

Policy dissemination research: Are we making legislation or sausage?

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Science of Dissemination and Implementation:
Policy and Practice**

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PREVENTION RESEARCH CENTER *in St. Louis*
Promoting Healthy Communities

Objectives

1. To [briefly] understand the impact of policies on health.
2. To explore the basis for evidence-based policy.
3. To understand the challenges and opportunities in translating evidence to policy.
4. To pose a few [provocative] questions [If it's so important, why aren't we doing more policy dissemination research?].

“I think anybody who's occupied this office has to remember that success is determined by an intersection in policy and politics and that you can't be neglecting of marketing and P.R. and public opinion.”

--Barack Obama

THE POTENTIAL:

How has health [or other] policy,
today, already affected your life
[positively or negatively]?

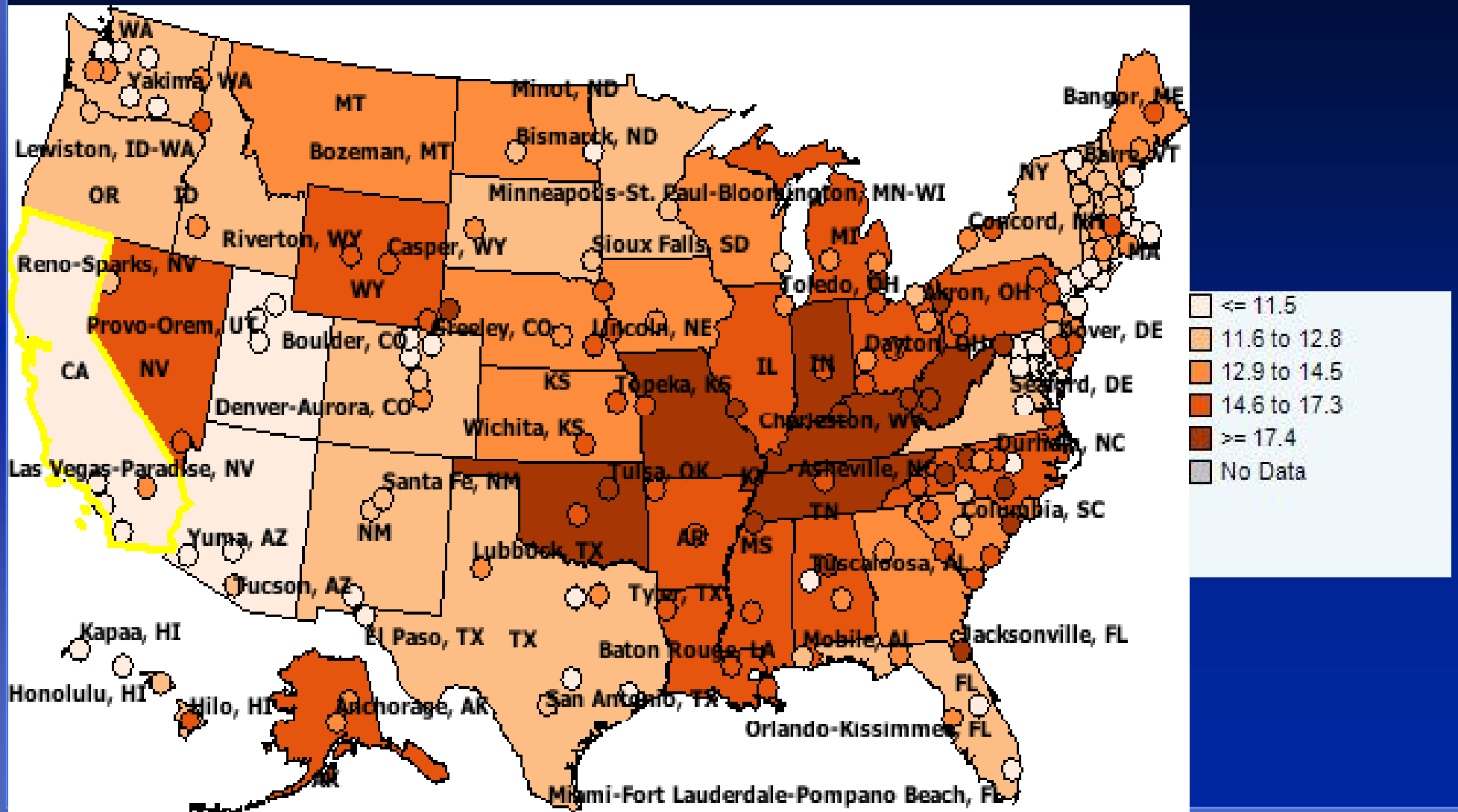
Top 10 public health achievements

- *Examples*
 - Vaccination
 - Motor-vehicle safety
 - Safer workplaces
 - Fluoridation of drinking water
 - Recognition of tobacco use as a health hazard
- Each of these advances involved policy

Centers for Disease Control and Prevention. Ten great public health achievements--United States, 1900-1999. MMWR 1999 Apr 2;48(12):241-3

Large-scale policy change

Percentage who smoke everyday, 2008



Examples Based on Varying Degrees of Evidence?

- California Proposition 99
 - smoking as key public health issue
 - effects of price increases
 - 0.25 per pack increase in 1988
 - earmarked for tobacco control with strong media component
 - 2 - 3 times faster decline in adult smoking prevalence
 - process was a blend of science and a soap opera!!

California adult smoking prevalence by region, 1990



California adult smoking prevalence by region, 1996



California adult smoking prevalence by region, 1999



California adult smoking prevalence by region, 2002



Best Practices

for Comprehensive Tobacco Control Programs

August 1999



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion
Office on Smoking and Health

Whose job is it?

1. Creating tobacco control policy at the local level: implementation of a direct action organizing approach

