared to a 5 percent average drop in profits from all drugs. However, the effect on non-competitively supplied branded drugs, which account for roughly half of all drug expenditures in the U.S., is close to zero. These results suggest that insurers use their increased bargaining power to extract rents from pharmacies for drugs that are supplied competitively, but have little ability to leverage additional enroll-

ments into lower prices for drugs with few substitutes.

When an insurer negotiates lower prices with a pharmacy as a result of additional Part D enrollees, the lower prices may spillover to all of their members, including the population of non-Part D commercial enrollees. Indeed, the authors find that a Part D enrollment increase of 100,000 reduces prices by 2 percent for non Part D members. The authors suggest that these external effects have the potential to affect many outside the Part D program. Given the enor-

mous size of the commercial enrollment population, the external effects may rival the direct benefits of Part D to the population of now-insured seniors who lacked drug coverage prior to Part D. They note that if the government were to negotiate drug prices for all Medicare beneficiaries, there would be no such external benefit to younger consumers or to seniors enrolled in commercial plans.

The authors acknowledge financial support from the National Institute on Aging and the Robert Wood Johnson Foundation.

Improving Health Insurance in Developing Countries

While most people in developed countries have health insurance, insurance coverage is much less widespread in the developing world. Yet people in rich and poor countries alike benefit from the protection insurance provides against the economic risk posed by a serious illness. Expanding health insurance is a key priority for policy makers in much of the developing world.

The environment for health insurance in developing countries differs from that in developed countries in several ways. Standard economic theory suggests that insurance leads people to use too much health care because they don't face the full price of care. But in developing countries, certain preventative services should be subsidized because they help stop the spread of infectious disease or may be under-used because of credit constraints. Also, it may be particularly important to design payment schemes that encourage health care providers to provide efficient levels of preventive health care.

In “**High-Powered Incentives in Developing Country Health Insurance: Evidence from Colombia’s Regimen Subsidiado**” (NBER Working Paper 15456), researchers **Grant Miller**, **Diana Pinto**, and **Marcos Vera-Hernández** study the first major developing country effort to expand insurance in a way that addresses these unique features of the market.

Introduced in 1993, Colombia’s Regimen Subsidiado (SR) is a public-

ly-financed health insurance program for the poor. The SR was designed to be a “managed competition” insurance scheme—beneficiaries receive full public subsidies to purchase insurance from one of multiple health insurance plans. On the demand side, co-insurance rates for curative services are lower for SR beneficiaries and they receive free preventive services (as non-beneficiaries do).

On the supply side, primary care providers are paid a fixed amount per enrollee (“capitation”), a system that encourages them to promote preventative care as a means of reducing total primary care expenditures. For specialty care, providers are reimbursed on a fee-for-service basis, but insurers can deny coverage (“utilization review”), allowing them to limit wasteful care.

The authors use a regression discontinuity design to study the effects of this new program on health spending, use of specific health services, and health outcomes. Eligibility is based on a household poverty index that incorporates items such as educational attainment, housing material, and ownership of durable goods—households below a threshold level on the index are eligible for the SR, while households above are not. In the absence of this program, these outcomes should increase in a smooth, continuous manner with the poverty index. Sharp, discontinuous changes in outcomes at the eligibility threshold would therefore be compelling evidence that they are linked to the SR.

Turning to the results, the authors first examine the effect of insurance coverage on out-of-pocket health spending. They find that SR eligibility is associated with reductions in out-of-pocket spending, especially the very high levels of spending households might experience when battling a serious illness. This suggests that the SR provides important risk protection.

Next, the authors examine the effect of the SR on the use of preventative health services and on health outcomes related to the use of those services. They find that the SR is associated with substantial increases in the use of preventative services—for example, there is a 50 percent increase in the probability that an adult has had a preventative physician visit in the past year, while children have about twice as many growth-monitoring and well-care visits. This increase is associated with measurable health improvement as well—children have 1.3 fewer days absent from usual activities due to illness in the past month and a 62 percent decrease in the incidence of cough, fever, or diarrhea in the past two weeks. In Colombia, preventative services are generally free for people regardless of their insurance status, so these changes in utilization and outcomes presumably reflect the effect of the SR’s supply-side incentives.

