



Statement of  
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on

**Empowering Patients and Improving Public Health**

Energy and Commerce Subcommittee on Health

United States House of Representatives

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Mr. Chairman and members of the Subcommittee, I am Devon Herrick, Senior Fellow at the National Center for Policy Analysis, a nonprofit, nonpartisan public policy research organization dedicated to developing and promoting private alternatives to government regulation and control, solving problems by relying on the strength of the competitive, entrepreneurial private sector. I welcome the opportunity to share my views and look forward to your questions.

### **Traditional Role of Public Health**

Public health plays an important role in our overall health care system. Several significant achievements are directly attributable to public health. For instance, the response to the London cholera epidemics of the late 1800s is a well-known, classic example of public health. In that case, no single individual had an incentive to bear the full cost of repairing sewer lines that were leaking into the water supply because all the costs would be borne by the repairer, while the benefits would accrue to community at large. Thus, keeping community water supplies free from sewage contamination became a *public* health matter, as opposed to a *private* health matter.

Controlling the spread of infectious diseases is another typical example of public health. Because we know that the actions of individuals (if left to act independently) would likely fail to control the spread of a particular contagious disease, public health services intervene as a matter of *public* health, as opposed to *private* health.

In that context, consider CDC's list of the greatest public health achievements of the past century:<sup>1</sup>

- Vaccination
- Motor-vehicle safety
- Safer workplaces
- Control of infectious diseases
- Decline in deaths from coronary heart disease and stroke
- Safer and healthier foods
- Healthier mothers and babies
- Family planning
- Fluoridation of drinking water
- Recognition of tobacco use as a health hazard

Indeed, over the past 60 years, the role of public health has changed over time to include services that don't particularly meet the criteria for *public* goods. For instance, government funds 45.2% of health care spending – yet only 3% to 4% of federal health care spending is on *public* health. The rest is used to subsidize care that is probably best described as *personal* or *private* health care.

Many modern public health efforts are aimed at treating or preventing chronic diseases, such as diabetes, heart disease, cancer and so forth. Yet, most of these chronic ailments that afflict Americans are very personal and individual – not public problems like treating sewage or

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<sup>1</sup> "Ten Great Public Health Achievements--United States, 1900-1999," *Morbidity and Mortality Weekly Report*, Vol. 48, No.12, April 21999, pp. 241-243.

preventing the spread of infectious diseases. Thus, community-based programs to treat and prevent personal chronic illness may not be as effective as creating an environment where individuals can gain access to quality care. In a sense, the best way to improve the public's health (in the modern sense of treating and preventing chronic disease) is to empower individuals with purchasing power, information and access to affordable health care – including preventive health care.

## **A Market for Health Care**

Unfortunately, the modern health care market does not work like other markets.<sup>2</sup> Long before we enter a doctor's office, third-party bureaucracies have determined which services they will pay for, which ones they will not and how much they will pay. Providers typically do not disclose prices prior to treatment because they do not compete for patients based on price. If they do not compete for patients on price, they don't compete on quality either. This is because patients pay only one-eighth of their medical bills directly.<sup>3</sup> The rest is paid by third-parties – insurers, employers and government. This lack of competition for patients has a profound effect on the quality and cost of health care – and may be a reason for the perceived need to expand public health to treat and prevent chronic disease. The result is a highly artificial market plagued by fragmented care, uncoordinated care, failure to use simple technology (including the telephone, e-mail and the Internet), inadequate use of chronic disease management, a lack of electronic medical records (EMRs) and the absence of safety-enhancing software.

However, in health markets where patients control some of their own dollars, providers are creating innovative services that please patients and solve the very problems this Subcommittee is examining. In addition, recent advances in information technology — the hardware and software systems used to record, store, process and transmit data — have created new opportunities for patients and doctors to interact in ways that were impractical only a few years ago. Health care entrepreneurs are using these opportunities to make health care more accessible and convenient to patients, to raise quality and to reduce costs. Allowed to flourish, these types of developments and innovations can have a profound effect on public health.

## **Chronic Diseases**

Treatment of chronic diseases is one of the factors driving up health care costs and a major focus of public health programs. Nearly half (45 percent) of all Americans have a chronic condition, and half of those (60 million) have multiple chronic conditions.<sup>4</sup> A Yale University study found that one-quarter of Americans have one or more of five chronic conditions: mood disorders,

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<sup>2</sup> This section taken from Devon M. Herrick, "Health Care Entrepreneurs: The Changing Nature of Providers," National Center for Policy Analysis, NCPA Policy Report No. 318, December 2008.

