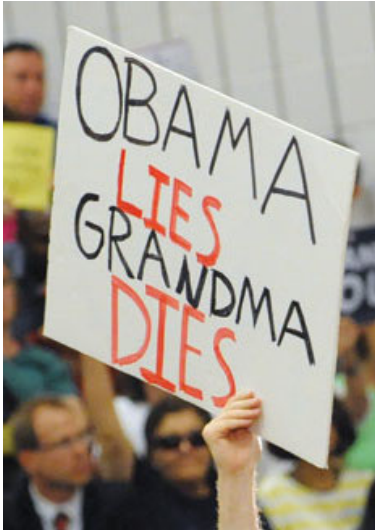


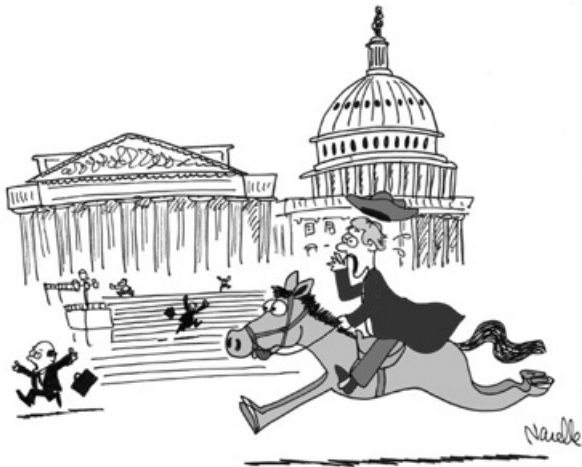
Why Facts and Science Don't Always Change People's Minds

**Brendan Nyhan
Dept. of Government
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The problem



How we wish the world worked



The facts are coming! The facts are coming!

How the world (often) actually works



Does myth-busting work?



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THURSDAY, FEBRUARY 10TH, 2013

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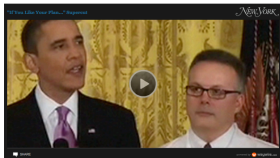


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 "What we said was, you can keep (your plan) if it hasn't changed since the law passed."
 — Barack Obama on Monday, November 4th, 2013 in a speech to Organizing for Action

Barack Obama says that what he'd said was you could keep your plan 'if it hasn't changed since the law passed'

By Louis Jacobson on Wednesday, November 6th, 2013 at 11:35 a.m.



Nypen.com compiled President Barack Obama's claims that if you liked your health insurance plan, you could keep it.

President Barack Obama's attempt at explanation has only fanned the flames of controversy over his campaign line, "If you like your health care, you can keep it."

Obama was already dealing with a troubled rollout of the healthcare.gov website when reports of health insurance cancellation notices for many Americans started arriving.



This whitewashed news webpage, which "debunks" the myth that reforms will force you out of your current insurance plan or force you to change doctors, "was still up as of Nov. 5, 2013."



About this statement:

Published: Wednesday, November 6th, 2013 at 11:35 a.m.

Researched by: Louis Jacobson

Edited by: Angie Drebnick-Holm

Subject: Health Care

Sources:

Barack Obama, speech to Organizing for Action, Nov. 4, 2013

Jay Carney, White House Press Briefing, Nov. 5, 2013

Links to documentation of the 37 examples are provided in the story

Karlene Sobel and Hilma Solis, news teleconference on health insurance, June 14, 2010 (via News)

New York Times, "New Rules on Changes to Benefits," June 14, 2010

Washington Post, "New health-care rules could add costs, and benefits, to some insurance plans," June 15, 2010

USA Today, "Seeking clarity on 'grandfathered' health plans," Sept. 25, 2010

20 Media, "Here Are Four Times, During the 2012 Election Year, When Obama Promised that If You Like Your Healthcare, You Can Keep It," Oct. 29, 2013

Daily Caller, "Obama denies 'you can keep it' videotaped promises," Nov. 5, 2013

Mediate, "Obama: 'What We Said Was, You Could Keep Your Health Care Plan, If...,'" Nov. 4, 2013

Flu Vaccine Facts & Myths



Department of Health
 and Human Services
 Centers for Disease Control
 and Prevention

MYTH "The flu isn't a serious disease."