Given the combination of demand- and supply-side incentives under the SR, theoretical predictions about changes in curative care are mixed. Empirically, SR

enrollment is associated with an increase in the probability that an adults have seen a doctor because of health problems in the last month, but there is no such relationship for children. The authors do not find distortions in private health behaviors (handwashing, breastfeeding, or maternal investments in fetal health, for example) among enrollees, nor do they find that SR enrollment “crowds out” other forms of health insurance.

In short, the authors find that the SR program has successfully protected poor Colombians against financial risk, while

also increasing the use of key preventative services that provide important health benefits to patients and may also confer benefits on society at large. The increased utilization of preventative health services can reasonably be attributed to changes in provider incentives.

The authors suggest that “strengthening supply-side incentives for the provision of key preventative services... may be a potent alternative (or perhaps an effective complement) to common demand-side approaches embodied in conditional cash transfer programs.” They conclude by

observing that “the full welfare-improving potential of high-powered incentives in health insurance has yet to be fully realized,” as certain political concessions in the creation of the SR “have presumably limited the ability of health plans to pay providers in ways that encourage better quality and lower cost services.”

The authors acknowledge funding from the National Institute of Child Health and Human Development (K01 HD053504), the Economic and Social Research Council (RES 167-25-0124), the Inter-American Development Bank, and the Stanford Center on the Demography and Economics of Health and Aging.

Is a Poorly Functioning Health Care System to Blame for Low Life Expectancy in the U.S.?

Life expectancy in the U.S. lags below that in other industrialized countries. This is particularly true for life expectancy at age 50, which is 3.3 years lower than in Japan and 1.5 years lower than in Australia, Canada, France, Italy, Iceland, Spain, and Switzerland. The U.S. also spends more on health care than other countries—16% of GDP in 2007, or as President Obama recently noted, “almost fifty percent more per person than the next most costly nation.”

The coincidence of these two facts has led some policy makers and health analysts to wonder if a highly inefficient U.S. health care system is to blame for poor health outcomes. This is the question examined by researchers **Samuel Preston** and **Jessica Ho** in their recent working paper, “**Low Life Expectancy in the United States: Is the Health Care System at Fault?**” (NBER Working Paper 15213).

One reason to be cautious in drawing a causal inference from the coincidence of high spending and poor health outcomes is that health outcomes do not depend solely on what transpires within the health care system. Personal health behaviors such as diet, exercise, smoking, and compliance with medical protocols play a critical role.

The authors focus on two diseases—cancer and cardiovascular disease—that jointly account for over 60

percent of U.S. deaths after the age of 45. Focusing on specific diseases rather than aggregate mortality from all causes may make it easier to distinguish the role of the health care system in health outcomes from that of health behaviors and other factors. It is also useful to focus on treatment and outcomes for those with the disease, rather than disease incidence rates, since health behaviors are likely to play a bigger role in incidence.

The authors begin by looking at cardiovascular disease. The share of those with heart disease that receive medication is higher in the U.S. than in Europe (61 percent vs. 55 percent). For those with high cholesterol the US advantage is 88 percent vs. 62 percent. The share of individuals whose high blood pressure is successfully controlled with medication is 66 percent in the U.S., versus 25 to 49 percent in other countries.

The authors also examine treatment for a heart attack or stroke and survival rates following these acute events. The use of aggressive surgical treatments following a heart attack or strokes—such as angioplasty, coronary bypass, or surgical removal of plaque inside the carotid artery—is more common in the U.S. than in other countries. Evidence suggests that the use of these aggressive treatments significantly boosts the patient’s survival prospects.

The authors begin their discussion of cancer by examining cancer screening.

