Concurrent Care for Veterans with Terminal Cancer: The Impact of Avoiding the "Terrible Choice"

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Purpose

- Framework for understanding the basis of "Concurrent Care" in the context of the the Medicare Hospice Benefit
- Describe results of an Observational Study of "Concurrent Care" undertaken in the Veterans Administration
- Estimate the effect of expanding availability of hospice without constraints on disease oriented treatment among Veterans newly diagnosed with Stage IV non-small cell lung cancer (NSCLC)
- Propose a policy solution that aligns communal and personal values and preferences with regard to end of life care

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Background – Rising use of Hospice in VHA

- Palliative and hospice programs can offer patient- and family-centered care that improves quality outcomes (pain and symptom management, emotional support, improved quality of life, better patient and family satisfaction, and reduced healthcare costs)
- In 2006, approximately 20% of Medicare decedents received hospice care, whereas only 5% of Veteran decedents received hospice care
- In less than 3 years, the VA tripled the number of Veterans provided with home hospice care, enhanced access to inpatient palliative care, and built a nationwide network of partnerships with community hospice programs
- By 2012 the typical inpatient palliative care team saw 42% of all Veterans who died in VA facilities

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Background – Medicare and "Terrible Choice"

- Many hospice patients do not enroll until shortly before they die. Some argue that this is due to the "terrible choice" – must forgo active disease modifying treatment
- Advocates for changes to Medicare hospice eligibility and payment policies argue that this choice is unnatural and not consistent with comprehensive palliative care
- Medicare Care Choices Model; 3-year demonstration introduces pre-hospice service and allows patients to concurrently receive all other Medicare-covered services.
- Demonstration gives hospices $400/patient to offer palliative care prior to Hospice admission
- Evaluation underway; recruitment has been slow

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Medicare Hospice Length of Stay Distribution

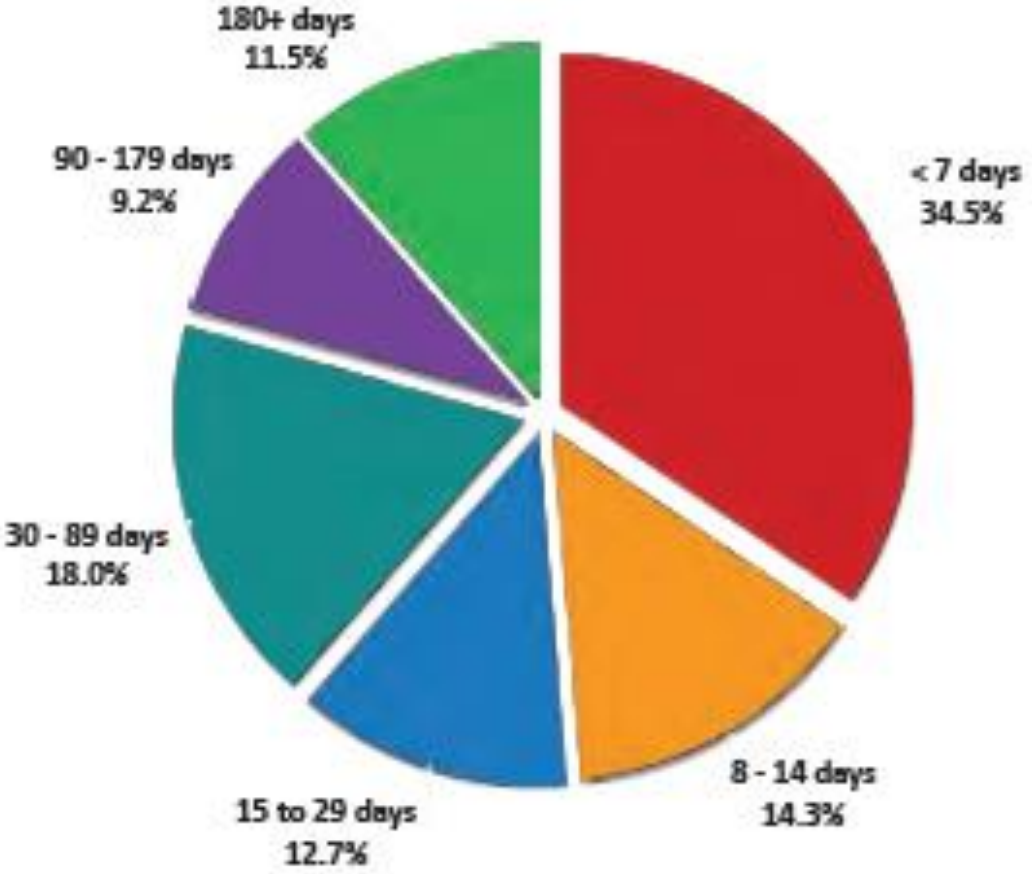

Figure 5. Proportion of Patients by Length of Service in 2013 [1]

