

The New Frontier: Using Home-Based Technology To Coach Patients On Self-Management Skills

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Agenda

- Introduction to OTN
- Telehomecare Program
 - Pilot Project
 - Evidence for Telehomecare
 - Telehomecare Expansion in Ontario
 - Provincial Context
- How Telehomecare Works
- Case study
- Questions

What is the Ontario Telemedicine Network?

- An independent, not-for-profit organization, OTN is funded by the Government of Ontario.
- To develop and support telemedicine solutions that enhance access and quality of health care in Ontario, and inspire adoption by health care providers, organizations, and the public.

www.otn.ca



OTN's Mission and Vision

VISION

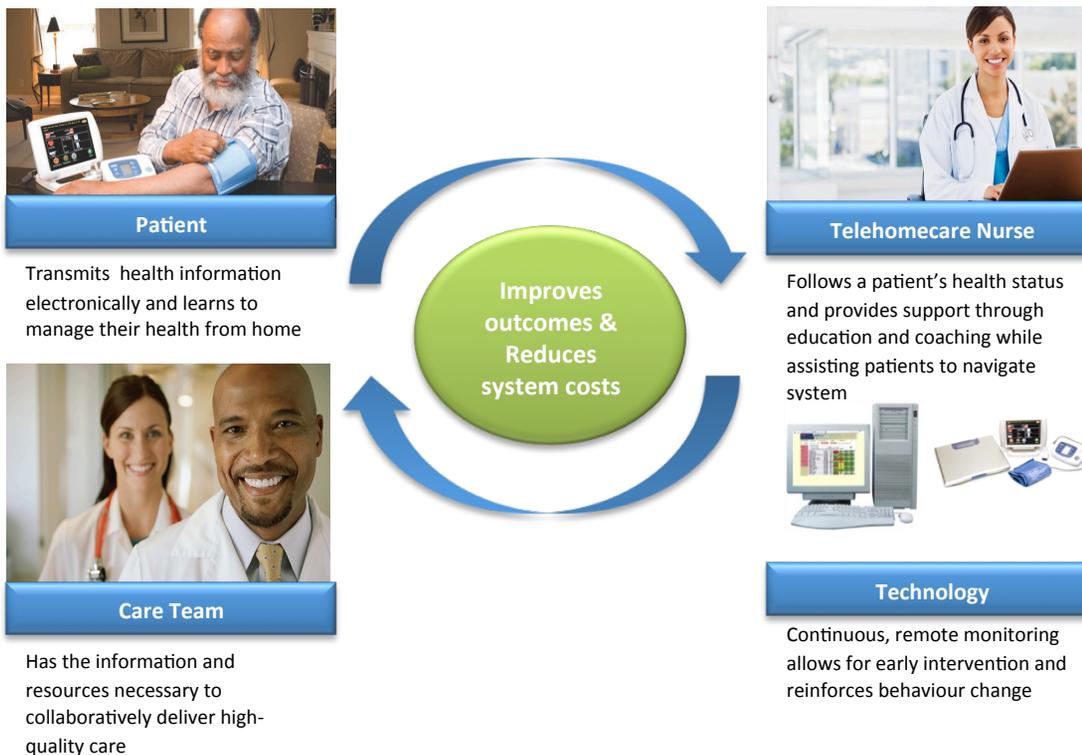
- For telemedicine to become a mainstream channel for health care delivery and education.

MISSION

- To develop and support telemedicine solutions that enhance access and quality of health care in Ontario, and inspire adoption by health care providers, organizations, and the public.

Telehomecare Pilot Project - 2007

Telehomecare Overview



Telehomecare enables patients to self-manage their chronic condition by delivering timely care through technology.

Phase One Pilot Program - 2007

- 8 Primary Care Teams
- 813 patients with COPD and HF
- Patient enrolment was four months on average
- Focus on Chronic Disease Management and patient self-management
- Funded by Ministry of Health and Long-Term Care and Canada Health Infoway
- External third party evaluation



The Phase One Pilot is the largest THC program in Canada to date.

Phase One Pilot Program - 2007

Key Findings

- The involvement of a “physician champion” supported engagement activities
- Positive impacts on patient quality of life and ability to self-manage their condition
- Primary Care Teams that worked closely with other providers readily achieved their adoption targets

Enhancement Opportunities

- Reduce administrative responsibilities of Nurses to maximize time for patient care delivery
- Standardize processes to increase efficiencies and avoid duplication
- Focus on change management strategies

A formal evaluation identified key benefits and opportunities for further enhancements.

