

# Geriatric Assessment and Intervention Network

Helping people living with dementia  
and age-related frailty to remain at home



# Outline

- The GAIN Quadruple Aim
- George – a Patient’s Story
- GAIN – An Integrated Service Delivery Network
- Cost Effectiveness of GAIN
- Performance Measurement & Evaluation
- Core elements
- Future opportunities
- Key Contacts

# The GAIN Quadruple Aim

## A Focus on Older People Living with Dementia and Age-related Frailty

### Better Patient & Population Health Outcomes

1. > 8700<sup>1</sup> vulnerable older people provided ongoing support to live at home (not in acute care or LTC).
2. > 2100<sup>1</sup> people with dementia assessed and/or diagnosed and supported.

### Better Patient and Caregiver Experience

1. 98.3% of new patients have a full CGA<sup>2</sup> the gold standard in frail seniors' care.
2. Numerous success stories and accolades.
3. Implementing a provincially validated Seniors Experience Survey.

Quadruple Aim for Dementia & Age-Related Frailty Care

### Better Provider Experience

1. Low staff turn over (10% less than national average) and strong specialist physician attachment and support.
2. Practice supported by Provincial Competency Framework, toolkit and education funding.

### Better Value

1. Case management and active intervention provided at less than \$1500/patient per year.
2. Estimated savings<sup>3</sup> to system of nearly \$12M (total recovery of program costs).

1. At Q3 2018/19

2. CGA = comprehensive geriatric assessment which includes treatment, interventions and system navigation appropriate for older people living with complex health and social concerns

3. Assumes all GAIN patients with a Clinical Frailty Score of 7 or higher (n=218) had LTC admission delayed by, at minimum, one year. LTC annual cost \$54,730. In many cases, delay to LTC admission is several years which would increase savings.



## “Can you get me out of this jail?”

- In November 2016, when GAIN met George in hospital, following his stroke in September 2016, he had been designated Alternate Level of Care or ALC,
- GAIN carried out their comprehensive assessment, and developed a care plan with George.
- He was discharged home with GAIN’s support December 2016. GAIN remained involved post discharge.
- By March 2017, he no longer needed home care services.
- He has just regained his license.

## George's Statement

“GAIN didn't really impact me coming home. You see, I was coming home with or without GAIN. What GAIN did impact was whether I lived or died. They came to the hospital and made all the arrangements to get me home. Once I got home they worked with me to make sure I could cook my own meals and didn't burn down the whole building. They worked with me until I understood how to take care of my blood sugars, whenever I needed them, they were there. Once I got home and on my feet I really didn't need as much help. And last month I got my license back, I am living life again .

The Ladies from GAIN were never afraid to get involved. Everyone else kept me at arms length. They always seemed to not want to say something or do something that they weren't sure they were allowed to do. GAIN wasn't afraid of anything, they just got involved and helped me. They even made all the arrangements to get my license back”.

# GAIN - An Integrated Service Delivery Network<sup>1</sup>

## GAIN Model:

- Service provision to a defined population (e.g. people living with dementia and age-related frailty).
- Referrals from all sources (physicians, self & family, emergency departments, other providers and agencies),
- Interprofessional teams with extensive knowledge of the health needs of this population. Teams are multidisciplinary and include geriatric specialist physicians.
- Integrated and coordinated care, through care plans arising from a standardized approach to interprofessional comprehensive geriatric assessment (CGA).
  - see <https://www.rgps.on.ca/provincial-initiatives/interprofessional-cga-tool-kit/>

1. [http://www.euro.who.int/\\_data/assets/pdf\\_file/0005/322475/Integrated-care-models-overview.pdf](http://www.euro.who.int/_data/assets/pdf_file/0005/322475/Integrated-care-models-overview.pdf)

# GAIN - An Integrated Service Delivery Network<sup>1</sup>

## GAIN Model (cont.):

- Community based service delivery (in-home or distributed clinics).
- Imbedded care coordination - as both a whole team and individual team member function.
- Person and family centred approaches – unique “one-of” care plans, rather than standardized/routinized care pathways.
- GAIN teams have supported the repatriation of multiple patients from hospital, back to home.
- Support to patients who have reached end-stage frailty, in collaboration with palliative care teams (where available and if the patient is accepted by palliative services, otherwise GAIN may provide end of life care)

**In short,** GAIN is a network of expert, clinical geriatric teams, made up of interdisciplinary health professionals and physicians, that focuses on people living with dementia and age-related frailty (e.g. complex health concerns) who live in the community.

