RIDE in full STRIDE

Distance-learning technology powers regional dental education

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On a crisp, clear winter morning in Eastern Washington, soft breezes ripple the rolling fields of ripening winter wheat all along the Palouse. Down in the Columbia River basin, acres of grapevines slumber in gnarled repose, anticipating the long days of spring and summer sun that will produce wines to grace millions of tables.

And at a handful of community dental clinics, fourth-year UW dental students sail into a whirl of activity as the School of Dentistry eagerly awaits its own harvest: the first crop of graduates from the Regional Initiatives in Dental Education program.

Access-to-care issue

RIDE, more than four years in the planning, came to fruition in 2007. Its roots, however, lay in a much older issue: access to care. Washington dental providers are thickly clustered along the I-5 corridor, but are relatively sparse in rural areas and small towns, especially east of the Cascade Mountains. To illustrate: In 2007, King County had six times as many dentists per capita as Pend Oreille County in the state’s northeast corner.

Since few dentists are likely to uproot established practices and move to underserved areas, RIDE had another idea: Send dental students to Eastern Washington for more than brief clinical rotations. Give them prolonged exposure to the region’s communities, clinics and dentists – and bank on the prospect that many of those students would choose to practice there.

Students would spend their first year at Spokane’s Riverpoint Campus, jointly operated by Eastern Washington University and Washington State University, taking classes locally and also by interactive videoconference with the School of Dentistry in Seattle. After spending their second and third year in Seattle, they would begin four-month clinical rotations in Eastern Washington in fourth year.

RIDE’s plan was more than a hopeful assumption. It would be partnering with a highly successful model: the UW School of Medicine’s 40-year regional education program known as WWAMI (Washington, Wyoming, Alaska, Montana, Idaho).

In 2007, Dr. Wendy Mouradian, RIDE Director, said: “The School of Medicine has also learned that there is a huge reciprocal benefit of community goodwill and continuing education that develops from inviting community practitioners into the educational process. And medical students do in fact return to these regions at higher rates than the national average.”

Today, Dr. Mouradian – RIDE’s driving force and visionary, also the SOD’s Associate Dean for Regional Affairs, Curriculum and Educational Technologies – can take satisfaction in meeting formidable challenges: educational, technological, logistical and
financial. As she notes, “Each year we have been doing it all for the first time.”

Blazing multiple trails

Access to care aside, RIDE has embraced a truly ambitious agenda. The program has made extensive use of distance-learning technologies that could be the future of professional education. Videoconferencing is only part of it; RIDE uses other tools, such as Mediasite/Polycom recordings of lectures, along with Moodle, an online course management system (also known as “learning ware”). RIDE students can play back lectures on their notebooks or tablets and skip forward or backward as desired. A smartphone app is expected in the near future.

“Some professors like it as a tool for review right before a test, too,” says Dr. Randy Jackson, Director of Academic and Learning Technologies, who joined the School in 2010. He spent much of the summer of 2011 helping to reconfigure Health Sciences classroom D-209, linking it electronically to the seven clinical rotation sites to allow students to continue attending classes there.

“When they are out in clinical sites, we will need to see what kinds of experiences the students are having and understand the kinds of patients they’re seeing, and how this affects their overall educational experience and career choices,” says Dr. Jackson.

Another key addition in 2010 was Dr. Hongjun Wang, who works with Dr. Jackson to oversee academic and learning technologies and manage STRIDE, the School of Dentistry’s student database. In RIDE’s formative stages, much of that work had been done by Dr. David Pitts (Endo ’77) of Endodontics. He continued to devote two days a week to RIDE after retiring from Endo in 2009, but the program clearly needed full-time tech support.

The D-209 upgrade was funded by a federal Health Resources and Services Administration (HRSA) grant. A second HRSA grant, to the Washington State Department of Rural Health, created a “Teledentistry Network” with additional videoconferencing equipment for community health centers hosting RIDE students, and other technology to make the whole thing run smoothly for multiple users.

Students have embraced the new technology, says Dr. Art DiMarco, Director of RIDE in Spokane.

“We have learned to adjust to occasional challenges in maintaining contact with Seattle by making sure that all course materials are continuously available to students,” including after hours, he says. “If there is any

RIDE students spend their first year at the EWU-WSU Riverpoint Campus in Spokane.
comment on the issue from students, it is that they would prefer to have more rather than fewer distance-learning opportunities, which I think speaks volumes about how well distance learning is performing from a student point of view.”

Closing educational gaps

RIDE is also on the cutting edge of another trend: closing the gap between medical and dental education. The Association of American Medical Colleges has recommended adding oral health to the medical school curriculum, which the UW School of Medicine has already begun to do. From the start, RIDE students at Riverpoint have taken classes alongside medical students and dental hygiene students, with everyone gaining a better appreciation of systemic health. Says student Thomas Duffy ('14): “Interdisciplinary learning is already part of what RIDE is as we take classes with the med students, and spend time in clinic seeing how much more experience the dental hygienists have. Now it’s just about all I can think about when people ask me why I chose RIDE.”

For years, Dr. Mouradian has specialized in working across disciplines. Trained as a pediatrician, she was Director of the Craniofacial Program at Seattle Children’s hospital from 1994 to 1998. Heading a team with members from more than a dozen disciplines, she observed that many patients had severe caries and other dental issues. It troubled her: Why weren’t physicians picking up on this?

She went on to help organize and chair the U.S. Surgeon General’s Conference on Children’s Oral Health in Washing-
sion at the School of Dentistry. But there are significant differences.

For starters, students had to complete virtually all of their competencies by the end of fall quarter in fourth year. A key to meeting this goal was the addition of Dr. Dorothy Stewart (‘82, Dental Hygiene ’72), a Restorative Dentistry affiliate instructor, in 2010. Dr. Stewart meets regularly with RIDE students to keep close tabs on their progress toward completing competencies. She’s also there for students as a much-appreciated sounding board and all-purpose adviser.

