

Talking to Parents about Vaccine Concerns

Ari Brown, MD, FAAP

Greetings from Austin



7:43 AM

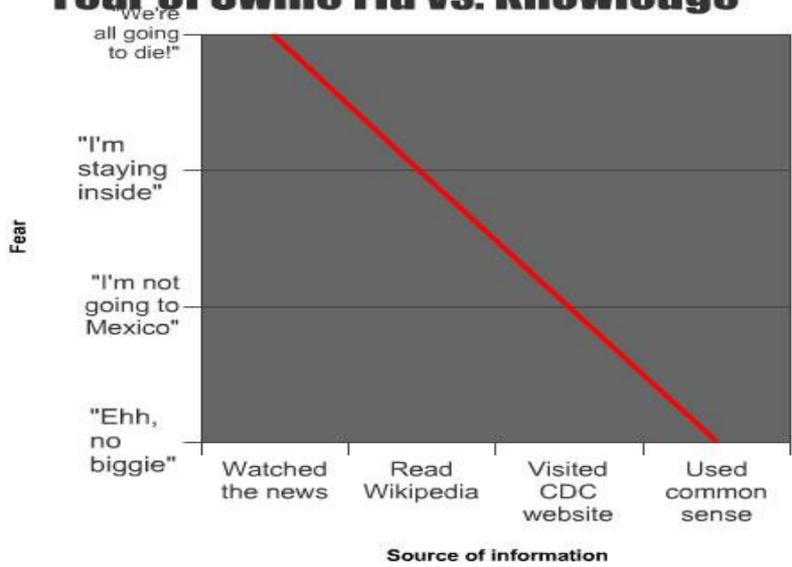


**Controversial autism doctor:
'I'm not going away'**

Overview

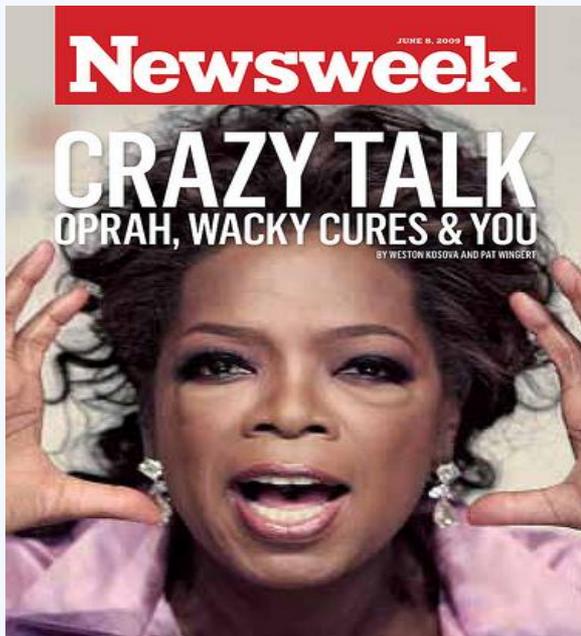
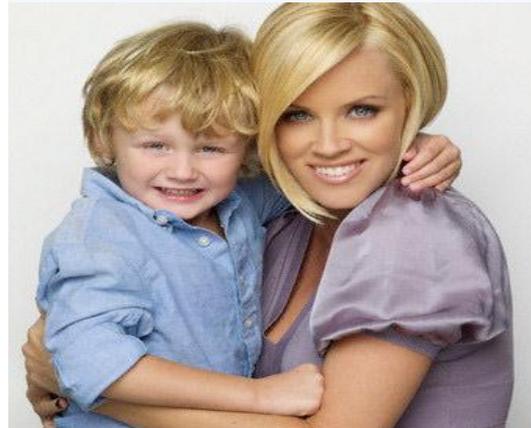
- How did we get here?
- How do parents approach decisions?
- Are we done yet?
- What are we doing about it?
- Risk communications 101.
- How to answer the top vaccine questions.

Fear of Swine Flu vs. Knowledge



GraphJam.com

1998-2012

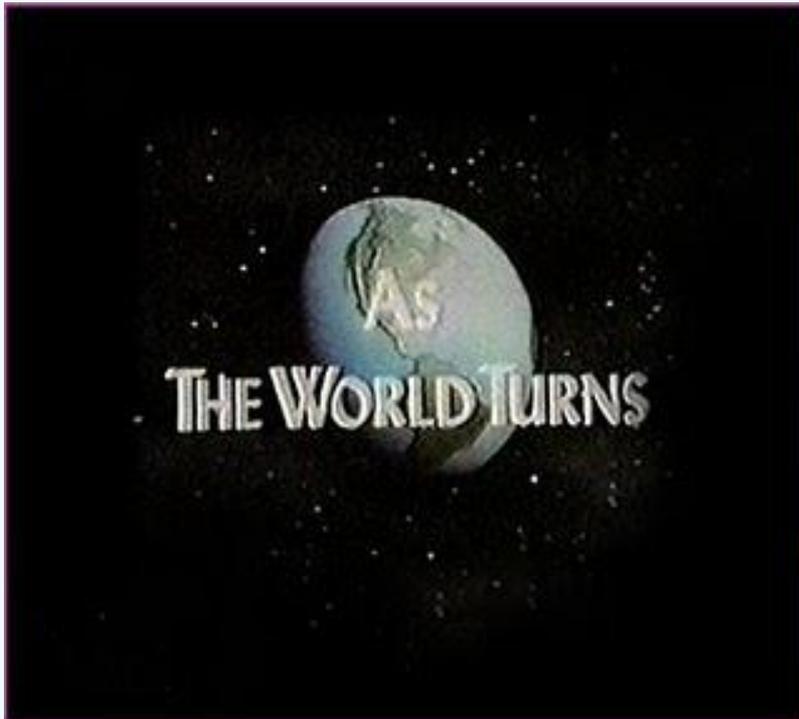


1830



- 1796: Jenner's smallpox vaccine.
- 1820: Compulsory vaccination in England.
- 1830: Antivaccination groups arrive 10 years later.

As the World Turns 1998-2010

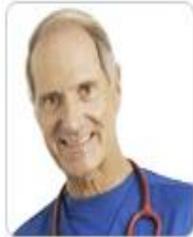


- 1998: MMR study
- 1999: Thimerosal
- 2001: T-free shots
- And, we make a fatal PR mistake....wait for it....

- 2004: IOM reports on MMR and thimerosal

2007

Meet *the*
Sears Family



Dr. Bill



Dr. Jim



Dr. Bob



Dr. Peter



Martha



**Jenny McCarthy and
“Dr. Bob” hit the
bookstores and
Oprah.**

2008



- 2008: Omnibus Autism Proceedings
- March 2008: Hannah Poling awarded VICP compensation for mitochondrial disorder

2010

Andrew Wakefield

- Found guilty of 30 counts of medical misconduct.
- Loses medical license.
- Lancet retracts study.
- Resigns from Thoughtful House.

EARLY REPORT

Early report

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

A J Wakefield, SH Much, A Anthony, J Linnell, D M Casson, M Malik, M Berelowitz, A P Dhillon, MA Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith

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.

Findings Onset of behavioural symptoms was associated by the parents, with measles, mumps, and rubella vaccination in eight of the 12 children, with measles infection in one child, and otitis media in another. All 12 children had ileal/colonic abnormalities, ranging from lymphoid nodular hyperplasia to sigmoid ulceration. Histology showed patchy chronic inflammation in 11 children and reactive ileitis/lymphoid hyperplasia in seven, but no granulomas. Behavioural disorders included autism (nine), disintegrative psychosis (one), and possible postviral or vaccinal encephalitis (two). There were no focal neurological abnormalities and MRI and EEG tests were normal. Abnormal laboratory results were significantly raised urinary methylmalonic acid compared with age-matched controls (p=0.03), low haemoglobin in four children, and one with anti-GA in two children.

