Public engagement
“Do fizzy drinks make teenagers more likely to carry a gun?”

“A sausage a day could lead to cancer”

“Calls to ban mobile phones and Wi-Fi claiming they pose a public health risk not based on evidence”

“Is aluminium really a silent killer?”

“Heart danger in diet drinks”
## Figure 2.1 Interest in medical research

**Q. How interested, if at all, would you say you are in medical research?**

<table>
<thead>
<tr>
<th>Base: All respondents</th>
<th>Wellcome Trust Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>(%)</td>
<td>(%)</td>
</tr>
<tr>
<td>Very interested</td>
<td>34</td>
</tr>
<tr>
<td>Fairly interested</td>
<td>57</td>
</tr>
<tr>
<td>Not very interested</td>
<td>7</td>
</tr>
<tr>
<td>Not at all interested</td>
<td>2</td>
</tr>
<tr>
<td>Don’t know</td>
<td>*</td>
</tr>
<tr>
<td>% Interested (very or fairly)</td>
<td>91</td>
</tr>
<tr>
<td>Unweighted base:</td>
<td>1,179</td>
</tr>
<tr>
<td>Weighted base:</td>
<td>1,179</td>
</tr>
</tbody>
</table>

* indicates a percentage less than 0.5%, but greater than 0.
Flashpoints
EVIDENCE MATTERS

1st November 2016

www.senseaboutscience.org   @senseaboutsci
Ask for Evidence on pregnancy adv
Facial profiling reveals personality

Computer-vision and machine learning technology can analyze facial images and automatically reveal personality in real-time. Used by Social and Life Sciences research and professional organizations, our mission is to revolutionize how companies, organizations and even individuals make decisions, operate and communicate.

Do the claims of the expensive phonics programme Read Write Inc have any evidence?
The claim is that Read Write Inc Phonics is effective in teaching phonics to young children – effective enough to justify throwing out previous research. Yet, technology has been shown to enhance learning. A study by the University of Birmingham demonstrated that using technology in the classroom improves children’s learning outcomes.

Is all-lane running a safe and effective solution to congestion on motorways?
All-lane running (opening the use of the hard shoulder as a permanent

Yoga in schools improve mental health?
It was reported by The Telegraph that Edward Timpson said children should be taught yoga and meditation “to enable all children to enjoy good mental health and emotional wellbeing” http://bit.ly/2c1NX3 [...]
ALL TRIALS REGISTERED

Sign the petition  Tell me more

ALL RESULTS REPORTED
What people ask about...

**Help me get to grips with it**
- Should we worry?
- Can I get something from scientists?
- Is it a scare story?
- Is it science?
- Who says it’s safe?

**How much do we know?**
- What do scientists actually know?
- What tests have been done?
- How sure are they?

**Balance of scientific opinion**
- Is it majority opinion?
- How are scientists split?

**Legitimacy**
- Is it a proper study?
- How can I tell?
- Have they talked to scientists?
- What kind of study is it?
✔ Diagnosis
✔ Approach
✔ Accountability
🎉 Data
Public engagement: aren’t some issues just too complex?
Hover over the screenshots to see a list of the available maps.

Health conditions

Environmental agents
The environment and health atlas of England and Wales: how it was created and what it shows
Public engagement:
aren’t some issues just too sensitive?
UNDERSTANDING CHILDREN'S HEART SURGERY OUTCOMES

This site is to help people make sense of published survival data about children’s heart surgery in the UK and Ireland.

Our website will help you:

- understand how the NHS monitors children’s heart surgery
- explore what survival rates can and can’t tell you
- explore published data for hospitals in the UK and Ireland

What, why, how?

What do we mean by survival rates?

Why are survival rates after children’s heart surgery hard to interpret?

How does the NHS monitor them?

Explore the data

Explore published survival statistics by:

- browsing hospitals individually;
- viewing a one page summary of all hospitals;

Everything else

What happens if the data raises concerns?

More detail about how survival statistics are monitored, including an explanatory video.

Limitations of this data...
Guest post: "I hope we've helped others preparing for their child's heart surgery"

Alex Smith says the lack of clear information added to her stress when her daughter was diagnosed with a heart defect - so she got involved with a project to improve resources.

"As a parent, I need clear, straightforward information, even when I might be in a state of panic or distress."
Fear of Uncertainty

• It doesn’t mean we know nothing
• It doesn’t mean that anything could be true
• Confidence in new discoveries often compares favourably with confidence in previous

⇒ Operational knowledge
Public engagement:
is it too late?
Steve Forden, PhD Researcher
Wanton destruction must never be able to trump evidence based research.

Louise Ward, Student - plasma physics
Without scientific research, we are at risk of allowing the anti-science movement to destroy scientific progress with their irrational fear of change and the things they've not bothered to understand.

Brain, Director
Because a dark ...

Martin Harvey, ecologist
I'm concerned about potential dangers with GM, but the only way to find out the truth is through research - destroying research leaves us all in the dark.

Alix
Science is vital

Oliver Keane, Student
The work done by GM crop scientists is a vital part of moving towards a more environmentally-friendly mode of agriculture, as well as helping mankind survive the effects of climate change.

Janis Rudzitis, Designer
It's just common sense.

Christopher Maslen, 3D Artist
Scientific research like this is what is going to bring humanity through the problems of the 21st century. Impeding this process because of ignorance should be prevented at all costs.

Sergio Robles, Math and Science Teacher
Because it is the best way to find the truth about many matters that concern us in this world, one of them being how to feeding a growing population without...

Kate Merritt, Rothamsted is a hist research, and it also wonder in science to me and ultimately shaped my future decision to become a scientist myself. My mother worked at Rothamsted for 25 years, and it kindly opened its doors to me by way of a summer research experience placement, giving me my first taste of science which I will never forget. Rothamsted is a kind and timid research facility, untainted by commercial drives but instead showing a genuine curiosity about the world and how it works. In the ...

Mark Hammonds, nurse
There is no substitute for this kind of dialogue.

Julio J Morera, Pool Cleaning Service
Let the science continue! This research aims to reduce the environmental impact of agriculture on a world with ever-increasing demands for food. Just because GMOs are not natural doesn't mean they are automatically harmful! The potential benefits of GMOs are enormous, and if anything, we should all be working together to ensure that genetic modification is done safely and responsibly. If you are concerned that Rothamsted will pull a Monsanto, then fight the system that allows for such exploitation! Don't destroy the science that can benefit millions of people around the world! Destroying these crops is a backwards and profoundly ignorant thing to do.
SENSE about SCIENCE
Because evidence matters