“She has a reputation of being one of the best clinical instructors in the dental school, while also being one of the kindest,” says RIDE student Eric Nygard (’13).

RIDE students on rotation also must adjust to a quicker pace – six to eight patients a day, compared with the customary two or three in Seattle. Before the rotations started, Dr. Sledge talked about what lay in store.

“There will be a lot of pediatric care, emergency care and extractions,” he said. “They’ll also get a wonderful opportunity to work as a team member – working with assistants, hygienists, front-office people and their preceptors. And of course they’ll be exposed to a community health clinic population they might not ordinarily see, in terms of the breadth of experiences they’ll get.”

Preceptors undergo one- or two-day calibration visits to the School of Dentistry to acquaint themselves with curriculum and methods. “We’ve asked our preceptors to continue with the techniques the students learned in Seattle,” Dr. Sledge said.

For student Patty Martin (’12), the fast pace of the fourth-year rotation, while initially daunting, was a welcome tune-up for real-world dentistry.

As she wrote in her journal: “I’m feeling a lot more confident with all the different procedures, from simply diagnosing caries, hand skills, using my mirror, extractions, surgery, crown preps … I am SO glad I’ve had this opportunity to get out and get some experience before graduation.”

**Dental community support**

Through it all, backing from Eastern Washington dentists would be critical, and Dr. Mouradian says she has not been disappointed.

“The dental community support has been terrific,” she says. “They continue to host RIDE students each year at Spokane District Dental Society functions. Some RIDE students have actually commented on the role modeling of philanthropy they see in the component dental society.”

Last November, the Spokane society and the UW Dental Alumni Association, with the support of Guardian Dental Insurance and Pacific Continental Bank, hosted a reception and dinner meeting in Spokane. Members heard an update on RIDE by Dr. Mouradian and other officials and met the eight students in the Class of ‘15 cohort.

Backing by faculty in Seattle and Spokane has also been exemplary, Dr. Mouradian says: “A great partnership has evolved with the EWU Dental Hygiene Department and the UW School of Medicine WWAMI program at WSU. These have all gone so well, which is hard to believe given the complexity of the program. Sure, there have been things to sort out, like different grading scales, or different quarter/semester ending and start dates, but you don’t undertake such a complex project and not expect challenges. And many dental faculty at the School have played key roles in helping to ensure equivalency of education for RIDE students during their time in Eastern Washington, particularly first- and fourth-year course directors.”

Now RIDE is drawing wider attention. “Our mission, vision and goals have served us well,” says Dr. Mouradian. “We started this project in 2003, and have found an increasing interest nationally in this kind of program. In fact, next year the Committee on Dental Accreditation will start requiring all schools to offer community-based educational experiences. I have also had calls from deans of other schools to ask us about RIDE.”

It’s not hard to see why, as RIDE has helped set the pace in dental education. “In the Institute of Medicine’s 2011 report on access to oral health care for vulnerable populations, there were specific recommendations to increase community-based training, include interprofessional experiences, and utilize telehealth strategies – all of which we are doing in RIDE,” Dr. Mouradian says.

Just as classmates in Seattle form tight bonds, so has each
RIDE class. “The cohort effect is very strong,” Dr. Mouradian says. “For the most part, these students really bond together in their first year at Spokane. They get to know each other well and create small, supportive teams. Still, they seem to do just fine when they get back to Seattle in second year and make other friends among their counterparts.”

A special approach

RIDE does require a more tailored approach to students. Dr. Mouradian elaborates: “We found we have had to frame certain experiences for students clearly — explain, for example, why they are working with medical students in small groups and interviewing patients in hospital settings; talk to them about the value of working in teams with dental hygiene students; reinforce professionalism expectations early in the program, because they are involved with patients sooner than their classmates, given the required summer rotation [after the first year]. In advance, they are provided with dental assisting skills and some basic techniques in local anesthesia so they are actually able to start some early clinical care under supervision.” RIDE students also write their own codes of professionalism and ethics at the start of their first year, she says.

What lies ahead for RIDE after it graduates its first students? “We need to weather the budget cuts and complete accreditation this year before embarking on more things, but ultimately we think RIDE is a model that should be shared with others,” Dr. Mouradian says, adding: “We would really like to enhance the interprofessional component. In addition to teaching more oral health to medical students, we would like to develop interprofessional clinical experiences for RIDE students out on rotations.” Starting next year, these will be required by CODA anyway, she notes.

While RIDE already shares its resources widely with the School of Dentistry and others at UW Health Sciences, it would like to find new ways to do so, she says: “I am really interested in continuing dental education and other ways the School of Dentistry can reach out through the RIDE teledentistry network to address educational needs among community preceptors and other dentists.”

For now, says Dr. McCoy, “It has been a pleasant surprise to see how everyone has been so solidly supporting the RIDE effort.”

Has the exposure to community dentistry had an impact? RIDE student Brad Tucker (’13) answered that question when he blogged about his experience during a Rural and Underserved Opportunities Program rotation:

“I remember talking to one of my preceptors about dentistry, and in particular about the income private practice dentists can make in comparison to community health center dentists. As the conversation went on, he made it clear that he was very proud to be a community health center dentist and he went on to discuss why. That was an ‘aha’ moment for me, because I finally realized what it meant to be a community dentist. What it meant to have the opportunity and ability to serve and care for the mentally ill, the addicted, and the underprivileged. For him, it almost seemed like a calling or a duty … I really liked that.”

At the School of Dentistry in Seattle, students listen to a Restorative Dentistry lecture while RIDE students join in by videoconference link (screen at top).