1. [http://www.euro.who.int/\\_data/assets/pdf\\_file/0005/322475/Integrated-care-models-overview.pdf](http://www.euro.who.int/_data/assets/pdf_file/0005/322475/Integrated-care-models-overview.pdf)

# GAIN - An Integrated Service Delivery Network<sup>1</sup>

## GAIN Governance:

- A unified system of governance for the entire network, through Seniors Care Network and clinician-led GAIN Operating Committee.
- Regional coordination by a GAIN Regional Manager, NP Lead and Administrative Coordinator.
- Participation in model design by all network members, and with patients and caregivers.
- Intersectoral collaboration with Community and Social Service, Acute Care, Long Term Care and other agencies for care plan implementation as well as ongoing model refinement.

1. [http://www.euro.who.int/\\_data/assets/pdf\\_file/0005/322475/Integrated-care-models-overview.pdf](http://www.euro.who.int/_data/assets/pdf_file/0005/322475/Integrated-care-models-overview.pdf)

# GAIN - An Integrated Service Delivery Network<sup>1,2</sup>

## Organization and Management:

- An integrated clinician-led system, with clinicians directing all aspects of care plan implementation (follow-through) arising from clinical analysis and judgement.
- Leaders and clinicians are highly qualified with competencies relevant to this specific field.
- Robust performance measurement, using common indicators inclusive of newly developed tools for seniors' satisfaction.
- Staff turn over rate between 4-6%, well below the national healthcare average of 14.7%.
- Common clinical operating guidelines (GAIN Operating Manual).
- Systematic and ongoing evaluation, using a formalized evaluation framework.
- Dedicated annual funding (\$11M).

1. [http://www.euro.who.int/\\_data/assets/pdf\\_file/0005/322475/Integrated-care-models-overview.pdf](http://www.euro.who.int/_data/assets/pdf_file/0005/322475/Integrated-care-models-overview.pdf)

2. <https://smallbusiness.chron.com/staff-turnover-hospitals-77444>



# Cost Effectiveness of GAIN

- Multi-dimensional impairment is strongly correlated to prognosis <sup>1</sup>
- Pre-admission frailty as per the CFS (CFS 6 or 7) was independently associated with adverse discharge destination<sup>1</sup>
- GAIN patients demonstrate multi-dimensional impairment (e.g. on average 4 concurrent categories of diagnoses)
- Patients on the GAIN caseload are not in hospital and not in long term care. At Q3 (December 31) in 2018/19, GAIN reported 8768 patients on their caseload.
- At Q3 in 2018/19, 218 GAIN patients were evaluated at Clinical Frailty Scale<sup>3</sup> (CFS) 7 or higher

Costing of GAIN Services 2018/19	
Total Annual Budget	\$ 11,103,529.00
Visit Volume (at Q3)	21922
Caseload - Ongoing Care (at Q3)	8768
Cost per visit (at Q3)	\$506.50
Cost per case (patient) (at Q3)	\$1,266.37

Estimated System Savings 2018/19	
GAIN Patients at CFS 7+	218
Annual Cost of LTC	\$ 54,730.00
Estimated Cost of LTC delay for GAIN Patients CFS 7+ by one year	\$ 11,931,140.00
Estimated Cost of LTC delay for GAIN Patients CFS 7+ by two years	\$ 23,862,280.00

1. Pilotto, A., Cella, A., Pilotto, A., et al. (2016). Three Decades of Comprehensive Geriatric Assessment: Evidence Coming From Different Healthcare Settings and Specific Clinical Conditions. Journal of the American Medical Directors Association. 18. 10.1016/j.jamda.2016.11.004.