<sup>3</sup> Centers for Medicare and Medicaid Services, "National Health Expenditures by Type of Service and Source of Funds: Calendar Years 2006-1960," U.S. Department of Health and Human Services, 2008.

<sup>4</sup> Gerard Anderson et al., "Chronic Conditions: Making the Case for Ongoing Care," Partnership for Solutions (The Robert Wood Johnson Foundation and Johns Hopkins University), September 2004. Available at: <http://www.rwjf.org/pr/product.jsp?id=14197>. Accessed March 27, 2009.

diabetes, heart disease, high blood pressure and asthma. Moreover, patients with these conditions account for almost half of all health care spending.<sup>5</sup>

The estimated cost of chronic diseases in the United States, including treatment and lost productivity, is \$1.3 trillion per year.<sup>6</sup> Unless this trend is reversed, by 2023 the cost will swell to \$4.2 trillion.

Of the 125 million or so Americans have chronic medical conditions, most are not receiving appropriate care from their physicians.<sup>7</sup> For instance, less than one-quarter of patients with high blood pressure control it adequately. Twenty percent of Type-1 diabetic patients do not see a doctor annually. Twice that number do not test their blood sugar level regularly, and 40 percent do not receive recommended yearly retinal examinations.<sup>8</sup> One reason for this poor compliance with recommended care is that physicians often lack an integrated system to monitor their patients' chronic conditions.<sup>9</sup> They also often lack an incentive.

Helping patients properly manage a chronic condition — especially diabetes, which often results in complications such as heart disease — is often complex and time-consuming.<sup>10</sup> When multiple physicians are treating a patient for multiple conditions, a case manager must ensure that they are coordinating their efforts. However, such close monitoring and interaction is labor-intensive and costly. Insurers rarely reimburse these management tasks, or reimburse them at rates lower than the cost of providing the services. It should be easy for doctors to get paid a different way by Medicaid if they propose to repackage and reprice their services in ways that raise quality and lower taxpayer costs.

Take diabetes, for example. Care tends to be delivered in discrete bundles, each with its own price. No one provider is responsible for the end result (fewer ER visits, lower blood sugar level, etc). This is because no one has bundled “diabetic care” as such — taking responsibility for final outcomes over a period of time — in return for a fee.<sup>11</sup>

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<sup>5</sup> Benjamin Druss et al., “Comparing the National Economic Burden of Five Chronic Conditions,” *Health Affairs*, Vol. 20, No. 6, November/December 2001, pages 233-241.

<sup>6</sup> Ross DeVol and Armen Bedroussian, “An Unhealthy America: The Economic Burden of Chronic Disease — Charting a New Course to Save Lives and Increase Productivity and Economic Growth,” Milken Institute, October 2007.

<sup>7</sup> “Disease Management: The New Tool for Cost Containment and Quality Care,” Health Policy Studies Division, National Governors Association, Issue Brief, February 2003; Thomas Bodenheimer, “Disease Management — Promises and Pitfalls,” *New England Journal of Medicine*, Vol. 340, No. 15, April 15, 1999, pages 1,202-05.

<sup>8</sup> Ibid.

<sup>9</sup> “Disease Management: The New Tool for Cost Containment and Quality Care.”

<sup>10</sup> For instance, see Gina Kolata, “Looking Past Blood Sugar to Survive with Diabetes,” *New York Times*, August 20, 2007.

<sup>11</sup> Michael E. Porter and Elizabeth Olmsted Teisberg, *Redefining Health Care: Creating Value-Based Competition on Results* (Boston, Mass.: Harvard Business School Publishing, 2006).

To appreciate how different diabetes care could be, imagine a conversation in which a doctor says to a diabetic patient: “You do not need to come to my office as often as you do. Most of our communication can be by telephone or e-mail. For these consultations you will pay less. I need to put your records on a computer so that I can take advantage of safety protocols and order your prescriptions electronically. For these quality improvements, you will pay a bit more. I’m also going to teach you how to manage your own care and I’m going to charge for the instruction. But you’ll get your money back through fewer consultations. Also, I’m going to show you how to cut your drug costs by shopping in a national online marketplace and I’m going to charge you for that advice as well. But you’ll get that money back too through lower drug prices.”

This conversation cannot take place in the current system. Why? Because each of the bundles of care mentioned above are services Blue Cross does not pay for (no e-mail, no telephone, no electronic records). Medicare doesn’t pay for these bundles either. Nor do most employer plans. But this conversation, and thousands of others just like it, would take place if doctors were free to repackage and rebundle their services and get paid.

