

NH Quality Measurement: A Fools Errand? (A needless or profitless endeavor)

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Quality in the Eye of the Beholder

- **Resident:** (Quality of Life survey)
 - Compassion/communication of providers
 - Autonomy
 - Activities
 - Meals
- **Government:** (Annual Health Dept. Survey)
 - MDS trends
 - Number and scope of complaints
 - Infection control
 - Building safety
 - Bedside care provision

Quality in the Eye of the Beholder (metric)

- Nursing Home: (Operating margin; 5 star rating)
 - Census
 - Rehospitalization rates
 - Staffing/turnover
 - Physician compliance
- Hospital: (Length of stay; CMS penalties re: readmissions)
 - Transitions of care
 - ED transfers
 - Access to NH beds
- Nurse: (Job satisfaction)
 - Resources available
 - Leadership culture
 - Assignments/overtime
 - Compensation

Quality in the Eye of the Beholder

- Physician: (??)
 - Clinical quality
 - Efficiency/Productivity
 - Cost effectiveness
 - Patient and family satisfaction
 - Quality of life

What is the Value Proposition for Medical Providers in the Nursing Home?

- The impact of the attending physician (NP/PA) on quality of care is understudied and, to a large extent, unknown
 - Medical care practices are variable and often suboptimal
 - Increased complexity of patient/resident care
 - Skill set is underappreciated (credibility gap)

30 Year trends in NH Composition and Quality

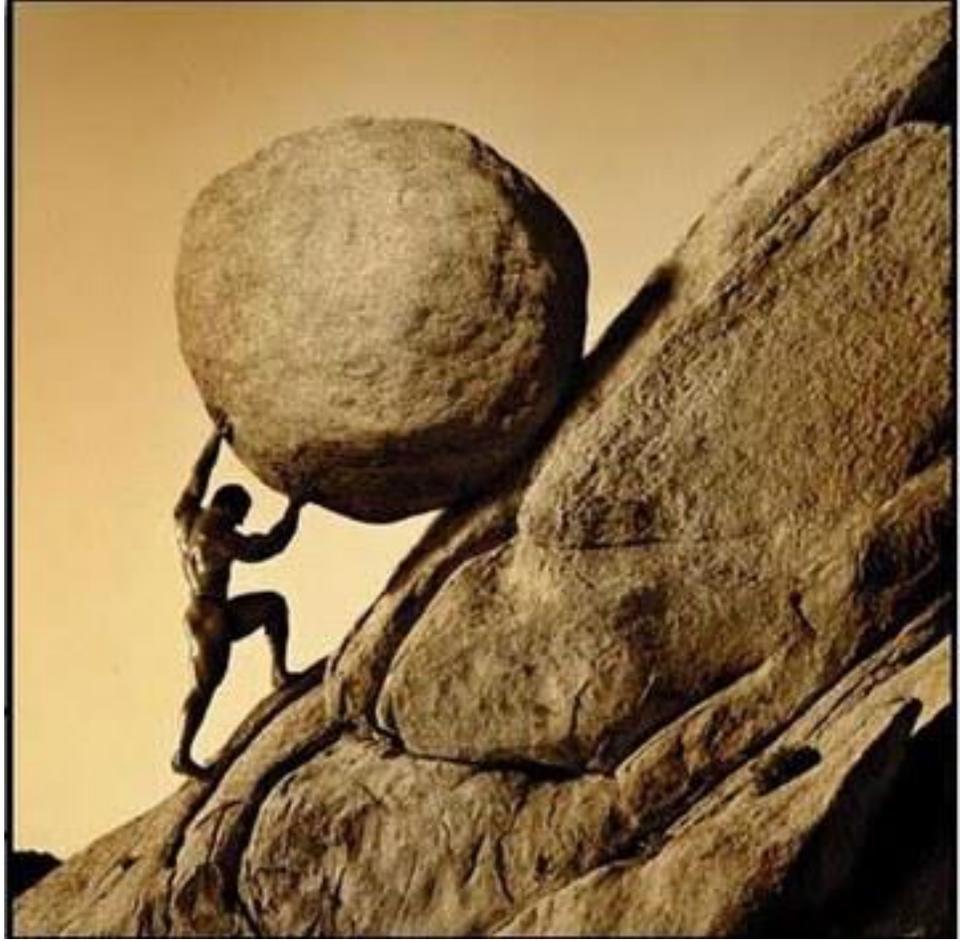
JAMDA 21(2020):
233-239

- Increased percentage of admissions from hospital (67% in 2000 to 85% in 2015)
- Between 1992 and 2015 average % residents with Medicare as primary payer increased from 9-15%
- Residents with psychiatric diagnoses have increased 3 fold in 30 years (dementia increased from 39% to 45%)
- ADL dependence has increased significantly; chair bound percentage rose from 39% to 64%
- Decrease in physical and chemical restraints and pressure ulcers; increased B/B incontinence

Credibility Gap

J Am Med Dir Assoc 14(2):83-84, 2013

- Medical providers practicing in NHs have low credibility/respect compared to their peers
- Skill set not recognized or appreciated
- Acute care is the center of the health care universe reflecting predominance of the medical model
 - Disease focused
 - Cure at all costs
 - Technology



Defining the Value Proposition: Rationale for a PA-LTC Specialty

- Demonstrating the need for a “specialist” designation (focused recognition) requires an appreciation for:
 - The conceptual framework (and supporting evidence) linking medical provider care and quality (value proposition)
 - Current challenges related to the measurement of quality in PA-LTC
 - Quality measures (QMs) that are medical provider specific
 - Evidence linking these QMs to outcomes

The Conceptual Framework

A Model for Nursing Home Physicians: Linking Practice to Quality

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.

What's Missing from the Conceptual Framework?

