



DEVELOPMENT OF QUALITY INDICATORS FOR OLDER PERSONS' TRANSITIONS IN CARE (OPTIC QI) PARTICIPANTS' REPORT

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For more information about the study:

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WORKING TOGETHER FOR

SUCCESSFUL TRANSITIONS

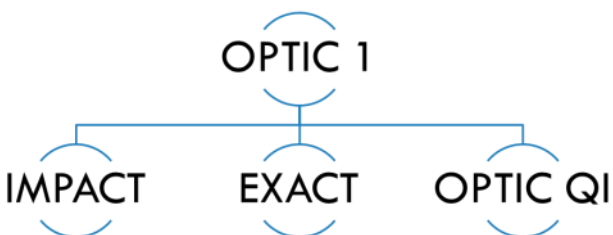
Dear OPTIC QI study participants,

The OPTIC research team's findings have led to the development and funding of three more OPTIC studies: IMPACT and EXACT, and most recently **OPTIC QI (a Systematic Review on Quality Indicators for Older Persons' Transitions in Care)**.

The Older Persons' Transitions in Care (OPTIC QI) study would not have been possible without you. As expert panelists and knowledge users, your engagement as relevant stakeholders in addressing priorities and validating measures for care transitions is invaluable. We are glad to be able to contribute to the success of care for older persons by providing this booklet on the findings of the OPTIC QI study. We hope that you will find this booklet useful in your area of work

Our study identified **38** validated and feasible quality indicators (QIs) applicable to older persons' transitions in care in Canadian contexts. Key findings in our study included a lack of standardized development of QIs and a need for better operationalization of QIs. Indicators are lacking for the transition process leading up to arrival in acute care settings and in evaluating equitable care for older persons. Future work is required to address these issues

The identification and review of a rigorous set of quality indicators through this project enables key stakeholders to measure performance, establish benchmarks, and identify care gaps where improvement is most needed for vulnerable older adults.



AT A GLANCE

The purpose of the **Developing Quality Indicators for Older Persons' Transitions in Care (OPTIC QI)** study was to:

1. **Examine the current state of quality indicator knowledge for care transitions for older persons through systematic literature review**
2. **Validate quality indicators for older persons' care transitions**
3. **Evaluate feasibility of implementing quality indicators across care transitions**
4. **Translate findings into practice using an integrated knowledge translation approach**

We used an integrated knowledge translation approach to build on partnerships between decision-makers, stakeholders and researchers.

Phase 1. In the first phase of the study, we conducted a systematic literature review to identify quality of care indicators applying to any setting that an older person may experience during a care transition. We coded identified indicators based on care setting, the Institute of Medicine's (IOM) quality domain framework and the Donabedian framework domain (structure, process, outcome).

Phase 2. In Phase II the Delphi process was used, whereby identified indicators were reviewed by an expert panel in two rounds of electronic surveys. Experts were asked to rate each quality indicator on a 5-point Likert scales for each of the following: scientific soundness, validity, feasibility, relevance, importance to improving transfers and importance to improving them or their work. We determined if and how easily current Canadian administrative databases capture data for each retained indicator through a feasibility review.

The findings of this study have led to four main contributions. Systematic review of the relevant literature **identified candidate quality indicators across all settings** included in a care transition and **highlighted a lack of standardized QI development and reporting**. Expert panelists reviewed candidate indicators through the Delphi process, and the subsequent feasibility review was conducted by our research team Steering Committee. This process resulted in a total of **38 quality indicators** deemed scientifically sound, important to improving transitions and feasible to capture in practice, using current Canadian administrative databases. This study **identified critical knowledge gaps and gaps in care** related to: a lack of indicators specific to care transitions in settings such as emergency transport and domains such as equity; a lack of appropriate, well-documented assessments of older persons during transitions; and a lack of a standardized, electronic reporting systems to allow for the feasible capturing of big data across settings.