Compared to European countries, the U.S. has higher screening rates for many cancers, including prostate, breast, cervical, and colorectal. Absent other differences in health behaviors or health care systems, higher screening rates would be expected to lead to a higher prevalence of cancer diagnoses. Indeed, 12.2 percent of Americans over age 50 report ever having been diagnosed with cancer, versus 5.4 percent of citizens in ten European countries. More screening can lead to cancers being caught at an earlier stage, when they are easier to treat. Consistent with this, the average stage at diagnosis is lower in the U.S. and 5-year survival rates are higher.

The authors offer a more in-depth analysis of prostate and breast cancer, two cancers that account for a large share of cancer deaths and (in the case of prostate cancer) are relatively unrelated to behavioral factors. The main screening test for prostate cancer is the Prostate Specific Antigen (PSA) test. The test is controversial, as it can produce false positives, and prostate cancer treatment can have unpleasant side effects. As PSA screening became more common in the U.S., the reported incidence of prostate cancer doubled, but the share of tumors that had spread at time of diagnosis fell from 25 percent to 4 percent. This is important, as early stage prostate cancer is highly treatable.

As with cardiovascular disease, the

U.S. is more aggressive in treating prostate cancer than are other countries, using radical prostatectomy or radiation relatively more often and “watchful waiting” less often. These more aggressive approaches have been shown in clinical trials to lower disease progression and mortality. The U.S. has experienced significantly faster declines in prostate cancer mortality since the 1990s than have other countries, and studies have attributed most of the decline to expanded PSA testing and improvements in treatment.

Turning to their analysis of breast cancer, the authors document that the U.S. has historically administered mammograms, the most important diagnostic tool for breast cancer, more widely than have other countries, though the gap has narrowed in recent years. Mammography for women ages 50 to 69 has been shown to lower breast cancer mortality, and consistent with its higher use in the US,

breast cancer is diagnosed at an earlier stage in the U.S. than in Europe.

In terms of treatment, the use of breast conserving surgery, multi-agent chemotherapy, and the drug tamoxifen have been shown to reduce mortality. While international data on the use of these treatments is limited, it is clear that their use in the U.S. has grown over time. Breast cancer survival rates are better in the U.S. than Europe, a difference thought to result from earlier diagnosis. The U.S. has also experienced a significantly faster decline in breast cancer mortality over time than have other countries.

The authors conclude that mortality reductions from prostate and breast cancer have been exceptionally rapid in the U.S., relative to peer countries, a finding they attribute to wider screening and more aggressive treatment. They note “it appears that the U.S. medical care system has worked effectively to reduce mortality

from these important causes of death.”

They caution “it is possible that the U.S. health care system performs poorly in preventing disease in the first place,” although this is difficult to study because of lack of good data on incidence and because health behaviors may play a bigger role in incidence than treatment and mortality post-diagnosis. They also caution that in spite of their results, there could be great inefficiencies in the U.S. health care system, resulting from misallocation of physician and patient incentives, defensive medicine, and the like. But to the question “does a poor performance by the U.S. health care system account for the low international ranking of longevity in the U.S.?” the authors answer no.

The authors gratefully acknowledge financial support from Social Security Administration through a grant to the National Bureau of Economic Research as part of the SSA Retirement Research Consortium.

NBER Profile: *Alan Gustman*

Alan Gustman is a Research Associate of the NBER’s programs in aging and labor studies. Gustman is the Loren M. Berry Professor of Economics at Dartmouth College, where he teaches courses in microeconomic and labor economics. Professor Gustman holds a Ph.D. in Economics from the University of Michigan and a B.A. from the City College of New York.

Professor Gustman serves on the Steering Committee of the Health and Retirement Study (HRS), a longitudinal survey of older Americans sponsored by the National Institute on Aging. From 1996 through 2008, he was Co-Principal Investigator for the HRS. Professor Gustman also serves on the Executive Committee of the University of Michigan Retirement Research Center. He was a TIAA-CREF Institute Fellow from 2005 through 2007 and an adjunct staff member at the Rand Corporation from 2004 through 2009. He has served on numerous expert panels, including for the Social Security Administration, Bureau of Labor Statistics, and General Accounting Office.