[https://www.researchgate.net/publication/312035363\\_Three\\_Decades\\_of\\_Comprehensive\\_Geriatric\\_Assessment\\_Evidence\\_Coming\\_From\\_Different\\_Healthcare\\_Settings\\_and\\_Specific\\_Clinical\\_Conditions](https://www.researchgate.net/publication/312035363_Three_Decades_of_Comprehensive_Geriatric_Assessment_Evidence_Coming_From_Different_Healthcare_Settings_and_Specific_Clinical_Conditions)

2. Cheung, Annie et al. (2017). Canadian Study of Health and Aging Clinical Frailty Scale: Does It Predict Adverse Outcomes among Geriatric Trauma Patients? Journal of the American College of Surgeons , 225(5), 658 - 665.e3

3. Rockwood , K. et al. (2005). A global clinical measure of fitness and frailty in elderly people. CMAJ, 173,489-495.

# Performance Measurement & Evaluation Highlights

- GAIN has a sophisticated performance measurement indicator set, developed through a rigorous process and reviewed annually
- GAIN utilizes a formal evaluation framework to conduct ongoing evaluation activity

# GAIN Performance Measurement Indicators

Through a rigorous indicator development process, GAIN has developed the following indicators:

- % of referrals by referral source
- Third next available appointment post triage
- # of cancellations and no-shows
- % of new patients served post triage
- % of visits by location post triage
- # of encounters
- % of dementia scores of persons at initial GAIN CGA
- % of frailty scale scores of persons at the completion of the initial GAIN CGA
- % of discharges by reason
- Total caseload

These indicators are reviewed annually. A detailed data dictionary is available.

# Sample Performance Metrics

- In 2017/18, GAIN's twelve interprofessional teams
  - Provided 30,520 visits.
  - Delivered ongoing care & case management (ongoing specialized support, according to best practices in geriatrics) to 6987 patients.
  - Added nearly 250 new patients to ongoing care & case management.
  - Served 921 people with moderate to severe dementia and 1536 people with advanced frailty.
- As of Q3 of 2018/19, GAIN's twelve interprofessional teams
  - Provided 23,469 visits.
  - Is providing ongoing care & case management to more than 8768 patients.
  - Added nearly 1987 new patients to ongoing care & case management.<sup>1</sup>
  - Served 738 people with moderate to severe dementia and 1227 people with advanced frailty
  - Operated at a cost of less than \$1500/year/patient.

