Theory to Action: Applying Frameworks to Real-World Access Measurement

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Access is “multidimensional and complicated” (quoting Grumbach 2020, adapting Kizer 2020)

- “…the functional relationship between the population and medical facilities and resources… which reflects the differential existence either of obstacles, impediments (or)… facilitators” (Bashshur et al., 1971)
- “the ease with which (care) is initiated and maintained” (Donabedian, 1980)
- ““The fit between the patient and the health care system” (Penchansky and Thomas, 1981)
- “the ability of the population to seek and obtain care” (Dutton, 1986)
- “…the timely use of personal health services *to achieve the best health outcomes*" (IOM, 1993)
- “The opportunity to consume health goods and service” (Haddad & Mohindra, 2002)
- “the opportunity or ease with which consumers or communities are able to use *appropriate services in proportion to their needs*” (Daniels, 2002)

https://www.accesstocare.va.gov/

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How Quickly Can My VA Facility See Me?

How Satisfied Are Veterans With Their Care In My Facility?

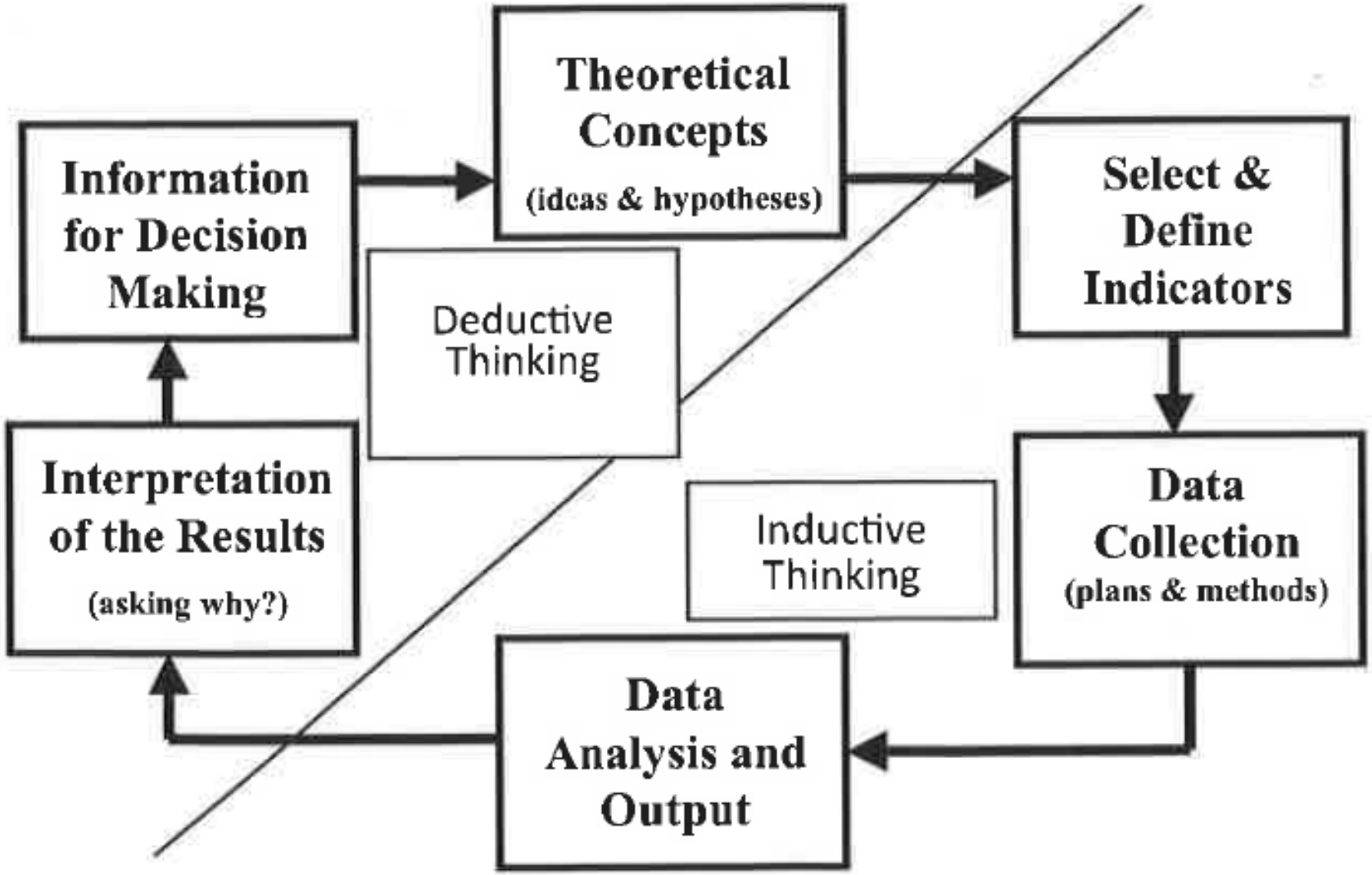
How Does Care Compare In VA and Other Facilities In My Area?

