จุฬาลงกรณ์มหาวิทยาลัย
Chulalongkorn University

Advance Care Planning and End-of-Life Care for Patients with Chronic Illness

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CAMBIA PALLIATIVE CARE CENTER OF EXCELLENCE
UNIVERSITY of WASHINGTON

Outlines

- Background
- Methods
- Findings
- Taking Lessons to Thai Healthcare System
- Acknowledgement

Definition of Palliative Care

Specialized care for **patients and family** facing the problem associated with **life-threatening illness**.

Goal is to provide **an extra layer of support** and relief from the symptom and stress of a life-threatening condition.

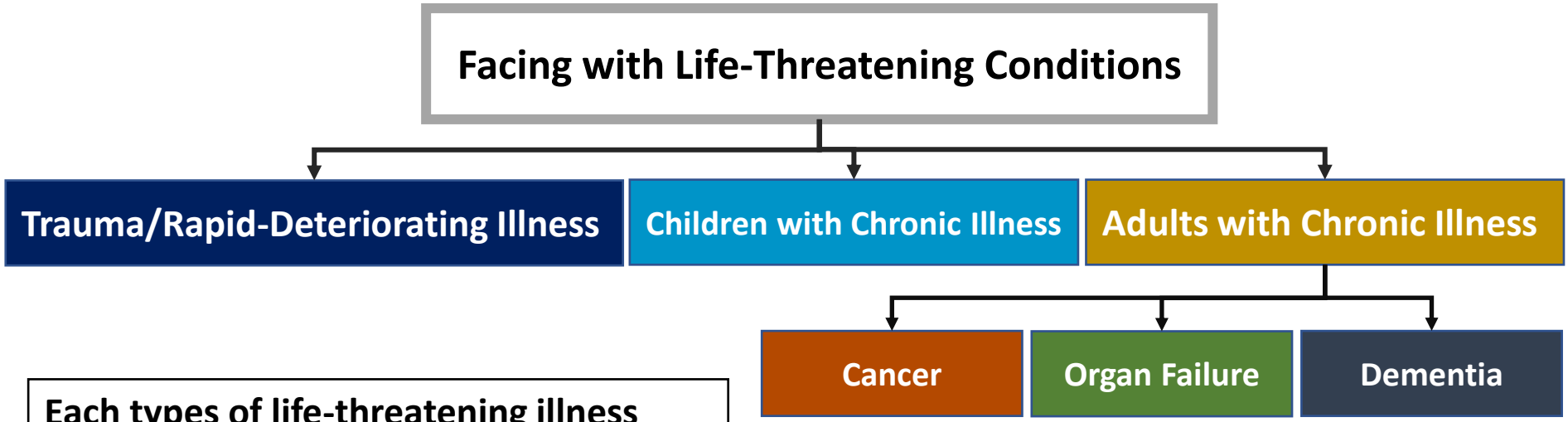
Palliative care is appropriate at any age and at any stage in a serious illness, and can be **provided together with curative treatment**

Center to Advance Palliative Care (CAPC)
The World Health Organization (WHO)

Four Key Aspects of Palliative Care

- Medical care
- Goals of care and Advance Care Planning
- Pain and symptom management
- Psychosocial and spiritual support

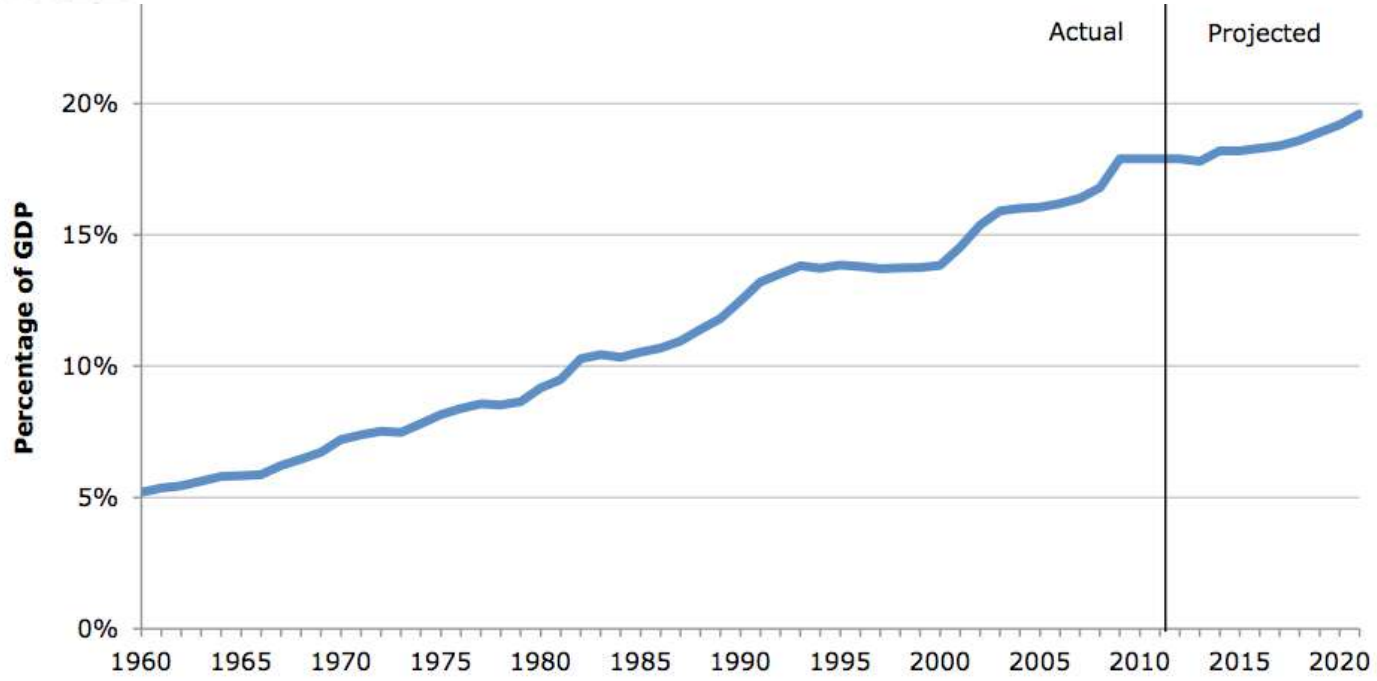
Visualization of Patients Who Need Palliative Care



Each types of life-threatening illness require unique focus of palliative care.

Current Challenges in Chronic Care Model

Figure 2: U.S. National Health Expenditures as a Share of GDP, 1960-2021



Source: Centers for Medicare and Medicaid Services.

Rising healthcare cost for chronically ills

NOTE: Excludes Medicare Advantage enrollees.
SOURCE: Kaiser Family Foundation analysis of the Medicare Current Beneficiary Survey 2010 Cost and Use file.

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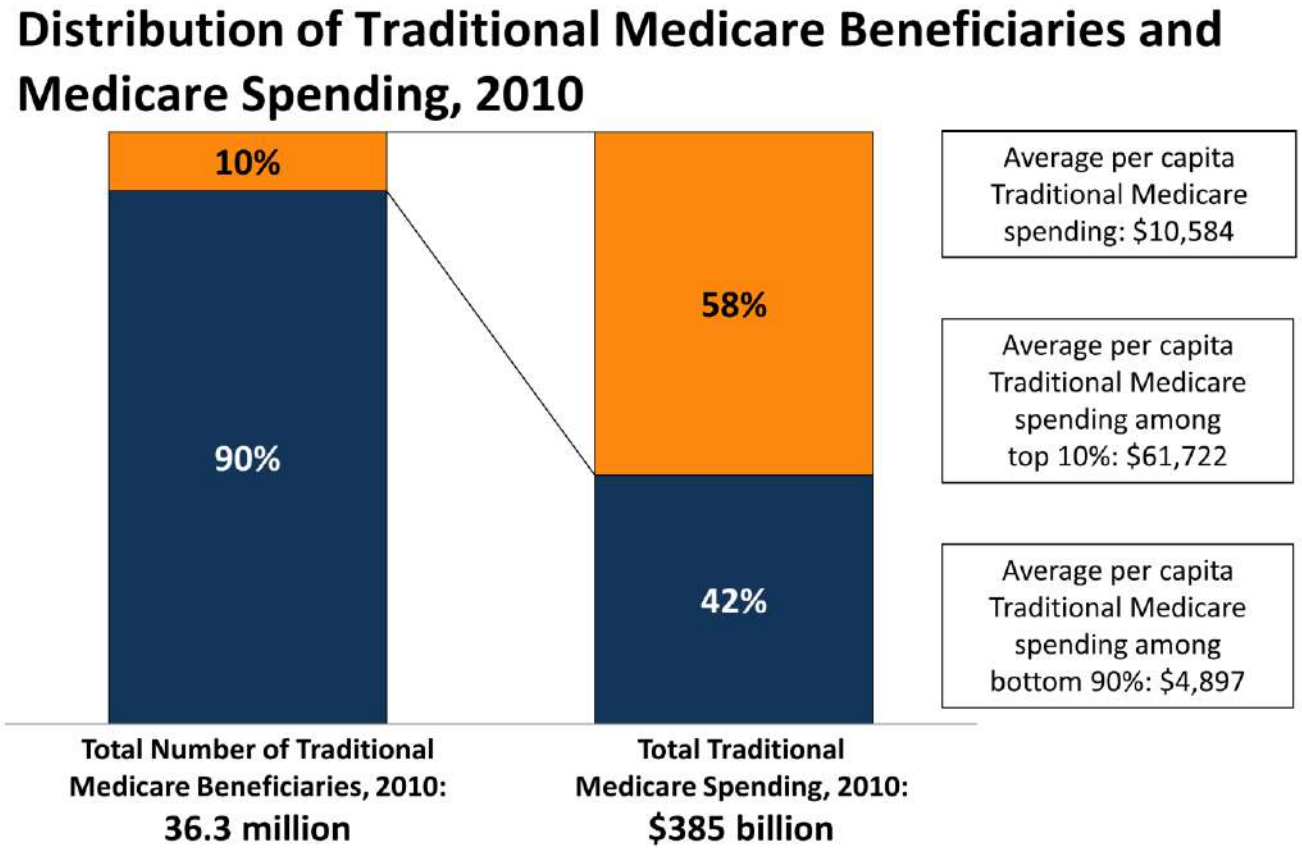
Current Challenges in Chronic Care Model



Disproportion of healthcare resource distribution

NOTE: Excludes Medicare Advantage enrollees.
SOURCE: Kaiser Family Foundation analysis of the Medicare Current Beneficiary Survey 2010 Cost and Use file.

