

## INTERVIEW

### Interview with Dr. Michael Grossman, City University of New York Graduate Center, National Bureau of Economic Research

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简介：迈克·格罗斯曼教授是美国城市大学研究中心经济学博士项目的杰出教授。他也是现任美国国家经济研究中心卫生经济的主任。格罗斯曼教授于1970年从哥伦比亚大学取得经济学博士学位。他撰写了五本书籍，发表了66余篇学术论文，是35篇专业书刊章节的作者。他的研究领域集中在建立经济模型分析美国成年，儿童以及婴幼儿的健康决定因素；以及运用经济研究方法去分析青少年的烟草和酒精的使用；理性上瘾理论的实证检验；儿童医疗护理的需求；门诊医疗在社区服务中心的生成以及成本；免税医疗机构债券利率的决定因素。他近期完成的研究主要集中在烟草消费税对于孕妇吸烟行为的影响；青少年毒品使用与危险性行为之间的关联；肥胖现象的经济研究；管理式医疗对于搭桥和血管成型手术价格的影响；父母教育和台湾国家医疗保险改革对于儿童健康状况的影响。他是家庭经济学综述的主编，卫生经济，人力资源刊物的副主编，卫生经济前沿，健康服务研究的共同主编。他也是美国国家科学院成员，他曾经担任东部经济学会，全美卫生经济学会的主席。2008年，他被全美卫生经济学会授予维克多福克斯终身成就奖以表彰他在卫生经济研究中的卓越贡献。他也是南开大学格罗斯曼卫生经济与医疗保险研究中心的名誉主任。

*Bio:* Michael Grossman is Distinguished Professor of Economics in the Ph.D. Program in Economics at The City University of New York Graduate Center and Health Economics Program Director at the National Bureau of Economic Research. He received his Ph.D. in Economics from Columbia University in 1970.

He is the author of five books, sixty-six journal articles, and thirty-five book chapters. His research has focused on economic models of the determinants of adult, child, and infant health in the U.S.; economic approaches to cigarette smoking and alcohol use by teenagers and young adults; empirical applications of rational addiction theories; the demand for pediatric care; the production and cost of ambulatory medical care in community health centers; and the determinants of interest rates on tax-exempt hospital bonds. His recently studies deal with the effects of excise taxes on cigarette smoking by pregnant women; the relationship between substance use and risky sexual behavior by teenagers; the economics of obesity; the effects of managed care on hospital prices for bypass surgery and for angioplasty; and the effects of parents' schooling and the introduction of national health insurance on child health in Taiwan.

He is a co-editor of the Review of Economics of the Household, an associate editor of the Journal of Health Economics, an associated editor of the Journal of Human Capital, a series co-editor of Advances in Health Economics and Health Services Research, a member of the Institute of Medicine of the National Academy of Sciences, Past President of the Eastern Economic Association, and Past President of the American Society of Health Economists. He is the inaugural recipient of the Victor R. Fuchs Award for lifetime contributions to the field of health economics, presented by the American Society of Health Economists in 2008. He also is Honorary Director of the Nankai-Grossman Center for Health Economics and Medical Insurance at Nankai University in Tianjin, People's Republic of China.

## 1. The Field of Health Economics

Jing: Paul Samuelson once remarked that health economics and environmental economics might be the areas where major breakthroughs occur. Do you think that the moment has come for health economics?

