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KO Telemedicine presents:

New Clinical Initiatives in Remote First Nations Telemedicine





The journey of creating 2 new clinical programs.....

Tele Ophthalmology
Tele Pharmacy

planning and implementation
partnering, community engagement,
resource development



Community needs must be met first...

- Diabetes and Eye care barriers
- Remote community members rarely have the opportunity to visit a pharmacist



Planning phase

- Research possibilities
Who is doing this best?
What are funding options?
- Engage community stakeholders
Listen and share knowledge
- Form partnerships
- Approval of detailed plan
- Documents in place



Implementation phase

Engage community users and leadership

Be present and include community partners

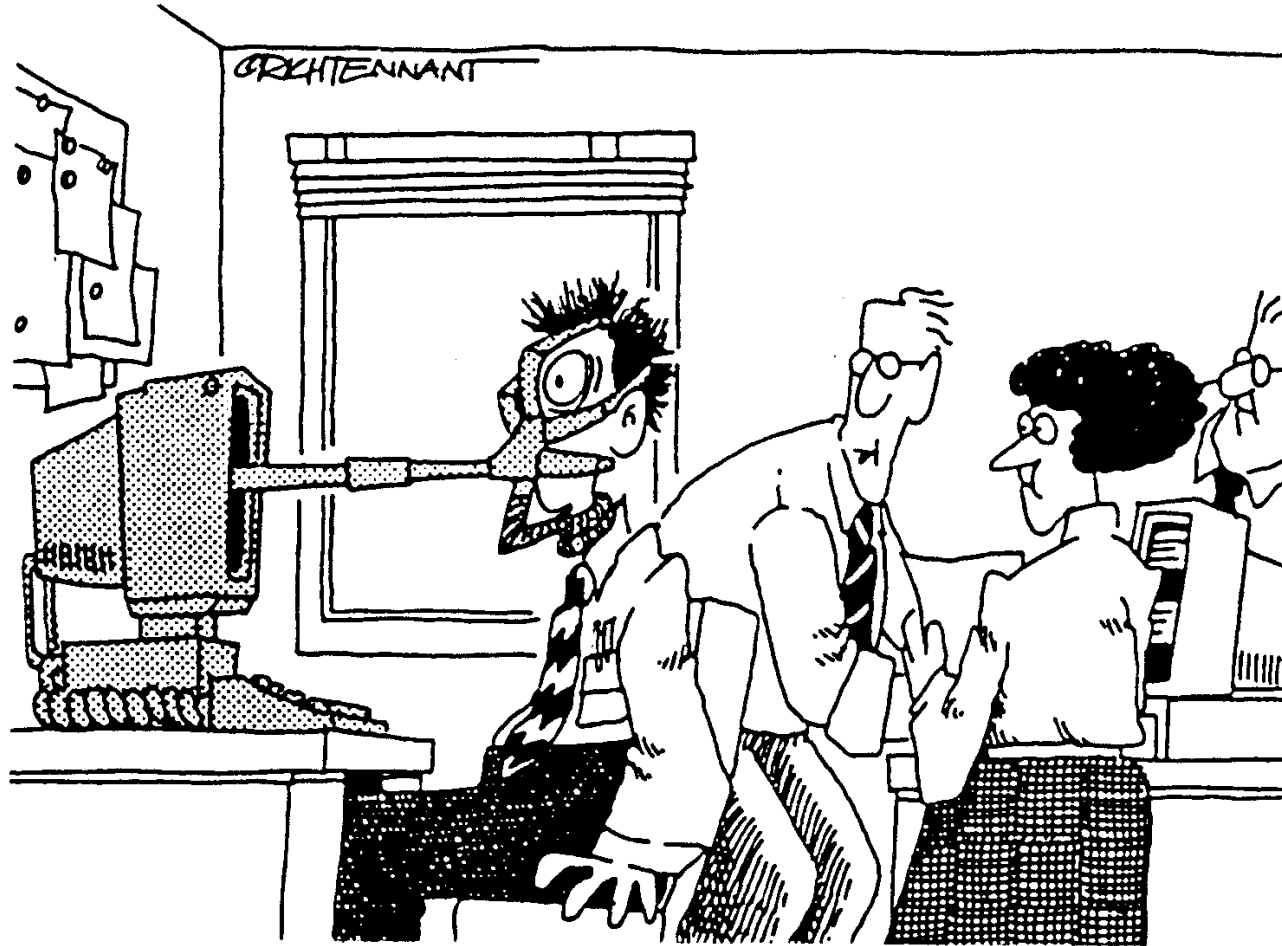
Hold open houses to show case, answer questions and respond to concerns



Begin Service Delivery

- Implement on a small scale first
- Evaluate and improve before replicating elsewhere
- Communities are never identical and expect to make adjustments
- Larger communities have different needs

This strategy develops champions and partners along the way.....