1. Individuals on GAIN case management remain in the community (out of hospital and out of Long Term Care)

# Evaluation

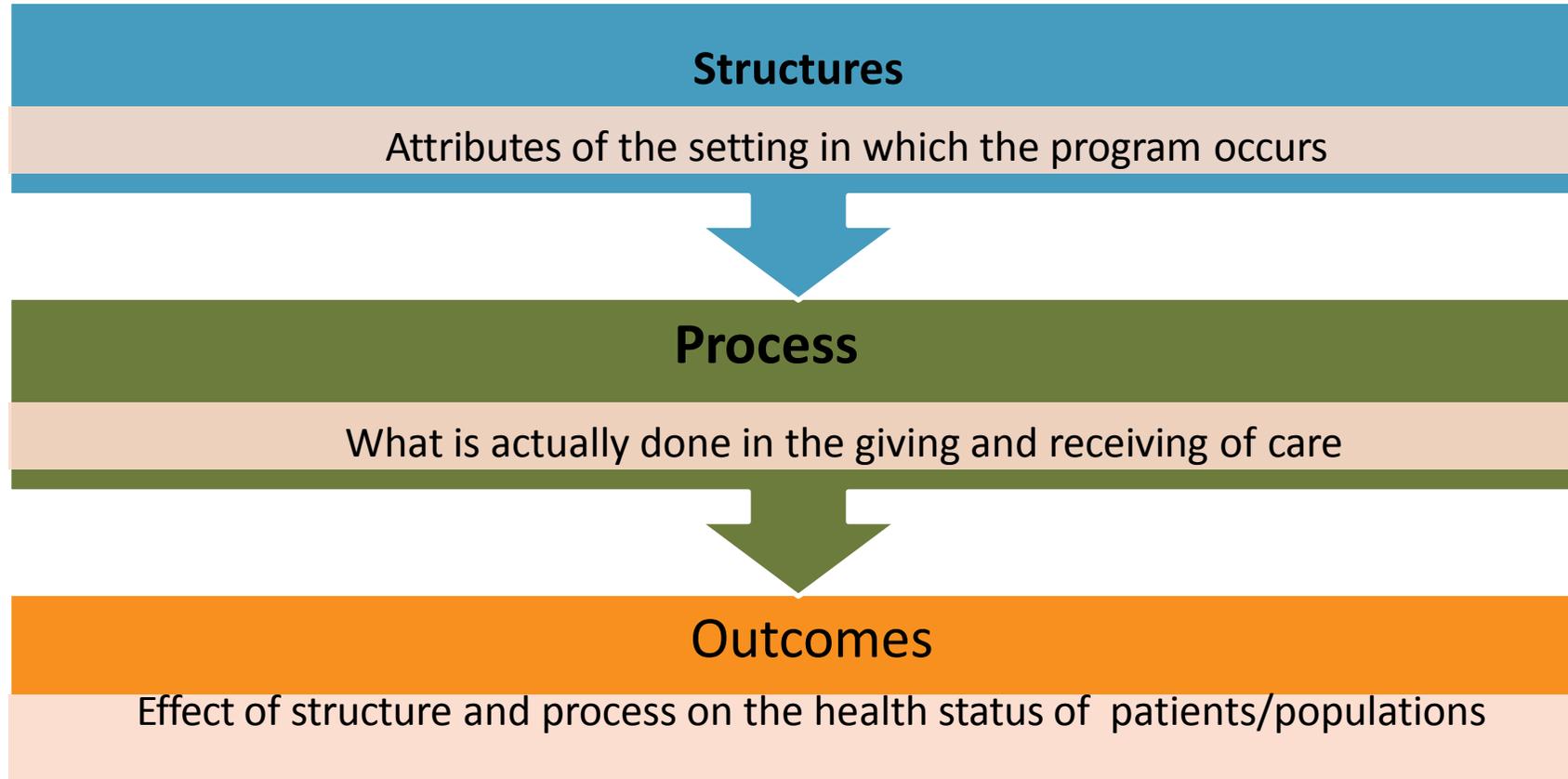
- In March 2013, the Central East LHIN requested that Seniors Care Network conduct a formative evaluation of the four (n=4) existing Geriatric Assessment and Intervention Network (GAIN) teams in the Central East.
- This evaluation included direction to assess the current state of the GAIN teams in comparison to the original business plan (i.e. process evaluation) for the purpose of informing future quality improvement and planning activities associated with a large-scale expansion of services in the Region.
- The results of this initial evaluation supported the LHIN's decision to expand GAIN from 4 to 12 teams in October 2013.

# Evaluation (cont.)

- In 2017-2018, Seniors Care Network commissioned the creation of a comprehensive evaluation framework for all specialized geriatric services (SGS), including GAIN.
- This framework included extensive engagement with stakeholders in the development of fulsome program descriptions and program logic models for Seniors Care Network, and all of its programs/initiatives.
- The framework supported the identification of ongoing evaluation activity, including annual:
  - program evaluation objectives
  - evaluation questions
  - outcomes and corresponding indicators (based on those questions)
- The framework also identified potential data sources (existing or to be created) and a catalogue of potential methods to collect data.

# Evidence Based Approach to Evaluation

The SGS Evaluation Framework, used in GAIN, is based on the Donabedian Framework for Evaluating Health Care Services:



Donabedian (1966)

# Components of the SGS Evaluation Framework

Core  
program  
documents

Program Descriptions

Concise program information

Program Logic Models

Structure, processes, outcomes

Evaluation Questions

Questions to focus data collection that will demonstrate outcomes

Evaluation Methods

Strategies to collect evaluation data

Evaluation Work Plan

Overall approach to scheduling and conducting the evaluation

# Annual GAIN Evaluation 2017-2019

- The SGS evaluation framework provides a strong foundation for planning of evaluation activities (structure, process, outcome), which are intended to be yearly activities include as part of the programs' annual workplans.
- Program evaluation workplans were actioned beginning in the Fall of 2017-2018.
- To date, GAIN has completed program evaluations in 2017-2018 and 2018-2019.
- Evaluation questions are established for each year and include:
  - 2017-18: describe the client population served by the program
  - 2018-19: determine the extent to which GAIN teams perform the Comprehensive Geriatric Assessment according to standard (analysis in progress)
- The findings from these evaluations have supported quality improvement of both management of services, and clinical practice.