- Level of engagement
- Regulatory environment
- Societal drivers/culture
- Reimbursement
 - Fee for service
 - Capitation

Physician Care and Quality in the Nursing Home

- What do we know about physician practice in the nursing home?
- What is the link between physician care and NH quality
- What are the most appropriate quality metrics
- Setting a research agenda

Special Issue: Workforce Issues in Long-Term Care: Forum

Medical Care Delivery in U.S. Nursing Homes: Current and Future Practice

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Commitment

Physician Commitment and Quality

(<https://doi.org/10.1093/geront/gnaa141>)

| Author | Population | Methods | Outcomes |
|---|---|---|--|
| Lukas, Mayer, Fialova, Topinkova, Gindin, Onder, Bernabei, Nikolaus, & Denkinger (2013) | 4,156 residents of 7 European countries | Cross-sectional study of pharmacologic and nonpharmacologic pain management using InterRAI instruments | High turnover rates of regular staff and low-to-moderate physicians' availability were negatively associated with pharmacological pain management |
| Laffon de Mazieres, Lapeyre-Mestre, Vellas, de South Barreto, & Rolland (2015) | 6,275 residents of 175 nursing homes in France | Cross-sectional | Residents who lived in NHs with 30 GP/100 beds had a higher likelihood of potentially inappropriate prescription vs those in NHs with fewer than 10 GP/100 beds |
| Dwyer, Stoelwinder, Gabbe, & Lowthian, (2015) | 78 papers included-all observational studies (54% from US) | Scoping review of studies reporting unplanned transfers from residential aged care facilities | Higher numbers of unplanned transfers associated with lower number of physician hours per resident and absence of specialized geriatrician consultation |
| Gard-Marshall, Clarke, Burge, Varatharasan, Archibald, Andrew (2016) | 10 Long Term Care Facilities in Nova Scotia with 1,424 beds | Observational time series before and after implementation of model which assigned physicians to specific units with scheduled on-site rounds (Care by Design) | Dedicated physicians participating in the Care by Design model resulted in a 36% reduction of ED transfers with improved relational and informational continuity of care |

Teno JM et al. Research Letter: Temporal Trends in the Number of Skilled Nursing Facility Specialists from 2007 through 2014.

Published online: July 10, 2017. doi:10.1001/jamainternmed.2017.2136

Table. Physician, Nurse Practitioner, and Physician Assistant Billing in 2007, 2010, and 2014

| Billing Category | 2007 | 2010 | 2014 |
|---|----------------|----------------|----------------|
| Physicians, No. | 435 943 | 419 299 | 459 895 |
| Ever billing in an SNF, ^a No. (%) | 59 724 (13.7) | 50 814 (12.1) | 45 070 (9.8) |
| Billing ≥90% in an SNF, ^a No. (%) | 1496 (0.34) | 1697 (0.40) | 2225 (0.49) |
| Nurse practitioners or physician assistants, No. | 64 393 | 80 029 | 131 986 |
| Ever billing in an SNF, ^b No. (%) | 7528 (11.7) | 8309 (10.4) | 12 470 (9.5) |
| Billing ≥90% in an SNF, ^b No. (%) | 1678 (2.6) | 2031 (2.5) | 3074 (2.3) |
| Evaluation and management code bills at SNF, No. | 4 731 367 | 4 538 967 | 5 205 865 |
| By physician billing ≥90% in an SNF, ^c No. (%) | 550 425 (11.6) | 584 952 (12.9) | 747 106 (14.3) |
| By nurse practitioner or physician assistant billing ≥90% in an SNF, ^c No. (%) | 49 145 (10.4) | 581 235 (12.8) | 895 830 (17.2) |

Abbreviation: SNF, skilled nursing facility.

^a For the physicians ever billing in an SNF or physicians billing 90% or more in an SNF, the denominator is physicians billing Medicare in that year.

^b For nurse practitioner or physician assistant billing, the denominator is nurse

practitioners or physician assistants billing Medicare in that year.

^c The denominator for physicians, nurse practitioners, and physician assistants billing at 90% or more is the number of evaluation and management codes billed in a nursing home or SNF in the year 2007, 2010, or 2014.

Ryskina KL, Polsky D, Werner RM. Research Letter: Physicians and advanced practitioners specializing in nursing home care, 2012-2015. JAMA Nov 28, 2017 Vol 318 (20)

Table. Nursing Home Clinicians Per 1000 Medicare-Certified, Occupied Beds by Clinician Type and Place of Service

| | Year of Part B Medicare Fee-for-Service Billing | | | | P Value for Trend ^a | Relative Percent Change, 2012-2015 ^b |
|---|---|---------------------------|---------------------------|---------------------------|--------------------------------|---|
| | 2012 | 2013 | 2014 | 2015 | | |
| Nursing home clinicians, No. | 33 218 | 33 316 | 33 357 | 33 087 | .97 | -0.4 |
| Nonspecialist | 28 091 | 27 608 | 27 002 | 26 230 | .39 | -6.6 |
| Nursing home specialist | 5 127 | 5 708 | 6 355 | 6 857 | .009 | 33.7 |
| Nursing home clinicians per 1000 occupied beds, mean (95% CI) | 24.70 (23.82 to 25.58) | 24.90 (23.96 to 25.84) | 24.93 (23.97 to 25.90) | 24.99 (24.01 to 25.97) | .68 | 1.2 |
| Nonspecialist | 21.35 (20.55 to 22.16) | 21.15 (20.29 to 22.00) | 20.70 (19.85 to 21.55) | 20.41 (19.56 to 21.26) | .09 | -4.4 |
| Nursing home specialist | 3.35 (3.06 to 3.64) | 3.76 (3.45 to 4.06) | 4.23 (3.89 to 4.58) | 4.58 (4.19 to 4.96) | <.001 | 36.7 |