Gustman is a member of the National Academy of Social Insurance

and is the recipient of numerous research grants, including from the National Institutes of Health, Social Security Administration, and U.S. Department of Labor. In addition to publishing many scholarly articles, he has co-written two books on pensions. The most recent of these, which is co-authored by Thomas Steinmeier and Nahid Tabatabai and will be published by the Harvard University Press in May, explores a wide variety of information about pensions from HRS respondents and employer plan descriptions. The underlying data for this volume will be made available on the HRS website to facilitate and encourage further use of HRS pension data by the user community.

Some of his latest research with Steinmeier and Tabatabai examines how the recent stock market decline has affected the wealth and retirement behavior of those nearing retirement age and explores why actuarially fair retirement policies nevertheless have significant effects on retirement. Most recently, Gustman and Steinmeier have extended their structural models of retirement decision-making to incorporate innovations from recent models



of individual retirement decision-making into family-based structural models. They are currently modifying their models to include the effects of imperfect information, behavioral modifications such as hyperbolic discounting, and detailed representation of the role of health.

In his spare time, Gustman and his wife Janice enjoy playing with their three grandchildren.

Abstracts of Selected Recent NBER Working Papers

WP 15350

Annamaria Lusardi, Olivia S. Mitchell
**How Ordinary Consumers Make
Complex Economic Decisions: Financial
Literacy and Retirement Readiness**

This paper reports on several self-assessed and objective measures of financial literacy newly added to the American Life Panel (ALP), and it links these performance measures to efforts consumers make to plan for retirement. We evaluate the causal relationship between financial literacy and retirement planning by exploiting information about respondents' financial knowledge acquired in school—before entering the labor market and certainly before starting to plan for retirement. Results show that those with more advanced financial knowledge are those more likely to be retirement-ready.

WP 15392

**Florian Heiss, Daniel McFadden,
Joachim Winter**
**Regulation of Private Health Insurance
Markets: Lessons from Enrollment, Plan
Type Choice, and Adverse Selection in
Medicare Part D**

We study the Medicare Part D prescription drug insurance program as a bellwether for designs of private, non-mandatory health insurance markets that control adverse selection and assure adequate access and coverage. We model Part D enrollment and plan choice assuming a discrete dynamic decision process that maximizes life-cycle expected utility, and perform counterfactual policy simulations of the effect of market design on participation and plan viability. Our model correctly predicts high Part D enrollment rates among the currently healthy, but also strong adverse selection in choice of level of coverage. We analyze alternative designs that preserve plan variety.

WP 15410

**Jean Marie Abraham, Thomas DeLeira,
Anne Beeson Royalty**

**Moral Hazard Matters: Measuring
Relative Rates of Underinsurance Using
Threshold Measures**

This paper illustrates the impact of moral hazard for estimating relative rates of underinsurance and presents an adjustment method to correct for this source of bias. Individuals or households are often classified as underinsured if out-of-pocket spending on medical care relative to income exceeds some threshold. We show that, without adjustment, this common threshold measure of underinsurance will underestimate the number with low levels of insurance coverage due to moral hazard. We propose an adjustment method and apply it to the specific case of estimating the difference in rates of underinsurance among small- versus large-firm workers with full-year, employer-sponsored insurance. Using data from the 2005 Medical Expenditure Panel Survey, we find that after applying the adjustment, the underinsurance rate of small-firm households increases by approximately 20% with the adjustment for moral hazard and the difference in underinsurance rates between large firm and small firm households widens substantially. Adjusting for moral hazard makes a sizeable difference in the estimated prevalence of underinsurance using a threshold measure.

WP 15412

**Daniel Carvell, Janet Currie, W. Bentley
MacLeod**
**Accidental Death and the Rule of Joint
and Several Liability**

Reforms to the Joint and Several Liability rule (JSL) are one of the most common tort reforms and have been implemented by most US states. JSL allows plaintiffs to claim full recovery from one of the defendants, even if that defendant is only partially responsible for the tort. We develop a theoretical model that shows that the efficiency of the JSL rule depends critically on both whether the care taken by potential tortfeasors is observed, and on how the actions of the potential tortfeasors interact to cause the harm. We then provide

evidence that reforms of the JSL rule have been accompanied by reductions in the accidental death rate in the U. S. This result is consistent with the hypothesis that the reform of JSL causes potential tortfeasors to take more care.

