Urban Telemedicine IMPACT Plus

A person-centered interprofessional model of care
for multiple chronic disease management

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PATIENT STORY

60 year old woman

History of: anxiety, depression, alcoholism, chronic COPD secondary to 30 yrs of smoking, AFib, HTN, chronic back pain, and inoperable ventral hernia with consequent opiate addiction

More recently:

- Fell down stairs secondary to inebriation—fractured humerus with malunion (stopped drinking and smoking while in hospital)
- Chronic pain
- Admitted TWH for second surgery
- Numerous pain specialists
- Numerous visits to office characterized by frustration, ongoing demands

Medications: >12 meds at any one time, 24 hour oxygen, walker

PATIENT STORY

- 3-way telemedicine video call with patient at home TIP team including Dr. Taylor (psych), Dr. Cardew (GIM), CCAC pharmacist and social worker, CCAC coordinator, Dr. Kahan (pain specialist).
- GP: “patient was excited that people were taking an interest in her.” The patient dressed for the occasion.

Theme of discussion: initial changes take time, no clear benefit immediately—typically 1-3 months

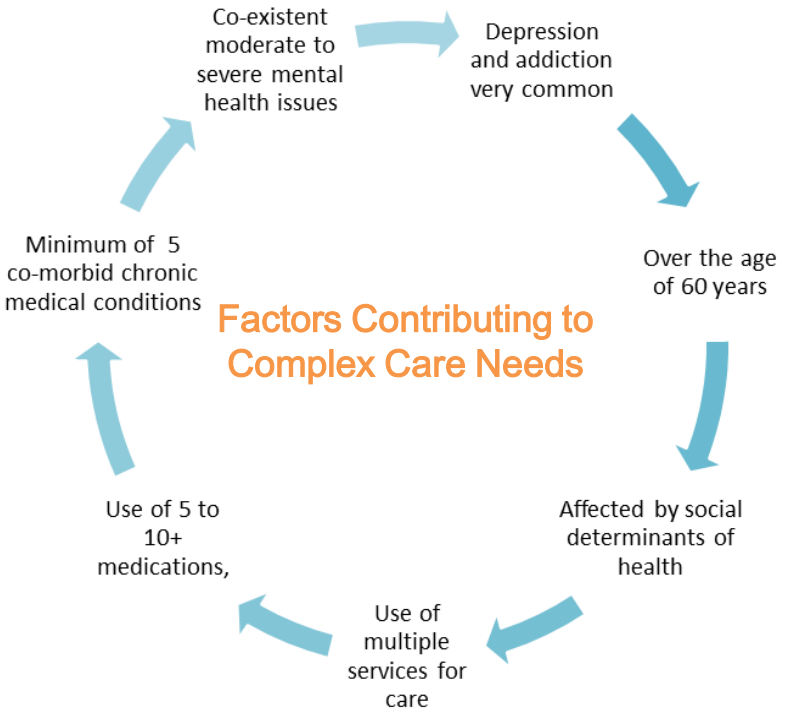
Turning point: referral to pulmonary rehab at TWH (patient goes twice a week)—no more oxygen. Referral to anxiety treatment program at TGH; has bonded to pain specialist whom she sees weekly. Meds reduced by half.

- **Significant change in attitude:** decreased visits, phone calls, and overall demands of GP.
- GP: “she now asks if I can call her when I find the time. She acknowledges my contribution to her care: “you hit the nail on the head.” I have also changed from wanting to avoid her to wanting to work with her.”

Cycle of hopelessness and helplessness has been circumvented for both patient and GP

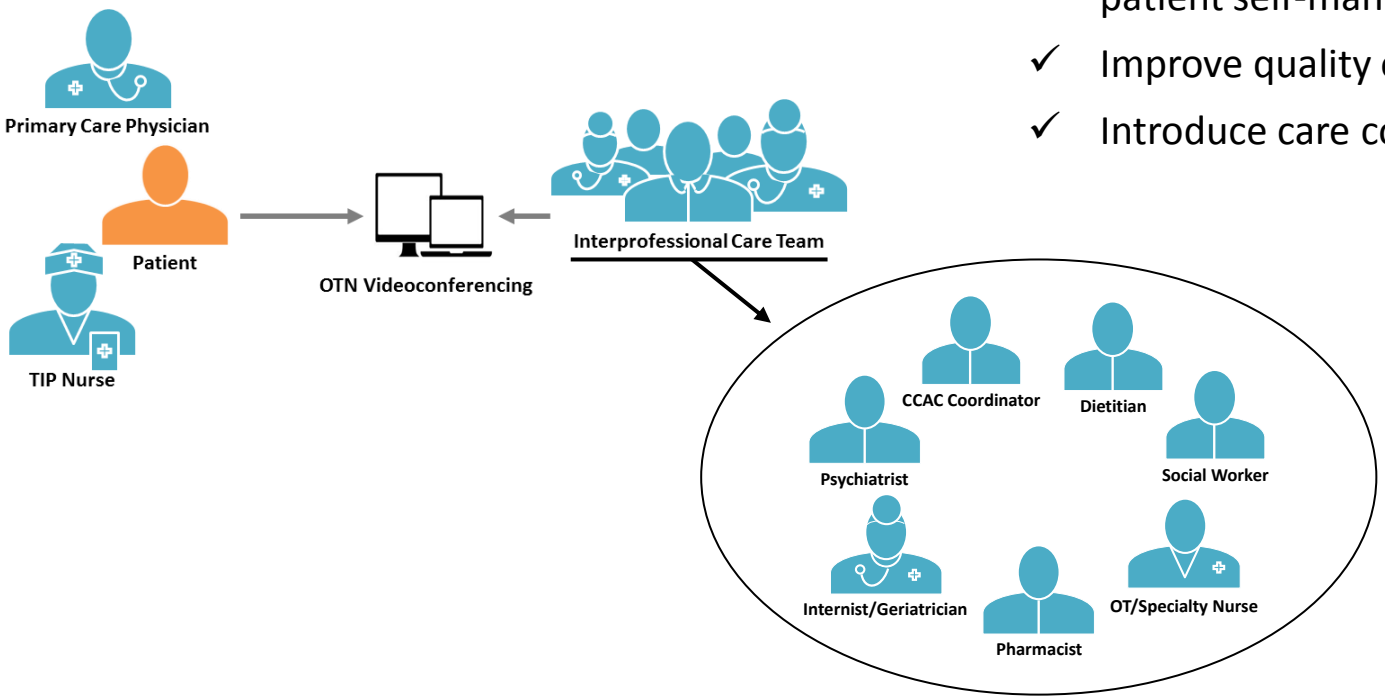
A Need for Interprofessional Collaboration & Coordinated Care Planning