So how do we get from here to there? A reasonable reform might work like this:<sup>12</sup> A state Medicaid office announces that it welcomes offers from doctors, hospitals and other providers to repackage and reprice their services. The parameters are: (1) the repriced, repackaged services must not increase total spending by the state, (2) the quality of care received by patients must not decline and (3) the provider/entrepreneur must propose a way to measure cost and quality to make sure that requirements (1) and (2) are satisfied.

For the reform to be workable, the transactions must be easy to negotiate and consummate. Paperwork and time delays are the enemy of entrepreneurship. However, given a willing state administrator, the process of reform should not take long. There are already low-cost, high-quality pockets of excellence just waiting to be replicated. A similar arrangement could work in Medicare.

**Economic Incentives.** Because chronic disease is so costly, insurers and many public health advocates hope that chronic disease management (CDM) will reduce costs and improve quality of life in chronically ill patients.<sup>13</sup> The goal is to identify expensive-to-treat patients and reduce costs through better management of their disease before costly complications occur.

Patients may not be able to rely on their health insurers for disease management.<sup>14</sup> The reason is that, for the most part, insurers and providers don’t benefit from the results. The efforts of health insurers to use disease management generally don’t pay off because patients do not stay enrolled in their plans long enough to recoup the investment. Furthermore, a recent study in *Health Affairs* found that when disease management was provided to broad populations of patients with

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<sup>12</sup> John C. Goodman et al., *Handbook on State Health Care Reform* (Dallas, TX: National Center for Policy Analysis, 2007).

<sup>13</sup> See Ben Wheatley, “Medicaid Disease Management: Seeking to Reduce Spending by Promoting Health,” Academy for Health Service Research and Health Policy, State Coverage Initiatives, Issue Brief, August 2001 and Robert E. Mechanic, “Disease Management: A Promising Approach for Health Care Purchasers,” National Health Care Purchasing Institute, May 2002.

<sup>14</sup> For a good discussion of this issue, see Roger Lowenstein, “The Quality Cure,” *New York Times*, March 13, 2005.

chronic disease, overall costs generally rose rather than fell. The only group who benefited from disease management was the small subset of patients not following treatment protocols.<sup>15</sup> For patients already adhering to protocols, additional expenditures to better manage their conditions generally result in higher marginal costs with little marginal benefit. But when patients control their own expenditures, and benefit from any savings they realize, they have an economic incentive to adhere to treatment protocols.

Patients also may not be able to rely on their doctors to manage their conditions. Physicians' compensation is based on the services they render, rather than evaluations of their performance based on patient outcomes.<sup>16</sup> Consequently, physicians have little incentive to counsel patients on disease management and follow up to see if recommendations were followed. Patients benefit the most from disease management in terms of better health. If patients tend to reap most of the benefits, they should control the funds necessary to manage their chronic conditions. Since chronic conditions increase patients' out-of-pocket costs, controlling the funds to manage their conditions is a step towards motivating them.<sup>17</sup> Patients with health savings accounts would reap financial rewards (beside the reward of good health) since they would be at liberty to use fund for prevention rather than acute care.

America is unlikely to mitigate the problem of chronic disease unless patients themselves become more involved. Moreover, patients are unlikely to get involved unless they have a financial incentive to do so and control some of their own health care dollars.

In addition, patients with chronic illnesses can use the Internet to obtain information on specific medical conditions, clinical trials and the latest drugs. They can also share their experiences with and learn from others suffering from the same conditions. Once patients inform themselves, they can manage their conditions and control their health care in ways unheard of only a few decades ago. Following are some examples of how patients with some common chronic conditions can take a more active role in their own care.

**Diabetes.** Nearly 24 million Americans have diabetes, comprising just nearly 8 percent of the population.<sup>18</sup> Diabetes is the sixth-leading cause of death by disease in the United States.<sup>19</sup> The mortality rate for people with diabetes is 11 times the rate for those without the disease.<sup>20</sup> In

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<sup>15</sup> Ben Fireman, Joan Bartlett, and Joe Selby, "Can Disease Management Reduce Health Care Costs by Improving Quality?" *Health Affairs*, Vol. 23, No. 6, November/December 2004. For a commentary see Francis J. Crosson and Philip Madvig, "Does Population Management of Chronic Disease Lead To Lower Costs Of Care?" *Health Affairs*, Vol. 23, No. 6, November/December 2004.

<sup>16</sup> Roger Lowenstein, "The Quality Cure," *New York Times*, March 13, 2005.

<sup>17</sup> Gerard Anderson, "Chronic Conditions: The Cost and Prevalence of Chronic Conditions are Increasing. A Response is Overdue," National Institute for Health Care Management, Expert Voices, Issue 4, January 2002.

<sup>18</sup> American Diabetes Association, "All about Diabetes." Available at: <http://www.diabetes.org/about-diabetes.jsp>. Accessed March 27, 2009.