Processes of care, Outcomes, and Costs of Patients Under the Care of SNFist vs. non-SNFists in the Nursing Home (<https://doi.org/10.1093/geront/gnaa141>)

| Author (year) | Population | Methods | Outcomes |
|-------------------------------------|---|--|--|
| Kuo, Raji, Goodwin (2013) | 12,249 residents admitted to long-term care in 1,094 Texas nursing homes between 2006-2008, under the care of generalist physicians or advanced practitioners | Outcomes were adjusted using CMS specifications, multilevel survival and two-part log gamma models were used to estimate hospitalization and cost outcomes, respectively. | Residents under the care of providers whose nursing home practice composed less than 5% of their clinical effort had 52% higher risk of potentially avoidable hospitalization and their care cost Medicare \$2,179 more per year compared to residents under the care of providers whose nursing home practice represented at least 85% of their total effort. |
| Ryskina, Yuan, Werner (2019) | 2.1 million Medicare fee for service beneficiaries admitted to 14,526 skilled nursing facilities for post-acute care from 2012 to 2014, under the care of generalist physicians or advanced practitioners | Outcomes were adjusted using the CMS risk-adjustment methodology for hospital readmissions, demographics, as well as time-invariant nursing home characteristics using nursing home fixed effects. | Patients under the care of SNFists experienced more provider visits (5.7 vs. 3.9, $p < 0.001$), were less likely to be readmitted to the hospital within 30-days of skilled nursing facility admission (14.7 vs. 16.2, $p < 0.001$), more likely to be successfully discharged to the community, but had slightly higher Medicare payments in the 60-days following SNF admission (\$31,628 vs \$31,292; adjusted difference, \$335; $p < 0.001$) |
| Ryskina, Lam, Jung (2019) | Regional analysis of nursing home quality measures for 305 hospital referral regions using Nursing Home Compare and Medicare provider utilization files between 2012-2016 | Six clinical quality measures were a priori deemed to be under the influence of physicians: short- and long-term stay antipsychotic use, use of restraints, urinary tract infections, depression symptoms, and the use of indwelling catheters | If the regions in the lowest decile of SNFist prevalence were to increase their use of SNFists to the degree of the regions in the highest decile, those regions would reduce antipsychotic medication use by 5% and indwelling bladder catheter use by 6%. |

Organizational Structure

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.¹ 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.^{2,3}

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.^{4,5} Indeed, quality of care in the NH has been linked to a number of

structural and process variables.⁶ 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.⁷

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 Friedman⁸ 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 colleagues⁹ and Flood and Scott¹⁰ further suggest that structured medical staffs

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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. 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.^{1,2} 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.^{3,4}

Nursing Home Medical Staff Organization

- Clinical and Nonclinical Factors Associated with Potentially Preventable Hospitalizations Among Nursing Home Residents in New York State (JAMDA 12: 364-371, 2011)
 - 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

Organizational Determinants of Transfers from Residential Aged Care Facilities

- Unplanned transfer to emergency departments for frail elderly residents of aged care facilities: A review of patient and organizational factors (J Am Med Direc Assoc 2015;16:551-562):
 - Literature review of observational studies (N=78)
 - Meta-analysis not possible given heterogeneity of studies
 - 36% of studies included some prospective data
 - 54% from US;12% Australia;10% Canada

Organizational Determinants of Transfers from Residential Aged Care Facilities

- Lower rates of hospitalizations if:
 - Greater involvement of medical staff through full time appointments
 - Greater availability of facility medical director
 - Greater availability of primary care physicians
 - Increased physician hours per resident
 - More formal structured appointment process for physician

Competence

National Academy of Medicine Priorities

“Preparing for Better Health for an Aging Population”

(nam.edu/VitalDirections)

- Physician and nurse training in all settings where older adults receive care, including nursing homes, assisted-living facilities, and patients’ homes.
- Demonstration of competence in the care of older adults as a criterion for all licensure, certification, and maintenance of certification for health care professionals.
- Enhanced reimbursement for clinical services delivered by practitioners who have a certification of special expertise in geriatrics

Competencies for Post-Acute and LTC Medical Providers

<http://www.amda.com/strategic-initiatives/competencies.cfm>

- Foundational (ethics, professionalism and communications)
- Medical Care Delivery Process
- Systems
- Nursing Home Medical Knowledge
- Personal QAPI (quality assurance and professional improvement)

Competencies for Medical Providers Practicing in the NH

- Competencies reflect a unique skill set and are linked to relevant clinical outcomes/quality
- What measures exist that address NH competencies?

Quality Measurement and Nursing Homes: Measuring What Matters

Burke RE, Werner RM. (BMJ Qual Saf 2019;28:520-523)

- Quality measures have proliferated as part of the “quality measurement industrial complex”
- Weak and unpredictable relationship between NH quality measures and hospitalization
- Pay for performance initiatives have produced mixed and generally small improvements in patient outcomes and cost

Metrics to measure physician performance

- Measures of productivity and financial performance, while important, DO NOT necessarily measure good clinical care

MDS-Based Quality Measures

- Rely on the interprofessional team and only indirectly relate to medical provider practice
 - Same concerns for Quality of life and satisfaction measures
- Outcome-based and ignore process
- Frail NH residents often decline and have “poor” outcomes despite optimal care

Survey process based on MDS Outcomes

- Emphasizes adherence to facility policies and procedures
- Unable to sort out contribution from each discipline
- Does not focus on clinical decision making or the appropriateness of the processes behind policies and procedures (i.e. the application of geriatric principles of care)

Time Out-Charting a Path for Improving Performance Measurement

MacLean et al. (NEJM 378;1757-61. 2018)

- 2/3 of physicians do not believe current measures capture physician quality
- Nonetheless, physician practices spend 15.4 billion per year to report on performance (Health Affairs 2016;35:401-6)
- Performance Measurement Committee of the ACP assessed validity of 86 measures in the 2017 Medicare Merit-based Incentive Payment System (MIPS)
 - Validity based on importance, appropriateness, clinical evidence, specifications and feasibility
 - Only 37% rated as valid as regards ambulatory general internal medicine
 - 35% not valid and 28% of uncertain validity

Time Out-Charting a Path for Improving Performance Measurement

MacLean et al. NEJM 378;1757-61. 2018)

- “The next generation of performance measurement should not be limited by the use of easy-to-obtain (e.g., administrative) data or function as a stand alone, retrospective exercise. Instead, it should be fully integrated into care delivery, where it would effectively and efficiently address the most pressing performance gaps and direct quality improvement.”

