Does the news reflect what we die from?

One of the primary motivations for our work at Our World in Data is to provide a fact-based overview of the world we live in — a perspective that includes the persistent and long-term changes that run as a backdrop to our daily lives. We aim to provide the complement to the fast-paced reporting we see in the news. The media provides a near-instantaneous snapshot of single events; events that are, in most cases, negative. The persistent, large-scale trends of progress never make the headlines.

But is there evidence that such a disconnect exists between what we see in the news and what is reality for most of us?

One study attempted to look at this from the perspective of what we die from: is what we actually die from reflected in the media coverage these topics receive?[11]

To answer this, Shen and his team compared four key sources of data:

- the causes of deaths in the USA (statistics published by the CDC's WONDER public health database)
- Google search trends for causes of deaths (sourced from Google Trends)
- mentions of causes of deaths in the *New York Times* (sourced from the NYT article database)
- mentions of causes of deaths in *The Guardian* newspaper (sourced from The Guardian article database)

For each source the authors calculated the relative share of deaths, share of Google searches, and share of media coverage. They restricted the considered causes to the top 10 causes of death in the US and additionally included terrorism, homicide, and drug overdoses. This allows for us to compare the relative representation across different sources.[12]

What we die from; what we Google; what we read in the news

So, what do the results look like? In the chart below I present the comparison.

The first column represents each cause's share of US deaths; the second the share of Google searches each receives; third, the relative article mentions in the *New York Times;* and finally article mentions in *The Guardian*.

The coverage in both newspapers here is strikingly similar. And the discrepancy between what we die actually from and what we get informed of in the media is what stands out:

- around one-third of the considered causes of deaths resulted from heart disease, yet this cause of death receives only 2-3 percent of Google searches and media coverage;
- just under one-third of the deaths came from cancer; we actually google cancer a lot (37 percent of searches) and it is a popular entry here on our site; but it receives only 13-14 percent of media coverage;
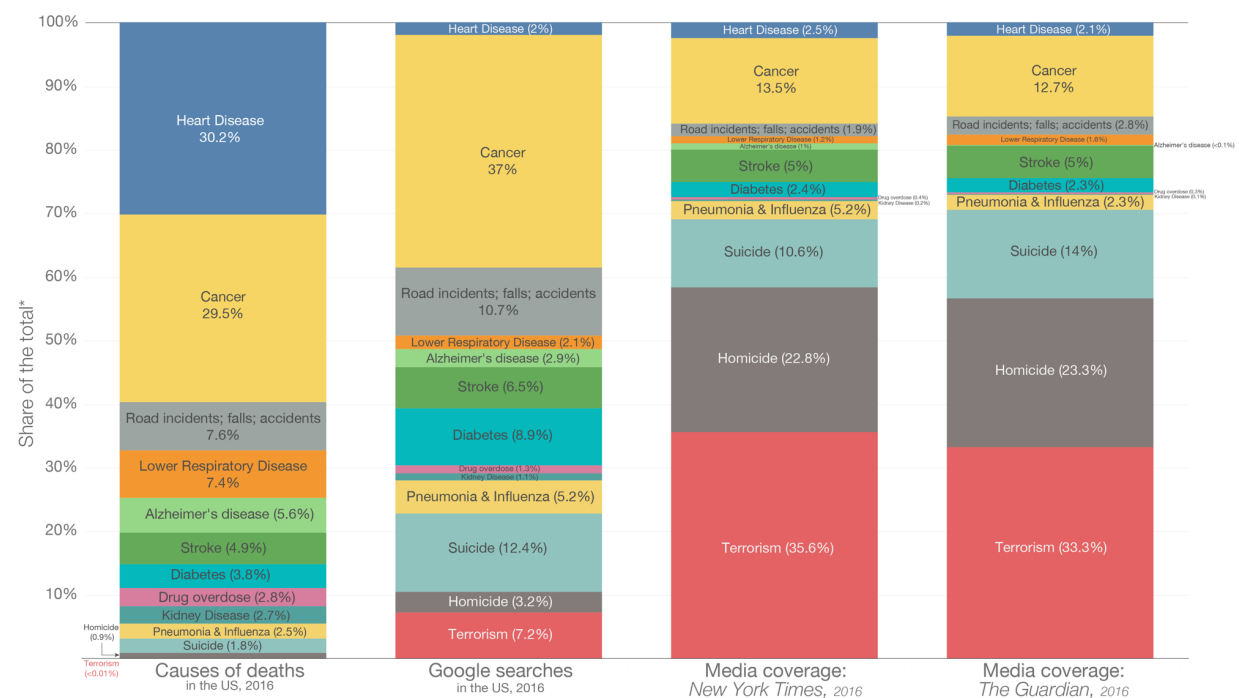
https://ourworldindata.org/causes-of-death