“Included are suggestions for practitioners interested in using policy change and community-based advocacy to resolve public health problems.”

2. Surveillance of screening-detected cancers (colon and rectum, breast, and cervix) - United States, 2004-2006

“Cancer control planners, including comprehensive cancer-control programs, can use late-stage cancer incidence and screening prevalence data to identify populations that would benefit from interventions to increase screening utilization and to monitor performance of early detection programs.”

3. Diet and prostate cancer: mechanisms of action and implications for chemoprevention.

“Until large randomized trials confirm the benefit of chemopreventive and dietary modifications, patients can be advised to pursue a diet and lifestyle that enhances overall health.”

Understanding evidence-based approaches

A simple definition of evidence-based public health

- “Evidence-based public health is the process of integrating science-based interventions with community preferences to improve the health of populations.”

For policy...

“Laws are like sausages.
You should never watch them
being made.”

Honoré Mirabeau, 1918

Elements of evidence-based policy

- Process
- Content
- Outcomes

Domains of Evidence-Based Public Health Policy

<i>Domain</i>	<i>Objective</i>	<i>Data Sources</i>
Process	To understand approaches to enhance the likelihood of policy adoption	<ul style="list-style-type: none">• Key informant interviews• Case studies
Content	To identify specific policy elements that are likely to be effective	<ul style="list-style-type: none">• Systematic reviews• Content analyses
Outcome	To document the potential impact of policy	<ul style="list-style-type: none">• Surveillance systems• Natural experiments tracking policy-related endpoints

What do policy makers want or
need from researchers?

Three Fundamental Questions

1. Is there a problem (what fuels it)?
 2. Do we know how to fix it (intervention)?
 3. How much will it cost (financially, politically)?
- What do all of these questions mean in the context of where we live and work [and the EVIDENCE]?

Challenges and opportunities for
evidence-based policy:

Finding the research-policy nexus



Because what you told
me is absolutely
correct. Yes, how did I
possibly know?

