Outpatient Palliative Care Implementation to Improve outcomes for Aging Veterans

Presented by

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March 14, 2023

DURHAM CENTER OF INNOVATION
TO ACCELERATE DISCOVERY AND
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Agenda

Value of Palliative Care in Serious Illness

- Background
- Palliative Care in Heart Failure (PAL-HF) Trial
- Selection Bias in Palliative Care Studies

- Rationale and Objective
- Aims and Approach
- Preliminary Results

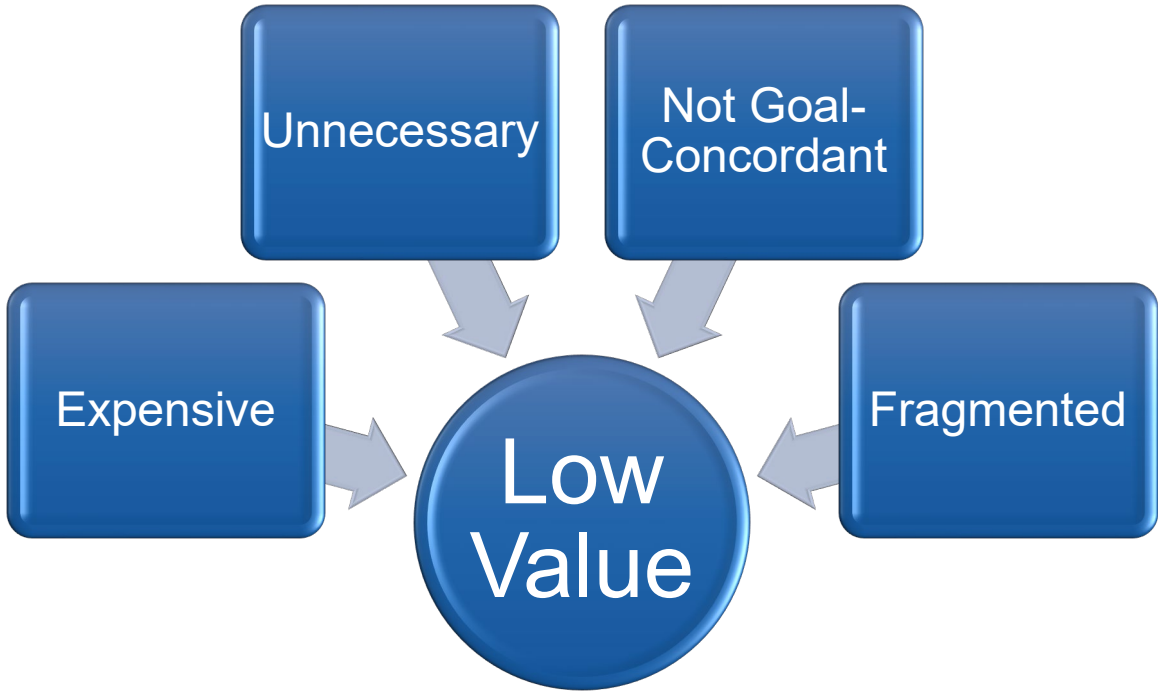
Funded by VA HSR&D CDA 20-032

Serious Illness: High Cost, High Need

"A health Condition that carries a high risk of mortality AND either negatively impacts a person's daily function or quality of life, OR excessively strains their caregivers." (Kelley et al. 2018)

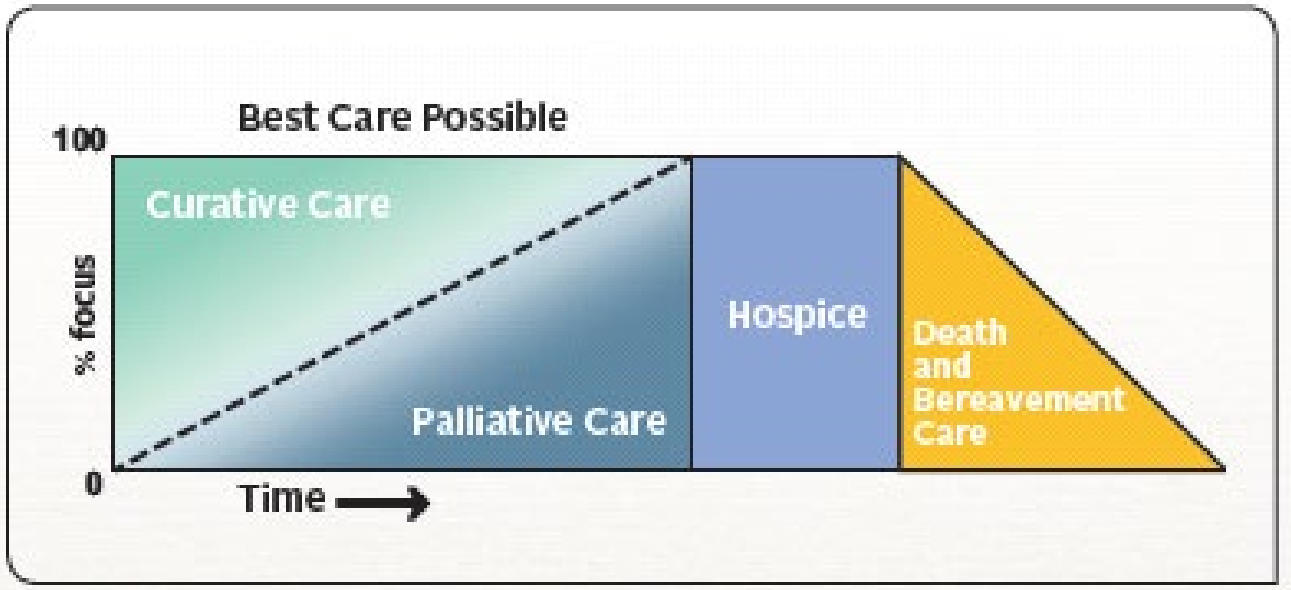
1. **Diagnosis:** serious condition
2. **Utilization**: high intensity
3. **High Need**:
   - Functional status/ ADL
   - Cognitive impairment
   - Nutritional decline
   - Symptom burden
   - Caregiver strain