- we searched for road incidents more frequently than their share of deaths, however, they receive much less attention in the news;
- when it comes to deaths from strokes, Google searches and media coverage are surprisingly balanced;
- the largest discrepancies concern violent forms of death: suicide, homicide and terrorism. All three receive much more relative attention in Google searches and media coverage than their relative share of deaths. When it comes to the media coverage on causes of death, violent deaths account for more than two-thirds of coverage in the *New York Times* and *The Guardian* but account for less than 3 percent of the total deaths in the US.

What's interesting is that Americans search on Google is a much closer reflection of what kills us than what is presented in the media. One way to think about it is that media outlets may produce content that they think readers are most interested in, but this is not necessarily reflected in our preferences when we look for information ourselves.

Causes of death in the US
What Americans die from, what they search on Google, and what the media reports on

How over- or underrepresented are deaths in the media?

As we can see clearly from the chart above, there is a disconnect between what we die from, and how much coverage these causes get in the media. Another way to summarize this discrepancy is to calculate how over- or underrepresented each cause is in the media. To do this, we simply calculate the ratio between the share of deaths and share of media coverage for each cause.

In this chart, we see how over- or underrepresented each cause is in newspaper coverage.[14] Causes shown in red are overrepresented in the media; those in blue are underrepresented. Numbers denote the factor by which they are misrepresented.

The major standout here – I had to break the scale on the y-axis since it's several orders of magnitude higher than everything else – is terrorism: it is overrepresented in the news by almost a factor of 4000.

Homicides are also very overrepresented in the news, by a factor of 31. The most underrepresented in the media are kidney disease (11-fold), heart disease (10-fold), and, perhaps surprisingly, drug overdoses (7-fold). Stroke and diabetes are the two causes most accurately represented.

Does the news reflect what we die from?

