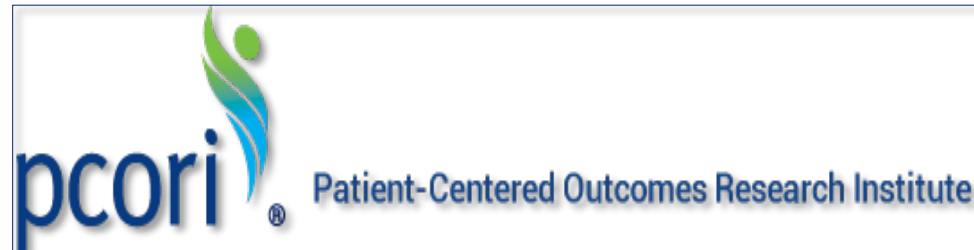# The Palliation of Emergency Medicine

Corita R Grudzen, MD, MSHS
Division Head, Supportive and Acute Care Services
Fern Grayer Chair in Oncology Care and the Patient Experience

Memorial Sloan Kettering
Cancer Center

Disclosures

- No financial disclosures
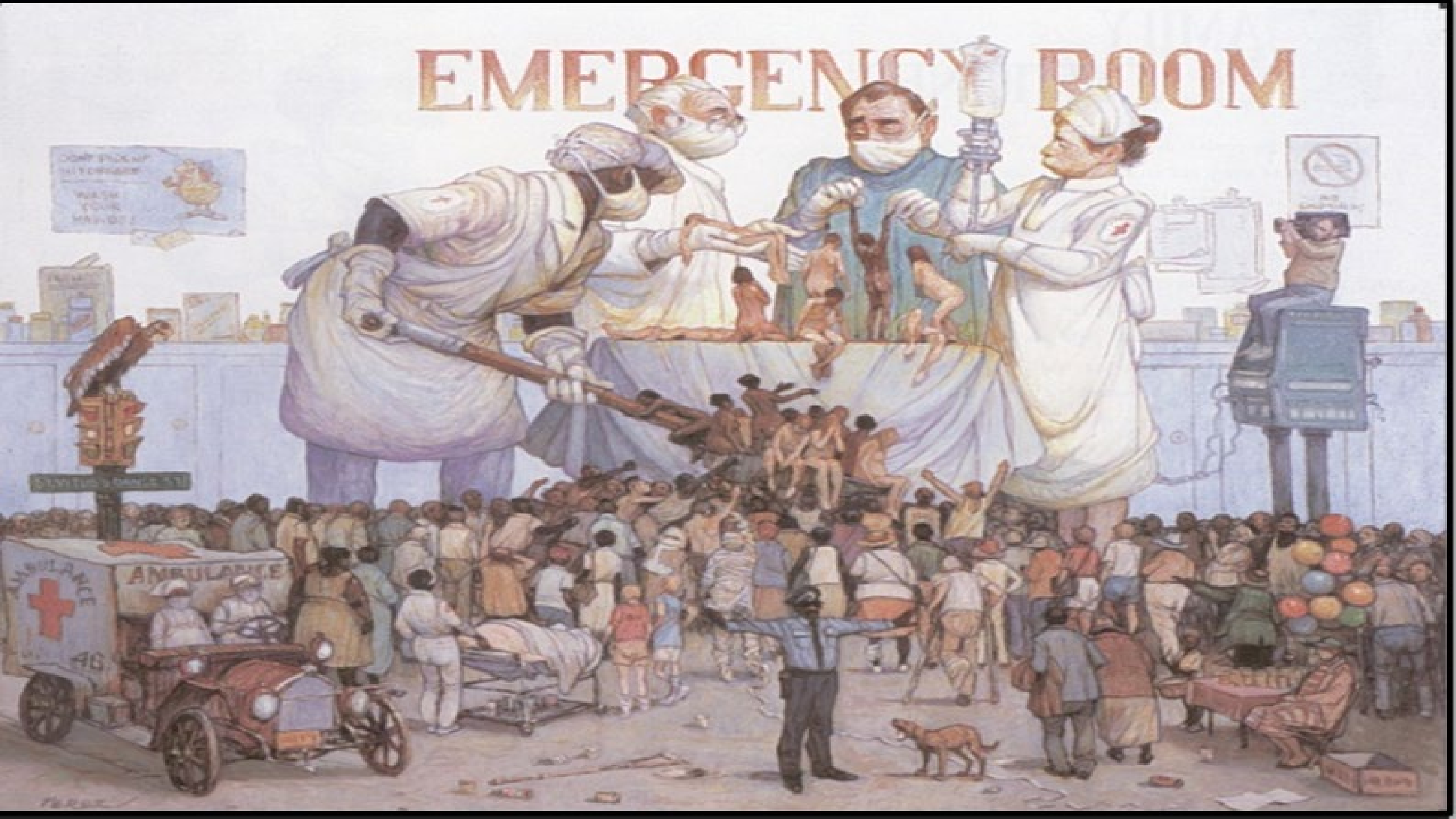- Grant support (multi-site trials are expensive!!!)

Emergency care

- Window to population health
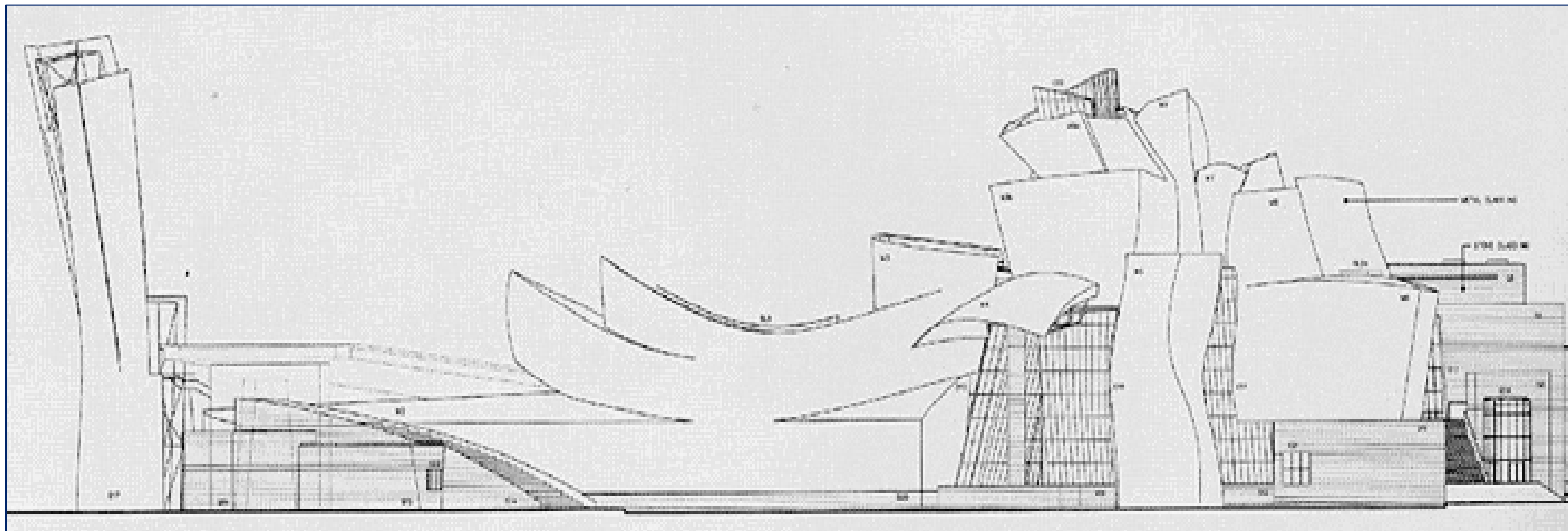- Way to address disparities & needs of society's most vulnerable

Background

- Increasing ED visits by older adults with serious illness

- Most prefer to receive care at home and to minimize life-sustaining procedures

- Palliative care improves quality of life and decreases health care use

Default Approach

Builder, Architect

Laying the Foundation

- Identify the palliative care needs of older adults in the ED

- Explore attitudes and beliefs among emergency providers regarding palliative care

- Identify hospital-level factors that affect the availability and delivery of palliative care in the ED

- Cross-sectional, structured survey of palliative care needs in older adults and their caregivers

- Focus groups with emergency providers

- Semi-structured interviews with hospital leaders

Scaffolding: the single center RCT

- ED-triggered palliative care vs care as usual in admitted patients with advanced cancer (n=134)
- 92% consultation rate in intervention group vs. 17% in controls
- FACT-G: clinically significant improvement in QOL at 6 weeks
    - (Cohen's d= 0.35, p<0.05)
- No impact on healthcare use
- Non-significant trend for longer survival
    - 280 versus 114 days