Development of a Primary Care Provider Score for PA-LTC

Quality Indicators of Primary Care Engagement

- Identify Quality Indicators demonstrating value of primary care providers in nursing homes
- International research team, technical expert panel (TEP)
- Adapted existing QI measures to AMDA competency framework
- IF, THEN statements
- RAND modified Delphi process
 - Valid
 - Feasible

International Medical Provider-Centric Quality Indicators for Post-Acute and Long Term Care

Sources of Quality Indicators

ACOVE 3 Quality Indicators (2007)

Nursing Home Quality Indicators (2004)

Nursing Home Residential Care Quality Indicators (2002)

European Heart Rhythm Association Guidelines (2013)

AGS Choosing Wisely (2014)

AMDA Choosing Wisely (2015) **

SGIM-AMDA-AGS Consensus Best Practice Recommendations for care transitions (2016)**

**These sources added by the Technical Expert Panel

Modified Delphi (TEP)

- Rating
 - 103 measures rated
 - 18 QI measures added and modified
- Final QM set
 - 95 measures valid and feasible
 - 8 measures valid but not feasible

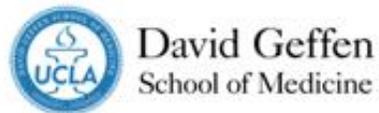
| Competency | Example Item: |
|--|--|
| Communication and Coordination of Care | IF a Nursing Home Resident (NHR) is admitted with the intention of a long stay, THEN the primary care provider (PCP) should see the NHR to initiate a comprehensive assessment within 1 day before or 3 days after transfer. |
| Cognition, Affect, Behavior | IF a NHR has a suspected or definite diagnosis of delirium, acute confusional state, or reduced level of consciousness, THEN there should be a documented attempt to identify a potential etiology. |
| Urinary | IF a NHR has bacteriuria, THEN antimicrobials should be prescribed only when symptom of UTI are present. |
| Goals of Care & Palliative | IF a NHR has an advance directive on admission, THEN the PCP is responsible for documentation in the medical chart upon admission. |
| Falls, Mobility, & Pressure Ulcers | All NHRs or their proxy should be asked about the occurrence of falls on admission and quarterly. |
| Medications | IF a NHR is prescribed a new chronic medication, THEN the subsequent PCP note should document response to therapy and continued need. |
| Pain Management | IF a NHR is treated with opiates for pain, THEN there should be documentation of a bowel regimen and a plan to document bowel patterns. |



Primary Care Provider Quality Score



CENTRE FOR AGING
+ BRAIN HEALTH
INNOVATION
Powered by Baycrest



- Our **goal** was to refine, validate, and operationalize newly developed primary care provider-specific quality measures (QMs) to calculate a “Primary Care Provider Quality Score” (PQS).

Quality Measures

95 quality measures narrowed down to 37 by the Technical Expert Panel

Based on following criteria:

Prevalence/ Incidence =
The QI addresses an event that occurs with moderate or high frequency.

Impact = Health care described in the QI makes a substantial difference in an outcome that is of major importance to health status and quality of life.

Performance gap = A significant proportion of residents with this condition receive suboptimal care.

Provider Relevant = The PCP's role in influencing the care process is substantial.

Measurement Feasibility = The necessary information should be present in the typical medical record or the absence of documentation is, in itself, a marker of poor care.

37 QMs selected by TEP

- Round 1 specification with medical directors from participating LTC homes
- Round 2 specification with internal research team

37 QMs operationalized

- Completed with resident records at one site
- 4 QMs dropped due to feasibility

33 QMs for full data collection

Participating Data Collection Sites



1. **Baycrest Apotex Centre, Jewish Home for the Aged**
(Toronto, Ontario)
2. **Bruyère Continuing Care**
(Ottawa, Ontario)
3. **CapitalCare** (Edmonton, Alberta)
4. **Hebrew SeniorLife**
(Boston, Massachusetts)
5. **The Perley and Rideau Veterans' Health Centre** (Ottawa, Ontario)
6. **Schlegel Villages**
(Waterloo, Ontario)
7. **Westminster Communities of Florida**
(Orlando, Tallahassee, Florida)

Data Collection

- All 7 sites
- Standardized chart abstraction tool and manual
- Training provided by research coordinator across sites
- Abstractors at each site trained and systematically collected data
- Data managed using  REDCap
Research Electronic Data Capture

Eligibility

- There are two sequential layers of eligibility:
 1. The practitioner level, and
 2. The resident/chart level.
- **PRACTITIONER LEVEL**
 - **Inclusion Criteria:**
 - All PCPs credentialed by the facility to provide primary care presently and in the previous 12 months.
 - Act or acted as the most responsible provider for the entire episode of care for at least 1 eligible resident (see below).
 - A primary care physician (with or without nurse practitioner support), or
 - A nurse practitioner acting in the capacity as most responsible provider
 - Licensed to provide primary care in that jurisdiction

Eligibility

- **RESIDENT/CHART LEVEL:**

- **Selection:**

- For each PCP, charts will be accessed by going consecutively backwards from date of admission to get the most recent practices. Access charts in reverse chronological order.