Problems in Serious Illness Care



Specialty Palliative Care

- Specialty Palliative Care Consult: is an opportunity to review care goals and manage complex medical and psychosocial needs
- Intended outcomes:
  - Goal-concordant care
  - Improved Quality of Life



Challenges evaluating Palliative Care

- Identifying a comparable control group
- Variation in PC implementation results in heterogeneous effects
  - Patient clinical conditions
  - Patient and family psychosocial needs
  - in the intervention itself
  - the care setting

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The Cost-Effectiveness of Palliative Care: Insights from the PAL-HF Trial

Objective: To inform Medicare reimbursement rates for outpatient palliative care in the context of advanced heart failure using data from a single site randomized control trial.

- Kaufman BG, Granger BB, Sun JL, Sanders G, Taylor DH Jr, Mark DB, Warraich H, Fiuzat M, Steinhauser K, Tulsky JA, Rogers JG, O'Connor C, Mentz RJ. The Cost-Effectiveness of Palliative Care: Insights from the PAL-HF Trial. J Card Fail. 2021 Jun;27(6):662-669. doi: 10.1016/j.cardfail.2021.02.019. Epub 2021 Mar 14. PMID: 33731305; PMCID: PMC8180496.
- Acknowledgements: John Sperber, MD, Philip Jones for KCCQ-Utilities Mapping
- **Funded by National Institutes of Nursing Research**
- ClinicalTrials.gov Identifier: NCT01589601

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Implications

- Outpatient Palliative Care In Heart Failure is Cost Effective
- Potential cost-savings via prevention of non-CVD hospitalization
- Decision-making is sensitive to quality of life effects
- Identification of patients likely to benefit is key

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Selection Bias in Observational Studies of Palliative Care

Objective: to evaluate effects of a community-based palliative care program implemented as part of a CMMI demonstration model, with outcomes including spending and hospice use.

- Funding for this article was made possible, in part, by the Center for Medicare and Medicaid Innovation(CMMI) through grant 1C1CM331331. Funding source had no role in the evaluation of the article. Views expressed in written materials or publications and by speakers and moderators neither does necessarily reflect the official policies of the Department of Health and Human Services nor does any mention of trade names, commercial practices, or organizations imply endorsement by the U.S. government.

- Kaufman BG, Van Houtven CH, Greiner MA, Hammill BG, Harker M, Anderson D, Petry S, Bull J, Taylor DH Jr. **Selection Bias in Observational Studies of Palliative Care: Lessons Learned.** *J Pain Symptom Manage*. 2021 May;61(5):1002-1011.e2. doi: 10.1016/j.jpainsymman.2020.09.011. Epub 2020 Sep 15. PMID: 32947017.

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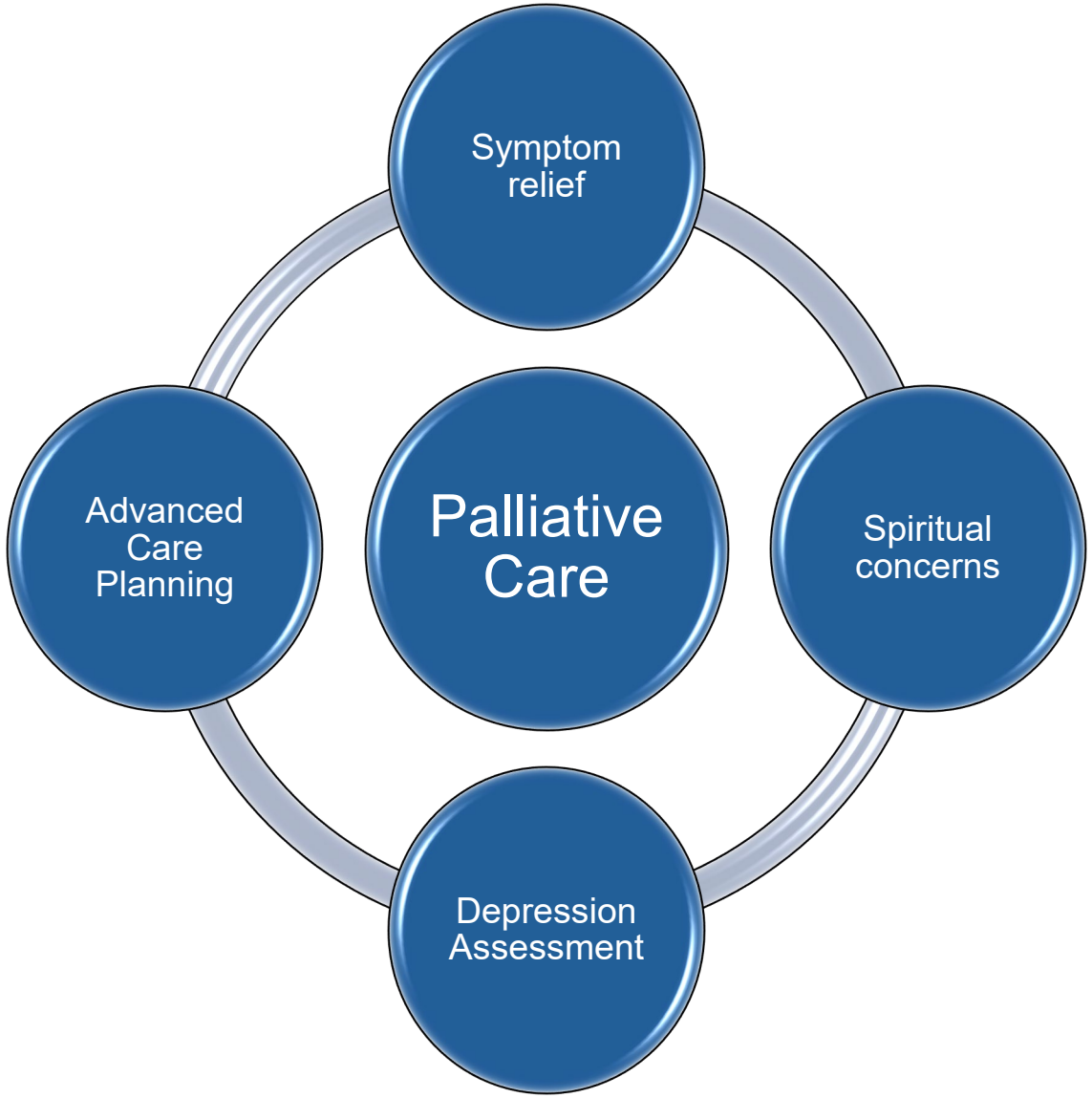
Key Lessons Learned