前诺贝尔经济学奖得主保罗·萨缪尔森曾经说过，卫生经济学和环境经济学可能经历重大突破。你觉得对于卫生经济学，这个时刻来临了吗？

*Dr. Grossman:* In answering this question, I think it is useful to refer to Joseph Newhouse's characterization of the literature in health economics. Joe is the founding editor of the *Journal of Health Economics*. In his introduction to *Moral Hazard in Health Insurance*, by Amy Finkelstein with Kenneth J. Arrow, Jonathan Gruber, Joseph P. Newhouse, and Joseph E. Stiglitz (New York: Columbia University Press, 2014), he writes: "Each academic year, I teach the first session of a one semester course in health economics for second-year graduate students. The reading for that session consists of two seminal works in health economics: Kenneth Arrow's 'Uncertainty and the Welfare Economics of Medical Care' and Michael Grossman's *The Demand for Health: A Theoretical and Empirical Investigation* (Arrow 1963; Grossman 1972). These two works have resulted in two largely non-overlapping streams of the by-now vast health economics literature. Arrow's article led...to a literature on the functioning of markets for medical services and health insurance. Grossman's book led to a literature on determinants of the health status of the population, only one determinant of which...is medical care (page 1)." The citations in Joe's quotation are Arrow's paper in the *American Economic Review* 53 (5), 941-973 and my monograph *The Demand for Health: A Theoretical and Empirical Investigation* (Columbia University Press for the National Bureau of Economic Research).

在回答这个问题，我觉得可以参考约瑟夫·纽豪斯的卫生经济学描述。约瑟夫也是卫生经济学杂志的创始主编。在他和艾米·芬克尔斯坦与肯尼斯·约瑟夫·阿罗，乔纳森·格鲁伯，约瑟夫·P·纽豪斯和约瑟夫·斯蒂格利茨合著的《医疗保险道德风险》的前言里（纽约：哥伦比亚大学出版社，2014年）他写道，“每一学年，我都教研究生二年级学生卫生经济学课程的第一部分。主要是阅读肯尼斯·阿罗的“不确定性和医疗保健的福利经济学”和迈克·格罗斯曼的“健康需求：理论与实证研究”（阿罗 1963；格罗斯曼 1972年）这两部卫生经济学的经典巨作。这两部作品造就了现在卫生经济学文学的两个主要非重叠流派。阿罗的文章引领了市场结构对医疗服务和医疗保险的影响。格罗斯曼的书启发了对人口健康状态关键因子的研究，其中只有一个因子是医疗保健。有关约瑟夫的引述是阿罗发表在美国经济评论 53（5），941-973 的文章和我的专著“健康的需求：理论与实证研究”（哥伦比亚大学出版社，美国国家经济研究局）。

Clearly, I have focused on the second stream of health economics literature mentioned by Joe. Within that focus, I have paid a considerable amount of attention to the relationship between the amount of formal schooling an individual acquires and his or her own health and the health of his or her children. For two reasons, this is a crucial relationship. First, the determinants of health literature originates from the demand for health model. That model emphasizes that medical care is only one of many determinants of health. Therefore, it is natural to explore others. Second, the demand for health model views health as a form of human capital and therefore a determinant of earnings. Hence, it is natural to allow for and explore complementarities between health capital and other forms of human capital, the most important of which is knowledge capital (schooling).

很明显，我的研究集中在约瑟夫提到的第二个卫生经济流派。我倾注了大量的精力在研究一个人教育程度和其个人以及家庭成员健康之间的联系。这是个重要的关系。因为第一，

健康研究的决定因素来源于健康需求模型的。这种模式强调医疗保健只是决定健康的许多因素之一。所以研究其他因素自然也非常重要。第二，健康需求模型认为健康是人力资本的一种形式，因此它也是收益的决定因素。所以，允许探索其他介于健康资本和其他形式的人力资本间的互补因素很重要，这其中最重要的是知识资本（教育）。

There is a vast literature in the social sciences that documents a positive correlation between schooling and a variety of measures of good health. The relationship can be traced to causality in both directions as well as to the effect of omitted third variables. Starting in the late 1980s, many health economists have investigated whether more schooling has a causal impact on health and behaviors that promote better health. Interest in this issue has increased at an exponential rate since that time. In August 2014, I gave a keynote address at the thirty-fifth annual conference of the Nordic Health Economics Study Group entitled “The Relationship between Health and Schooling: What’s New?” I found and reviewed forty-one papers on that topic that had appeared in the past five years (2010-2014). And that was before the journal *Social Science & Medicine* devoted an entire issue to the question of whether educational attainment causes adult health earlier in 2015 (see volume 127, February 2015). The issue contained twenty original research papers, only two of which I mentioned in my keynote address. It was sponsored by the Office of Behavioral and Social Sciences Research at the U.S. National Institutes of Health. Clearly, that underscores the importance of the relationship between health and schooling from the perspectives of social science, public health, and public policy.