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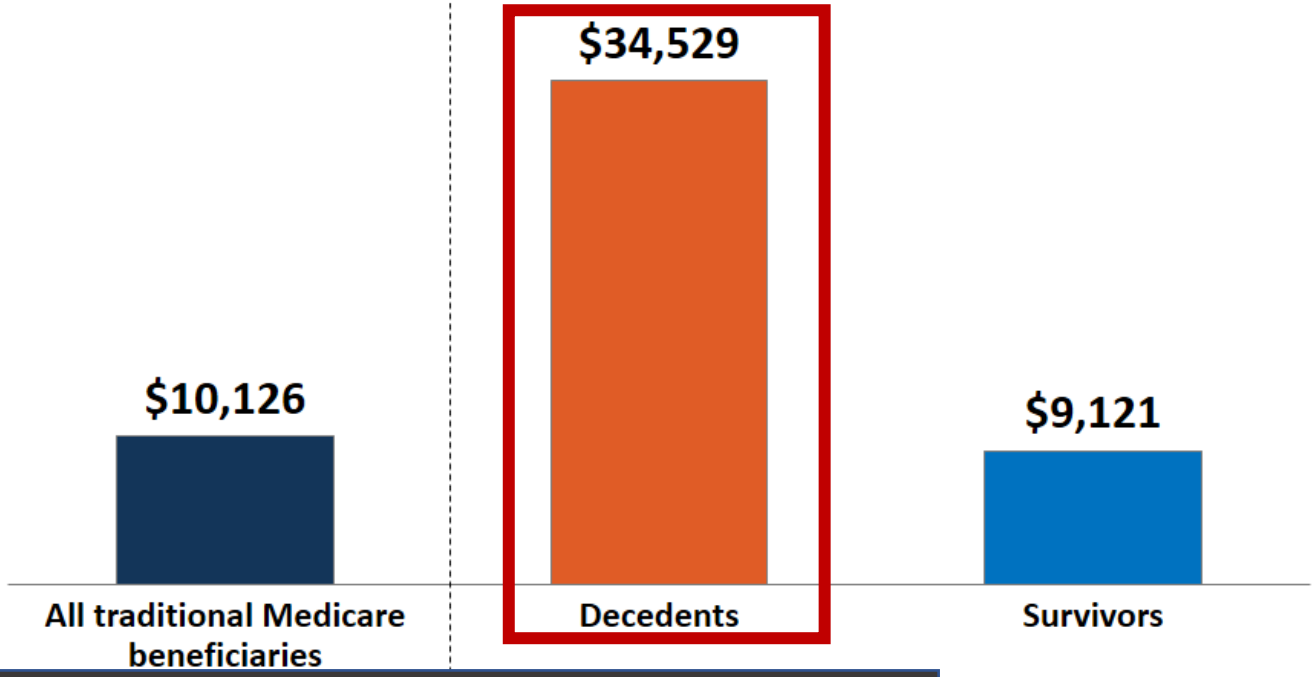
Current Challenges in Chronic Care Model

Medicare per capita spending was nearly four times higher for decedents than survivors in 2014

Average Medicare per capita spending for decedents and survivors in traditional Medicare, 2014



Identification of High need, high cost population

NOTE: Excludes beneficiaries in Medicare Advantage.
SOURCE: Kaiser Family Foundation analysis of a five percent sample of 2014 Medicare claims from the CMS Chronic Conditions Data Warehouse.

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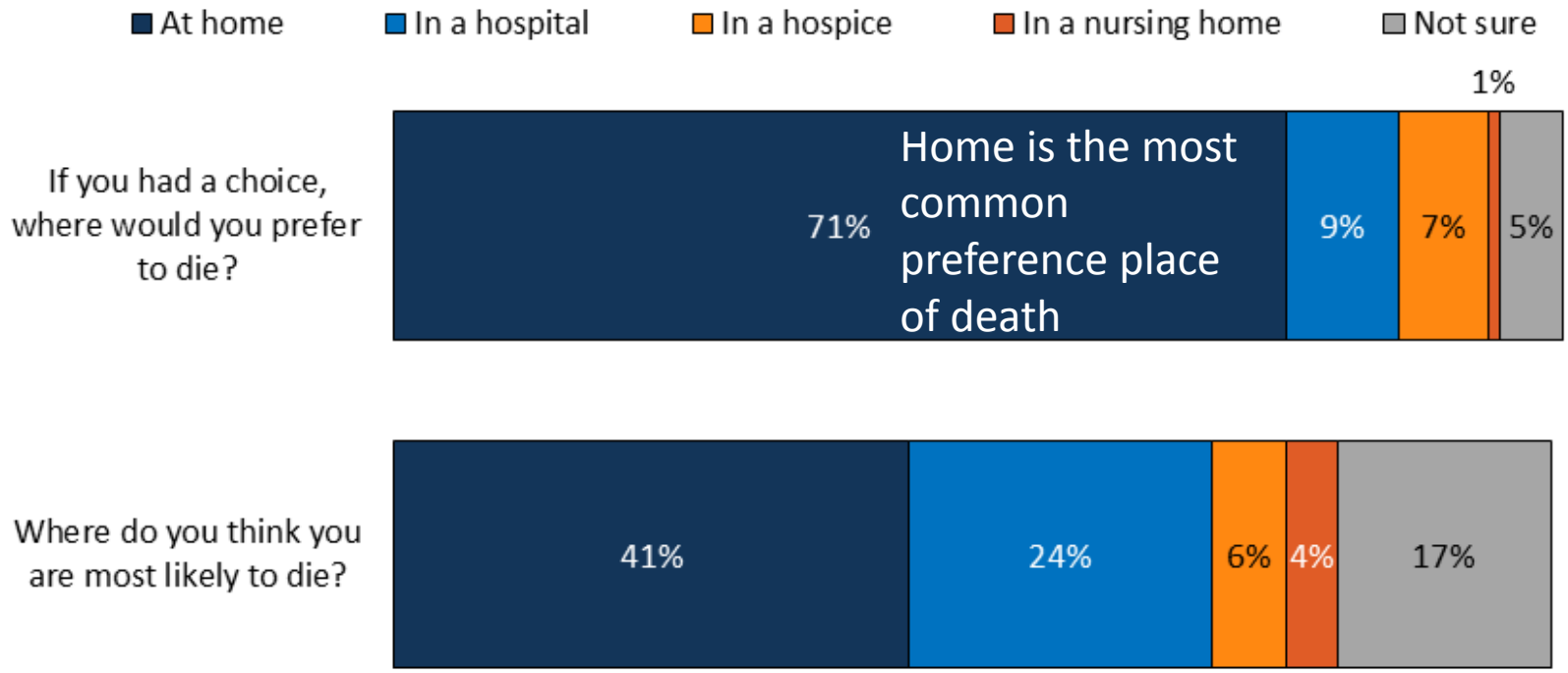
Current Challenges in Chronic Care Model

Seven in Ten Americans Would Prefer to Die at Home; Four in Ten Think They Are Likely to Die at Home



NOTE: "Other/Not sure" includes those who said "Both (Vol.)/Neither (Vol.)" or did not answer. For the second question, Not sure/No answer responses not shown.

SOURCE: Kaiser Family Foundation/The Economist Four-Country Survey of Aging and End-of-Life Medical Care (conducted March 30-May 29, 2016)

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Estimating the Effect of Palliative Care Interventions and Advance Care Planning on ICU Utilization: A Systematic Review*

Nita Khandelwal, MD, MS[1]; Erin K. Kross, MD[2]; Ruth A. Engelberg, PhD[2]; Norma B. Coe, PhD[3]; Ann C. Long, MD[2]; J. Randall Curtis, MD, MPH[2]

- Systematic review of palliative care, critical care, costs
- Intervention: ACP interventions **in hospital** before ICU
- 2 randomized trials and 2 observational studies
- RCT results:
  - Gade (2008): reduce ICU admits at 10% vs. 5%, p=0.04
  - Detering (2010): reduce ICU admits 10% vs. 0%, p=0.01
- Observational study results
  - Penrod (2006): reduce ICU admits 68% vs. 33%, p<0.001
  - Penrod (2010): 44% reduction, p<0.001

(*Crit Care Med* 2015; 43:1102–1111)

Research Objectives

- Examine temporal changes in intensity of end-of-life care and place of death from 2010-2015 at UW Medicine
- Examine association between advance care planning documentation and end of life care.

