Assessing the Association between Having a Usual Source of Care and Emergency Department Visits

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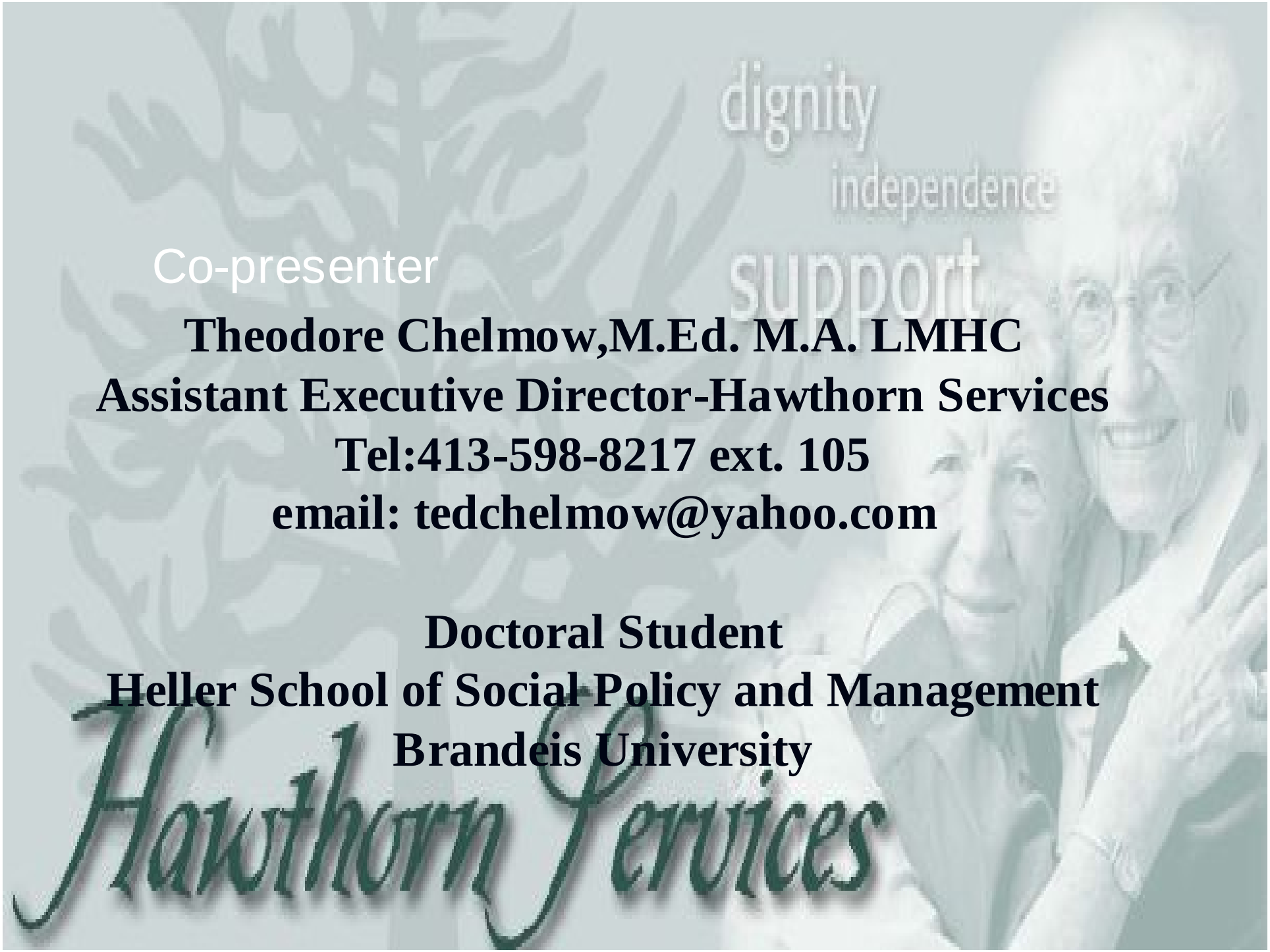

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Background

- Medical cost control has become an essential feature of national and state human service resourcing. It is important to identify unnecessarily costly medical practices and replace them with more effective and less expensive modes of care for under-served populations.

- For individuals, the usual source of care is a designation which assists in ascertaining whether there is a particular doctor's office, clinic, health center or other place that the individual goes to for their medical care and health advising.

- Frequently, individuals without a usual source of care use emergency rooms for their care.

Current Status of Emergency Usage

- Cost of Emergency Use versus Primary Care Doc / CHC
- Racial and Income Disparity Correlates with Increased ER usage
- Lack of Continuity of Care across Lifespan
- Lack of Care Coordination subsequent to ER visit.