社会科学中有大量文献记录教育和良好健康之间的正相关性。这种关系可以追溯到双向因果关系和省略第三变量的影响。始于 1980 年末期，许多健康经济学家调查了学校教育是否对健康状态和促进健康的行为产生决定影响。自此对于这个问题的兴趣 飞速增长。在 2014 年 8 月，我在第三十五届年会北欧卫生经济研究年会给了一个主题演讲。标题是“健康与学校教育之间的关系？新的发现”。我回顾了在这个领域的过去五年的 41 篇论文（2010-2014）。在此之后，《社会科学与医学杂志》发表了一个关于这个问题的专刊（见卷 127，2015 年 2 月）。这个专刊包含 20 篇原创研究论文中，其中只有两篇在我的主题演讲中提到。它是由美国卫生研究院行为与社会科学研究办公室赞助的。显然，这从社会科学，公共卫生和公共政策的角度说明了研究健康和教育之间关系的重要性。

Despite the large body of recent research to which I have referred, there is no consensus as to whether more schooling does in fact lead to better health and beneficial health behaviors. Will a definitive answer to this question emerge in the not-too-distant future? If so, will it be viewed as a major breakthrough, one that is worthy of the Nobel Prize in Economics? I’m not sure. My sense is that the issue may never be resolved because ultimately it may depend on context, time, and place. For example, is one focusing on adult health, child health, or infant health? Is one dealing with the effect of own schooling on own health or on the effect of parents’ schooling on the health of their offspring? Is one concerned with health in developed countries or in developing countries? Is the period very recent or somewhat distant? What techniques are being employed to establish causality?

尽管我提到了有大量的相关研究，但对于更多的教育是否确实引领了更好的健康和有益健康的行为却还没有达成共识。在不太遥远的将来会有更明确的答案吗？如果有，它会否被看作是一个重大的突破，甚至获得诺贝尔经济学奖？我不知道。我个人的感觉是这个问题可能永远不会得到解决，因为它最终可能取决于环境，时间和地点。比方说，是专注于成

人保健，儿童保健，或婴儿健康？还是关注个人学业对个人自己的健康还是父母的教育对他们的后代的健康效果的影响？是研究发达国家还是在发展中国家的健康状况？是近期的或有点悠久的？运用什么模型来建立因果关系？

While I cannot give a definitive answer to the questions I just raised, I do want to end on a positive note. In my 2000 paper entitled “The Human Capital Model” in Volume 1A of the *Handbook of Health Economics* edited by Anthony J. Culyer and Joseph P. Newhouse and published by Elsevier Science, I wrote: “Currently, we still lack comprehensive theoretical models in which the stocks of health and knowledge are determined simultaneously.... The rich empirical literature treating interactions between schooling and health underscores the potential payoff to this undertaking (p. 351).” I am aware of several ongoing efforts along these lines. If they are successful, I would view them as major breakthroughs.

虽然我不能对我提出的问题给出一个明确的答案，但我想用一个积极的回应来结束这个问题。我2000年的论文“人力资本模式”发表在卫生经济学的手册的卷1A。该本手册由Anthony·Culyer和Joseph P. Newhouse编辑，由Elsevier出版。我写道：“目前，我们还缺乏综合的理论模型同时估定健康状态和知识这两个因子。大量研究教育和健康之间的相互作用的文献强调了研究的潜在巨大贡献（第351）”。我留意到相关研究正在进行中。如果他们成功，我会视其为重大突破。

## 2. Mentorship

Jing: You once mentioned that you are interested in advising Ph.D. students and you do have a lot of Ph.D. students. Could you tell us why you enjoy supervising dissertations and what makes you a good advisor? Have you reached your magic number of students you want to advise in your profession? Do you feel sometimes it twists your arm as it is very time-consuming?