Evidence for Telehomecare

Literature Review

- A growing body of evidence shows that Telehomecare (THC) is a viable solution to help patients better manage their care at home*.
 - A systematic review of 23 articles found THC to be a cost effective intervention in 91% of the studies reviewed.
 - Patient satisfaction with the equipment and program was generally high, even among elderly users.

*<http://telehomecare.otn.ca/evidence-for-telehomecare>

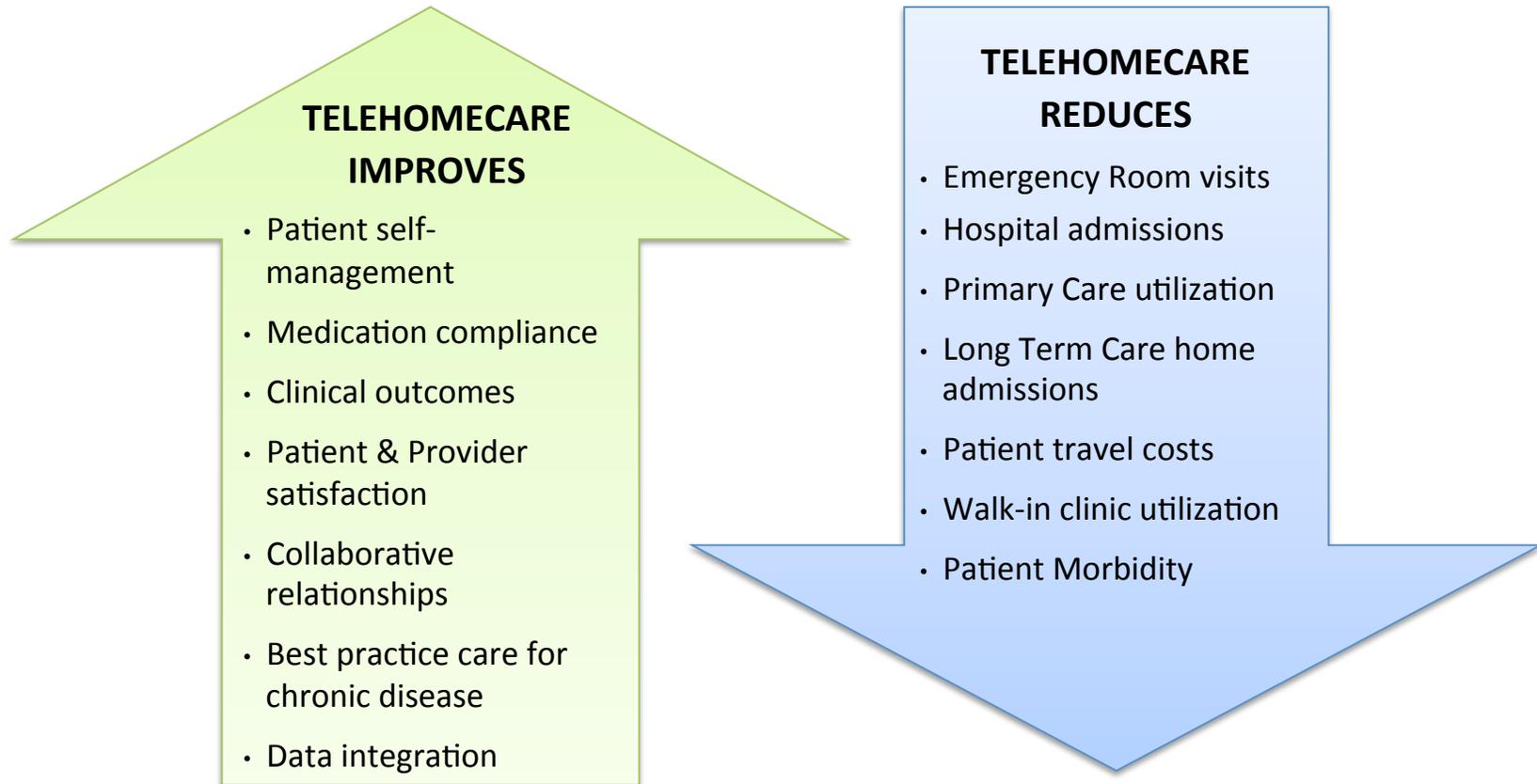
- Case Study - VHA Care Coordination/Home Telehealth (CCHT)
 - From July 2003 – Dec 2007, CCHT enrolled 43,430 patients and currently supports over 80,000 patients.
 - The Program has demonstrated over \$70 million in organizational savings.
 - The CCHT model has proven itself to be a practical, flexible and cost-effective way of managing chronic care patients in both urban and rural settings.