Cambia Palliative Care Quality Metric Program

- Design: A Retrospective Cohort
- Data Sources
  1. UW Medicine Healthcare System EHR
  2. Washington State Death Certificate

Study Subjects

- Patients **aged ≥18 years** with **at least 1 of 9 chronic conditions** (cancer, COPD, CHF, CAD, chronic liver disease, chronic renal disease, dementia, PVD, dementia) who **died** between 2010-2015

- Patients **attributable to the UW Medicine system** defined as having 1+ non-surgical inpatient visit or 2+ outpatient visits within last 24 months of life

18 Quality Metrics and 4 Study Outcomes

Utilization at EOL

1. ED visits in last 30 days
2. Inpatient in last 30 days
3. ICU stay in last 30 days
4. Hospital Readmissions
5. Chemo in last 14 days

Circumstances of Death

6. Died in hospital
7. Died in hospital w/ ICU days
8. Died after planned ICD deactivation
9. Died w/ cancer & no hospice
10. Died w/ <3 days in hospice

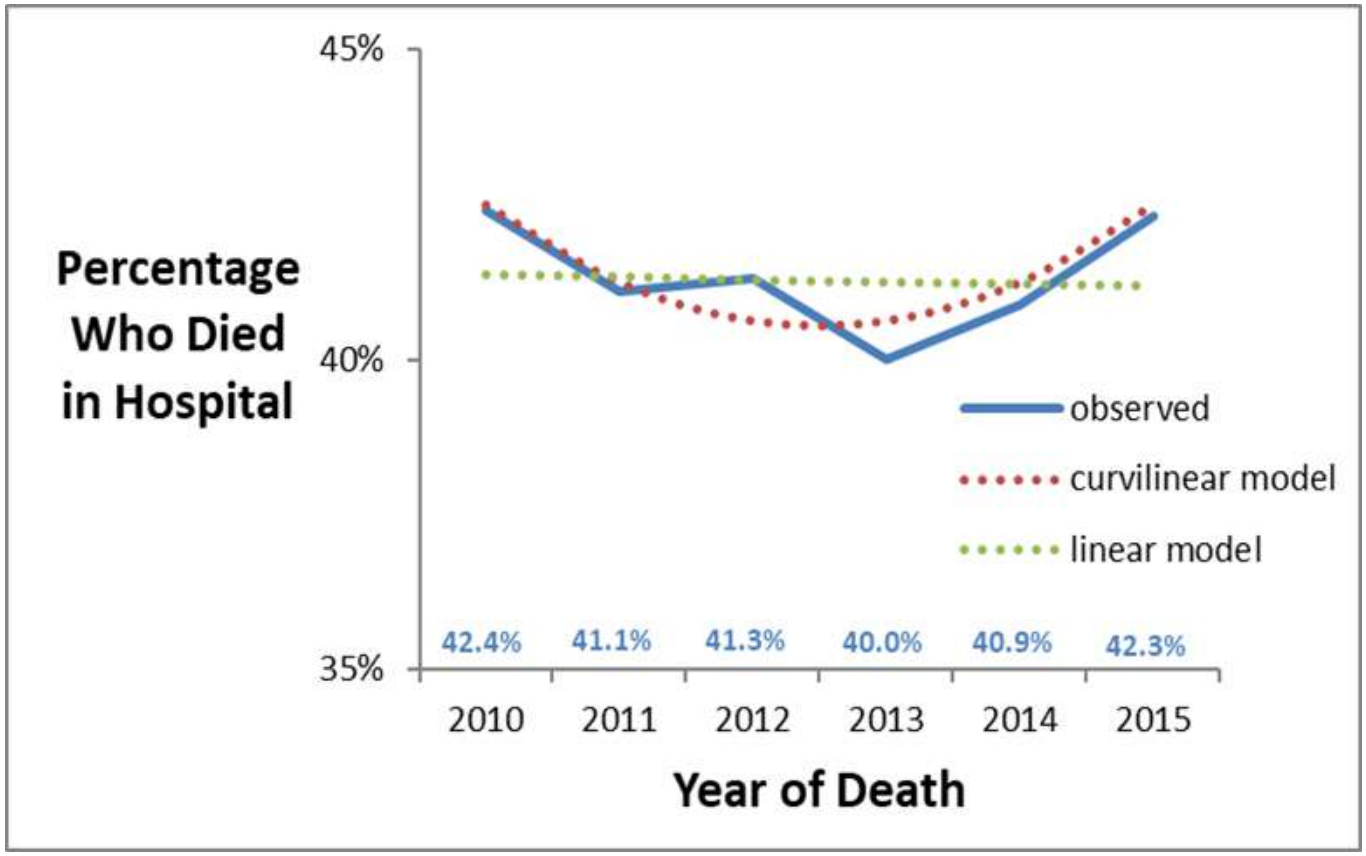
Screening/Assessment

11. Completed comprehensive assessment, including prognosis, function, symptoms
12. Screen for pain
13. Screen for shortness of breath
14. Bowel regimen with opioids

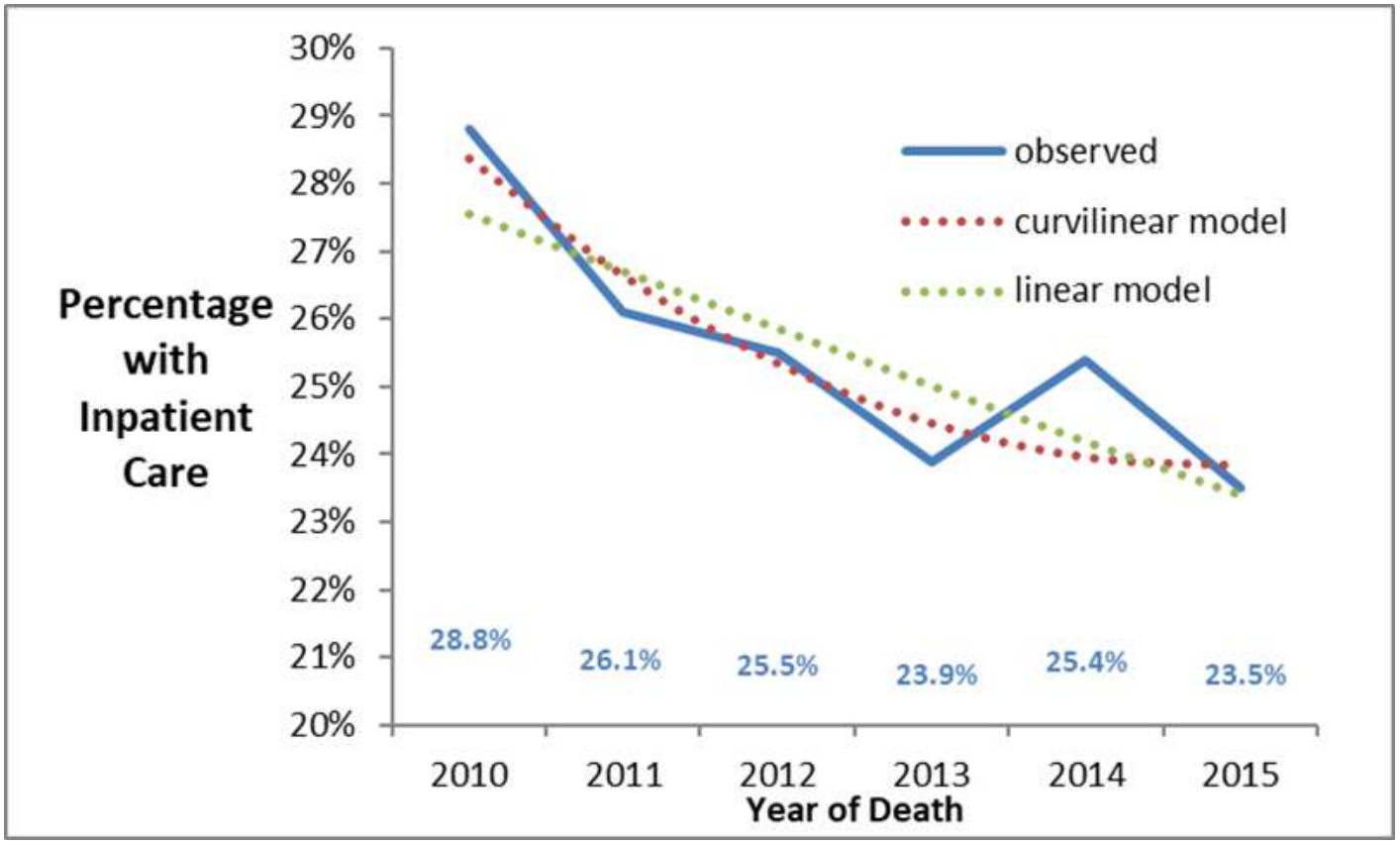
Needs & Preferences

15. Advance directive and POLST documentation
16. Documented ACP and goals of care discussions
17. Documented discussion of emotional/ psychosocial needs
18. Documented discussion of spiritual concerns