- **Inclusion Criteria:**

- A single physician acted as the most responsible provider for the entire episode of care
 - Date of admission is \geq Jan 1st 2014.
 - Resident is \geq 55 years of age at admission.
 - At date of review, the resident was admitted at the LTC facility for at least 3 months up to a maximum of 3 years.

- **Exclusion Criteria:**

- Residents/patients charts from post-acute and rehabilitation programs

Criteria for a PQS Quality Measure

1. Data collection is efficient
2. Operationalized measure is consistent with original QM statement.
3. Believable performance distributions.
4. Variation across sites, and no floor or ceiling issues.

Main Sources of Information *



- 1. Admission package**
 - Can include: a medical report form, MDS, hospital transfer record, medication lists
- 2. Care Conference meetings (or equivalent), communication with family**
- 3. Consult Reports**
- 4. History and physicals (H&P), including Admission H&P**
- 5. Incident Reports (or equivalent) for case finding**
- 6. Lab Reports**
- 7. MDS (2.0 & 3.0)**
- 8. Medical Diagnoses**
- 9. Medication Review information**
- 10. PCP Progress notes**
- 11. PCP orders (including those for consults)**
- 12. Significant Status Change (or equivalent)**
- 13. Vitals**
- 14. Advance Care Planning documentation**

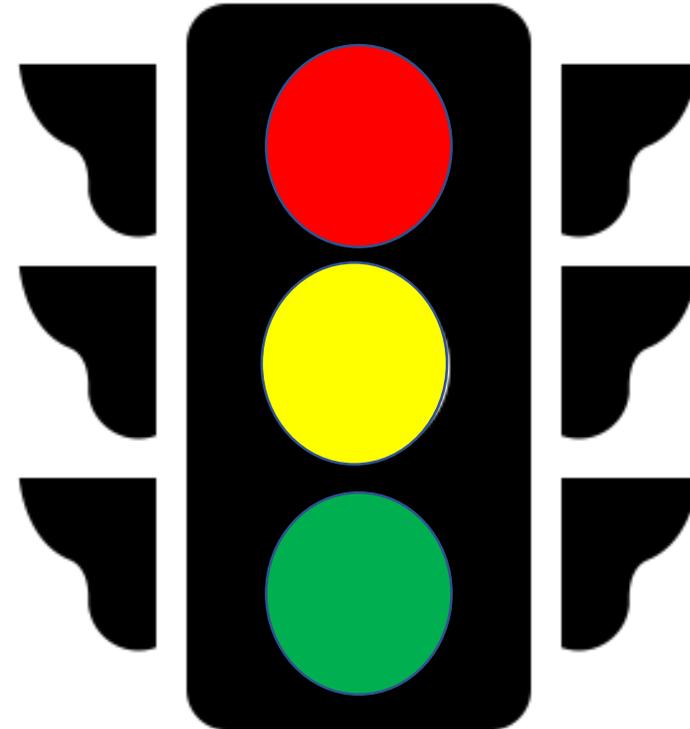
*these are general terms for these items, they may be called something different at sites

QMs Ranked and Included in PQS

*ongoing development

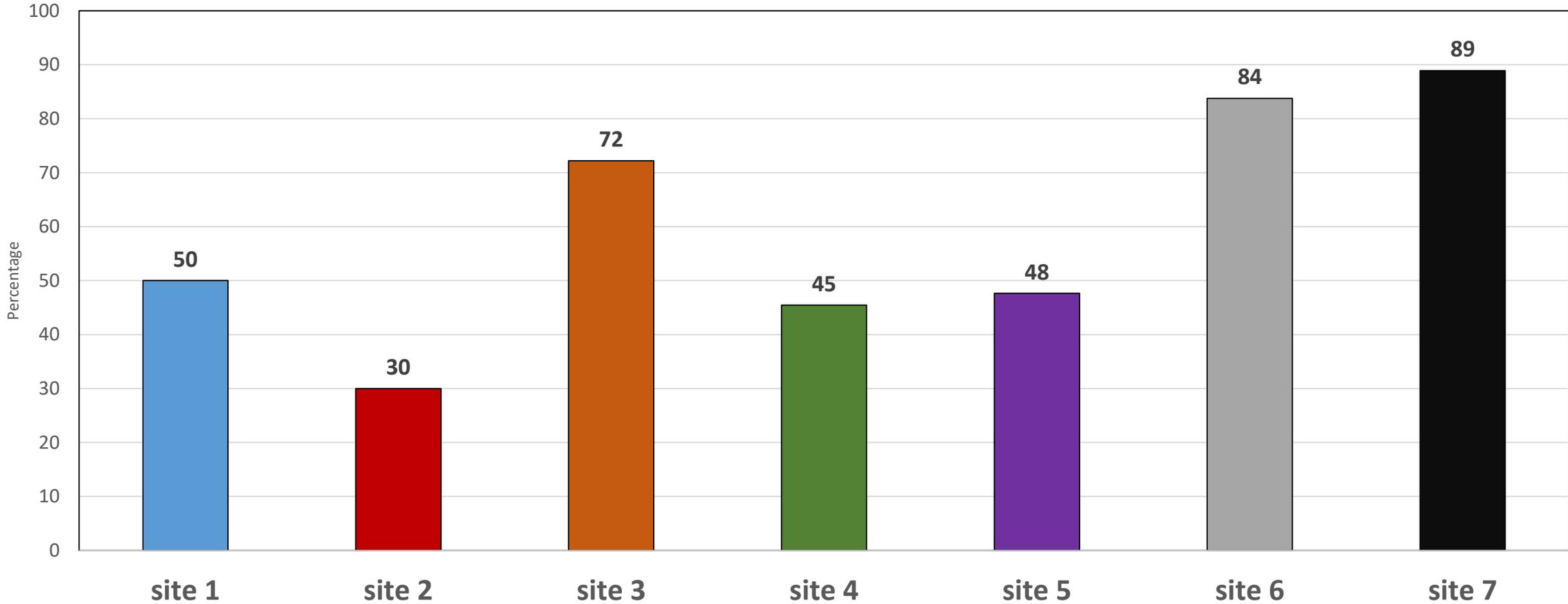
Levels of Ranking

- **1 – 3:** *Major Concerns / Poor Measure of Quality*
- **4 – 6:** *Some or Minor Concerns / Fair Measure of Quality*
- **7 – 9:** *No concerns / Excellent Measure of Quality*