The problem

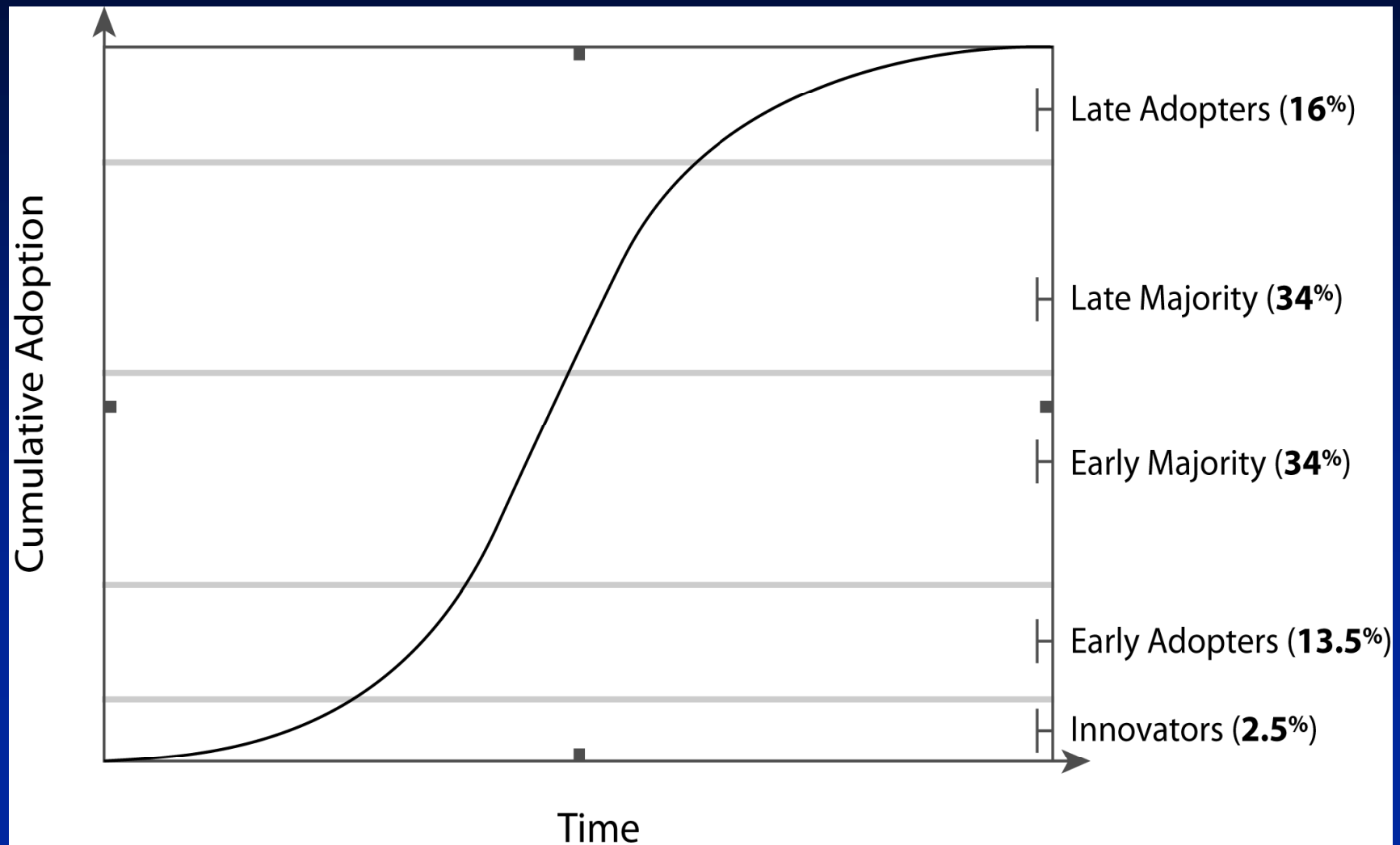
Yes.
You must have
policy ma

Because you don't know
where you are, you don't
know where you're going,
and now you're blaming me



Is there a role for dissemination science?