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Background – Evidence of Effectiveness

- Randomized controlled trials of "concurrent care" (either hospice and/or palliative care pre-hospice) found higher rates of satisfaction and less use of acute treatment at the end of life
- VA is an ideal setting to study this in a large population since VA does not require disenrollment from hospice to receive medical treatment
- Potential for improved patient care by allowing terminally ill Veterans with cancer to receive both disease modifying treatment and hospice

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HSR&D Funded Concurrent Care Research Project

- Aims of the Project:
  - Describe trends in hospice, palliative care and concurrent care (simultaneous chemo & radiation) across VAMCs between 2006 and 2012 among Veterans with a cancer diagnosis at the end of life
  - Determine whether PROMIS respondents happiest with Veterans' EoL care had fewer "burdensome" transitions in last weeks
  - Estimate the effect of increased investments in hospice and VA policy allowing concurrent care
  - Estimate the Costs to the VA of allowing Hospice & Treatment
  - Assess organizational barriers to implementing concurrent care

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Data

- Inpatient (hospital, nursing home), Outpatient (facility and physician), Skilled Nursing Facility (SNF) and Hospice claims for
  - VHA settings
  - Non-VHA settings, (fee basis files) reimbursed by the VA
  - Non-VHA settings, reimbursed by Medicare

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Overview of Methods

- Took Advantage of Facility Variation in when and how broadly VA based hospice care was introduced 2007-2012
- Ranked all VA Facilities based on the proportion of Veterans receiving Hospice in last 6 months of life among Veteran decedents with Cancer
- Concurrent Care can't occur unless Hospice is Available thru the VAMC
- Studied experiences of newly diagnosed Stage IV Non-small cell Lung Cancer patients in VAMCs (and times) with varying hospice use

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All Cancer Decedent **Cohort**

- All veterans with
  - Cancer diagnosis between July 1st 2005 and June 30th 2012 (could not use Tumor Registry since incomplete)
  - Date of death (DOD) between January 1st, 2006 and December 31st, 2012

- Observation period is time to death from first cancer diagnosis OR 180 days prior to death

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Definition of Care Received during Observation Period

- Classified each day in the observation period according to type of care received (Either VA provided, purchased or Medicare claims)
  - Treatment (chemotherapy or radiation)
    - ✓ Buffer of 14 days for radiation and 28 days for chemotherapy
  - Hospice
  - Palliative Care that occurs prior to, or in the absence of, hospice
  - Concurrent Care (Hospice and Treatment)
    - ✓ Includes overlap with treatment buffer

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Analyses to Track Changes in VAMC Facilities

- Plot rates of Treatment, Hospice, Palliative care that occurs prior to, or in the absence of hospice and concurrent care over study period
- Percent of veteran decedents receiving each type of care by time period:
  - 0-30 days prior to death
  - 31-90 days prior to death
  - 91-180 days prior to death

- Median time between first day of hospice, palliative and concurrent and death
- Median time between **last** day of treatment and death

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Original Article

The Rise of Concurrent Care for Veterans With Advanced Cancer at the End of Life

Vincent Mor, PhD[1,2]; Nina R. Joyce, PhD[1,3]; Danielle L. Coté, MPH[1]; Risha A. Gidwani, DrPH[4,5,6]; Mary Ersek, PhD, RN[7,8]; Cari R. Levy, MD, PhD[9]; Katherine E. Faricy-Anderson, MD, MPH[1,10]; Susan C. Miller, PhD[1,2]; Todd H. Wagner, PhD[4,5,6]; Bruce P. Kinosian, MD[7,11]; Karl A. Lorenz, MD, MSHS[5,6]; and Scott T. Shreve, DO[12,13]