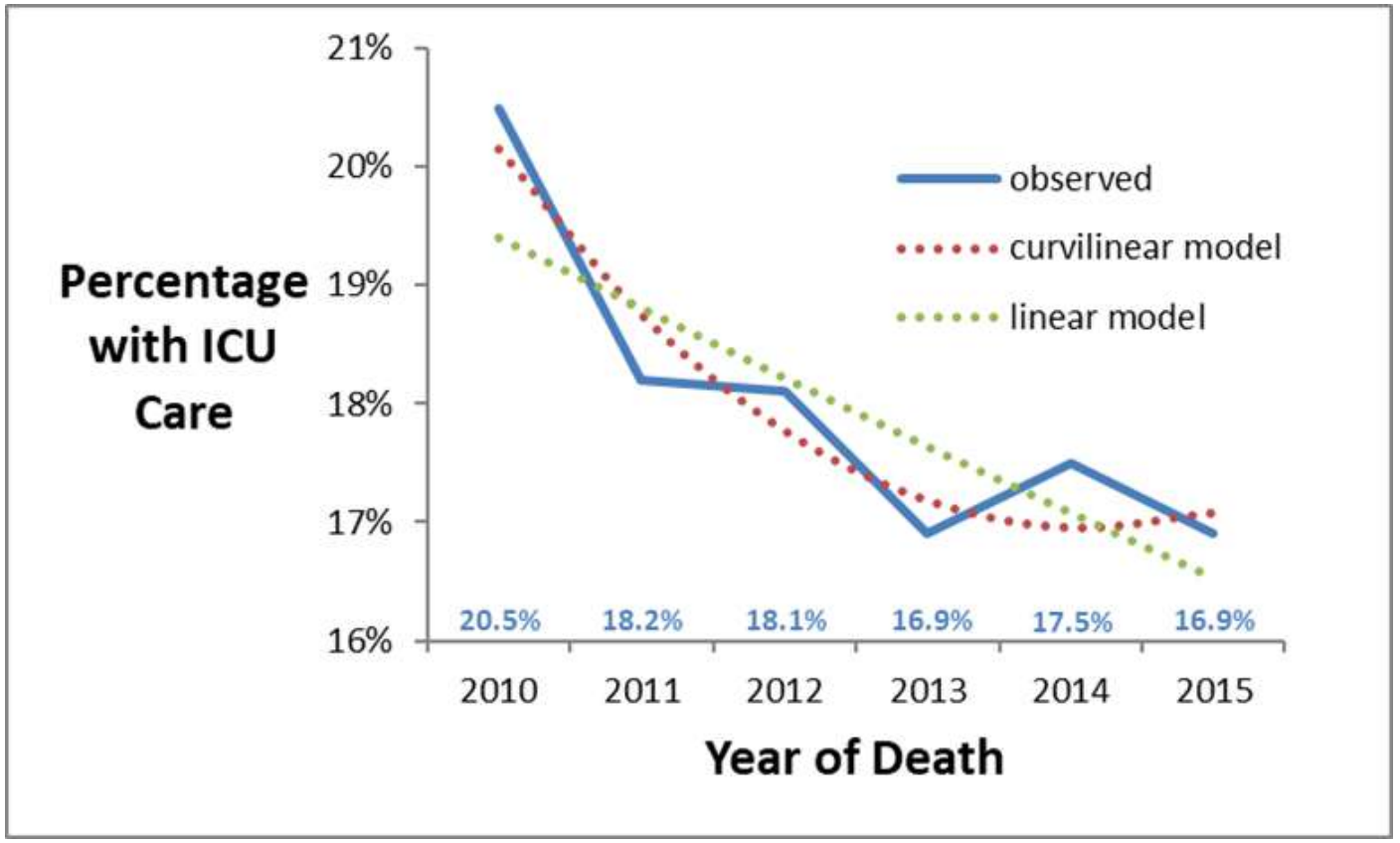
Place of Death for chronically ills at UW Medicine



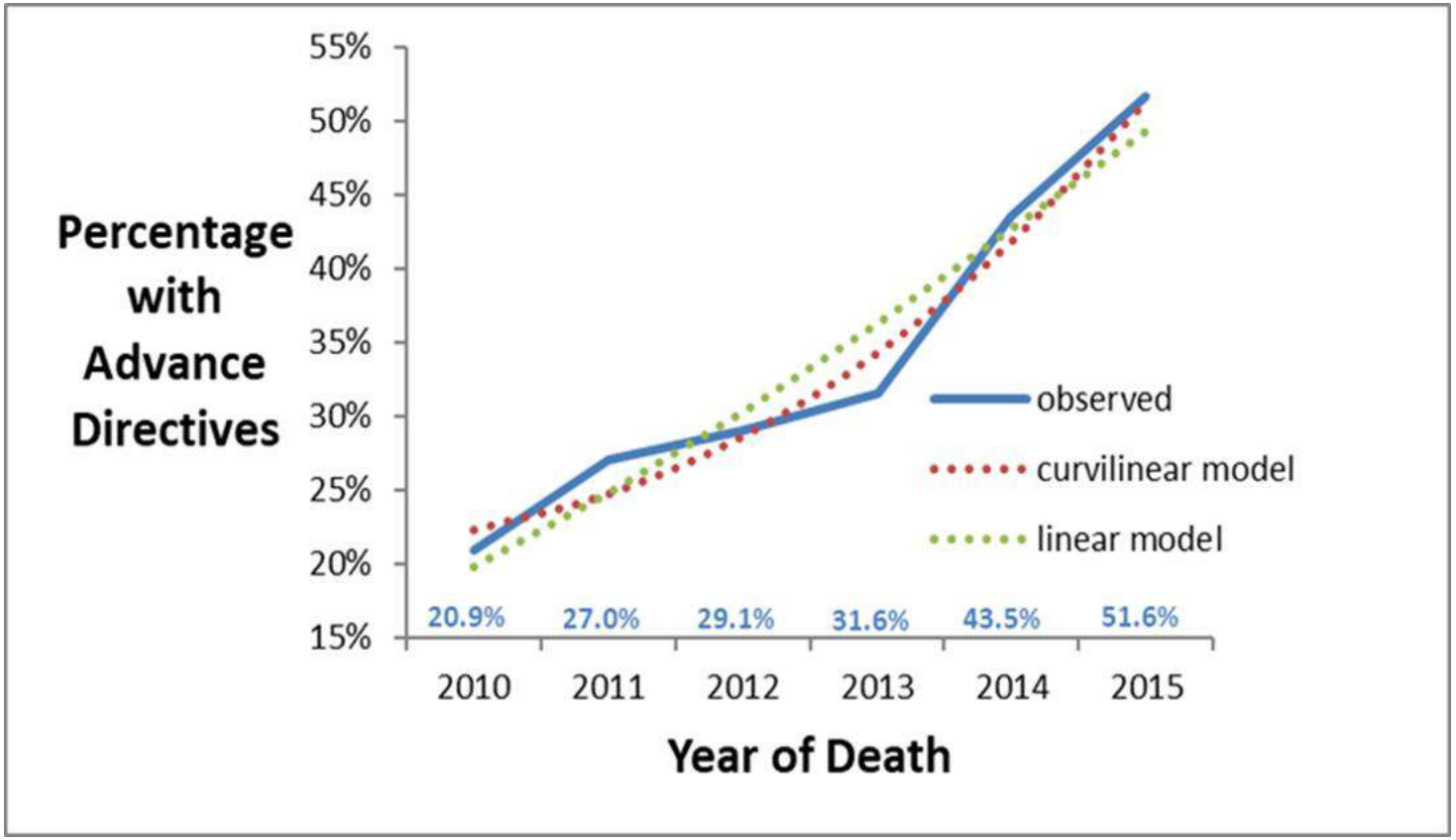
Hospitalizations in the last 30 days of life at UW Medicine



ICU admission in the last 30 days of life at UW Medicine



Advance Directives and POLST forms at UW Medicine



Association between ACP documents and end of life care

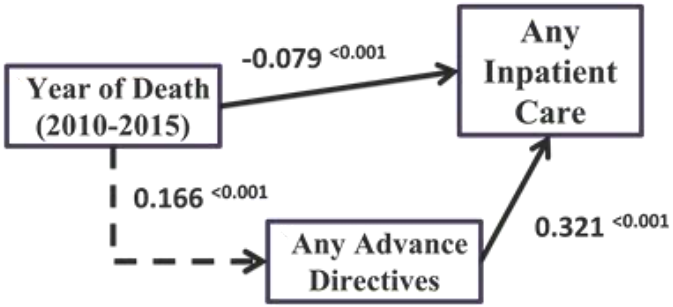


Figure 4 –Advance Directives associated with increase in inpatient care in last month[a]

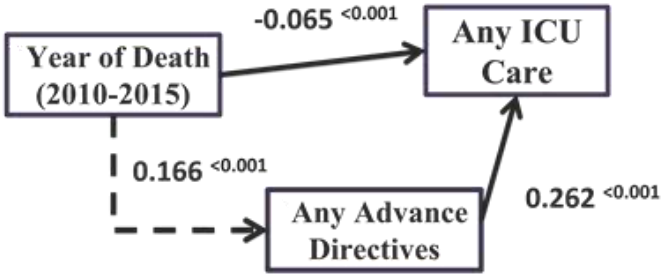


Figure 4 –Advance Directives associated with increase in ICU care in last month[a]