*"Alright, steady everyone. Margo, go over to Tom's PC
and press 'ESCAPE', ... very carefully."*

Tele Ophthalmology

Diabetic Retinopathy Screening and Surveillance Program



No person in Ontario should go blind from Retinopathy in 2008

Yet some will.....





Why Teleophthalmology?

- “A portable retinal camera is a cost-effective means of screening for diabetic retinopathy in isolated communities of at risk individuals” (Cruess 2003)
- Increase culturally appropriate access

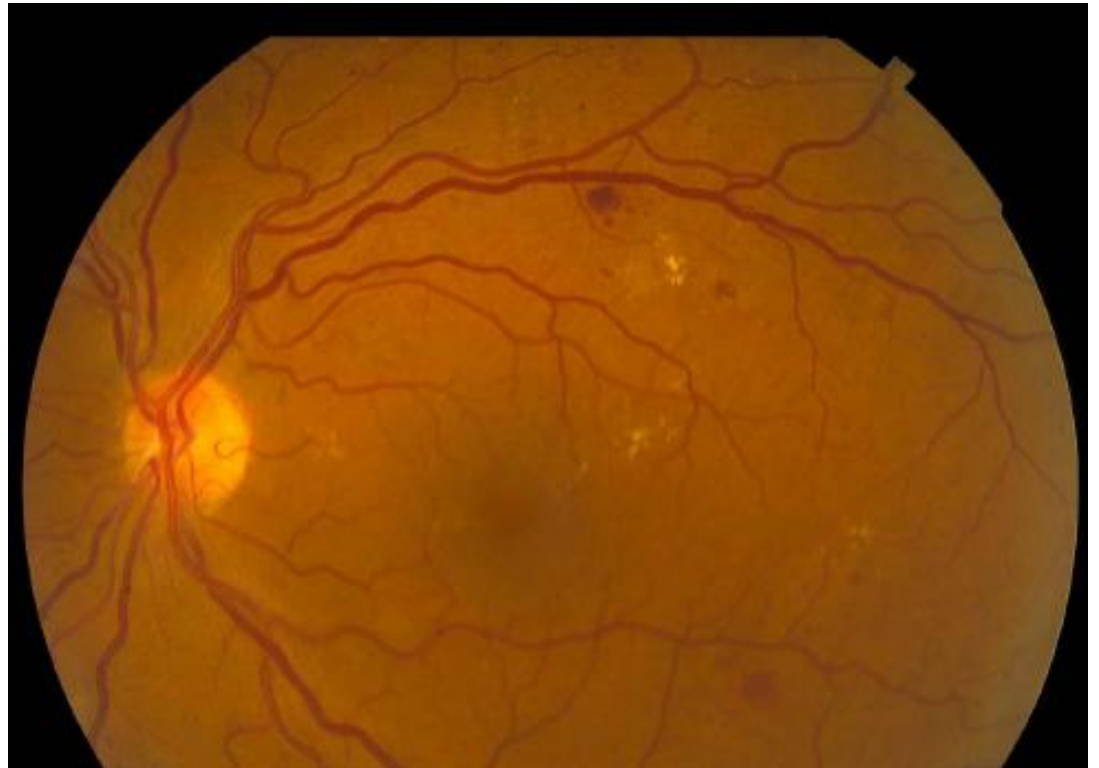


Key Messages

- FN people are receiving fewer invasive procedures that treat cardiovascular and cerebrovascular diseases and diabetic eye disease.
- Given the high rates of disease, these low treatment rates suggest reduced access for people from remote FN communities.
- It is not clear to what extent this is due to lower rates of screening and detection of complications.

Seeing is believing.....

and believing
makes a great
Teaching
moment!



If eye complications are present, other
complications are present...



Diabetes Eye Screening program

- All Diabetes clients invited to attend
- Eye assessment done in the community
- Detects most common causes of vision loss
- Communication with Health care Team
- Diabetes-Eye care Education
- Eye Specialist report

How NOT to initiate a program....