The OPTIC QI study (Pro00069167) was financially supported by:



Canadian Frailty Network | Réseau canadien des soins aux personnes fragilisées

Known previously as Technology Evaluation in the Elderly Network (TUN)



Alberta Health Services

Care Transition Process

3/8/2018

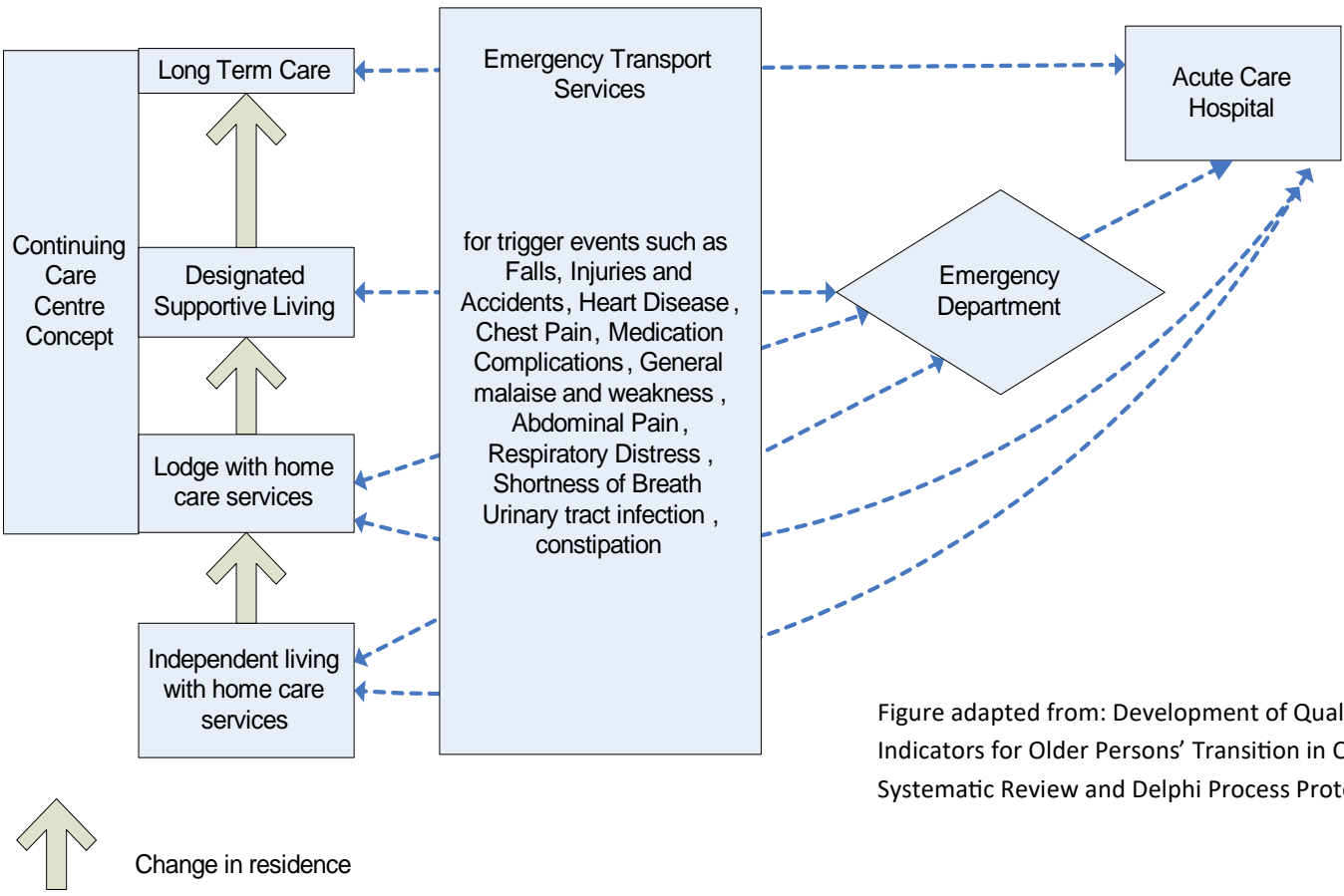


Figure adapted from: Development of Quality Indicators for Older Persons' Transition in Care: A Systematic Review and Delphi Process Protocol.