Interpretation We identify associated gastrointestinal disease and neurological regression in a group of previously normal children, which was generally associated in time to possible environmental triggers.

Lancet 2008; 371: 637–41
See Commentary page

Inflammatory Bowel Disease Study Group, University Departments of Medicine and Histopathology (A J Wakefield, A Anthony, J Linnell, A P Dhillon, S E Davies, M Malik) and the University Departments of Paediatric Gastroenterology (S H Much, D M Casson, M Malik), Neurology (P Harvey), and Radiology (A Valentine), Royal Free Hospital and School of Medicine, London NW3 2QG, UK

Correspondence to: Dr A J Wakefield

Introduction

We saw several children who, after a period of apparent normality, lost acquired skills, including communication. They all had gastrointestinal symptoms, including abdominal pain, diarrhoea, and vomiting and, in some cases, food intolerance. We describe the clinical findings, and gastrointestinal features of these children.

Patients and methods

12 children, consecutively referred to the department of paediatric gastroenterology with a history of a pervasive developmental disorder with loss of acquired skills and intestinal symptoms (diarrhoea, abdominal pain, bloating and food intolerance), were investigated. All children were admitted to the ward for a week, accompanied by their parents.

Clinical investigations

We took histories, including details of immunisations and exposure to infections, and assessed the children. In 11 cases the history was obtained by the senior clinician (JW-S). Neurological and psychiatric assessments were done by paediatrician (PH, MR) with HIMS-4 criteria.¹ Developmental records, including a review of prospective developmental records from parents, health visitors, and general practitioners. Four children did not undergo psychiatric assessment in hospital; all had been assessed professionally elsewhere, so these assessments were used as the basis for their behavioural diagnosis.

After bowel preparation, ileocolonoscopy was performed by SHM or MAJ under sedation with midazolam and pethidine. Paired frozen and formalin-fixed mucosal biopsy samples were taken from the terminal ileum, ascending, transverse, descending, and sigmoid colons, and from the rectum. The procedure was recorded by video or still images, and were compared with images of the previous seven consecutive paediatric colonoscopies (four normal colonoscopies and three on children with ulcerative colitis), in which the physician reported normal appearances in the terminal ileum. Barium follow-through radiography was possible in some cases.

Also under sedation, cerebral magnetic-resonance imaging (MRI), electroencephalography (EEG) including visual, brain stem auditory, and sensory evoked potentials (where compliance made these possible), and lumbar puncture were done.

Laboratory investigations

Thyroid function, serum long-chain fatty acids, and cerebrospinal-fluid lactate were measured to exclude known causes of childhood neurodegenerative disease. Urinary methylmalonic acid was measured in random urine samples from eight of the 12 children and 14 age-matched and sex-matched normal controls, by a modification of a technique described previously.² Chromatograms were scanned digitally on a computer, to analyse the methylmalonic-acid concentrations in cases and controls. Urinary methylmalonic-acid concentrations in patients and controls were compared by a two-sample t test. Urinary creatinine was estimated by routine spectrophotometric assay.

Children were screened for anticonvulsant antibodies and boys were screened for fragile-X if this had not been done

Internet

The screenshot shows the National Immunization Program (NIP) website. At the top, there is a navigation bar with links for 'CDC Home', 'Search', and 'Health Topics A-Z'. The main header features the CDC logo and the slogan 'leading the way to healthy lives'. Below this, there are tabs for 'Public NIP Home', 'Health Care Professionals', 'Partners', 'Media', and 'Informacion en Espanol'. The main content area is titled 'In the Spotlight...for the Public' and lists several articles, including 'Current Issues in Immunization: Influenza Immunization and Vaccine Supply' (Oct. 14), 'Vaccine Delays & Availability: Flu Vaccine Update' (Oct. 7), 'Interim Influenza Vaccine Recommendations - 2004-05' (Oct. 6), 'Flu Bulletin Number 3' (Sept. 28), and 'Vaccine Quiz Helps You Decide If You Need Vaccines' (Sept. 8). A sidebar on the left contains links for 'NIP HOME', 'About NIP', 'Data and Statistics', 'International Efforts', 'Links to other web sites', 'Glossary/ Acronyms', 'NIP sub-sites', and 'NIP Site Search'. The bottom of the page has a search bar and a 'Search' button.

The screenshot shows the National Vaccine Information Center (NVIC) website. The top navigation bar includes links for 'HOME', 'ABOUT US', 'REPORT A PROBLEM', 'GET INFORMED E-NEWS', 'MEDIA SIGN-IN', 'RESOURCE CENTER', 'MEMBERSHIP DONATION', 'LAWYER REFERRAL', and 'CONTACT US'. The main header features the NVIC logo and the text 'NATIONAL VACCINE INFORMATION CENTER'. Below this, there is a large banner with the text 'Sign an on-line petition to open vaccine databases to independent researchers!' and 'Free E-News and Newsletters'. A sidebar on the left contains links for 'MAKE A DIFFERENCE, BECOME A MEMBER', 'FREE E-NEWS VACCINE NEWS OF THE WEEK', 'HEALTH TALK CALENDAR', 'ISSUES', 'VACCINATION DECISIONS', 'FREEDOM IN VACCINATION & INFORMED CONSENT', 'STATE INFORMATION', 'TRACKING SYSTEMS & PRIVACY', 'HOMELAND SECURITY', 'HOT LOTS', 'NATIONAL VACCINE COURT COMPENSATION PROGRAM', and 'INSTITUTE OF MEDICINE REPORTS'. The main content area also features a 'WELCOME!' message and a quote: 'Vaccines or immunizations are recommended for every child born in the United States. Vaccinations shouldn't hurt a child but sometimes they do. Before your child takes the risk, find out what it is.' Below this, there are several small photos of children and a link to 'Click on photo to read these children's stories'. A sidebar on the right contains links for 'ACTION ALERT & ADVOCACY', 'NVIC CONFERENCES', 'BARBARA LOE FISHER SPEAKS OUT', 'ARTICLES AND INTERVIEWS', 'THE BRIAN LEHRER SHOW Public Health vs Parents' Fears 10/9/03', 'BEDELGSDAILY.COM The Challenge to Mass Vaccination 9/15/03', 'INSIGHT MAGAZINE Vaccines fueling autism epidemic? 6/9/03', 'CBS NEWS THE EARLY SHOW, 12/04/02', and 'CHRISTIAN BROADCASTING'.

80% of parents Google health information and do not check the source. NVIC is “.Org”.

ARE WE TO BLAME?

How much time do we spend talking about vaccines?