Textures, Finish, and Trim

- Emergency Medicine Palliative Care Access (EMPallA): 18-health system study comparing telephonic nurse-delivered palliative care to outpatient specialty care

- Pragmatic trial of primary palliative care skills training for emergency providers (PRIM-ER): 35 site pragmatic trial

Primary Palliative Care for Emergency Medicine (PRIM-ER):
goal of provider and system change

Theory of planned behaviour
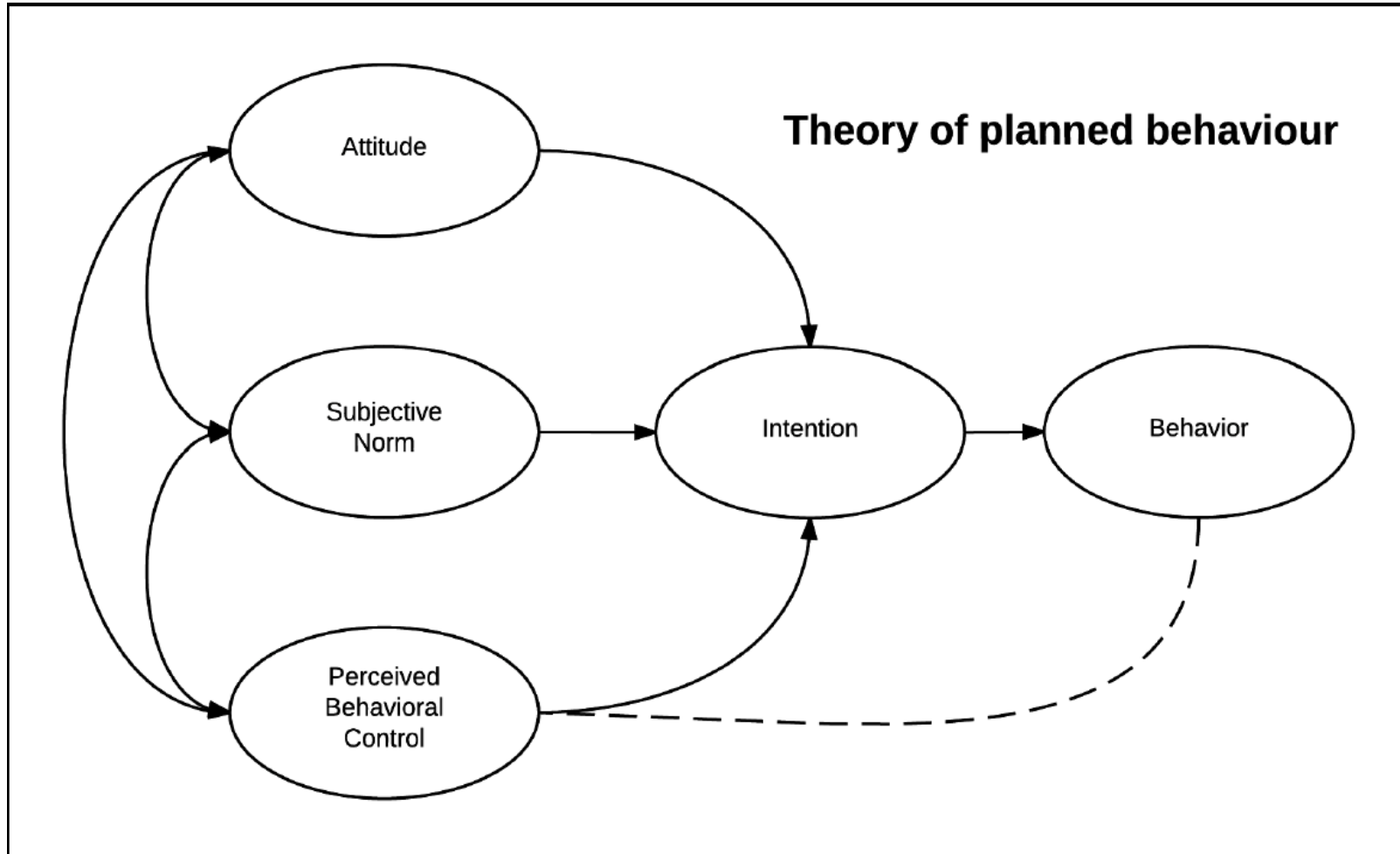
PRIM-ER Intervention Components

- Evidence-based, multidisciplinary primary palliative care education (EPEC-EM, ELNEC)
- Simulation-based workshops on communication in serious illness
- Clinical decision support; and
- Provider audit and feedback
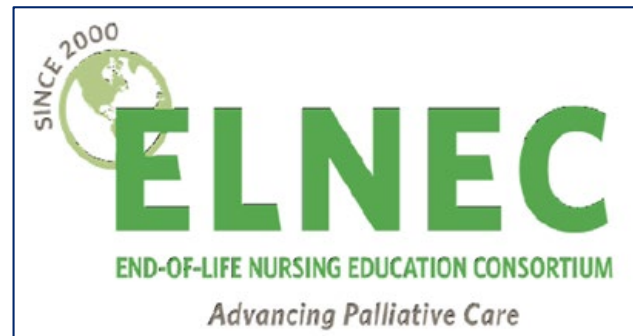
Primary and Secondary Outcomes

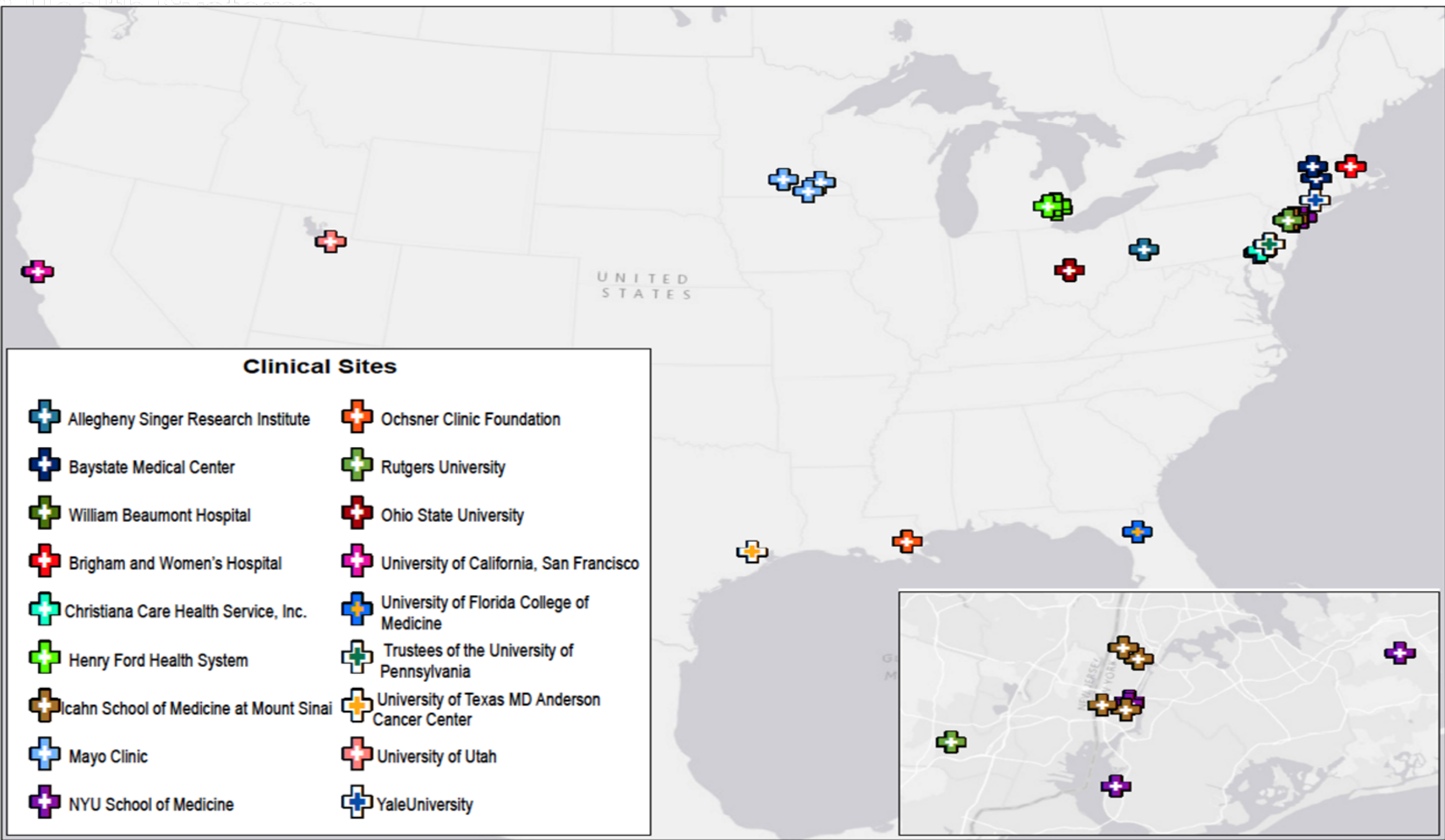| UH3 Aim	Variable	Instrument/Coding	Source	Time
3a.	Acute Care Admission	Yes/No (Inpatient, non-palliative admission)	Inpatient and Outpatient Research Identifiable Files (RIF)	Index ED visit
3b.	ED Revisit Inpatient Days Hospice Use Home Health Use	Count Count Yes/No Yes/No	Inpatient and Outpatient RIF Inpatient RIF Hospice RIF Home Health RIF	Up to 6 months from index ED visit Up to 6 months from index ED visit Up to 6 months from index ED visit Up to 6 months from index ED visit
3c.	Survival	Days (Count)	Vital Status RIF	Up to 6 months from index ED visit or death
*Primary and secondary outcomes to be measured as change in measures from baseline to 4 weeks post-implementation for UH3 Phase, Aim 3.				