- The current healthcare system divides care by provider, disease, and setting
- Uncoordinated care increases risk of preventable adverse outcomes
- Growing population of aging patients with multiple chronic conditions and complicating factors
- Existing interprofessional resources can be leveraged to enable collaboration that yields better outcomes



TIP: Telemedicine IMPACT Plus

- Person-centred complex care model for managing **multiple chronic diseases**
- Clinical intervention targeting complex patients at risk for avoidable hospital admission and ED visits
- **One-time, OHIP-billable interprofessional case consultation by OTN videoconferencing technology:**



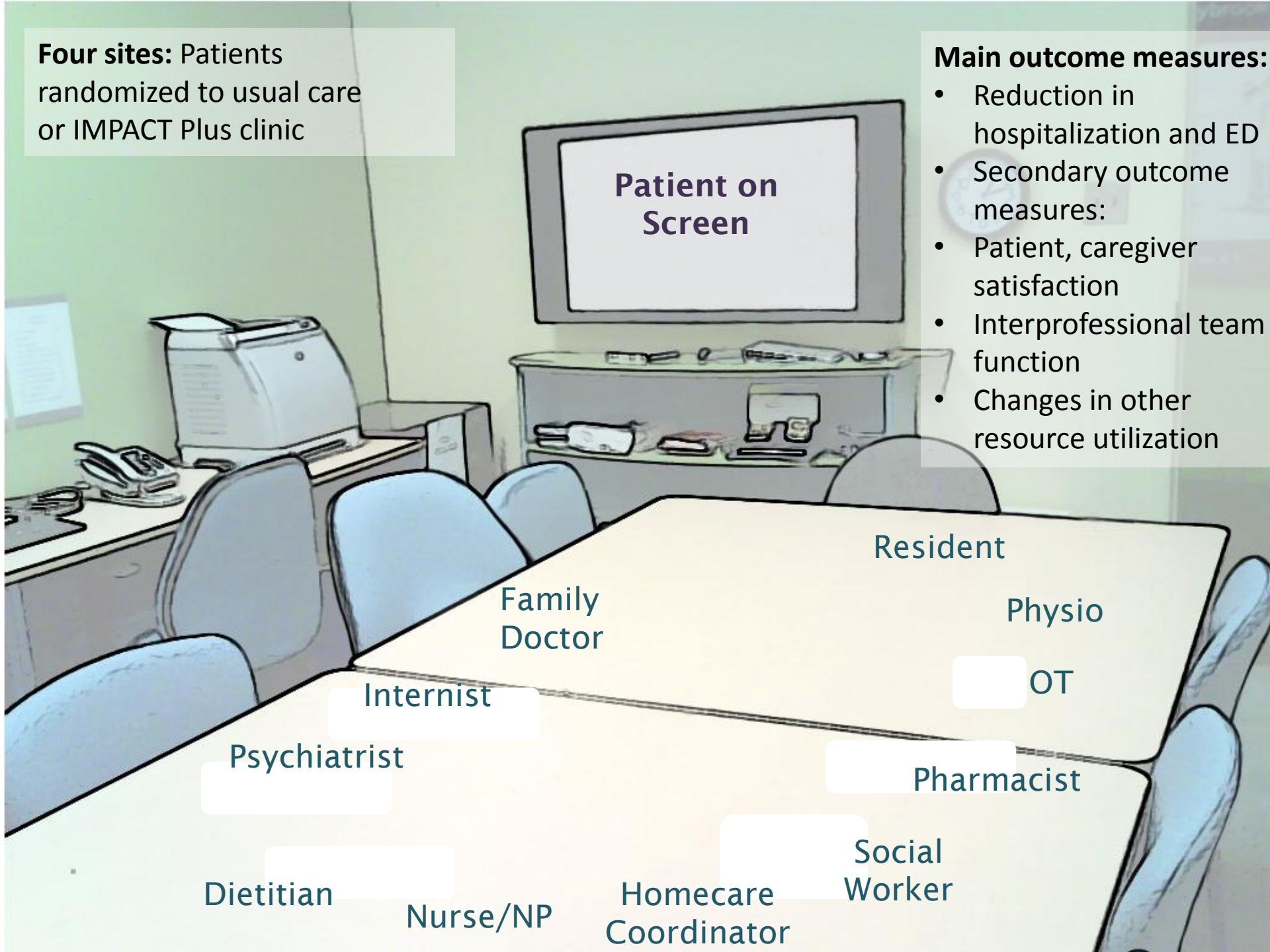
Goals:

- ✓ Increase access by primary care to local interprofessional resources
- ✓ Make efficient use of existing healthcare resources
- ✓ Reduce avoidable use of acute care resources by enabling patient self-management
- ✓ Improve quality of care and QOL
- ✓ Introduce care coordination