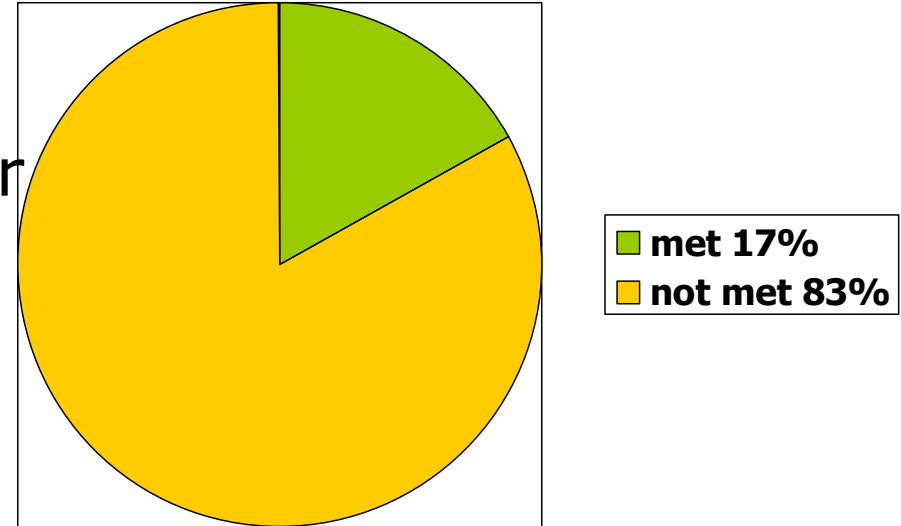


When

KOTH 2005 Findings

CDA CPG 2003
recommendation for
eye exam
frequency

- All T2DM clients
every 1-2 years
- If problems are
found more
frequent exams
are required





The Tele-ophthalmology eye exam

- Visual acuity testing
- Ophthalmic and diabetic chart review
- Tonometry (eye pressure)
- Gold standard *7* field *dilated* pupil stereo photography
- Client education and consent
- Report by Ophthalmologist
- Referrals as needed

Protect yourself from diabetic eye problems!



Get your eyes checked regularly

At least every 1-2 years



Check your blood sugar regularly

Keep it as close to normal as you can:

Before meals 4-7 mmol/L

After meals 5-10 mmol/L



Get your blood pressure checked regularly

Keep it as close to normal as you can:

130/80 or less



Be active!



*Eat regularly
and not too much at once!*



Don't smoke!