<sup>19</sup> American Diabetes Association, "Improved Diabetes Control Yields 'Zest for Life'," PRNewswire, June 14, 2000.

<sup>20</sup> "Diabetes Statistics," U.S. Dept. of Health and Human Services, Public Health Service, National Institutes of Health, NIH Pub. No. 96-3926, 1995.

addition, diabetics spend four times more money on health care than nondiabetics.<sup>21</sup> There is much to be gained from better disease management. By one estimate, nearly \$2.5 billion in annual hospital costs for diabetes complications could be averted with appropriate care.<sup>22</sup> Numerous studies have shown considerable benefit from self-management training for Type 2 diabetes.<sup>23</sup> Patients can be trained to inject insulin, monitor and maintain a log of blood glucose levels, and use the results to adjust their dietary intake, activity levels and medicine doses.<sup>24</sup>

There are approximately 20 different monitors to test blood glucose available in a variety of shapes and sizes.<sup>25</sup> Occasionally monitors are given away free — but some only work with a proprietary brand of glucose test strips and therefore are more costly in the long run.<sup>26</sup> Costs for test strips vary considerably. A diabetic patient could pay \$59.99 for 100 Ascensia Microfill Blood Glucose Test Strips at the Web site OTC Wholesale.com to \$88.74 at ZuckermanPharmacy.com.<sup>27</sup> If patients who check their blood sugar four times a day could save 29 cents per test strip, the savings would add up to \$420 for the year. In the past few years several new oral medications for diabetes became available.<sup>28</sup> Savvy consumers will also find the price of diabetic medications vary considerably.<sup>29</sup> Some are available in generic form while some are not.<sup>30</sup> In addition, many diabetics can reduce reliance on medications and control their diabetes completely by adhering to a meal plan, losing weight and exercising.<sup>31</sup>

**Innovative Providers of Diabetes Management.** HealthPoints is a firm that provides chronic disease management for health plans and third-party payers willing to pay for their services. However, this is an example of the type of service that patients may choose if they control the funds. HealthPoints takes advantage of the latest information technology to monitor diabetics

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<sup>21</sup> Patti Bazel Beil and Laura Hieronymus, “Money-Saving Tips: Supplies, Nutrition, and Exercise,” *Diabetes Self-Management*, March/April 1999.

<sup>22</sup> “Economic and Health Costs of Diabetes,” Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services, Healthcare Cost and Utilization Project Highlights, No. 1, AHRQ Pub. No. 05-0034, January 2005.

<sup>23</sup> Susan L. Norris, Michael M. Engelgau and K. M. Venkat Narayan, “Effectiveness of Self-Management Training in Type 2 Diabetes,” *Diabetes Care*, March, 2001.

<sup>24</sup> Teresa Pearson, “Getting the Most From Health-Care Visits,” *Diabetes Self-Management*, March/April 2001.

<sup>25</sup> “Self-Monitoring of Blood Glucose,” *Clinical Diabetes*, Winter 2002.

<sup>26</sup> Patti Bazel Beil and Laura Hieronymus, “Money-Saving Tips: Supplies, Nutrition, and Exercise,” *Diabetes Self-Management*, March/April 1999.

<sup>27</sup> Prices found at [www.otcwholesale.com](http://www.otcwholesale.com) and [ZuckermanPharmacy.com](http://ZuckermanPharmacy.com). Accessed March 27, 2009.

<sup>28</sup> Joe A. Florence and Bryan F. Yeager, “Treatment of Type 2 Diabetes Mellitus,” *American Family Physician*, Vol. 59, No. 10, May 15, 1999.

<sup>29</sup> For techniques to lower one’s drug bill, see Devon M. Herrick, “Shopping for Drugs: 2007,” National Center for Policy Analysis, NCPA Policy Report No. 293, November 16, 2006.

<sup>30</sup> For instance, some oral medications for diabetes mellitus include, Sulfonylureas, Biguanides, Thiazolidinediones, Alpha-glucosidase inhibitors, Meglitinides and Dipeptidyl peptidase IV inhibitors. See “Oral Diabetes Medications (Diabetes Pills),” WebMD.com, undated. Accessed March 27, 2009.