- Nurses 9.2 minutes
- Pediatricians 3.9 minutes
- Family Practitioners 3.1 minutes

Overview

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Parent Paranoia

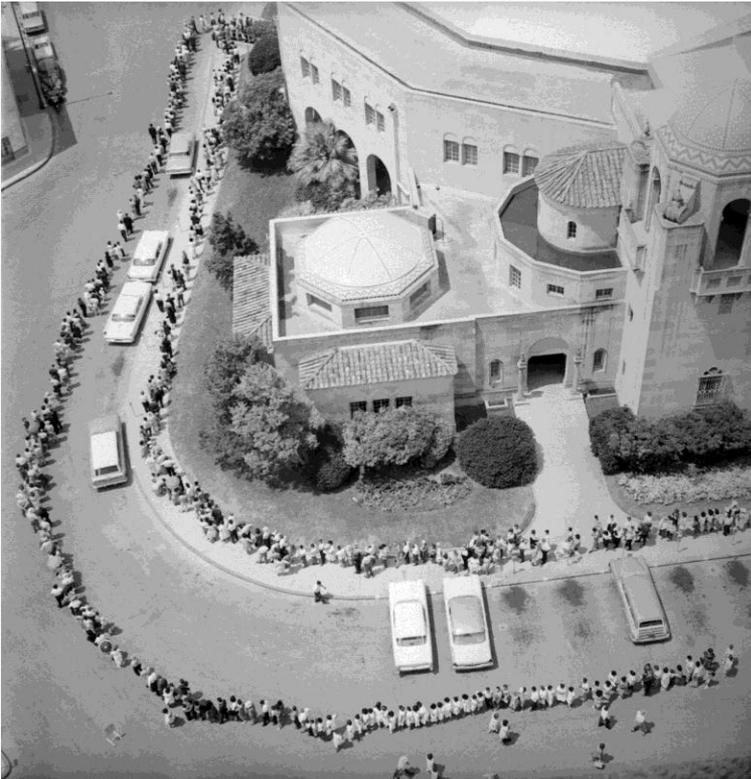
THE ROANOKE TIMES
Monday, September 20, 2004



STEPHANIE KLEIN-DAVIS | The Roanoke Times

Mellisa Williamson, 35, a Bullitt Avenue resident, worries about the effect on her unborn child from the sound of jackhammers.

Public health vs. Individual



Vaccine Safety Concerns Does Not Appear to Be a Major Hurdle for Effort Aimed at Poor Countries

Bottom Line

Safety concerns faded quickly in the context of poor and developing countries: participants overwhelmingly calculated risk-reward in this context in favor of vaccines that will save children who are at much higher risk for common, preventable, deadly diseases

“It’s different there..the risks of getting the disease and suffering from it far outweigh the risk of whatever potential injury there may be from...vaccine.”

Note of Caution

However, real apprehension about vaccines and autism existed among some participants (especially mothers of young children), and this is not a settled subject for them – telling them “the science speaks for itself” is inadequate, given their grasp of the debate

“I held my breath and did it [had my children vaccinated], but I still don’t feel that it’s been proven or disproven one way or the other.”

4 Types of Parents

Believers

Relaxed

Cautious

Unconvinced

—Benin AL, et al. Analysis of mothers' decision-making about vaccines for infants: the importance of trust. *Pediatrics* 117(5) 2006.

VACCINE KNOWLEDGE

- All moms had poor knowledge of vaccines.
- Only 2 moms could name one vaccine given at the two-month well check at the follow-up interview.
- 3 moms listed autism as a known side effect of the MMR vaccine.

“The pediatrician respected the fact that we wanted to sit and talk for an hour and a half about vaccinations.

He stayed very late one night...
It wasn't something that they could charge us for...and it's a very busy practice.”

“Doctors don’t have the answers for me to these specific questions about vaccination...

I don’t think they have the time or motivations to find me the answers..”

Vaccinators

- #1: Trust their doctor.
- Feel satisfied with discussion.
- Feel that vaccinating is the norm.
- Believe in the social contract.
- Want to prevent disease.

Non-Vaccinators

- Feel alienated by the doctor.
- Had a previous bad medical experience.
- Distrust information or motives of provider.
- Trust a homeopath or naturopath.
- Older, white, educated moms.

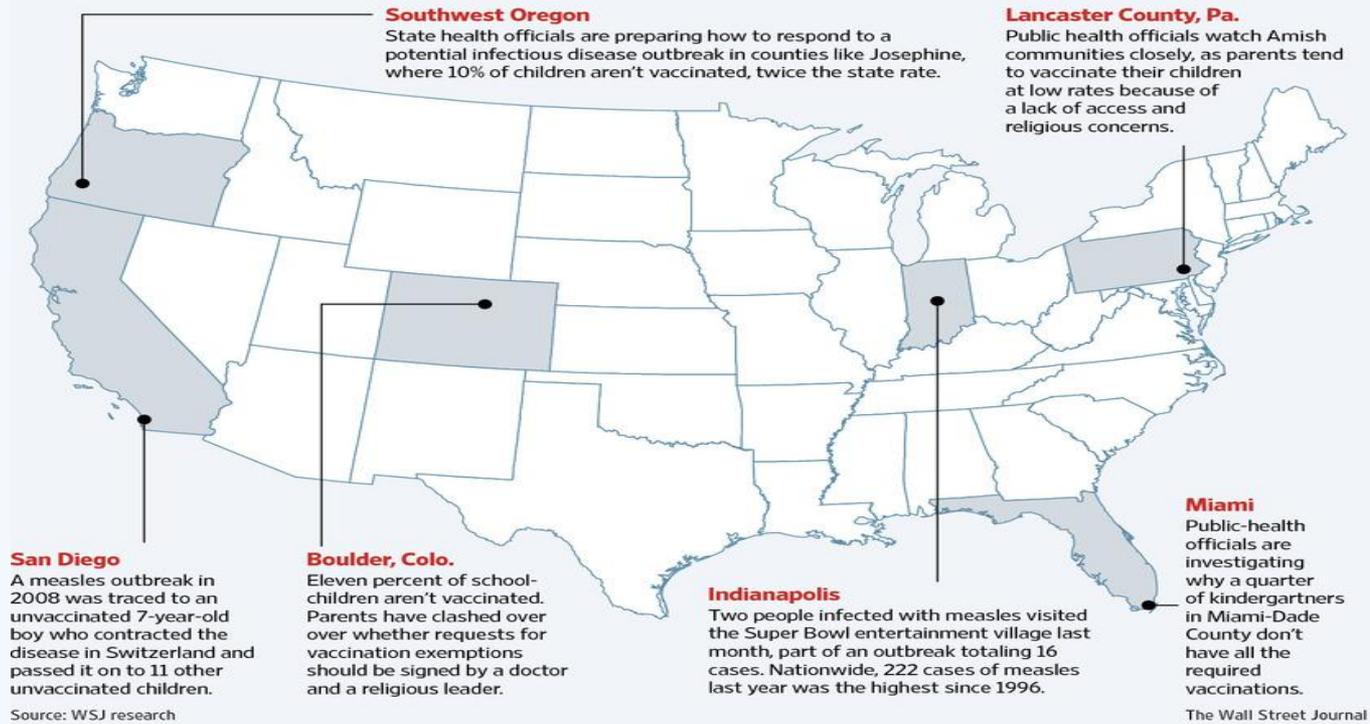
Non-vaccinators

- Perceive the risk of the vaccines to be greater than the risk of the disease.
- Feel that their child is not at risk because others vaccinate (free-riding).