Clinical Sites

- Allegheny Singer Research Institute
- Baystate Medical Center
- William Beaumont Hospital
- Brigham and Women's Hospital
- Christiana Care Health Service, Inc.
- Henry Ford Health System
- Icahn School of Medicine at Mount Sinai
- Mayo Clinic
- NYU School of Medicine
- Ochsner Clinic Foundation
- Rutgers University
- Ohio State University
- University of California, San Francisco
- University of Florida College of Medicine
- Trustees of the University of Pennsylvania
- University of Texas MD Anderson Cancer Center
- University of Utah
- YaleUniversity

Cluster Randomized, Stepped Wedge Trial at 35 EDs
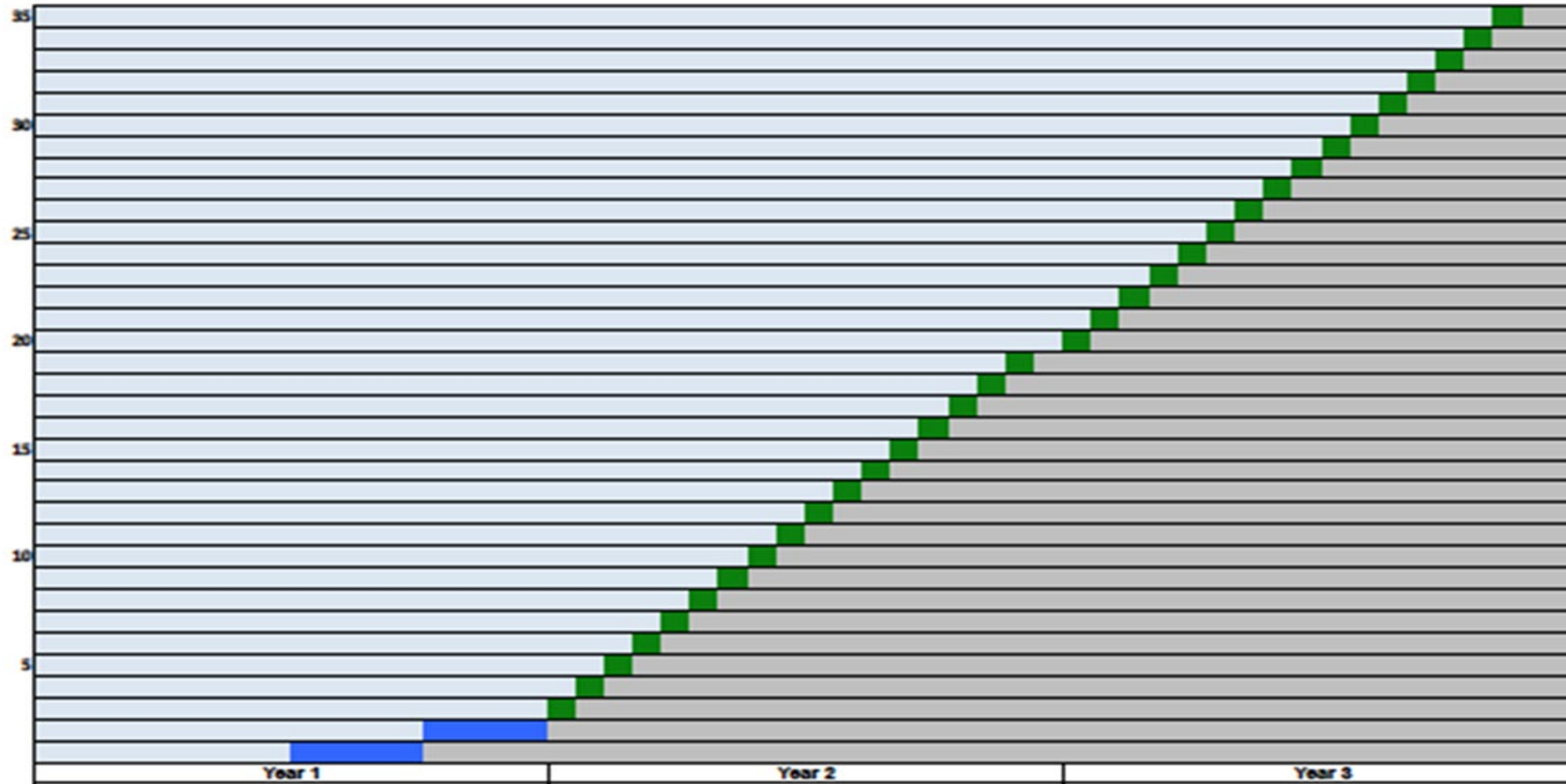
Data Collection
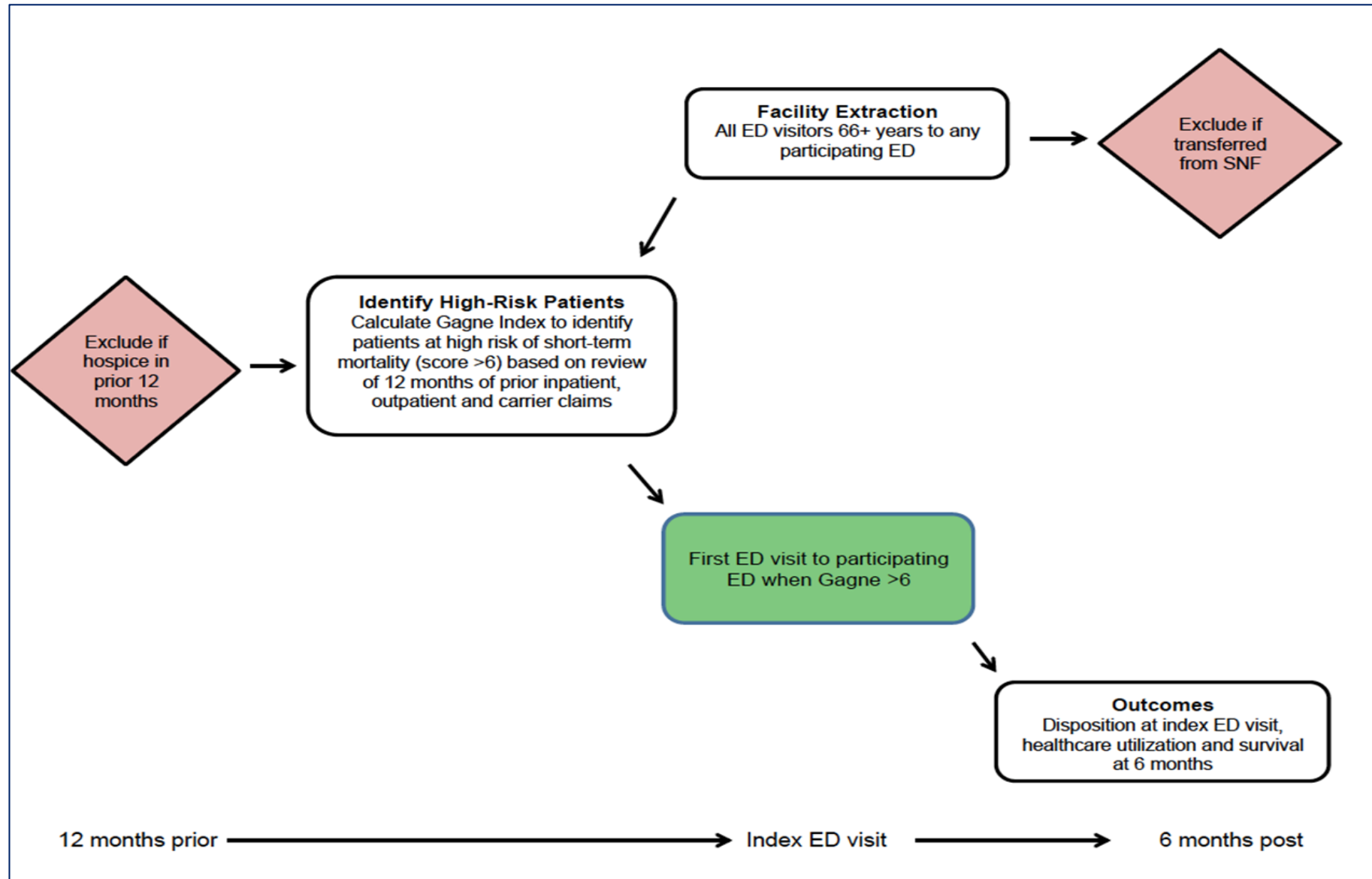
Implementation and Adaptations