Comparison of the share of deaths from 13 different causes in the US to the share of media coverage these topics get in the *New York Times* and *The Guardian* newspapers.
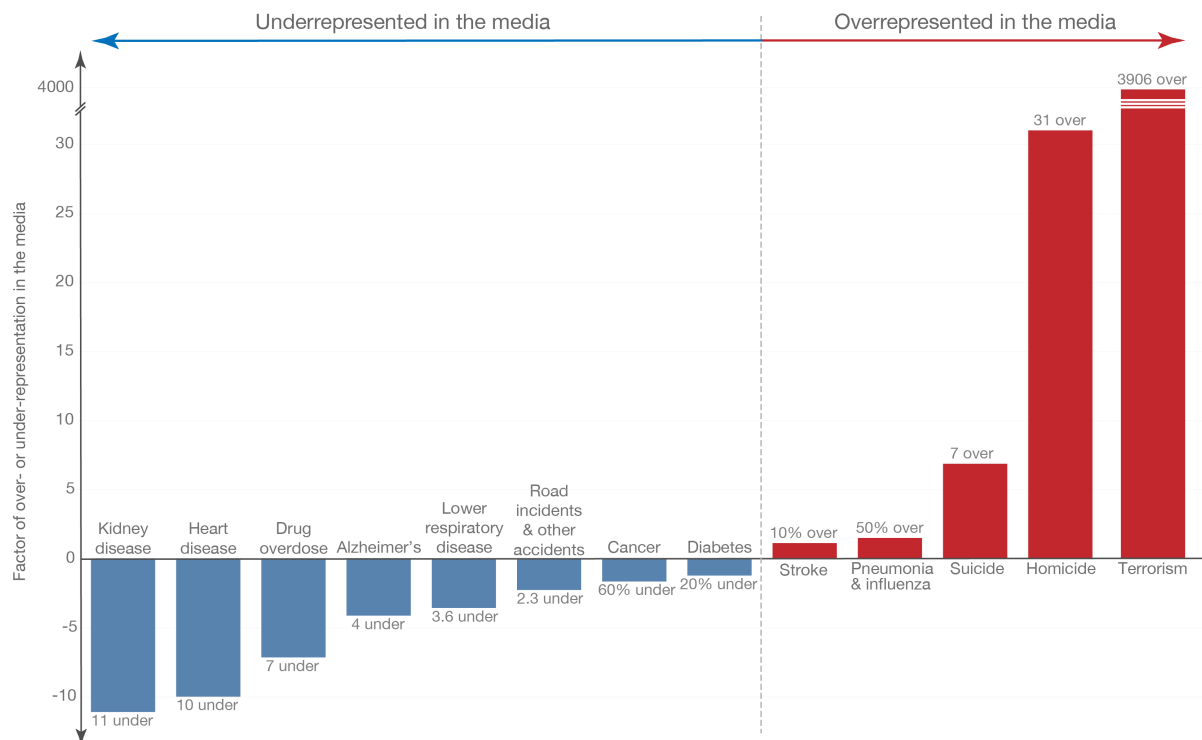
Source: Based on data from Shen et al (2018). Death: reality vs. reported. *Full data available at: https://owenshen24.github.io/charting-death*
This is calculated based on the ratio of each cause of death's proportion of total deaths (in the 13 categories) to each causes' share of media coverage. The figure shows the factor by which each cause of death in 2016 is over- or underrepresented in the media (e.g. homicides are overrepresented by a factor of 31 in the media relative to its share of deaths).
Media coverage data is measured as the annual average over the period from 1999 to 2016. The causes of death shown here account for approximately 88% of total deaths in the United States in 2016.
This is a visualization from OurWorldinData.org, where you find data and research on how the world is changing.   Licensed under CC-BY by the authors Hannah Ritchie and Max Roser.

Should **media exposure reflect what we die from?**

From the comparisons above, it's clear that the news doesn't reflect what we die from. But there is another important question: *should* these be representative?

There are several reasons we would, or should, expect that what we read online, and what is covered in the media wouldn't correspond with what we actually die from.

The first is that we would expect there to be some preventative aspect to information we access. There's a strong argument that things we search for and gain information on encourages us to take action which prevents a further death. There are several examples where I can imagine this to be true. People who are concerned about cancer may search online for guidance on symptoms and be convinced to see their doctor. Some people with suicidal thoughts may seek help and support online which later results in an averted death from suicide. We'd therefore expect that both intended or unintended exposure to information on particular topics could prevent deaths from a given cause. Some imbalance in the relative proportions therefore makes sense. But clearly there is some bias in our concerns: most people die from heart disease (hence it should be something that concerns us) yet only a small minority seek [possibly preventative] information online.

Second, this study focused on what people in the USA die from, not what people across the world die from. Is media coverage more representative of global deaths? Not really. In another blog post, '[What does the world die from?](#)', I looked in detail at the ranking of causes of death globally and by country. The relative ranking of deaths in the USA is reflective of the global average: most people die from heart disease and cancers, and terrorism ranks last or second last (alongside [natural disasters](#)). Terrorism accounted for 0.06 percent of global deaths in 2016. Whilst we'd expect non-US events to feature in the *New York Times,* global news shouldn't substantially affect representative coverage of causes.

The third relates to the very nature of news: it focuses on events and stories. Whilst I am often critical of the messages and narratives portrayed in the media, I have some sympathy for what they choose to cover. Reporting has become increasingly fast-paced. As news consumers, our expectations have quickly shifted from daily, to hourly, down to minute-by-minute updates of what's happening in the world. Combine this with our attraction to stories and narratives. It's not surprising that the media focuses on reports of single (inadvertently negative) events: a murder case or a terrorist attack. The most underrepresented cause of death in the media was kidney disease. But with an audience that expects a minute-by-minute feed of coverage, how much can possibly be said about kidney disease? Without conquering our compulsion for the latest unusual story, we cannot expect this representation to be perfectly balanced.