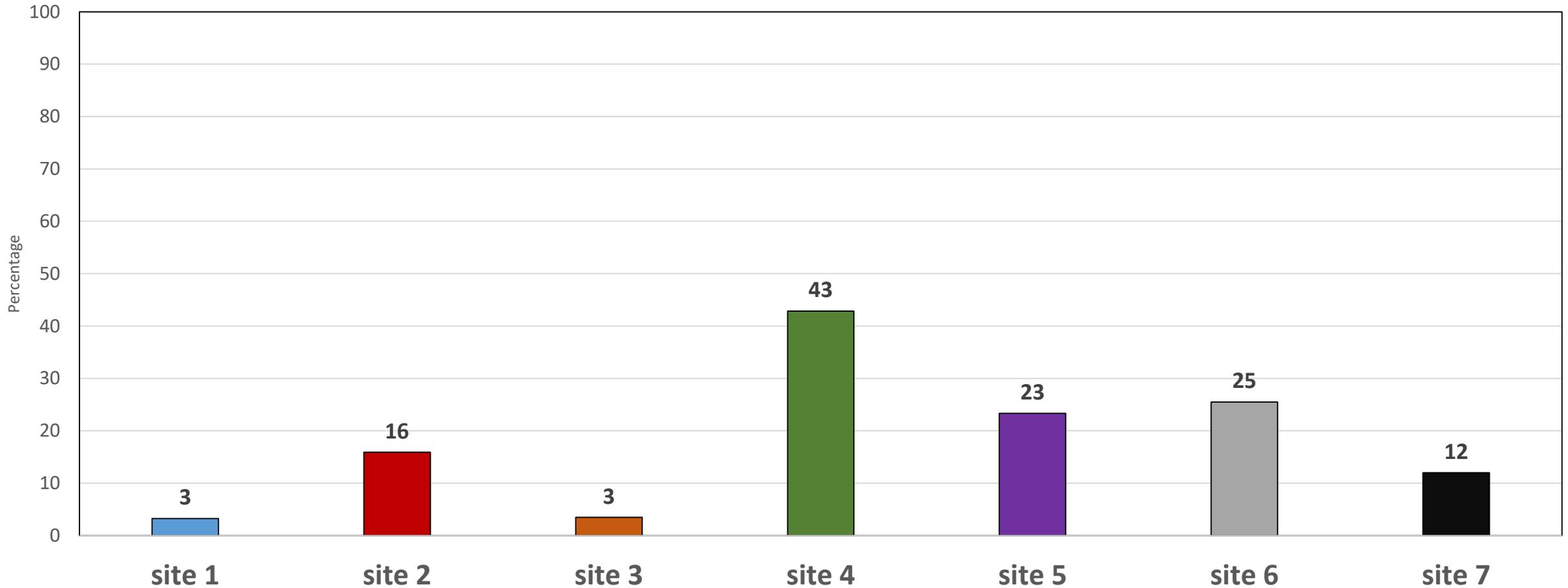
DOMAIN: Cognition, Affect, Behaviour

If cognitive impairment in MDS (CPS 3+) and dementia present in AP, % where PCP recorded cognitive impairment or dementia in H&P



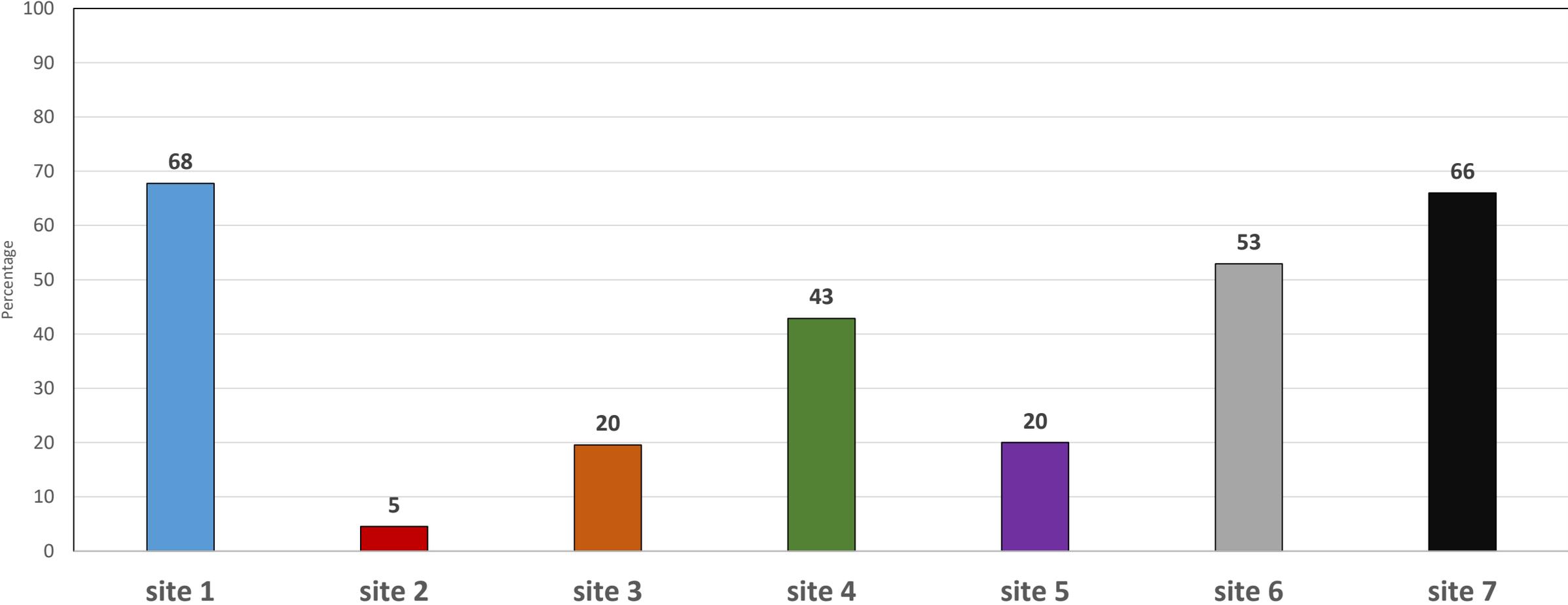
DOMAIN: Falls, Mobility, Pressure Ulcers

