



# **PHYSICIANS IN ONTARIO LONG- TERM CARE HOMES**

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# FAMILY PHYSICIANS IN ONTARIO LONG-TERM CARE HOMES:

Characteristics and practice patterns

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# FAMILY PHYSICIANS IN LTC HOMES: CHARACTERISTICS AND PRACTICE PATTERNS

- **Motivation:** Little is known about physicians who provide care to LTC residents despite their potential impact on the quality of care experienced by residents
- **Objective:** To characterize family physicians who **regularly** care for LTC residents in Ontario
  - Demographics
  - Practice patterns

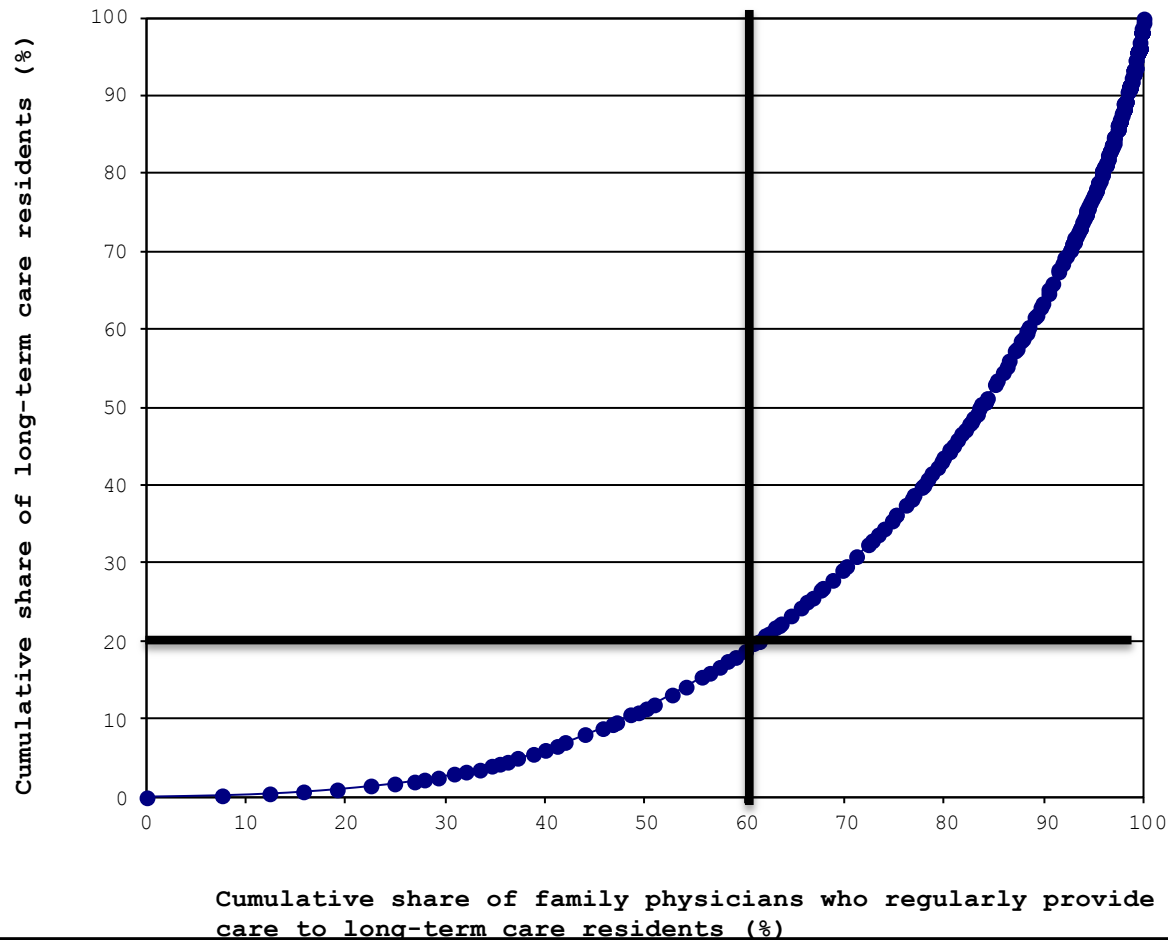
# METHOD

- **Data:** based on 2005 facility census of LTC residents ( $\geq 66$  years old) linked with other health care administrative databases
- **Physicians:** family physicians are assigned as **most responsible physicians** (MRPs) using OHIP fee codes for routine LTC care (e.g., monthly visits, annual check up visits, etc)
  - 1190 out of 10317 family physicians were identified as MRPs
- **Examined:**
  - Characteristics of MRPs vs other family physicians
  - Characteristics of MRPs by community size
  - Distribution of LTC residents across MRPs (Lorenz curve)