BACKGROUND: Unlike Medicare, the Veterans Health Administration (VA) health care system does not require veterans with cancer to make the "terrible choice" between receipt of hospice services or disease-modifying chemotherapy/radiation therapy. For this report, the authors characterized the VA's provision of concurrent care, defined as days in the last 6 months of life during which veterans simultaneously received hospice services and chemotherapy or radiation therapy. **METHODS:** This retrospective cohort study included veteran decedents with cancer during 2006 through 2012 who were identified from claims with cancer diagnoses. Hospice and cancer treatment were identified using VA and Medicare administrative data. Descriptive statistics were used to characterize the changes in concurrent care, hospice, palliative care, and chemotherapy or radiation treatment. **RESULTS:** The proportion of veterans receiving chemotherapy or radiation therapy remained stable at approximately 45%, whereas the proportion of veterans who received hospice increased from 55% to 68%. The receipt of concurrent care also increased during this time from 16.2% to 24.5%. The median time between hospice initiation and death remained stable at around 21 days. Among veterans who received chemotherapy or radiation therapy in their last 6 months of life, the median time between treatment termination and death ranged from 35 to 40 days. There was considerable variation between VA medical centers in the use of concurrent care (interquartile range, 16%-34% in 2012). **CONCLUSIONS:** Concurrent receipt of hospice and chemotherapy or radiation therapy increased among veterans dying from cancer without reductions in the receipt of cancer therapy. This approach reflects the expansion of hospice services in the VA with VA policy allowing the concurrent receipt of hospice and antineoplastic therapies. ***Cancer* 2015;000:000–000.** Published 2015. This article is a U.S. Government work and is in the public domain in the USA.

KEYWORDS: end-of-life care, hospices, neoplasms, palliative care, veterans.

Figure 2: Distribution of Service(s) Utilization (2005-2012) in the Last 180 Days of Life