Birds of a feather

Hot Spots

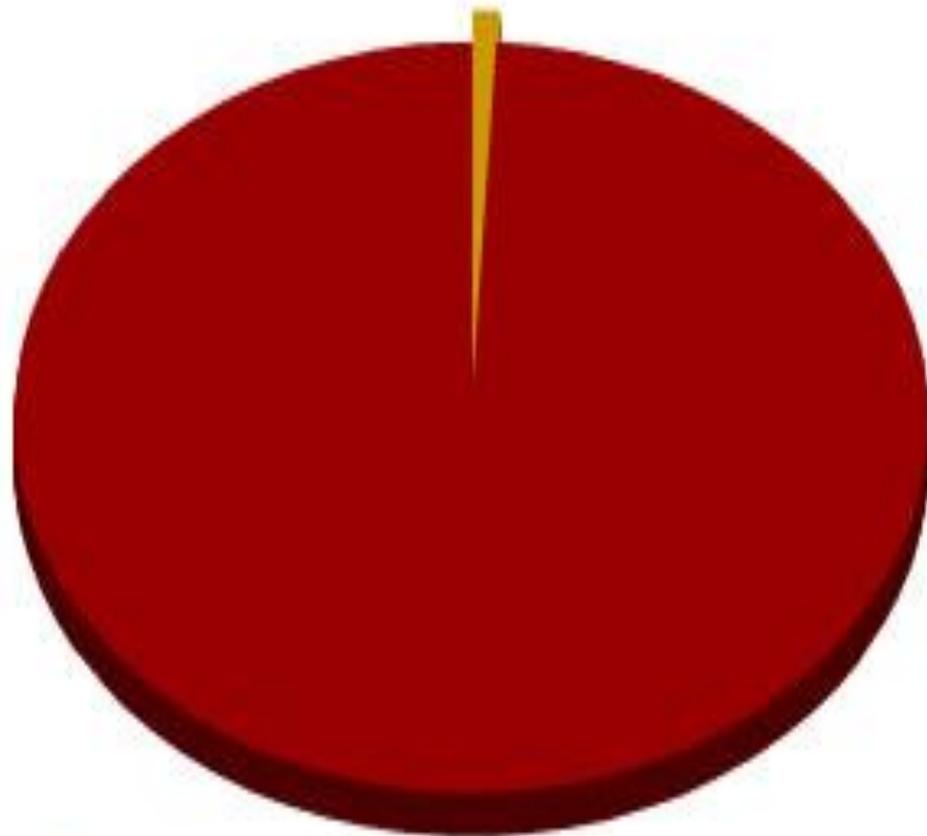
Vaccination rates against once common childhood diseases like measles are generally high around the country. But public-health officials worry about a growing number of geographic pockets where rates are low or outbreaks have happened.



Overview

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What Will Make Your Book A Bestseller



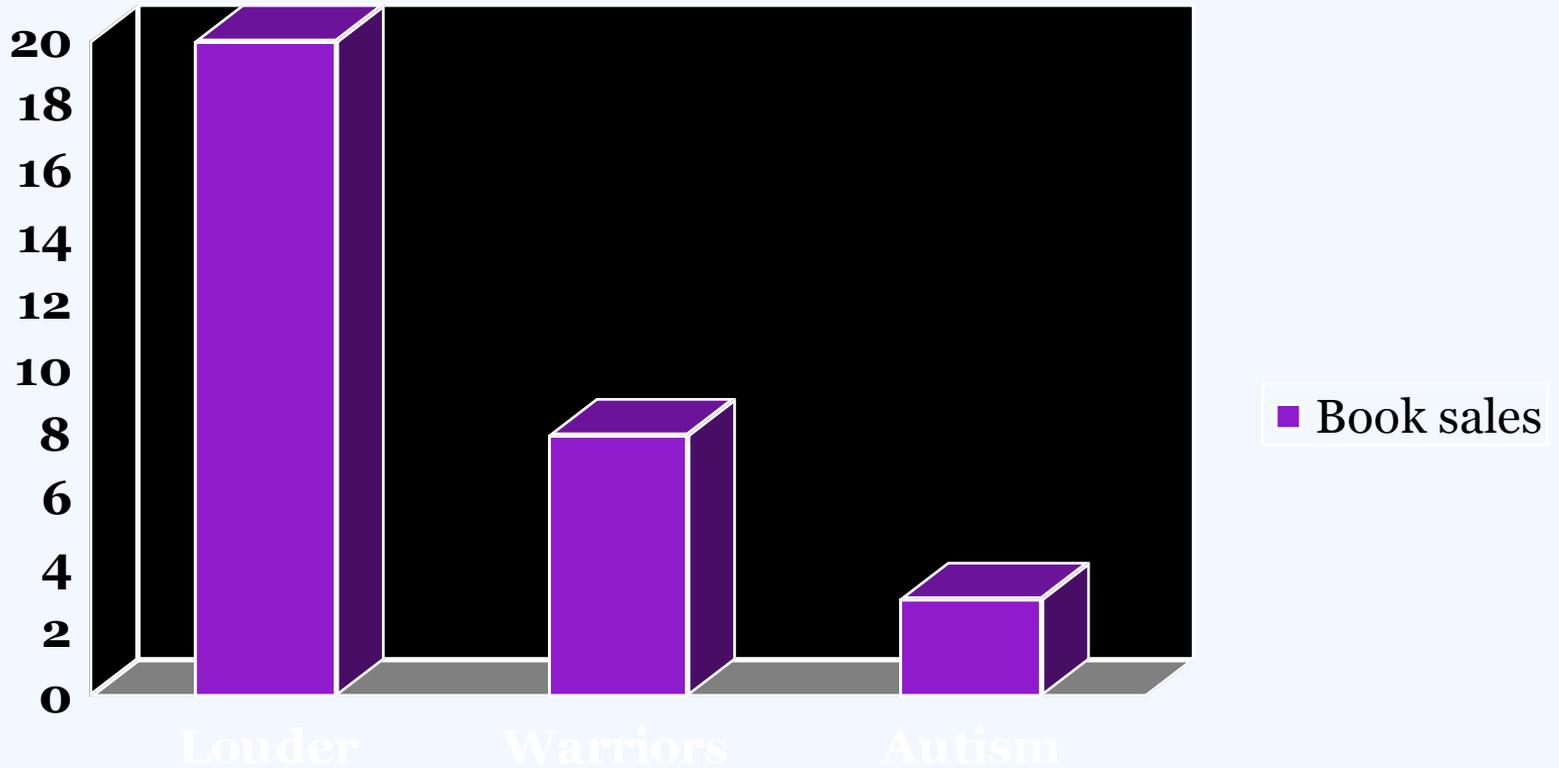
A powerful concept that will change the world and bring about a new age of peace and prosperity for all.