# CHARACTERISTICS OF MRPs

- Compared to other family physicians, MRPs:
  - tended to be older (52 vs. 48)
  - more likely to have practiced in rural areas (24% vs. 8% practising in community <9000 population)
  - had a smaller proportion of practice as office visits (67% vs. 87%)
- There were differences in practice patterns between rural and urban MRPs. Notably:
  - Rural MRPs had a more varied practice (i.e., more ER visits, hospital visits, obstetric deliveries & high anesthesia payment)

# LORENZ CURVE: DISTRIBUTION OF LTC RESIDENTS ACROSS MRPs



Of the 1190 MRPs, 628 (53%) provided care to 90.4% of LTC residents.

# IMPLICATIONS

- Relatively few physicians are responsible for the care of the vast majority of LTC residents
  - Quality improvement strategies, specifically those related to medication use, can be targeted towards this group of physicians
- Need to understand if differences in MRP practice patterns affect the overall quality of care provided to LTC residents

# PHYSICIAN PRACTICE AND QUALITY: Workforce Linkages

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# PHYSICIAN LINK TO QUALITY?

Indicator	Ontario	New York
Falls (last 7 days)	13.8%	1.7 falls/bed/annum (US)
New Decubiti (2-4)	2.7%	2% (low risk)
Worsening decubiti	2.9%	12% (high risk)
Worsening bladder incont	18.2%	51% (US prevalence-low risk)
Anti-psychotics without dx	32.1%	9% (US prevalence)
Restraints (daily)	16.6%	3%

# THE PHYSICIAN WORKFORCE

- In the U.S. only one in five primary care physicians engages in the care of nursing home residents (JAGS 45: 911, 1997)
- The majority spend 2 hours or less per week in NH care
- In Ontario 1190 family physicians regularly provided care to LTC residents (12% of all family physicians)
- Between 1990 and 2000 there was a 5% decline in proportion of general practitioners providing services to LTC homes (CMAJ 19:429, 2002)

# Nursing Home Medical Staff Organization: Correlates With Quality Indicators

Paul R. Katz, MD, Jurgis Karuza, PhD, Julie Lima, PhD, and Orna Intrator, PhD

**Objectives:** Little is known about the relationship between how medical care is organized and delivered in nursing homes. Taking a lead from the acute care arena, we hypothesize that nursing home medical staff organization (NHMSO) is an important predictor of clinical outcomes in the nursing home.

**Methods:** A total of 202 usable surveys from a 2-wave survey process using the Dillman Method were returned from medical directors who were randomly selected from the AMDA membership and were asked to fill out a survey on the structure of medical organization in their primary nursing home practice. Quality measures that are likely to be affected by physician practice patterns were culled from NH Compare and OSCAR data sets and matched to the physician surveys, ie, long stay residents' prevalence of pain, restraint use, catheter use, pressure ulcers, pneumococcal vaccination, influenza vaccination, presence of advanced directives, prescription of antibiotics, and prevalence of depression.

**Results:** Using a series of hierarchical multiple regressions, significant  $R^2$  changes were found when the medical staff organization dimensions were added in the regressions after controlling for nursing home structural characteristics for the following outcomes: pneumococcal vaccination and restraint use. Near significant findings were noted for pain prevalence among long-stay residents, catheter use, and prevalence of pressure ulcers.

**Conclusions:** This study is the first to demonstrate a relationship between medical staff organizational dimensions and clinical outcomes in the nursing home setting and as such represents an initial "proof of concept." NHMSO should be considered as a potentially important mediating or moderating variable in the quality of care equation for nursing homes. (*J Am Med Dir Assoc* 2011; 12: 655–659)

**Keywords:** Nursing home; medical staff organization; physician practice; quality outcomes

Nursing homes (NHs) have evolved significantly over the past 2 decades. They have come to accommodate an increasingly frail population with an array of both acute and chronic care needs.<sup>1</sup> Understandably, the quality of care delivered in US NHs remains a high priority among all the relevant stakeholders, including NH residents and their families, state and federal regulators, policy makers, and the full array of professional caregivers employed in NHs.<sup>2,3</sup>