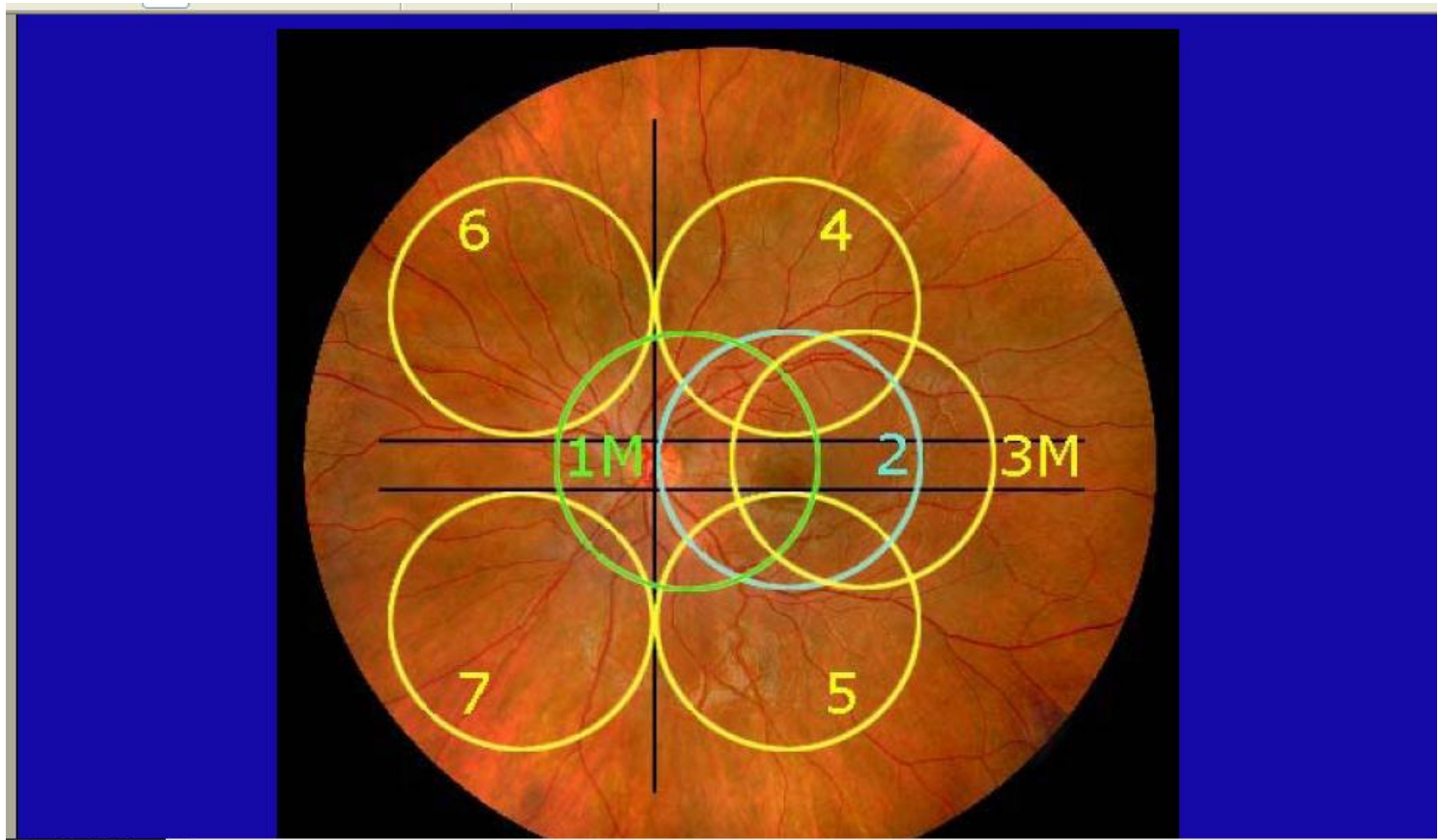
*Take your medicine
regularly!*

Visit your Diabetes team:

Doctor
Nurse
Dietician



Gold standard 7 field photography



Packaging and sending the eye exam

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SECURE DIAGNOSTIC IMAGING

Specializing in Teleophthalmology Solutions



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The Specialist at a distance





Jane Smith

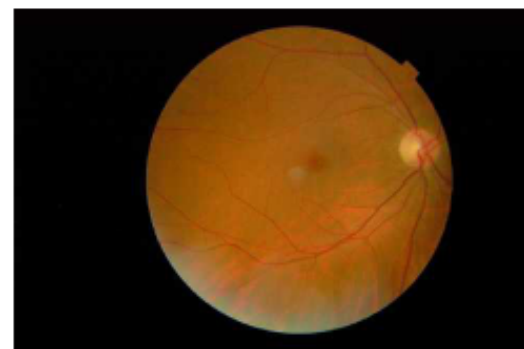
Diabetic Retinopathy Report

Visit details:

Visit date: 01/10/2005 15:45
 Consultant: Matthew Tennant, MD

Patient details:

DOB (gender): 01/10/2001 (F)
 Account: Keewatinook Okimakanak
 Community: Keewaywin
 Medical rec #: 001
 Referring doctor:
 Family doctor: Lisa Habermehl



Field 1a (R)

Right eye:

Lens: clear
 ETDRS level: Level 10
 IC Diagnosis: No diabetic retinopathy
 Macular edema: None

Left eye:

Lens: clear
 ETDRS level: Level 10
 IC Diagnosis: No diabetic retinopathy
 Macular edema: None

Recommendations:

Follow up dilated eye exam: 12 months

	1R	2R	3R	1L	2L	3L
FP	no	no	no	no	no	no
CD	0.3			0.3		
MA	no	no	no	no	no	no
CWS	no	no	no	no	no	no
HEX	no	no	no	no	no	no
IRH	no	no	no	no	no	no
VB	no	no	no	no	no	no
IRMA	no	no	no	no	no	no
NVD	no			no		
NVE	no	no	no	no	no	no
VPH	no	no	no	no	no	no
ME		no			no	
FL		no			no	