The OPTIC definition of **successful transitions** - *A successful transition is a coordinated set of actions that optimize safety, resident-centeredness, effectiveness, efficiency, timeliness and equity, across the entire transition.*
 Cummings et al . BMC Ger, 2012, 12:75



KEY FINDINGS

1. There is a lack of standardized QI development in practice. Items of concern noted in our review included: indicators not being operationalized, a lack of pilot testing and a reliance on consensus-based methods for QI development.
2. Many candidate indicators require chart review to capture pertinent data, which is time-consuming and costly. Issues around capturing useful data relate to inconsistencies in the care activities completed during transitions and their documentation.
3. Majority of feasible indicators were identified for the ED, palliative care and in-hospital care settings.
4. Majority of feasible indicators were process indicators falling into the Institute of Medicine's domains of quality: safety (27%), effectiveness (24%) and patient-centeredness (22%).

INSTITUTE OF MEDICINE DEFINITIONS FOR Domains of CARE Quality, Adapted for Older Persons'

- **Safe:** Avoiding harm to patients from the care that is intended to help them.
- **Patient-Centered:** Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.
- **Effective:** Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and misuse, respectively).
- **Efficient:** Avoiding waste, including waste of equipment, supplies, ideas, and energy.
- **Timely:** Reducing waits and sometimes harmful delays for both those who receive and those who give care.
- **Equitable:** Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.



* Committee on Quality of Health Care in America: Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, D.C; 2001.

METHODS

PHASE 1: SYSTEMATIC REVIEW

Our initial search yielded 10487 unique records potentially relevant to quality indicators for older persons transitions in care. Records were screened twice by independent reviewers, resulting in 53 sources meeting inclusion criteria, 41 being peer-reviewed literature and 12 sources being independent or government organizations that published reports on quality indicators. Quality indicators applying to older persons transitions in care were extracted from included articles, resulting in 326 identified candidate quality indicators.

PHASE 2: DELPHI PROCESS & FEASIBILITY REVIEW

Delphi Process. Candidate indicators (from the Phase 1 systematic review) were reviewed by an expert panel in two rounds of electronic surveys:

- Experts rated each quality indicator on a 5-point Likert scales for each of the following: **scientific soundness, validity, feasibility, relevance, importance to improving transfers and importance to them or their work.**
- Indicators with a median score ≥ 4 on soundness and at least one of the importance or relevance measures were deemed “retained”. Indicators rated as 3.0-3.9 on soundness and at least one of the importance or relevance measures were rated as “borderline”. Any indicator < 3.0 on soundness were “discarded”.

Feasibility Review. The Steering Committee determined if and how easily current Canadian administrative databases capture each indicator through a feasibility review. The Steering Committee was comprised of research team members representative of all care settings and an affiliated biostatistician. We considered databases such as the Canadian Institute for Health Information’s (CIHI) National Ambulatory Care Reporting System (NACRS), regional health authority performance management systems and Discharge Abstract Databases (DAD) in the feasibility review.

