

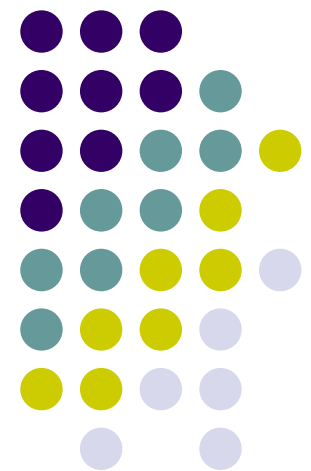
Enrollment in Medicare Hospice by U.S. Nursing Home Residents: Variation by States and Their Policies

GSA 58th Annual Scientific Meeting

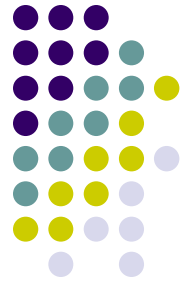
November 27, 2005

Susan C. Miller, Ph.D.

Pedro Gozalo, Ph.D.

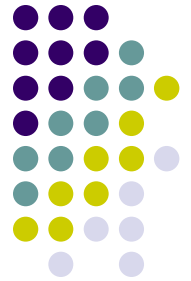


Background--Hospice In Nursing Homes



- Eligibility for Medicare hospice care in nursing homes --
 - Private pay nursing home residents
 - Medicare / Medicaid eligible residents
 - Physician-certified terminal prognosis of 6 months or less (if disease runs its normal course) –made in good faith
- Reimbursement—
 - Hospice receives Medicare hospice payment
 - Hospice receives 95% of Medicaid per diem

Background--Hospice In Nursing Homes



- Hospice enrollment associated with higher level quality –
 - More likely to have pain assessed & treated
 - Less likely to be hospitalized and to die in a hospital
 - Less likely to have invasive treatment
- Low utilization of hospice
 - Previous research showed < 10% of decedents enrolled in hospice prior to death.

Nursing Homes Collaborating with Hospice



- In Kansas, Maine, Mississippi, New York and South Dakota & Ohio (in 1997)
 - 1993 23.3%
 - 1996 56.6%
 - 1997 51.3%
- In ALL STATES in 2000 – 76%
 - Florida 96%; Wyoming 36%

Nursing Homes Collaborating with Hospice



- State policies associated with collaboration (decision to collaborate):
 - ↑ when no pass-through NH payment
 - ↓ when case-mix present – esp. in states with small hospices
 - Hospice CON assoc. with larger hospices and with larger hospices ↑ more collaboration



Study Aim and Design

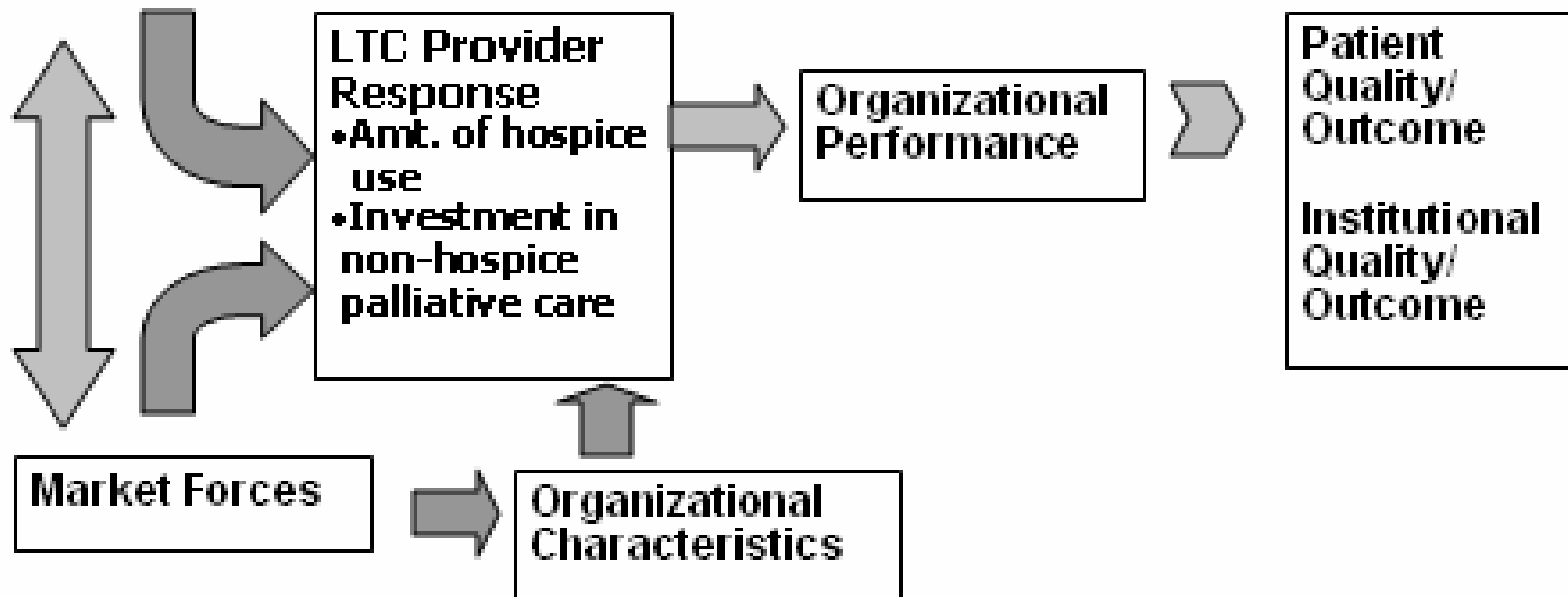
- AIM: Gain an understanding of how state policies may influence hospice referral in nursing homes
- Exploratory state-level analyses

Conceptual Model of Policies & Market Effects on Providers



State Policies

- Case-mix Medicaid Payment?
- Pass-through to hospice?
- Hospice CON? --
- Medicaid Payment Rate?

