

Charles E. Irwin, M.D., '69: Keen on teens

By Jennifer Durgin

Dr. Charles Irwin didn't think he'd be promoted. It was 1984, and Irwin had spent the previous decade building the division of adolescent medicine at the University of California at San Francisco (UCSF), first as a fellow and then as an assistant professor of pediatrics. In many ways, Irwin was a model academician: he worked grueling hours; he successfully juggled the roles of teacher, clinician, and researcher; and, in 1977, he had secured a \$2.5-million grant to establish an adolescent-medicine training program at UCSF. The problem was that he wasn't doing the kind of basic-science, wet-lab research that most academic physicians did at the time.

"I'm not sure we want this kind of research done in a department of pediatrics," Irwin recalls members of the department saying. The design of Irwin's studies drew as much from the social sciences as from the clinical sciences. It also didn't help that he studied then-taboo subjects like sexually transmitted diseases and that adolescent medicine was still an emerging field.

Irwin and his colleagues were publishing papers in reputable journals, such as *Annals of Internal Medicine* and *Pediatrics*, but they had titles like "Appointment-keeping behavior of adolescents"; "Emerging patterns of tampon use in the adolescent female: The impact of toxic shock syndrome"; "The adolescent ballet dancer: Nutritional practices and characteristics associated with anorexia nervosa"; and "*Chlamydia trachomatis*: Important relationships to race, contraceptive use, lower genital tract infection and Papanicolaou smears."

Discouraged, and worried that academic medicine was not for him, Irwin phoned his favorite mentor, Dr. Carleton Chapman, who had been dean of Dartmouth Medical School from 1966 to 1973. The two had become close when Irwin was a medical student in the late 1960s. "As many of us were being radicalized by the Vietnam War, he was a voice of reason," Irwin says of Chapman, who chatted with students and even invited them to dinner. The dean also cautioned students about attending certain meetings or risking arrest at protests. "You don't ever want to undermine the importance of or how you can use your M.D. to be a good advocate for change," Irwin recalls Chapman saying. At the time, Irwin adds, "it was pretty unusual for medical students to have a relationship with or be heard by a dean."

As he had done when Irwin was a student, Chapman offered the young alumnus encouragement, as well as practical advice on preparing for the promotions committee's review. "Walk proud. Stand high," Chapman urged. "Don't let them push you around."

Irwin took the advice to heart. Evaluations should be based on science not personal opinion, he argued. Following Chapman's counsel paid off—Irwin was promoted, and eventually, under his leadership,

the division of adolescent medicine became a powerhouse at UCSF. He is now a professor and vice chair of UCSF's Department of Pediatrics and director of its Division of Adolescent Medicine.

"For many years, we were on the margin here," says Irwin. Today, one could say Irwin and his colleagues *set* the margins. Adolescent medicine, one of 15 divisions within the Department of Pediatrics, accounts for at least a third of the department's grant funding. The division also houses two federally funded centers, both headed by Irwin: the National Adolescent Health Information Center and the Policy Center for Middle Childhood, Adolescent, and Young Adult Health. The centers provide policy-makers with information about

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access to care, insurance programs, and health initiatives for adolescents. UCSF's adolescent medicine training program, also led by Irwin, has turned out about 150 physicians and re-

searchers. "When I think about what my legacy will be, it is the people that I've trained," says Irwin, whose trainees include leaders in adolescent medicine at Georgetown, Johns Hopkins, the University of California at Los Angeles, the University of North Carolina at Chapel Hill, the University of Wisconsin, and Yale.

Irwin is active on the national level, too. In the 1980s, he led the initiative to establish subspecialty certification in adolescent medicine; in 1998, he received the American Academy of Pediatrics' lifetime achievement award in adolescent medicine; from 2002 to 2003, he served as president of the Society for Adolescent Medicine; and in 2004, he became the editor of the *Journal of Adolescent Health*, the world's only journal devoted exclusively to adolescent health.

It may seem odd that Irwin stuck it out at UCSF, given the doubt cast on the value of his research. But despite the struggles he faced early on, he believes the obstacles would have been greater elsewhere. In the late 1960s and 1970s, "people were much more receptive to change out here," Irwin says of UCSF and the West Coast.

When he entered Dartmouth's then-two-year medical science program in 1967, Irwin planned to complete his M.D. at Harvard—a path that most DMS graduates followed at the time. But a summer internship in 1968 at California's Napa State Hospital changed his mind. Irwin's vision of a state hospital, shaped by his experience as a volunteer at Massachusetts Mental Health Hospital in Boston, "was a locked facility with bars," he says. But "Napa State Hospital was like a college campus." Napa did have locked areas, but it also used behavior modification and group therapy in addition to medicating patients, Irwin recalls.