- Use Large Matching Pools to Improve the Quality of the Match
- Collect Eligibility Data From Treated and Control Groups
- Consider the Potential for Collider Bias When Matching on Death Date
- Define Exposure to Similar Programs to Avoid Contamination of the Control Group

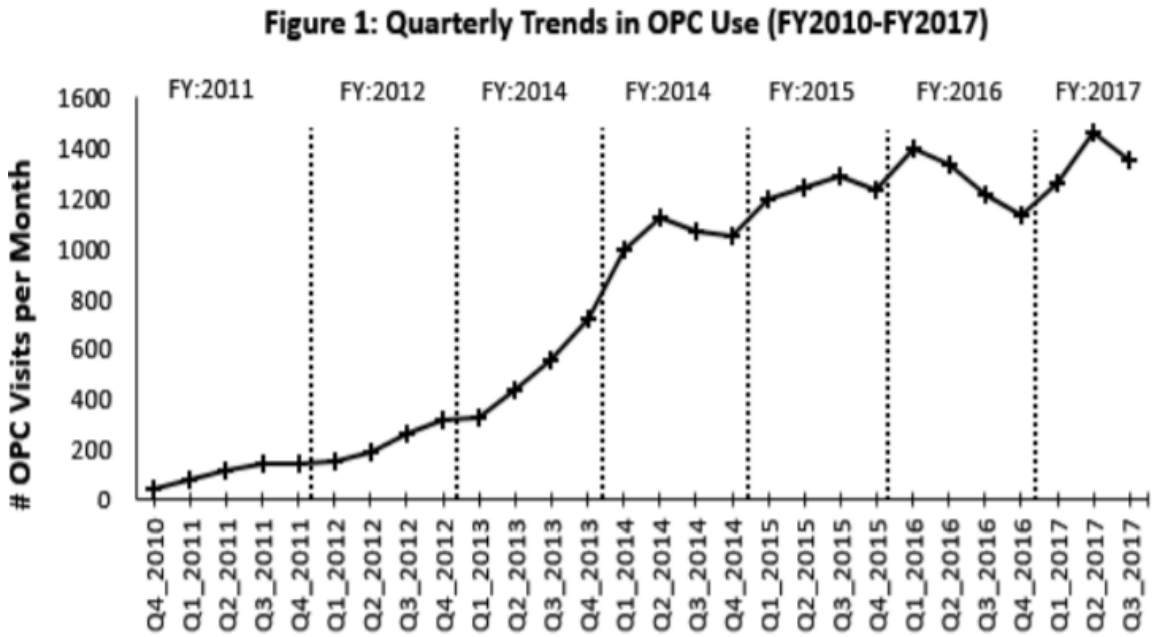
VA: Palliative Care Consult Teams (PCCT)

