It is among the most vexing set of questions facing the U.S. health care system: As an aging population drives an ever-greater demand for prescription drugs, who will pay, and how much? Can public and private insurers afford to cover the new and often more expensive medications that would improve the health of patients with chronic conditions? When cheaper alternative drugs are as good – or nearly as good – should insurers pay for the more expensive product? Can a reimbursement system be devised that rewards appropriateness, providing incentives for patients and their doctors to choose the least expensive path? And if we do find a way to clamp down on what we pay for prescription drugs, does that in turn reduce the incentive for pharmaceutical companies to develop new, innovative drugs?

These are all critical public health issues...and yet, the pharmaceutical industry receives minimal attention in most schools of public health, according to
Dr. Stuart Schweitzer, professor of health services at the UCLA School of Public Health.

"A lot of people in public health have viewed this industry more as something that a management school ought to look at, given that it is a manufacturing industry," Schweitzer says. "But most business schools see it as part of the health industry, and if they don’t have a health care interest, they ignore it as well.” As a result, Schweitzer says, few universities have programs dedicated to the drug industry, and none that he knows of has a pharmaceutical economics and policy program in a public health school – except UCLA.

"There are three elements of the U.S. health care system," says Dr. William Comanor, professor of health services at the school. "Two are obvious: physicians and the hospital sector. But a third and very important dimension of health care is the development of pharmaceuticals. Indeed, there is considerable evidence that pharmaceutical therapy may be even more important for health status than physician or hospital services, although clearly all three are important."

Prior to 1990, Comanor notes, the UCLA School of Public Health’s curriculum was, like that of most other public health schools then and now, conspicuously devoid of discussions on the pharmaceutical part of the equation. “It seemed to me that what was needed was to specifically study and explore the role of pharmaceuticals in health status, and that’s done in a school of public health,” he says. “In addition, our students weren’t getting an introduction to this very important dimension of the health care system.”

So in 1990, Schweitzer and Comanor created the Seminar on Pharmaceutical Economics and Policy at the school, in which guest speakers would address these issues. Since then, they have added a research program and a course on the role of pharmaceuticals in the health care system. The Program in Pharmaceutical Economics and Policy, co-directed by Schweitzer, Comanor and Dr. Michael Intriligator, professor of economics and political science, is an interdisciplinary research and teaching effort that attracts doctoral and master’s students from the School of Public Health as well as students from other parts of the university and other institutions (including USC, UC Santa Barbara and RAND).

Coming from a position in which she conducted technology assessment at the Southern California headquarters of Kaiser Permanente, Stephanie Teleki (Ph.D. ’02) was drawn to the Pharmaceutical Economics and Policy program during her time as a doctoral student at the school.

“Pharmaceuticals are such a huge part of health care that it’s important to understand the economic and policy aspects in almost any public health field you are in,” says Teleki, “whether your focus is the U.S. system, in which the issues include Medicare prescription drug benefits and the exponential premium increases, or you work internationally, with issues such as how to pay for HIV/AIDS drugs.”

In Teleki’s case, the issue was direct-to-consumer advertising. Amid growing interest among consumers in health information, the U.S. Food and Drug Administration in 1997 clarified a policy that makes the United States one of two nations (the other being New Zealand) that allow pharmaceutical companies to advertise their products directly to consumers. Critics have argued that the FDA policy increases demand for pricey drugs that might not be appropriate. Teleki, who had been involved in helping Kaiser’s physicians stay abreast of information their patients were receiving, did her Ph.D. dissertation on the impact of direct-to-consumer advertising for COX-2 inhibitors, a class of drugs for arthritis, on the appropriateness of care. Teleki is now an associate policy analyst at RAND.

Judith Connell (Dr.P.H. ’02) is director of research and development for the La Habra, Calif-based Institute for Healthcare Advancement, a non-profit foundation focusing on health education, particularly health literacy. “I attended the seminar to learn more about current research,” she says. “It’s a great forum where students, faculty and practitioners in the field get to meet and discuss important issues.” Other graduates have gone on to work in health plans, government agencies, academia and the pharmaceutical industry. “Interestingly, one of the fastest-growing areas within pharmaceutical manufacturers...
has been in their economics departments,” says Schweitzer. “All firms are trying to better understand the costs of drug development, and to measure the economic benefits of drugs.”

In the last decade, the share of health expenditures going to pharmaceuticals has risen from approximately 8% to nearly 11%. While insurance coverage has expanded for pharmaceuticals, in general it has failed to keep pace for particular groups, such as the elderly, leading a growing number of patients to wonder why they’re paying so much for their prescription drugs. It’s also increasingly likely that people will have major pharmaceutical bills – anyone undergoing organ transplant, for example, faces up to $25,000 in pharmaceutical charges up front and another $10,000 per year. The annual tab for HIV/AIDS drugs is roughly $12,000.

Meanwhile, the aging population translates to more chronic conditions.

“We’ve made dramatic strides not just in longevity but in the quality of life that older people can look forward to, and invariably that’s associated with drugs,” says Schweitzer. “When someone is diagnosed with hypertension at age 50, the drug companies have a captive consumer for the next 30-40 years. That’s true for an increasing number of conditions that we’re figuring out how to control today: from heart disease and diabetes to sexual dysfunction. It’s one of the reasons drug costs keep rising. And you don’t solve the problem by clamping down on expenditures. We have to determine what’s appropriate for people, and then we have to figure out a way of paying for it.”

Approximately two-thirds of all drugs are covered by insurance, Comanor notes – a far cry from 1990, when 59% of prescription medications were paid out of pocket. That change coincides with the rapid growth of managed care plans, which have attempted to decrease pharmaceutical consumption deemed to be inappropriate. In at least one sense they have succeeded, Comanor says. Approximately half of all prescription orders in the United States are now filled by generic drugs, which are considerably less expensive than branded products. That’s up from 40% in 1993.

Any program focused on the pharmaceutical industry also has to look beyond U.S. borders – the industry is multinational, with American companies represented all over the world and foreign companies, especially from Japan and Europe, operating in the United States. Other public policy issues involve patenting and licensure to enable competing companies to make drugs, as well as the impact of the industry’s ever-increasing tendency toward mergers and whether that is cause for concern. This much is clear, notes Schweitzer: “The cost of developing drugs has risen markedly – one estimate puts it at more than $800 million to bring a drug to market, partly because very few drugs that are developed are successful enough that they make it to market.” Thus, Schweitzer notes, while drug companies tend to be a popular target among consumers concerned about the price of their medications, the United States needs to be careful not to follow the experience of Italy, where meager reimbursement has led to a brain drain in the pharmaceutical industry, leaving scant research and development.

Through the guest lectures she attended in the Seminar on Pharmaceutical Economics and Policy, Teleki recalls, she gained an appreciation for these and other complexities. “It was great to have that real-world exposure, because often in public health we don’t see that side – the fact that there are companies trying to be viable businesses,” she says.

“The pharmaceutical industry isn’t a savior, but it’s not a devil either,” concludes Comanor. “It’s like everything else – somewhere in the middle. There are good and bad things about the pharmaceutical industry and the role it plays, just like there are good and bad things about the hospital sector and the physician sector. It’s important that we take a balanced view, and that’s what we’re trying to introduce to our students.”

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