Leveraging the Power of Science Communication to Achieve Better Health and Economic Prosperity

Mary Woolley, President and CEO, Research!America
Thank you Texas State for a warm welcome!

- Research!America Alliance Member
- Research advocacy is an important part of “Promoting Community Health”
Nothing About Us Without Us*

*A slogan originating with the South African disability movement in the early 1990’s*
Advocacy Works!

FUNDING SCIENCE
opens a world of possibilities

RAISE THE BUDGET CAPS

Scientific breakthroughs depend on federal support. From the internet to miraculous medical treatments, federal investments in scientific research have made America the unquestioned world leader in science, technology and innovation. These investments have revolutionized how we live on Earth, strengthened local economies and created millions of American jobs. Yet we’ll surrender American leadership if Congress fails to raise the budget caps and increase funding for vital research.

researchamerica.org/RaiseTheCaps

#RaiseTheCaps

American Association for the Advancement of Science • American Association for Dental Research • American Educational Research Association • American Geophysical Union • American Physical Society • American Society for Microbiology • Federation of American Societies for Experimental Biology • National Association for Biomedical Research • OSA-The Optical Society • Research America • Society for Neuroscience • Supporters of Agricultural Research
Winning Hearts and Minds for Research: aka, Advocacy

- Build relationships
- Share your passion
- Offer evidence
- Make regular engagement and public outreach the new normal

No one who cares about the future of health can afford to ‘outsource’ advocacy; get involved!
Research!America’s Mission

Making research to improve health a higher national priority

Research!America is an innovator in advocacy for research
Research!America: 29 Years of Putting Research on the Public Agenda

- Nonprofit alliance with member organizations drawn from academia, independent research institutes, industry, patient organizations and scientific societies representing more than 125 million Americans
- Distinguished, all-volunteer board includes former elected and appointed officials, media and public relations leaders, and leaders from alliance member organizations
- Four ‘sister’ organizations in Canada, Australia, New Zealand and Sweden
Urgency of Advocacy: Appropriations Process

• The Continuing Resolution (CR) of Feb 9 included increased funding caps for defense and non-defense discretionary spending for Fiscal Year (FY) 18 and FY19.

• The CR lays out several specific priorities, including direction to increase NIH funding by $2 billion, and it funds opioid response and mental health by $6 billion over the two-year period.

• House Labor-HHS Appropriations Subcommittee Chairman Tom Cole (R-OK) said the NIH will likely receive more than the $2 billion set aside for the agency as part of the CR.

• Between now and March 23, Congress must determine contents of and pass a detailed FY18 budget (we are five months into FY18!).

• Congress will then pivot to FY19 appropriations.
NIH Appropriations in Current and Constant Dollars

Source: NIH Office of the Director, Office of Budget: http://officeofbudget.od.nih.gov/
“You can change the image of things to come. But you can’t do it sitting on your hands...The science community should reach out to Congress and build bridges.”
How important is it for scientists to inform elected officials about their research and its impact on society?

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
How important is it that elected officials at all levels listen to advice from scientists?

14% increase in those who responded ‘very important’ compared to January 2015.

Important for Scientists to Engage Public

How important is it for scientists to inform the public about their research and its impact on society?

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Arguments that Resonate: Finding Solutions to What Ails Us

**STRENGTHS**
- Low prevalence of smoking
- Low drug death rate
- Low cancer death rate

**CHALLENGES**
- High percentage of uninsured population
- High prevalence of obesity
- Low number of mental health providers
- In the past year, excessive drinking rates increased from 17.3% to 19.4%

Source: United Health Foundation, 2017 America’s Health Rankings
Arguments that Resonate: Economic Benefits of Research

- Texas received $1 billion in NIH funding in FY16.

- 61 businesses in Texas received NIH funding totaling $35 million for the research and development of technologies with potential commercial applications in FY16.

- In 2014, Texas was home to 4,865 bioscience businesses. Residents held 81,472 bioscience industry jobs, and the average annual wage in the bioscience sector was $33,200 higher than the private sector overall.

Sources: FASEB, BIO TEConomy Report
Life Sciences = Growth Industry and Good Jobs

- Texas is the nation’s leader in job creation, adding 1.8 million jobs in the last 10 years
- More than 4,000 life science and research firms, and approximately 100,000 workers in related fields
- $2.5 billion in annual R&D expenditures from life science and research firms
- 1,200 biotechnology-related manufacturing and R&D firms
- Texas ranks third nationally for number of clinical trials, with approximately 22,160 studies underway!
Important for Federal Government to Assign High Priority to Improving STEM Education

Do you agree or disagree the federal government should assign a higher priority to improving education focused on science, technology, engineering and mathematics and careers in those fields?