- Beginning April 1, 2020 we took a 6-month study pause
    - Last site completed intervention December 6, 2021

- Simulation-based workshops on communication in serious illness (EM Talk)
    - virtual Zoom platform and breakout rooms for concurrent sessions

- ELNEC, CDS, and Audit and Feedback unchanged

Preliminary Results and Progress to Date

- Baseline survey at one month pre-implementation assessing knowledge, experience, and attitudes on palliative care and hospice (n=2,895)

- All 33 UH3 sites have completed the intervention

- Analyses in progress
    – Survey validation
    – Baseline survey results
    – Baseline outcome measures using Medicare claims
    – Alzheimer's supplement

- Post implementation
    – CDS changes and sustainability

Implementation Data

- Trained 2470 emergency providers
  - 879 physicians/APPs
  - 2,232 nurses
- All 33 sites reached the baseline survey completion rate (65%) of all emergency fulltime providers
- 32 reached physician/APPs training goal (75% of fulltime providers complete 4-hour EM Talk training)
- 31 reached nurse training goal (75% of fulltime nurses complete 1-hour ELNEC training)
- All 33 sites implemented at minimum one CDS tool and conducted audit and feedback
  - Ranged from passive banners to interruptive alerts
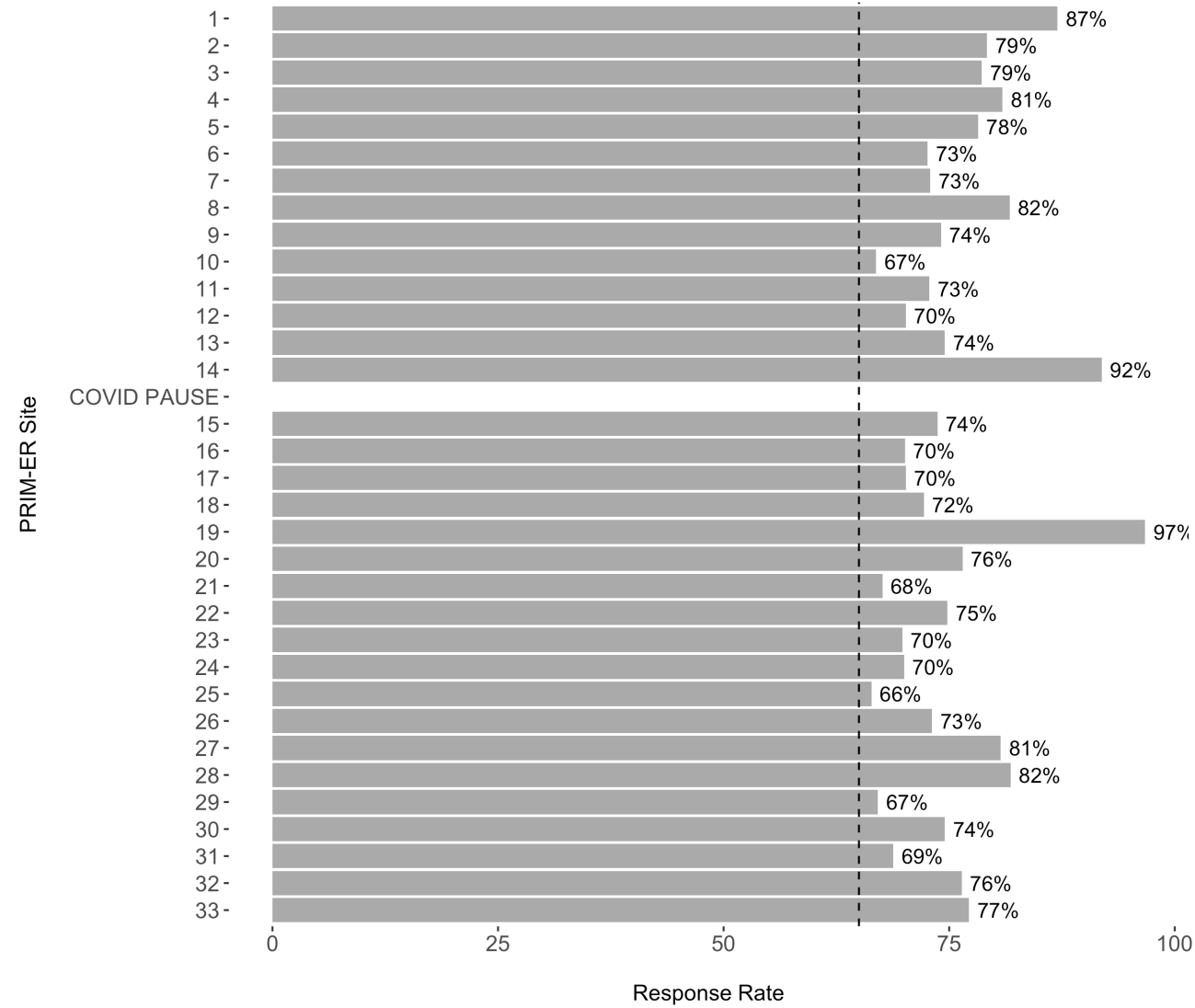
Provider attendance at EM Talk
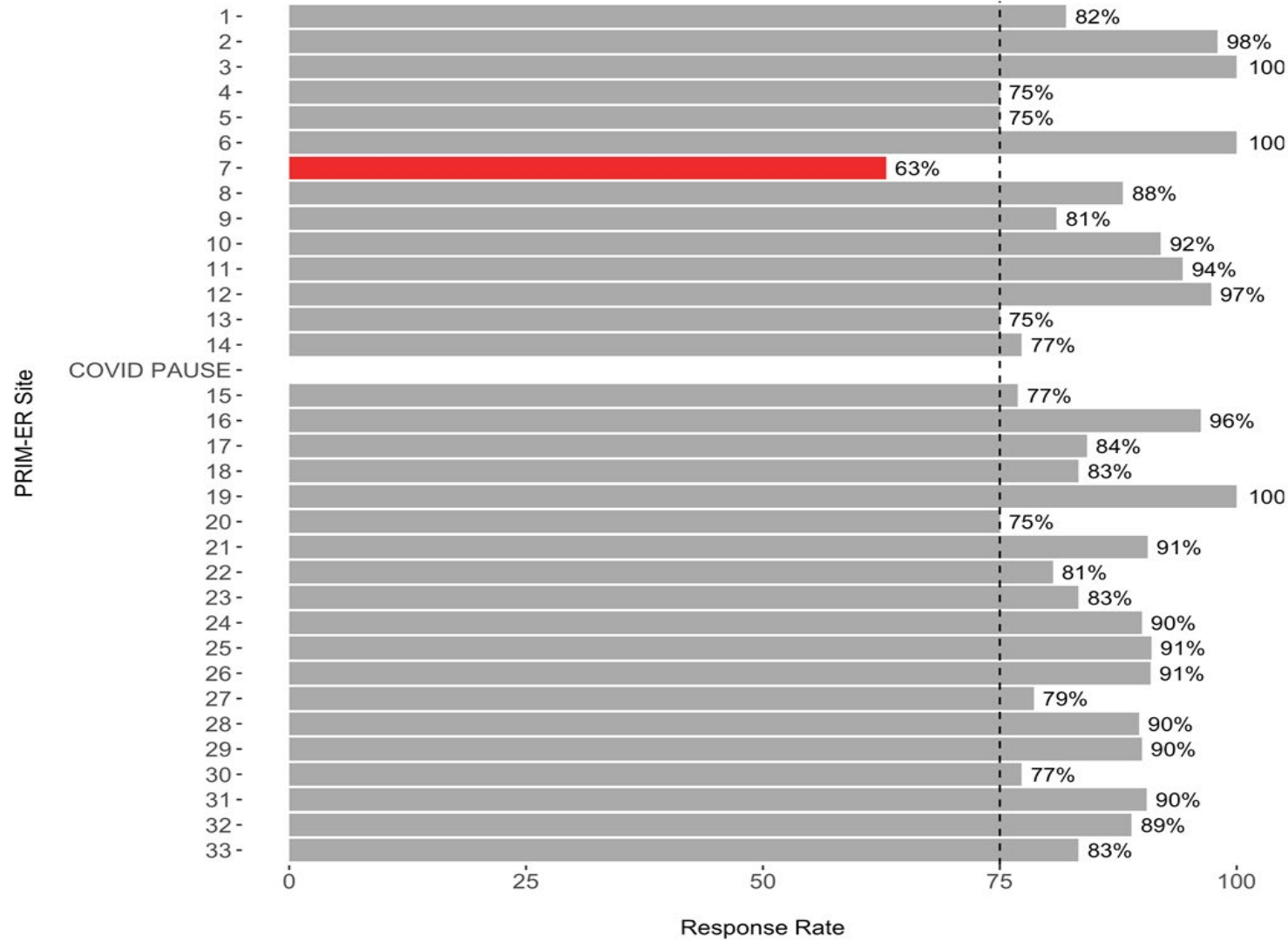
Nurse completion of ELNEC
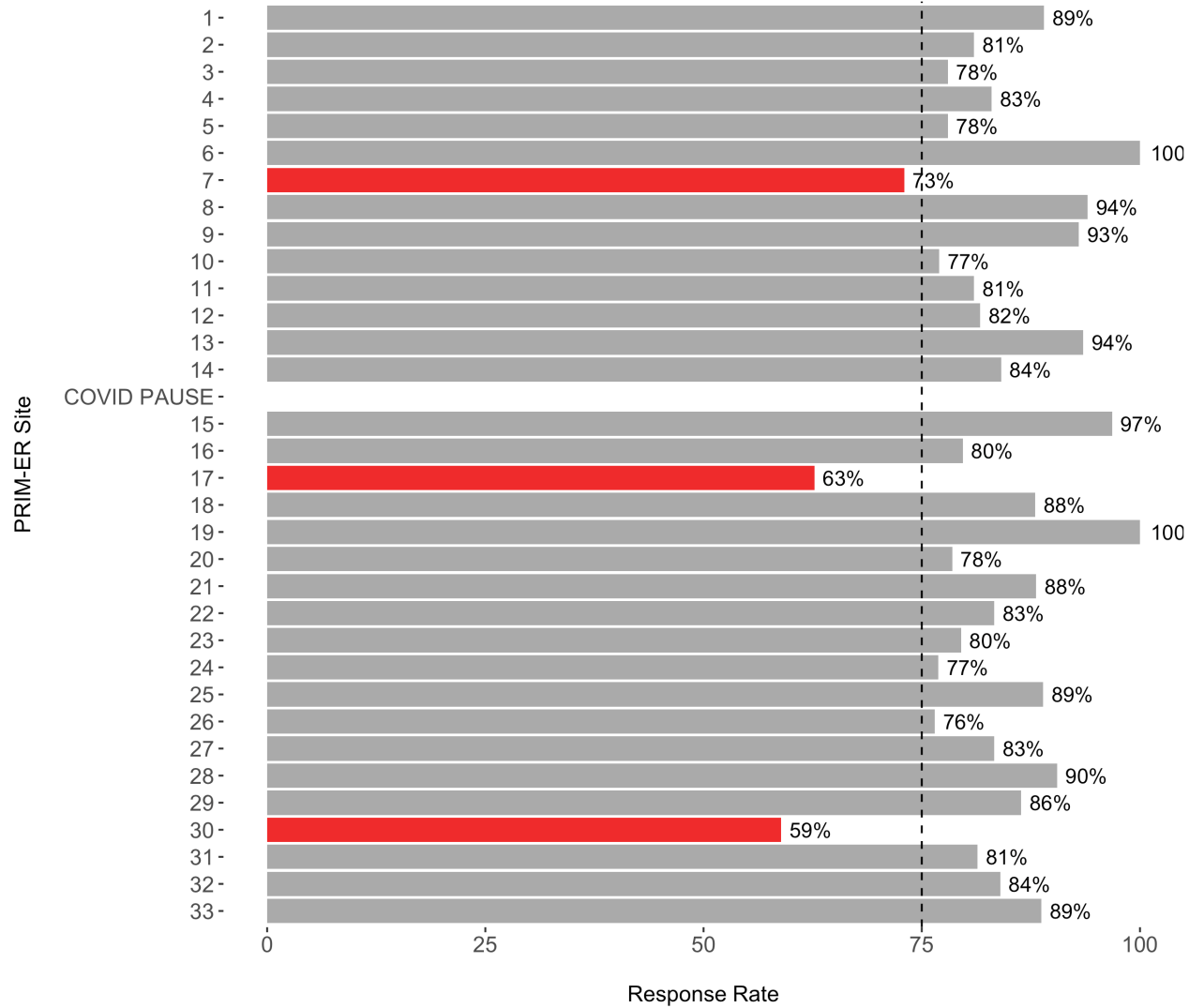
Clinical Decision Support at NYU Langone