How Is The VA System Doing With Access Nationally?

How Can I Find VA Providers Near Me?

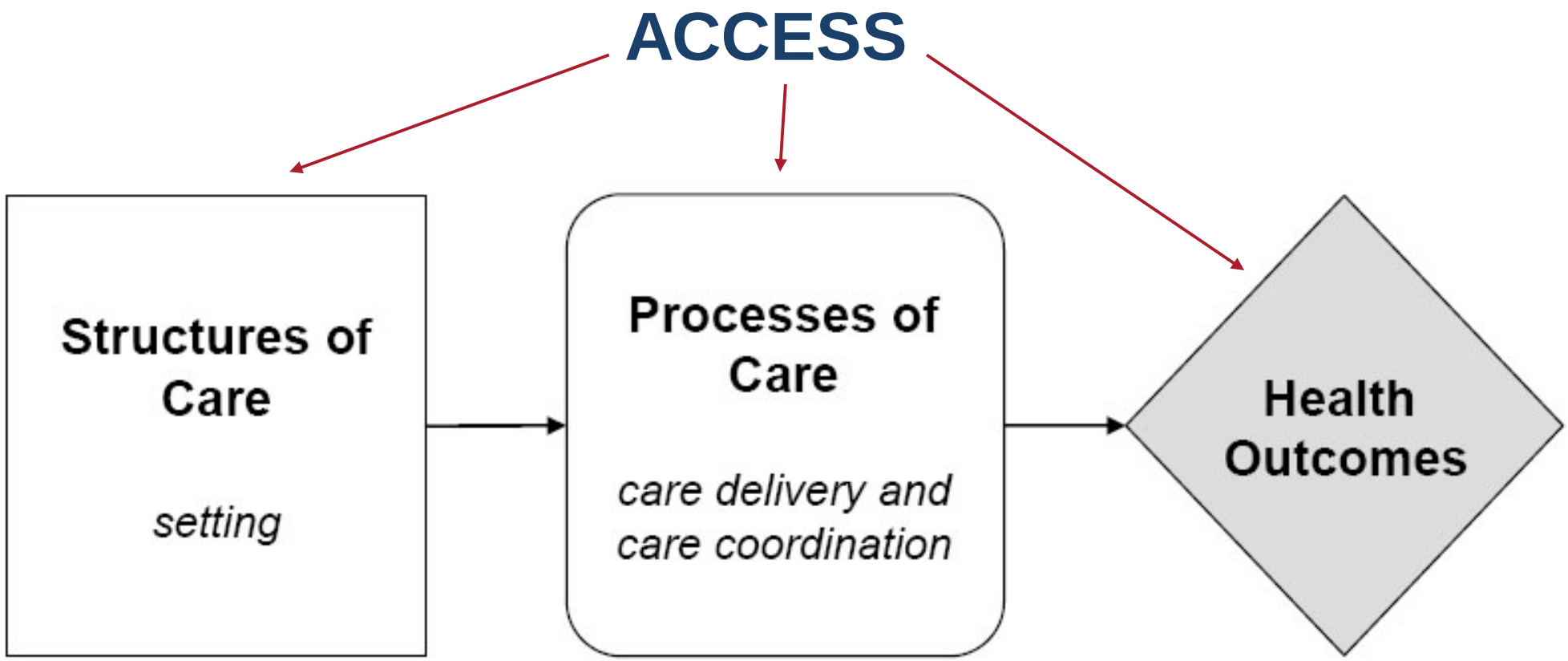
The fundamental purpose of quality measurement is to drive/inform quality improvement

Corollary – measures are worthwhile only if they drive/inform “true” improvement in quality, so it’s all about whether and how measures will be used