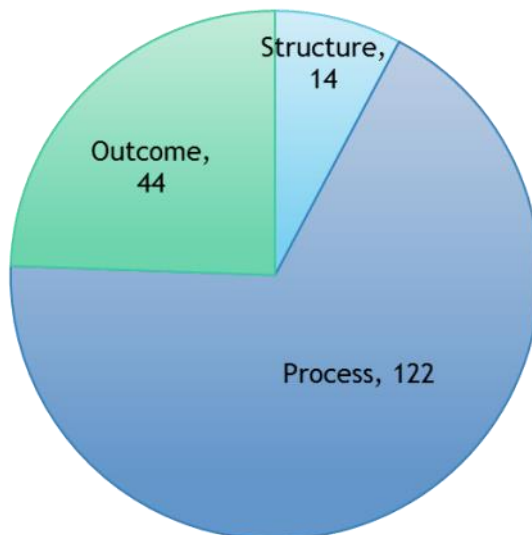
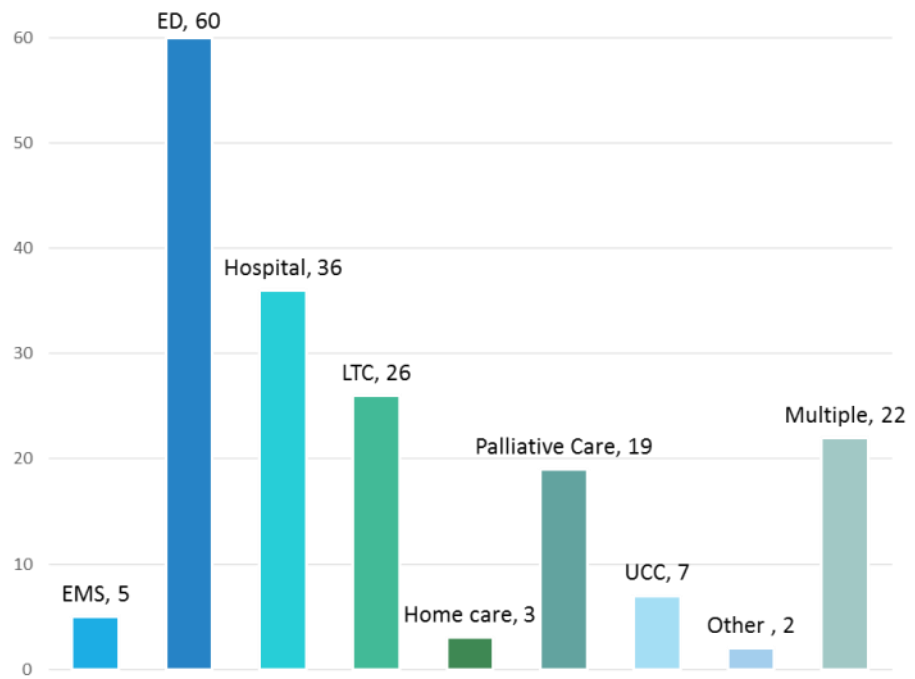
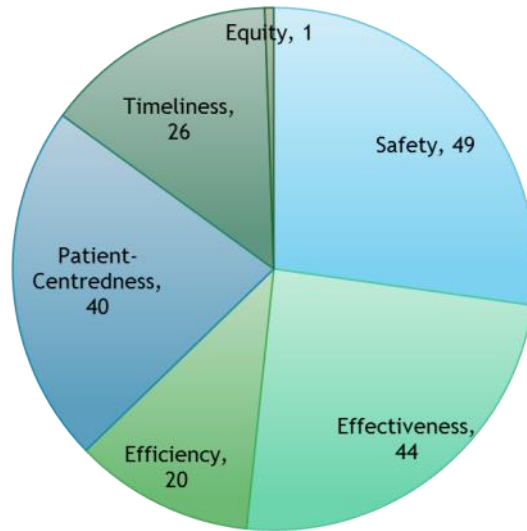
QUICK RESULTS: DELPHI PROCESS