- Integrated
- Interdisciplinary
- Patient-centered

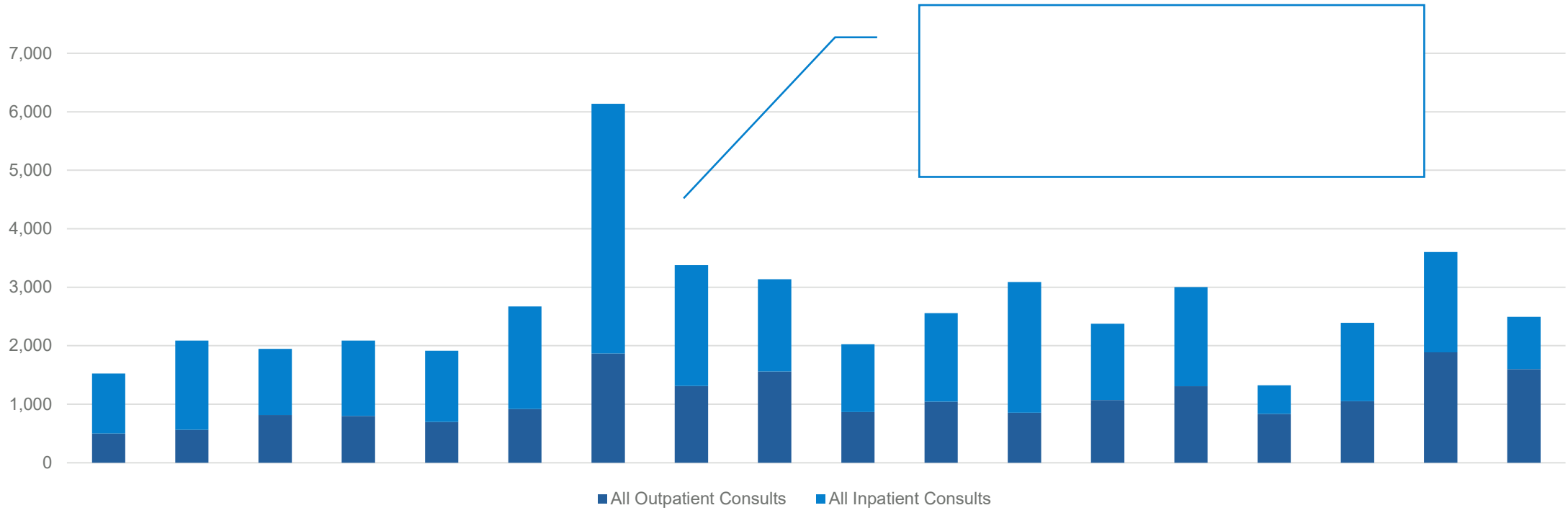


Palliative Care aligns with VA Priorities

- Palliative care has been one of the fasting growing health services in the U.S. and the VA
  - Inpatient
  - Outpatient
  - Home



Palliative Care Consults by VISN
(Year-to-date September 2019)



Palliative Care Research: Summary

- Growing evidence base for improving care recipient and care giver outcomes, both quality of life and quality of care at the end of life
- Most studies evaluate specialty palliative care in the inpatient setting and for specific diagnosis groups (cancer)
- Growing access to palliative care in the outpatient setting and for non-cancer patients, but evidence for outcomes is limited

Knowledge Gaps

- **Evaluation of VA Outpatient Palliative Care implementation is a major priority**
  - Limited understanding of variation in palliative care use in the VA (e.g. what does a typical PC episode look like?)
  - Gaps in knowledge of organizational determinants of adoption and reach of outpatient palliative care clinics
  - Evaluating causal effects palliative care is challenging; effects may vary due to implementation characteristics (e.g. care setting, primary diagnosis)

HSR&D Career Development Award:

Outpatient Palliative Care Implementation to Improve Outcomes for Aging Veterans

Mentors: Courtney Van Houtven, Nicki Hastings, Josh Thorpe and David Bekelman

Consultants: Nina Sperber, Bryce Reeve

Acknowledgement: Shelli Feder for work validating different measure of PC use

Funded by VA HSR&D CDA 20-032

Problem	**Older veterans with Life Limiting Conditions (LLC) often experience high symptom burden, low quality of life, and have unmet needs for palliative care.**
Population	Older veterans with Life-Limiting Conditions
Critical Quality Gap	Understanding **1)** palliative care episode characteristics and **2)** Outpatient Palliative Care Consult Team structure
Strategies to address the problem	• Intervening on structural components of PCCT (e.g. PCCT structure and practices) to improve appropriate use of PC. • Identifying opportunities to tailor PCCT practice characteristics to the local setting to improve Veteran outcomes associated with palliative care.

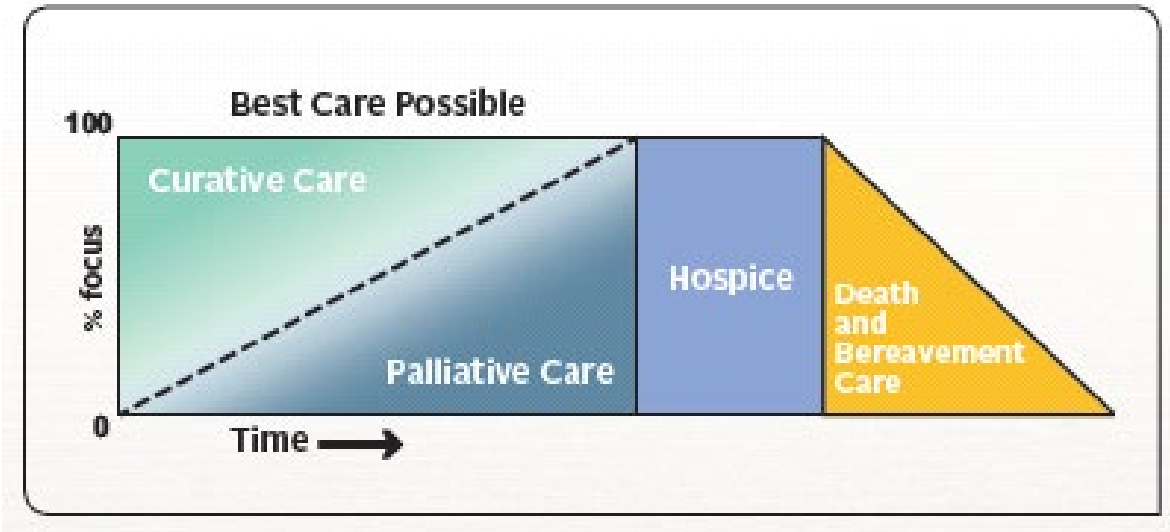
CDA Goal: to generate knowledge about implementation and current use of outpatient palliative care (OPC) that will inform strategies to improve appropriate use of palliative care.