If fall occurs without hospitalization (IR, nursing note), % of PCPs that have **fall history note** (PN: circumstances, comorbidity, OR meds) OR note that it's an ongoing problem (PN)



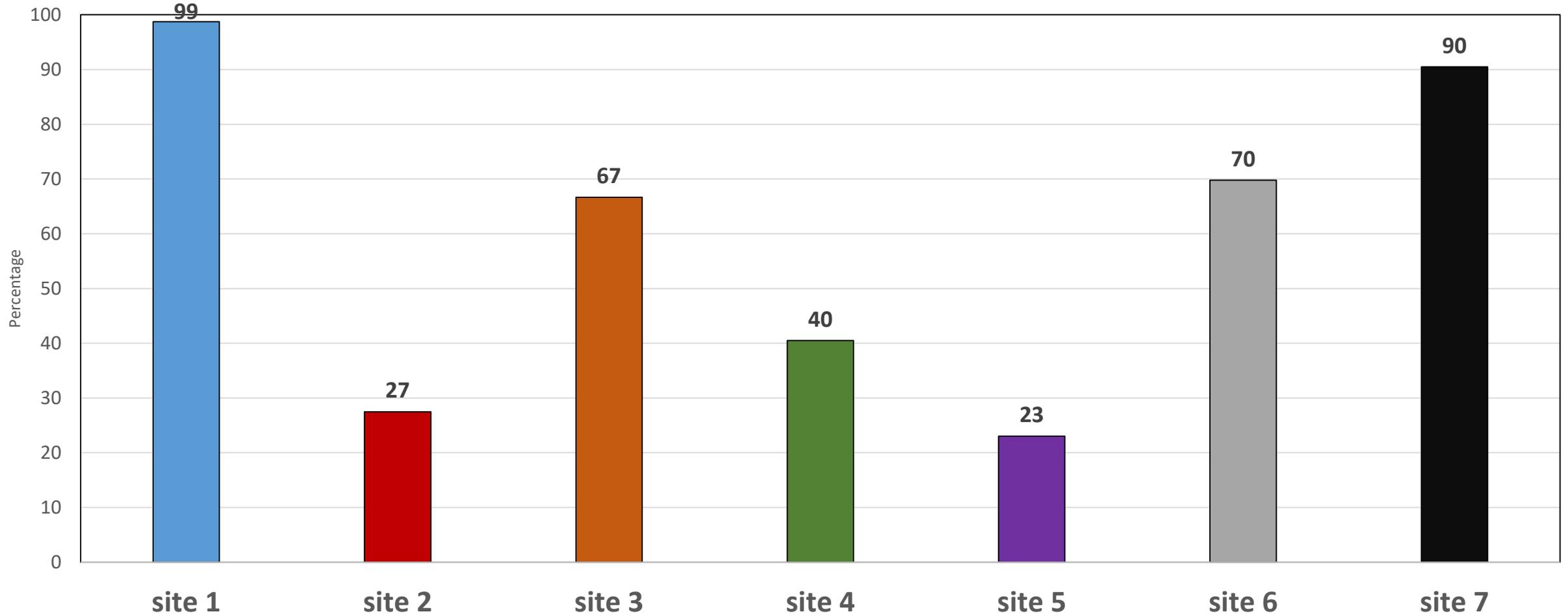
DOMAIN: Pain Management

For all admissions, % that have quantitative OR qualitative assessment of pain (1st PN or H&P)