The classic S-curve for diffusion

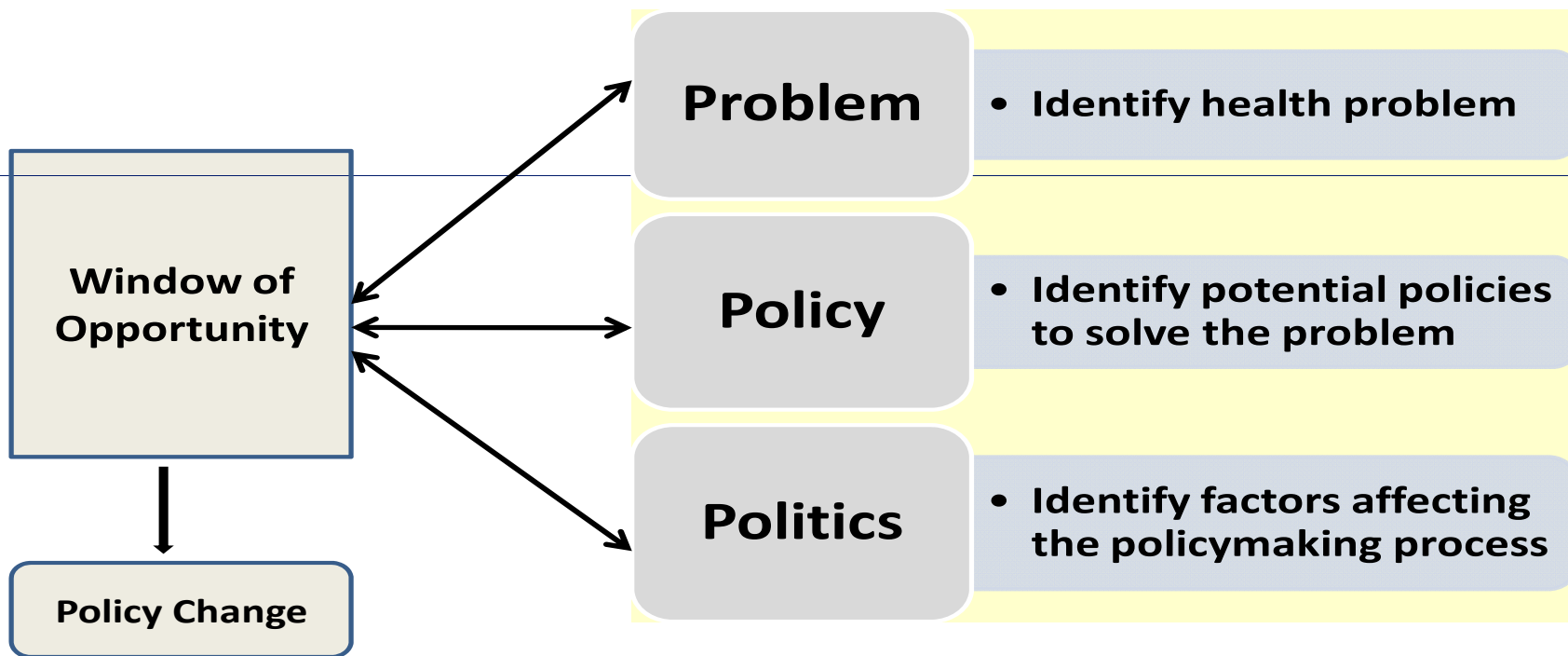


The S-shaped curve works well when...

- Decisions are voluntary
- The innovation [policy] in question is perceived as important
- Adopters constitute a social system with control over decision making
 - Influence of
 - Opinion leaders
 - Social pressure

Theory from non-health fields

Figure 1. Three Streams of the Policy Process, Adapted from Kingdon¹³



Kingdon JW. *Agendas, Alternatives, and Public Policies*. New York: Addison-Wesley Educational Publishers, Inc.; 2003

Remember, policy makers come in
multiple flavors...[the big P and
the little p]

What are we learning about
translation of science to policy?