Function 1. Identify seriously ill patients with advance care planning documents

Function 2. Identify patients on hospice

Function 3. Refer patients to interdisciplinary services

BestPractice Advisory - SupportiveCare,TestThree

⚠ **Active Hospice**

This patient has previously been referred to or enrolled with hospice services.Consult Social Work and consider Palliative Care consultation.

| Order | Do Not Order | 🛏 IP CONSULT TO SOCIAL WORK |
| Order | Do Not Order | 🛏 IP CONSULT TO PALLIATIVE CARE |

Acknowledge Reason ────────────────────────

| SW and Palliative Care Consults Ordered | No Order at this time |

✔ Accept   Dismiss

Function 4. Initiate goals of care conversation.

BestPractice Advisory - SupportiveCare,TestSixteen

⚠ Goals of Care Discussion Trigger (No eMOLST on file)

This patient **does not** have an eMOLST on file but does possibly have a serious life-limiting illness based on criteria met (see criteria in **blue** below).

Start a goals of care conversation.

Do you think this patient may die during this hospitalization?

OR

Do they have any one of the following?

- Worsening in functional status?
- Uncontrolled symptoms due to a life-limiting illness?
- Unclear goals of care?

If yes, then order a Social Work and Palliative Care Consult.
If no, then dismiss BPA.

Criteria met:

ECOG=4, Poor functional status

CDS Samples from other sites

BestPractice Advisories   Expand/Collapse All

⊘ PRIM-ER Alert!   Collapse

This patient may have a life-limiting illness, based on PRIM-ER criteria.

Discuss Goals of Care, if warranted.

Please involve SW/CM to assist with appropriate referrals and services.

Restore | ✓ Close | ↑ Previous | ↓ Next

ED Visit

Refresh | Doc to Doc | Print AVS | Tx Team | Quick Vitals | Validate Data by Device | Review Visit | Consult Update

Document Disposition Clinical Scores

35 patients have a name similar to this.

BANNERS
Banners

MYNOTE
First Provider Eval
Chief Complaint

⊟ Banners

Palliative Care Candidate: Please start a goals of care discussion

---

⊘ Active or Previous Hospice

PREVIOUS OR ACTIVE HOSPICE: This patient has previously been referred to or is enrolled with hospice services. Evaluate for social needs and notify hospice services, if appropriate.