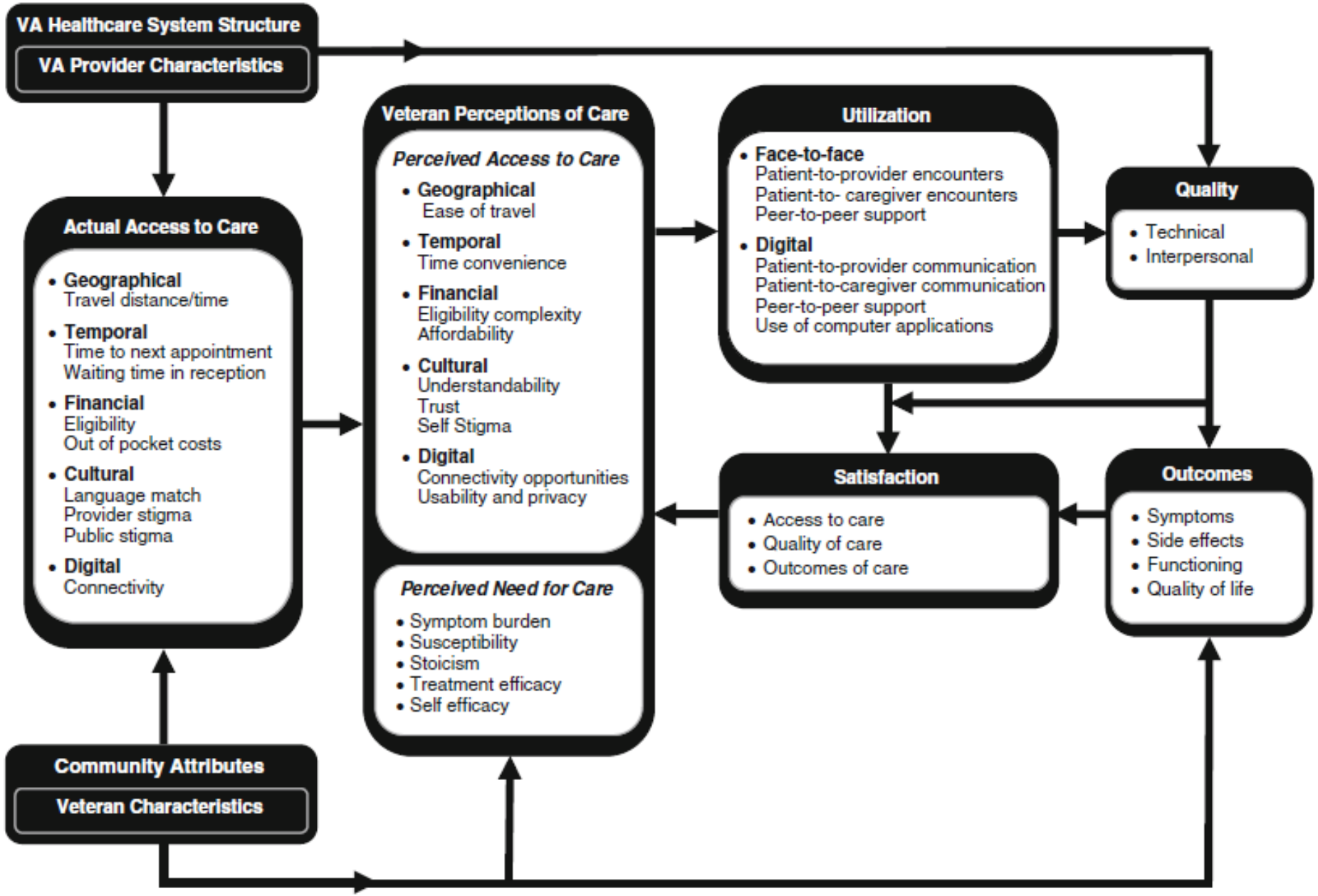


Source: Lloyd R.: *Quality Health Care: A Guide to Developing and Using Indicators*. Sudbury, MA: Jones & Bartlett, 2004. Reprinted with permission.

Donabedian's Classic Framework



Fortney, 2011:
"The potential ease of having virtual or face-to-face interactions with a broad array of healthcare providers including clinicians, caregivers, peers, and computer applications."