WP 15413

Janet Currie, Reed Walker
**Traffic Congestion and Infant Health:
Evidence from E-ZPass**

This paper provides evidence of the significant negative health externalities of traffic congestion. We exploit the introduction of electronic toll collection, or E-ZPass, which greatly reduced traffic congestion and emissions from motor vehicles in the vicinity of highway toll plazas. Specifically, we compare infants born to mothers living near toll plazas to infants born to mothers living near busy roadways but away from toll plazas with the idea that mothers living away from toll plazas did not experience significant reductions in local traffic congestion. We also examine differences in the health of infants born to the same mother, but who differ in terms of whether or not they were “exposed” to E-ZPass. We find that reductions in traffic congestion generated by E-ZPass reduced the incidence of prematurity and low birth weight among mothers within 2km of a toll plaza by 10.8% and 11.8% respectively. Estimates from mother fixed effects models are very similar. There were no immediate changes in the characteristics of mothers or in housing prices in the vicinity of toll plazas that could explain these changes, and the results are robust to many changes in specification. The results suggest that traffic congestion is a significant contributor to poor health in affected infants. Estimates of the costs of traffic congestion should account for these important health externalities.

WP 15434

Leemore Dafny, Mark Duggan, Subramaniam Ramnarayanan
**Paying a Premium on Your Premium?
Consolidation in the U.S. Health**

Announcing Free CD of NBER Working Papers

We are pleased to offer NBER Working Papers on NIA-funded research in aging and health free on CD. The CD includes more than 175 papers from 2002–2008, along with Content Lists arranged by title, by author, and by date. To request a free copy, follow the link at <http://www.nber.org/programs/ag/> or contact Janet Stein at (617) 588-0366 or jbstein@nber.org.

A complete list of all NBER Working Papers, with searchable abstracts, and the full texts of Working Papers issued since November 1973 are available at <http://www.nber.org/papers.html> to anyone located at a university or other organization that subscribes to the Working Paper series.

Insurance Industry

We examine whether and to what extent consolidation in the U.S. health insurance industry is leading to higher employer-sponsored insurance premiums. We make use of a proprietary, panel dataset of employer-sponsored healthplans enrolling over 10 million Americans annually between 1998 and 2006 to explore the relationship between premium growth and changes in market concentration. We exploit the differential impact of a large national merger of two insurance firms across local markets to estimate the causal effect of concentration on market-level premiums. We estimate real premiums increased by 2 percentage points (in a typical market) due to the rise in concentration during our study period. We also find evidence that consolidation facilitates the exercise of monopsonistic power vis a vis physicians, whose absolute employment and relative earnings decline in its wake.

WP 15435

Alan L. Gustman, Thomas L. Steinmeier, Nahid Tabatabai

What the Stock Market Decline Means for the Financial Security and Retirement Choices of the Near-Retirement Population

This paper investigates the effect of the current recession on the near-retirement age population. Data from the Health and Retirement Study suggest that those approaching retirement age (early boomers ages 53 to 58 in 2006) have only 15.2 percent of their wealth in stocks, held directly or in defined contribution plans or IRAs. Their vulnerability to a stock market decline is limited by the high value of their Social Security wealth, which represents over a quarter of the total household wealth of the early boomers. In addition, their defined contribution plans remain immature, so their defined benefit plans represent sixty five percent of their pension wealth. Simulations

with a structural retirement model suggest the stock market decline will lead the early boomers to postpone their retirement by only 1.5 months on average. Health and Retirement Study data also show that those approaching retirement are not likely to be greatly or immediately affected by the decline in housing prices. We end with a discussion of important difficulties facing those who would use labor market policies to increase the employment of older workers.