<sup>31</sup> Patti Bazel Beil and Laura Hieronymus, “Money-Saving Tips: Supplies, Nutrition, and Exercise,” *Diabetes Self-Management*, March/April 1999.

remotely. Enrollees use a small, high-tech blood glucose-testing monitor with a wireless Bluetooth connection. A Web-based computer or Personal Digital Assistant (PDA) sends the blood glucose readings electronically to HealthPoint's office. A patient who forgets to take a reading at the appointed time receives a reminder by e-mail or phone. An extremely high reading will notify a health coach or diabetes nurse at HealthPoints to call the patient and inquire about foods recently eaten. The (multiple) daily blood glucose readings become part of a medical record that can be used to establish health metrics and a baseline of a patient's progress. A health coach can also counsel patients on ways to improve compliance.<sup>32</sup>

**Asthma Self-Management.** From 4 percent to 6 percent of the population of Western countries have been diagnosed with asthma, which imposes huge economic costs on society.<sup>33</sup> The Asthma and Allergy Foundations of America estimates nearly 20 million Americans suffer from asthma — resulting in 500,000 hospital stays each year.<sup>34</sup> More than 2.5 million school-age children suffer from asthma, missing nearly 15 million school days per year, averaging out to nearly \$800 per child per year.<sup>35</sup> A Dutch study comparing self-management to usual care found that those monitoring their own asthma achieved a savings of about 7 percent the first year and a 28 percent savings the second year compared to those in standard care with a primary physician.<sup>36</sup>

Patients should develop a self-management plan with their physician or asthma nurse. An asthma plan is essentially a list of established guidelines indicating which actions to take in response to various symptoms.<sup>37</sup>

Asthmatics can use a software package called Asthma Assistant to monitor their condition.<sup>38</sup> This computer program helps patients measure their condition on a daily basis, including peak air flow, medication and events that may trigger symptoms. Such biometric data can be transmitted over the Internet from a patient's computer to a physician's office computer for evaluation by a doctor or technician (a process called telemonitoring). The software program analyzes airway obstruction data gathered by the patient using a spirometer, which measures the speed and volume of exhalations. A recent study of asthma patients trained to perform in-home

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<sup>32</sup> Author's conversation with HealthPoints CEO, J. Mark Lambright, and HealthPoints Web site.

<sup>33</sup> Tjard R. Schermer, et al., "Randomized Controlled Economic Evaluation of Asthma Self-Management in Primary Health Care," *American Journal of Respiratory and Critical Care Medicine* Vol. 166, No. 8, August 2002, pages 1062-1072. For an evaluation of direct medical treatment costs for asthma, see Michael T. Halpern, et al., "Asthma: Resource Use and Costs for Inhaled Corticosteroid vs Leukotriene Modifier Treatment—a Meta-Analysis," *Journal of Family Practice*, May 23, 2005.

<sup>34</sup> "Asthma Overview," Asthma and Allergy Foundations of America, Internet. Available online at <http://www.aafa.org/display.cfm?id=8&cont=5>.

<sup>35</sup> Li Yan Wang, Yuna Zhong and Lani Wheeler, "Direct and Indirect Costs of Asthma in School-age Children," *Preventing Chronic Disease*, Vol. 2, No. 1, January 2005.

<sup>36</sup> *Ibid.* Implementation costs were mostly incurred in year one and amounted to about \$200.

<sup>37</sup> See "Take Control - Q&A to Having a Self Management Plan," AsthmaAssistant.com. For instance, an asthma self-management plan could stipulate that if a patient's "peak airflow" falls to 80 percent of their personal best peak airflow, they should increase medications at a pre-established rate and schedule a physician appointment. Patients should go to the emergency room if their peak airflow falls below 50 percent.

<sup>38</sup> For information see <http://www.asthmaassistant.com>.

asthma telemonitoring found that the results of self-testing were consistent and met established guidelines.

Moreover, participation in telemonitoring did not require that patients have extensive computer knowledge.<sup>39</sup> Some 87 percent of patients in the study were “strongly interested” in continuing to use this method. CorScience Cardiovascular Innovations has a peak airflow meter that is equipped with Bluetooth connectivity to a telemedicine transmission device.<sup>40</sup>

**Bleeding and Clotting Disorders.** A variety of conditions cause patients to bleed too freely or their blood to clot too readily. A study of Veteran’s Administration patients found that home self-monitoring of prothrombin time (clotting) while taking Coumadin (Warfarin) to reduce the formation of blood clots is superior to standard monitoring by physicians. The “bleeding rate” was 11 percent for patients monitored monthly at a clinic, but only 4.5 percent for patients who monitored their own prothrombin time at home on a weekly basis. The rate of blockages caused by blood clots, known as thromboembolism, was four times higher with standard follow-up therapy than with self-monitoring (3.6 percent each year versus 0.9 percent). Serious cases of bleeding (and/or thromboembolic events) occurred in 2.7 percent of cases per year in the standard-monitoring group but there were none in the home-monitoring group.<sup>41</sup>

### **Innovative Services that Increase Access to Care<sup>42</sup>**

Entrepreneurial health care providers are creating many new services to better serve patients by offering greater convenience and lower prices. These services are often unavailable in traditional clinical settings, while in other cases, convenience and access have improved. Many of these services initially began outside the third-party payment system. In virtually all cases, adopting quality-enhancing or patient-pleasing amenities is an integral part of their business model.

