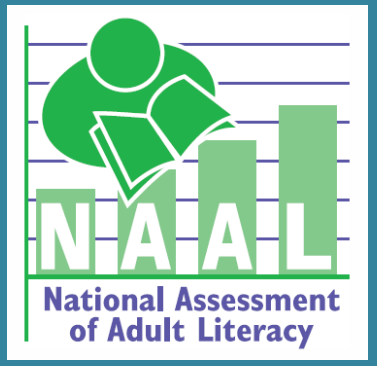
Health literacy and health care experience: Findings from a representative statewide survey

Kimberly A. Kaphingst, ScD
Health Communication Research Laboratory and
Dept. of Surgery, Washington University School of Medicine
kkaphingst@gwbmail.wustl.edu

Background

- National data has described levels of health literacy in U.S.
  - Disparities by race/ethnicity, age, education
- Research has examined relationship between health literacy and health care variables
  - Population-based studies are needed



Research objective

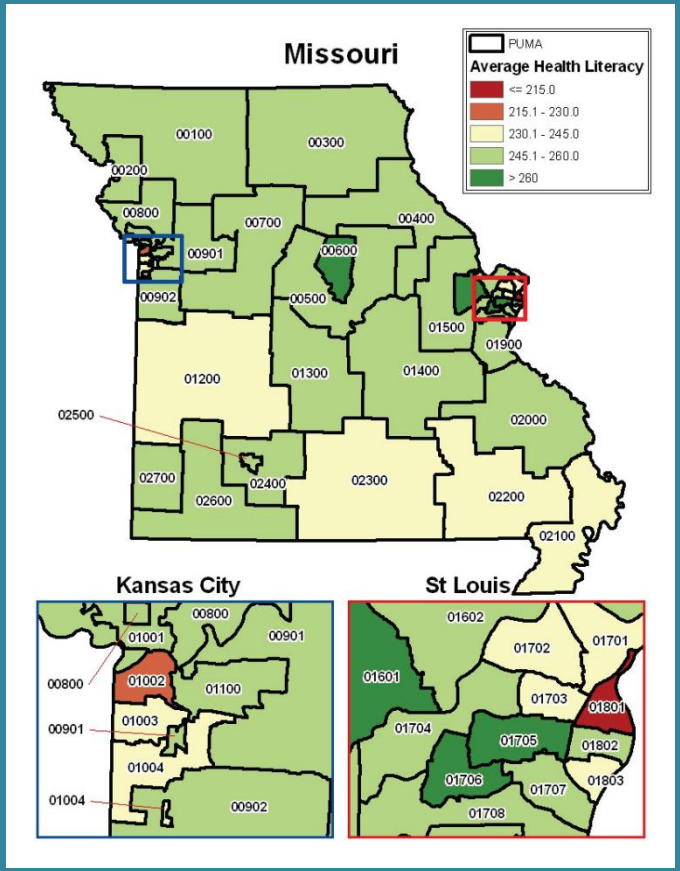
- To examine how disparities in health literacy within Missouri are related to individuals' health care experiences





Methods

- Statewide random digit dial telephone survey (n=3358)
- Two sampling frames
  - Household landline
  - Cell phone
- Designed to generate county-level estimates
- Oversampled four counties



Lurie et al. 2009 working paper

Survey items

- Survey domains
  - Health literacy
  - Provider-patient communication
  - Interactions with front desk staff
  - Ability to manage chronic diseases

- Health literacy screener
  - How confident are you filling out medical forms by yourself (not at all, somewhat, extremely)

(Chew et al., 2004)

Health characteristics (unweighted)

Characteristic	N(%)
Health literacy screener	
Not at all confident	162 (5%)
Somewhat confident	1213 (36%)
Extremely confident	1954 (58%)
Perceived health status	
Poor/fair/good	1724 (51%)
Very good/excellent	1626 (48%)
Diagnosed with any chronic disease	2161 (64%)
Diagnosed with 2+ chronic diseases	1222 (36%)

Health literacy and sociodemographic characteristics

Characteristic	N(%)
Female	**1834 (55%)**
Race/ethnicity	
White	2783 (83%)
Black	426 (13%)
Educational attainment	
High school diploma or less	**1275 (38%)**
College degree or higher	**1036 (31%)**
Household income	
Less than $30,000	**1072 (32%)**
$30,000- $70,000	**1208 (36%)**
Age	**M = 50.0**

Health literacy and interactions with providers and staff

	Health literacy			
	Not at all confident	Somewhat confident	Extremely confident	P-value
Personal doctor	115 (71%)	934 (77%)	1623 (83%)	<.0001
Doctor used complicated medical words	26 (16%)	147 (12%)	192 (10%)	.008
Asked doctor questions at last visit	119 (73%)	929 (77%)	1577 (81%)	.047
Comfortable asking doctor questions	148 (91%)	1165 (96%)	1906 (98%)	.0003
Comfortable with front desk staff	97 (60%)	779 (64%)	1404 (72%)	<.0001

Health literacy and disease management

- Created series of multivariate models
  - Health literacy and
    - Ability to manage disease
    - Confidence in understanding information about disease (Wolf et al. 2005)

- For those diagnosed with:
  - Diabetes
  - Asthma
  - High blood pressure
  - High cholesterol

Health literacy and management of high blood pressure (n=1186)

Parameter	OR (95% CI)	P-value
Health literacy		
Not at all confident	0.38 (0.23, 0.63)	.0002
Somewhat confident	0.65 (0.50, 0.85)	.0017
Age	1.02 (1.01, 1.03)	<.0001
Own home	1.35 (1.00, 1.82)	.047
Have insurance	1.22 (0.80, 1.87)	.36

Patterns across disease outcomes

	Could manage disease very well		Very confident in understanding disease info	
Disease	Not at all confident (OR)	Somewhat confident (OR)	Not at all confident (OR)	Somewhat confident (OR)
High blood pressure (n=1186)	0.38***	0.65**	0.31***	0.33***
High cholesterol (n=1033)	0.58	0.79	0.36 ***	0.40 ***
Diabetes (n=432)	0.50	0.48**	0.31**	0.29***
Asthma (n=452)	0.67	0.82	0.23**	0.26***

* p<.05, ** p<.01, *** p<.001

Summary

- Disparities in health literacy across population subgroups
- Lower health literacy related to less access to a medical home and less active participation in medical visits.
- Lower health literacy related to less confidence in understanding disease information
  - Related to ability to manage some diseases

Acknowledgements

- Washington University
  - Matt Kreuter
  - Meng-Ru Cheng
  - Melissa Brown
  - Susie Rath
- Saint Louis University
  - Nancy Weaver
  - Ricardo Wray
  - Trent Buskirk
- Center for Advanced Social Research
  - Ken Fleming
- MU School of Health Professions
  - Diane Smith
- Missouri Foundation for Health
  - Charles Gasper
  - Thomas Adams
- Health Literacy Missouri
  - Arthur Culbert