Do you agree or disagree that public policies should be based on the best available science?

73% of Democrats and 70% of Republicans agree, compared with 58% of Independents.

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Scientists Should Play Major Role in Shaping Public Policy

Do you agree or disagree that scientists should play a major role in shaping policy for the following:

- Medical and health research: 51% Strongly Agree, 32% Somewhat Agree, 5% Somewhat Disagree, 10% Strongly Disagree
- Air and water quality: 49% Strongly Agree, 33% Somewhat Agree, 5% Somewhat Disagree, 11% Strongly Disagree
- Environment: 48% Strongly Agree, 29% Somewhat Agree, 7% Somewhat Disagree, 11% Strongly Disagree
- Food safety: 47% Strongly Agree, 31% Somewhat Agree, 8% Somewhat Disagree, 11% Strongly Disagree
- Drug safety and efficacy: 44% Strongly Agree, 33% Somewhat Agree, 8% Somewhat Disagree, 12% Strongly Disagree
- Energy: 42% Strongly Agree, 34% Somewhat Agree, 7% Somewhat Disagree, 11% Strongly Disagree
- National Defense: 28% Strongly Agree, 24% Somewhat Agree, 18% Somewhat Disagree, 16% Strongly Disagree
- Roads, bridges, infrastructure: 28% Strongly Agree, 30% Somewhat Agree, 18% Somewhat Disagree, 11% Strongly Disagree
- Education: 28% Strongly Agree, 32% Somewhat Agree, 17% Somewhat Disagree, 9% Strongly Disagree
- Job creation: 25% Strongly Agree, 23% Somewhat Agree, 22% Somewhat Disagree, 14% Strongly Disagree

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
“...public sentiment is everything. With public sentiment, nothing can fail; without it nothing can succeed.”

President Abraham Lincoln
Research!America Surveys

- Commissioning public opinion surveys on research issues for 26 years:
  - National Surveys
  - State-Based Surveys
  - Issue-Specific Surveys
- Online surveys are conducted with a sample size of 1000-2000 adults and sampling error of +/-3.1% to +/-2.1%. The data are weighted in two stages to ensure accurate representation of the U.S. adult population.
Only a Third Say U.S. Will Be World Leader in Science and Technology in 2020

In your view, which of the following will be considered the number one world leader in science and technology in the year 2020?

12% decrease in those who responded “United States” compared to January 2016.

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>32%</td>
</tr>
<tr>
<td>China</td>
<td>12%</td>
</tr>
<tr>
<td>Japan</td>
<td>11%</td>
</tr>
<tr>
<td>Germany</td>
<td>5%</td>
</tr>
<tr>
<td>Canada</td>
<td>2%</td>
</tr>
<tr>
<td>South Korea</td>
<td>2%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2%</td>
</tr>
<tr>
<td>Russia</td>
<td>1%</td>
</tr>
<tr>
<td>France</td>
<td>1%</td>
</tr>
<tr>
<td>Other (Specify)</td>
<td>1%</td>
</tr>
<tr>
<td>Not sure</td>
<td>32%</td>
</tr>
</tbody>
</table>

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Important for U.S. to Lead in Research

How important do you think it is that the U.S. is a global leader in medical, health and scientific research?

Only a Third Say U.S. Will Be World Leader in Health Care in 2020

In your view, which of the following will be considered the number one world leader in health care in the year 2020?

11% decrease in those who responded “United States” compared to January 2016.

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<thead>
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<th>Country</th>
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</thead>
<tbody>
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<td>32%</td>
</tr>
<tr>
<td>Canada</td>
<td>13%</td>
</tr>
<tr>
<td>Germany</td>
<td>6%</td>
</tr>
<tr>
<td>Japan</td>
<td>4%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>4%</td>
</tr>
<tr>
<td>China</td>
<td>3%</td>
</tr>
<tr>
<td>France</td>
<td>1%</td>
</tr>
<tr>
<td>South Korea</td>
<td>1%</td>
</tr>
<tr>
<td>Russia</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Other (Specify)</td>
<td>2%</td>
</tr>
<tr>
<td>Not sure</td>
<td>34%</td>
</tr>
</tbody>
</table>

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
# Cost of Health Care is Most Important Health Issue in America

What would you say is the single most important health issue facing the nation?