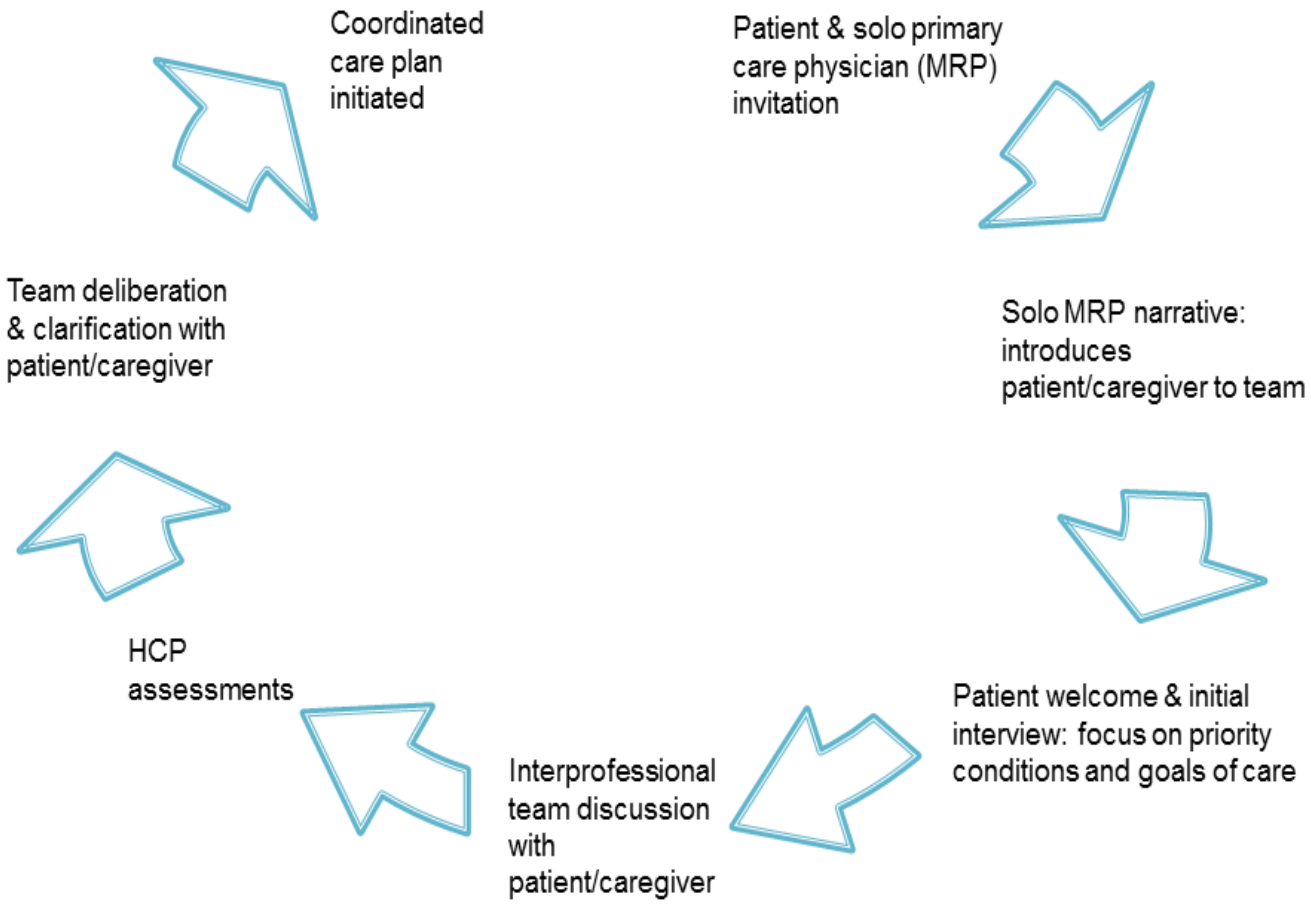
TIP: Telemedicine IMPACT Plus

- Secure telemedicine video-conferencing technology to connect solo primary care physicians and their complex patients with a local, interprofessional care team for a consultation

- **A one-time TIP session yields:**
  - Clarification of what's important to the patient and challenging to the primary care physician
  - A set of recommendations that identify current patient goals and barriers and identify local resources
  - Coordinated care plan
  - Synergistic problem-solving that addresses the interplay of medical and psychosocial conditions
  - The support of a dedicated TIP nurse for care coordination, care plan implementation, and follow-up care


Four sites: Patients randomized to usual care or IMPACT Plus clinic
Main outcome measures:
• Reduction in hospitalization and ED
• Secondary outcome measures:
• Patient, caregiver satisfaction
• Interprofessional team function
• Changes in other resource utilization
Patient on Screen
Resident
Family Doctor
Physio
OT
Internist
Psychiatrist
Pharmacist
Social Worker
Dietitian
Nurse/NP
Homecare Coordinator

The IMPACT Plus Protocol



How TIP can Benefit a Primary Care Provider:
Consistent with Barbara Starfield's Fundamentals of Primary Care

Access: Brings a Virtual ID team to the family practice

Coordination: Support of TIP RN for care coordination, integration with CCAC, specialists, hospital and community resources

Continuity: TIP RN helps actualize the plan, patient, family and HC provider formulate the plan together in real-time

Comprehensiveness: Acknowledges GP challenges and provides validation, offers the full spectrum of support to address complex care, enhances GP knowledge of local resources

Data Collected to Date

- Since implementation (October 2013):
  - 160+ patients received complete TIP intervention
  - 170+ Coordinated Care Plans developed
  - 100+ solo family physicians supported by TIP team and connected with new interprofessional resources
  - Caregivers of TIP patients received support by TIP nurse

- The following data is collected from patient/provider experience surveys administered post-clinic:

Interdisciplinary Care Team
Provider Experience Survey

Responses received Oct 2013 – March 2015

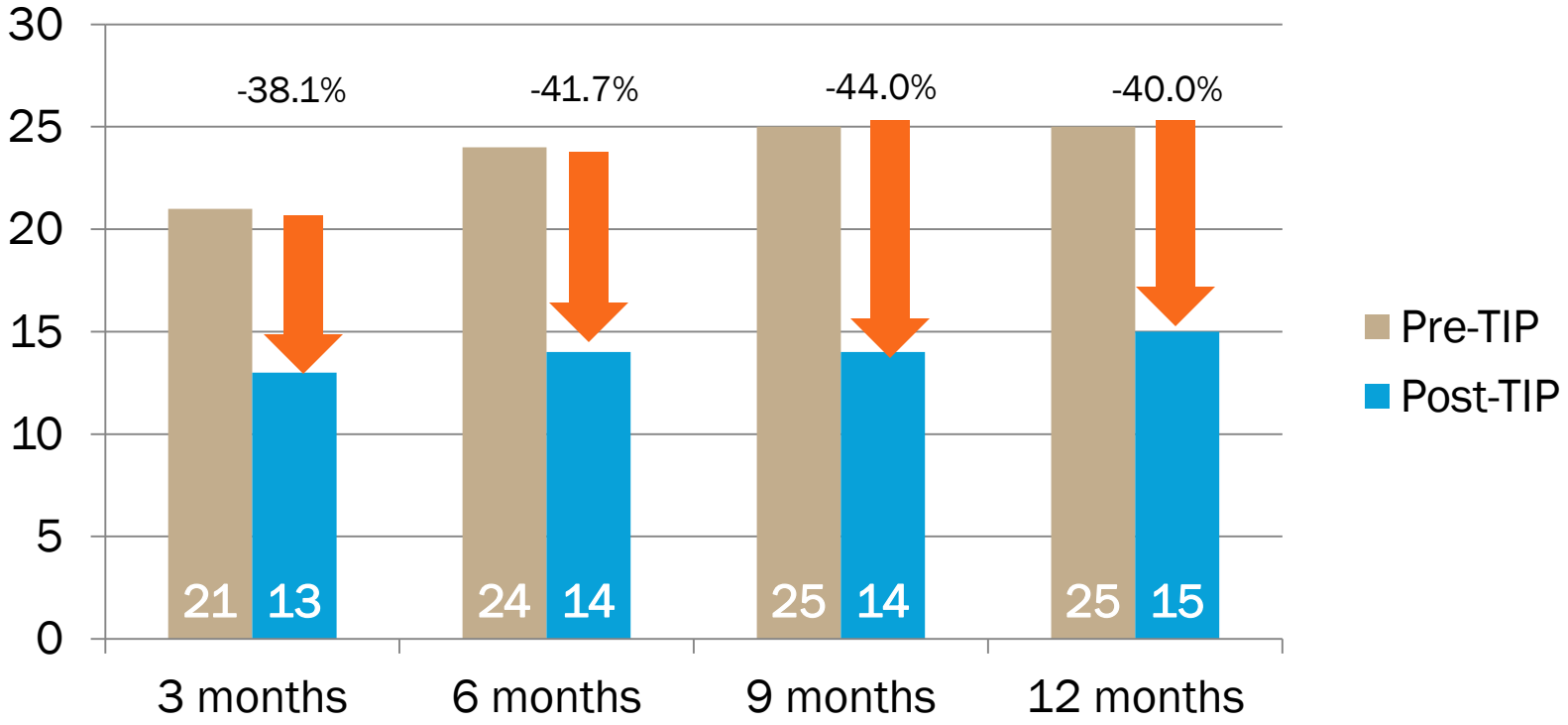
n=227	**Strongly agree/agree**
The TIP case conference was an effective model to develop a care plan for this complex patient.	97%
Telemedicine technology added to the team's collaborative approach in the TIP case conference.	94%
I would use telemedicine technology again to facilitate a case conference.	96%
I am hopeful that this patient's care will improve in the next six months as a result of the TIP case conference.	93%

Patient/Caregiver
Experience Survey

Responses received Oct 2013 – March 2015

n=74	Strongly agree/agree
I am confident that my/the patient's chronic care will be better managed as a result of the TIP case conference.	97%
TIP has effectively improved my/the patient's access to new interdisciplinary resources.	96%
I would use telemedicine technology again to facilitate a medical consultation.	100%
I will help implement the recommendations given by the TIP interdisciplinary care team.	99%
I am satisfied with the recommendations developed during the TIP case conference.	97%
I am hopeful that my/my the patient's chronic condition will improve as a result of the TIP case conference.	96%
I am hopeful that my/the patient's care will improve in the next 6 months as a result of the TIP case conference.	93%

PATIENTS WITH ANY ENCOUNTERS AT ANY FACILITY ACROSS 5 LHINS IN IDS DATABASE



Source: IDS Database N=27

There was an overall decrease in patients with any encounter (ED visits and Admits), post-TIP, which was sustained over a 12 month period post-TIP

Scaling Up: The Evolution of I.M.P.A.C.T.