# Results of the 2017/18 Evaluation

Evaluation Question: ***Who are the clients served by GAIN***

Evaluation Outcomes: Description of clients served including demographic information and Level of frailty and dementia

## ***Results***

- The average age of patients seen was 79.85 ( $SD=8.5$ ), with the majority being between the age of 75 and 84.
- The majority of patients seen were:
  - female (59.8%)
  - lived in a house (56.2%)
  - supported (paid care) in their living setting (55.5%) (e.g. retirement home, private home care)
  - currently receiving PSW support through Home and Community Care (55.1%)
- The average Clinical Frailty Scale (CFS) score was 5.20 ( $SD=1.28$ ), with the majority of persons (36.5%) being Moderately Frail (CFS=6),
- The average Global Deterioration Scale (GDS) score was 4.01 ( $SD=1.43$ ), with the majority of persons (30.5%) having Moderate Dementia (GDS=5).
- There was a positive correlation between higher CFS score and higher GDS score, meaning that persons with higher CFS scores also had higher GDS scores.

# Results of the 2017/18 Evaluation

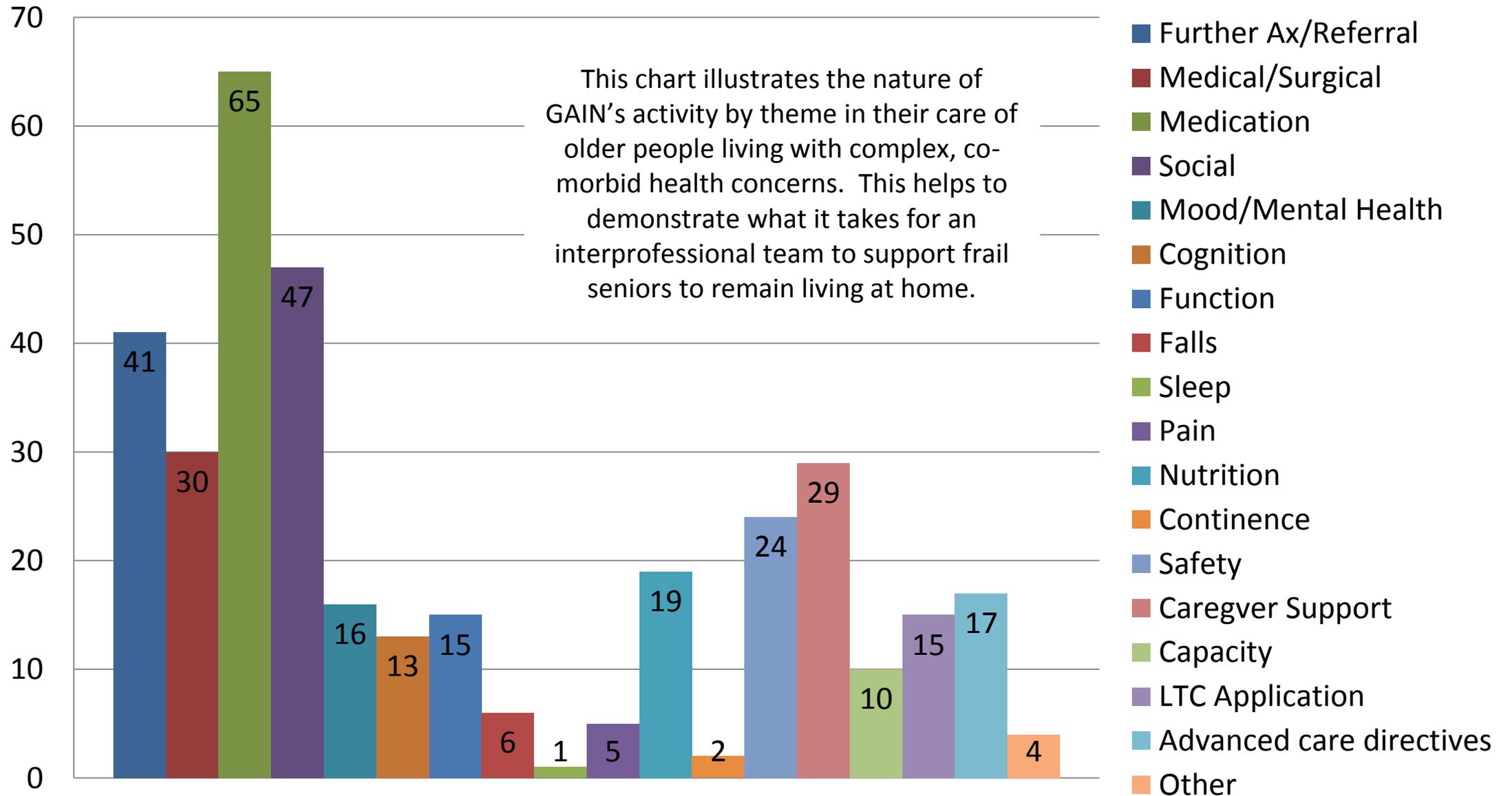
## Additional 2017 Data Sample of Patients on Intensive Case Management