**Laboratory and Diagnostic Testing.** When diagnostic tests are needed, patients can order their own blood tests without a doctor’s appointment and compare prices at different testing facilities. Patients can also avoid a second doctor’s appointment to receive the test results. In many cases, the results and an analysis are available online within 24 to 48 hours. Another option is cash-based storefront locations or mobile coaches, which are beginning to offer affordable lab tests in a convenient setting. These provide results quickly and without a visit to a physician’s office. Results are stored in a personal health record and accessible to patients. For example, MyMedLab.com offers full range of laboratory tests and sells bundled packages designed to meet the needs of different groups of patients — by age, sex and family medical history. Prices are 50 percent to 80 percent lower than identical tests ordered by a physician. A general health screen of 30 blood metrics costs about \$54, and patients who order online save an additional 10

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<sup>39</sup> Joseph Finkelstein and Manuel R. Cabrera, “Internet-Based Home Asthma Telemonitoring,” *Chest* (American College of Chest Physicians), Vol. 117, No. 1, January 2000, pages 148-155.

<sup>40</sup> CorScience Web site: <http://www.corscience.de/en/medical-engineering/products-systems/telemedicine/sensors/peakflow-meter.html>. Accessed March 27, 2009.

<sup>41</sup> Bruce Jancin, “Warfarin Home Self-Monitoring,” *Family Practice News*, April 1, 2000.

<sup>42</sup> Much of this is taken from Devon M. Herrick, “Health Care Entrepreneurs: The Changing Nature of Providers,” National Center for Policy Analysis, Policy Report No. 318, December 2008.

percent. Patients can access the service by visiting more than 2,000 collection centers nationwide. The firm also stores customers' lab tests results electronically for later comparison.<sup>43</sup> HealthFair, a health care screening company based in Winter Park, Fla., operates a fleet of mobile screening "Health Coaches." The firm is accredited by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) and it claims to have performed over 1 million preventive screening tests since 1999. Its big sellers are preventive screens to assess the risk of heart attack, stroke and aneurism. The seven-test package consists of an echocardiogram, electrocardiogram, an Adrenal Stress Index test, carotid artery ultrasound, ultrasound to detect abdominal aortic aneurysms, an ankle-brachial blood pressure index test and bone density ultrasound. In some locations, patients are offered a full lipid panel, glucose test, and a choice of one thyroid, prostate, C-reactive protein or ALT/AST (liver function) test for an additional fee. HealthFair claims its popular 7-test pack would cost around \$2,300 if performed in a hospital setting. But it offers a promotional package deal (with interpretation) for only \$195 — an 85 percent discount off the price of having the same tests performed piecemeal at a local hospital. Why so cheap? For one thing, HealthFair streamlines the scanning process, keeping overhead low and offering package deals. Results are automatically sent to the patient and his primary care physician. But the primary reason the price is so dramatically lower is that patients pay cash at the time of services. When patients pay with their own dollars, firms must offer value and convenience.<sup>44</sup> These firms are competing on price in order to attract cash-paying customers.

Entrepreneurs have created a number of innovative medical practices in the past few years.

**Retail Clinics.**<sup>45</sup> Walk-in clinics are small health care centers located inside big-box retailers, or storefront operations in strip shopping centers. They are staffed by nurse practitioners and offer a limited scope of services but added convenience.<sup>46</sup> Originally, patients were expected to pay the cost out-of-pocket. However, as the service has proven to be convenient and efficient, insurers are beginning to reimburse for the service. MinuteClinic is the pioneer of clinics operating within larger retailers — allowing shoppers in Cub Foods, CVS pharmacies and Target stores to get routine medical services such as immunizations and strep tests. No appointment is necessary and most office visits take only 15 minutes. MinuteClinics clearly list prices, which are often only half as much as a traditional medical practice — most treatments cost \$59.<sup>47</sup> MinuteClinics use proprietary software to guide practitioners through diagnosis and treatment protocols based on evidence-based medicine. In contrast to standard physician practice, medical records are stored electronically and prescriptions can also be ordered that way. There is also evidence that the quality of routine care in walk-in clinics is comparable to treatment in traditional physicians' practices. MinuteClinics received high marks for quality of care in the recent Minnesota

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<sup>43</sup> Author's conversations with CEO David Clymer and Web site MyMedLab.com. Accessed November 15, 2008.