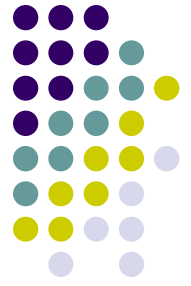




State Variables of Interest

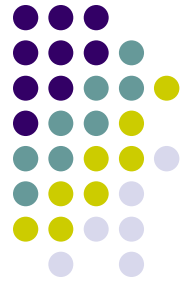
- Hospice CON Yes/No Yes = 12
 - Pass Through Yes/No Yes = 43
 - Casemix Yes/No Yes = 30
 - Medicaid Rate Avg. NH Payment Amt. in 2000
-
- Other State-level Variables:
 - Avg. hospice size
 - Avg. NH occupancy
 - % for profit & Any for profit hospice in state
 - % persons 65+ living in rural areas

Proportion of NH Decedents who Enroll in Hospice – July-Dec., 2000



- In 48 contiguous states = 15.3%
- In 48 contiguous states considering NHs with any hospice collaboration = 21.4%
 - High: Oklahoma @ 42%
Arizona, Colorado & NM @ 39%
 - Low: Vermont @ 9% & Idaho & Maine @ 10%

State Policies and NH Hospice Enrollment – Bivariate Associations



<u>State Policy</u>	<u>% Enrollment</u>	
	<u>Yes</u>	<u>No</u>
Pass through	22.7%	22.1%
CON	23.6 %	17.6%*
Casemix payment	23.4%	21.5%

-Yes---Avg. Medicaid Rate \$105.74

-No---Ave. Medicaid Rate \$99.79

Medicaid NH and % Enrollment **

* $p < .05$

** $p < .01$

Multivariate Model – States with No Case-Mix Payment[†] (N=30)



	Coef.	SE	95% CI
Greater Avg. Hospice Size (5 unit increase)	3.14	1.10	0.77, 5.50*
CON (present)	-8.72	4.10	-17.50, 0.06**
Medicaid Payment Rate (\$10 increase)	-2.23	0.76	-3.86, -0.60*

† $R^2 = 0.57$

* $p = 0.01$

** $p = 0.05$

Characteristics of States with No Casemix and High and Low Hospice Enrollment



LOW ENROLLMENT

% Hspc	State	HspcSize	M Rate	% FP	NH Occup	No Pass	CON
9.56	ID	7	116.37	60	74.7	No	No
13.74	WY	4	97.89	0	81.9	No	No
14.36	RI	22	116.03	0	88.7	No	Yes
14.85	TN	13	81.76	14	90.4	No	Yes
15.08	NC	24	122.14	4	90.1	No	Yes

HIGH ENROLLMENT

% Hspc	State	HspcSize	M Rate	% FP	NH Occup	No Pass	CON
27.4	IA	12	85.90	0	79.3	No	No
29.2	MO	17	91.65	26	71.7	No	No
31.2	FL	148	113.45	25	82.6	No	Yes
38.5	NM	13	92.46	0	88.3	No	No
41.9	OK	23	66.57	0	71.1	Yes	No

Multivariate Model – States with Case-mix Payment†



	Coef.	SE	95% CI
Greater Avg. Hospice Size (5 unit increase)	5.38	1.91	1.46, 9.30*
CON (present)	-7.01	2.19	-11.52, -2.50*
Avg. State NH Occupancy Above U.S. Median (> 84%)	-8.15	1.88	-12.02, -4.28**

† $R^2 = 0.63$

* $p < 0.01$

** $p < 0.001$

Characteristics of States with Casemix and High and Low Hospice Enrollment



LOW ENROLLMENT

% Hspc	State	HspcSize	M Rate	% FP	NH Occup	No Pass	CON
9.2	VT	7	112.56	0	91.8	No	Yes
10.1	ME	8	115.77	0	89.7	No	No
11.9	WV	18	113.68	0	89.8	No	Yes
14.5	MT	10	94.04	11	79.8	No	No
14.9	VA	11	99.99	10	90.0	No	No

HIGH ENROLLMENT

% Hspc	State	HspcSize	M Rate	% FP	NH Occup	No Pass	CON
29.06	OH	27	121.76	7	78.9	No	No
31.03	KS	14	83.53	0	81.4	No	No
35.53	TX	26	83.53	43	67.8	No	No
38.96	CO	20	111.62	14	82.8	No	No
38.99	AZ	37	99.57	29	76.4	No	No

Conclusion





Needed State-Level Action

- Allow for electronic billing of Medicaid NH per diem by hospices & do not exclude hospice residents from case mix
- Require surveyors to focus on end-of-life care and on the nursing home / hospice collaboration
 - Comfort care / palliative care expertise available
 - Symptoms adequately managed
 - Other
- State Health Department involvement in improving end-of-life care

Next Steps



Potential Implications