Interprofessional Model of Practice for Aging and Complex Treatment

IMPACT

- 2 FHTs

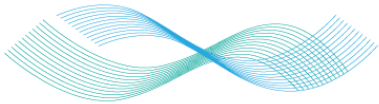
IMPACT Plus

- 4 FHTs
- Bridges

Telemedicine IMPACT Plus

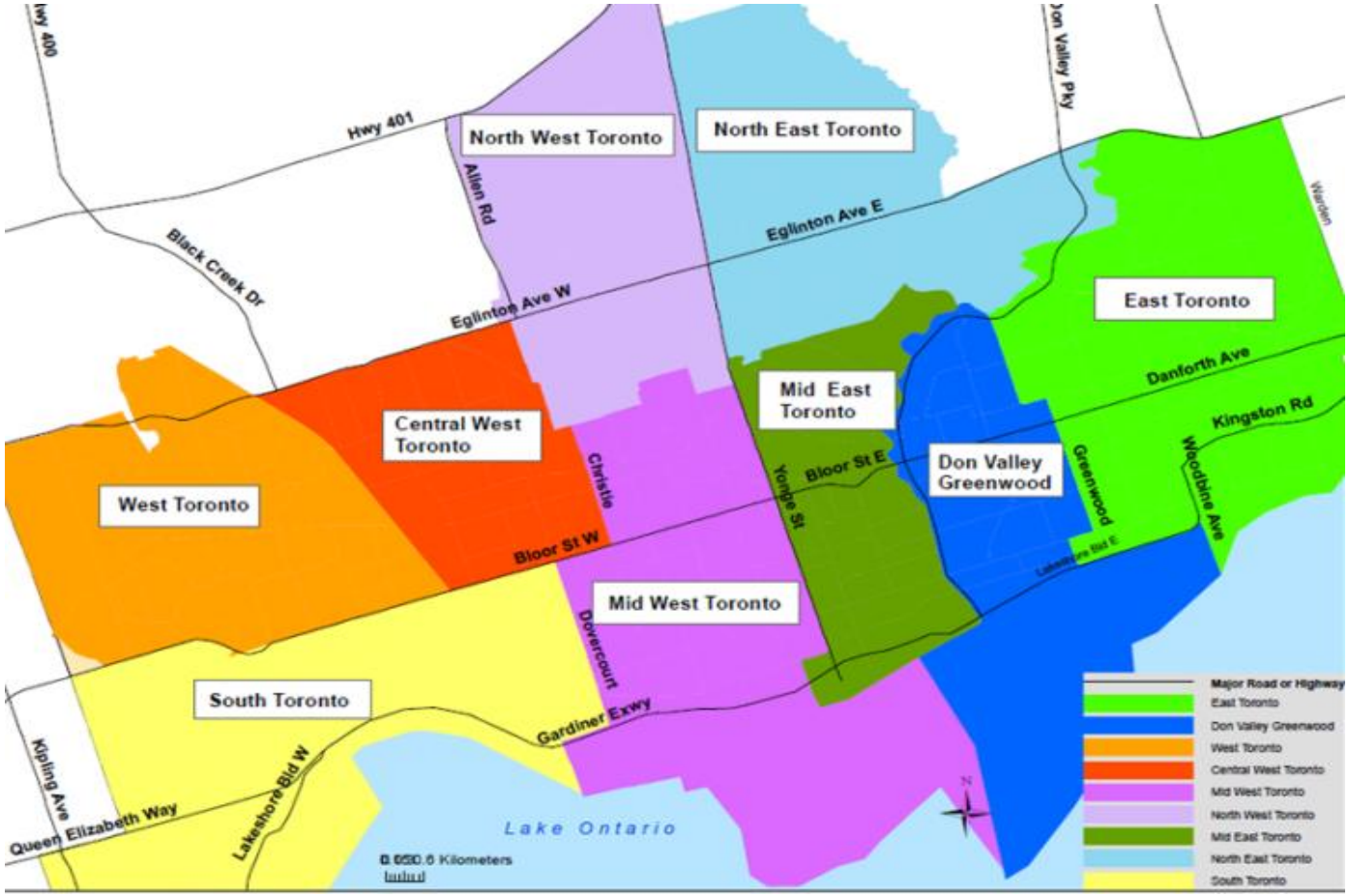
- 4 Health Links
- LHIN base funding
- 10 teams
- expansion to 2+ sites
- leveraging of FHT teams to help serve community practices

Project Partners



Next Steps for TIP

- Continue to scale TIP model across TC LHIN



Next Steps for TIP

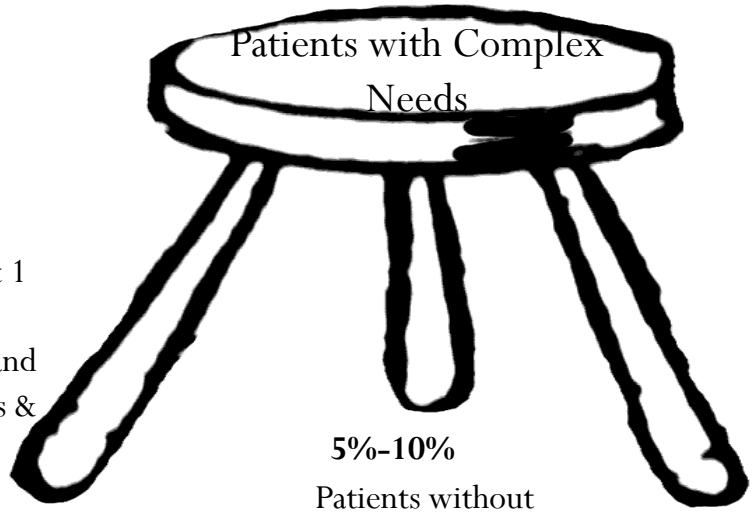
- Finalize evaluation framework for quantitative RCT research study to begin Fall 2015: **Patient-Centered Innovations for Persons with Multi-Morbidity (PACE in MM)**
  - Recruit 240 patients over one year to randomize into IMPACT (120) or usual care (120)
  - The PACE team will be comparing primary outcomes such as ED and inpatient visits, quality measures for patient, caregiver and provider, team-based measures and cost savings between the two groups

Q & A

…and on to the next evolution of TIP-Impact at East Toronto Health Link, The CCT Cross Continuum Team - joined by Dr Richard Doan, Psychiatry

East Toronto Health Link – The Wicked Question:

What if poor social supports, mental illness, and substance usage are the main drivers for complexity?



<1%-5%

Patients with at least 1 inpatient hospital admission, medical and social co-morbidities & at end of life

5%-10%

Patients without inpatient admission but multiple ED visits, and medical & social co-morbidities

10%-20%

Patients at risk of frequent ED visits because of poor connection to primary care and with medical and social co-morbidities

Team Members

Frequently Sourced (core team)

- Cota
- Neighbourhood Link
- Toronto CCAC
- Toronto Community Housing
- WoodGreen Community Services
- Psychiatrist
- Family Physician
- Providence Healthcare
- South East Toronto Family Health Team