FACTS Influenza (flu) is a serious disease of the nose, throat, and lungs, and it can lead to pneumonia. Each year about 200,000 people in the U.S. are hospitalized and about 38,000 people die because of the flu. Most who die are 65 years and older. But small children less than 2 years old are as likely as those over 65 to have to go to the hospital because of the flu.

MYTH "The flu shot can cause the flu."

FACTS The flu shot cannot cause the flu. Some people get a little soreness or redness where they get the shot. It goes away in a day or two. Serious problems from the flu shot are very rare.

MYTH "The flu shot does not work."

FACTS Most of the time the flu shot will prevent the flu. In scientific studies, the effectiveness of the flu shot has ranged from 70% to 90% when there is a good match between circulating viruses and those in the vaccine. **Getting the vaccine is your best protection against this disease.**

MYTH "The side effects are worse than the flu."

FACTS The worst side effect you're likely to get from a shot is a sore arm. The nasal mist flu vaccine might cause nasal congestion, runny nose, sore throat and cough. The risk of a severe allergic reaction is less than 1 in 4 million.

MYTH "Only older people need a flu vaccine."

FACTS Adults and children with conditions like asthma, diabetes, heart disease, and kidney disease need to get a flu shot. Doctors also recommend children 6 months and older get a flu shot every year until their 5th birthday.

MYTH "You must get the flu vaccine before December."

FACTS Flu vaccine can be given before or during the flu season. The best time to get vaccinated is October or November. But you can get vaccinated in December or later.

For more information, ask your healthcare provider or call
 800-CDC-INFO (800-232-4636) Website www.cdc.gov/flu

When corrections fail



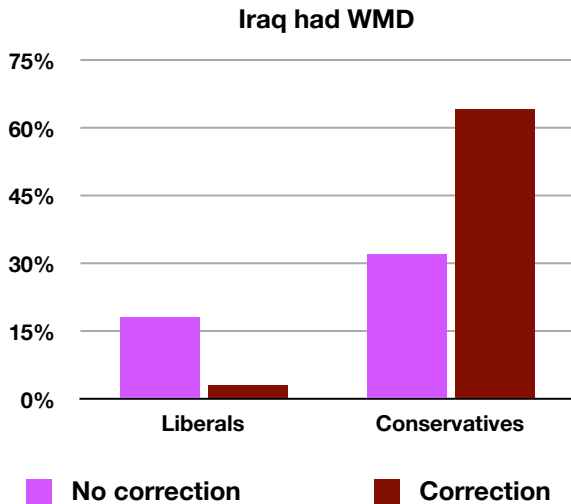
When corrections fail



Comprehensive Report
of the Special Advisor to the DCI on
Iraq's WMD
With Addendums

30 September 2004
volume III of III

When corrections fail



(Nyhan and Reifler 2010)

Vaccines: The threat of another UK

THE LANCET

The Lancet, [Volume 351, Issue 9103](#), Pages 637 - 641, 28 February 1998
doi:10.1016/S0140-6736(97)11096-0

This article was retracted

RETRACTED: Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

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Summary

Background

We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder.

Methods

12 children (mean age 6 years [range 3–10], 11 boys) were referred to a paediatric gastroenterology unit with a history of normal development followed by loss of acquired skills, including language, together with diarrhoea and abdominal pain. Children underwent gastroenterological, neurological, and developmental assessment and review of developmental records. Ileocolonoscopy and biopsy sampling, magnetic-resonance imaging (MRI), electroencephalography (EEG), and lumbar puncture were done under sedation. Barium follow-through radiography was done where possible. Biochemical, haematological, and immunological profiles were examined.