- Average number of reasons for referral was 3.4, with the majority of referrals due to concerns regarding cognition (20.8%).
- Patients had – on average – 4 concurrent categories of diagnoses, with the majority of patients (21.6%) being referred with an established diagnosis of cognitive impairment/dementia.
- Range between 1 and 11 significant diagnoses. Frequently seen diagnoses included:

Dementia	Pain
Mild Cognitive Impairment	Psychiatric diagnoses
Vascular	Parkinson's Disease
Diabetes	Vision Impairment
COPD/Asthma	Hearing Loss
Osteoarthritis/Rheumatoid Arthritis	

# Nature and Frequency of Themed GAIN Interventions

Sample of 325 interventions seen in 38 patients (2017/18)



# Results of the 2018/19 Evaluation

## Performance of Standards-Based Care (In progress)

Evaluation question: ***Are GAIN teams conducting complete Comprehensive Geriatric Assessments (CGA) on all new patients, across all domains of the CGA including responding to the reason for referral?***

Evaluation outcome: All new patients to GAIN receive a CGA consistent with the provincial standard.

- Planned review of a 15% sample of all new patients seen between June 1, 2018 and December 31, 2018

### ***Results (interim)***

- Evaluation data collected for 239 new patients (data collection in progress).
- The average age of patients seen was 81.2 ( $SD=8.59$ ), with the majority being between the age of 75 and 84. 75 and older represented the majority of patients (81.2%).
- Of the 9 patients who were under 65 years of age, all were referred and assessed due to concurrent cognitive frailty (typically dementia) and other comorbidities, and the majority of persons were from rural communities.
- There was a high CGA compliance, with 98.3% of new patients having a full CGA.
- All patients (100%) who received a CGA had their reason for referral assessed, and responded to.

# Plans for 2019/20 Evaluation (TBC)

Proposed evaluation question: ***Describe the client and care partner-related outcomes associated with GAIN.***

Evaluation Outcomes:

- Understanding of impact of GAIN services on the selected client outcomes
  - Caregiver burden
  - ED visits/acute care admissions
  - Goals (stated directly or indirectly)
  - Functional status
  - Frailty

# Core Elements of GAIN

- Clinician leadership, by geriatric specialists (Geriatricians, Geriatric Nurse Practitioners, Care of the Elderly Primary Care Physicians) for both patient care and model design.
- Clinician authority to direct aspects of care plan implementation (follow-through) arising from clinical analysis and judgement.
- Expert interdisciplinary teams including:
  - Occupational therapy, Physiotherapy, Pharmacist, Behavioural Support Clinicians, Nurse Case Managers/Care coordinators, Personal Support Workers, dedicated clerical, and in some cases, community paramedicine.
  - Linkages to other specialized geriatric services providers (e.g. Geriatric Emergency Management Nurses).
- Standards based practice – based on provincial standards that GAIN clinicians helped to develop.
- Team based case management model

## Core Elements of GAIN (cont.)

- Immersion in community and social service agencies, primary care agencies (e.g. CHCs) and outpatient departments, providing access to extensive community supports and fluid connections to other system parts.
- Integration with other clinical roles focused on frail senior care (e.g. GEM and BSO RNs, RPNs and PSWs) in acute care and LTC.
- Regional coordination for planning, co-design, standards development and implementation, quality improvement, performance measurement and evaluation.
- Creativity and flexibility (e.g. no defined visit maximums, collaborative leadership model etc.).

