Telemedicine: The Future of Health Care

Dr. Ed Brown, CEO
April 4, 2016
Overview

1. Health System Context
2. OTN Update
3. The Future
4. Discussion
"You can't list your primary-care physician."
PATIENTS FIRST: ACTION PLAN FOR HEALTH CARE
Year One Results | March 2016

INTRODUCTORY MESSAGE FROM THE MINISTER
MARTHA

DIDN’T HAVE TO GO TO THE HOSPITAL TODAY.
### Health Care Shift

#### Moving from...
- Provider oriented
- Silos
- Fragmented data
- Multiple hand-offs
- Bricks and mortar centric

#### Towards
- Patient-centred
- Team based
- Information rich
- Care continuity
- Access anywhere
Enhances **access** to care, including in the home and community

Empowers primary and community care to **broaden scope** of practice

Supports **team care**

Enables **patient engagement** in their own care

A.K.A. “**Virtual Health Care**”
OTN’s Core Offerings

- Health Care Anywhere
- Change Management Catalyst
- Digital Health Steward
Specialist Consultation
Secure Home Video Visit (SendInvite)
Emergent/Urgent Telemedicine
eConsult – “Ask a specialist”
Remote monitoring and coaching for people with chronic disease
Central West LHIN - Outcomes
Acute In-patient and ED Activity Before, During and After Telehomecare

58% decrease in ER visits and a 64% decrease in inpatient admissions
Patient Experience – 2015 Survey

General Satisfaction
- Highly Satisfied: 84%
- Somewhat Satisfied: 14%
- Neutral: 1%
- Somewhat Dissatisfied: 1%
- Not Satisfied: 0%
- 98.3% responded positively

Quality of Health Care, Teaching and Coaching
- Highly Satisfied: 84%
- Somewhat Satisfied: 15%
- Neutral: 0%
- Somewhat Dissatisfied: 1%
- Not Satisfied: 0%
- 98.9% responded positively

Usability of Equipment
- Strongly Agree: 81%
- Somewhat Agree: 16%
- Somewhat Disagree: 1%
- Strongly Disagree: 1%
- Does not apply: 1%
- 95.0% responded positively
Making it Simple

Welcome to the secure OTNhub

What would you like to do first...
- Get a consult from a specialist
- Find a specialist for one of 27 areas of therapeutic care
- Deliver patient care through a real-time visit
- Find resources to accelerate my professional development
- Collaborate with a colleague
- Find monitoring tools for in-home care
- Share knowledge by giving a video presentation

You have been provisioned with:

- **eConsult**
  Get specialist consults in about 3 days
  SELECT LEARN MORE

- **eVisit**
  Initiate real-time patient visits
  SELECT LEARN MORE

- **eLearning**
  Professional development resources
  SELECT LEARN MORE

- **ePodium**
  Join or host a video learning session
  SELECT LEARN MORE

You can also sign up for:

- **Emergency Services**
  Access specialized emergency care
  SIGN UP LEARN MORE

- **Teleophthalmology**
  Ophthalmologist consults within days
  SIGN UP LEARN MORE
Hospital admission rates reduced by 44–57%
2. Change Management Catalyst

Drive spread and scale telemedicine where it creates the most value:

- **Consulting Services**
  - Business advisory
  - Evaluation and analytics

- **Thought leadership** and policy advice e.g. *Think Tanks*

- **Adoption Services**
  - Program development
  - Clinical process redesign
  - Training
# List of 37 Transformative Programs (1-15)