<http://www.telehealth.va.gov/ccht/index.asp>



Benefits and Expected Outcomes



Based on a growing number of studies and the evaluation of the Telehomecare Pilot, we anticipate the positive outcomes listed above.

Telehomecare Expansion in Ontario

Goals

- Enroll 2200 Heart Failure and COPD patients collectively in three regions (Toronto Central, North East, Central West) in the first phase of the program.
- By 2015, the goal is for upwards of 30,000 patients across Ontario to be enrolled.

Strategic Alignment and Integration

THC supports an integrated system of care by leveraging existing delivery structures and aligning with key government strategies.

- Chronic Disease Prevention and Management
- Emergency Department/ ALC
- Aging at Home
- Avoidable Hospitalizations
- Caring About Caregivers
- Mental Health and Addictions

TELEHOMECOME EXPANSION PROJECT

The goals and objectives of THC are enabled and supported by other innovative programs that may potentially act as referral sources of patients.

- Integrated Client Care
- Ontario Diabetes Program
- Advanced Access
- Virtual Ward
- MedsCheck

Strategic Projects and Initiatives

Integrated Care Pathway Project

- Integrated care pathways (ICPs) are structured multidisciplinary plans of care designed to support the implementation of evidence-based guidelines and best practices for specific clinical conditions.
- An ICP to support THC-enabled chronic disease management across the continuum of care will be developed.
- Phase one of the project will include an environmental scan and gap analysis; phase two will develop the current and future state integrated chronic disease pathway.

Best Practice Spotlight Organization (BPSO) Initiative



- BPSOs are health-care and academic organizations selected by the Registered Nurses' Association of Ontario (RNAO) through a Request for Proposals process.
- This initiative supports formal implementation and evaluation of selected RNAO Best Practice Guidelines (BPG).
- OTN has been awarded the designation of BPSO Candidate for the 2012-2015 cohort for the Telehomecare (THC) Expansion Program.

Provincial Clinical Advisory Committee (CAC)

- The Clinical Advisory Committee reviews and validates OTN's clinical guidelines and clinical processes for the remote management of patients with a primary diagnosis of either Heart Failure (HF) or Chronic Obstructive Pulmonary Disease (COPD).
- The CAC membership includes:

Dr. Malcolm Arnold Cardiologist University Hospital, LHSC	Dr. Roger Goldstein Respirologist West Park Health Care Centre	Dr. Janice Owen OTN Medical Advisor
Christine Struthers APN Chronic Cardiac Care U of Ottawa Heart Institute	Jennifer Zufelt Respiratory Therapist Group Health Centre	Elaine Blakeborough Nurse Manager Group Health Centre
Laurie Poole VP, OTN Telemedicine Solutions	Jane Brownrigg OTN Clinical Lead	Cindy Fajardo OTN Clinical Manager

How Telehomecare Works

Introduction to Telehomecare – Mrs. Tupper



Introduction to the Telehomecare Program

Presented by Mrs. Tupper

Program Overview

PATIENT ENROLMENT

- Any health care provider within the care team can refer a patient to the Program
- Host Organizations (e.g. CCAC) enrolls patient if eligible and consenting and notifies primary care provider
- Welcome package and equipment sent (self or assisted-install)

PATIENT CARE DELIVERY

- Nurse establishes 6-month care plan based on patient goals
- Patients input daily physiologic data and health questions to tablet
- Nurse monitors vitals; responds to alerts; teaches and coaches based on patient data, expressed goals and needs
- Primary care providers receive updates on patient's progress

PATIENT DISCHARGE

- Nurses complete a discharge assessment and sets a maintenance plan
- Ongoing support from primary care providers and circle of care
- A final report is sent to primary care provider

Patient Eligibility

Ideal candidates include patients with:

- An established diagnosis of Heart Failure or COPD
- Repeated emergency visits and/or hospital readmissions
- Frequent primary care visits
- Difficulty managing medications
- Ability to operate in-home monitoring equipment



Telehomecare Technology

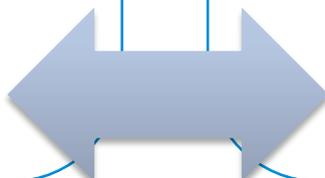


The screenshot shows a web-based software interface with a navigation menu at the top: Dashboard, Patients, Workload, Help. Below the menu is a 'Patients List' section with tabs for Monitoring Plan, Monitoring Data, Alerts, Medications, Equipment, Events, Documents, and History. A search filter is present with buttons for Refresh, Search Patient, and Add New Patient. A table lists patient data:

