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agree upon. The doctor can either set them at a marked-up price and take a cut—as many do—or set them close to cost and pass the discount on to their customers. The supplements are dropshipped directly to the patients, so they do not require space in the office or staff time.

"They can make a complete recommendation without having to stock products or benefit monetarily from the sale of those products," Alschuler says. More than 1,000 virtual dispensaries have been created since 2010.

Dr. Robert Bonakdar, director of pain management at **Scripps Center for Integrative Medicine**, founded and co-directs an annual symposium about dietary supplements that draws hundreds of conventional doctors. He, too, gets a lot of questions about in-officesales. "I think it can be done ethically, but it can be a slippery slope," he says.

NBJ Bottom Line

Every industry suffers, to some degree, from the tarnished afterglow of placing profits above ethical behavior. Aren't MDs subject to the same sort of economic pressures and corporate influence as a chiropractor selling glucosamine? Don't those pharmaceutical reps clogging the waiting room have their own murky agenda as they attempt to curry favor with the folks holding the script pad?

Two more takes on the matter, from some real experts:

"Supplements fill the role of procedures for many integrative practitioners. This will always be an issue. There will always be the potential for overprescribing. These doctors are humans, and it would be a damn shame if we didn't realize that."

—John Weeks Publisher, The Integrator Blog

"I don't think that preventing healthcare practitioners from selling supplements is the way to deal with this. We need informed consumers who know how to ask the right questions."

—Steve Mister CEO, Council for Responsible Nutrition

Bonakdar advises those concerned about ethical issues to price their supplements just enough above wholesale to cover their extra effort, to consider a virtual dispensary, and to avoid aligning themselves with just one company. If they are making a profit, Dumoff adds, doctors should let their patients know that in writing, offer them other alternatives for purchasing the supplement elsewhere, and make it clear that their decision to buy or not buy won't impact the kind of medical care they get.

Dumoff also notes that in some states, strict statutes about fee-splitting might also apply to profit-sharing deals between doctors and supplement companies operating virtual dispensaries. "If a doctor drives a patient to a website, that is essentially a referral, and if the referral is to an entity they have a financial relationship with, that could potentially be construed as a kick-back," he says. For that reason, he believes it's safer to sell out of the office than online. He urges doctors to check their state statutes and proceed with caution.

The Future

Virtual dispensaries and profit-free sales strategies aside, Perlmutter believes that the key to swaying physicians lies in educating them about the scientific validity of high-quality supplements. Several companies, including Xymogen, have begun to host educational scientific conferences aimed at conventional practitioners. Meanwhile, others have called on the AMA and various state medical boards to re-visit their disapproving policies. As varous industry factions gain more traction on Capitol Hill, these calls might begin to carry more weight. [See the cover story for more analysis of the Affordable Care Act and its impact on integrative practice.]

Just what will it take to convince more of the nation's hundreds of thousands of doctors and nurses to consider selling supplements? "That's the million-dollar question," says Bliffert. "We're all trying to break the code with conventional medical practitioners, but I don't think anyone in this business has quite figured it out yet. It's our holy grail."

Nutrition Education Programs Offer Vocational Knowledge in Integrative Medicine

Amidst an increasingly fractured healthcare system, nutrition educators train counselors to nurture healthy communities

eople-doctors, students, patients, consumers-are increasingly recognizing the role nutrition plays in health. Unfortunately, few know what to do about it. Doctors get famously little, if any, coursework devoted to nutrition in medical school. Programs that prepare students to become registered dietitians must hew to mainstream thinking about nutrition, which usually means promoting the US-DA's food pyramid as a model of healthful eating and eschewing the use of dietary supplements. For someone with a more holistic bent, that's like a Democrat "going to school at Dick Cheney's school of political theory," said Jonny Bowden, spokesman for the **National** Association of Nutrition Profes**sionals** (NANP). But a growing legion of nutrition education programs offer an alternative.

"We take an integrative approach teaching both conventional nutrition and scientifically responsible holistic health," said Gene Bruno, dean of academics for Knoxville, Tennessee-based **Huntington College of Health Sciences**. So in addition to coursework on anatomy and physiology, Huntington students also take classes on nutraceuticals, functional foods and complementary medicine.