Questions:

1) What do common palliative care episodes look like (identify patterns)?

2) Which Veterans are experiencing these different types of PC episodes and are differences clinically meaningful?

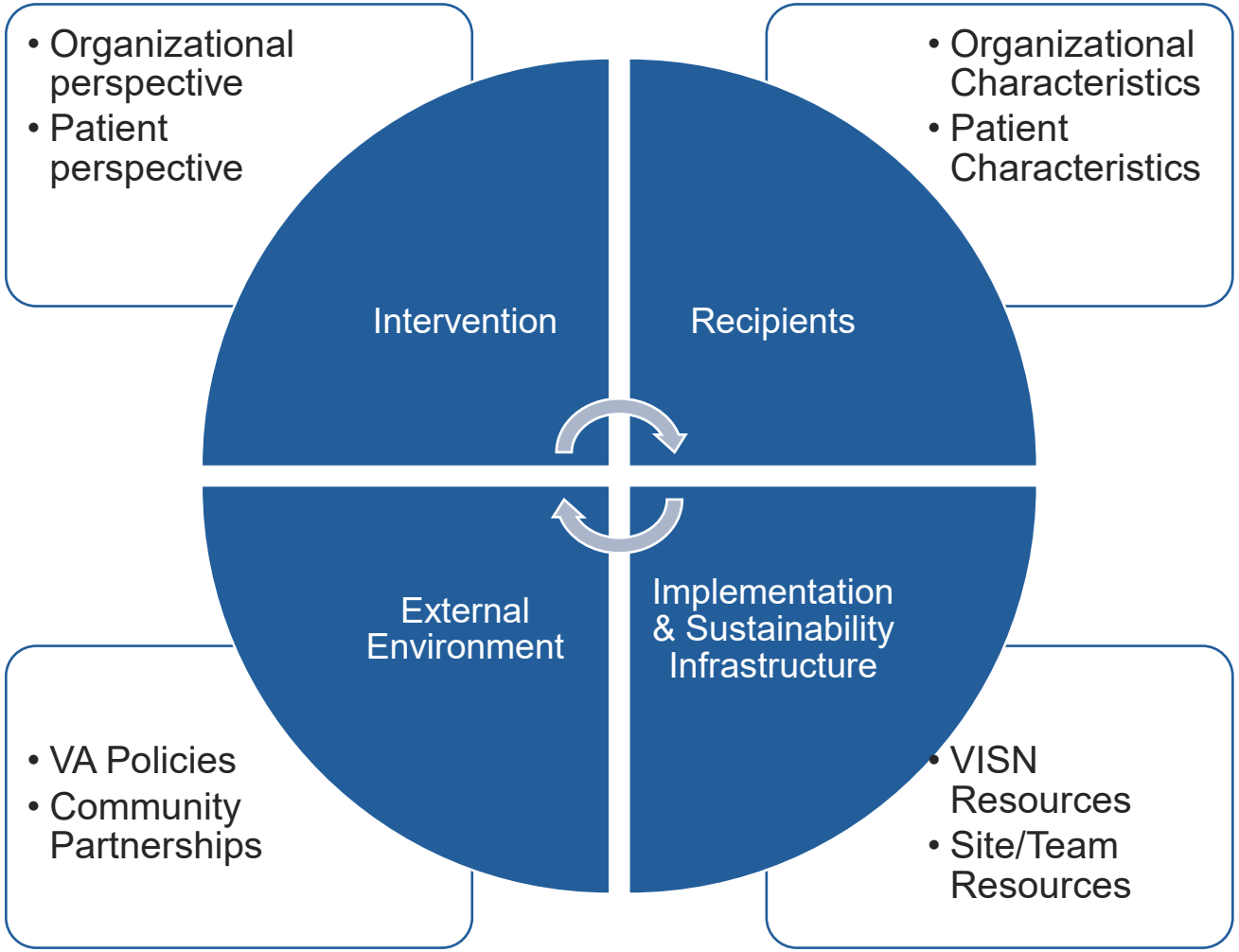
3) Are different episode types associated with Veteran outcomes?



