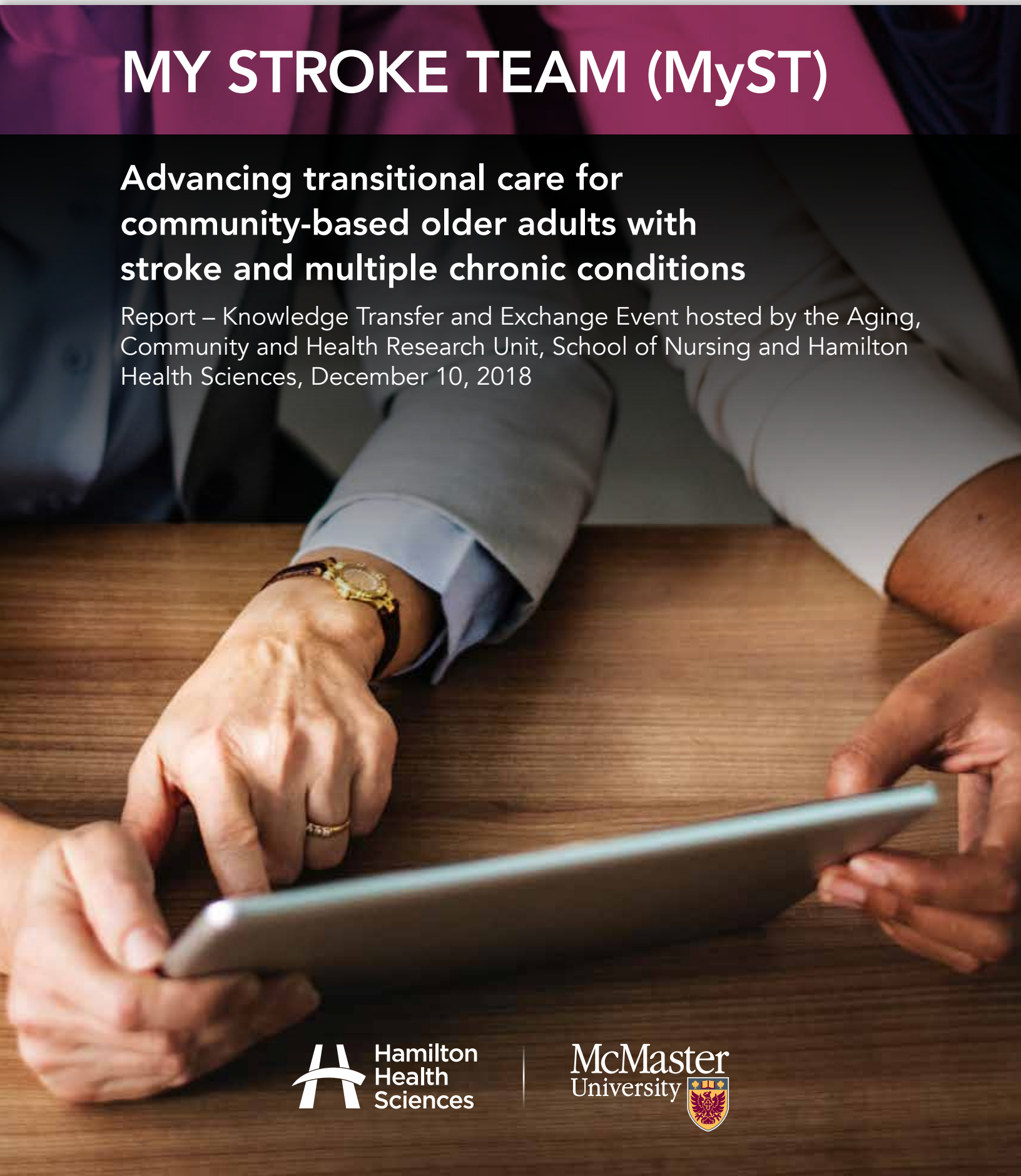
Aging, Community and Health
RESEARCH UNIT

MY STROKE TEAM (MyST)

Advancing transitional care for community-based older adults with stroke and multiple chronic conditions

Report – Knowledge Transfer and Exchange Event hosted by the Aging, Community and Health Research Unit, School of Nursing and Hamilton Health Sciences, December 10, 2018



Hamilton Health Sciences | McMaster University

The MyST knowledge exchange event brought together researchers, health care practitioners, patients, decision-makers, funders, and technology experts to exchange ideas, evidence, and expertise.