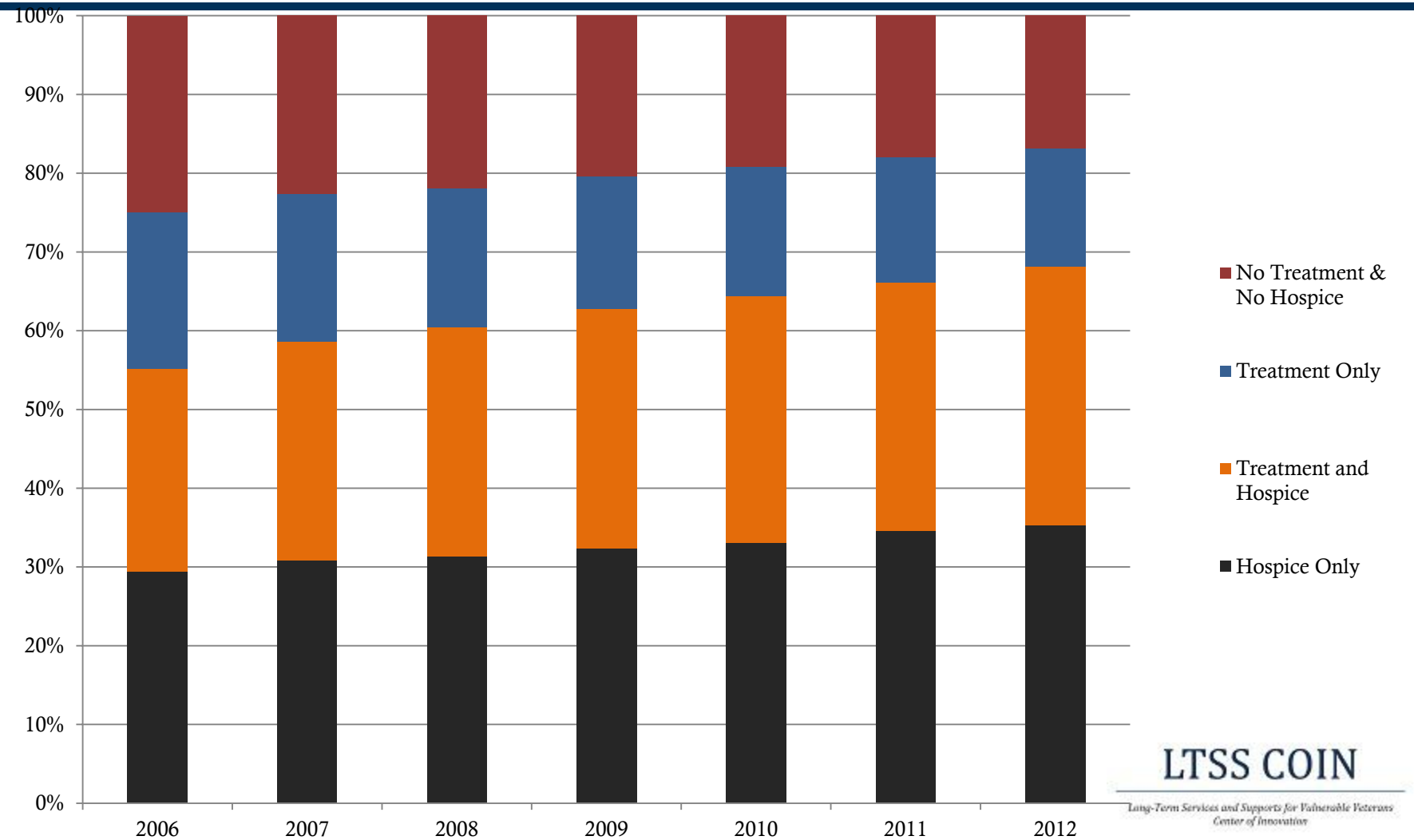
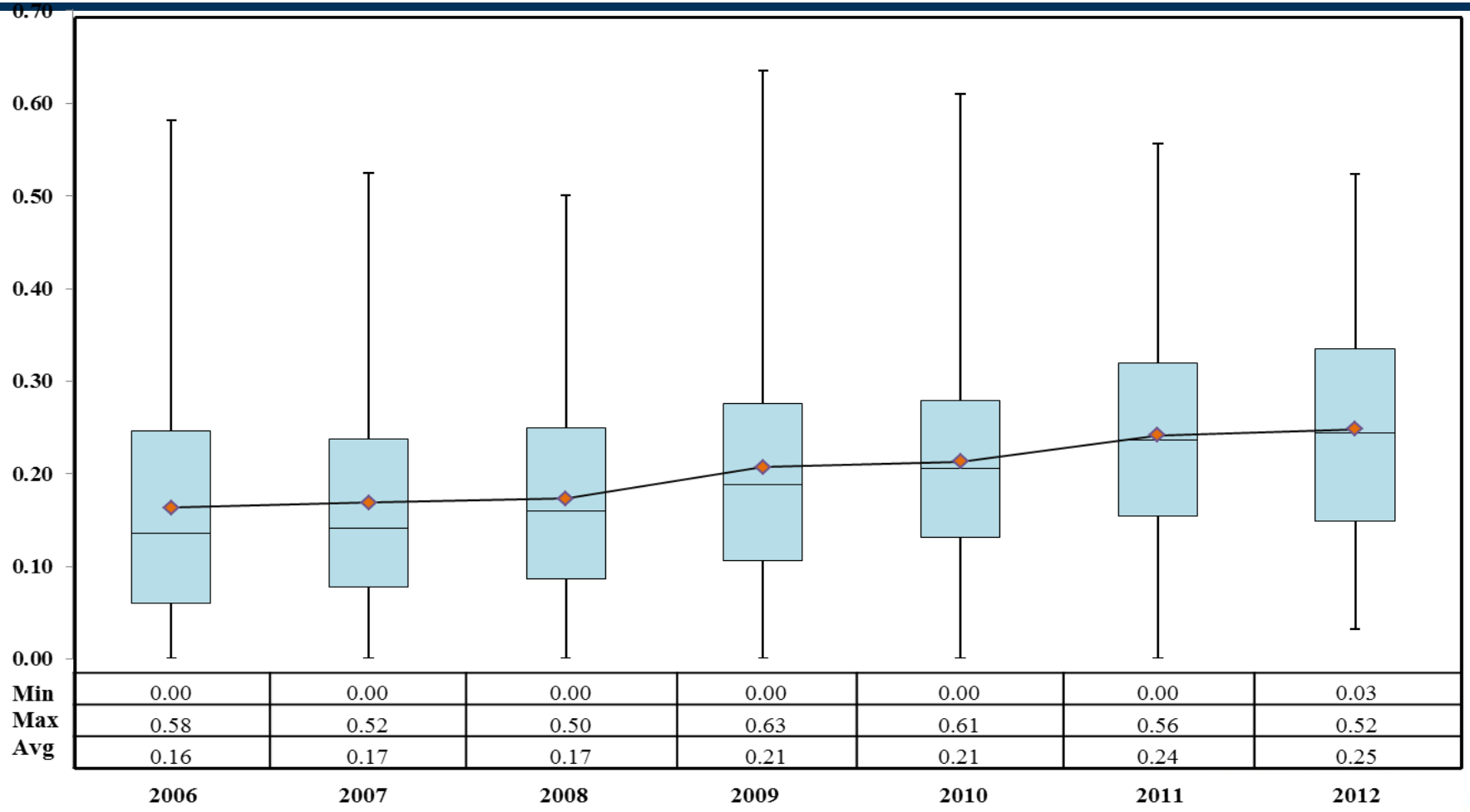