Study Design: Mixed Methods

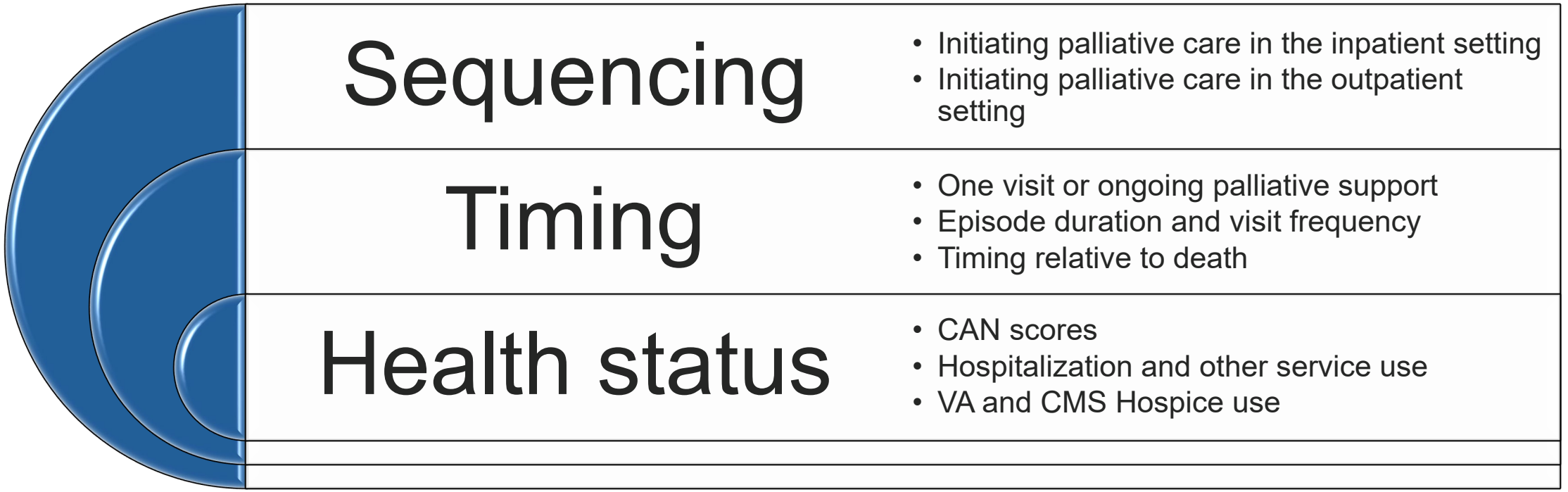
Aim 1: Describe Palliative Care Episode Types	• Analysis of National VA and Medicare Data
Aim 2: Enhance understanding of PC Episode Types	• interviews with palliative care consult team members)
Aim 3: Measure structural characteristics of PCCT	• Develop and pilot national site-level survey
Aim 4: Evaluate causal effects of PC on days at home and end of life care	• New User Active Comparator Design with propensity score weighting

Practical, Robust, Implementation and Sustainability Model (PRISM)



Feldstein AC, Glasgow RE. A practical, robust implementation and sustainability model (PRISM) for integrating research findings into practice. Jt Comm J Qual Patient Saf. 2008 Apr;34(4):228-43. doi: 10.1016/s1553-7250(08)34030-6. PMID: 18468362.

Aim 1: What are common episode patterns among palliative care users?