WP 15439

Robert Kaestner, Benjamin Yarnoff Long Term Effects of Minimum Legal Drinking Age Laws on Adult Alcohol Use and Driving Fatalities

We examine whether adult alcohol consumption and traffic fatalities are associated with the legal drinking environment when a person was between the ages of 18 and 20. We find that moving from an environment in which a person was never allowed to drink legally to one in which a person could always drink legally was associated with a 20 to 30 percent increase in alcohol consumption and a ten percent increase in fatal accidents for adult males. There were no statistically significant or practically important associations between the legal drinking environment when young and adult female alcohol consumption and driving fatalities.

WP 15468

Margaret Kyle, Anita McGahan Investments in Pharmaceuticals Before and After TRIPS

We examine the relationship between patent protection for pharmaceuticals and investment in development of new drugs. Patent protection has increased around the world as a consequence of the TRIPS Agreement, which specifies minimum levels of intellectual property protection for members of the World Trade Organization.

It is generally argued that patents are critical for pharmaceutical research efforts, and so greater patent protection in developing and least-developed countries might result in greater effort by pharmaceutical firms to develop drugs that are especially needed in those countries. Since patents also have the potential to reduce access to treatments through higher prices, it is imperative to assess whether the benefits of increased incentives have materialized in research on diseases that particularly affect the poor. We find that patent protection is associated with increases in research and development (R&D) effort when adopted in high income countries. However, the introduction of patents in developing countries has not been followed by greater investment. Particularly for diseases that primarily affect the poorest countries, our results suggest that alternative mechanisms for inducing R&D may be more appropriate than patents.

WP 15469

Annamaria Lusardi, Olivia S. Mitchell, Vilsa Curto

Financial Literacy and Financial Sophistication Among Older Americans

This paper analyzes new data on financial literacy and financial sophistication from the 2008 Health and Retirement Study. We show that financial literacy is lacking among older individuals and for the first time explore additional questions on financial sophistication which proves even scarcer. For this sample of older respondents over the age of 55, we find that people lack even a rudimentary understanding of stock and bond prices, risk diversification, portfolio choice, and investment fees. In view of the fact that individuals are increasingly required to take on responsibility for their own retirement security, this lack of knowledge has serious implications.

NBER

The National Bureau of Economic Research is a private nonprofit research organization founded in 1920 and devoted to objective quantitative analysis of the American economy. Its officers are:

James M. Poterba — President and Chief Executive Officer

John S. Clarkeson — Chairman

Kathleen B. Cooper — Vice Chairman

The NBER Bulletin on Aging and Health summarizes selected Working Papers recently produced as part of the Bureau's program of research. Working Papers are intended to make preliminary research results available to economists in the hope of encouraging discussion and suggestions for revision.

The Bulletin is issued for similar informational purposes and to stimulate discussion of Working Papers before their final publication. Neither the Working Papers nor the Bulletin has been reviewed

by the Board of Directors of the NBER.

The Bulletin is not copyrighted and may be reproduced freely with appropriate attribution of source. Please provide the NBER's Public Information Department with copies of anything reproduced.

Individual copies of the NBER Working Papers summarized here (and others) are available free of charge to Corporate Associates. For all others, there is a charge of \$5.00 per downloaded paper or \$10.00 per hard copy paper. Outside of the United States, add \$10.00 per order for postage and handling. Advance payment is required on all orders. To order, call the Publications Department at (617) 868-3900 or visit www.nber.org/papers. Please have the Working Paper Number(s) ready.

Subscriptions to the full NBER Working Paper

series include all 700 or more papers published each year. Subscriptions are free to Corporate Associates. For others within the United States, the standard rate for a full subscription is \$7000; for academic libraries and faculty members, \$5735. Higher rates apply for foreign orders. The on-line standard rate for a full subscription is \$1800 and the on-line academic rate is \$750.

Partial Working Paper subscriptions, delineated by program, are also available. For further information, see our Web site, or please write: National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398.

Requests for Bulletin subscriptions, changes of address, and cancellations should be sent to Bulletin, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398. Please include the current mailing label.