Figure 2: Facility Rate of Concurrent Care in Veterans Receiving Cancer Treatment (2006-2012)



	2006	2007	2008	2009	2010	2011	2012
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Max	0.58	0.52	0.50	0.63	0.61	0.56	0.52
Avg	0.16	0.17	0.17	0.21	0.21	0.24	0.25

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Do Family Members' Evaluations of Veteran Decedents' End of Life Care Relate to Potentially "Burdensome" Events?

- VA provided, Purchased and Medicare claims of non-small cell Lung CA Veterans examined for last 30 and 14 days of life
- Receipt of Chemotherapy, Multiple Hospitalizations or ICU identified as "potentially burdensome event"
- VA PROMISE program conducts Bereaved Family Surveys (BFM) when decedent Veterans dies in an inpatient setting;
- NQF endorsed Performance Measure based on single item global rating of care received at the end of life
- Family members of Veterans who had experienced any "Burdensome" event in last 14 days of life were significantly less likely to report satisfaction with quality of end of life care

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Original Article

Association Between Aggressive Care and Bereaved Families' Evaluation of End-Of-Life Care for Veterans With Non-Small Cell Lung Cancer Who Died in Veterans Affairs Facilities

Mary Ersek, PhD, RN[1,2]; Susan C. Miller, PhD[3]; Todd H. Wagner, PhD[4,5]; Joshua M. Thorpe, PhD, MPH[6,7]; Dawn Smith, MS[1]; Cari R. Levy, MD, PhD[8,9]; Risha Gidwani, DrPH[4,10]; Katherine Faricy-Anderson, MD, MPH[11,12]; Karl A. Lorenz, MD, MSHS[10,13]; Bruce Kinosian, MD[1]; and Vincent Mor, PhD[3,11]

BACKGROUND: To the authors' knowledge, little is known regarding the relationship between patients' and families' satisfaction with aggressive end-of-life care. Herein, the authors examined the associations between episodes of aggressive care (ie, chemotherapy, mechanical ventilation, acute hospitalizations, and intensive care unit admissions) within the last 30 days of life and families' evaluations of end-of-life care among patients with non-small cell lung cancer (NSCLC). **METHODS:** A total of 847 patients with NSCLC (34% of whom were aged <65 years) who died in a nursing home or intensive care, acute care, or hospice/palliative care (HPC) unit at 1 of 128 Veterans Affairs Medical Centers between 2010 and 2012 were examined. Data sources included Veterans Affairs administrative and clinical data, Medicare claims, and the Bereaved Family Survey. The response rate for the Bereaved Family Survey was 62%. **RESULTS:** Greater than 72% of veterans with advanced lung cancer who died in an inpatient setting had at least 1 episode of aggressive care and 31% received chemotherapy within the last 30 days of life. For all units except for HPC, when patients experienced at least 1 episode of aggressive care, bereaved families rated care lower compared with when patients did not receive any aggressive care. For patients dying in an HPC unit, the associations between overall ratings of care and ≥2 inpatient admissions or any episode of aggressive care were not found to be statistically significant. Rates of aggressive care were not associated with age, and family ratings of care were similar for younger and older patients. **CONCLUSIONS:** Aggressive care within the last month of life is common among patients with NSCLC and is associated with lower family evaluations of end-of-life care. Specialized care provided within an HPC unit may mitigate the negative effects of aggressive care on these outcomes. ***Cancer* 2017;000:000–000.** © *2017 American Cancer Society.*

KEYWORDS: aggressive care, cancer, end-of-life care, evaluation of care, palliative care.

Newly Diagnosed, Stage IV, Non-Small Cell Lung Cancer (NSCLC) Patients

- Track their experience from diagnosis to death (and Backwards)
- Compare NSCLC patients' experiences in VAMC years with little hospice vs. more hospice
- Consider proportion of cancer decedents receiving anti-cancer treatment and CONCURRENTLY with hospice care
- Estimating effect of VAMC level hospice use on NSCLC patients' aggressive treatment defined as:
  - ICU admission in last month of life
  - Receipt of a feeding tube or mechanical ventilation
  - Multiple inpatient admissions within 30 days

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Effect of Hospice Growth on NSCLC Veterans' Aggressive Treatment in the last Month of Life