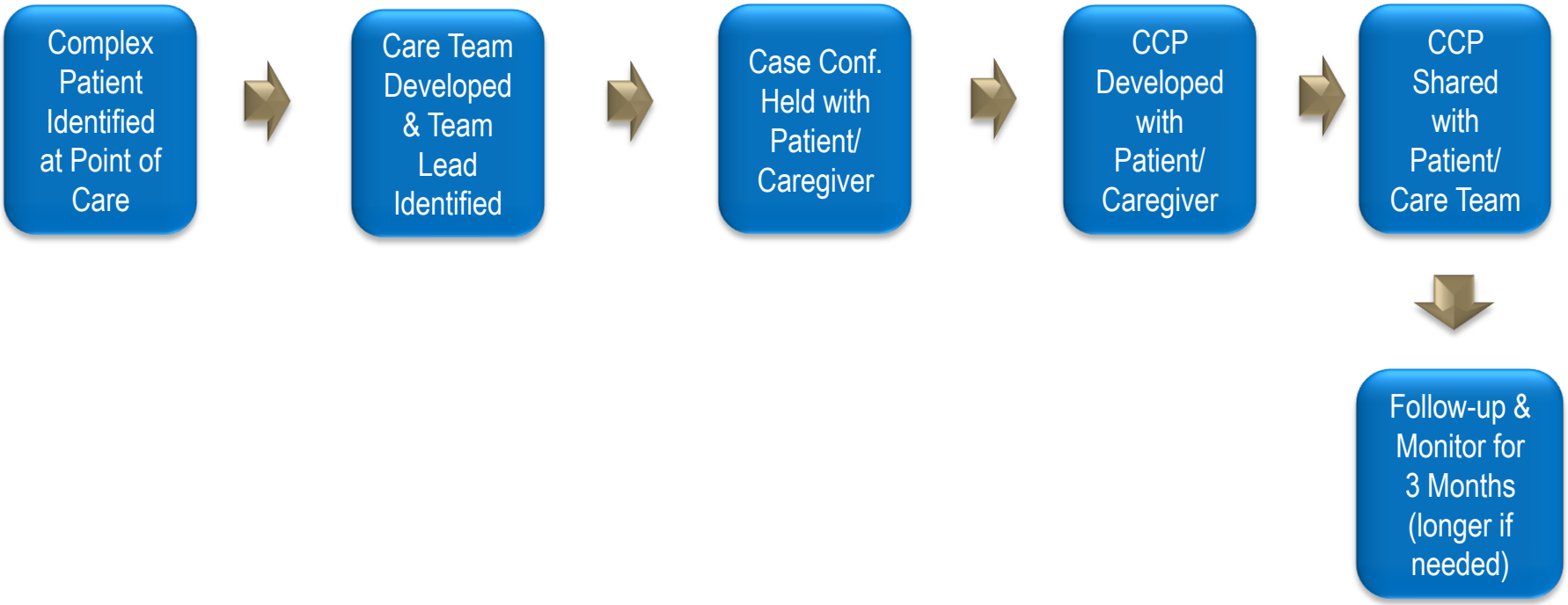
Added as needed by patient

- Toronto East General Hospital
- LOFT Community Services
- Access Alliance
- East End Community Health Centre
- Toronto Paramedics
- Saint Elizabeth Healthcare
- Scarborough Academic Family Health Team

Anyone within East Toronto can Refer a Client who has 2+

- High patient and/or caregiver burden and stress
- Cognitive impairment
- Mental illness or substance use disorder
- Poor housing condition
- 1 hospital inpatient admission and/or 10+ ED visits in the last 6 months
- Unattached to primary care or ‘poorly’ attached to primary care
- Physical impairment
- Multiple chronic medical co-morbidities
- Multiple medications
- Highly dependent in self care
- High risk of institutionalization, including Long Term Care
- Uninsured patients/clients (to be evaluated on a case by case basis)

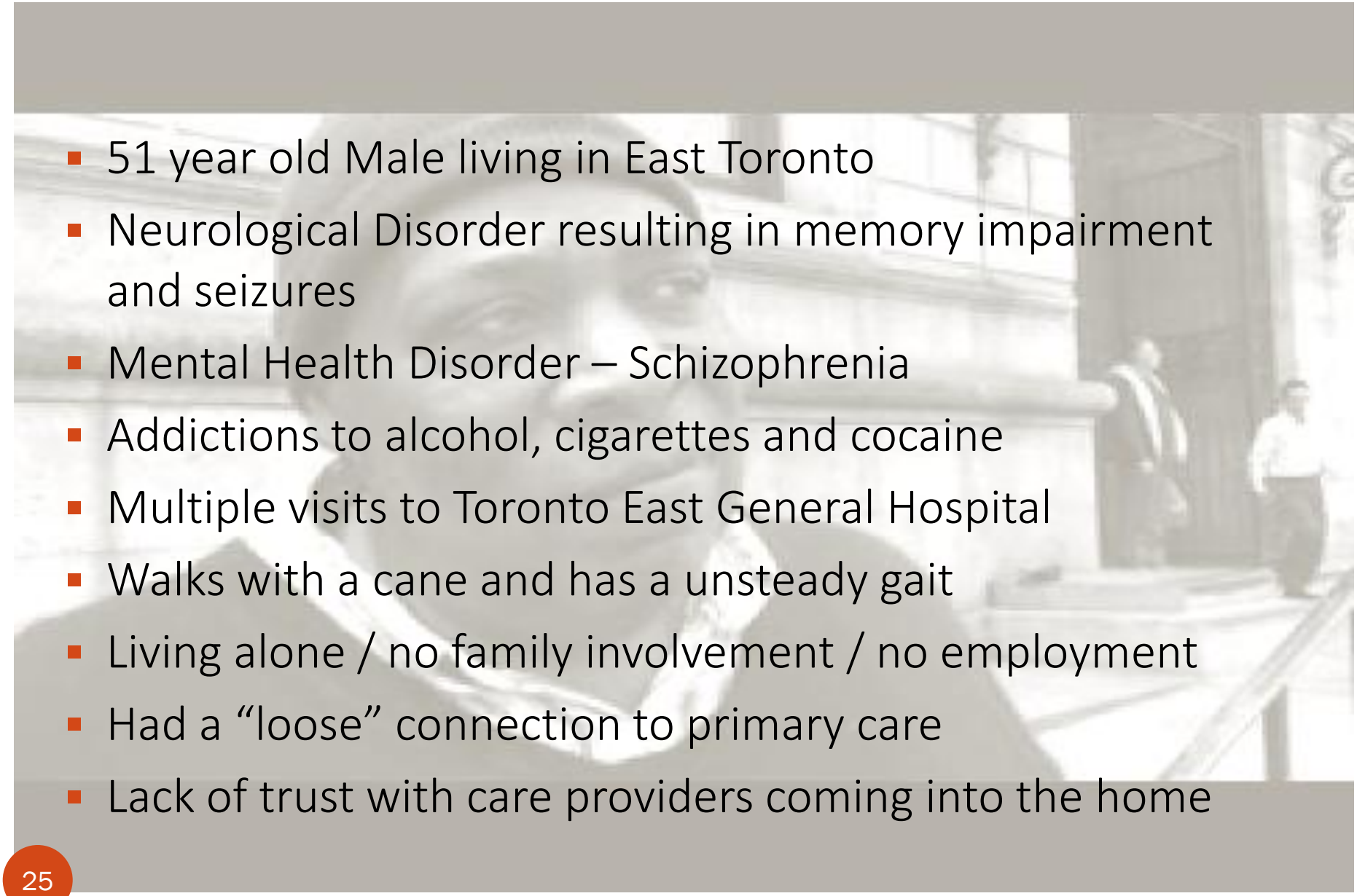
Establishing the Cross Continuum Team (CCT) to Coordinate the Care Plan (CCP)