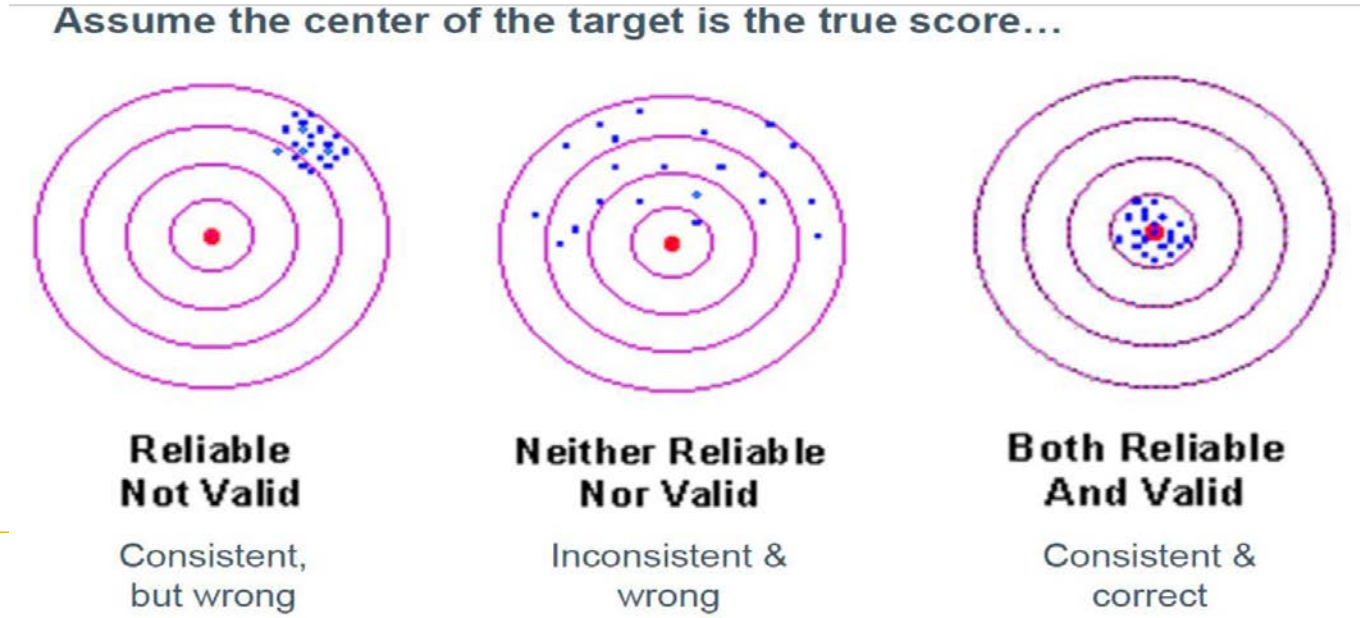
IOM Domain	Structure	Process	Outcome
Effective	Cardiac nurse staffing, nursing skill mix (RN/total)	Use of ACE inhibitor or ARB for patients with systolic HF	30-day readmissions (or mortality) for heart failure
Patient Centered	Use of survey data to track patient-centered care	Management of self-reported pain	Overall rating of care
Timely	Organizational policy on scheduling urgent appointments	Wait time for urgent care appointments	Potentially avoidable hospitalizations (or ED visits) for asthma or heart failure
Safe	Computerized physician order entry with CDS medication error detection	Use of prophylaxis for venous thromboembolism in appropriate patients	Postoperative deep vein thrombosis or pulmonary embolism
Efficient	Availability of rapid antigen testing for sore throat	Inappropriate use of antibiotics for sore throat	Dollars per episode of sore throat
Accessible	Availability of adequate interpreting services	Use of interpreting services when appropriate	Disparity in any other outcome according to primary language

Reliability/stability of measurements

- Reliability relates the magnitude of measurement error in observed measurements (noise) to the inherent variability in the true level of the quantity of interest (signal).
- If reliability is high, then random measurement error is small compared with true differences among units, allowing them to be distinguished.
- Reproducibility or stability focuses on the variation in measurements under changing conditions (e.g., time or rater) based on the notion that these conditions are unlikely to substantially affect the true values of the construct of interest.
- A measure may have high reliability in a population of providers in a given time period, but low stability among the same providers over time.

Validity of Measurements

- Validity is the extent to which a measure achieves the purpose for which it is intended, or measures the true state of what it purports to measure (i.e., “access to care”).
- A valid measure has relatively low systematic error.
- The validity of a performance score is therefore *linked to the decisions that users of the score would make, based on scores presented to them.*



Implications for Assessing Validity

- Content validity (“face validity”)
  - How do clients and other stakeholders view the content of the access measure?
- Concurrent criterion validity
  - How well does the access measure agree with a better or “gold standard” measure of access?
- Predictive criterion validity
  - Does the access measure predict important future outcomes, such as death or “potentially avoidable admission”?
- Construct (convergent) validity
  - How well does the access measure correlate with other measures that are conceptually related to the concept of access (especially across Donabedian’s or Fortney’s framework)?

