Countering the Anti-Science Movement

Evidence and Implications

Sarah Gollust, PhD
Division of Health Policy & Management
@sarahgollust
My Research Approach

• News media content analysis
• Surveys of public opinion, media exposure, media effects
• Qualitative interviews with journalists, PR representatives, policymakers, scientists
Three Research Findings

1. Most policymakers want to base their decisions on evidence, but they face challenges in doing so.
2. The public’s views on the politicization of science are nuanced, and vary by issue area.
3. There are consequences for policy support if the public’s trust in science gets eroded.

There are still bright spots!
1. Research findings: evidence-based policy

Use of Research Evidence in State Policymaking for Childhood Obesity Prevention in Minnesota

**41% of legislative materials related to 13 obesity-related bills in MN cited research evidence.**

Majority of 51 legislators, agency staff, and advocates recognized the value of research evidence in supporting policy decision, educating the public, and countering ideological arguments.

**Majority of 40 state policymakers from around U.S. want to use research in decisions.**

Using Obesity Research to Shape Obesity Policy in Minnesota: Stakeholder Insights and Feasibility of Recommendations

Mutual Distrust: Perspectives From Researchers and Policy Makers on the Research to Policy Gap in 2013 and Recommendations for the Future

**Mutual distrust: Perspectives from around U.S. want to use research in decisions.**

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1. Research findings: evidence-based policy

- But state policymakers were not shy in expressing challenges:
  - Lack of time to find, understand, or engage with research
  - Cynical about “biased” science
  - Mistrust of research & research institutions

Most of the information that comes to legislators is not pure science data. It’s typically biased, so you have to take the time to figure out who is publishing the article and what their agenda might be.

Who elected those institutions of higher education to do the research? Who elected them to tell us what to do?

Gollust et al. 2017. *Inquiry*
Bright Spot: Public perceptions of evidence in policy

59% believed evidence should influence policy, no differences by partisanship
2. Research findings: Public’s views on science politicization

• Related definitional concepts of “politicization”:
  - Strategic exaggeration of uncertainty of science
  - Scientific issues entering political discourse
  - Emphasis on controversy and debate

Fowler, Nagler, Gollust (2017) paper for Midwest Political Science Association
2. Research findings: Public’s views on science politicization

Perceptions of Scientific Certainty

- Seat belts
- Mammograms
- Childhood vaccines
- Climate change
- Abortion
- Zika virus
- HPV vaccine
- GMOs
- Soda tax

Legend:
- Fairly certain
- Somewhat uncertain
- Very uncertain
- Don’t know
2. Research findings: Public’s views on science politicization

Perceptions of Political Discourse

<table>
<thead>
<tr>
<th>Topic</th>
<th>Not part of politics</th>
<th>Sometimes part of politics</th>
<th>Often part of politics</th>
<th>Don't know</th>
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<td>Seat belts</td>
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<td>Abortion</td>
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</tbody>
</table>
Bright Spot: Public support of science

About half of Americans support more federal funding for scientific research

% of U.S. adults who say they would ____ federal spending for scientific research

- Increase
- Keep the same
- Decrease

<table>
<thead>
<tr>
<th>Year</th>
<th>Increase</th>
<th>Keep the Same</th>
<th>Decrease</th>
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<tr>
<td>2019</td>
<td></td>
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</tbody>
</table>

Note: Respondents who did not give an answer are not shown. Source: Survey conducted March 20-25, 2019.

62% of Democrats
40% of Republicans
3. Perceptions of scientific uncertainty have consequences

- **32%** of public perceives uncertainty in portrayal of the science of HPV vaccine
- Those who perceived more scientific uncertainty had significantly lower support for policies that would increase uptake of HPV vaccine, after adjusting for other factors

Perceptions of politicization and HPV vaccine policy support

Loren Saulsberry\textsuperscript{a,\*}, Erika Franklin Fowler\textsuperscript{b}, Rebekah H. Nagler\textsuperscript{c}, Sarah E. Gollust\textsuperscript{d}

\textsuperscript{a}Department of Public Health Sciences, The University of Chicago, Chicago, IL, USA
\textsuperscript{b}Government Department, Wesleyan University, Middletown, CT, USA
\textsuperscript{c}Hubbard School of Journalism and Mass Communication, University of Minnesota, Minneapolis, MN, USA
\textsuperscript{d}Division of Health Policy and Management, School of Public Health, University of Minnesota, Minneapolis, MN, USA

Vaccine 2019
Bright Spot: Emerging collaborative research

Building and Maintaining Trust in Science:
Paths Forward for Innovations by Nonprofits and Funding Organizations

Brian Southwell, Angelique (Angel) Hedberg, Christopher Krebs, and Stephanie Zevitas, Editors
Conclusion and Looking Forward

- Ongoing interdisciplinary & collaborative research:
  - Effectiveness of translating evidence into policy
  - Analysis of media coverage of public health issues
  - Effects of and buffers to politicization of science on the public
Questions and Discussion

Looking forward to the conversation!