Examples of Policy Translation Challenges (most research has been on barriers)

1. Poor timing
2. Ambiguous findings
3. Balancing objectivity and advocacy
4. Lack of relevant data
5. Mismatch of randomized thinking with nonrandom problems

Brownson et. al. Researchers and policy makers: travelers in parallel universes. Am J Prev Med 2006

Evidence hierarchies are common and often useful, but...relevance for policy?

“The best is the enemy of the good”
-Voltaire

**The problem of randomized trials
and parachutes....**

The effectiveness of parachutes has not been subjected to rigorous evaluation by using randomised controlled trials.... We think that everyone might benefit if the most radical protagonists of evidence based medicine organised and participated in a double blind, randomised, placebo controlled, crossover trial of the parachute.

Smith and Pell, BMJ, 2004



Parachutes reduce the risk of injury after gravitational challenge, but their effectiveness has not been proved with randomised controlled trials

Examples from ongoing policy dissemination research

*(Overall goal: Understand and
enhance dissemination of EB policy
among state level policy makers)*

Early findings from NCI D&I grant

Evaluate effectiveness of data and narrative approaches

- **Data:** typically used by health experts who are trained to summarize scientific information using empirical statistics and facts
- **Narrative:** turns scientific data into compelling stories showing how evidence-based interventions can affect the daily lives of people

Overview: Conveying information via policy briefs

Phase 1: Audience Research

- Most policy briefs are text heavy and not “brief”
- Randomized experiment
 - Compare data vs. narrative
 - Three key groups of policy makers:
 - legislators
 - legislative staff members
 - executive branch administrative leaders
 - Read a brief then responded to a short questionnaire