At other integrative programs, students may learn about nutrition within the framework of Ayurvedic or traditional Chinese medicine, or about stress and endocrine interactions, liver detoxification, the science behind cravings, or the importance of eating local and seasonal foods. That was the clincher for Shaya Mercer, a certified holistic health counselor and 2006 graduate of the New York-based Institute for Integrative Nutrition (IIN). "I looked at both accredited master's [RD] programs and alternative programs," she said. "But I was not interested in burning bread over Bunsen burners to learn how many calories were in it. [To me], nourishment is more than just grams of carbohydrate, fat and protein. It's more about our human relationship to food, and how we can fully nourish a human being through healthy food and healthy living so their body can balance and maintain health naturally."

Mercer was just one example of a growing trend. Bruno said that in the last couple of years, Huntington has seen a 10% increase in student enrollment. Joshua Rosenthal, founder and director of IIN, claims increases on the order of 20%-30% annually. "It's like the whole natural foods industry-it just continues to grow," he noted. Bowden agreed: "I think there's a shifting consciousness about the things people can do in a proactive way. People are looking for good information on how to stay healthy and stay out of the medical system," especially in a depressed economy. And when they succeed, they're practically evangelical in their desire to impart the knowledge to others, he said.

"We're at a perfect tipping point," Bowden said. "Alternative education programs are thriving because they speak to a demographic who is midcareer or career-changing, [and the programs are] more integrative, less expensive and less time-consuming."

Unlike RD programs, which require at least a bachelor's degree followed by a 12-month internship, most of the new wave of nutrition programs can be completed in about a year, at a cost of only \$3,000 to \$10,000. Some schools offer rolling enrollment, so students can start when they're ready and not when the calendar says a new semester is beginning. And no one objects if a student wants to proceed at a slower pace to accommodate job and family responsibilities. Such flexibility is possible thanks to the ubiquity of the Internet. At Huntington, "It's all distance learning," Bruno said. Apart from two live events per year, IIN is now completely virtual as well, though it offered classroom instruction when Mercer attended. **Bauman College**, based in California, offers both online and on-site education for its Nutrition Consultant Program, as does Denver's **Nutrition Therapy Institute** (NTI).

Some programs, like Huntington, also offer financial flexibility, allowing students to pay for one course at a time. "For a lot of people, that can make the difference of whether they're going to go to college or not," Bruno said.

I was in a class with doctors, psychotherapists, nurses, PhDs—people who have gone through an incredible amount of education—and they were there to learn the same things I was.

> —Shaya Mercer Holistic Health Counselor

Accessible, Applicable Education

To be clear, no one is suggesting that a certificate achieved in 15 months is the equivalent of a degree from an accredited university. "We're not an academic program. We're a vocational program teaching students nutrition skills, and they're teaching people to be more self-reliant," said Ed Bauman, executive director of Bauman College.

But he sees that focus on applicability as the most critical component of nutrition education. While most of America's nutritional messages are focused on marketing the latest superfruit or dietary supplement to the upper-middle class, Bauman said, a saner approach would be to teach the people who most need credible information—the poor and the sick—about the role of nutrition in health. "Our focus is to create accessible, understandable, affordable and culturally relevant information," he said, which includes doing a lot of community outreach, both as part of the students' curriculum and the overarching mission of the organization, which is a 501 (c) (3) nonprofit. "The emphasis of our program is getting quality food to people, and [teaching them] what you do with it and how you find time to make it work. Most people are challenged with time and economics."

Huntington's programs—which range from a six-course diploma track to associate's, bachelor's and master's degrees—have a similar aim. "If we have someone really knowledgeable teaching them, individuals can make more educated choices about the right diet to follow, the right supplements to take, and the nation as a whole can be a whole lot healthier," Bruno said.

Rosenthal sees IIN's mission as nothing less than "improving health and happiness in America, and through that process, creating a ripple effect that transforms the world."

For all their heady idealism, the programs in this new generation of nutrition education are still firmly grounded in science. Most have some coursework on anatomy, physiology, biochemistry and the like, and students are taught to assess clients' nutritional status through objective means, such as body-composition analysis, urinalysis and blood chemistry (ordered by physicians). Students also learn to assess diet, lifestyle and symptoms. Most programs then go on to teach students how to apply that knowledge therapeutically-in other words, what nutrients will support a deficiency, given the client's history, lifestyle, food preferences and economics, among other individual factors.

Bauman said his students also learn to consider all the drugs people are taking to relieve their physical ailments. "The cutting edge of nutrition education is the synergy between drugs and nutrients," he said. *[See page 18 for our*

analysis of pharmaceutical-dietary supplement interactions.]