<table>
<thead>
<tr>
<th>LHIN</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ESC</td>
<td><strong>Pediatric Crisis Assessment</strong> (HDGH) – Case conferencing between health care providers</td>
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<td>1 ESC</td>
<td><strong>Tele-Mental Health and Addictions</strong> (C-KHA) – Mental health and addictions counselling using Send Invite</td>
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<tr>
<td>2 SW</td>
<td><strong>In-Home Dialysis Clinic</strong> (LHSC) – Patients doing in-home dialysis use telemedicine to connect to care team</td>
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<td>2 SW</td>
<td><strong>Behaviour Supports Ontario</strong> – Nurse-led outreach teams support caregivers and patients in the home</td>
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<tr>
<td>10 SE</td>
<td><strong>Stonehenge Addictions Support</strong> (Stonehenge) – Connections to primary care for psychiatrist referral</td>
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<tr>
<td>3 WW</td>
<td><strong>Cardiovascular Respirology Clinic</strong> (St. Mary’s Kitchener) – COPD patients connecting to primary care</td>
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<tr>
<td>4 HNHB</td>
<td><strong>Juravinski Cancer Centre</strong> (HHSC) – Specialized national programs connecting to community for follow-up</td>
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<tr>
<td>5 CW</td>
<td><strong>Rehab Follow-Up</strong> (Osler) – Health Links wrap-around care for complex rehab patients</td>
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<td>5 CW</td>
<td><strong>Peel District School Board Telemedicine</strong> (Osler) – Telepsychiatry support for PDSB principals</td>
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<tr>
<td>6 MH</td>
<td><strong>TeleMental and Addictions Health</strong> (Trillium Health Partners) – Video-enabled mental health assessments</td>
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<tr>
<td>7 TC</td>
<td><strong>Integrated Home-Based Primary Care</strong> (SHS) – Primary and specialist care for homebound frail, elderly</td>
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<tr>
<td>7 TC</td>
<td><strong>STOMP Weight Management</strong> (HSC/SK) – Team-based care for teenagers with complex obesity</td>
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<tr>
<td>7 TC</td>
<td><strong>Telemedicine Impact PLUS</strong> (TC LHIN Health Links) – Care coordination for complex patients</td>
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<tr>
<td>7 TC</td>
<td><strong>Jean Tweed Telemedicine</strong> (JTC) – NP increases access to withdrawal management and primary care</td>
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<tr>
<td>7 TC</td>
<td><strong>Perinatal Mental Health</strong> (SHS) – In-home follow-up for women with post-partum depression</td>
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<td>LHIN</td>
<td>Program</td>
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<tr>
<td>7 TC</td>
<td><strong>Northern Telepsychiatry</strong> (CAMH) – Psychiatrist provides support to 16 FHTs in NE LHIN in shared care model</td>
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<tr>
<td>8 C</td>
<td><strong>Mental Health Rapid Response</strong> (Black Creek FHT) – York West HL provides on-demand mental health services</td>
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<tr>
<td>8 C</td>
<td><strong>GAIN Clinics</strong> (NYGH) – Two geriatricians do eVisits for medically-complex frail elderly patients in the home</td>
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<tr>
<td>9 CE</td>
<td><strong>Geriatric Psychiatry Outreach</strong> (Ontario Shores) – Three community hospitals work with a geriatric psychiatrist</td>
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<tr>
<td>9 CE</td>
<td><strong>Tele-Buggies for Infectious Disease</strong> (Quinte Healthcare) – On-demand infectious disease consultations</td>
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<tr>
<td>10 SE</td>
<td><strong>Tele-Medical Reconciliation</strong> (Kingston CHC) – Pharmacist uses telemedicine for patients in community</td>
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<tr>
<td>10 SE</td>
<td><strong>Project ECHO</strong> (UHN-Queen’s University) – Empowers primary care to support patients with chronic pain</td>
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<tr>
<td>11 C</td>
<td><strong>Hematology Clinic</strong> (CPDMH) – Results relayed to patient and care team via video to save patient travel</td>
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<td>11 C</td>
<td><strong>Cardiac Wellness Program</strong> (UOHI) – Wellness coaching and education is facilitated via telemedicine</td>
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<tr>
<td>12 NSM</td>
<td><strong>Orthopedic Surgery</strong> (PRH) – Pre- and post-op assessments delivered in community via telemedicine</td>
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<tr>
<td>12 NSM</td>
<td><strong>Georgian Bay Primary Care</strong> (SGB CHC) – Travelling NP connects patients to primary care</td>
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<tr>
<td>12 NSM</td>
<td><strong>Discharge Planning</strong> (RVH) – Promoting safety and supporting best practices by engaging patients and families</td>
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<tr>
<td>13 NE</td>
<td><strong>Virtual Critical Care</strong> (HSN) – Critically-ill patients in the NE LHIN receive emergency care in community EDs</td>
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<tr>
<td>13 NE</td>
<td><strong>Virtual Family Medicine Clinic</strong> (Sensenbrenner Hospital) – Physicians offer eVisits to patients</td>
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<tr>
<td>13 NE</td>
<td><strong>NECC Oral Chemotherapy</strong> (NE RCC) – Chemotherapy patients monitored in home communities</td>
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### List, Continued (31-37)

<table>
<thead>
<tr>
<th>LHIN</th>
<th>Program</th>
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<tbody>
<tr>
<td>13 NE</td>
<td><strong>Forensics Outreach Services Program</strong> (NBRHSC) – Mandatory weekly follow-up visits performed via PCVC</td>
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<tr>
<td>14 NW</td>
<td><strong>Palliative Care</strong> (TBRHSC) – Home video visits for palliative patients using Send Invite</td>
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<tr>
<td>14 NW</td>
<td><strong>Telewound</strong> (SJCG) – Monitoring chronic wounds via OTN’s Telewound and supporting remote Northern communities</td>
</tr>
<tr>
<td>14 NW</td>
<td><strong>Regional Critical Care Response</strong> (TBRHSC) – Emergency support provided to community hospitals</td>
</tr>
<tr>
<td>14 NW</td>
<td><strong>Fracture Clinic</strong> (DRHC) – Patients are able to connect to an orthopedic specialist without travelling</td>
</tr>
<tr>
<td>PROV</td>
<td><strong>Oral Surgery</strong> – Making dentistry services accessible for remote and isolated communities</td>
</tr>
<tr>
<td>PROV</td>
<td><strong>Telemedicine in Corrections</strong> – Increasing access to mental health services and primary care</td>
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3. Digital Health Stewardship