# Standards Based Practice - Tools

What Does GAIN Do?

## A Competency Framework for Interprofessional Comprehensive Geriatric Assessment

Final Report  
Revised October 25, 2017



## Self-Assessment Tool for the Competency Framework of the Interprofessional Comprehensive Geriatric Assessment

November 15, 2018



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## Compendium of Educational Offerings Relevant to Interprofessional Comprehensive Geriatric Assessment

The Compendium of Educational Offerings Relevant to Interprofessional Comprehensive Geriatric Assessment (CGA) is a result of collaboration between the North East Specialized Geriatric Services (NESGC), Seniors Care Network, and Laurentian Research Institute for Aging (LRIA). This final result of this collaboration is an extensive compendium of educational offerings divided into 3 sections:

### Section 1

#### Freely Available Educational Offerings

Contains over 250 free resources that can be easily accessed online. These offerings vary widely in media type and include learning modules, PowerPoint presentations, lecture slides, videos, pdf documents, and conference recordings, among others.

[Jump to section 1](#)

### Section 2

#### Non Post-Secondary Courses or Educational Offerings with Fees

Includes more than 20 educational offerings, mostly in the form of courses that can be taken online or in a classroom setting, such as Gentle Persuasive Approaches (GPA) in Dementia Care. These offerings have varying costs, time requirements and delivery methods.

[Jump to section 2](#)

### Section 3

#### Post Secondary Continuing Professional Development (CPD) or Continuing Education Programs/Courses in Ontario and Quebec

Includes over 15 CPD programs offered by colleges in Ontario and Quebec, as well as CPD programs offered by universities. Most of these programs can be completed online.

[Jump to section 3](#)

<https://www.rgps.on.ca/provincial-initiatives/interprofessional-cga-tool-kit/>

# GAIN Case Management

- A team-based intervention in which all team members participate.
- Supported by dedicated Nurse Case Manager roles, co-created with Home and Community Care. These roles combine geriatric nursing and system navigation competencies.
- Advocates on behalf of patient and family (empowered by patient and family to act on their behalf) to secure services, make applications, negotiate access.
- Rallies other providers/services (internal and external) to participate in the patient's care plan.
- Assists with navigation of transitions (including transitions back to country of origin in some cases).
- May include end of life care, in collaboration with available palliative services.

## GAIN Case Management (cont.)

- Considers the impact of frailty and dementia, which requires unique, individualized approaches to:
  - Introduction of services (dementia-aware processes needed).
  - Ancillary supports (e.g. navigating access to patient who cannot open their own doors, securing lock boxes and arranging secure access arrangements).
  - Inclusion of available informal caregivers, or acknowledgement of special considerations required for patients without caregivers/family.
- Empowered to act on clinical or psychosocial red flags.
- Linkages to primary care to coordinate implementation of interventions.
- Linkages to geriatric psychiatry and seniors mental health services.

# Opportunities

- Permit GAIN (and other specialized geriatric services) to manage its own budget, under the supervision of Seniors Care Network, to support the prudent use of resources directed to the care of older people living with dementia, frailty and mental health & addictions issues.
- Allow GAIN to direct the resources to fully implement care plans (e.g. dedicated positions in adult day programs, respite beds, assisted living spaces).
- Attach additional resources (e.g. more expert team members, home care services) to enable GAIN to do more. This will resolve current waits (average 59 days).
- Leverage existing IT solutions (e.g. CHRIS system) to allow GAIN to access all community data relevant to the care of their patients (e.g. home care service data, emergency room visits as they occur, discharge plans).
- Build new IT solutions that can be used by all GAIN teams to facilitate performance measurement, evaluation and quality improvement.
- Enable coordinated access across all services intended to support older people living with frailty.

# Key Contacts

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