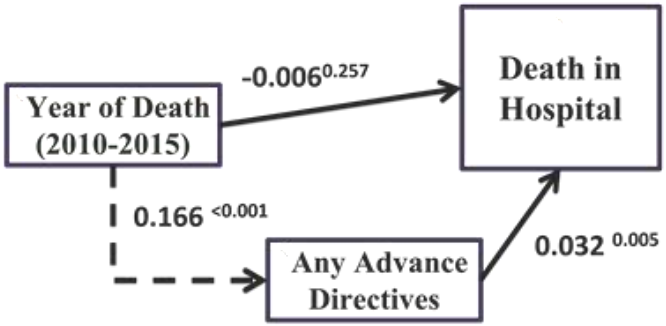
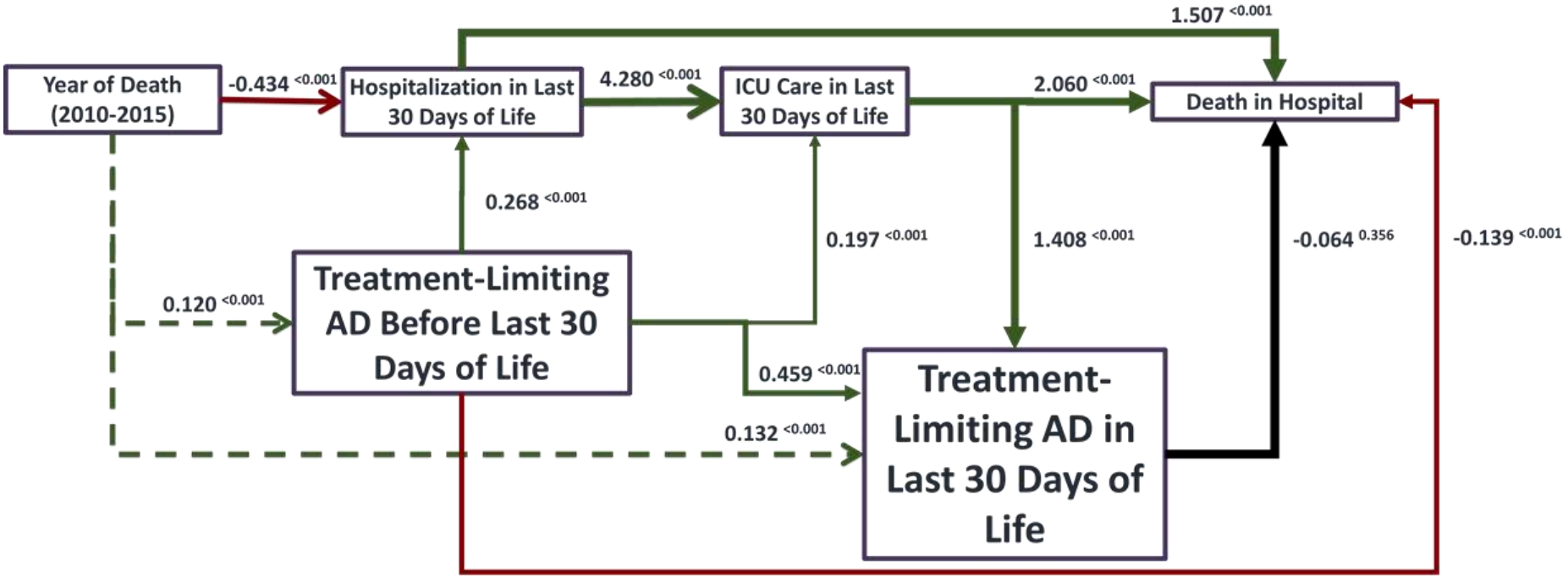


Figure 4 –Advance Directives associated with increase death in hospital[a]

a - Results are from probit regression models, estimated with weighted mean- and variance-adjusted least squares (WLSMV). Each model included year of death (0-5) as an ordinal predictor, advance directive documentation as a binary mediator. The models were saturated, with structural links leading from year of death to advance directives and the outcome, and from advance directives to the outcome.

Timing of ACP completion, location of care and place of death



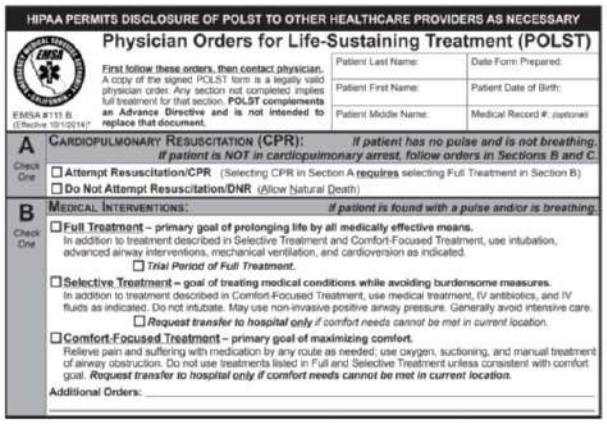
Associations were tested with logit regressions. All models were adjusted for age at death, the specific Dartmouth Atlas conditions with which the decedent had been diagnosed, and the number of outpatient visits in the year before the last month of life and level of education.

Taking Lessons to Thai Healthcare System

- **Timing of completion** of ACP documentation associated with effectiveness of ACP
    1. Completion of advance directives **within** the last 30 days of life is associated with increased intensity of care at end of life
    2. Completion of advance directives **before** the last 30 days of life is associated with decreased intensity of care at end of life

Taking Lessons to Thai Healthcare System

- **<u>Type of documentation</u>** makes a difference: We found strongest association with lower intensity of care at the end-of-life for treatment-limiting <u>POLST (physician orders for life-sustaining treatment)</u> <u>forms</u>, then living wills, and durable power of attorney for healthcare



HIPAA PERMITS DISCLOSURE OF POLST TO OTHER HEALTHCARE PROVIDERS AS NECESSARY

Physician Orders for Life-Sustaining Treatment (POLST)

First follow these orders, then contact physician. A copy of the signed POLST form is a legally valid physician order. Any section not completed implies full treatment for that section. POLST complements an Advance Directive and is not intended to replace that document.

Patient Last Name | Date Form Prepared
Patient First Name | Patient Date of Birth
Patient Middle Name | Medical Record #, (optional)

A — CARDIOPULMONARY RESUSCITATION (CPR): *If patient has no pulse and is not breathing. If patient is NOT in cardiopulmonary arrest, follow orders in Sections B and C*

☐ Attempt Resuscitation/CPR (Selecting CPR in Section A requires selecting Full Treatment in Section B)
☐ Do Not Attempt Resuscitation/DNR (Allow Natural Death)

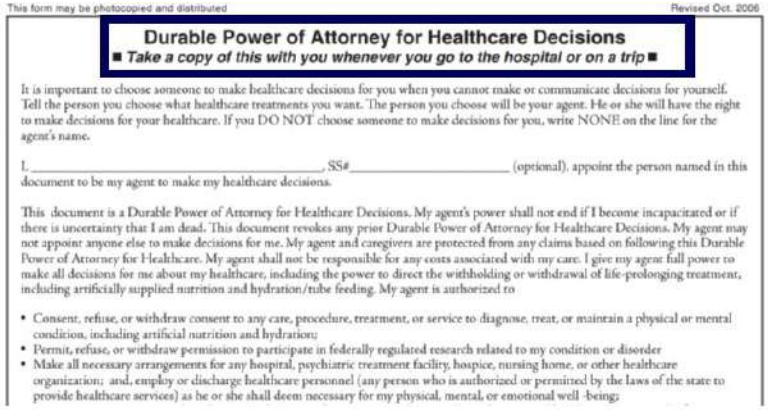
B — MEDICAL INTERVENTIONS: *If patient is found with a pulse and/or is breathing.*

☐ Full Treatment – primary goal of prolonging life by all medically effective means.
In addition to treatment described in Selective Treatment and Comfort-Focused Treatment, use intubation, advanced airway interventions, mechanical ventilation, and cardioversion as indicated.
☐ *Trial Period of Full Treatment.*

☐ Selective Treatment – goal of treating medical conditions while avoiding burdensome measures.
In addition to treatment described in Comfort-Focused Treatment, use medical treatment, IV antibiotics, and IV fluids as indicated. Do not intubate. May use non-invasive positive airway pressure. Generally avoid intensive care.
☐ *Request transfer to hospital only if comfort needs cannot be met in current location.*

☐ Comfort-Focused Treatment – primary goal of maximizing comfort.
Relieve pain and suffering with medication by any route as needed; use oxygen, suctioning, and manual treatment of airway obstruction. Do not use treatments listed in Full and Selective Treatment unless consistent with comfort goal. *Request transfer to hospital only if comfort needs cannot be met in current location.*

Additional Orders:



This form may be photocopied and distributed — Revised Oct. 2006

Durable Power of Attorney for Healthcare Decisions

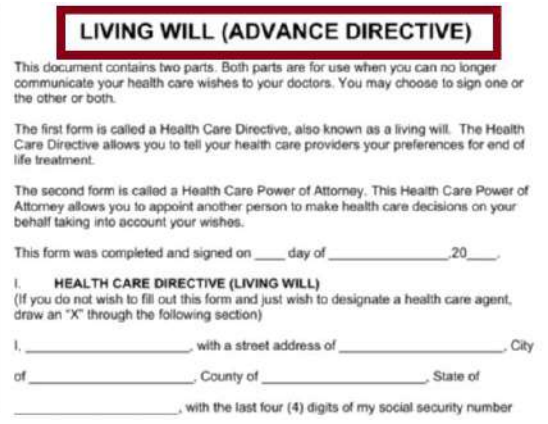
■ *Take a copy of this with you whenever you go to the hospital or on a trip* ■

It is important to choose someone to make healthcare decisions for you when you cannot make or communicate decisions for yourself. Tell the person you choose what healthcare treatments you want. The person you choose will be your agent. He or she will have the right to make decisions for your healthcare. If you DO NOT choose someone to make decisions for you, write NONE on the line for the agent's name.