IOM DOMAINS

CARE SETTING

DONABEDIAN FRAMEWORK

180 indicators were retained after the Delphi Process



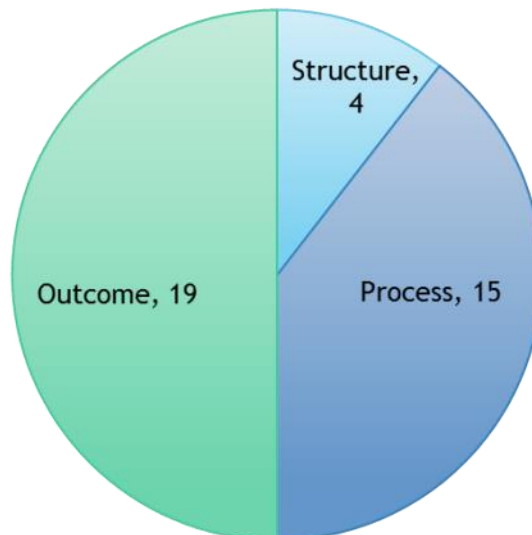
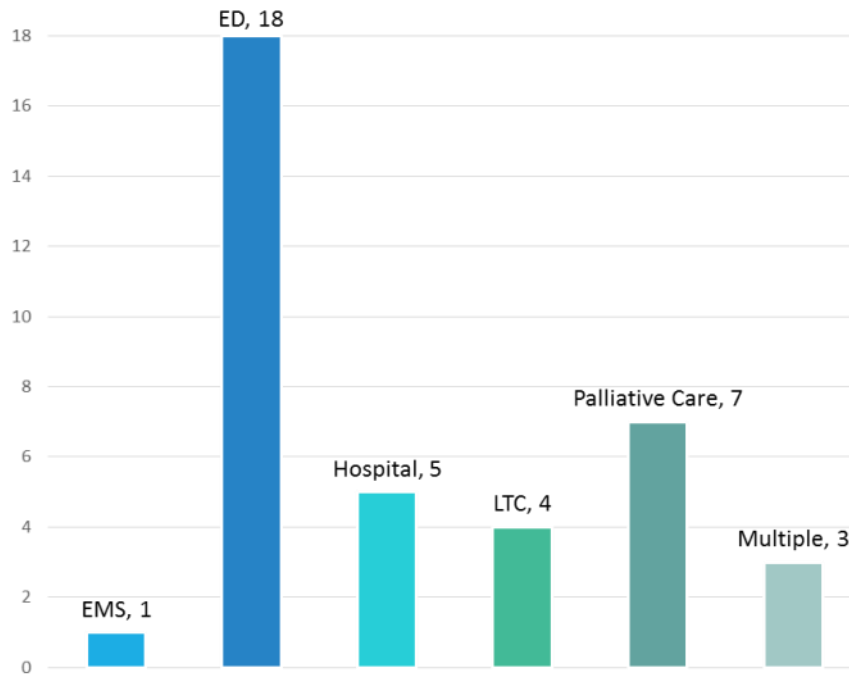
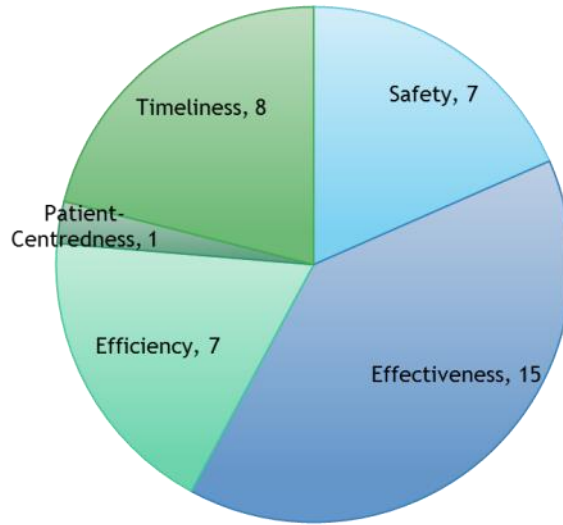
QUICK RESULTS: FEASIBILITY REVIEW

IOM DOMAINS

CARE SETTING

DONABEDIAN
FRAMEWORK

38 indicators were retained after the Feasibility Review



QUALITY INDICATORS

FOR OLDER PERSONS' TRANSITIONS IN CARE

CONTINUING CARE



- Of the residents that went to the ED from LTC , the percentage of residents who had multiple ED visits within a 30 day period
- Ask about falls - all LTC residents or their proxy should be asked about the occurrence of falls on admission and quarterly
- Percentage of clients who have had a MedsCheck or MedRec completed upon transfer to long-term care
- Percentage of short-stay residents who were re-hospitalized shortly following a LTC admission

EMS



- Ambulance offload time - time from patient/ambulance arrival to transfer of care to ED staff

EMERGENCY DEPARTMENT



- The percentage of people who leave the A&E/ED without being seen
- Potentially avoidable emergency department visits for LTC residents
- Inpatient days in ED
- Frequency of ED visits
- Number of emergency room visits in the last 3 months of life



- Hospital emergency admission rates for acute exacerbations of urgent conditions that could be managed out of hospital or in other settings without admission to inpatient bed
- Total ED time - non-admissions
- Total ED time - admissions
- Presence of a dedicated ED clinical information system
- Availability of electronic ordering (and obtaining) results of radiology and laboratory investigations
- Emergency readmissions within 7 days for serious, emergency or urgent conditions as a proportion of all live discharges



- Time to nursing assessment
- Time from arrival in the ED to first physician assessment, by CTAS
- Time to first dose of analgesic in all painful conditions requiring analgesia
- Time interval from patient referral from ED medical team to patient assessment by inpatient medical specialty team
- ED LOS - time from first documented contact in the ED to the time of physical departure from the ED (overall and by CTAS)
- Proportion of admitted patients transferred to an inpatient ward within 6 hours of ED arrival
- Time to antibiotics in sepsis of any cause
- Radiographic reporting by imaging department within 24 Hours



- Thirty-Day All Cause Readmission for Medical and Surgical Patients
- Rate of unplanned readmissions
- Percentage of home care clients with unplanned hospital readmissions within 30 days of referral from hospital to home care after acute hospital discharge



