

Testimony Before House Majority Policy Committee Hearing  
Sub-Committee on Prescription Drugs (PACE/PACENET)

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Mr. Chairman and Members of the Committee, I am pleased to be here with you today to share some of my thoughts concerning how the pharmaceutical industry contributes to the economic development and prosperity of the Commonwealth of Pennsylvania.

By way of introduction, I am a physician who has held several health and budget-related positions at the federal level, including at the National Institutes of Health. I have also worked for a pharmaceutical company. During the past two and a half years, I have been a health policy and communications consultant focusing on the quality of health care and the development and use of new medical treatments. In this capacity, I have participated in more than 40 meetings across the country discussing how to improve our health care system and the role of the pharmaceutical industry in that system and in our society. Several of these meetings were here in Pennsylvania. I serve as a consultant to the Pharmaceutical Research and Manufactures of America, and I am here today representing them.

The Big Picture

In thinking about the role of the research-based pharmaceutical industry, it is important to take a look at the big picture that includes the industry's role in improving the quality of our health care *and* its role in promoting economic prosperity. An understanding of both clinical and economic contributions is critical to appreciating how the pharmaceutical industry benefits society. To achieve desired clinical and economic outcomes—which are really the “bottom line”—usually requires balancing competing interests and resource obligations. Assessments or analyses that do not consider both clinical and economic factors are generally flawed because they lack balance and suffer from narrowness in scope, and they will eventually lead to undesired outcomes.

I note here that while it is generally recognized that pharmaceutical innovation has done much to improve health care and contribute to the economy, its value has recently been questioned. It appears that this criticism is driven by a narrow economic focus on pharmaceutical costs rather than with a broad big picture view that balances clinical results and overall health care economics.

A big picture perspective also includes the evolving nature of biomedical research and development—specifically, that development of new medical treatments is based upon the accumulation of knowledge about diseases and their treatments and that innovations occur in step-wise fashion. The medicines that physicians value most, for example, have changed dramatically over the last century. Ether, alcohol, and mercury in 1910, gave way to penicillin

and insulin in 1945, and to what is surely a very different “top 10” list today.<sup>1</sup> Sometimes medical innovations are small steps. Sometimes they are large steps. We need to keep in mind, however, that the size of the step, or the clinical or economic value of the innovation, can almost never be fully predicted before the new treatment is completely developed. And the value of these innovations is also patient dependent. For example, a new treatment for diabetes can be of tremendous value to a diabetic, but it may be of little or no direct value to a non-diabetic suffering with arthritis.

The rest of my remarks focus primarily on:

- The role of the research-based pharmaceutical industry in promoting economic development within Pennsylvania and the United States.
- Industry’s promotion of satellite business development.
- Economic and social implications of modern medicines in promoting healthier and more productive workers and families.
- Industry’s synergistic interactions with other research-based health care entities, and with health centers and universities across Pennsylvania.

#### The Pharmaceutical Industry in Pennsylvania: Jobs and People

The research-based pharmaceutical industry in Pennsylvania is a vibrant and growing part of the Commonwealth’s economic and jobs base. In 2000, Pennsylvania ranked second nationally in pharmaceutical company employment with more than 47,000 workers—almost 20% of the pharmaceutical industry’s U.S. workforce, and an increase of approximately 275% since 1985. Pennsylvania’s pharmaceutical employees earned a payroll that topped \$3 billion, which was a 433% increase over 1985 levels. The growing base of jobs and paychecks resulted in the payment of \$750 million in Pennsylvania taxes and provided other Pennsylvania companies with \$2.3 billion in revenues.

Across the country, the industry also recognizes that its products—modern, innovative pharmaceuticals—are important to peoples’ lives and well being. Research-based pharmaceutical companies invest an average of \$500 million to \$800 million and 10 to 15 years for each new medicine that FDA approves, and pharmaceutical companies want patients—including those who cannot afford the medicines that their physicians prescribe—to receive the benefits of the new medicines. Over a decade ago, pharmaceutical companies started to formalize their informal efforts to provide free medicines to patients who cannot afford them. In 2001, these programs, generally called “Patient Assistance Programs,” provided almost 10 million prescriptions with a wholesale value of about \$1.5 billion to more than 3.5 million patients. More recently, several companies created additional programs to offer card-based discounts to low-income Medicare beneficiaries for their prescription medicines. These efforts respond to a societal need. They are clearly improvements, but because of the structure of our health system, they are not fully integrated long-term solutions.