你曾经提到你很爱辅导博士生而且事实上你也有很多博士学生。你能告诉我们你为什么喜欢指导博士论文，是什么让你成为一个优秀的博士生导师？你是否已经达到了你想辅导的学生的数量？因为带学生非常耗时，你会不会觉得有时候带学生会影响你的其他工作职责？

*Dr. Grossman:* I have supervised 107 completed Ph.D. dissertations and have served as a member of an additional 170 completed dissertation committees as a second or third reader. People who know me know that I am a modest person who does not boast about his accomplishments. But I am very proud of my accomplishments as an advisor. My family aside, nothing gives me greater satisfaction than to see my former students achieve success in their professional and personal lives. Obviously, these are reasons why I enjoy engaging in this activity. In addition, I have found it to be a highly effective mechanism to develop relationships that lead to joint research projects and co-authorship. That is especially true since the City University of New York Graduate Center Ph.D. Program in Economics obtains most of its faculty from the senior (four-year) colleges within the university. In the forty-three years in which I have taught in the program, there have never been more than two central appointments (faculty who only teach at the Graduate Center) other than me. College-based faculty spend most of their time at their home institutions, which makes it difficult for central appointments to develop substantial working relationships with them. For most of my career at the Graduate Center, the other central appointments were in very different fields than health economics.

我指导 107 位博士生完成博士论文并且是另外 170 位博士论文答辩委员会的委员。认识我的人都知道，我是一个谦虚的人不吹嘘自己的成就。但作为一个博士生导师，我非常自豪自己的成绩。除了我的家庭，没有什么让我比看到我以前的学生实现他们的职业和个人生活的成功更大的满足。显然，这些都是为什么我享受带学生的原因。此外，我发现它也是一个寻找发展合作机会的好途径。在纽约城市大学研究生中心经济学博士项目中尤其如此，因为这个项目的大多数导师也是大学内部本科（4 年制）的老师。在我任教的 43 年里，除了我以外这里从未有超过两个的直接任命（只在研究生中心的老师）。学院为基础的教师花大部分时间都在自己所在的机构，这使得直接任命的教授很难与他们发展大量的工作关系。当我在研究生中心时，其他直接任命的教授都不在卫生经济领域。

I think that I am a good adviser because I read and comment on material that students give to me in a timely manner. I am never ashamed to say that I do not know the answer to a question that they ask me. If that situation arises, I reach out to colleagues who I think can help. In the past I have tried to share ideas for dissertations with students who are looking for topics, although at my age (I will be 73 in July) I may be running out of ideas. Given all the benefits I have derived from dissertation supervision, I have never viewed it as an unenjoyable time-consuming activity.

我认为我是一个不错的的导师，因为我会及时阅读评论并回复我学生交给我的文章。如果我的学生问了我不知道的问题，我从来不觉得惭愧地说，我不知道答案。如果这种情况出现的时候，我会联系可以帮助他们的相关同事。在过去，我曾经与正在寻找博士论文题目的学生分享自己的研究题目，虽然在我这个年龄（在 7 月我就 73 岁了）我的新的研究想法可能很有限了。鉴于所有我从论文指导当中所收获的益处，我从来没有把它看作一个麻烦又耗时的工作。

As I just mentioned, I will be 73 in July. I plan to teach for two more years and then stop. At that point I will be 75. I plan to continue as New York Office Director and Health Economics Program Director at the National Bureau of Economic Research. And as an emeritus professor at the City University of New York Graduate Center, I plan to continue to serve on dissertation committees.

正如我刚才所说，我即将 73 岁了。我打算再教了两年书就停止，到时我是 75 岁。我打算继续担任纽约办事处主任，国家经济研究局卫生经济学项目主任。而作为在纽约研究生中心城市大学的名誉教授，我打算继续担任论文答辩委员会。

### **3. Current Research Topics**

Jing: Would do you please describe a few of your current research projects, and why you chose to pursue them?

您可以介绍一些你目前的研究项目吗，以及你为什么你选择这些项目？

*Dr. Grossman:* At my age, I like to work on only one or two projects at a time. Given my interest in the causal effects of schooling on health and health behaviors, I have been working on a study that investigates a potential mechanism via which mother's schooling may influence child health. The mechanism at issue is fertility behavior. Large differences in fertility between women with high and low levels of education suggest that schooling may have a direct impact on knowledge and use of contraception. Mabel Andalón (University of Melbourne and IZA), Jenny Williams (University of Melbourne and IZA) investigate this issue using information on women in Mexico.