❶ Acknowledge Reason

Acknowledged

Audit and Feedback at NYU Langone
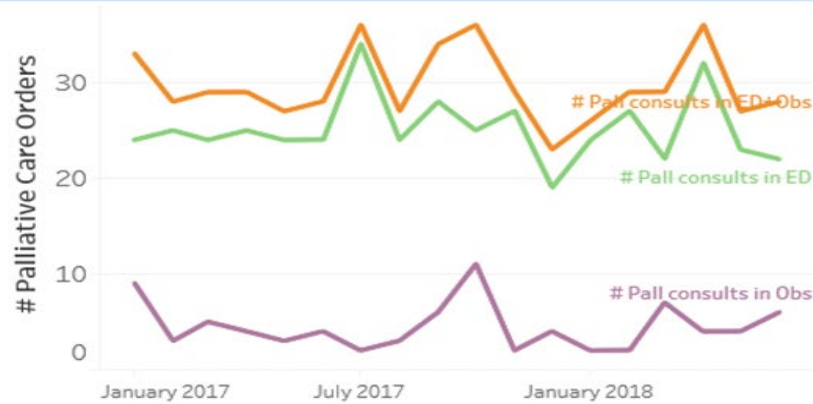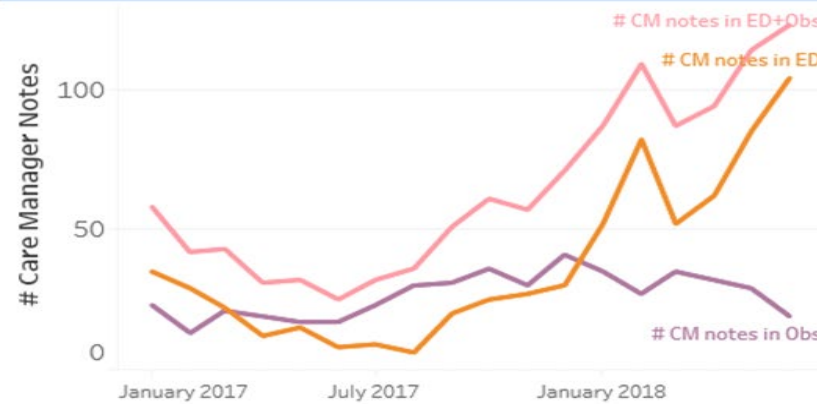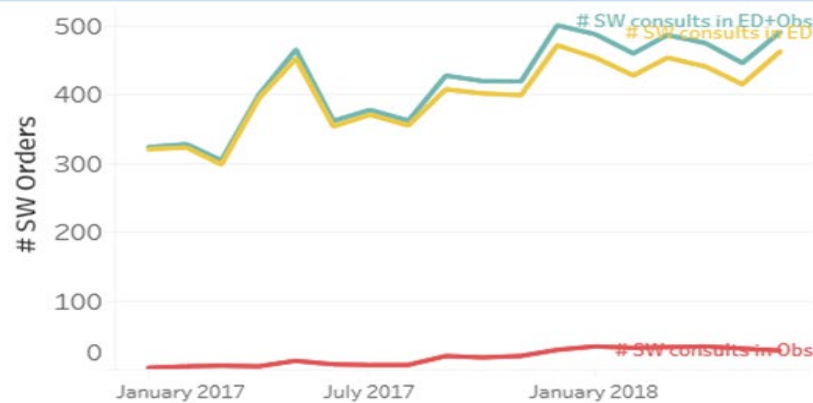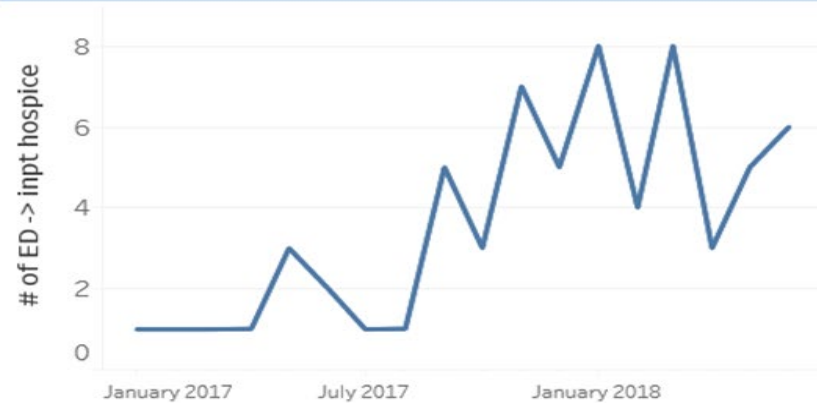
Methods: Emergency Provider Knowledge, Experience, and Attitudes Toward Palliative Care

- July 23, 2018– October 13, 2021, across 34 EDs in 14 states
- Cross-sectional (N=3,064)
- Score 10 to 50; higher score suggest greater knowledge, experience and more positive attitudes toward palliative care
- Linear mixed methods with EDs as random effects with individual characteristics used as fixed predictors.
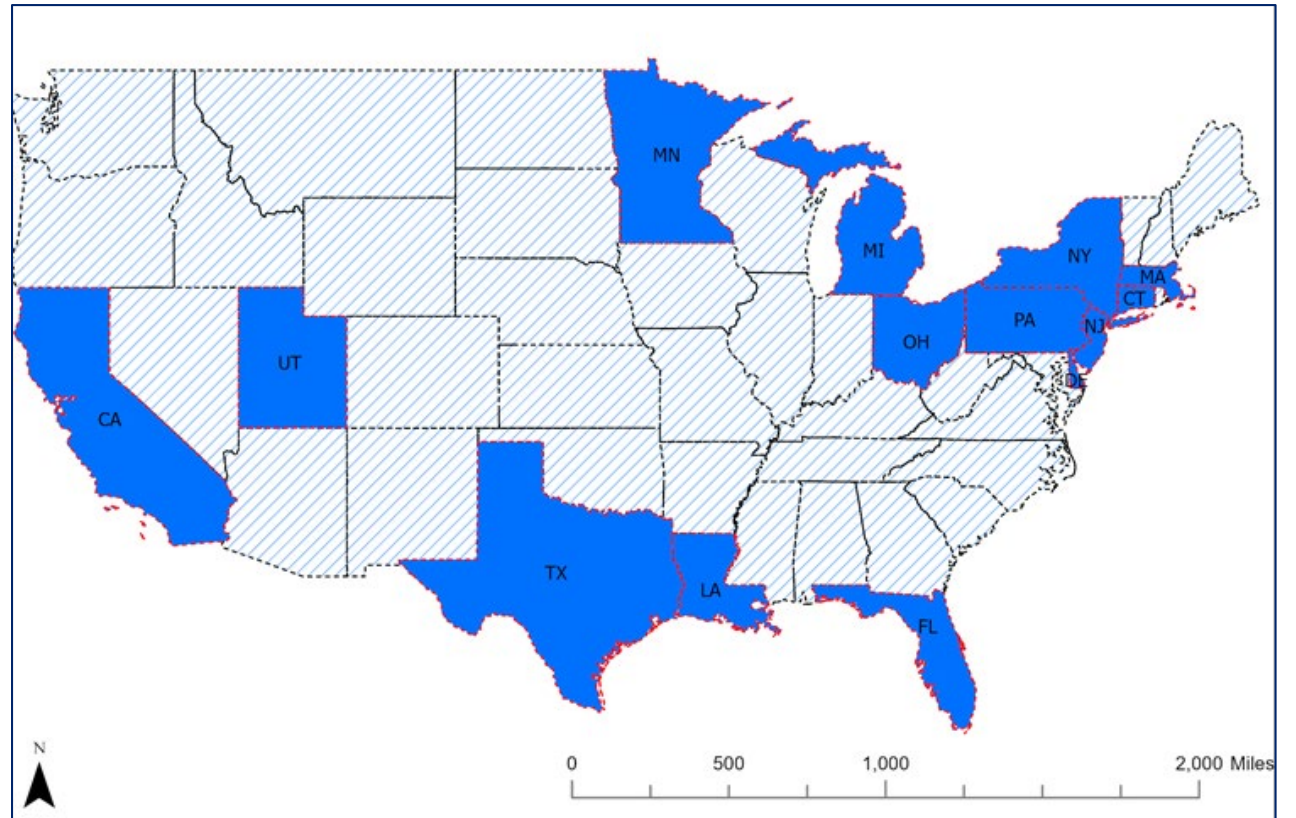
Results: Emergency Provider's Knowledge, Experience and Attitudes Toward Palliative Care

