



EXECUTIVE SUMMARY

**Influencing the Dental
Workforce in Illinois:
A Case Study of the
Illinois Children's
Healthcare Foundation
Pipeline Project**



Illinois Children's
Healthcare Foundation

Influencing the dental workforce in Illinois

In 2007, the Illinois Children's Healthcare Foundation (ILCHF) began an initiative to provide multi-year funding to two Illinois public dental schools, Southern Illinois University (SIU) School of Dental Medicine and University of Illinois Chicago (UIC) College of Dentistry, with the goal of increasing the number of oral health professionals who intend to serve children in underserved areas of Illinois. The strategies implemented as part of the initiative were unique to each school, but both aimed to modify their admissions/recruitment processes and enhance their students' pedagogical experience in economically disadvantaged communities and with children. Both schools created new or expanded current partnerships with community-based dental clinics, primarily at Federally Qualified Health Centers (FQHCs), as part of a strategy to increase the experiential learning opportunities in their programs. The evaluation of this seven year study, conducted by researchers at Loyola University Chicago Center for Urban Research and Learning (CURL), captured key quantitative and qualitative findings related to the implementation of the new workforce development strategies and the potential impact on the accessibility of dental services for children and families in economically disadvantaged communities.

Overview of the Pipeline Dentistry initiative projects

SOUTHERN ILLINOIS UNIVERSITY SCHOOL OF DENTAL MEDICINE

At SIU, there were four new strategies engaged. First, a pediatric clinic was established in SIU's East St. Louis clinic to increase pediatric dental training for all SIU students. This doubled the time that all fourth year students spent at the East St. Louis clinic and more than doubled the curricular time devoted to pediatric dentistry. Second, extramural rotation experiences were created for all SIU students at FQHCs. Third, the SIU Rural Scholars Program was created as an optional curriculum supplement aimed at increasing the number of graduates who would locate in small towns and rural communities and have practices that would include children and the economically disadvantaged. This program's curriculum included research and didactic components about community and public health issues, as well as an experiential component composed of extramural rotations, beginning in the first year of dental school. The Rural Scholars Program offered a four-year partial tuition scholarship and a post-graduate fellowship. Fourth, the recruitment and admissions process, which already targeted students coming from small towns and rural communities, was tasked with identifying, recruiting and selecting potential Rural Scholars from incoming classes.

UNIVERSITY OF ILLINOIS CHICAGO COLLEGE OF DENTISTRY

At UIC, the primary strategy engaged was an expansion of extramural rotations with an emphasis on working with children in underserved communities. UIC increased fourth year students' extramural rotation participation rate to 100% and increased the length of time that students spent in rotations as part of the curriculum enhancements. UIC also created pediatric service learning opportunities for students over all four years. This was accompanied by recruitment and admissions strategies to increase the number of incoming dental students who possessed a special interest in community-based practice and the provision of care to children and the underserved in Illinois. The key strategy in this endeavor was UIC's sponsorship and coordination of the Illinois PreDental Consortium (IPDC) which connects pre-dental students at 13 Illinois public and private schools to share resources and interests.

KEY FINDINGS

Dental care to children increased at both schools

- The number of children receiving dental care at SIU's East St. Louis Clinic increased by 57% after ILCHF funding to more than 1,600 annually.
- UIC estimates that during the five-year grant period students provided care to more than 30,000 children in extramural rotations.

Most incoming students exhibit community service ethos

Though many incoming dental students report lower professional interest in working with children or in a public health setting, results of this research showed that 97% of students at SIU and 91% of students at UIC reported that they hoped to become comfortable serving children. Additionally, 91% of incoming students at both schools reported that they hoped to become comfortable working in a public health setting while in dental school. Influencing factors may include the schools' emphasis on the importance of a pro-civic attitude in their admissions processes and specific changes in the admissions policies related to this project.

Most graduates aim to serve children and the economically disadvantaged in their practice

The majority of the graduates from both schools reported that they were intending to include children and people facing economic disadvantage in their practice.

- Seventy-nine percent of graduates planned to treat children across schools and setting in which they envisioned working.
- Thirty-two percent of graduates reported they intend to have a full- or part-time relationship with a community-based or public health clinic, in most cases by combining a private practice and work in a public setting.

Graduating students reported that the primary considerations for selecting practice location and type after graduation were based on personal preferences such as lifestyle, proximity to family and community of origin.