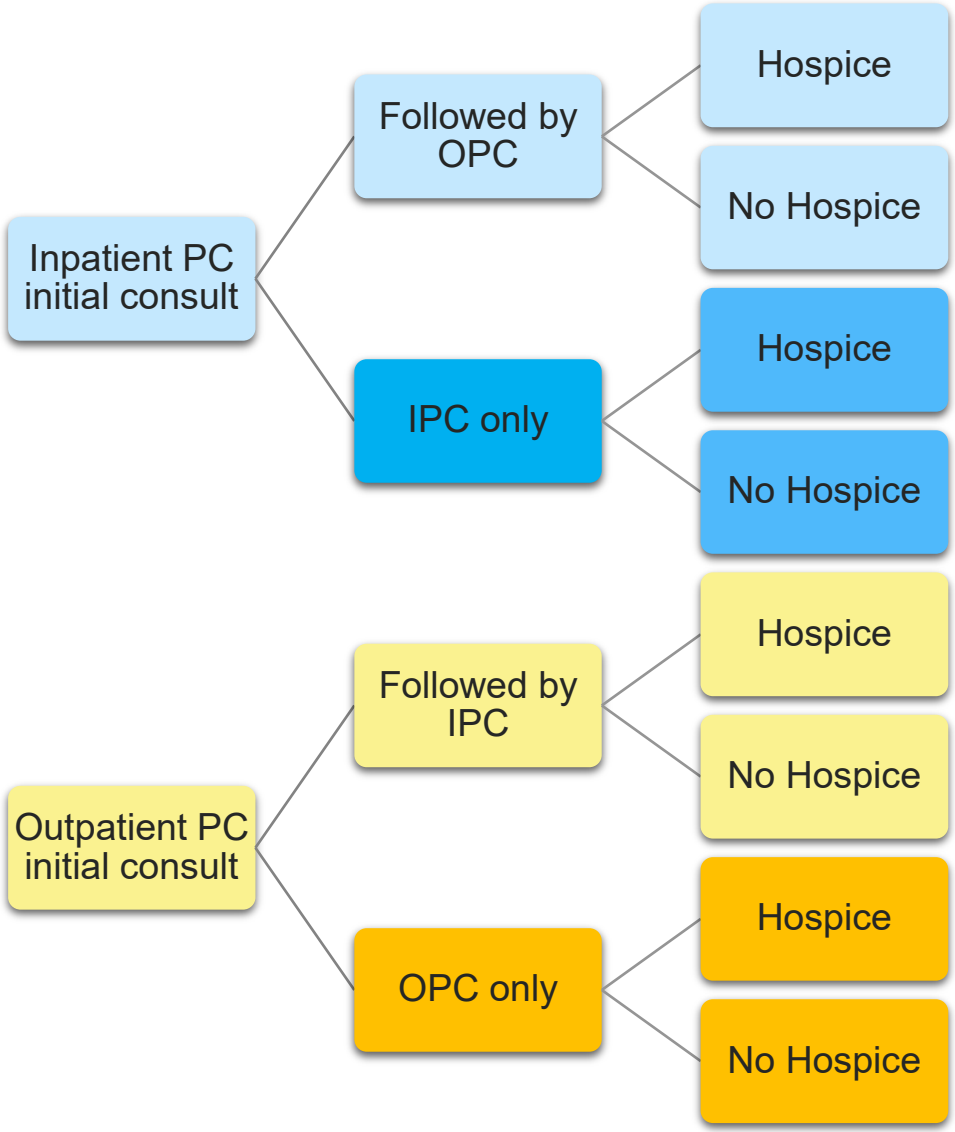


Palliative Care Episodes

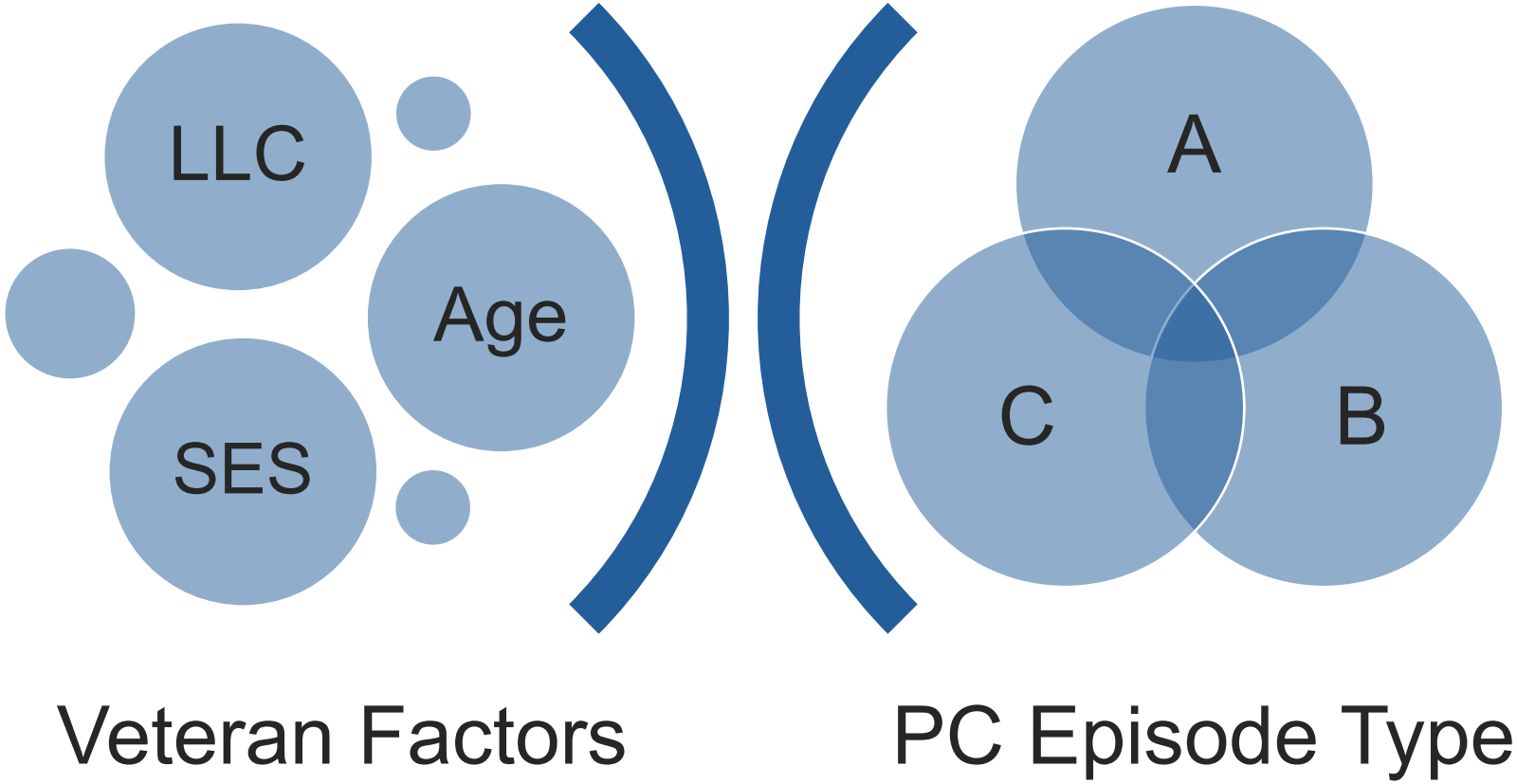
High level pathways using National CDW data linked with Area Deprivation Index

Cohort: Veterans with LLC or any PC use 2010-2018

Palliative care: 353 and 351 stop codes and ICD included



Veteran Factors and PC Patterns



Aim 2: Explore organizational perceptions

- How do organizational factors (e.g. PC clinic location, referral process, workforce) influence PC use?
- **Approach:** Semi-structured telephone interviews with PCCT members and administrative leaders.
  - 20-24 participants across 6 facilities (3 serving >30% rural veterans; 3 urban; purposive selection of high performing teams).
  - capture diverse perspectives by including PCCT member in different roles

PRISM Domains

Example interview questions by PRISM Domain

Current evidence How do the episode types or patterns we found in Aim 1 resonate with your clinic experience? How would you interpret or explain the different episode types?
Relative advantage What value or unique benefits do you see for Veterans who access palliative care in the outpatient palliative care clinic, compared to inpatient setting or community care options?
Burden and Barriers Thinking broadly about Veteran needs for palliative care, care navigation, informal care, and social services: What supports and services do Veterans need that are hard to provide (due to limited staff, community resources etc.)? How do local resources or processes impact your ability to serve Veterans?
Workflow and Coordination Next, we want to learn how care and referrals are coordinated across specialties. How are Veterans referred to your outpatient palliative care clinic and what might improve that process?
Adaptability We are interested in understanding how clinics have tried to make palliative care services easier for Veterans to access, for example, offering extended hours, different locations, multiple languages, telehealth services or transportation. How has your team tried to address barriers to accessing palliative care? What changes could be made to help rural Veterans access high-quality palliative care?