Community Integration

***Engaging Communities
early in the planning to
facilitate partnerships***

Health Director
Community Leaders
Health Staff
Elders
Potential Consumers

- Listen
- Work together
- Educate
- Respond to needs
- Sign formal agreements



Partnerships

Partners in the healthcare team

Telemedicine

Primary care



Partnerships

Partners in the healthcare team

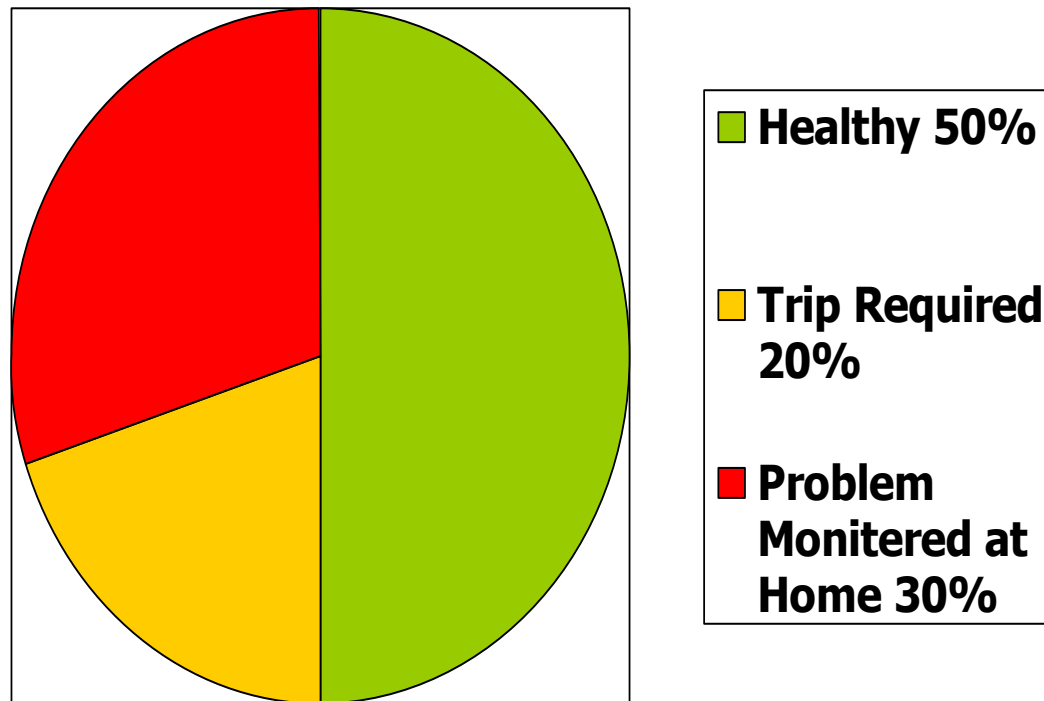
Eye care

Diabetes care



Potential savings

**Money (government and client)
Client inconvenience
Specialists' time**



596 visits total KOTM 2005-2008



Challenges

Pioneering

- Best Practice Networking
- Forming Partnerships
- Communicating effectively



National Retinal Screeners Best Practice Group

- Terms of reference
- Quarterly meetings via video
- Web streamed
- Networking
- Sharing resource materials
- Developing Best Practice Guidelines



Challenges

Funding

- First Nations vs Ontario wide
 - Telemedicine vs other organizations
 - Project vs program
- (Specialist fee....now OHIP**)



Resources available

Item	Funding
Eye exam equipment	Federal/Provincial one time capital funding
Hardware and software Licensing connectivity	•Work toward program \$
Nurse*	•Special project \$ •Use existing (integrate) •Work toward program\$
Community worker	•Use existing (integrate)
Specialist equipment, training and connectivity	•LHIN development \$ •Integrated into Specialist service
Development of program (Initiation)	•LHIN \$ •Other one time project \$
Central Coordinator (report dissemination, Program management)	•Work toward program \$ •Integrate

“I was blind, but now I see..” William Owen (cataracts, identified through teleophthalmology, were removed in Thunder Bay, restoring his vision)



Let's make diabetes complications a thing of the PAST...

Prevention
Awareness
Screening
Treatment



Normal Vision

Normal vision



Diabetic Retinopathy

Diabetic retinopathy

Tele Pharmacy

Video conference visits with the Pharmacist



Sioux Lookout Remedy's Rx Pharmacists



Past Practice in Sioux Lookout Zone....

- Medications are flown up to communities
- Nursing Station Staff give out the packages and answer questions
- 2 Paper charts (community and Doctors office) neither is complete
- sometimes the pharmacist is the only one with a complete medication list and history



Tele Pharmacy

- video conferencing KOTM site in store
- Referrals sent to KOTM scheduling when sending up medications or patient requests visit
- CTC confirms appointment with patient



Resources available

Item	Funding
Hardware and software Licensing connectivity	<ul style="list-style-type: none">•Integrate into present program•Pharmacy to purchase own (FN KOTM site)
Pharmacists	Private business choice to meet college of pharmacist patient care goals
Community worker	<ul style="list-style-type: none">•Use existing (integrate)
Telemedicine Coordination (ensure quality, privacy, scheduling etc)	<ul style="list-style-type: none">•Integrate within Telemedicine program

“ It is good to be able to ask the pharmacist questions about my medications. By visiting him on video I can get to know him.” client in Sandy Lake





Keeping a promise....

- Ensure the model is reproducible yet flexible
- Ensuring the model is sustainable
- Ensuring the model is best practice
- Ensuring community members are benefitting

Tele mushkiki.....the way of the future