<table>
<thead>
<tr>
<th>Health Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of health care</td>
<td>50%</td>
</tr>
<tr>
<td>Access to health care</td>
<td>11%</td>
</tr>
<tr>
<td>Obesity</td>
<td>8%</td>
</tr>
<tr>
<td>Cancer</td>
<td>7%</td>
</tr>
<tr>
<td>Drug addiction</td>
<td>7%</td>
</tr>
<tr>
<td>Mental health</td>
<td>4%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>2%</td>
</tr>
<tr>
<td>Heart disease</td>
<td>1%</td>
</tr>
<tr>
<td>Alzheimer’s disease</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
</tr>
<tr>
<td>Not sure</td>
<td>5%</td>
</tr>
</tbody>
</table>

Americans Split on Whether Health Care Based on Recent Research

Do you believe the health care services you personally receive are based on the best and most recent research available?

- Yes: 33%
- No: 33%
- Not sure: 35%

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Strong Majority Concerned about Decline in Life Expectancy

For the second year in a row, the average life expectancy in the U.S. has declined. The average age is now 78. The average life expectancy in other industrialized nations is 80. How concerned are you that life expectancy in the U.S. will continue to decline by the year 2020?

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Important to Conduct Research on Social Determinants of Health

How important is it for the federal government to fund research on social determinants of health (education, housing, income, access to healthy food and health care) to address health disparities?

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Congress Should Prioritize Health Promotion and Disease Prevention Research

Compared with other policy areas, how high a priority should Congress make health promotion and disease prevention research:

- Very high priority: 42%
- Somewhat high priority: 36%
- Somewhat low priority: 8%
- Very low priority: 3%
- Not sure: 11%

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2016.
Government Should Fund Prevention Research to Overcome Obesity, Diabetes

Some types of prevention research aim to help people make behavioral changes that can help them overcome health threats such as obesity, hypertension and diabetes. Do you believe the U.S. government should help fund this prevention research?

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2016.
Valuable for Government to Fund Behavioral Research

One of the key aims of behavioral research is to identify better ways to help people make lifestyle changes including weight loss and tobacco cessation. Which of the following statements is closer to your opinion:

Statement A: The government has no role in funding or conducting behavioral research since there is an individual choice.

Statement B: Society bears much of the cost of unhealthy behavioral choices so it is valuable for the government to be involved in research to address it.

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2016.
More Than Half Say There’s Not Enough Investment in Mental Health Research

Do you think public investment in mental health research is enough, not enough or about right?

- 51%: Not enough
- 22%: About right
- 18%: Enough
- 9%: Not sure

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Strong Majority Say It’s Important to Invest In Suicide Prevention

How important is it for the U.S. to invest public dollars in the prevention of suicide?

- Very Important: 32%
- Somewhat Important: 17%
- Not Too Important: 10%
- Not At All Important: 8%
- Not Sure: 10%

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Strong Majority Support Increased Funding for Research to Combat Opioid Addiction

Do you support or oppose increased funding for research to better understand and combat opioid addiction?

- 31% Strongly support
- 12% Somewhat support
- 17% Somewhat oppose
- 8% Strongly oppose
- 33% Not Sure

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Americans Express Confidence in Military, Scientists

Americans’ trust in military, scientists relatively high; media, business leaders, elected officials low

% of U.S. adults who say they have ___ of confidence in each of the following groups to act in the best interests of the public

<table>
<thead>
<tr>
<th>Group</th>
<th>A Great Deal</th>
<th>A Fair Amount</th>
<th>Not Too Much</th>
<th>No Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>The military</td>
<td>33</td>
<td>46</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Medical scientists</td>
<td>24</td>
<td>60</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Scientists</td>
<td>21</td>
<td>55</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>K-12 principals and superintendents</td>
<td>13</td>
<td>53</td>
<td>27</td>
<td>7</td>
</tr>
<tr>
<td>Religious leaders</td>
<td>13</td>
<td>39</td>
<td>32</td>
<td>14</td>
</tr>
<tr>
<td>The news media</td>
<td>5</td>
<td>33</td>
<td>40</td>
<td>21</td>
</tr>
<tr>
<td>Business leaders</td>
<td>4</td>
<td>37</td>
<td>44</td>
<td>14</td>
</tr>
<tr>
<td>Elected officials</td>
<td>3</td>
<td>24</td>
<td>54</td>
<td>19</td>
</tr>
</tbody>
</table>

Note: One third of respondents randomly assigned to rate “medical scientists”; two-thirds randomly assigned to rate “scientists.” Other questions asked of all, N = 4,563. Respondents who did not give an answer are not shown.