What is different from TIP?

- Most programs in ETHeL identify the top 1-5% of complex population with medical needs being the primary point of entry
- ETHeL community partners identify patients who need better support from community, mental health, addictions support services, supportive housing, with primary care and psychiatry secondary drivers
- Development of a “one stop” approach allowing partners in CCT to address gaps in service – in evolution of IMPACT/TIP, and with the patient and family present as part of the circle of discussion

Patient Story



- 51 year old Male living in East Toronto
- Neurological Disorder resulting in memory impairment and seizures
- Mental Health Disorder – Schizophrenia
- Addictions to alcohol, cigarettes and cocaine
- Multiple visits to Toronto East General Hospital
- Walks with a cane and has a unsteady gait
- Living alone / no family involvement / no employment
- Had a “loose” connection to primary care
- Lack of trust with care providers coming into the home

Identification to East Toronto HL

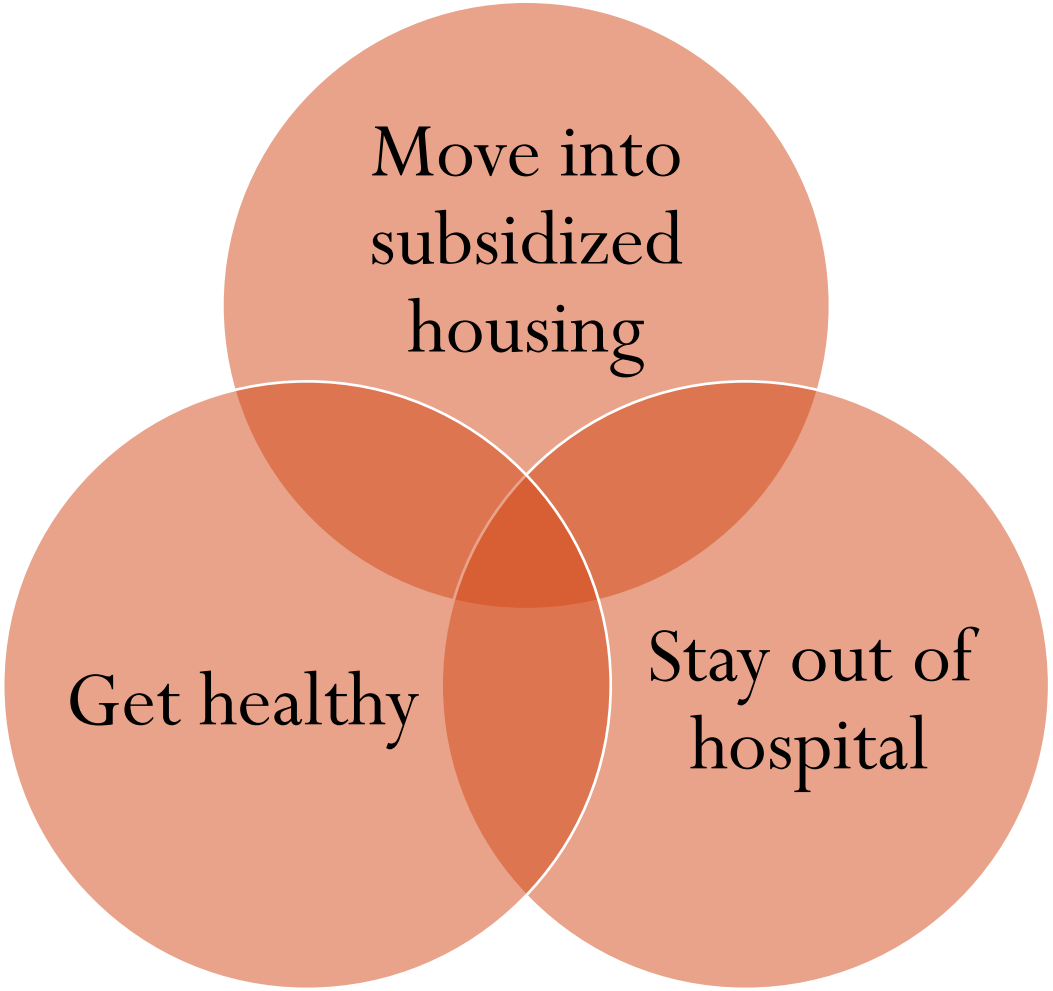
- Visited TEGH with a seizure and fractured hip in late 2014
- Referred to TEGH Virtual Ward post discharge, coordinated care plan identified high social complexity and need for CCT
- ETHeL Care Coordinator visited patient in his home for assessment and consent
- Care Coordinator organized a case conference with current and new care team based on patient's needs
- Patient asked to attend in-person with family member and/or current case manager