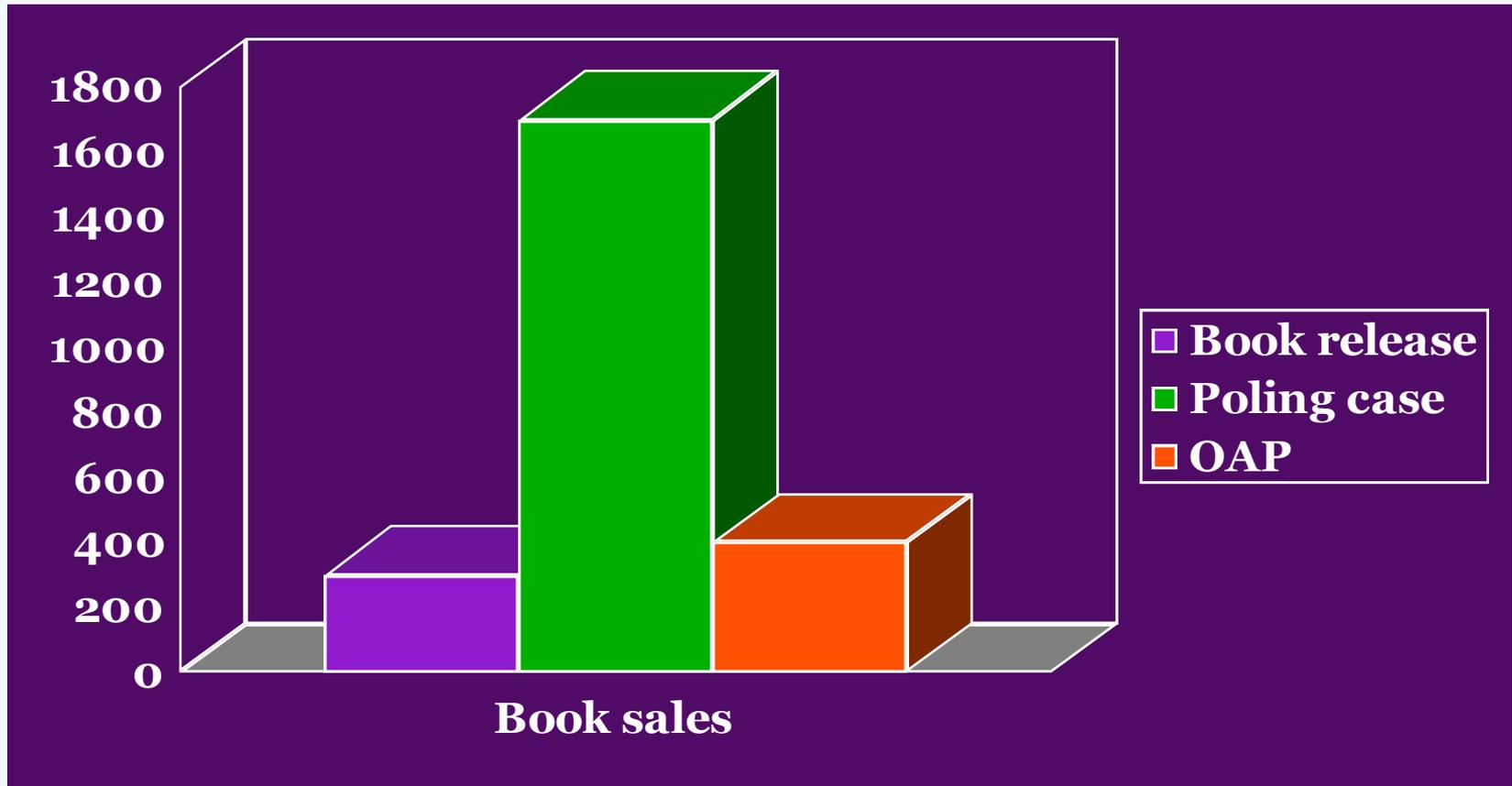
Appearing on Oprah

Jenny McCarthy

2007 (Louder) 2008 (Warriors) 2009 (Autism)



Dr. Bob's Vaccine Book



Where are they now?



The Academic Integrity Fund



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Our Current Cause



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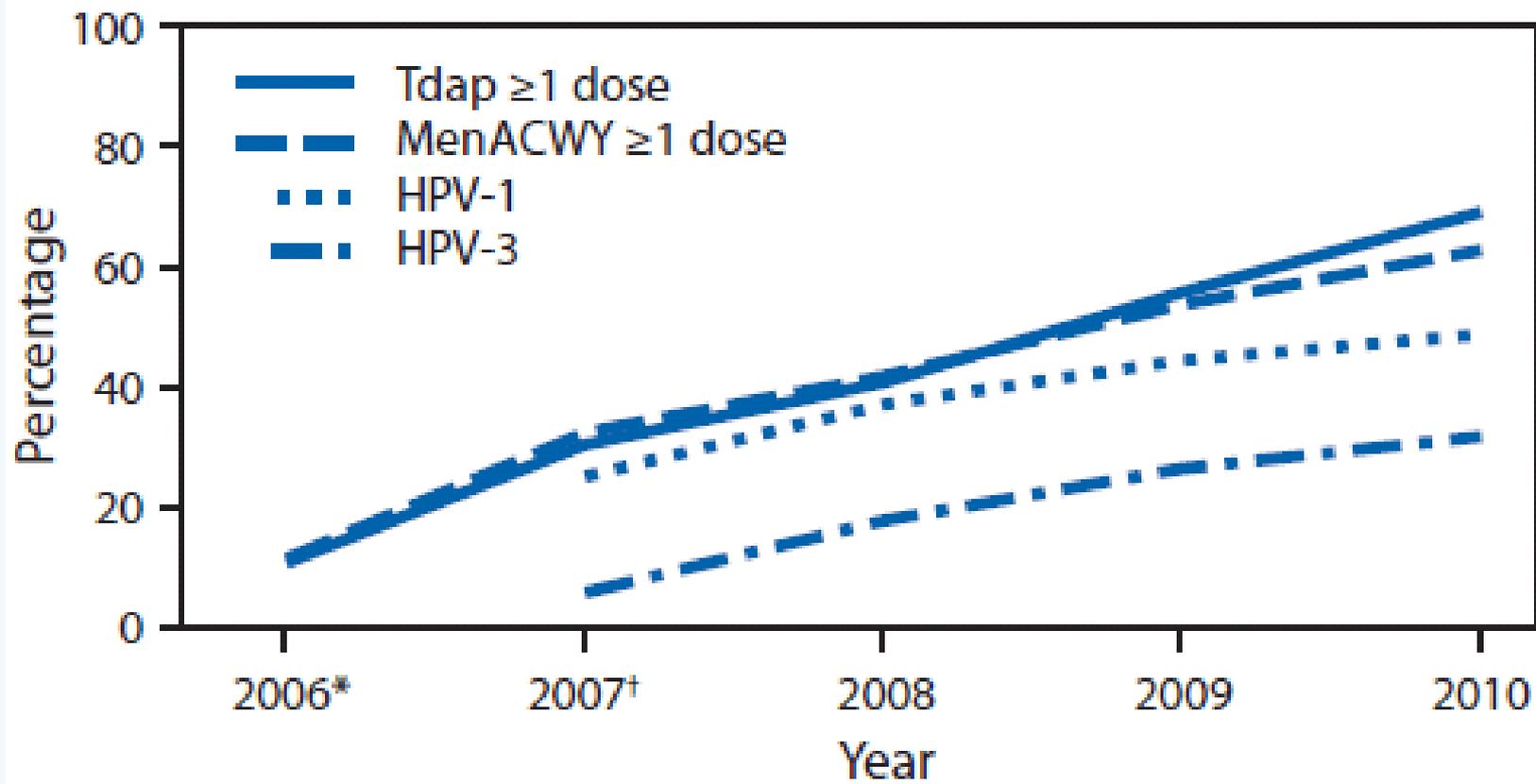
[Follow](#)

We're not done...but we are doing pretty well!



- <1% of children ages 19-35 months are unvaccinated.
- Teen vaccination rates are improving.

-NIS Survey, 2011



West Virginia

- 67% vs. 73.6% national average
- Tdap and Meningococcal vaccine requirements for 7th-12th graders

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Coalitions

- Immunization Alliance 2008
- State coalitions: legislation, community outreach



**Not Vaccinated?
No Kisses!**

Get the adult whooping cough vaccine.
www.VaccinateYourFamily.org

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What you say

I vaccinated my own kids to protect them. I wouldn't do anything differently for yours.

—Public opinion survey 2008



Ari Brown MD, FAAP
Pediatrician and Mom

When it comes to immunizations, people ask me what I do for my own children.

I tell them yes. When it comes to immunizations, pediatricians agree there is no better way to protect your child from diseases that have plagued children for generations, and still exist today.