I, _____, SS#_____ (optional), appoint the person named in this document to be my agent to make my healthcare decisions.

This document is a Durable Power of Attorney for Healthcare Decisions. My agent's power shall not end if I become incapacitated or if there is uncertainty that I am dead. This document revokes any prior Durable Power of Attorney for Healthcare Decisions. My agent may not appoint anyone else to make decisions for me. My agent and caregivers are protected from any claims based on following this Durable Power of Attorney for Healthcare. My agent shall not be responsible for any costs associated with my care. I give my agent full power to make all decisions for me about my healthcare, including the power to direct the withholding or withdrawal of life-prolonging treatment, including artificially supplied nutrition and hydration/tube feeding. My agent is authorized to

- Consent, refuse, or withdraw consent to any care, procedure, treatment, or service to diagnose, treat, or maintain a physical or mental condition, including artificial nutrition and hydration;
- Permit, refuse, or withdraw permission to participate in federally regulated research related to my condition or disorder
- Make all necessary arrangements for any hospital, psychiatric treatment facility, hospice, nursing home, or other healthcare organization; and, employ or discharge healthcare personnel (any person who is authorized or permitted by the laws of the state to provide healthcare services) as he or she shall deem necessary for my physical, mental, or emotional well -being;



LIVING WILL (ADVANCE DIRECTIVE)

This document contains two parts. Both parts are for use when you can no longer communicate your health care wishes to your doctors. You may choose to sign one or the other or both.

The first form is called a Health Care Directive, also known as a living will. The Health Care Directive allows you to tell your health care providers your preferences for end of life treatment.

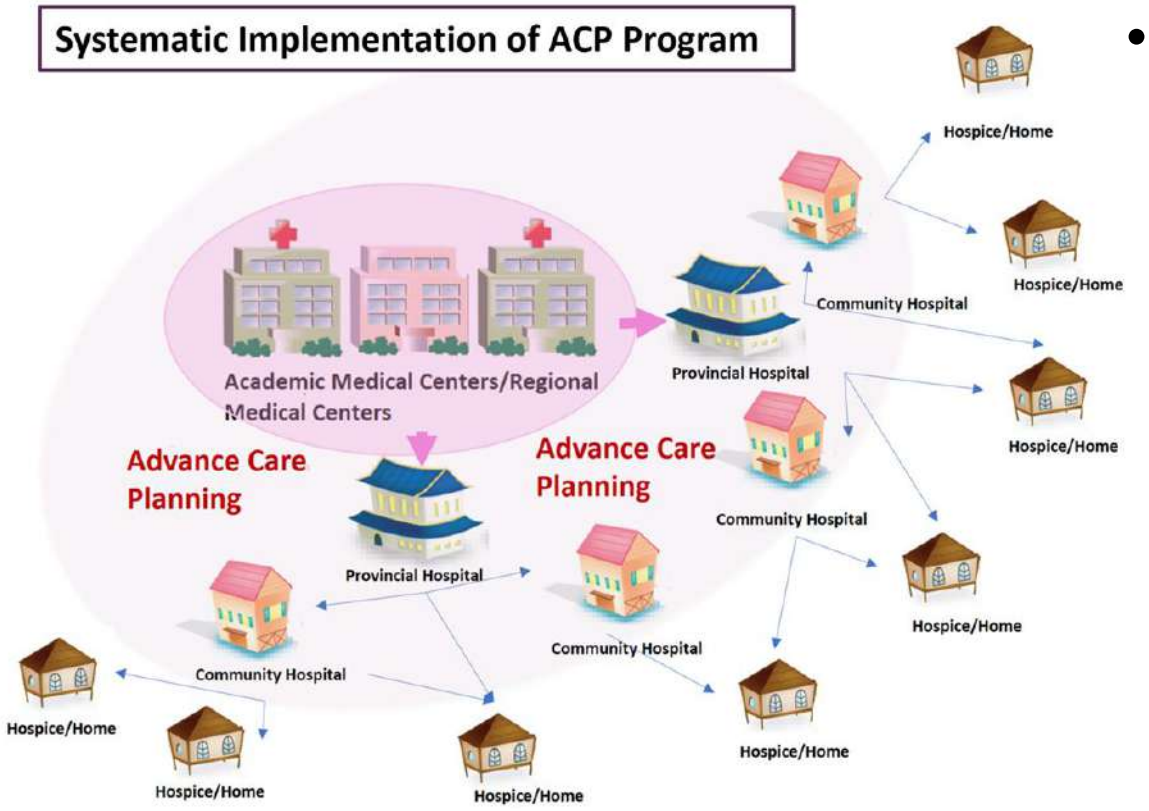
The second form is called a Health Care Power of Attorney. This Health Care Power of Attorney allows you to appoint another person to make health care decisions on your behalf taking into account your wishes.

This form was completed and signed on ____ day of _____,20____.

I. **HEALTH CARE DIRECTIVE (LIVING WILL)**
(If you do not wish to fill out this form and just wish to designate a health care agent, draw an "X" through the following section)

I, _____, with a street address of _____, City of _____, County of _____, State of _____, with the last four (4) digits of my social security number

Taking Lessons to Thai Healthcare System



- **ACP** will facilitate patients redistribution from higher level medical center to less aggressive medical care setting. However successful implementation needs strong engagement from all stakeholders in the healthcare system.

Acknowledgement

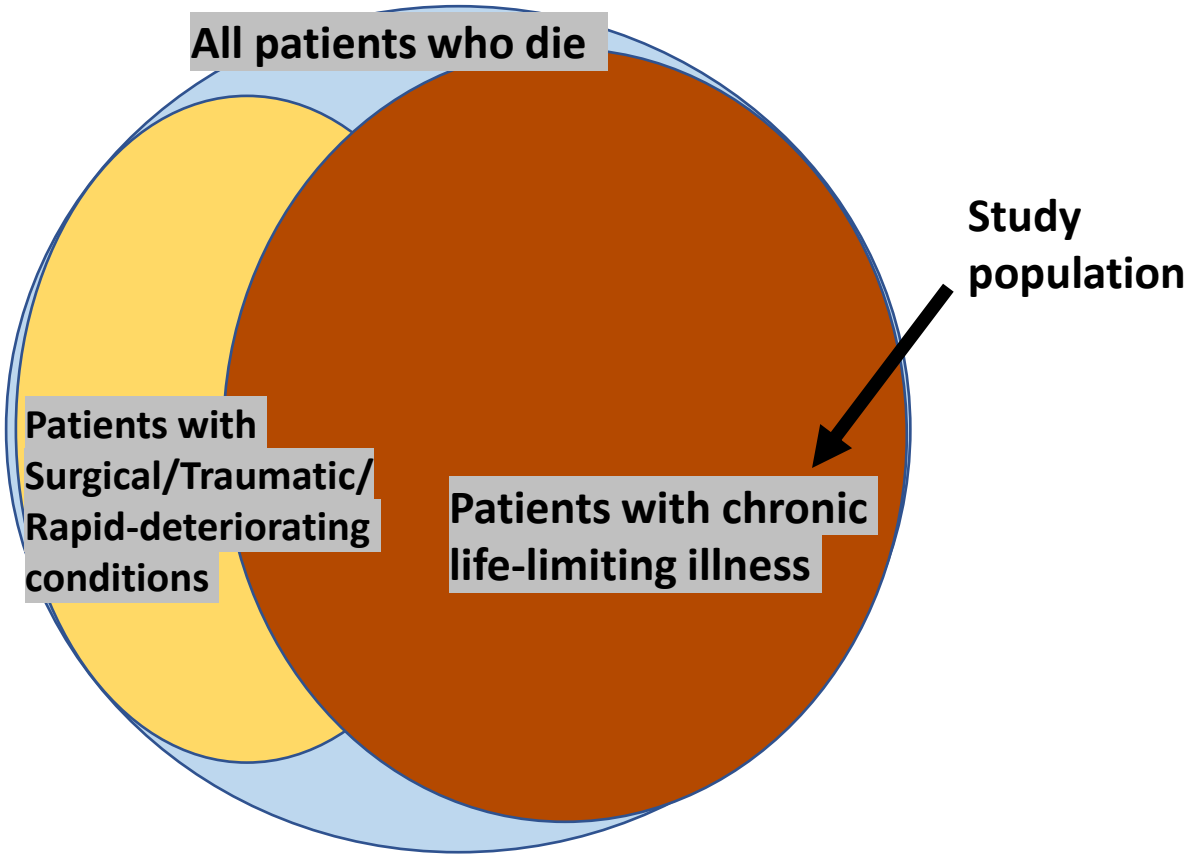
- Prince Mahidol Award Foundation, PMA Youth Program and Associate Professor Somchai Tanawattanacharoen
- Professor J. Randall Curtis
- Assistant Professor Krit Pongpirul, Assistant Professor Phornlert Chatrkaew and Associate Professor Chanchai Sittipunt
- Associate Professor Ruth Engelberg, Dr. Robert Y Lee, Lois Downey

References

- **Sathitratanacheewin S**, Engelberg RA, Downey L, et al. Temporal trends between 2010 and 2015 in intensity of care at end-of-life for patients with chronic illness: Influence of age under vs. over 65 Years**. J Pain Sympt Manage**. 2018;55(1):75-81. PMID28887270
- Curtis J. Randall, **Sathitratanacheewin Seelwan**, Starks Helene, Lee Robert Y., Kross Erin K., Downey Lois, Sibley James, Lober William, Loggers Elizabeth T., Fausto James A., Lindvall Charlotta, and Engelberg Ruth A.. **Journal of Palliative Medicine**. March 2018, 21(S2): S-52-S - 60. https://doi.org/10.1089/jpm.2017.0542

