

Students Help OSF Innovation Design Solutions to Help Older, Rural Residents

Students hand-selected from across the curriculum at the University of Illinois in Chicago are advancing innovative solutions to solve the loneliness epidemic, particularly for older, rural residents and they've come up with a solution for bringing the community health worker concept into the 21st century with digital tools to better focus on patients.

The group of graduate and undergraduate students from the [OSF Lab at UIC's Innovation Center](#), led by faculty, worked this summer specifically on solutions to address social isolation and to digitally enable community health workers who are not medically trained but who serve as trusted advisors and connect patients to resources that can improve health and well-being.

OSF Performance Improvement Specialist Chelsea Courson is part of the [Complex Solutions Innovation \(CSI\) Team](#) which is transforming approaches to community health. She says the urban-based students immersed themselves in rural communities near Innovation Outposts including Pontiac and Monmouth, Illinois where they learned the harsh realities some residents face.

“That some towns only have a Casey’s or a Dollar General and there may not be another person for miles and no transportation to meet with someone and they don’t have internet so they don’t have that type of connectivity either.”

Graphic Design undergrad Alexandra Spiroff of Chicago has been leading the team working on ways to digitally support community health care workers so they can spend more time helping patients tackle their day-to-day struggles to try to improve long term health. Spiroff was drawn to the project because she is a diabetic and knows the challenges of managing a chronic disease.

“Because I’m looking at this now through the lens of a patient that requires more than regular care and also as a designer. I wear those two hats at once. They don’t come off. They’re always there.”

A lasting impression came from an interview in the small town of Collum, 20 miles east of Pontiac where an older woman lived with her health-challenged daughter who couldn't drive.

“Well, we thought ‘what are you going to do when she’s (the mother) not able to drive?’ and putting that into perspective, we had just driven that distance from the doctor’s office. That’s a very long way to go for someone who had great health challenges and needed to go frequently.” Spiroff added, “Experiences like that really put it into perspective what we were dealing with and the people we were serving. It was a really interesting opportunity that was enlightening as well.”

The May graduate said her work was so fulfilling, she's decided to go pursue a health care career. Spiroff now wants to use her graphic design skills to ultimately improve people's quality of life.

Mrinal Kumar, a software developer who launched his own tech start-up in India, is pursuing a master's degree in the U.S., in part to better understand why the country spends twice as much on health care as other developing countries but has worse results, including lower life expectancy. Kumar personally interviewed elderly and rural residents who face significant challenges including a woman with brain cancer who he later learned died.

Kumar was inspired knowing the work he is doing can help even terminally ill patients lead better lives for as long as they can. He also read transcripts of other interviews conducted by fellow Innovation Lab students.

“For half an hour, I couldn’t talk to anybody and I was like, ‘it’s a big problem here and it needs to be addressed in a country which is number one in the world and you still have these problems,’” recalled Kumar. “I’m really glad OSF is looking into those areas and basically building solutions.”

Kumar vows to continue the work to test and refine a solution that will allow community health workers spend their time more efficiently, and focused solely on patients. The OSF Lab in Chicago is also tapping the resources of [interns from several colleges and universities in Illinois who are adding Virtual and Augmented Reality into the design of the Community Health Workers tool.](#)

Ram Krishnamoorthy is getting his PhD in Computer Science and worked for an e-commerce site in his native country of India where he was heavily involved in using his coding skills. He was excited about doing something that required more brainpower and about building something that could have a big impact on improving people’s lives.

“It excited me that I would be working on something which does not exist now. So I need to think a lot, I need to read a lot of literature, understand how it can be done and use my experience to do it in a better way,” he shared.

Krishnamoorthy will be joining Kumar on efforts to test usability and refine the community health workers digital solutions based on feedback. The UIC faculty-led group will also examine how information collected by the community-based outreach can be integrated to connect with medical providers and a larger social service network. The Southern Illinois University School of Medicine in Springfield is among the partners who will be included in the follow up studies.