Although quality of care has improved over the past few years, in large part as a result of reforms emanating from a series of critical Institute of Medicine and Government Accountability Office reports, much remains to be done.<sup>4,5</sup> Indeed, quality of care in the NH has been linked to a number of

structural and process variables.<sup>6</sup> Although some of these variables are mutable (eg, nurse staffing ratios), others, such as NH size and proprietary status, are relatively fixed. Surprisingly, little is known about the relationship between how medical care is organized and delivered in NHs and outcomes, despite governmental and professional organizations' public recognition of the critical role played by physicians in NHs and explicit regulatory mandates specific to physicians.<sup>7</sup>

Taking a lead from the acute care arena, we hypothesize that NH medical staff organization (NHMSO) is an important predictor of clinical outcomes in the NH. The relationship between medical staff organization and quality in acute care hospitals was first described more than 30 years ago. In their classic article, Roemer and Friedman<sup>8</sup> defined 7 dimensions that could describe medical organization in hospitals: staff composition, appointment process, job commitment of physicians, reporting and coordination systems, number of control committees, documentation, and informal interpersonal relationships. Hospitals' performance, as measured by national accreditation, was related to the aspects of the physician's job commitment and the more tightly structured hospital staff organization. Results from Shortell and his colleagues<sup>9</sup> and Flood and Scott<sup>10</sup> further suggest that structured medical staffs

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JAMDA

journal homepage: [www.jamda.com](http://www.jamda.com)

Original Study

## Nursing Home Medical Staff Organization and 30-Day Rehospitalizations

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## A B S T R A C T

**Keywords:**Nursing home  
medical staff organization  
rehospitalizations  
physicians**Objectives:** To examine the relationship between features of nursing home (NH) medical staff organization and residents' 30-day rehospitalizations.**Design:** Cross-sectional study combining primary data collected from a survey of medical directors, NH resident assessment data (minimum data set), Medicare claims, and the Online Survey Certification and Reporting (OSCAR) database.**Setting:** A total of 202 freestanding US nursing homes.**Participants:** Medicare fee-for-service beneficiaries who were hospitalized and subsequently admitted to a study nursing home.**Measurements:** Medical staff organization dimensions derived from the survey, NH residents' characteristics derived from minimum data set data, hospitalizations obtained from Part A Medicare claims, and NH characteristics from the OSCAR database and from [www.ltcfocus.org](http://www.ltcfocus.org). Study outcome defined within a 30-day window following an index hospitalization: rehospitalized, otherwise died, otherwise survived and not rehospitalized.**Results:** Thirty-day rehospitalizations occurred for 3788 (20.3%) of the 18,680 initial hospitalizations. Death was observed for 884 (4.7%) of residents who were not rehospitalized. Adjusted by hospitalization, resident, and NH characteristics, nursing homes having a more formal appointment process for physicians were less likely to have 30-day rehospitalization ( $b = -0.43$ ,  $SE = 0.17$ ), whereas NHs in which a higher proportion of residents were cared for by a single physician were more likely to have rehospitalizations ( $b = 0.18$ ,  $SE = 0.08$ ).**Conclusion:** This is the first study to show a direct relationship between features of NH medical staff organization and resident-level process of care. The relationship of a more strict appointment process and rehospitalizations might be a consequence of more formalized and dedicated medical practice with a sense of ownership and accountability. A higher volume of patients per physician does not appear to improve quality of care.

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The size of the nursing home (NH) population is twice as large as that in acute hospitals on any given day.<sup>1,2</sup> Physicians play a primary role in NHs, directing care for residents who have become increasingly frail and in need of complex medical care. Beyond the usual minimum periodic visits for patient evaluation and management, physicians are expected to be involved in diagnostic testing, consultation with specialists, ordering treatments, care planning, and decisions regarding hospitalization and end-of-life care. Further, the roles of the NH physician in psycho-social matters, particularly regarding families coping with end-of-life issues, are increasingly being recognized.<sup>3,4</sup>

# NURSING HOME MEDICAL STAFF ORGANIZATION

JAMDA 12: 364-371, 2011

- Clinical and Nonclinical Factors Associated with Potentially Preventable Hospitalizations Among Nursing Home Residents in New York State
  - 147 randomly selected NHs
  - Outcomes derived from DON survey, MDS and SPARCS (patient level data related to hospitalizations) 2007-8