<sup>44</sup> HealthFair promotional advertisement, *Dallas Morning News*, August 2008, and HealthFair.com Web site. Accessed October 2008.

<sup>45</sup> Devon M. Herrick and John C. Goodman, "The Market for Medical Care: Why You Don't Know the Price; Why You Don't Know about Quality; And What Can Be Done about It," National Center for Policy Analysis, Policy Report No. 296, March 12, 2007.

<sup>46</sup> Milt Freudenheim, "Attention Shoppers: Low Prices on Shots in Clinic," *New York Times*, May 14, 2006.

<sup>47</sup> Information taken from MinuteClinic.com Web site. Accessed November 16, 2008.

Community Measurement Health Care Quality Report.<sup>48</sup> The report measured appropriateness and quality of care for two common ailments among children: colds and sore throats. For example, in treating sore throats, each medical practice was evaluated on the basis of whether they administered a strep test and only prescribed antibiotics when test results were positive. For appropriate care:<sup>49</sup>

- MinuteClinics scored around 99 percent.
- The Mayo Clinics scored 77 percent.
- The average provider rating was 81 percent.
- The lowest provider score reported was 26 percent.

On care of children with colds:

- The Mayo Clinics scored 95 percent.
- MinuteClinics scored 87 percent.
- The average provider rating was 84 percent.
- The lowest provider score reported was 37 percent.

MinuteClinics scored at least as well as the average and there was far less variation.

To be successful, retail clinics must provide consistent, high-quality service and a way to share patient information with customers' primary care physicians. These require the use of technology, including computerized protocols, decision-support tools and EMRs. When patient records are stored electronically, it is more efficient and accurate to prescribe electronically than to handwrite a paper prescription that is then transcribed into an electronic record. Furthermore, the use of EMRs and electronic prescribing allows for error-reducing software to check for drug errors, patient allergies, contraindications and drug interactions. These are systems that health care reformers believe all doctors should adopt, but few actually do. However, in these cash-pay markets, providers have adopted quality-enhancing information technology because their business model virtually requires them to do so. Without it, retail clinics would find it difficult to compete. Many other entrepreneurs are launching similar limited-service clinics. Walmart leases space for walk-in clinics to MinuteClinic and RediClinic (among others) and has begun to expand these operations nationwide.<sup>50</sup> RediClinic also allows patients to order numerous lab tests for fees that are nearly 50 percent less than tests ordered by physician offices.<sup>51</sup> Competition from these new clinics may lead traditional physician practices to adopt new technology and offer more convenient weekend and extended hours.<sup>52</sup>

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<sup>48</sup> Minnesota Community Measurement, "2007 Health Care Quality Report," available at [http://www.mnhealthcare.org/Resources/2006/FinalReport/2007 Full Report.pdf](http://www.mnhealthcare.org/Resources/2006/FinalReport/2007%20Full%20Report.pdf). Accessed November 16, 2008.

<sup>49</sup> For sore throat scores, see [http://www.mnhealthcare.org/Resources/2006/FinalReport/2007 Full Report.pdf](http://www.mnhealthcare.org/Resources/2006/FinalReport/2007%20Full%20Report.pdf). Accessed November 17, 2008.

<sup>50</sup> Rik Kirkland, "Walmart's RX for Health Care," *Fortune*, April 17, 2006. RediClinic is a venture of AOL founder Steve Case's Revolution Health Group and the company Interfit.

<sup>51</sup> Information taken from RediClinic Web site.

<sup>52</sup> Maureen Glabman, "What Doctors Don't Know About the New Plan Designs," *Managed Care Magazine*, January 2006.

**Telephone-Based Practices.**<sup>53</sup> Many medical conditions do not require the physical presence of a physician or the time and expense of an office visit. Some of these could be easily diagnosed, and treatment recommended, over the phone. However, many patients report having a hard time reaching their physician on the phone — especially after hours. To meet this demand, entrepreneurs are creating nontraditional medical services in which clinical care is available at more convenient locations, by telephone or through virtual offices on the Internet. They are staffed by physicians who will order tests, initiate therapies or treatments and prescribe drugs. These services are not designed to replace primary care physicians. Rather, they are for patients who urgently need a consultation but are unable to contact their regular physician.