Examples from the Field

- Mental Health Care via ED
- Homeless individuals

Hypothesis

- Objective: To determine if having a usual source of care will decrease the use of the emergency care on a national level.

- Hypothesis: having a usual source of care will decrease the use of the emergency care.

Method

- Use national data from the 2004 Medical Expenditure Panel Survey (MEPS)
- Exam the correlation between having a usual source of care and the use of emergency care
- Control for age, race, gender, income, education, family size, metropolitan statistical area, and perceived health status.
- A Logistic regression model adjusting for the complex survey design will be used to examine this association.

Analytical Strategy

- **Outcome variables:**

  The dependent variable is whether a person used emergency room during 2004.

  1 : a person has any emergency visit

  0: otherwise.

- **Independent variable:**

  Whether the person has usual source of care, a designation which assists in ascertaining whether there is a particular doctor's office, clinic, health center or other place that the individual goes to for their medical care and health advising.

  1 : a person has any usual source of care

  0: otherwise.

Statistical Model

- Logit model

Logit (Z=1)= f(U, I, F, G, e_1)

- Z=1 : a person with any emergency visit , Z=0 otherwise.
- U, I, F, and G are usual source of care indicator, and the sets of individual, family, geographic variables
- E is error term

Results

- Having a usual source of care is significantly associated with a decreased use of emergency care.
- People with usual source of care are 24% less likely use the emergency services compared with people without access to usual source of care adjusted with other social demographic characteristics.

Distribution of Dependent and Independent Variables			
Emergency Usage		Yes	14%
		No	86%
Have Usual Source of Care		Yes	77%
		No	23%
Age group			
	<19		24%
	19-24		9%
	25-64		55%
	>=65		12%
MSA	Non		18%
	Yes		82%
Sex	Male		47%
	Female		53%
Family Size	1-13		
Race	Hispanic		26%
	Black		15%
	Asian		4%
	White and Other		55%
Marital Status			
	Married		43%
	Windowd/Divorced/ Seperated		16%
	Never Married		41%
Education	< 12 years		44%
	=12 years		25%
	>12 years		31%
Poverty Status			
	< 100% FPL	Poor	19%
	100% - <125% FPL	Near Poor	7%
	125% - <200% FPL	Low income	17%
	200% - <400% FPL	Middle income	29%
	>= 400% FPL	High income	29%
Perceived Health Status			
	Excellent		29%
	Very good		30%
	Good		27%
	Fair		10%
	Poor		4%

Logistic Regression Results on Emergency Usage

				Odds Ratio	95% CI.	
Number of observations: 27816					Lower	Upper
Have Usual Source of Care		Yes		0.762	0.761	0.763
		No	ref.			
Age group						
	<19			0.795	0.794	0.797
	19-24			1.118	1.116	1.12
	25-64			0.814	0.813	0.815
	>=65		ref.			
MSA	No			1.131	1.13	1.132
	Yes					
Sex	Male			0.937	0.937	0.938
	Female		ref.			
Family Size				0.943	0.943	0.944
Race	Hispanic			0.691	0.69	0.692
	Black			1.044	1.043	1.045
	Asian			0.429	0.428	0.431
	White and Other		ref.			
Marital Status						
	Married			1.003	1.002	1.004
	Windowd/Divorced/ Seperated			1.06	1.059	1.062
	Never Married		ref.			
Education	< 12 years			1.258	1.257	1.26
	=12 years			1.093	1.092	1.094
	>12 years		ref.			
Poverty Status						
	< 100% FPL	Poor		1.567	1.565	1.569
	100% - <125% FPL	Near Poor		1.536	1.533	1.538
	125% - <200% FPL	Low income		1.439	1.438	1.441
	200% - <400% FPL	Middle income		1.195	1.193	1.196
	>= 400% FPL	High income	ref.			
Perceived Health Status						
	Excellent			0.285	0.284	0.285
	Very good			0.358	0.358	0.359
	Good			0.431	0.43	0.432
	Fair			0.639	0.638	0.64
	Poor		ref.			

Limitation

- Cross-section observational study.
- Future research may benefit by examining the longitudinal relationship between having a usual source of care and the use of emergency care among diverse vulnerable populations.
- Allocative efficiency:
  - Medical services available in poverty neighborhoods?
  - Reduce waiting time as rationing resources?

Policy Implications

- Strong Support across multiple tiers of health care for continuity of care, including information dissemination.
- Cost of ER usage by uninsured or those with compromised health coverage can be offset by providing insurance and assurance of a usual source of care.

- For those without usual source of care, modalities to reduce multiple providers for some diseases may relate to reduction in ER usage.
- Review of high ER utilization for varying diseases.
- Research Needed—Across States/Nations (Qualitative & Quantitative). Advocacy if problem strongly relates to insurance.
- Same level of care that we (of means) require is sound basis for developing standards for all.