# NURSING HOME MEDICAL STAFF ORGANIZATION

## ○ Results

- Four factors significantly associated with reduction in ambulatory care sensitive (ACS) conditions
  - Nursing staff trained to effectively communicate with physicians regarding a resident's condition
  - Physicians treat residents within the nursing home and admit to hospital as a last resort
  - NHs that provide better information and support to nurses and aides surrounding end-of-life care
  - Easy access to stat lab results in <4hrs on weekends

# A Model for Nursing Home Physicians

Ann Intern Med 2009; 150:411-413

## *Three critical dimensions...*

**Commitment** conceptualized as percentage of the physician's practice devoted to NH care and the amount of time, on average, spent per NH patient encounter.

**Physician NH practice competency** defined by specialized training and experience necessary to handle the complex medical care in a highly regulated, interdisciplinary care context that is the contemporary NH.

**Organizational structure** reflects the cohesive integration of the medical providers into the culture of the facility.

# A Model for Nursing Home Physicians

Ann Intern Med 2009; 150:411-413

- ◆It is hypothesized that the quality of medical practice in NHs is optimized when physician geriatric competency and commitment are high within a closed staff model (few physicians responsible for all patients).
- ◆Conversely, quality of care is lowest in an open staff model where physicians demonstrate low commitment and geriatric competency.



# Improving Medical Care

- ◆ The framework suggests quality of care can be improved by progressing along one or more of three paths—
  - ◆ Enhancing training and credentialing (competency)
  - ◆ Increasing reimbursement (commitment)
  - ◆ Developing new regulatory mandates and organizational models (closing medical staffs)

# RATIONALE FOR ESTABLISHING COMPETENCIES FOR PHYSICIANS PRACTICING IN THE NH

- Nursing Home practice demands a unique skill set
- Competencies linked to relevant clinical outcomes/quality
- Credibility of physicians predicated, in large part, on specialization
- Impetus to set the bar independently or allow government to determine performance metrics
- Helps inform new curriculum development which aligns with educational mission of AMDA

# EXAMPLES OF COMPETENCY STATEMENTS

- Demonstrates understanding of ethical principles and the legal/regulatory environment as related to clinical decision making.
- Recognizes that acute changes in condition may be any deviation from a patient's physical, cognitive, behavioral or functional baseline and thus warrants additional evaluation and treatment
- Determines prognosis based on a comprehensive patient evaluation and available prognostic tools and discusses the determination with resident, family and staff

# THE FUTURE OF NH MEDICINE

- Establish a “Nursing Home Specialty”
  - The “Netherlands” paradigm
  - Enhanced credibility; reinforces NH practice as a legitimate practice
  - Enhance quality

# NH SPECIALTY

- Natural experiment currently in progress through Life Care Centers of America
  - Evaluating the impact of recruiting full time physicians dedicated to NH care
  - Early data suggests significant drop in readmissions from NH to hospital