Care Coordination

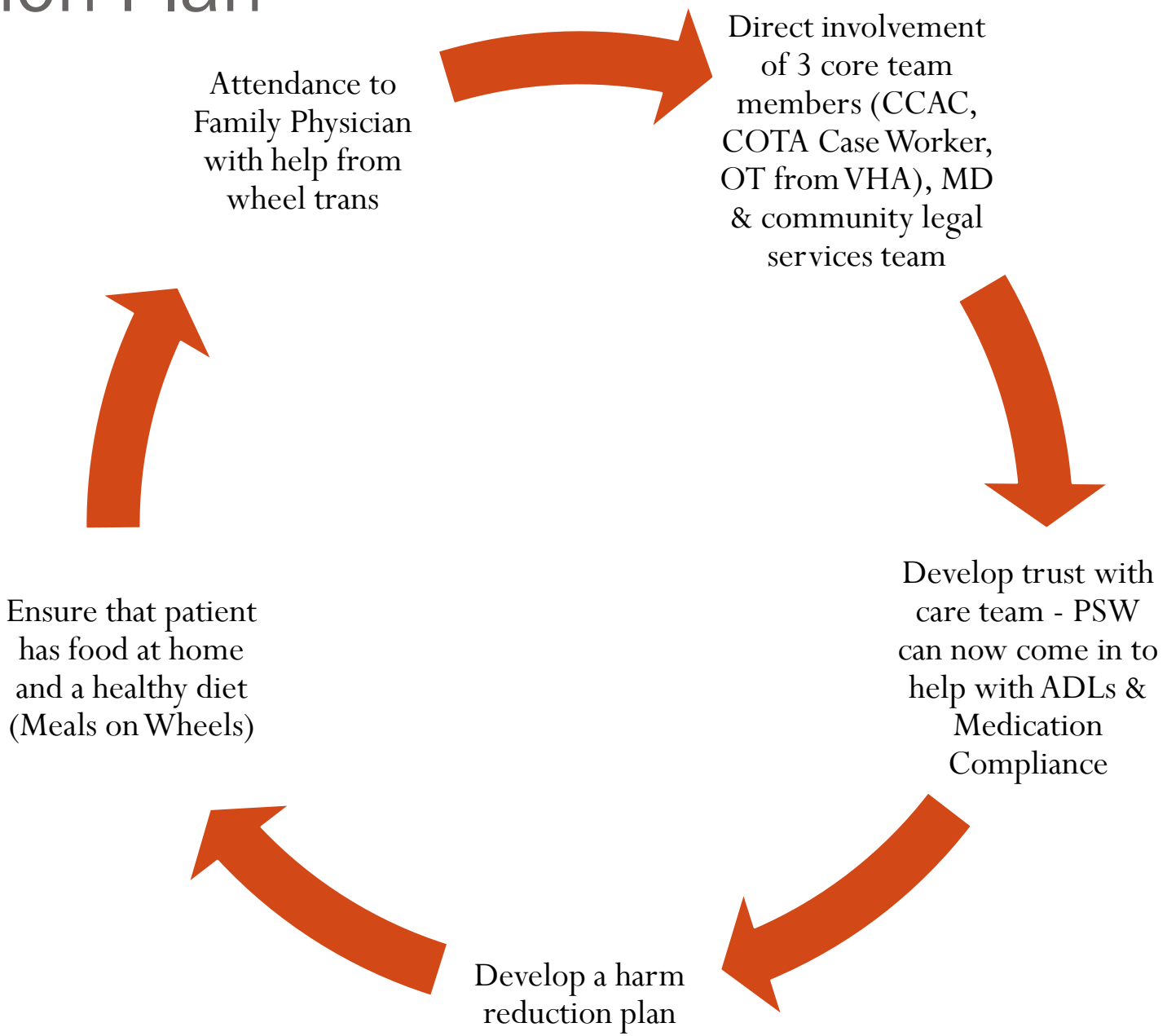
Case Conference held in late December

- Estranged Daughter
- COTA Case Worker
- Neighbourhood Link Supportive Housing
- CCAC Care Coordinator
- Family Physician (via teleconference)
- Psychiatrist
- ETHeL Care Coordinator

Patient's Goals



Action Plan


Direct involvement of 3 core team members (CCAC, COTA Case Worker, OT from VHA), MD & community legal services team
Develop trust with care team - PSW can now come in to help with ADLs & Medication Compliance
Develop a harm reduction plan
Ensure that patient has food at home and a healthy diet (Meals on Wheels)
Attendance to Family Physician with help from wheel trans

Action Plan (cont'd…)

- Engaged community legal services to help with:
  - Advance care planning and getting his daughter to be his POA
  - Represent Mr. D at the Landlord Tenant Tribunal to prevent an eviction
  - Started writing post-dated cheques for rent to create a paper trail
- Helped build relationship with local bank branch – start using his ATM card at the bank rather than at local convenience stores to avoid fees
- Enrolled into a community day program to start a "friend-transplant"
- Replaced his current circle of friends who engaged in substance abuse
- Helped reconnect his daughter to be a part of her Dad's life

Care Team Experience

- Patient has said that the Care Team is very helpful and he is very appreciative of the help and support and wants to get better – this makes our jobs easier

- Addictions will always be a part of his life but for the first time he has people in his life who don't use drugs so that he can choose to live differently

- Key Success: Willingness to work as a team – no concept of "my client" but rather because he is so complex – it takes a team to care for him

Preliminary Results of the Care Coordination

- ✓ # of ED visits on the decline
- ✓ Taking medications regularly and appropriately
- ✓ Trusting care team members
- ✓ Re-engagement of family caregiver
- ✓ Getting finances and other social determinants in order

Key Successes

- Improve linkage between partner community agencies and on the ground providers through use of bi-weekly conferences to identify at risk clients
- Improve confidence in learning who actually benefits from better care coordination
- Diagnose systemic gaps in care transitions
- Physical presence of patients & family caregivers to the cross-continuum team to enhance the focus on patient and family experiences

Questions?

Dr Richard Doan
Aasif Khakoo
Dr Pauline Pariser