

Dr Michael Brent says that a rigorous screening program could help prevent vision loss in vulnerable populations

## Heading off diabetic retinopathy

Diabetic retinopathy is the leading cause of severe vision loss and blindness in working-age Canadians. Yet in Ontario, close to 40 per cent of people living with diabetes have not had their annual screening eye exam in two years, despite the fact that early intervention can prevent it.

Dr. Michael Brent, retinal specialist, Milton Harris Chair in Adult Macular Degeneration and principal investigator for Diabetes Action Canada's retinopathy screening program with the Donald K. Johnson Eye Institute, is harnessing new technologies to get screening out into communities where diabetic retinopathy screening rates are low.

Mobile units visit inner city and remote Indigenous communities. People who choose to be screened have their vision and eye pressure checked, and a special digital camera is used to take images of their retinas. These images are uploaded to a secure server and Dr. Brent accesses the information remotely. He then grades the images for the level of eye disease and makes recommendations, which could range from scheduling their next eye screening exam, to an office visit, all the way to the need for surgery.

To date, almost 10 per cent of people screened through mobile units have required specialized retinal care, Dr. Brent says.

"The program is definitely reaching the right demographic and helping to prevent vision loss in vulnerable communities," he savs.

The ultimate goal is to have a program in every province and territory, connected through a common database.

"With a rigorous screening program, diabetic retinopathy could be removed from the top of the list of causes for severe vision loss and blindness."

By Kira Vermond

## Toward vision care for all

Imagine waking with eye pain, blurred vision and redness. Yet despite the discomfort, visiting an ophthalmologist or optometrist is out of the question because you can't afford to take time off or even pay for parking.

For those who struggle to



make ends meet, routine eye care may seem out of reach. The Donald K. Johnson Eye Institute's Dr. Ya-Ping Jin, a researcher with expertise in epidemiology, biostatistics and medicine, along with a team of UHN scientists, is uncovering how deep the problem goes - while laying the

> Dr. Ya-Ping Jin urges policy-makers to examine how their decisions can better serve all members of society

foundation for accessible, databased eve care.

"In Canada, vision care is part of a publicly funded health-care system. However, for those aged 20 to 64, routine eye visits are not funded by any province," says Dr. Jin. "This barrier likely contributes to our studies, which find socioeconomic status influences access to eye care."

For example, Dr. Jin and her team identified that the removal of routine eye-care services from provincial insurance in 2004 has meant that socially disadvantaged adults aren't always getting the vision care they need to avoid treatable sight loss, such as the blindness caused by glaucoma.

In another study, Dr. Jin showed that children receiving care for amblyopia, colloquially known as "lazy eye," at Toronto's SickKids were more likely to come from wealthier neighbourhoods. Parents with well-paying jobs and benefits encounter fewer barriers to attending multiple appointments.

There are ways to combat these challenges though, Dr. Jin says. For example, she recommends targeting low-income neighbourhoods for glaucoma education and treatment.

"I'm interested in health policy and the impact this has on people's lives," she says.

By Kira Vermond