# MEDICAL DIRECTOR TRAINING

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Aged/Apotex

President, OLTCP

# OLTCP PHYSICIAN SURVEY

- 2011, Unrestricted grant Pfizer
- **Total Completed Survey: 125**

500 Total Database = 28% response rate

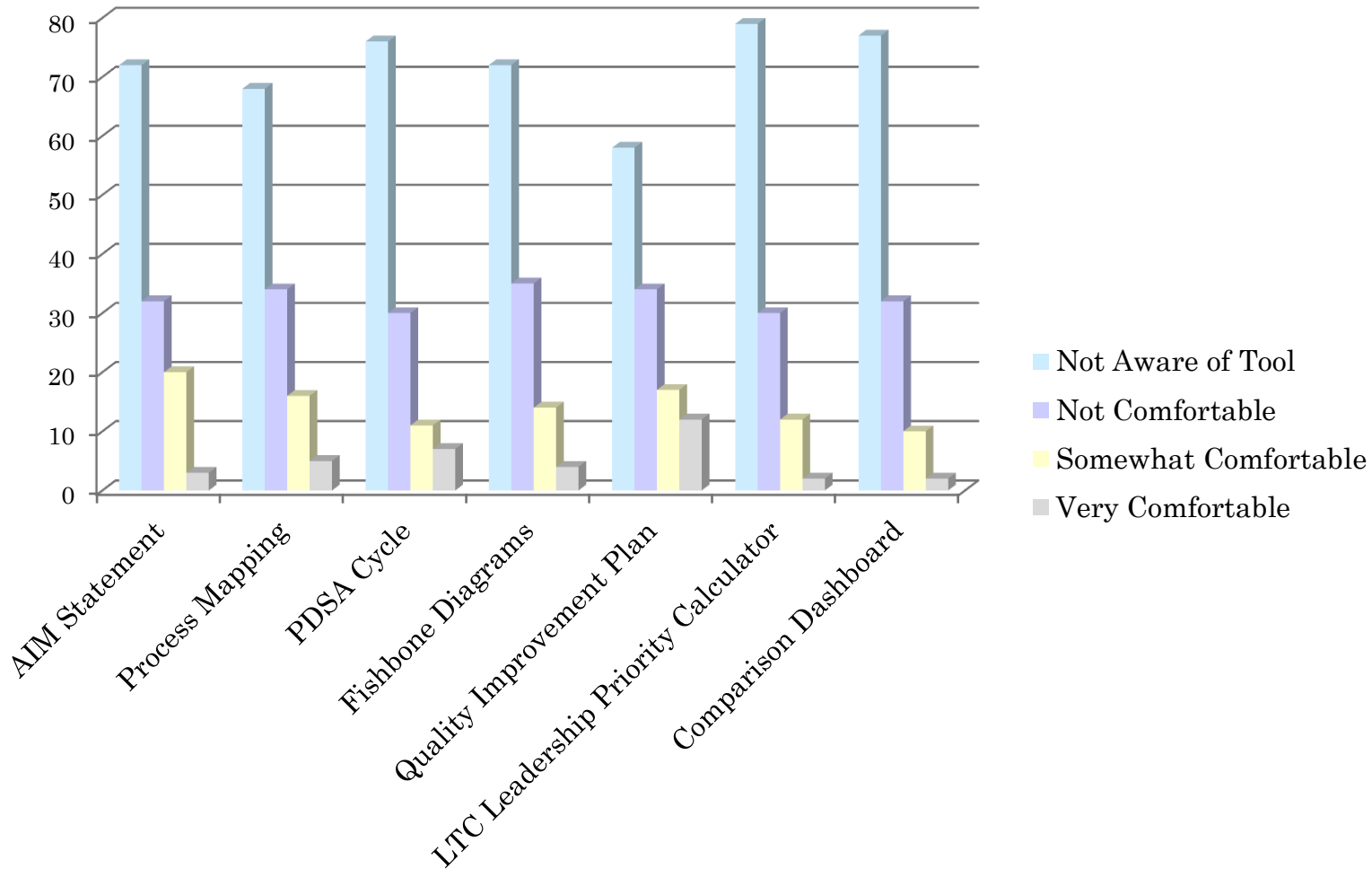
\*\*majority of respondents were members which were the primary target for the survey = 50% response from that group

# OLTCP PHYSICIAN SURVEY 2011, PFIZER GRANT

- Total completed survey – 125
  - 28% response from database of 500
  - 50% of OLTCP members responded
- Years experience as medical director
  - 0-5 years 26%
  - 6-15 years 35%
  - 16-30 years 21%
  - >30 years 15%