- 13,000+ stage 4 NSCLC patients diagnosed between 2006 and 2012
- Treated in 100+ VAMCs with large enough oncology service to have at least 5 NSCLC patients diagnosed per year
- Tested the effect of being in a VAMC in a year that provided hospice care to many vs. fewer cancer decedents

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NSCLC Veterans' Outcomes

- In the first six months post diagnosis, or until they died:
  - 22% were admitted to an ICU
  - 32% experienced aggressive care
  - 75% received chemotherapy

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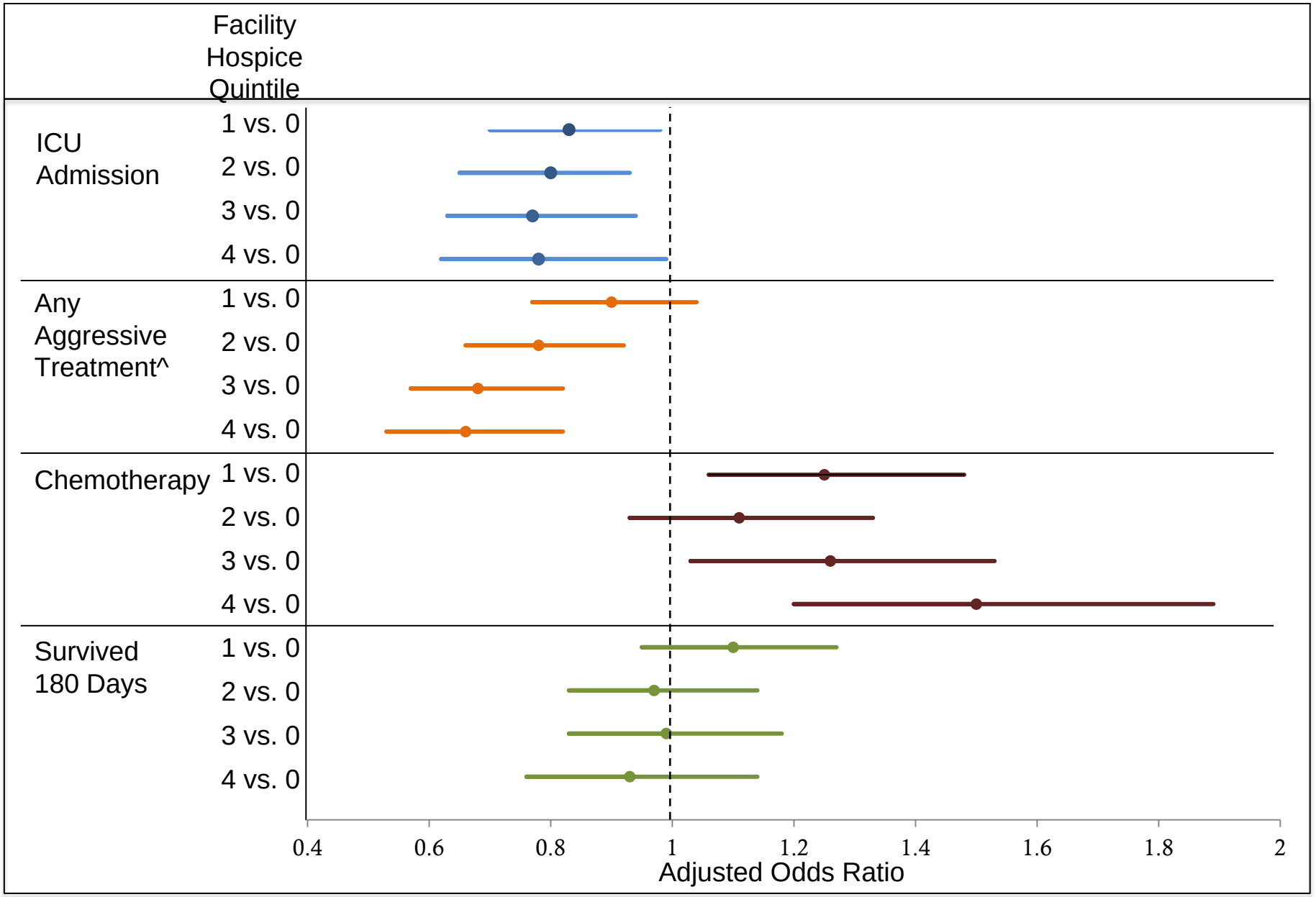
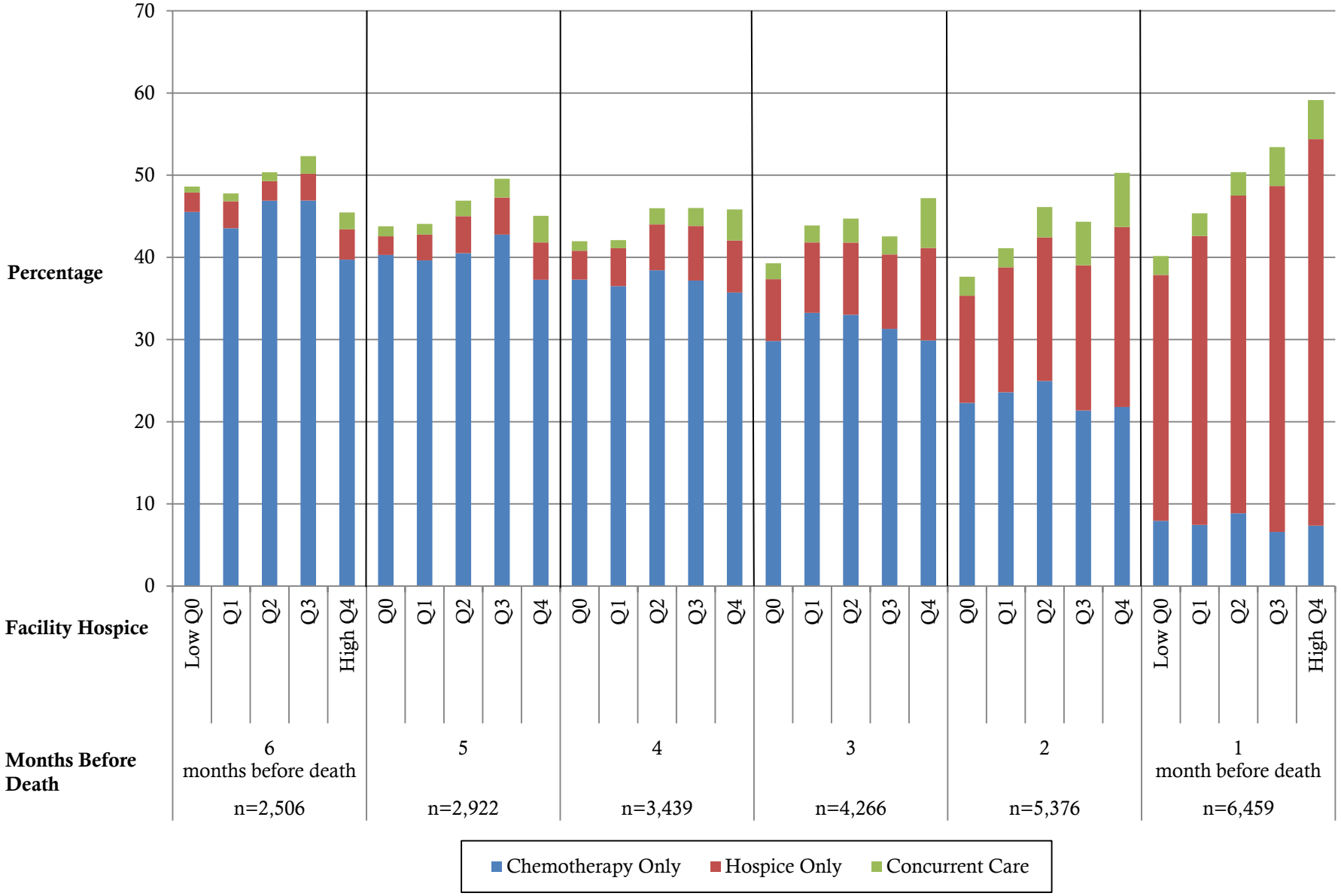
Adjusted odds of ICU admission, receiving any aggressive care, receiving chemotherapy and surviving 180 days among newly diagnosed Stage IV NSCLC Veterans in the first six months post diagnosis (n=13085) relative to VAMCs with low hospice implementation



Stage IV NSCLC decedents' utilization of chemotherapy, hospice, and concurrent care by facility hospice quintile during months 2-6 post diagnosis stratified by the last six months of life



Cost Differentials by Facility Level of Hospice Exposure

- Examined VA, Fee Basis and Medicare Claims costs per day alive
- Examined costs per day alive from 8-180 days post diagnosis
- Compared costs incurred by the VAMC Facility Quintile of Hospice Exposure
- Veterans served in the top two hospice exposure quintiles had significantly lower total medical care costs compared to the lowest hospice quintile
- Patients seen at facilities with the highest hospice penetration had an associated savings of $187.25 per day over 6 months compared to those patients in the lowest hospice exposure quintile

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Total VA and Medicare costs per day alive in six months' post-diagnosis among Stage IV NSCLC by VAMC hospice exposure quintile.