TELEMEDICINE: WHERE HEALTH CARE MEETS INNOVATION.
Why digital health tools don’t scale

- Awareness/availability/simplicity
- Credibility
- Dysfunctional business models
- Dated policy
- Public sector procurement
- Privacy/Security
- Change
The Virtual Health Care Marketplace

- Identify and **evaluate** the best technology-enabled **clinical models** of care
- Guide and **broker** investments based on value and impact
- Develop value prop and **sustainable business models**
- Pilot and/or create outcomes-based **VORs** where necessary
- Leverage OTN’s change management and **distribution channel** to scale
Remote Monitoring & mHealth Pilots

William Osler Health System
BlueStar
North York General
Ontario Shores Centre for Mental Health Sciences
Big White Wall
St. Joseph’s Care Group
Samsung
WiHV
London Health Sciences Centre
eQOL
Humber River Hospital
Ontario
The first Mobile Prescription Therapy

BlueStar is the only product FDA cleared for real-time patient coaching and clinical decision support.

First-in-Class Therapy
Clinical Outcomes
Reducing Costly Hospital Visits
Prescribed
Reimbursed

Patented Clinical & Behavioral Engine
Mental Health

- Professional Counsellors 24/7
- Supportive anonymous community
- Tools to measure your well-being
- Online self-help courses
FY 2016 - 2017
Plans for 2016 - 2017

- Mature ‘Health Care Anywhere’
- Support Primary Care Reform
- Implement the Digital Health Steward Strategy
- Enhance Provider Engagement & strengthen the Distribution Channel
Health Care Anywhere

- **Enhance efficiency and customer service**
  - Self-service initiatives
  - End-of-service plans
  - Managed services, Cloud

- **Re-architecture of OTNhub**
  - OTN as a web service
  - Plug and play

- **Integration**
# Integration Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Partner</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM</td>
<td>OntarioMD</td>
<td>Complete</td>
</tr>
<tr>
<td>ONE-ID</td>
<td>eHealth Ontario</td>
<td>Complete</td>
</tr>
<tr>
<td>Provider Registry</td>
<td>eHealth Ontario</td>
<td>Complete</td>
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<tr>
<td>OTN as a web service</td>
<td>PATH Project/QOC</td>
<td>POC October 2016</td>
</tr>
<tr>
<td>Federation</td>
<td>eHealth Ontario</td>
<td>October 2016</td>
</tr>
<tr>
<td>EMR integration</td>
<td>eHealth, OntarioMD, EMR vendors</td>
<td>POC December 2016</td>
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</tbody>
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Primary Care

- Develop Partnerships to test new models of care
- Catalyze regional eVisit pilots
- Encourage innovation in Specialist / Primary care collaboration
- Support team care and case management
Digital Health Stewardship

Implement process:
1. Intake
2. Three streams of evaluation
3. Distribution

Potential VORs:
- Consumer eVisit
- New models of telehomecare
- Seniors care
- Telewound care
- Others...

BigIdeas@otn.ca
Have a big idea?

Want to work with us?
Tell us about your company, your ideas, and your business plan.

bigideas@otn.ca
Engagement & Distribution

- Continue change management work with partners, focusing on **regional program development** in key therapeutic areas
- Enhance engagement of **front-line providers**
- Communicate, advertise and/or distribute winning **VHC solutions**
“The Blockbuster Drug of the 21st Century: An Engaged Patient”

- Leonard Kish, Health IT blogger
Patient-Centred Models of Care

**Consumer**
Healthy individuals who need occasional care for minor illnesses and prevention.

**CDM – Lite**
Individuals living with a chronic condition that can be self-managed with a little assistance.

**CDM**
Individuals living with a chronic condition that requires more active support by the health care team.

**Acute Episodic**
Individuals with significant illness requiring short-term treatment and/or diagnosis.

**Complex or Frail Elderly**
Frail elderly or individuals with multiple chronic diseases that require care from multiple services.

Team-based Care
Assess and Categorize

Understand Risk Factor/Comorbidities Profile and Readiness for Behavioural Change

Plan

Identifying Change (Triggers)

Monitor

Responding to Change (Interventions)

Care Coordination

Target Education to Support Key Interventions

Confirm Diagnosis
e.g. Indicator Tests

Predictive Tools

Inter-RAI

LACE + PRIMARY CARE

Integrated Care Pathways & Analytics

Remote Monitoring and Self-Management Coaching
We seek a life of worth and purpose
“We have an unprecedented opportunity to create a truly patient-centred health care system at a cost we can afford”
The Journey to a Healthier Ontario Has Begun