How to combat our bias for single events

Media and its consumers are stuck in a reinforcing cycle. The news reports on breaking events, which are often based around a compelling story. Consumers want to know what's going on in the world — we are quickly immersed by the latest headline. We come to expect news updates with increasing frequency, and media channels have clear incentives
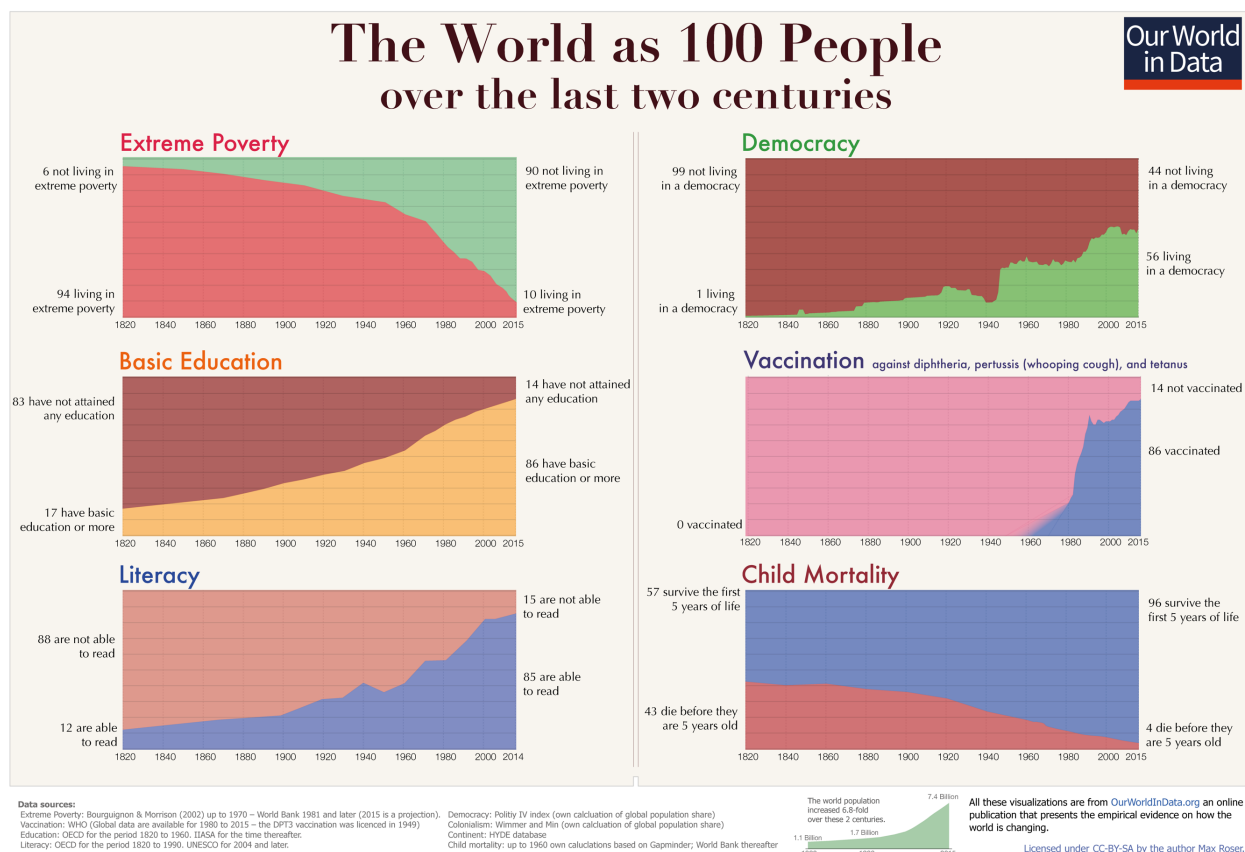
to deliver. This locks us into a cycle of expectation and coverage with a strong bias for outlier events. Most of us are left with a skewed perception of the world; we think the world is much worse than it is.[15]

The responsibility in breaking this cycle lies with both media producers and consumers. Will we ever stop reporting and reading the latest news? Unlikely. But we can all be more conscious of how we let this news shape our understanding of the world.

And journalists can do much better in providing context of the broader trends: if reporting on a homicide, for example, include context of how homicide rates are changing over time.[16]

As media consumers we can be much more aware of the fact that relying on the 24/7 news coverage alone is wholly insufficient for understanding the state of the world. This requires us to check our (often unconscious) bias for single narratives and seek out sources that provide a fact-based perspective on the world.