For more information about immunizations ask your board-certified pediatrician. The only doctor dedicated to the health and well-being of children.

Visit healthychildren.org

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™



How you say it

- WANT to be listened to and respected.
- WANT to be respected they want what's in child's best interest.
- WANT explanation from trusted source.

- DON'T WANT scare tactics.
- DON'T WANT to be scolded.

These are not bad parents...they're
SCARED parents.



Great Communicators

- Know their audience.
- Talk WITH them.
- Care about them.
- Don't argue.
- Seek common ground.
- Listen.
- *Speak succinctly.*
- *Speak with passion and compassion.*

3 S's

Sit Down

Shut Up

Share

What YOU can do

Offer reliable sources for more information.

Social media. Talk about it!

Staff training, educational curriculum.

Practice what you preach.

Overview

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MYTH #1

Vaccine preventable diseases are rare, not serious, and treatable.

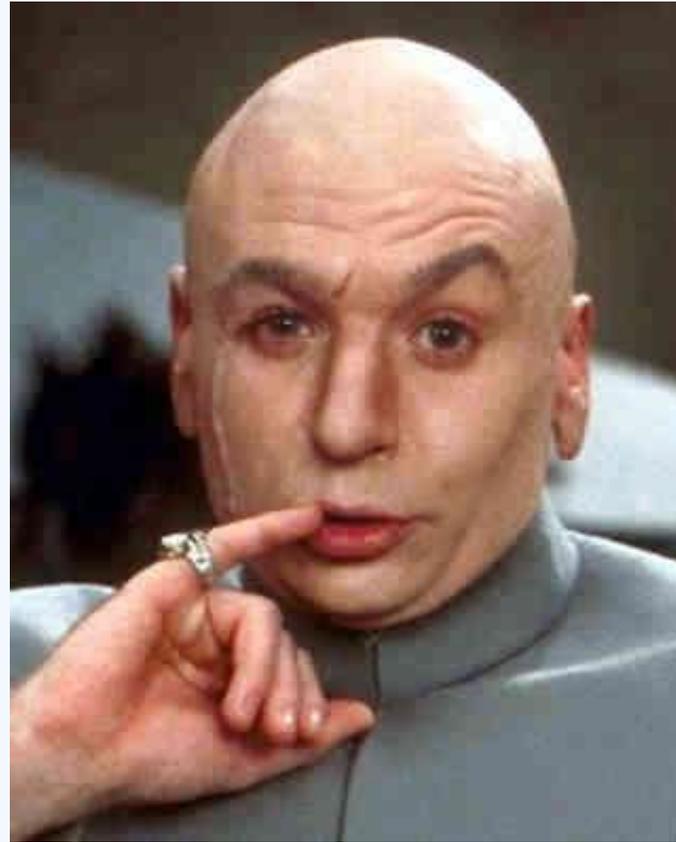
Reality:

- ✓ Pertussis deaths
- ✓ Measles
- ✓ Bacterial meningitis
- ✓ H1N1, H3N2



MYTH #2

Too many shots.



REALITY:

- Thank goodness we have more shots.
- These are safer and smarter vaccines.
- Smallpox, oral polio, DTwP.
- It may look like more shots, but the immune load is actually LESS.

MYTH #3

Thimerosal causes
autism.

Reality:

Removed in 2001.

Autism rates rising.



Reality: Causes of Autism

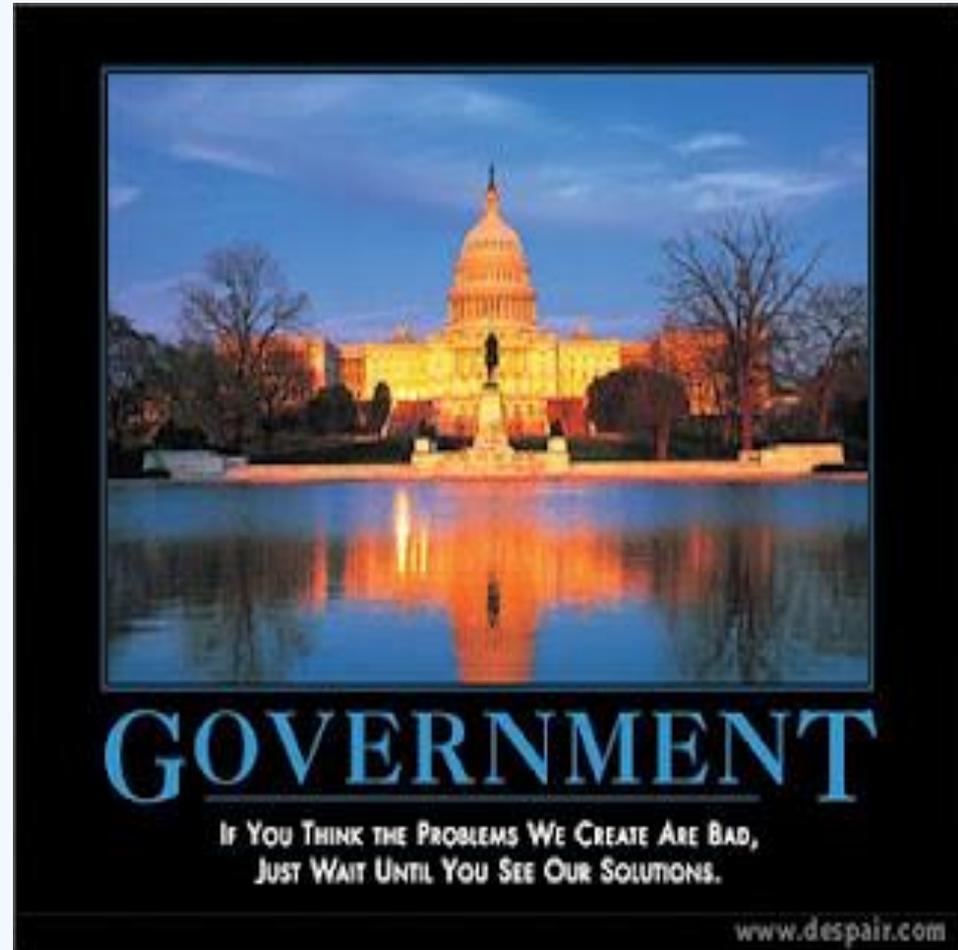
- Genetic: 10-15%
- “Mature” parents
- Closely spaced pregnancies
- Extreme prematurity
- Meds during pregnancy
- BMI >30 pregnancy