- Older age was associated with greater knowledge, experience and attitudes toward palliative care
- Hispanic and NH Blacks had lesser knowledge, experience and attitudes toward palliative care
- Physicians had greater knowledge, experience and attitudes toward palliative care compared to nurses
- As the practice years increase, greater knowledge, experience and attitudes toward palliative care
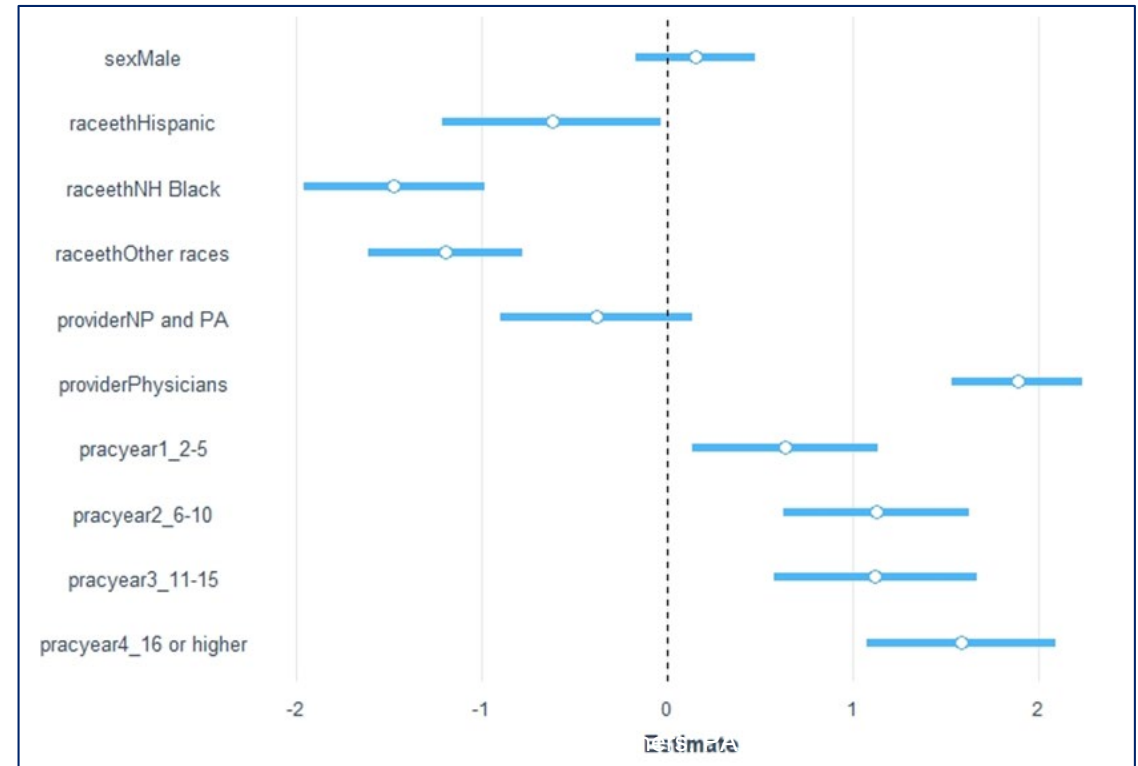
Reference group = Denominator

Measuring the Intensity of Emergency Care Using Medicare Claims for Older Adults with Serious Life-Limiting Illness

Sample:
Adults ≥66 years old with greater than 30% predicted one-year mortality who visited one of 37 EDs from January 1, 2014 and December 31, 2019 (Pre COVID-19)

Outcomes:
ED disposition at index visit
ED revisits, Inpatient Days, Hospice Use and Home Health Use at 12 months
Survival up to 12 months

Characteristics

- Average age at the index visit was 78.6 years old
- 27% 85 years and older
- Average Gagne score of 8.7
- HTN common chronic condition
- 30% metastatic cancer

Age (Mean, SD)	78.6 (8.4)
Age in Categories (N, %)	
66-69	20,619 (17.6)
70-74	23,262 (19.8)
75-79	21,740 (18.5)
80-84	19,777 (16.9)
85+	31,882 (27.2)
Gender (N, %)	
Female	58,617 (50.0)
Male	58,863 (50.0)
Race/ethnicity (N, %)	
White	90,117 (76.8)
Black	18,449 (15.7)
Hispanic	2,012 (1.7)
Asian	2,975 (2.5)
Other[a]	3,727 (3.2)
Gagne Score (Mean, SD)	8.7 (2.0)
Chronic conditions (N, %)[b]	
Hypertension	107,430 (91.6)
Cardiac arrhythmias	93,289 (79.5)
Anemia	89,660 (76.4)
Congestive heart failure	84,114 (71.7)
Peripheral vascular disease	70,940 (60.5)
Renal failure	70,155 (59.8)
Chronic pulmonary disease	64,148 (54.7)
Any tumors	61,674 (52.6)
Diabetes	48,202 (41.1)
Dementia	37,945 (32.4)
Pulmonary circulation disorders	35,946 (30.6)
Metastatic cancer	35,550 (30.3)
Total	117,280

[a]Other includes North American Native, Other, and Unknown
[b]Categories are not mutually exclusive

Results

- Of the 117,280 index ED visits, majority of patients were discharged to acute care (61.6%; n=72,279).

- Very few discharged directly to hospice.

- In the 12 months following their index visit, 17.3% of older adults were admitted to hospice.

- Over a third of the sample (39.1%) died within 12 months of their index ED visit.

Index visits (N, %)	117,280 (100.0)
ED Disposition (N, %)	
Acute Care	72,279 (61.6)
Non-ICU	62,542 (86.5)
ICU	9,737 (13.5)
Home Health	1,227 (1.1)
Hospice	193 (0.2)
Home	40,192 (34.3)
Other[a]	3,389 (2.9)
Healthcare Utilization	
ED visits post-index (Mean, SD)	
Visits (Mean, SD)	1.1 (2.6)
1+ visit (N, %)	53,017 (45.2)
Inpatient stays post-index	
Visits (Mean, SD)	1.1 (1.6)
1+ visit (N, %)	63,392 (54.1)
Length of Stay (Mean, SD)	6.6 (7.9)
Hospice Admissions (N, %)	20,342 (17.3)
Death	
Number (%)	45,810 (39.1)
Time from index (median days)	81.0
Total	117,280

ED visits post-index, inpatient stays post-index, hospice admissions and deaths are calculated within a 12-month timeframe after the index visit

a. Examples of "other," ED distribution options include transferred to skilled nursing facility, discharged to intermediate care, or left against medical advice.

Next steps

- Receive final quarterly claims data
- Establish post-intervention primary and secondary outcomes at all sites
- Merge provider, institutional, and patient level data for final analyses
- Conduct final multi-level analyses on primary and secondary outcomes
- Perform sensitivity analyses

Emergency Medicine Palliative Care Access (EMPallA)

- Pragmatic, two-arm, multi-site randomized controlled trial
- 1,350 adults, 50+ years with advanced cancer or end-stage organ failure
- Recruited during an ED visit, and randomized to nurse-led telephonic case management or specialty outpatient palliative care
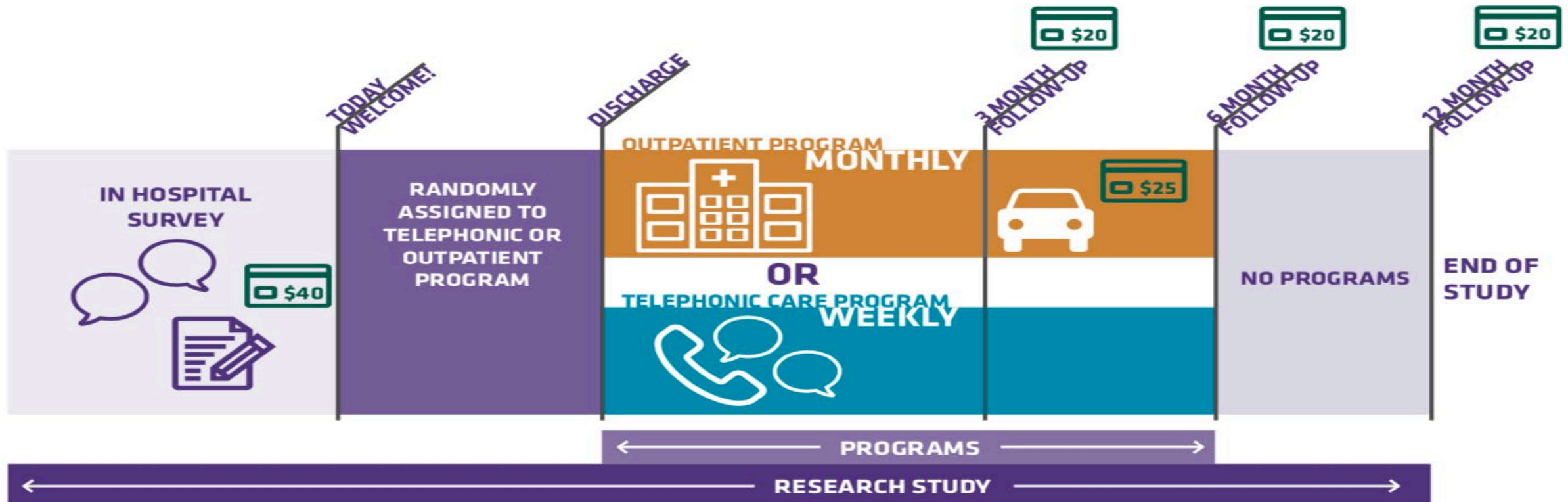
19 Study Sites Across 9 States