- Adverse event rate - number of adverse events per 100 patient discharges with a primary injury diagnosis
- Percentage of patients receiving sedatives at discharge that were not taking them at admission
- Percentage of patients whose current medicines are documented and reconciled at admission



- Number of emergency room visits in the last 3 months of life
- >1 hospitalization in the last month of life
- >1 emergency room visit in the last month of life
- Time spent in an acute-care hospital in the last 3 months of life
- Follow-up by family physicians in last 6 months of life
- Follow-up in the community in last 6 months of life



- Number of admissions in last 6 months of life



- Interpreter - If a vulnerable older person is deaf or does not speak English, then interpreter or translated materials should be used to facilitate communication
- An up-to-date medication list readily available in the medical record that is accessible to all healthcare providers and includes over-the-counter medications



- Time from first contact with an EUCS (emergency and urgent care systems) service to clinical assessment

**HOSPITAL
(INPATIENT)**

**PALLIATIVE
CARE**

**MULTIPLE
SETTINGS**

KEY



EFFECTIVE: Actions that align best available evidence with optimal out-



TIMELY: Actions resulting in no unnecessary or unwanted delay



EFFICIENT: Actions which cause no overuse or underuse of resources



PATIENT-CENTRED: Actions informed by knowledge of and respect for diversity, as well as the resident's values, choices and needs.



SAFE: Actions cause no unnecessary harm.



EQUITABLE: No bias associated with access to continuum of care.

GAPS IN CARE

We identified knowledge gaps and gaps in care throughout our feasibility review. Gaps identified included:

- A lack of feasible indicators specific to equity
- A lack of standardized QI development. In some cases, indicators are not being operationalized, rely on consensus-based methods for development and lack pilot testing.
- Indicators may not be captured for a number of reasons: some activities/measures are not completed at all; some activities are completed, but not documented; and some are documented, but require individual chart review to capture.

Our study highlighted that a lack of appropriate assessments of older persons may be prevalent across care settings. Little to no screening for baseline function, delirium, dementia, or cognitive impairment appears to be routinely completed during care transitions. Inconsistencies exist around how standardized indicators guide practice and how pertinent data is tracked.

FUTURE DIRECTIONS

Improving the development and capture of quality indicators.

Our research highlights a need to standardize the development of quality indicators in practice. Many indicators require pilot testing, better reporting on their development methods, and to be operationalized with properly developed numerators and denominators where applicable.

Through our feasibility review process we eliminated any indicator requiring the retrieval of data through individual chart review. Standardized electronic documentation, as opposed to free-text, needs to be implemented across care settings in order for big data to be feasibly tracked. Having standardized electronic charting (i.e. drop-down menus, checklists) would allow for reliable tracking and could also serve to ensure mandatory data be filled out in client documentation.

A lack of feasible indicators for transitions in care outside of acute care settings is a concern. In particular, measures are lacking for older persons before they reach acute care – typically the starting point of the transition process. Importantly, even though this project examined older persons' transitions, no feasible equity indicators were identified that clearly compared older persons' care to the general population. Better tracking systems and relevant QIs need to be developed with agreed upon measures specific to older persons in order for these areas to be effectively monitored. Decision-makers and clinicians require rigorously developed and valid data to better evaluate and improve older persons' transitions in care.

Improving knowledge translation

The results of our study have implications for research, practice and improving knowledge translation between researchers and relevant stakeholders. Research evidence that can be applied to older persons' transitions exists, but may not be available to the service providers who need it (i.e. LTC staff, health informatics developers). Knowledge translation is an obstacle, and it is warranted to further explore the following questions:

- Where does the evidence exist and by whom/how is it accessed?
- What directives/mandates exist to enhance/enforce the use of QIs?

This work demonstrates the clear need for rigorous development of QIs, particularly as we see them being quickly adopted in informing health service delivery decisions worldwide. This study highlights important issues around how we turn that data into useful information to better inform changes in health care delivery for older persons.

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Canadian Frailty Network

Réseau canadien des soins aux personnes fragilisées

Known previously as Technology Evaluation in the Elderly Network, TVN



CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

OLDER PERSONS' TRANSITIONS IN CARE (OPTIC)

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