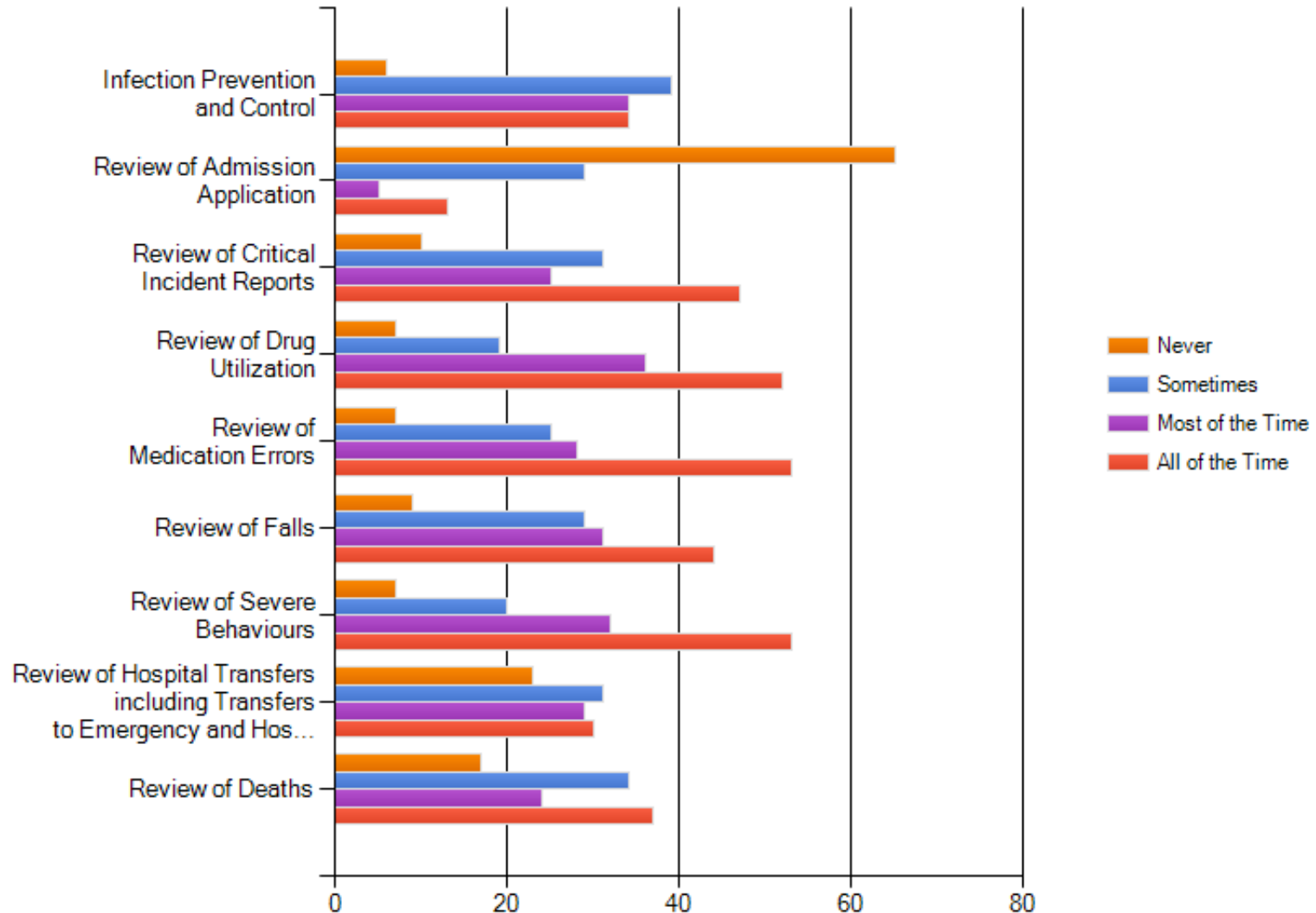


# CONFIDENCE WITH QUALITY IMPROVEMENT TOOLS

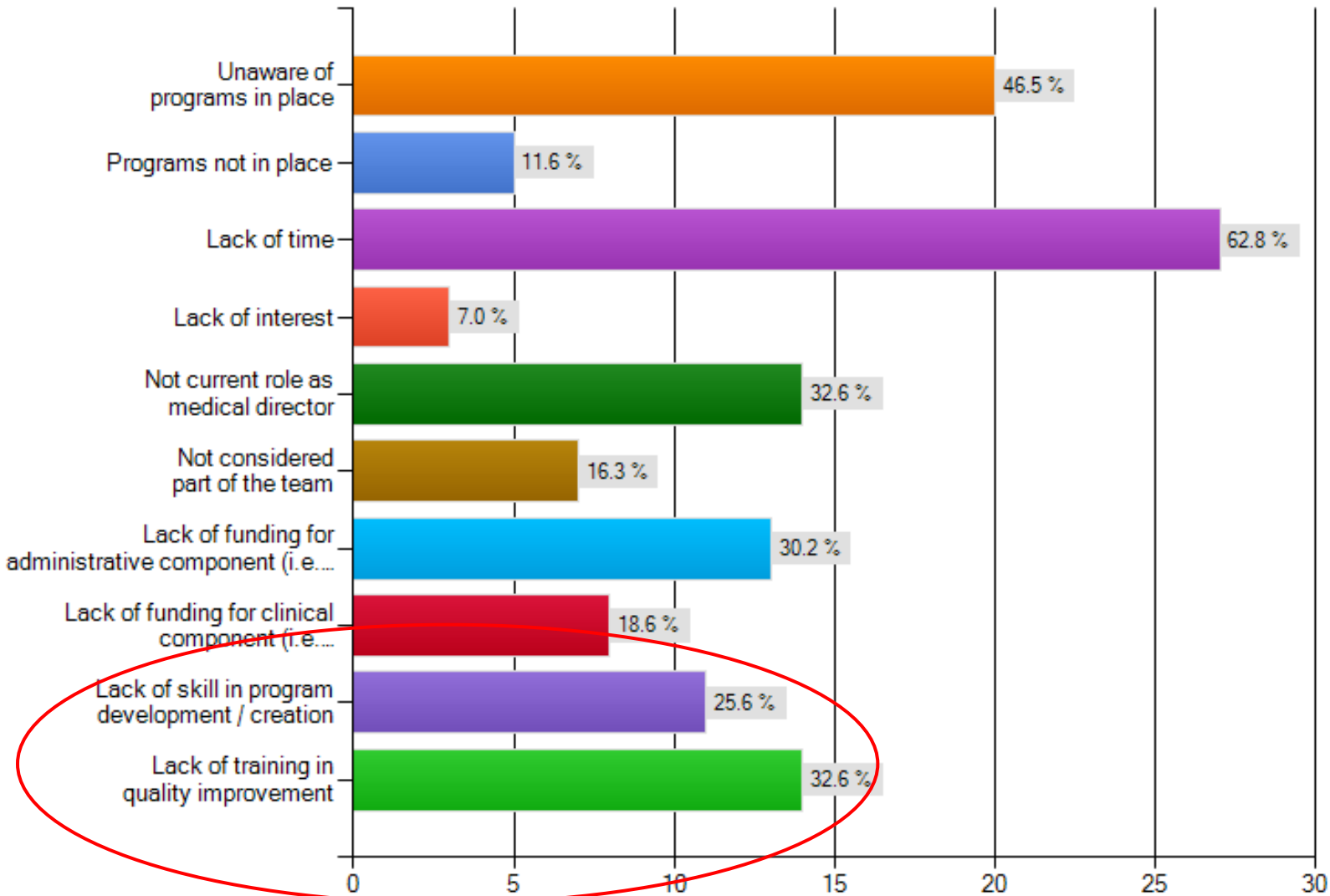


# MEDICAL DIRECTOR INVOLVEMENT IN LTC

In your role as Medical Director, please check if you are involved in the following at your LTC Home:



# BARRIERS TO PHYSICIAN INVOLVEMENT IN PROGRAMS



# LEARNING NEEDS

## Perceived Needs

Legislation – regulations, compliance

Medical director role

Communication – administrative, team, patient and families

Dementia – BPSD

Palliative care

Medication mgt/high risk meds

Chronic disease mgt

Medico-legal issues

## Unperceived

### ○ Quality improvement

- Indicators
- Risk management
- Quality improvement tools/residents first

### ○ Program management

- Development
- Implementation
- Evaluation

# MEDICAL DIRECTOR TRAINING

- OLTCP annual conference
  - Targets clinical practice in LTC
  - System issues as relevant but not the core
- No Canadian curriculum targeting skill set of Medical Directors in LTC
- American Medical Directors Association (AMDA) Core Curriculum in Med Direction in LTC, Certified Medical Director

# MEDICAL DIRECTOR CURRICULUM

## PART 1: UNDERSTANDING THE LTC SECTOR

- legislation and regulations of the LTC sector, compliance system
- organizational responsibilities of the medical director and relationship with the Director of Care, Board, and interdisciplinary teams
- resident care responsibilities of the medical director, including emergency care, medication management, infection control, advance care planning, and ethics
- Resident Assessment Instrument, including the Minimum Data Set, and use of performance/quality indicators generated from the data
- medical director's contract covering all elements, including risk management and liability insurance
- relationship between LTC and the broader healthcare environment CIHI, LHINs, Advocacy and Disease organizations, population health, ec..

# MEDICAL DIRECTOR CURRICULUM:

## PART 2: LEADERSHIP AND MGT SKILLS

- communication, negotiation, facilitation and team building needed to work with management, interdisciplinary teams, residents and families
- management of physician colleagues and others in difficult situations, challenging family dynamics, and critical incidents
- acquisition of new knowledge and resources relevant to LTC and translation of guidelines into practice
- quality improvement methodology necessary to lead and/or participate in initiatives within the facility
- implementation of policies, procedures, and tools that enhance care, quality management, and reduce facility risks
- ensuring ethical decision making