Outcomes

Aim	Outcome	Variable(s)	Source
1	Primary	- Patient Quality of Life	Patient interview (FACT-G)
2	Secondary	- ED Revisit - Inpatient Days - Hospice Use	Electronic Health Record (EHR)/self report
3	Secondary	- Loneliness - Symptom Burden	Patient interview (3 item Loneliness questionnaire , ESAS-r)
4	Secondary	- Caregiver Strain - Caregiver Quality of Life - Bereavement	Caregiver interview (ZBI-12)

FACT-G: Functional Assessment of Cancer Therapy-General
ESAS-r: Edmonton Symptom Assessment System-Revised
ZBI-12: Zarit Burden Interview

COVID-19 Study Adaptations

- Loosened caregiver inclusion
- Updated intervention aim to compare by provider type and mode of delivery
- 24-hour report to identify patients discharged overnight hours
- Developed attrition mitigation plan to provide the option for patients to complete only the primary outcome
- Telephonic recruitment

Progress to Date

- Pre-determined recruitment goal of 1,350 patients reached July 1, 2022
- 2862/1350 (47%) qualified patients were willing to participate
- 806/1244 (65%) out of those who enrolled completed the research survey follow-up at 6 months
  - 184/1244 (15%) died
  - 254/1244 (20%) withdrew from the study or unable to be reached
- Fidelity to the interventions
  - Nurse-led arm: 426/602 (71%) engaged in the program at 6 months
  - Outpatient arm: 338/466 (73%) attended at least one visit during the intervention period of those who do not die, go to hospice, or withdrew from the program within the first month

Results: Specialty Outpatient Palliative Care

- Checklists
  - elements of outpatient palliative care that are generalizable across clinical sites
  - consensus about standardized instruments used to assess domains within outpatient palliative care
  - intervention checklist to document outpatient visit elements

Instructions: Document or check all that apply (what interventions did you provide during visit?)

Physical
- ☐ Pharmacotherapy management offered/adjusted for pain
- ☐ Pharmacotherapy for non-pain symptoms
- ☐ Non-pharmacologic interventions for pain
- ☐ Non-pharmacologic interventions for symptoms other than pain
- ☐ Medical marijuana certification
- ☐ In-office interventional procedures (such as joint injections, trigger point injections, paracentesis, thoracentesis etc.)
- ☐ Referral for massage, acupuncture, physical therapy/occupational therapy
- ☐ Referral for cognitive behavioral therapy, biofeedback
- ☐ Other:

Psychosocial
- ☐ Explored understanding of illness and treatments
- ☐ Explored how patient/family like information shared
- ☐ Explored hopes and worries
- ☐ Educated about or encouraged mindfulness techniques
- ☐ Guided imagery
- ☐ Guidance on reframing, cognitive behavioral techniques
- ☐ Mental health referral for patient (psychology, social work, support groups)
- ☐ Mental health treatment encouraged for caregiver (psychology, social work, support groups)
- ☐ Referral for counseling, support groups
- ☐ Referral for concrete home or community based services
- ☐ Referral for medico-legal partnership service or legal support
- ☐ Other:

Bedside behavior and intervention
- ☐ Supportive statements, validation/naming of emotions, non-abandonment statements
- ☐ Therapeutic listening
- ☐ Therapeutic touch (hand holding, hand on shoulder)
- ☐ Other:

Spiritual
- ☐ Exploring what brings life meaning
- ☐ Exploring religious and spiritual beliefs that will inform care
- ☐ Life review conversations
- ☐ Contacting spiritual provider outside or within hospital to connect with patients during visits or after visits
- ☐ Other:

Quality/End of Life Planning
- ☐ Care Preferences discussed and documented
- ☐ Advance directives forms completed: (list which forms completed)
- ☐ Hospice referral
- ☐ Home care referral
- ☐ Other:

Analysis In Progress: Specialty Outpatient Palliative Care

- What factors impact outpatient attendance in the EMPallA intervention?
- Three domains:

Domain 1: Health System
Embedded vs not (clinic)
Urban vs rural
US Region
State average household income

Domain 2: Provider or Clinic
Nurse Practitioners see EMPallA patients
Zip code of clinic
Option for tele-health at first visit (2020+)
Option for tele-health at subsequent visits (2020+)
Scheduler structure
Research team engagement with scheduling (Outpatient Log attempts in REDCap)

Domain 3: Patient
Engagement (# visits)
Distance of Patient's address to clinic
Demographics
Advanced illness type
Baseline loneliness
Baseline quality of life
Baseline symptom burden
Presence of a caregiver
Patient availability
Baseline residence type

Results: Nurse-led Telephonic Palliative Care

- Of the first 100 program graduates:
  - 78% were actively engaged
  - 51% named a health care agent and engaged in ACP
- Of the 18 patients who died during the study, 13 (72%) were enrolled in hospice

Results: Baseline Characteristics

- Between April 2018 and April 3, 2020, 500 patients enrolled
- Differences by disease type
  - End-stage organ failure patients had lower QOL than cancer patients with an estimated difference of 9.6 points (95% CI: 5.9, 13.3)
  - Patients with multiple conditions had a further reduction of 7.4 points (95% CI: 2.4, 12.5), after adjusting for age, education level, race, sex, immigrant status, presence of a caregiver, and hospital setting
  - Symptom burden and loneliness were greater in end-stage organ failure than in cancer

Upcoming Milestones

Milestone	Description	Date
6-month follow-up data collection complete	End of collection of 6-month follow-up data for all enrolled patients.	12/31/22
12-month follow-up data collection complete	End of collection of 6-month follow-up data for all enrolled patients	7/31/23
Data cleaning and analysis		12/31/24
Dissemination		12/31/25

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- Senem Suzek, MA
- Kaitlyn Van Allen, MPH
- Rebeca Yamarik, MD, MPH, HMDC, FAAHPM

EMPallA Site Principal Investigators	
Atlantic Health	Anar Shah, MD, Brenda Matti-Orozco, MD
Brigham and Women's Hospital	Kei Ouchi, MD, MPH, Joshua Lakin, MD
Hackensack University Medical Center	Chinwe Ogedegbe, MD, Jose Contreras, MD
Henry Ford Health System	Erin Zimny, MD, David Henkin, MD
Northwestern University	Scott Dresden, MD, MS, Melanie Smith, MD
NYU School of Medicine	Nancy Bael, MD, Tiny Varghese, MD, Elena Kuzin, Arum Kim, MD, FAAPMR, Joseph Lowy, MD, Jennifer Scherer, MD, Jeffrey Berger, MD
The Ohio State University- Wexner Medical Center	Jason Bischof, MD, Erin Stevens, DO
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University of California Los Angeles	Richelle Cooper, MD, MSHS, Christopher Pietras, MD
University of California San Diego	Christopher Coyne, MD, Kira Skavinski, DO
University of Florida, Shands	Carolyn K. Holland, MS, Med, FACEP, FAAP, Paige Barger, MD
Yale New Haven Health System	Karen Jubanyik, MD, Dmitry Kozhevnikov, DO
EMPallA Study Advisory Committee	Romilla Batra, MD, MBA, Juanita Booker-Vaughns, EdD, Med, Garrett K Chan, PhD, APRN, FAEN, FPCN, FNAP, FAAN, Patrick Dunn, PhD, MS, MBA, Robert Galvin, MD, MBA, Ernest A. Hopkins III, Eric David Isaacs, MD, FACEP, FAAEM, Constance L. Kizzie-Gillet, Margaret M. Maguire, JD, Neha Reddy Pidatala, MBBS, Dawn Rosini, William K. Vaughan, Sally Welsh, MSN, RN, NEA-BC, Pluscedia G. Williams, Angela Young-Brinn, MBA, Martha Navarro
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African Proverb

If you want to go fast, go alone.
If you want to go far, go together.