In many ways, the activities of individual pharmaceutical companies are similar to the actions that the Commonwealth of Pennsylvania took in creating PACE and then expanding it with PACENET. The goal of all these efforts is to find viable ways to improve our health care

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<sup>1</sup> Journal of the American Medical Association, 274 No. 6 p. 456, August 9, 1995.

system—through both short-term steps to address immediate problems and gaps, and structural reforms of health insurance programs such as Medicare and Medicaid. The challenge is to see that the short-term measures support the development and implementation of structural reforms, not impede them, and to ensure that the structural reforms make sense and will provide desired long-term clinical and economic outcomes.

How the pharmaceutical industry and the Commonwealth have both taken steps to provide better access to pharmaceuticals is an example of how each is like a link in a chain or a gear in a larger machine. I find this type of imagery useful in thinking about the organizations that form our entire healthcare system, and what actions and reactions may occur in response to proposals for addressing healthcare issues and concerns. Figure 1 illustrates these types of relationships.

#### The Pharmaceutical Industry in Pennsylvania: Satellite Industries

Successful companies employ increasing numbers of people. At the same time, they promote satellite industries that, in turn, grow and employ more people. In the pharmaceutical industry, satellite companies are involved in a wide variety of activities—from maintenance and other general business services to specialized technical research and manufacturing processes such as clinical research services and the production of sophisticated labels and brochures. As stated above, in Pennsylvania the pharmaceutical industry was responsible for an estimated \$2.3 billion in revenues to satellite companies in 2000.

Pharmaceutical industry jobs, those directly within pharmaceutical companies and those in satellite organizations, are precisely the kind of jobs that are the driving force of U.S. economic growth and societal prosperity—well-paying, high-skilled jobs that promote education and community development. This is why many communities around the country seek new pharmaceutical companies or expansion of existing companies in their areas. Many industries can claim to produce such jobs, but the pharmaceutical industry also creates a product—modern medicines—that improves the quality of life and that can increase the ability of people to contribute to the economic productivity of their communities. Examples of these modern medicines are innovative anti-depressant medicines, less toxic anti-cancer treatments, new non-sedating antihistamines, and the new generation of migraine medicines.

#### The Pharmaceutical Industry in Pennsylvania: Healthier People and More Productive Workers

Many pages can and have been written about the clinical and economic value of new medicines, as well as the value of the knowledge about diseases that has been created during development of new medicines. The U.S. Department of Health and Human Services last week released a study that reviews much of the literature about the value of modern innovative pharmaceuticals in improving the quality of life for Americans—from arthritis, asthma, and Alzheimer's to cancer, cardiac diseases, osteoporosis, and diabetes.<sup>2</sup> These pharmaceuticals help workers in two ways. First, by directly improving health and day-to-day functioning, modern medicines help employees to be more productive. Second, by improving health and day-to-day functioning of the employee's family members—spouses, children, and aging parents—modern medicines

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<sup>2</sup> “Securing the Benefits of Medical Innovation for Seniors: The Role of Prescription Drugs and Drug Coverage,” U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, July 2002”

enable employees to focus more on their day-time work activities and allow them to spend their non-work time with healthier, happier, and more active family members.