Source: Survey conducted May 10–June 6, 2016.

“The Politics of Climate”

PEW RESEARCH CENTER
And Yet, Despite High Levels of Public Confidence, Scientists are Invisible in Our Society...
Can Americans Name a Living Scientist?
Most Americans Cannot Name a Living Scientist

Can you name a living scientist?

- Yes, I can name
- No

- Stephen Hawking (42%)
- Neil deGrasse Tyson (27%)
- Bill Nye (6%)
- Jane Goodall (5%)
- Elon Musk (3%)
- Michio Kaku (2%)
- James Watson (2%)
- Richard Dawkins (1%)
- Anthony Fauci (1%)

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Do Americans Know Where Medical or Health Research is Conducted?
Most Americans Don’t Know Where Research is Conducted

Can you name any institution, company or organization where medical or health research is conducted?

- Mayo Clinic (21%)
- Johns Hopkins University (12%)
- St. Jude Children’s Research Hospital (10%)
- NIH (6%)
- Cleveland Clinic (5%)
- American Cancer Society (4%)
- CDC (4%)
- Duke University (2%)

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Most Americans Don’t Know Research is Conducted Nationwide

To the best of your knowledge, would you say that medical research in the U.S. is conducted in all 50 states?

- 45% Not Sure
- 32% No
- 24% Yes

Source: A Research!America survey of U.S. adults conducted in partnership with Zogby Analytics in January 2018.
Increase the Visibility of Science
Engage Emotion: You Can’t Use Facts To Change Feelings

- Time and again, research has shown that facts and rational analysis do not convince people to change behavior. Behavior change begins when people see something that makes them feel something.

- If you want to change the narrative around a cause, you have to start by changing the way people feel.

- We are exposed to literally 148 newspapers worth of information every day. We discard 90% of the content that we receive, immediately.

- To be successful, you have to **build a narrative that is in the 10% of content** that people retain and use.
Identify a Deep Need

- The first reason we have not been able to engage the audience is simple: we are telling the wrong story.
- We are telling **our** story, not **theirs**.
- The first thing you must do is convey that your mission helps to meet their needs.
Skepticism is Not Just for Scientists

- People are understandably confused by the three steps forward/two steps back *dynamic process* of science.
- By standing back or failing to engage, researchers and advocates aren’t helping resolve public confusion.
- **Healthy skepticism** is a good thing in science and in public discourse!
Tell Your Story, Not Your Data!

“I'll pause for a moment so you can let this information sink in.”
THEN... Prior to 1921, children who developed diabetes before the age of 10 often died within 2 months of their diagnosis.

NOW... (thanks to research) Type 1 diabetes is a manageable condition with regular use of insulin, and monitoring blood sugar, eating and exercise.

IMAGINE...(thanks to research) A cure for type 1 diabetes.

Research is the solution to what ails us!

That amount is enough to fund the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) for 6 years.

Sources: NRF; NIH
A Nation Worth Defending

• U.S. defense spending in 2017 totaled $587 billion.

• Health Security: The National Institutes of Health budget in 2017 totaled $34.1 billion.

“The NIH... is our nation's Department of Defense for America's personal health”*

Sources: DoD, NIH, Congressman Steve Cohen* (D-TN)
FY17 Appropriations Per Person

- NIH: $34.1B ($104.40/person)
- FDA*: $2.76B ($8.54/person)
- AHRQ: $320M ($0.99/person)
- NSF: $7.47B ($23.12/person)
- CDC: $7.2B ($22.30/person)
- Defense: $587B ($1,817/person)

U.S. Population – 323.1M

*FDA appropriations plus user fees: $ 4.68B ($14.47/person)
Re-Cap: How to Think About Talking to Non-Scientists

- Know your audience
- Use the Then-Now-Imagine message frame
- Be in the moment
- Understand and align with public sentiment
- Remember -- if people are skeptical, they are thinking like scientists!
- Convey your personal commitment/passion

Communicating well demonstrates understanding, sensitivity and accountability.
Put a Face on Research: YOURS!
The most important four words a researcher can say and convey are ...
“I work for you.”
Research!America Works for You

Connect with us

www.researchamerica.org/blog
www.facebook.com/researchamerica.org
www.twitter.com/researchamerica
www.youtube.com/researchamerica