Your Question = My Pleasure

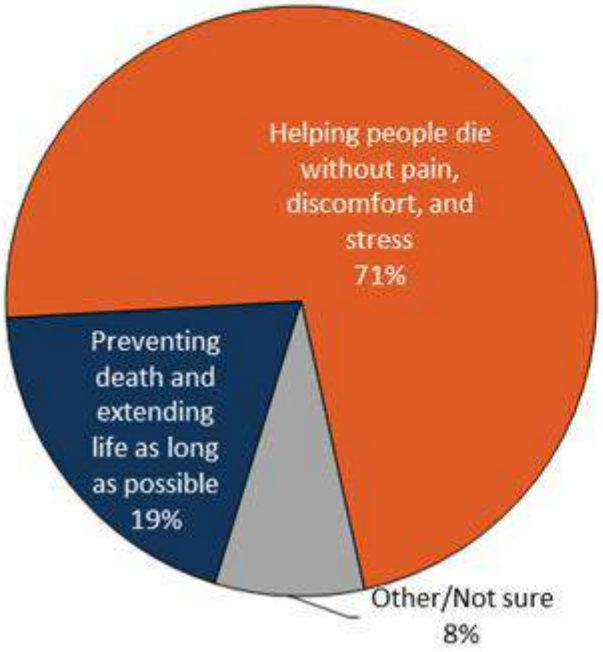
Study Population



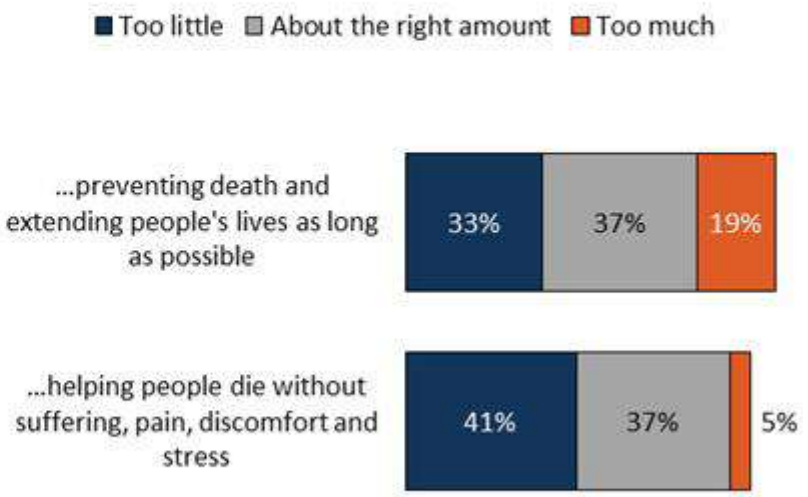
Current Challenges in Chronic Care Model

Public Prioritizes Relieving Pain and Stress over Prolonging Life

Which do you think should be more important when it comes to health care at the end of people's lives?



Do you think the health care system in the U.S. places too much, too little, or about the right amount of emphasis on...



NOTE: "Other/Not sure" includes those who said "Both (Vol.)/Neither (Vol.)" or did not answer. For the second question, Not sure/No answer responses not shown.

SOURCE: Kaiser Family Foundation/The Economist Four-Country Survey of Aging and End-of-Life Medical Care (conducted March 30-May 29, 2016)

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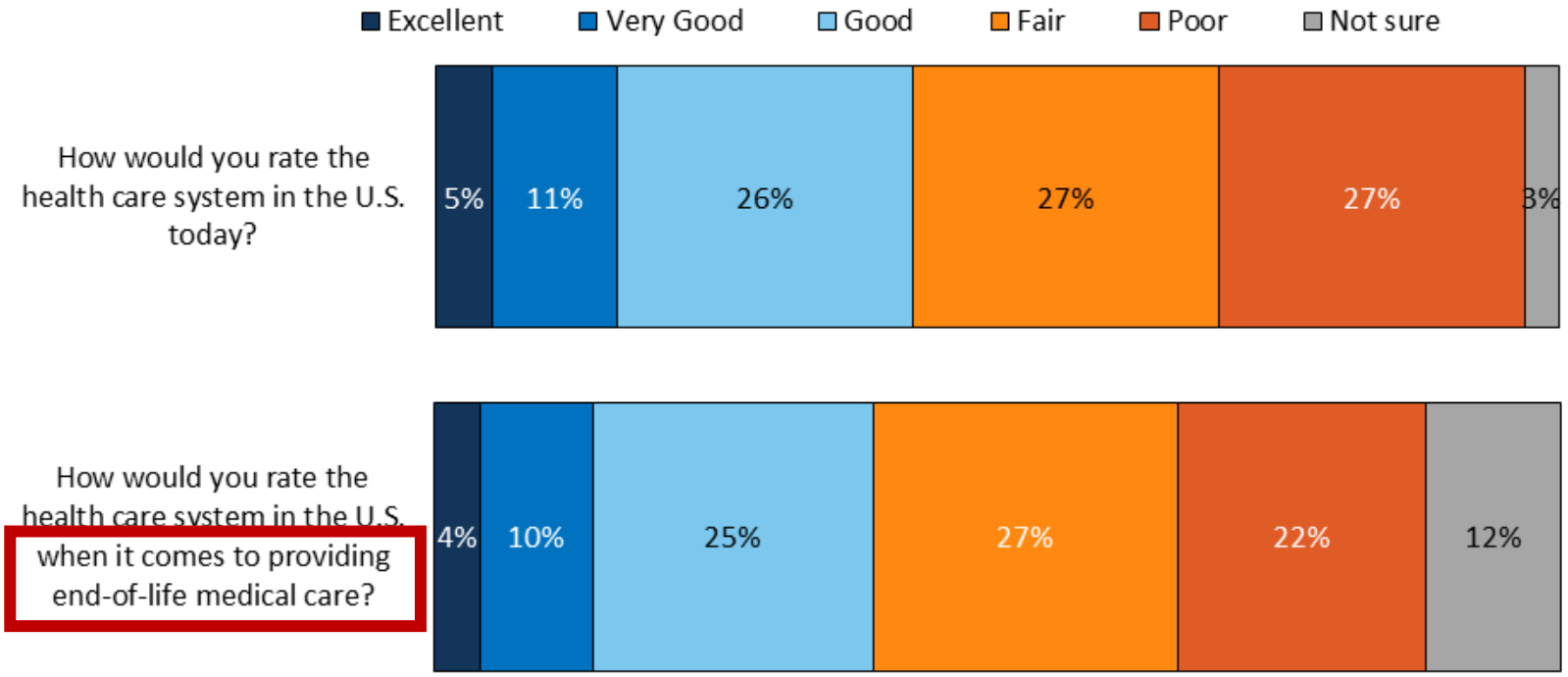
Current Challenges in Chronic Care Model

About Half Rate Health Care System Fair or Poor in General and When It Comes to End-of-Life Medical Care



NOTE: "Other/Not sure" includes those who said "Both (Vol.)/Neither (Vol.)" or did not answer. For the second question, Not sure/No answer responses not shown.

SOURCE: Kaiser Family Foundation/The Economist Four-Country Survey of Aging and End-of-Life Medical Care (conducted March 30-May 29, 2016)

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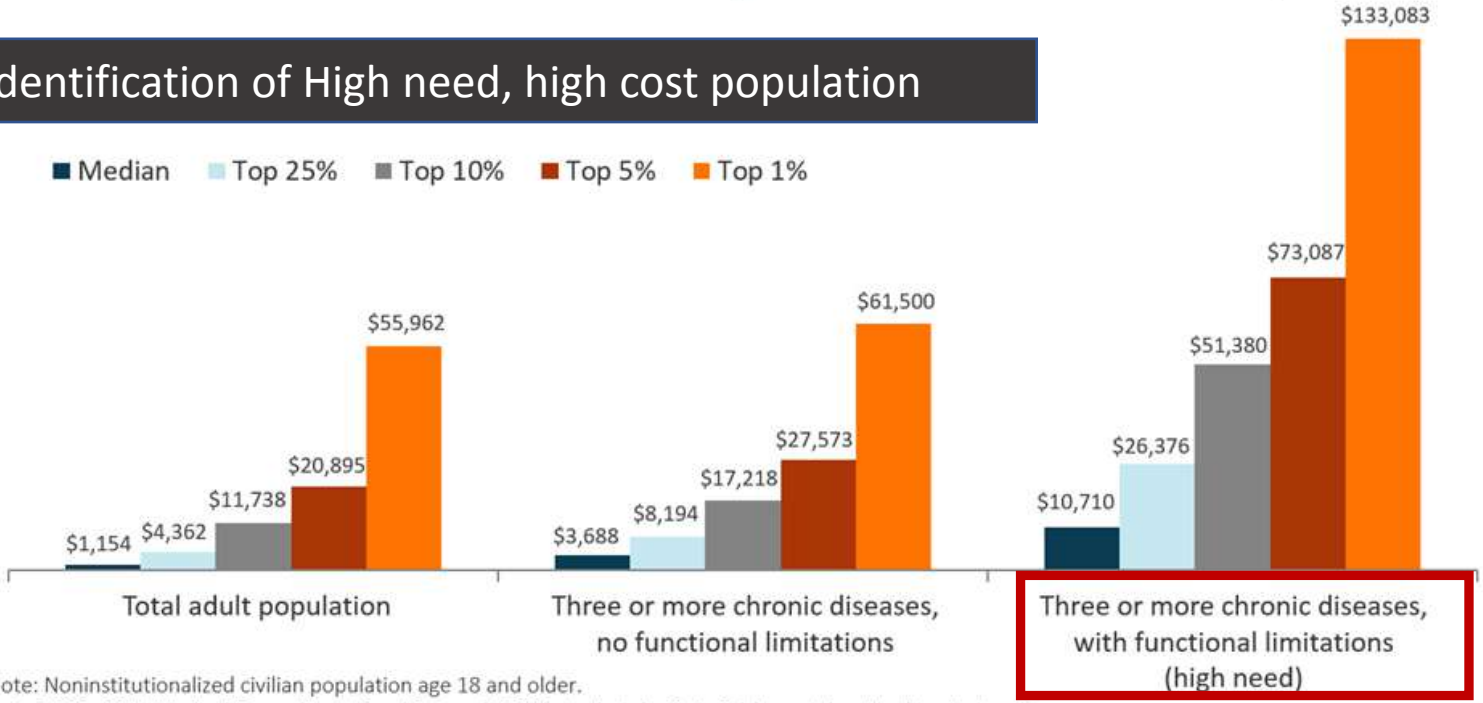
My Question

- Whether advance care planning documentation (**advance directives and POLST form)** is associated with lower **intensity of care at the end-of-life** for patients with advanced chronic illness.