Methods:
Aim 2 Site Selection

We plan to use purposive sampling to select interview sites with robust palliative care supports and teams based on our quantitative data analysis in Aim 1 of the CDA.

- select 3-5 VISNs in different regions of the country
- select one primarily rural facility (>50% palliative care visits for rural veterans) and a larger, primarily non-rural facility (<30% palliative care visits for rural veterans) within each of those VISNs.
- Eligible sites will include those with well-established and active Outpatient Palliative Care Clinics
- use program data to identify teams with expanded team structures (including nurse or social worker) and prioritize these teams for inclusion.

Aim 3: Measure structural characteristics

- Assess PCCT structural characteristics and OPC practices.
- **Approach:**
  - adapt a survey evaluating structural characteristics of home based primary care in the VA.
  - Items will be informed by the Advisory Board, results of aims 1-2, and the National Quality Forum Framework for Hospice and Palliative Care
  - Pilot test and refine the site-level survey to be implemented in the IIR

Aim 4: Evaluate effects of PC

- **Outcomes**
  - independence in aging (e.g. days in the community, LTC admissions)
  - Among decedents: quality of EOL care (e.g. hospice enrollment and hospital admissions)
  - Does the effect vary depending on OPC pattern
- **Hypotheses:** PC will be associated with
  - increased days in the community and reduced LTC admissions.
  - Among decedents, OPC will be associated with increased hospice enrollment and fewer hospital admissions in the last 6 months of life.
- **Approach:** Receipt of PC during an outpatient visit within 90 days following hospital discharge is the treatment and an outpatient visit that does not include PC is the active comparator.

Preliminary Results: Aim 1

This is a work in progress presentation and these results are very preliminary. Findings presented in this section have not been reviewed by the mentors and advisory panel and must be interpreted with caution.

Preliminary Results: Aim 1

Non-PC Users with LLC (FY 2013-2017)	PC Users (FY 2013-2017)
• 914,343 • 903 days observed • 21% died in the period • LLC count 1.35 • 73.7% non-Hispanic White	• 199,102 • 882 days observed • 77.4% died in the period • LLC count 1.38 • 75.3% non-Hispanic White

Preliminary Results: Aim 1

First PC use Inpatient Veteran Characteristics
• N=112,633 • 833 days observed • 66.2% died in 90 days • Age 75.2 • 2.6% female • 27.3% rural • 73.4% non-Hispanic White • CHF (32.1) & COPD (33.5) & Dementia (25.2)

First PC use Outpatient Veteran Characteristics
• **N=86,399** ***(less common)*** • 946 days observed • **37.9% died in 90 days** ***(lower mortality)*** • Age 75.5 • **3.2% female** ***(higher)*** • 26.5% rural • **77.8% non-Hispanic White** ***(higher)*** • CHF (15.7) & COPD (21.8) & Dementia (12.2) ***(Lower rates of LLC)***

Preliminary Results: Aim 1

First PC use Inpatient Episode Characteristics (Mean)	First PC use Outpatient Episode Characteristics (Mean)
• 80 days first PC to death • 24.6% had only 1 PC visit • 2.5 PC visits total • 9.4% used Home based primary care • 66.4% used hospice	• 187 days first PC to death • 28.3% had only 1 PC visit • 4.8* PC visits total • 21.4% used Home based primary care • 64.9% used hospice

*Most (3.88) captured by ICD codes in the outpatient setting

PC Episode Types

Aim 1 Next Steps

- Describe health care use 90 days before and during the palliative care episode
- Describe site and VISN variation in episode types
- Evaluate associations between veteran characteristics and different episode types, conditional on site

PC Episode Characteristics	N(%)
Outpatient 1st (43.4%)	
1 visit	24,446 (12%)
>1 visit	41,610 (21%)
Outpatient then Inpatient	20,334 (10%)
Inpatient 1st (56.6%)	
1 visit	27,683 (14%)
>1 visit	66,359 (33%)
Inpatient then Outpatient	18,570 (9%)

Discussion and Questions?

- **Aim 1:** What language is most useful for talking about the different types of palliative care episodes (patterns, pathways, experiences)?
- **Aim 2:** For the interviews, which types of clinics would be most valuable to include?
- **Aim 3:** What clinic and team characteristics should we consider measuring in the survey?

Planned IIR

- Conduct national survey to define prototypical palliative care models using structural components and practices
- Prospective comparative effectiveness evaluation of palliative care models
- Business case analysis weighing resources use and outcomes and adaptations to local context

Innovation and Benefits to Veterans

- The project aims to improve appropriate use of PC for older veterans with LLC by developing and disseminating a Palliative Care Pathways Report for operational partners.
- This evidence will fill a critical gap in knowledge of implementation of OPC by examining patterns and sequencing of palliative care episodes in the VA.
- Using this knowledge, we will work with advisory panel to identify opportunities for system redesign to improve veterans' quality of life and families' satisfaction with end of life care.

Thank you!

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