Vaccines: The threat of another UK

TABLE 2 Parental Perspectives on Vaccines

Perspective	% That Strongly Agreed or Agreed With Statement
Getting vaccines is a good way to protect my child(ren) from disease.	90
Generally I do what my doctor recommends about vaccines for my child(ren).	88
I am concerned about serious adverse effects of vaccines.	54
New vaccines are recommended only if they are as safe as older vaccines.	51
Parents should have the right to refuse vaccines that are required for school for any reason.	31
Some vaccines cause autism in healthy children.	25
My child(ren) does(do) not need vaccines for diseases that are not common anymore.	11

(Freed et al. 2010)

What is effect of correcting vaccine-autism myth?

Because signs of autism may appear around the same time children receive the MMR vaccine, some parents may worry that the vaccine causes autism. Vaccine safety experts, including experts at CDC and the American Academy of Pediatrics (AAP), agree that MMR vaccine is not responsible for recent increases in the number of children with autism. In 2004, a report by the Institute of Medicine (IOM) concluded that there is no link between autism and MMR vaccine, and that there is no link between autism and vaccines that contain thimerosal as a preservative.



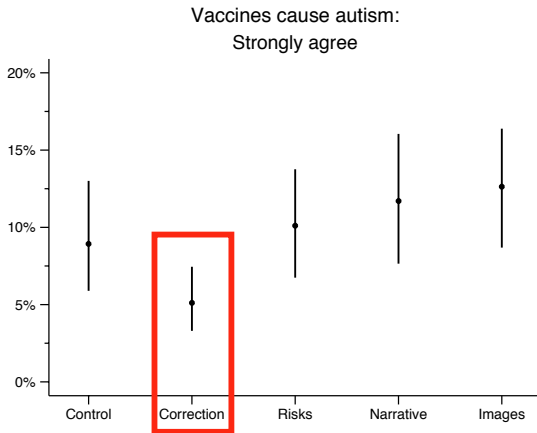
MMR Vaccine Safety Research

Many carefully performed scientific studies have found no link between MMR vaccine and autism. These studies include:

- A [September 2008 case-control study](#) published in Public Library of Science (PLOS) was conducted in 2004-2008 to determine whether results from an earlier study that claimed to find measles virus RNA in the intestinal tissue of a specific group of autistic children could be confirmed. The results could not be confirmed, and no link between MMR and autism was found.
- An April 2006 study conducted by the National Institute of Child Health and Human Development (NICHD) of NIH and the CDC assessed data from 351 children with autism spectrum disorders and 31 typically-developing children. The study did not find a link between MMR vaccination and autism. The results were published in the *Journal of Autism and Developmental Disorders*.
- A [February 2004 case-control study](#) examined the possible relationship between exposure to the MMR vaccine and autism in Atlanta, Georgia. The results were published in *Pediatrics*.
- A November 2002 study by CDC and the Danish Medical Research Council that followed more than 500,000 children over 7 years and found no association between MMR vaccination and autism. The results were published in the New England Journal of *Medicine*.

(CDC.gov)

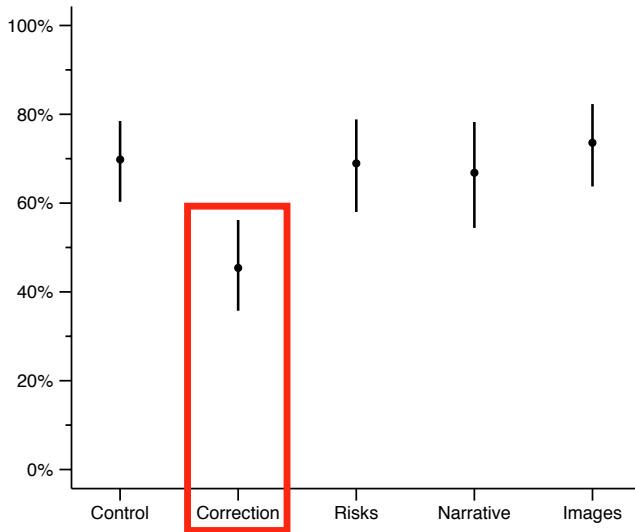
Effects of correcting autism myth: Belief



(Nyhan et al. 2014)

Effects of correcting autism myth: Intent

Least favorable toward vaccines



(Nyhan et al. 2014)

Best practices: Avoid reinforcing myths

Tobacco



Is what
you know about
smoking
wrong?