This antidote to the news is what we try to provide at Our World in Data. It should be accessible for everyone, which is why our work is completely open-access. Whether you are a media producer or consumer, feel free to take and use anything you find here.

The World as 100 People over the last two centuries

https://ourworldindata.org/a-history-of-global-living-conditions-in-5-charts

Why do we not know how our world is changing?

The motivation for this history of global living conditions was the survey result that documented the very negative perspective on global development that most of us have. More than 9 out of 10 people do not think that the world is getting better. How does that fit with the empirical evidence?
I do not think that the media are the only ones to blame, but I do think that they are to blame for some part of this. This is because the media does not tell us how the world is changing, it tells us what in the world goes wrong.
One reason why the media focuses on things that go wrong is that the media focuses on single events and single events are often bad – look at the news: plane crashes, terrorism attacks, natural disasters. Positive developments on the other hand often happen very slowly and never make the headlines in the event-obsessed media.
The result of a media – and education system – that fails to present quantitative information on long-run developments is that the huge majority of people is completely ignorant about global development and has little hope that progress against serious problems is even possible.
Even the decline of global extreme poverty – by any standard one of the most important developments in our lifetime – is only known by a small fraction of the population of the UK (10%) or the US (5%). In both countries the majority of people think that the share of people living in extreme poverty has increased! Two thirds in the US even think the share in extreme poverty has 'almost doubled'. When we are ignorant about global development it is not surprising that few think that the world can get better.
The only way to tell a history of everyone is to use statistics, only then can we hope to get an overview over the lives of the 22 billion people that lived in the last 200 years.
The developments that these statistics reveal transform our global living conditions – slowly but steadily. They are reported in this online publication – Our World in Data – that my team and I have been building over the last years. We see it as a resource to show these long-term developments and thereby complement the information in the news that focus on events.
The difficulty for telling the history of how everyone's lives changed over the last 200 years is that you cannot pick single stories. Stories about individual people are much more engaging – our minds like these stories – but they cannot be representative for how the world has changed. To achieve a representation of how the world has changed at large you have to tell many, many stories all at once; and that is statistics.
To make it easier for myself and for you to understand the transformation in living conditions that we have achieved I made a summarizing visualisation in which I imagine this 200 year history as the history of a group of 100 people to see how the lives of them would have changed if they lived through this transformative period of the modern world.

Why it matters that we do not know how our world is changing

The successful transformation of our living conditions was possible only because of collaboration. Such a transformation would be impossible for a single person to accomplish. It is our collective brains and our collaborative effort that are needed for such a revolution.

There are big problems that remain. None of the above should give us reason to become complacent. On the contrary, it shows us that a lot of work still needs to be done – accomplishing the fastest reduction of poverty is a tremendous achievement, but the fact that 1 out of 10 people lives in extreme poverty today is unacceptable. We also must not accept the restrictions of our liberty that remain and that are put in place. And it is also clear that humanity's impact on the environment is at a level that is not sustainable and is endangering the biosphere and climate on which we depend. We urgently need to reduce our impact.

It is far from certain that we will make progress against these problems – there is no iron law that would ensure that the world continues this trend of improving living conditions. But what is clear from the long-term perspective is that progress is possible and that the last 200 years brought us to a better position than ever before to solve problems. Solving problems – big problems – is always a collaborative undertaking. And the group of people that is able to work together today is a much, much stronger group than there ever was on this planet. We have just seen the change over time; the world today is healthier, richer, and better educated.

For our history to be a source of encouragement we have to know our history. The story that we tell ourselves about our history and our time matters. Because our hopes and efforts for building a better future are inextricably linked to our perception of the past it is important to understand and communicate the global development up to now. An understanding of the efforts of ourselves and our fellow humans is a vital condition to the fruitfulness of our endeavors. Knowing that we have come a long way in improving living conditions and the notion that our work is worthwhile is to us all what self-respect is to individuals. It is a necessary condition for self-improvement.

Freedom is impossible without faith in free people. And if we are not aware of our history and falsely believe the opposite of what is true we risk losing faith in each other.