Time Period	7 30 days	7 60 days	7 100 days	7 150 days	7 180 days
Hospice quintiles	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI	Mean 95% CI
Q-2 56%	-45.70	-50.59	-37.92	-26.99	-23.37
	(-130.06 - 38.65)	(-131.97 - 30.79)	(-116.89 - 41.05)	(-104.62 - 50.64)	(-100.51 - 53.77)
Q-3 63%	-124.00**	-125.00**	-108.42**	-87.62*	-78.65*
	(-210.83 - -37.17)	(-208.17 - -41.84)	(-188.91 - -27.93)	(-166.61 - -8.63)	(-157.08 - -0.23)
Q-4 69%	-162.46***	-161.07***	-132.98**	-104.12*	-92.38*
	(-253.18 - -71.74)	(-247.14 - -74.99)	(-216.04 - -49.92)	(-185.51 - -22.73)	(-173.14 - -11.62)
Q-5 77%	-265.69***	-272.79***	-238.89***	-202.32***	**-187.25*** **
	(-365.57 - -165.81)	(-366.72 - -178.86)	(-329.28 - -148.50)	(-290.78 - -113.87)	(-274.96 - -99.55)

Qualitative Site Visits Results

- Lots of variation in how hospice is offered across VAMCs
- Some Markets Medicare Hospice agencies reluctant to allow Concurrent Care EVEN IF provided by VAMC services
- VAMCs with strong collaborative relationship with Medicare Hospice agencies make Concurrent Care more readily available
- In VAMCs with more CLC hospice inpatient beds, hospice length of stay is shorter; may be used as a late "release valve"

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Impediments to Concurrent Care

- Outside of VAMC inpatient hospice settings (located in VA Community Living Centers – CLCs), Medicare Hospice used
- Impediment to "Concurrent Care" NOT just fiscal and operational
- Medicare Hospice "Conditions of Participation" require hospice to control all aspects of patient care for the terminal condition
- Reimbursement can be retroactively denied for failure to control care
- Regulatory, Operational and Fiscal Impediments really exist

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Summary of Results

- Rates of Hospice Use among Cancer Decedents increased in VHA
- Rates of concurrent care have increased along with hospice.
- While the proportion of decedents receiving hospice has increased, the start of hospice remains 20-22 days prior to death
- VA provided hospice is for shorter stays than Medicare provided hospice to Veterans
- The rise in concurrent care is due primarily to the increase in hospice; treatment has not declined as hospice or palliative services increase
- VA investment in hospice translates into ***relatively*** fewer patients experiencing aggressive treatment -- consistent with family preferences.
- Among NSCLC patients, Veterans served in the top two hospice exposure quintiles had significantly lower total medical care costs compared to those in the lowest hospice quintile

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Commentary

- Like the literature suggests, in the context of the VHA, Concurrent Care is not used a lot even when available
- Like the RCT of Concurrent Care, availability of disease modifying treatment for advanced cancer patients doesn't result in higher overall health care costs
- In the face of rising use of aggressive end of life care (ICU and multiple hospitalizations) over last decade, patients in VAMCs that invested more in hospice experienced ***relatively*** less aggressive care
- Can these results be generalized to Medicare?

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Policy Implications for Medicare

- Medicare Hospice created as one more reimbursement based silo
  - Like SNF, Hospital or HHA, implies that services are unique and cannot be combined
  - Regulations (conditions of participation) reinforce reimbursement silos, creaing impediments to concurrent care
- Although most patients have very short hospice stays, most hospice days attribuable to very long stay beneficiaries -- $$ incentive to do so

- Per diem payments, like DRGs or per visit/procedure payments are Fee for Service, just like bundles; limit accountability to the episode

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A Modest Proposition and Test

- MA plans or ACOs (or in concert) should be accountable for ALL care, including end of life care
- Hospice/Palliative Care must be part of MA or ACO repertoire
- Bills pending requiring MA to incorporate hospice as a service within the MA benefit, payments and accountability
- Like VA, accountable for all care and all outcomes
- Challenge is Measuring Quality to assure value of End of Life Care

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