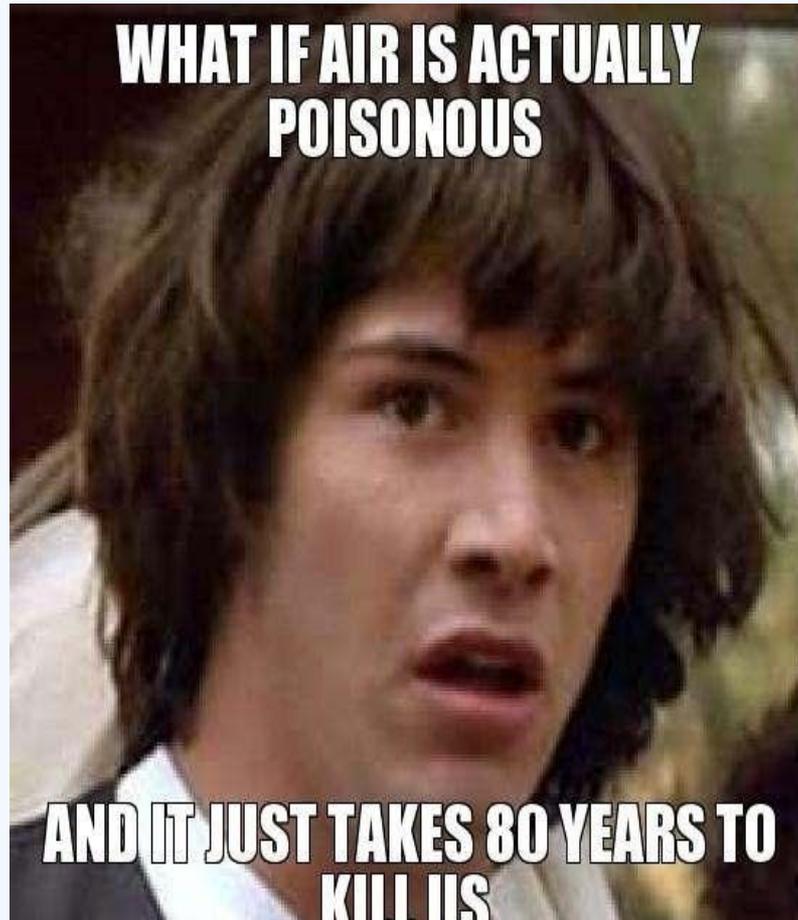
MYTH #4

It's all a big
Government, Pharma, &
medicine conspiracy.
Those “studies” are all
funded by Big Pharma.

Reality: Just ask your
doc if she vaccinates her
kids.



MYTH #5: We need to green our vaccines



Vaccine Ingredients

- PRESERVATIVES prevent contamination (phenol, thimerosal before 2001)
- ADJUVANTS improve immune response. Not needed for live vaccines. (aluminum salts)
- ADDITIVES prevent deterioration/sticking to side of the vial (gelatin, MSG)
- RESIDUALS are remains of production process (egg protein, formaldehyde)

Aluminum Reality

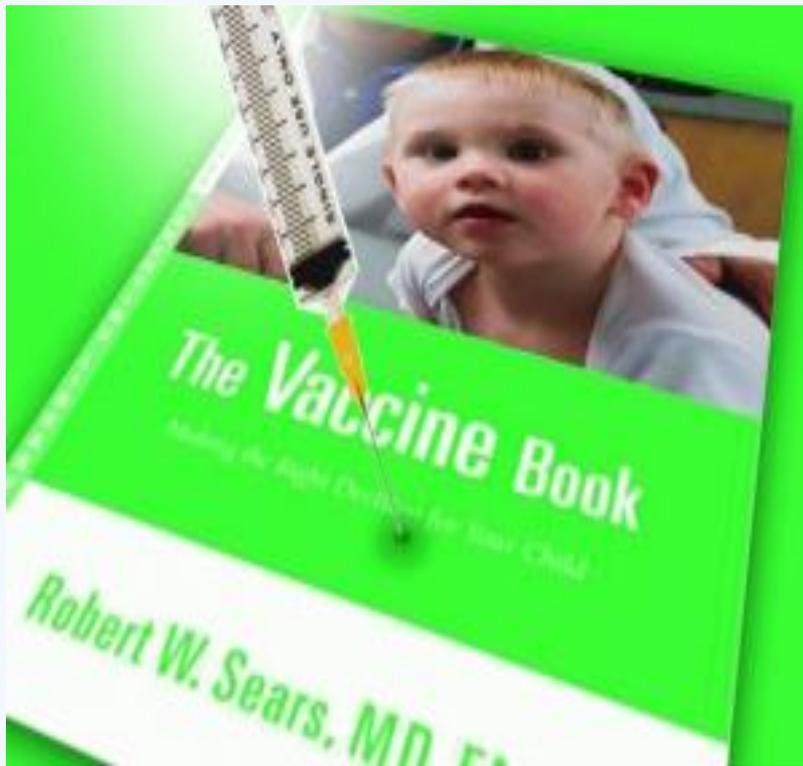


- Aluminum is the #3 metal in the earth's crust.
- 4 mg total in all shots given by 6 months.
- 10 mg in six months of breastmilk.
- 30 mg in six months of formula.
- 120 mg in six months of soy formula.

Other truths

- Live vaccines are weakened (attenuated) in animal or human cell cultures.
- Two aborted fetal cell lines have been used (WI-38, MRC-5) to make some vaccines.
Pope Benedict XVI says it's OK.
- Recombinant DNA vaccines do not insert themselves into our DNA.

MYTH #6:



It's safer to use an
“alternative”
vaccine schedule...

a.k.a. DELAYED
vaccination schedule

REALITY

- Delaying vaccinations leaves the most susceptible at risk.
- *“My schedule doesn’t have any research behind it. No one has ever studied a big group of kids using my schedule to determine if it’s safe or if it has any benefits.”—Dr Bob Sears*
- 2010 study shows no benefits

Myth #7

HPV Vaccine is dangerous.



HPV Reality- 4, 6, 12, 40



- 4000 deaths annually
- 6 million infected annually
- 12,000 cases cervical CA/yr
- 40 million doses given
- First vaccine 2006

HPV and cancer

HPV, the human papillomavirus, infects 6 million people a year, sometimes causing long-term infections. The family of viruses also can cause a wide range of cancers.

Annual cases of HPV-related cancers:

Cervical



Throat/tongue/tonsil



Anal



Vulvar



Vaginal



Penile



Source: American Cancer Society; CDC

By Frank Pompa, USA TODAY

Can I get cancer from oral sex?

Yes, and the U.S. is seeing a sharp increase in the number of cases of oral and throat cancer especially among young men, caused by HPV infections contracted during oral sex.

Tuesday, September 20, 201

D2 •

REPORT ON HEALTH

The Rising Risk: HPV now a more-common cause of throat and oral cancers than tobacco

Changing sexual behavior may explain why over the last decade HPV infections have led to a **four- to five-fold increase** in the number of tonsillar and base of tongue cancers, particularly among young men.

Survival rates for mouth and oral cancers are **between 85%-90%**, but oral cancers alone still **kill 8,000 people** in the U.S. every year.

In 2010, the National Cancer Institute estimated there were 12,660 cases of oropharyngeal cancer resulting in **2,410 deaths**. About half of those cases were men and **at least 75% were caused by HPV**.



HPV is a virus. It is the most common sexually transmitted infection, and can be spread through skin-to-skin contact.



Approved vaccines can help prevent an HPV infection.