And while the programs clearly promote a holistic approach to science and nutrition, they avoid becoming dogmatic about it. "Diet is a bit like religion, where people get locked in, saying, 'My god is better than your god.' What I try to do is tone down people's volatility around food," Rosenthal said. Mercer, Rosenthal's former student, has adopted that tack. "Nutrition is a very controversial subject. There are nuggets in all of [the different theories], but no one diet works for everyone the same way." For that reason, many schools even use conventional nutrition textbooks alongside more alternative and holisitc tomes, to expose students to the widest range of theories.

At Bauman, Huntington and NTI, students have assignments based on those texts. And like their peers in more traditional programs, they'll write papers, review medical research, analyze articles in the popular media about nutrition, and take tests. They conduct research, devise meal plans and make presentations. In the virtual programs, students interact with instructors and mentors via e-mail and telephone or Skype conferences, and classmates discuss thorny problems in online forums. Using technology slightly differently, IIN's students receive a welcome package that includes an iPod preloaded with 40 lectures, some of which are presented by world-renowned speakers like Andrew Weil and Barry Sears.

Extracurricular Focus

Each school also provides for handson experience. Huntington requires students to do nutritional workups on friends or family members, and IIN students work with clients under the supervision of a mentor. At Bauman, students participate in community outreach, such as teaching third-graders to "rethink your drink," or helping food banks' clients learn how to prepare fresh food. Bauman students also complete a 12-week internship focusing on one of three settings: family and school, community (such as health clubs or corporate wellness programs) or clinical, which includes working with doctors and other health professionals.

While Bauman students end up with a notebook they can continually update and use with clients, students at IIN are also well prepared for the business world. "[Rosenthal] gives you a website that you can customize—it's all ready for you to go. He gives you forms, handouts, even business cards—everything you need to start your business," Mercer said.

Maintaining Rigor

Perhaps more important than forms and notebooks, however, is the knowledge students acquire. "A student might think, 'If I do this through distance learning, it's not going to be as hard.' No, no, that's not how it's going to work. You have the advantage of doing it at your own speed, but you're not getting off easier," said Bruno, adding that subjectmatter experts regularly review Huntington's course material to make sure it's the latest, most up-to-date it can be.

"Like any college, some [nutrition programs] have areas where they shine, and some have areas which are not that great. Maybe they're not at a **Yale** graduate level, but [the NANP] asks, 'Are your students coming out with a fundamental knowledge of each of these areas?' " Bowden said.

Graduates say they are. "I can tell you that I remember and put into practice probably 90% of what I learned in that year [at IIN], and I could not tell you anything about what I learned in my four-year bachelor's program," said Mercer, who, like the majority of her classmates, had another career before alighting on nutrition. "I was in a class with doctors, psychotherapists, nurses, PhDs—people who have gone through an incredible amount of education—and they were there to learn the same things I was."

Students who complete a program approved by the NANP—which Ed Bauman calls "our version of the **American Dietetic Association**"—can sit for the

holistic nutrition national board exam. About 80% of candidates pass the threehour test on their first try, said Nicole Hodson, NANP's executive director.

Futures and Options

Graduates of the new-school nutrition programs have a world of career options. Many, like Mercer, work in private practice. Bruno said many of Huntington's graduates go on to work for food or dietary supplements manufacturers, or in health-food stores in management positions. Though nutrition counselors can't accept insurance, many work in integrative-health settings, alongside chiropractors, acupuncturists, mental health professionals, doctors and dentists, Bauman said. Danielle Gibson, a first-semester student at NTI, has her own idea: "I'm looking at starting a cooking school. People are so intimidated by their kitchens. When you make these lifestyle changes, it requires that you start cooking. I want to help people learn to fend for themselves in their new, healthy lifestyle."

NBJ Bottom Line

An industry-sponsored weekend course on the benefits of supplementation. An elective during medical school on herbal medicine. Is that enough education for aspiring MDs about the role of integrative approaches, including nutrition, in promoting wellness? Hardly.

And why is the primary care physician going the way of the country doctor? The investment required in becoming a primary care physician-15 plus years of schooling and lifelong tuition payments-no longer forecasts a profitable return. Specialization rules the day. Rather than yearn for simpler times, savvy practitioners are finding ways to build networks of specialists that together provide total care for their patients. Nutrition education programs tap into that need for teambuilding, offering practicing doctors of many stripes the chance to incorporate nutraceutical and herbal medicine into their clinics. Nutritional counselors, at a minimum, carry the word to local spheres. For industry, the word is good.