Phase 1: Policy Brief Design

Data

Narrative

Local



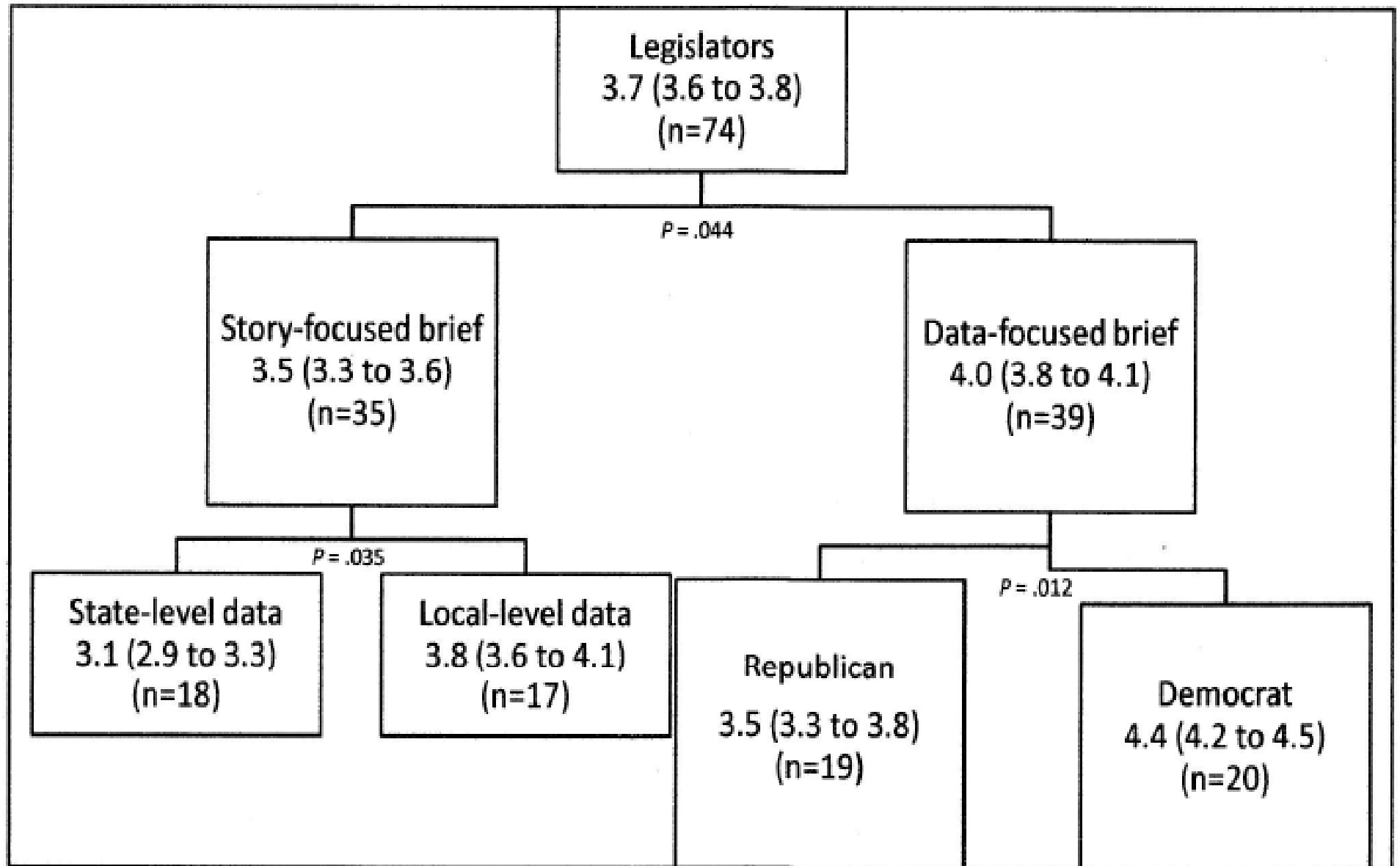
State

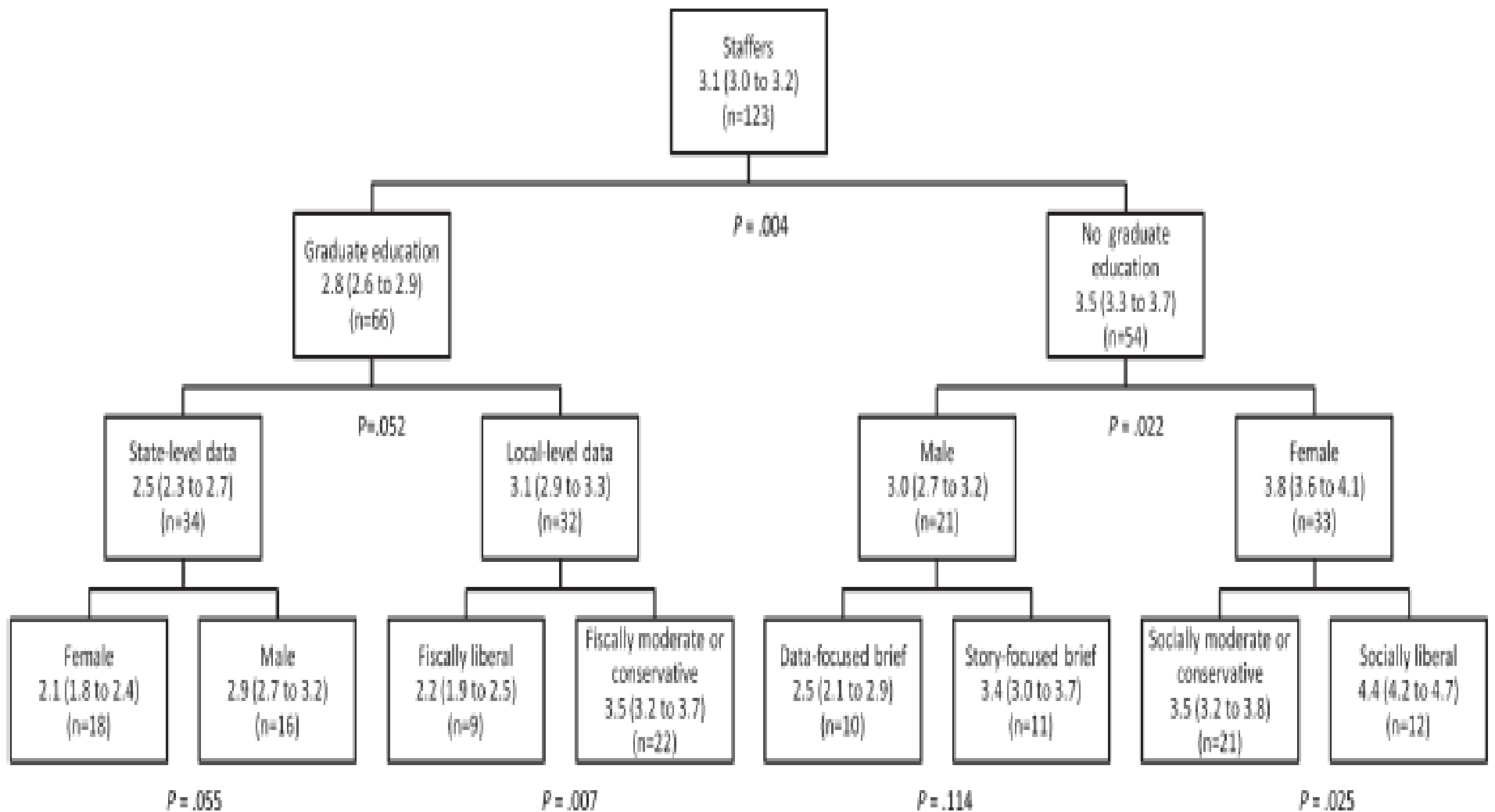


Selected results

- Responses from 286 individuals in
 - Mississippi, Missouri, Oregon, New Jersey, Pennsylvania, South Carolina
- Overall, 35% response rate

Data trees on brief *usefulness*





Overall Likelihood of Use

- Higher among
 - Women
 - Those who identify themselves as socially liberal
 - Respondents older than 52 years
 - Those without graduate education

Legislators: "How important are the following factors in determining what health issues you work on?"

Factors	Rank order of importance (%)
	Total N=75
Constituents' needs or opinions	1 (64)
Evidence of scientific effectiveness	2 (62)
Data on health impact in my local area	3 (44)
A local leader I trust	4 (26)
My personal interest in the health issue	5 (25)
Position of advocacy groups	6 (22)

Qualitative interviews with health committee members

When you hear the term “scientific evidence” what does that mean to you?

- Not much. The term is thrown around a lot. Science doesn't mean it is good science.
- I like to see things that are evidence-based and peer-reviewed
- Scientific is the opposite of anecdotal evidence, so anecdotal evidence is what we rely on ...to make our decisions, unfortunately.

Where do you go for scientific information?

- “My most trusted source...I have a lot of **constituents** who bring items to me or ask me about things and I collect data from them...”
- “We get info from the various entities and the **lobbyists** as well as the other organizations that are in support or against a particular issue.”
- “We always check the **internet** first...”
- “Well I have not...I don't think I've ever thought I needed scientific evidence...”

Some closing questions
for you to consider

Questions

- What constitutes “evidence-based” policy?
- Is there low hanging fruit for policy dissemination research?
 - existing data sets, natural experiments (“rapid response”), measures work, guideline dissemination
- Is pursuing this line of research career suicide?
- What are particular challenges for policy dissemination research?
 - response rates, lack of control of the independent variable, social desirability
- Will I be perceived as a “wild-eyed advocate”?

Further reading

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THE LATEST RESEARCH SHOWS THAT
WE REALLY SHOULD DO SOMETHING
WITH ALL THIS RESEARCH