As a 22-year-old who was increasingly interested in political and social issues, Irwin fell in love with California and its progressive atmosphere. "The problem was then going back to the East Coast," he

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remembers, “and trying to figure out ‘where do I go now?’” He didn’t go to Harvard. Instead, he completed his M.D. in 1971 at UCSF, where he flourished, staying on as a pediatric resident and then as a fellow.

During his residency, from 1971 to 1973, Irwin observed that pediatrics focused on young children, internal and family medicine focused on adults, but no specialty focused on adolescents. He also realized that he “really loved working with older kids.” When the head of pediatrics invited him to stay for an extra year as a fellow—and start an adolescent health clinic at UCSF—he gladly accepted the offer.

When he wasn’t seeing patients in the clinic, Irwin sought out additional experiences. He worked at a family-planning clinic to learn about adolescent gynecology and at a free clinic in the Haight Ashbury area to learn how to care for teenagers with substance-abuse problems. When the fellowship was over, Irwin stayed on at UCSF for three more years, as a Robert Wood Johnson Clinical Scholar. He immersed himself in research and gradually began developing his own ideas. He wanted to know why adolescents used or didn’t use clinical services, how public-health policies influenced adolescent health, and what role puberty played in teenage behavior. The latter question particularly fascinated him.

In 1977, Irwin was named an assistant professor of pediatrics at UCSF, and a few years later he began studying the relationship between teens’ risky behavior and their age at the onset of puberty—as well as other aspects of adolescent health. He discovered that adolescents who enter puberty earlier than their peers are more likely to be exposed to and to engage in risky behaviors like drinking, having sex, and smoking marijuana. “We found that girls and boys who develop early . . . choose to hang out with kids who are older,” says Irwin. As a result, early bloomers participate in activities they may not be psychologically mature enough to handle, while late bloomers are protected from such exposure. “Puberty either puts kids at risk or protects them,” depending on their age at its onset, Irwin explains.

He and his interdisciplinary research team then began asking a new set of questions. *If kids are doing all of these risky things, what role do doctors have to play in this arena?* By the 1990s, the American Academy of Pediatrics, the Maternal and Child Health Bureau, and the American Medical Association (AMA) were asking similar questions. Each organization produced lengthy recommendations for pediatri-



DMS alumnus Charles Irwin, past president of the Society for Adolescent Medicine, was instrumental in getting adolescent medicine recognized as a pediatric subspecialty.

cians. The AMA’s Guidelines for Adolescent Preventive Services, for example, listed about 30 topics and questions that physicians were advised to cover with each adolescent. In concept, it’s a “great idea” to address so many issues, says Irwin, but in practice, it’s not feasible in the typical 15-minute office visit.

So Irwin and his team identified the six areas they thought were most important: tobacco, alcohol, and drug use; sexual behavior; and seatbelt and helmet use. They then developed a training program to teach doctors how to address these risk areas and

identify adolescents in need of further education and counseling.

Irwin and his colleagues have been testing the training program in Kaiser Permanente clinics for almost a decade now. The results, published in *Pediatrics* in April, show that after completing the program, physicians discussed all six risk areas with 83% percent of their adolescent patients, compared with 58% of patients before the training. And since the researchers surveyed the patients, not the physicians, those percentages are unlikely to be inflated.

The study results were so impressive, in fact, that California will begin using the training program this fall for all physicians who care for adolescents on Medicaid. The state has already conducted a baseline assessment and will do a follow-up evaluation after the UCSF model has been implemented. The team’s next step is to determine if screening adolescents in these six areas makes any difference in the long term. *Do adolescents screened this way engage in less risky behavior?* Irwin hopes to have the answer to that question within the next year or so, when the results from a four-year longitudinal study are in.

As busy as he is with research, teaching, and family (he and his wife have a teenager of their own), Irwin still maintains a regular presence in the adolescent clinic he founded nearly 30 years ago. The clinic has come a long way since its start as a one-doctor operation. Now it’s staffed by six physicians, all certified in adolescent medicine; three or four pediatric residents; four to six adolescent-medicine fellows; a nutritionist; and psychologists, nurses, and social workers. It has the resources and know-how to deal with some of the most complex problems of adolescence.

It’s gratifying for Irwin to see how the clinic and the division of adolescent medicine have grown. “Stick with it. You’ll find your course,” Irwin recalls Chapman saying. He’s glad he followed the advice. ■