Current Challenges in Chronic Care Model

Health Care Spending Was Higher at Every Level for Adults with High Needs Than for Adults with Multiple Chronic Diseases Only

Identification of High need, high cost population

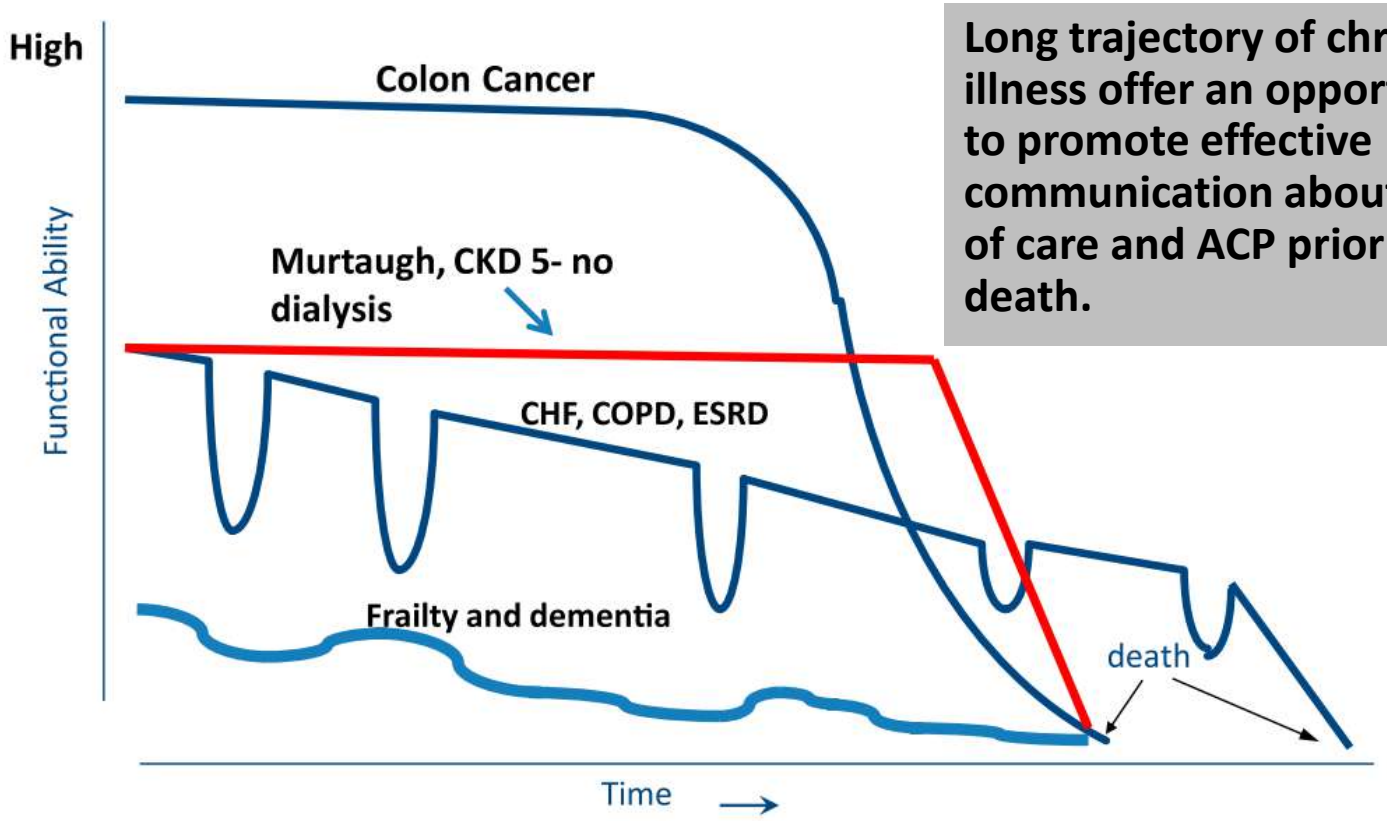


Note: Noninstitutionalized civilian population age 18 and older.
Data: 2009–2011 Medical Expenditure Panel Survey (MEPS). Analysis by C. A. Salzberg, Johns Hopkins University.

Source: S. L. Hayes, C. A. Salzberg, D. McCarthy, D. C. Radley, M. K. Abrams, T. Shah, and G. F. Anderson, *High-Need, High-Cost Patients: Who Are They and How Do They Use Health Care?* The Commonwealth Fund, August 2016.

The COMMONWEALTH FUND

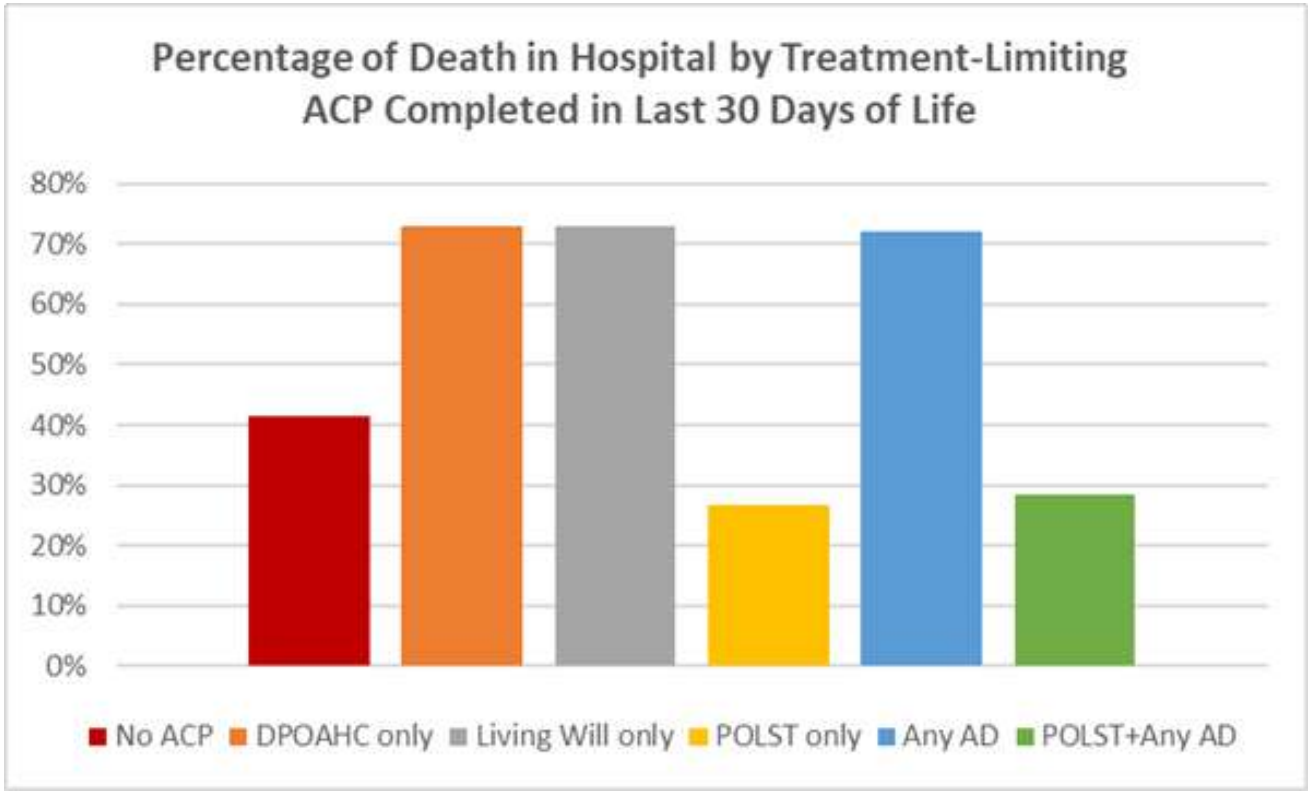
Gaps in Palliative Care for Adult with Chronic Illness



Long trajectory of chronic illness offer an opportunity to promote effective communication about goal of care and ACP prior to death.

Holley, CJASN 2012

Type of ACP documents and place of death



Type of ACP documents and ICU care in the last 30 days of life