In order to identify the causal effect of schooling, we exploit temporal and geographic variation in the number of lower secondary schools built following the extension of compulsory education in Mexico from 6th to 9th grade in 1993. We show that raising females' schooling beyond 6th grade increases their knowledge of contraception during their reproductive years and increases their propensity to use contraception at sexual debut. This indicates that the impact of schooling on women's wellbeing extends beyond improved labor market outcomes and includes greater autonomy over their fertility.

在我这个年龄，我喜欢集中精力在一个或两个项目上。鉴于我对学校教育对健康和健康行为的因果效应很感兴趣，我有一个项目研究母亲的教育如何影响儿童健康的潜在机制。这个潜在机制是生育行为。教育水平不同的妇女存在生育行为的很大差异，这表明教育可能对于避孕的认知和使用有直接影响。梅布尔·安达伦（墨尔本大学和 IZA），珍妮·威廉姆斯（墨尔本大学和 IZA）使用墨西哥妇女的信息来调查这个问题。为了查明学校教育的因果影响，我们利用墨西哥在 1993 年义务教育从 6 年扩展到 9 年后初中学校数量在时间和地理变化。我们发现提高女性的教育增加了他们在育龄的避孕知识，并且提高他们在初次性行为使用避孕套的可能。这表明，学校教育对女性健康的影响超出了改善劳动力市场的成果，也使得女性在生育上有更多的自主权。

My second current project is a joint undertaking with Jason Hockenberry (Emory University and NBER), Shin-Yi Chou (Lehigh University and NBER), and Jesse Margolis (City University of New York Graduate Center). It deals with the role of behavior modification as a determinant of differences in outcomes between more and less invasive interventions for coronary artery disease (CAD). The study combines my interests in the determinants of unhealthy behaviors and the determinants of health outcomes. It is motivated by numerous medical studies have compared the effectiveness of two common procedures for coronary artery disease: Percutaneous Coronary Intervention (PCI) and Coronary Artery Bypass Graft (CABG). Most evidence indicates that CABG – the more invasive procedure – leads to superior long term outcomes for otherwise similar patients, though there is little consensus as to why. In this article, we propose a novel explanation: patient offsetting behavior. We hypothesize that patients who undergo the more invasive procedure, CABG, are more likely to improve their behavior – eating, exercise, smoking, and drinking – in a way that increases longevity. To test our hypothesis, we use Medicare records linked to the National Health Interview Survey to study one such behavior: smoking. We find that CABG patients are 12 percentage points more likely to quit smoking in the one-year period immediately surrounding their procedure than PCI patients, a result that is robust to numerous alternative specifications.

我的另外一个项目是与杰森·浩肯贝瑞（Emory 大学和 NBER），Shin-Yi Chou（Lehigh 大学和 NBER）和杰西·马戈利斯（纽约研究生中心城市大学）合作的。它涉及到行为矫正作为一个影响因素在不同程度微创治疗冠状动脉疾病（CAD）中的影响。该研究结合了我对不健康行为的决定因素和健康结果的决定因素的研究兴趣。项目灵感来自于大量的医学研究比较两种常用冠状动脉疾病治疗的有效性：经皮冠状动脉介入治疗（PCI）和冠状动脉旁路移植术（CABG）。大多数证据表明，冠状动脉搭桥术作为一种更侵入性的手术会有优异的长期成果，虽然现在还不清楚为什么。在这篇文章中，我们提出了一种新的解释：患者抵消行为。我们假设，经历更多的侵入性手术的患者更可能改善自己的行为。比如在饮食，运动，吸烟，喝酒的方式的改善，从而增加寿命。为了测试我们的假设，我们结合医保记录和国民健康访问调查来研究其中的一个行为：吸烟。我们发现冠状动脉搭桥术的病人在术后一年内的时间戒烟的可能性比 PCI 的患者高出 12 个百分点。这是一个运用不同的模型来检测都非常稳定的结果。