TelaDoc Medical Services, located in Dallas, is a phone-based medical consultation service that works with physicians across the country. Consultations are available around the clock, but patients must sign up in advance so their medical histories can be placed online. When a patient calls TelaDoc, several participating physicians near the caller are paged. The first physician to respond is paid for the consultation. TelaDoc guarantees a return call within three hours, or the (\$35) consultation is free — but most calls are usually returned within 30 to 40 minutes.<sup>54</sup> Further, unlike most primary care practices, TelaDoc retrieves and stores patient records electronically so that participating physicians can access the patient's medical history. Because patients are not in the physician's office (and the physician can vary from one consultation to the next), patient records must be stored and retrieved electrically. Drug therapies also must be prescribed electronically — facilitating safety-enhancing software that checks for harmful interactions. Due to the nature of telemedicine, firms like TelaDoc must have EMRs to perform tasks. Some telemedicine firms also have computerized protocols to assist the physician in diagnosing ailments. Thus, competition to reduce waiting or enhance convenience using telemedicine leads to personal and portable electronic medical records.

**Concierge Medical Practices.** Some innovative physicians are creating practices designed to be convenient and accessible to patients. These so-called concierge physicians compete on two different facets of cost: time and money. Time costs refers to the waiting and inconvenience often entailed in traditional physician office visits. Thus, some of these physicians provide after-hours office visits, patient education and house calls. Physicians in concierge practices relate to their patients in much the same way lawyers and accountants interact with their clients — including phone calls, e-mail consultations and convenient Web-based services. These practices are essentially rebundling and repricing medical services in ways that are not possible under third-party insurance. Thus, a necessary part of their business model is to find patient-pleasing services that solve the problem of excessive time costs and poor quality. *Doctokr Family Medicine* is the Virginia medical practice of Dr. Alan Dappen, who practices medicine mostly by telephone and e-mail contact. Patients can schedule an appointment or e-mail the doctor, all from the Doctokr.com Web site. In fact, Dappen's waiting room is a Web page. Patients can also make appointments to be examined in his office, and though he will even make house calls for some patients, he encourages most patients to consult with him by e-mail or telephone. Like attorneys,

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<sup>53</sup> Devon M. Herrick, "Convenient Care and Telemedicine," National Center for Policy Analysis, Policy Report No. 305, November 28, 2007.

<sup>54</sup> Ibid. Also, information obtained from conversations with TelaDoc executives and the TelaDoc Web site.

Dappen bases his consultation fees on the amount of time required. Charges are billed in five-minute increments and range from \$67.50 for in-office visits (first 10 minutes; \$22.50 each additional 5 minutes) to \$22.50 for phone consultations with patients who have set up membership accounts. A simple call to renew a prescription or ask questions generally costs less than \$20. Although the office does not bill insurance companies for services, most patients can easily turn in a claim themselves. Patient records are kept electronically.<sup>55</sup> Concierge medicine is normally associated with personalized services for the wealthy. Depending on the practice, these services can be expensive — in some cases more than \$2,500 a year per person. However, in the Dallas suburb of Collin County, Texas, physician Nelson Simmons offers a version of that service for less than \$500 a year.<sup>56</sup> About 70 small business owners pay \$40 per employee per month for Simmons' plan. In return, employees get same-day primary care services and steep discounts on diagnostic tests and specialist care. Enrollees must pay out-of-pocket for specialist care, surgeries and diagnostic tests. But Simmons negotiates the rates, which are typically much lower than what others pay. For example, a tonsillectomy for a child costs less than half of the normal fee (\$2,100 versus \$4,800) and an MRI scan can be less than one-fourth of the standard charge (\$350 versus \$1,600).<sup>57</sup>

## Conclusion

Community-based public health is valuable and cost-effective, when focused on public problems. However, most chronic diseases are very personal and individual. The most cost-effective way to treat and prevent chronic disease — and achieve many modern public health goals — is to allow patients to control more of their own health care dollars, and to allow patients and providers to benefit from new arrangements that produce lower cost, higher-quality care. Government insurers should also allow doctors and hospitals to repackage and reprice their services under government health care payment systems — allowing them to gain financially from providing better care.

Today, competitive markets are emerging outside the third-party payment system covering services ranging from primary care to major surgery. The reason: Patients are paying for more services out of pocket. What lesson can we learn from these examples of entrepreneurship in health care? The most important is that entrepreneurs can solve many of the health care problems that critics condemn. Public policy should encourage, not discourage, these efforts.

Consumers now have numerous avenues to become smart shoppers of health services — particularly those services that public health professionals agree will help treat and prevent chronic diseases. Research has shown that employees are more satisfied when they have a greater choice of plans and consumer-driven health care offers them the ultimate choice. With these new plans comes the opportunity to manage our own care. An important byproduct is that the quality of health care and service improves when patients control the checkbook, rather than third-party insurers.

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<sup>55</sup> Doctokr.com Web site. Accessed November 18, 2008.

<sup>56</sup> Jason Roberson, "Doctor Taking Care of Small Business," *Dallas Morning News*, April 30, 2007.

<sup>57</sup> *Ibid.*