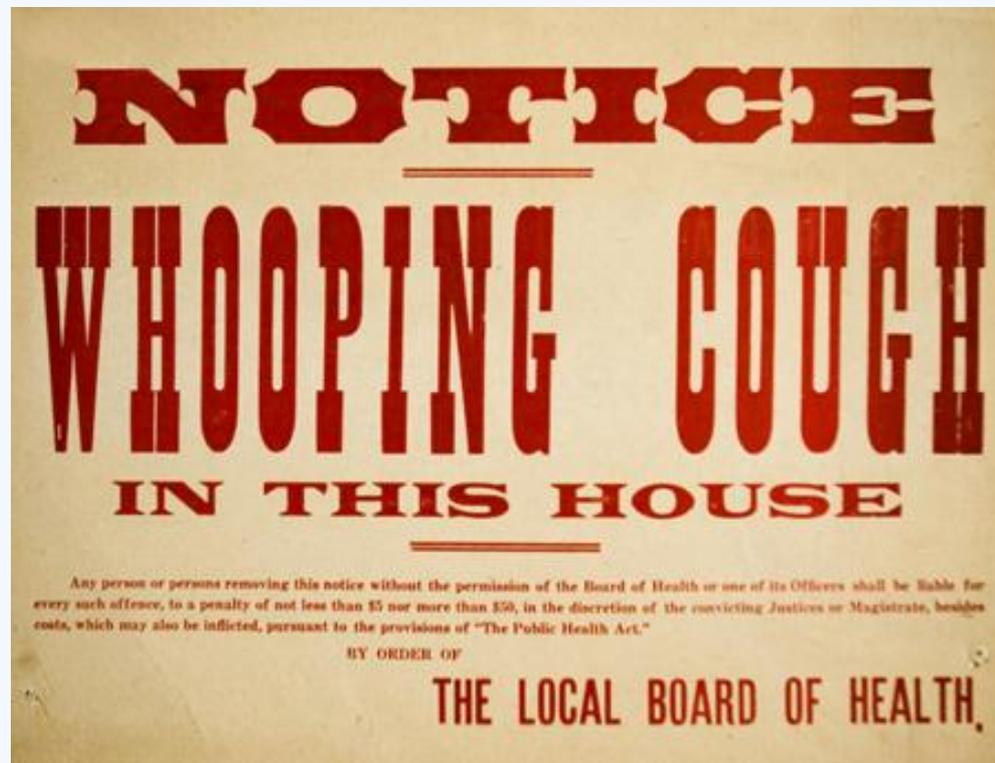




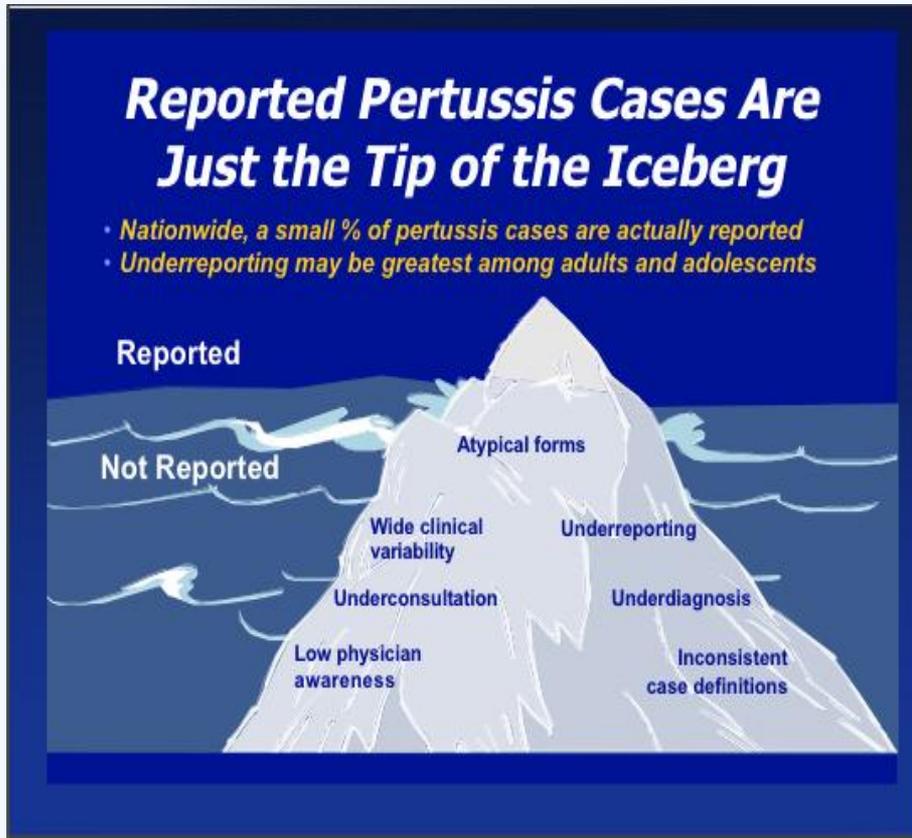
Top HPV Vaccine Concerns

- When to give it? 40% HPV+ in 2 years.
 - Condoms protect? 70% at best.
 - Lasting immunity? At least 5-8 years.
 - Adverse events? 20k reports, 72 deaths*
-
- *Of 31 patients with blood clots, 90% had a known risk factor (smoking, obesity, taking OCP's)

Myth #8: Tdap is causing whooping cough epidemic.



Reality



- 3 doses for initial protection.
- Immunity by vaccination wears off.
- Immunity after disease also wears off.
- Tdap arrived in 2005. But adult providers rarely offer Tdap.

Yes, DTwP was more effective than DTaP or Tdap. But, we don't make optimal use of the vaccines we have.

Vaccine information



Clear Answers and Smart Advice for Your Baby's Shots

By Ari Brown, MD, FAAP



Ari Brown, MD, received her medical degree from Baylor College of Medicine in Houston. She did her pediatric residency at Harvard Medical School/Boston Children's Hospital and has been in private practice in Austin since 1995. Dr. Brown is perhaps best known as the coauthor of the 411 parenting book series — *Expecting 411: Clear Answers and Smart Advice for Your Pregnancy, Baby 411*, and *Toddler 411*. In response to the media attention given to vaccines, autism, and other controversies, this special excerpt from *Baby 411* is available free of charge to help educate families.

Vaccines. Autism. Controversy. As a new parent (or parent-to-be), it's hard not to hear the great debate in parenting circles these days — do vaccines cause autism? If not, what causes autism and why is it on the rise?

Let's start at the beginning. Just what is autism?

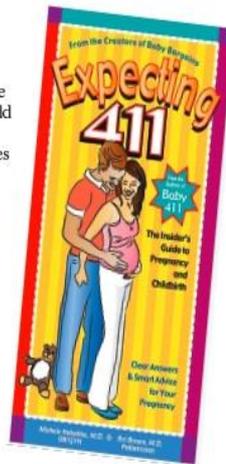
Q. What is autism?

Autism Spectrum Disorder (ASD) is really a collection of several disorders that cause children to have three abnormal areas in common: social skills, communication skills, and repetitive or obsessive traits. Specialists use the terms ASD and Pervasive Developmental Disorders (PDD) interchangeably. To add even more confusion, Pervasive Developmental Disorder, not otherwise specified (PDD-NOS), and Asperger's Syndrome also are disorders that fall under the ASD umbrella.

There is a very broad range of severity within ASD. A child may have normal intelligence and language, but be socially

There also are some unusual behaviors. Cuddling may not be soothing. In fact, an autistic child may get very upset by being touched. Bright lights and noises often bother them. Because they are bugged by the outside world, they may turn inward and find comfort in repetitive behaviors (rocking, head banging, spinning). Autistic children may have little interest in playing with toys. Or they may play in an odd way — such as using a phone as a comfort object.

Bottom line: Children with autism have autism long before their first birthdays, ...



- [CDC.gov/vaccines/conversations](https://www.cdc.gov/vaccines/conversations)
- [AAP.org/immunization](https://www.aap.org/immunization)
- [Immunize.org](https://www.immunize.org)
- [Vaccinateyourbaby.org](https://www.vaccinateyourbaby.org)
- [Vaccine.chop.edu](https://www.vaccine.chop.edu)
- [Baby411.com](https://www.baby411.com)
- [Expecting411.com](https://www.expecting411.com)



"I'm mad as hell and I'm not gonna take this anymore!"

Teaching Moments

**Build a relationship, develop trust,
and educate!**