

Taking over the world

Remote-presence technology putting northern Labrador on the map

story by Bert Pomeroy

Ivar Mendez recalls playing a game as a boy where the object was to take over the world.

“It was similar to Risk,” he notes. “The game had different places on it, including Labrador. The aim was to conquer the world, and Labrador was a strategic place – it held the key to winning the game.”

As a child growing up in his native Boliva, Mendez could only dream of someday visiting Labrador. That dream became a reality just over a year ago when he was contacted by the Atlantic regional director of Health Canada after she had seen Mendez being interviewed on Canada AM about an innovative approach to providing health-care services.

“My daughter had missed her school bus one morning and while I was getting ready to bring her to school I just happened to turn on Canada AM,” recalls Debra Keays-White. “Here was Dr. Mendez talking about this robot and how it could provide access to healthcare in real time using remote-presence technology. He was talking about operating the robot in North Sydney from his laptop in Halifax. I thought that if it could work between these two locations, then why wouldn’t it work in remote northern communities?”

A couple of weeks later Keays-White was attending a Health Canada senior management meeting in Ottawa.



Dr. Ivar Mendez at his Halifax office with a Remote Presence Robot, similar to the one in Nain.

Submitted photo

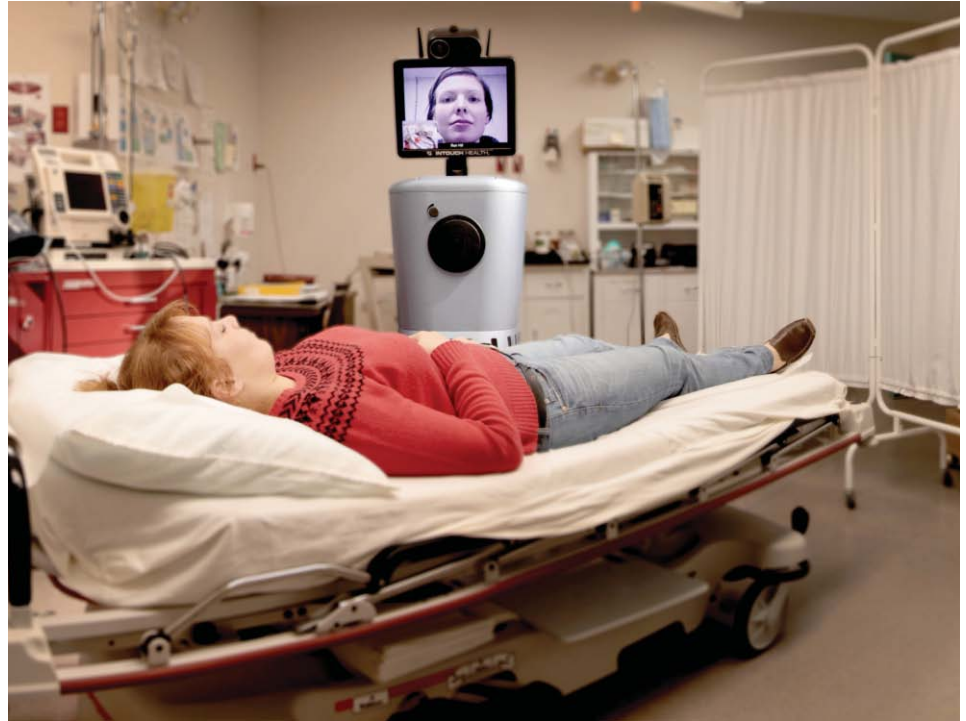
health and technology

“We were talking about challenges to providing access to care in remote regions, particularly with respect to transportation, language and cultural challenges,” she notes. “I thought it would be a good idea to try and get in touch with Dr. Mendez to learn more about his robot project.”

When she returned to her Halifax office she noticed a book on her desk that was given to her by a friend. The book was co-authored by a respected Mi'maq elder. The other co-author was Dr. Mendez.

“I had this book for awhile and I knew I was familiar with Dr. Mendez’s name, but I couldn’t remember how,” she says. “I called my friend and she contacted Dr. Mendez, and 15 minutes later I got an email from him. He said he was very interested in health issues related to Inuit and First Nations people.

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Demonstration at the clinic in Nain.

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“We set up a meeting for the following week, where he gave me a demonstration on how the robot worked from Halifax to Sydney to California.

“Together we mapped out a vision for a project for northern Labrador,” adds Keays-White.

In March of last year Dr. Mendez flew to Nain. The trip gave him an opportunity to learn first hand some of the challenges facing the community, particularly with respect to healthcare.

“I have a tremendous interest in working with Third World and aboriginal peoples,” he says. “I want to help narrow the gap between people and the services they receive, so I felt this new technology would allow us to do just that for the people in northern Labrador.”

The Remote Presence Robot, as it’s technically labeled, essentially allows physicians to be in “two places at once”. Under the direct control of a remote physician seated at a control station, the robot can move untethered allowing the physician to freely interact with patients, family members and hospital staff from anywhere, anytime.

The robot was designed by California-based In Touch Technologies. Its dark grey body is topped with a flat-screen computer monitor that can rotate 360 degrees and tilt up and down. The camera inside the robot has a 180-degree view that can zoom in on objects in great detail.

“It allows a patient to have access to medical care, both emergency and spe-

cialized,” explains Dr. Mendez. “If a patient is in trouble, such as chest pain, a physician in Goose Bay or St. John’s or anywhere else can logon and listen to the patient’s heart and look at an EKG. A cardiologist can also be asked to hook-in and together they can manage that patient in real time. It could save the patient’s life.”

The technology would be particularly beneficial to communities like Nain where air access is limited to daylight hours and only when weather permits, Dr. Mendez notes.

The robot is can assist doctors in resuscitating patients, and is also equipped with a portable ultrasound machine.

“If somebody has an accident the physician can logon and instruct the robot to go to the patient at the clinic,” Dr. Mendez continues. “The doctor can look at everything, talk to people that are there and make recommendations on what to do. The doctor can even write prescriptions and have them printed by the robot.”

Dr. Mendez delivered the robot to the Nain clinic in late November. The pilot project, which is funded partially by Health Canada, is expected to be officially launched in late March or early April. It will run for six months. Dr. Mendez says he’s hopeful the project will continue.

“I think this is going to save lives – it’s the way of the future,” he says. “What we learn in Nain... will be used all over the world.” ☸



Debra Keays-White and Dr. Mendez with the Remote Presence Robot in Nain.
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Dr. Mendez is professor and head of the Division of Neurosurgery at the Capital District Health Authority and serves as chair of the Brain Repair Centre in Halifax, Nova Scotia. He is recognized internationally as an expert in his field, having over 200 international and national presentations as well as over 200 scientific publications. In 2002, he and his team did the world’s first remote robotic neurosurgery on a patient in Saint John, NB, from Halifax – some 400 kilometers away.