In two-year post-graduation surveys with UIC alumni, 99% of those who had participated in an extramural rotation have been able to incorporate working with children and the economically disadvantaged in their practice.

- Ninety-three percent provided care to children.
- Eighty-one percent provided care to patients with special needs.
- Sixty-three percent provided care to Medicaid patients.

Quality of learning experience

A large majority of graduating students reflected positively on the quality of their learning experience.

- Eighty-six percent indicated that they received adequate training or exposure to treating children; 84% reported they felt comfortable treating children.

Graduating students who reported a higher quality learning experience related to working with children were significantly more likely to report planning to work with children in their future career.

Key impacts of the students' learning experience

- **Overcoming their fear of working with children.** Many students indicated that they developed confidence and enjoyed working with pediatric patients, which included some students who had previously dreaded it.
- **Behavior management and communication skills.** Students reported that providing care to children helped them to develop their patient-management skills and supplement what they were learning at the schools' clinics.
- **Understanding a dentist's role in prevention.** Extramural sites offered students an opportunity to think about the role of prevention in a dental practice.
- **Familiarity with other models of care and imagining themselves in the care delivery system.** At both schools, students talked about how the extramural rotations showed them that public health dentistry and community-based practice were career options. In addition, they highly valued their experiences at FQHCs with state-of-the-art equipment, belying preconceptions of the poor quality of public health equipment.
- **Proximity to economically disadvantaged individuals and families.** Students received a much more proximate understanding of community members' realities of limited access to dental care, including the scope of the need for dental care and education, the economic factors that constrain dental care and the public policy implications.

Key benefits to the extramural sites

- **Recruitment of dentists.** A benefit cited by many extramural sites was the recruitment of future employees from students who had participated at an extramural rotation at their clinic or at other community clinics.
- **Fitting into mission and goals.** Clinic administrators and dental directors described how serving as extramural sites fit into the mission and goals of their organizations. They saw that being a learning site could increase the clinic's capacity to provide dental services to their community as well as educating and building a future dental workforce with capability and interest in serving the disadvantaged.
- **Staff education and morale.** Students helped to educate dental staff, thus keeping staff dentists' skills up-to-date. Administrators noticed an improvement in staff engagement as a result of students' presence.
- **Working partnership with dental schools.** At SIU, the referral relationship between SIU and the FQHC in Bethalto strengthened substantially, including Bethalto's ability to refer their complex special needs patients to SIU's School of Dental Medicine. UIC supported its extramural partners as they sought grant funds by providing the clinics with increased credibility within the larger community. For example, extramural sites mentioned being UIC training sites when applying for funding.

Key implementation factors at the dental schools

- **Fitting into the mission and goals of the schools.** At both schools, the programmatic features and strategies associated with the curricular innovations were nested in each school's particular missions and goals.
- **Having adequate infrastructure and active buy-in by leadership.** Given the different experiences observed between the two schools, it is clear that program planning and evaluation are components of infrastructure that must be built into project timelines and budget. At both schools, the role of the faculty and administrative leadership was key to the implementation process.
- **Integrating the new pedagogy into the dental school's learning culture.** The new pedagogical experiences were seen as enhancing the learning mission at both schools. The leading faculty used communication and flexible program implementation to facilitate the integration of the projects. Critical to a communication strategy is continuing to communicate about the impact and lessons learned on an on-going basis.

Sustainability going forward

Both schools are continuing innovations that were funded by the initiative and are moving forward on other initiatives related to treating children and increasing access to care for the underserved. At UIC, this includes an expanded extramural program and support of the Pre-Dental Consortium. At SIU, the extramural rotations have been incorporated into the curriculum, as has the pediatric training at the East St. Louis Clinic. SIU decided not to continue the Rural Scholars Program beyond the grant period. However, SIU is examining other strategies, such as debt forgiveness combined with post-graduate placement fellowship with county health or other community-based clinics, to address the goal of placing dentists in underserved areas.

Conclusion

In summary, the report findings demonstrate the positive impact of this multi-year endeavor by ILCHF, SIU, UIC and community partners to improve the delivery of oral health to children and underserved communities in Illinois. Both schools increased their services to children. With the new curriculum, a new generation of dentists gained insightful understandings and skills to serve underserved communities and incorporate that service into their practice in a variety of ways. The projects not only furthered the mission and goals of the schools and the community health agencies, but it also created and/or expanded partnerships between the schools and the community health agencies focused on serving and expanding oral health care to children and training future generations of dentists.



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