The 2010 Surgeon General's Report reveals new facts about smoking. Some may surprise you. This new research shows how tobacco smoke causes disease and addiction. Maybe it will change what you think about smoking.

Myth 1

Smoking is just a choice.

- The first time? Yes. After just a few cigarettes? No.
- Addiction to nicotine can happen quickly. It changes the chemical balance in your brain. Smoking may seem like it's just a choice or a habit. In fact, most people who use tobacco are addicted.
- Breaking nicotine addiction is harder for some people than others. Quitting can take several tries. But don't give up.
- If you need help to quit, ask your doctor about nicotine replacement, medicines, or coaching.

Myth 2

Filters make cigarettes safer.

- Filters do not protect you. They are designed to make smoke particles smaller. That makes nicotine easier to absorb. This increases addiction.
- Cigarettes have been engineered to speed up nicotine's path to your brain. Their design feeds addiction.
- Light or low-tar cigarettes may sound less dangerous. They aren't. These misleading labels are no longer allowed.
- No cigarette is safe. Tobacco smoke contains more than 7,000 chemicals. At least 250 are toxic.

Myth 3

An occasional cigarette is no big deal.

- Smoking doesn't just cause diseases for heavy smokers or longtime smokers.
- The 2010 Surgeon General's Report shows how breathing tobacco smoke can cause immediate harm. Tobacco smoke can trigger sudden heart attacks and death, even in nonsmokers.
- Each cigarette you smoke hurts your lungs, your blood vessels, and cells throughout your body.
- Smoking a few cigarettes a week can cause a heart attack.
- Cutting back is not enough to protect you. You have to quit entirely.

(CDC)

Best practices: Use credible sources

TABLE 2 Parental Report of Levels of Trust of Certain People for Vaccine-Safety Information

	A Lot, %	Some, %	Not at All, %
My child(ren)'s doctor	76	22	2
Other health care providers	26	70	4
Government vaccine experts/officials	23	61	16
Family and friends	15	67	18
Parents who believe their child was harmed by a vaccine	8	65	27
Celebrities	2	24	74

(Freed et al. 2011)

Experts Debunk Health Care Reform Bill's 'Death Panel' Rule

Aug. 11, 2009

By KATE SNOW, JOHN GEVER and DAN CHILDS
In Collaboration With MedPage Today

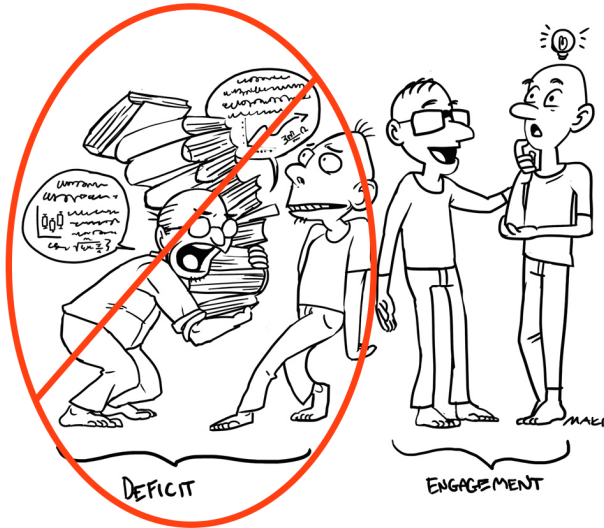
medpageTODAY™

Accusations that the **health care reform bill** now pending in the House of Representatives would use "**death panels**" to deny care to sick seniors and children with birth defects have taken center stage in the health care debate, giving the Obama administration even more of an uphill climb in getting the measures enacted into law.

But health care experts – **even those who do not support the version of the health care reform bill now being discussed** – note that these accusations are shocking, inflammatory and incorrect.

(Snow et al. 2009)

Throwing facts at people isn't the answer!



(Naro 2013)