Two examples of how modern medicines achieve these results are the non-sedating antihistamines and improved treatments for congestive heart failure:

- An analysis of allergy treatments found that spending an extra dollar on non-sedating antihistamines resulted in \$2 to \$4 in savings through increased employee productivity and reduced absenteeism.<sup>3</sup>
- A 1996 study of nearly 2000 patients with congestive heart failure in a managed health care plan found that by intensively managing their care, the patients' hospital costs declined 78%. Their outpatient prescription drug costs rose by 60% (almost \$250 million), but the net savings totaled \$9.3 million for the patients over the course of a year. *In addition*, the patients' ability to perform activities of daily living increased by 15%, while their mortality rate was only 10% compared to an expected 25%. These are very interesting economic and clinical outcomes, particularly in light of the fact that according to a recent Washington Post article, Medicare pays more for the diagnosis and treatment of heart failure than any other medical diagnosis—in 2001, Medicare reportedly spent \$3.6 billion on hospitalizations for congestive heart failure patients, and 5% of all U.S. spending on health went to treat congestive heart failure.<sup>4</sup>

#### The Pharmaceutical Industry in Pennsylvania: Links With Other Health Researchers and With Health Centers and Universities

The research-based pharmaceutical industry is the single largest funding source for biomedical research in the United States. In 2001, industry spent \$30.3 billion on research and development, while funding from the National Institutes of Health was \$20.3 billion. Additional funding sources include other components of the federal government, state governments, private equity/venture capital sources, and charitable organizations.

Two features about these funding sources are worth a special mention. First, they play complementary roles in funding the discovery of new biomedical knowledge and the development of improved treatments for diseases, as illustrated in Figure 2. Second, the researchers often receive funding from multiple sources. For example, approximately 80% of National Institutes of Health funding goes to non-governmental researchers—primarily at universities and academic medical centers. Similarly, a large portion of industry research and development funding goes to both basic research at universities and clinical development at medical centers in Pennsylvania and across the country. Biotechnology companies benefit from government-funded research activities, collaborations with pharmaceutical companies, and assistance from equity and venture capital sources.

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<sup>3</sup> “A Closer Look at Allergies,” A joint Project between the Asthma and Allergy Foundation of America, and the National Pharmaceutical Council.

<sup>4</sup> “Heart Success & Failure: As More People Survive Heart Attacks and Heart Disease, They Live to Develop Heart Failure. It’s Progress – of Sorts,” Brian Reid, The Washington Post, June 18, 2002.

Aside from the financial links among those involved with biomedical research and pharmaceutical development, there are great opportunities for intellectual exchanges. By working together, researchers from pharmaceutical companies, universities, academic medical centers, and biotechnology companies can combine their intellectual resources to combat serious illnesses and conditions.

This type of collaboration can most easily occur where there is geographic proximity, and that is why Pennsylvania is a leader in this arena. The Commonwealth already has leading representatives from pharmaceutical companies, universities, academic medical centers, and biotechnology companies. And as I'm sure you are aware, serious discussions in Harrisburg and around the Commonwealth have focused on the development of biotechnology centers, or "greenhouses," to catalyze more biomedical research and development activity.

#### What's Next?

Over the past 10 to 20 years, pharmaceuticals have become a more important part of health care, and as patients and providers increasingly look to pharmaceuticals as their preferred treatment option, a growing percentage of health care spending goes to pharmaceuticals. The pharmaceutical industry has responded to these changes in health care with a variety of initiatives to help low-income individuals obtain the medicines they need, and the industry continues to invest billions of dollars in research to discover and develop new medicines for diseases that today lack adequate therapies.

A major challenge for those in the public and private sectors who oversee the delivery and financing of health care services is integrating all components of the health care delivery system into their management decisions. It is much easier to manage each component—and its budget—separately rather than to take a comprehensive approach. But such component management creates barriers that make it more difficult to realize the benefits of new innovations, such as new pharmaceuticals and disease management programs. In addition, it should be recognized that these management and payment decisions influence investments into the development of future innovations.

I end with emphasis on the role that the Commonwealth of Pennsylvania can play in meeting challenges in this area. Pennsylvania has well seen the benefits of the pharmaceutical industry—through the creation of jobs within pharmaceutical companies and satellite organizations and through the promotion of a healthier and more productive population. Already a leader in biomedical research and development, Pennsylvania should work carefully to manage its financial, government/regulatory, and business resources in such a way as to maximize potential benefits from continued growth of the research-based pharmaceutical industry. The Commonwealth can and should continue to lead in this important arena.