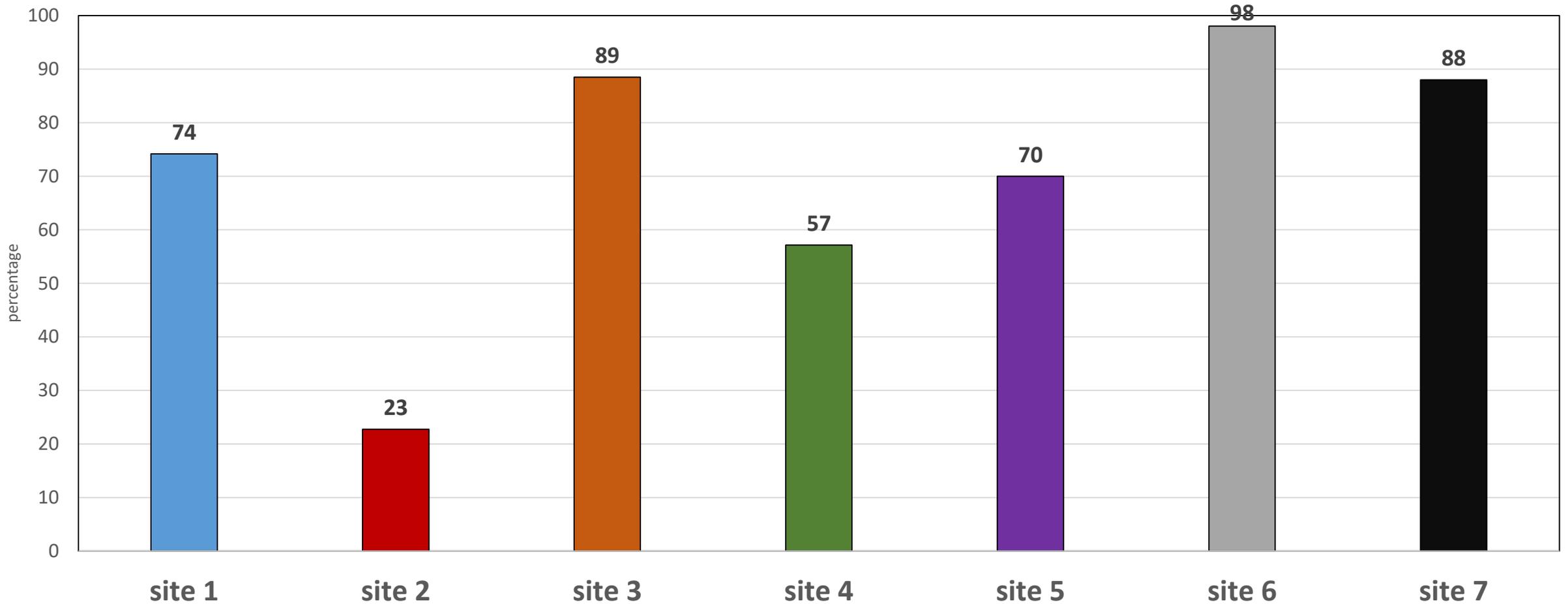
DOMAIN: Medication

For all new drugs prescribed (first 3 per chart), average % **indication OR target symptom clearly stated in the medication order**



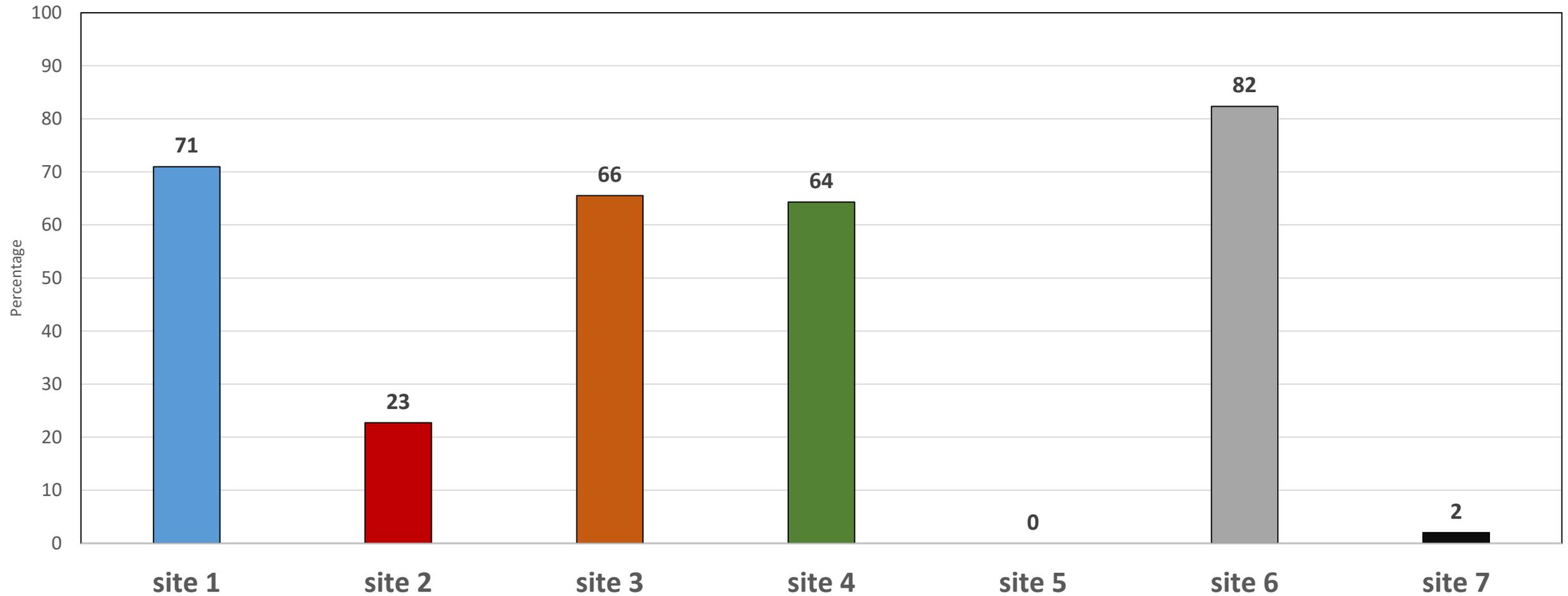
**DOMAIN: Communication and
Coordination of Care**

For all admissions, % that complete an Admission H&P within 14 days of admission



**DOMAIN: Goals of
Care and Palliative**

If NHR is long stay (>90 days), % chart that document **PCP discussion for life-sustaining treatments** or why did not occur, within 6 weeks of admission



Next Steps in Development

- Finalize PQS with final evaluation and ranking of outstanding urinary and medication measures that required advanced coding.
 - Publications forthcoming.
- Pilot test a dedicated PQS tool (software application) with a sample of medical directors across North America
 - Examine feasibility and utility
- Large scale quality measurement study
 - To examine the epidemiology of provider quality as measured by PQS
 - Evaluate PQS as a predictor of outcomes such as rehospitalization

Is NH Quality Measurement a Fools Errand?

- Creating quality measures that reflect medical provider practice is key
 - Basis for all performance improvement
 - Helps guide policy which drives NH reimbursement, regulations, organizational structure and care processes
 - Informs the consumer