Survey endorsement of “always” being able “to get the care you needed from this provider’s office during evenings, weekends, or holidays”

Was associated with…

Hospitalizations for “ambulatory care sensitive conditions” in subsequent year

Patient-Reported Access in the Patient-Centered Medical Home and Avoidable Hospitalizations: an Observational Analysis of the Veterans Health Administration

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BACKGROUND: The Patient-Centered Medical Home (PCMH) has emphasized timely access to primary care, often by using non-traditional modes of delivery, such as care in person after-hours or by phone during or after normal hours. Limited data exists on whether improving patient-reported access with these service types reduces hospitalization.

OBJECTIVE: To examine the association of patient-reported access to primary care within the Veteran Health Administration (VHA) via five service types and hospitalizations for ambulatory care sensitive conditions (ACSCs).

DESIGN: Retrospective cohort study, using multivariable logistic regression adjusting for patient demographics, comorbidity, characteristics of patients' area of residence, and clinic-level random effects.

PARTICIPANTS: A total of 69,710 VHA primary care patients who responded to the 2012 Survey of Healthcare Experiences of Patients (SHEP), PCMH module.

MAIN MEASURES: Survey questions captured patients' ability to obtain care from VHA for five service types: routine care, immediate care, after-hours care, care by phone during regular office hours, and care by phone after normal hours. Outcomes included binary measures of hospitalization for overall, acute, and chronic ACSCs in 2013, identified in VHA administrative data and Medicare fee-for-service claims.

KEY RESULTS: Patients who reported "always" able to obtain after-hours care compared to "never" were less likely to be hospitalized for chronic ACSCs (OR 0.62, 95% CI 0.44–0.89, $p = 0.009$). Patients reporting "usually" getting care by phone during regular hours were more likely have a hospitalization for chronic ACSC (OR 1.49, 95% CI 1.03–2.17, $p = 0.034$). Experiences with routine care, immediate care, and care by phone after-hours demonstrated no significant association with hospitalization for ACSCs.

CONCLUSIONS: Improving patients' ability to obtain after-hours care was associated with fewer hospitalizations for chronic ACSCs, while access to care by phone during regular hours was associated with more hospitalizations. Health systems should consider the benefits, including reduced hospitalizations for chronic ACSCs, against the costs of implementing each of these PCMH services.

KEY WORDS: access to care; primary care; veterans; Health Services Research; utilization.

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INTRODUCTION

Although access to primary care is a key factor in preventing and managing disease and deterring costly acute care[1,2], over 60% of Americans report difficulty obtaining care after regular business hours, and less than 30% of practices are organized with arrangements for after-hours care.[3] The Patient-Centered Medical Home (PCMH) is the leading model in primary care reorganization, aiming to introduce new service types to improve access and

Longer wait times affect future use of VHA primary care

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Survey response to "how many days did you usually have to wait for an appointment when you needed care right away"

Was associated with…

Reliance on VHA versus private sector for face-to-face care in subsequent year

ARTICLE INFO

ABSTRACT

Background: Improving access to the Veterans Health Administration (VHA) is a high priority, particularly given statutory mandates of the Veterans Access, Choice and Accountability Act. This study examined whether patient-reported wait times for VHA appointments were associated with future reliance on VHA primary care services.
Methods: This observational study examined 13,595 VHA patients dually enrolled in fee-for-service Medicare. Data sources included VHA administrative data, Medicare claims and the Survey of Healthcare Experiences of Patients (SHEP). Primary care use was defined as the number of face-to-face visits from VHA and Medicare in the 12 months following SHEP completion. VHA reliance was defined as the number of VHA visits divided by total visits (VHA + Medicare). Wait times were derived from SHEP responses measuring the usual number of days to a VHA appointment with patients' primary care provider for those seeking immediate care. We defined appointment wait times categorically: 0 days, 1 day, 2–3 days, 4–7 days and > 7 days. We used fractional logistic regression to examine the relationship between wait times and reliance.
Results: Mean VHA reliance was 88.1% (95% CI = 86.7% to 89.5%) for patients reporting 0 day waits. Compared with these patients, reliance over the subsequent year was 1.4 ($p = 0.041$), 2.8 ($p = 0.001$) and 1.6 ($p = 0.014$) percentage points lower for patients waiting 2–3 days, 4–7 days and > 7 days, respectively.
Conclusions: Patients reporting longer usual wait times for immediate VHA care exhibited lower future reliance on VHA primary care.

CONCLUSIONS

- It’s all about driving/informing quality improvement
- All measures are part of a life cycle of measurement, improvement, refinement, and potentially retirement
- Consider integrating access into Donabedian’s classic structure/process/outcome framework
- All measures should be assessed for reliability at the “accountable unit” level
- All measures should be assessed for validity, and more weight and resources should be put into more valid measures