WELCOMING REMARKS BY:

Sandra Carroll, Vice-Dean, Faculty of Health Sciences and Executive Director, School of Nursing, McMaster University

Ted Scott, Vice-President of Research & Chief Innovation Officer, Hamilton Health Sciences

REMARKS BY:

Margaret Herriman, Max Bell Foundation

Gillian Kafta, Chief Privacy Officer, Hamilton Health Sciences

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Hamilton Health Sciences, Mohawk College - IdeaWorks

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Scientific Director, Aging, Community and Health Research Unit

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Dorothy C. Hall Chair in Primary Health Care Nursing

Scientific Co-Director of the Aging Community and Health Research Unit

Deputy Director, WHO Collaborating Centre for Primary Care and Health Human Resources

STUDY CO-INVESTIGATORS:

Norm Archer, **Amy Bartholomew**, **Kathryn Fisher**, **Rebecca Fleck**, **Amiram Gafni**, **Jenny Ploeg**, **Jennifer Salerno**, **Lehana Thabane**

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PROBLEM

- Stroke is the leading cause of adult disability and death
- Up to 80% of older adults who experience a stroke will return to their home in the community
- Older adults who experience a stroke and multiple chronic conditions receive services from multiple providers across multiple care settings
- 92% of stroke survivors have multimorbidity (2+ chronic conditions)
- Older adults with stroke and multimorbidity have ongoing care needs, and frequently transition between providers and care settings
- New patient-centred models of integrated transitional care are needed to improve the health, experience and quality of transitioning from hospital to home for this vulnerable population

STUDY OVERVIEW

- Researchers at the Aging, Community and Health Research Unit developed a new model of outpatient stroke rehabilitation services for community-dwelling older adults with stroke and multiple chronic conditions
- This new approach involved a interprofessional stroke team including an occupational therapist, physiotherapist, speech and language pathologist, social worker, and registered nurse
- The team provided: regular in-home visits and monthly case conferences, supported by a web-based application (app) **MyST** (My Stroke Team)
- Study participants were > 55 years of age, who had two or more chronic conditions, and were recovering from a stroke

STUDY RESULTS

My Stroke Team (MyST) Intervention:

- Improved patient experience
- Strengthened care coordination and collaboration among the stroke rehabilitation team, patients, and family caregivers
- Built capacity among the interprofessional rehabilitation team
- Supported easier navigation to community-based programs and services
- Made use of stroke best practices for hospital and community-based service providers
- Promoted self-management using a strengths-based approach
- Reduced hospital and emergency department use at 6 months

My Stroke Team (MyST) Web-based Application:

- Supported practice change by enhancing access to stroke best practices and local community health and social services resources
- Promoted communication between members of the stroke rehabilitation team
- Provided a platform for documentation of patient-centred goals
- Included assessment tools to track physical, emotional and social functioning of patient

PATIENT PERSPECTIVE

David Dayler

Stroke Patient & MyST Study Participant

When David noticed his leg was dragging and he couldn't sign his name, he thought he might be having a stroke. A local Emergency Room confirmed his suspicions. However, according to David, the stroke was not the scariest part. Following his stroke, David was sent home with an antibiotic and an appointment with the stroke program in four weeks' time.

Fortunately, the next day David's doctor sent him back to the hospital and he was admitted. He was eventually hospitalized for close to a month - both in active care and rehab. However, during his time in hospital he started to feel anxious, fearful and powerless over his future.

David is thankful, that prior to his release, a physiotherapist suggested he apply to the Regional Rehabilitation Outpatient Services Program where he became a **MyST** study participant, and he has never looked back. David feels that the mix of time in the clinic, and his home was important to his recovery. Having the same team following his care at the clinic and in his home gave him comfort. "I felt like the team knew me, I trusted them and I was able to set goals and meet them."

He says setting goals gave him structure and something to work toward. "I wanted to succeed and I knew I would work harder because I was working towards a goal." He said being part of the **MyST** intervention also enabled him to focus on his changing needs.

David has described making a full recovery and was happy to share his experience at the **MyST** Knowledge Exchange Event one year and seven months after his stroke.

> "I can't tell you how fantastic the (MyST) program was for me."

TEAM PERSPECTIVE

Candace Coe

Occupational Therapist, Regional Rehabilitation Outpatient Services Program

Jessie Chabot

Social Worker, Integrated Stroke Program, Hamilton Health Sciences

Rebecca Fleck

Director, Regional Rehabilitation Program, Adult Regional Care, Hamilton Health Sciences

The **MyST** intervention team included Occupational Therapy, Physiotherapy, and Speech Language Pathology from the Stroke Outpatient Program and a Registered Nurse and Social Worker from the inpatient Rehab Stroke Unit.

The blending of the teams was an asset, with the wide breadth of expertise leading to the use of communication strategies and educational tools specific to the needs of the stroke patients and their caregivers.

The introduction of a Care Coordinator role on the team was key as the role provided:

- Focus on the big picture and synthesis of information to link patients and their caregivers to healthcare and community services patient and their family caregivers
- A treatment plan with specific timelines for goal achievement
- Navigation of the rehabilitation system for the patient and family caregiver

Regularly scheduled case conferences gave the team an opportunity to share information and facilitate joint care planning. This included a review of patient's identified goals, needs, and assets and problem solving to identify strategies to help achieve each patient's goals.