	NAME	GENDER	DATE OF BIRTH	ORGANIZATION	ASSIGNEE NAME
0	Thrasher Balzac	Male	2009-03-07	Cindys Test C	
2	Demo Moore	Female	1932-05-07	Cindys Test C	Cindy Nurse
11	Load Test1	Male	1930-04-24	Cindys Test C	Cindy Nurse
0	Load Test2	Male	1945-04-24	Cindys Test C	Cindy Nurse
7	Weights Tom	Male	1912-04-16	Cindys Test C	Cindy Nurse



The screenshot shows a patient portal interface for 'TELUS'. It includes a 'Logout' button and an 'Options' menu. The main section is titled 'Veight Measurement' (sic) for 'Tuesday, 5 June 2012' at 'Tuesday Weight (6:30 AM)'. It displays '167.6 pounds' and a 'Connected device' status. A numeric keypad is visible. Below this is a 'Shortness Of Breath' section for 'Tuesday, 17 April 2012' at 'Tuesday Shortness of Breath (6:30 AM)'. It asks 'Are you feeling more short of breath today than usual?' with 'Yes' and 'No' buttons.



THC Nurses use web-based software to regularly monitor patient responses and respond to alerts.

Patients submit daily vitals and answer health questions. Responses are transmitted via analog or internet line to the THC Nurse.

Telehomecare Nurse Curriculum

OBJECTIVES:

- Certify the THC Nurses to conduct their clinical practice
- Provide access to up-to-date clinical and nursing best practice guidelines
- Leverage provincial Clinical Advisory Committee (CAC) expertise for THC clinical practice guidelines and processes



5 KEY COMPETENCIES	Clinical; Self-Management Support; Privacy & Security; Processes & Tools; and Practicum
DURATION	3 days ; THC nurses must complete all courses in the curriculum
MODALITIES	Combination of face-to-face, video-conferencing, and on-line training (eLearning)
REQUIRED EQUIPMENT	Computer or laptop, Internet connection, Sample remote monitoring, Analog Phone Line

THC Nurse Daily Activities

1. Respond to patient alerts
2. Answer incoming calls
3. Complete Consent & Enrolment process
4. Conduct Health Coaching Sessions
5. Notification of Enrolment
6. Complete Discharge processes
7. Complete Progress Reports



OTN Telehomecare Centre

PURPOSE

- The Centre is a key online resource that provides operational support and program awareness for:
 - Telehomecare Professionals
 - Health Care Professionals
 - Patients, including family members or other caregivers
- Hosts the virtual learning and Community of Practice (CoP) environment

telehomecare.otn.ca

The screenshot shows the OTN Telehomecare Centre website. At the top left is the OTN logo and the text "Telehomecare Centre". On the top right are social media icons for YouTube, Twitter, and Facebook, along with a "sign in" button and language options for "English" and "français". The main heading reads "Welcome to the OTN Telehomecare Centre" followed by the text: "Together we will improve the lives of chronic disease patients and transform health care delivery – inspiring patients to manage their own health at home." To the right is a photo of a smiling female healthcare professional. Below this are three photo-based buttons: "I'm a Health Care Provider" (with a photo of a female nurse), "I'm a Telehomecare Provider" (with a photo of three female healthcare workers), and "I'm a Patient or Family Member" (with a photo of an elderly man being cared for by a woman). A "What's happening?" section lists two events: "Sep 30 2012 Mental Illness Awareness Week" and "Oct 1 2012 National Seniors Day".

Case Study

Case Study – Mr. Ramos

- Male- Mr. Ramos
- DOB 23/02/1940
- First language: Portuguese Second language: English
- Married
- Last hospitalization: January 2012
- Moderate to severe COPD – confirmed by spirometry
- History of smoking – 1 pack/day x 50 years

Case Study – Mr. Ramos

Readings/Responses from the THC Tablet:

- Today's Readings:
 - HR 76, BP 147/88, O2 Sat 92%, Weight 135 lbs.
- Responses to COPD Assessment Questions:
 - Unable to do usual activities today
 - Feeling more short of breath than usual

Due to the changes in his ability to perform ADL and increased SOB, the THC Nurse decides to call Mr. Ramos

Questions?

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