CASE STUDY

Mrs M

Community-dwelling 79 year old woman

Mrs M was admitted to hospital with motor deficits after a second stroke. She had a history of fibromyalgia, lung cancer, depression, and recent falls. She was living alone in an apartment with paid Personal Support Worker (PSW) assistance twice a week.

The stroke intervention team was able to:

- Make recommendations that led to Mrs M using a more accessible doorway for entering and exiting her apartment building
- Develop a community mobility plan with Mrs M and her PSW to safely access the bank and a nearby grocery store
- Make recommendations on closet reorganization
- Practice meal preparation and safety and assist with making quick and accessible snacks.
- Review her sleep schedule and medication routine to ensure that Mrs M was taking her medications on time
- Refer Mrs M to community programming and ensured that there was continuity of programming once discharged from the outpatient program
- Link Mrs M to the family and patient resource centre to set-up volunteering opportunities in the community
- Refer Mrs M to a dietician accessible by phone

DIGITAL EXPERT PERSPECTIVE

Duane Bender

Chief Technology Officer, Hamilton Health Sciences

Nityan Khanna

Senior eHealth Analyst, Mohawk College

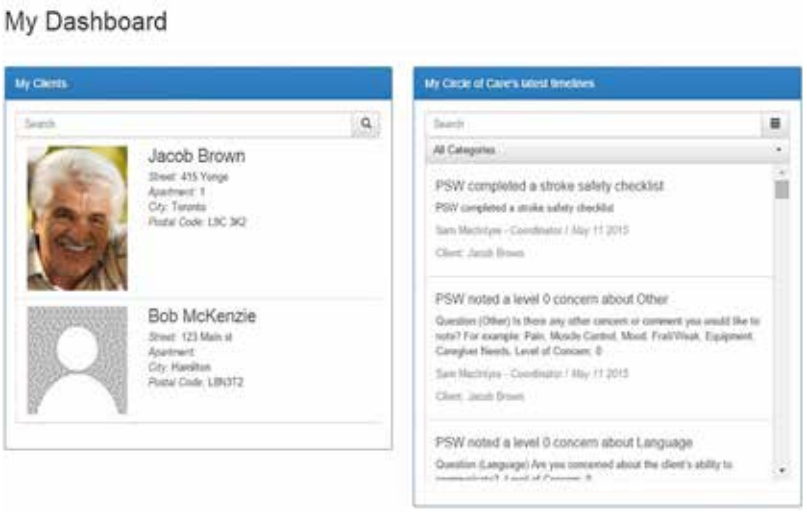
Paul Brown

General Manager, mHealth and eHealth Development and Innovation Centre (MEDIC), Mohawk College

The **MyST** app focuses on providing an integrated, decentralized solution that connects providers, empowers patients and their caregivers, and supports advanced decision making and care provision.

Key Features:

- Real-time and secure communication
- Access to best practices and community resources
- Platform for documentation of patient-centred goals
- Assessment tools to track physical, emotional, and social functioning



Screen capture of **MyST** application

LESSONS LEARNED

Implications for Research, Practice, and Policy:

My Stroke Team (MyST) Intervention

- Increased costs of use of outpatient services, physician specialists, and family physician visits were offset by a reduction in hospital readmissions and emergency department visits at 6-months compared with baseline

My Stroke Team (MyST) App

- App development is very costly and requires a large research team with expertise in a variety of areas
- Software developers as well as patients should be included in the initial stages of the project
- Threat Risk Analysis and Privacy Impact Assessments should be completed early on and potentially again during development
- Test, re-test, and remain iterative in development
- Include a budget for maintenance and fixes throughout
- Include features such as auto-save and audit logging

Future Directions

Next steps are to scale-up this study using a randomized controlled trial design to test the effectiveness of the **MyST** intervention in more diverse settings with a larger sample of older adults.

For further information regarding this research please see below:

PUBLICATION

Markle-Reid, Maureen, and Ruta Valaitis, Amy Bartholomew, Kathryn Fisher, Rebecca Fleck, Jenny Ploeg, Jennifer Salerno, Lehana Thabane. "Feasibility and preliminary effectiveness of an integrated hospital-to-home transitional care intervention for older adults with stroke and multimorbidity: A study protocol." Journal of Comorbidity, 9:1–22. DOI: 10.1177/2235042X19828241. December 27, 2018.

Click to Link: **https://journals.sagepub.com/doi/10.1177/2235042X19828241**

VIDEO

Post-stroke Intervention Helps Older Adults Transition Home from Hospital

Click to view: **https://www.youtube.com/watch?v=vNjbLL8xqpg&feature=youtu.be**

FOR MORE INFORMATION PLEASE CONTACT:

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The Aging, Community and Health Research Unit, based in the School of Nursing at McMaster University, aims to promote optimal aging at home for older adults with multiple chronic conditions and support their family caregivers through the design, evaluation and translation of new and innovative interprofessional community-based interventions.

Connect with us at: **achru@mcmaster.ca** | **achru.mcmaster.ca**

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