



# COMMUNICATING ABOUT VACCINES-A NEVER ENDING CONVERSATION

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I have no financial disclosures related to  
this presentation

# OBJECTIVES

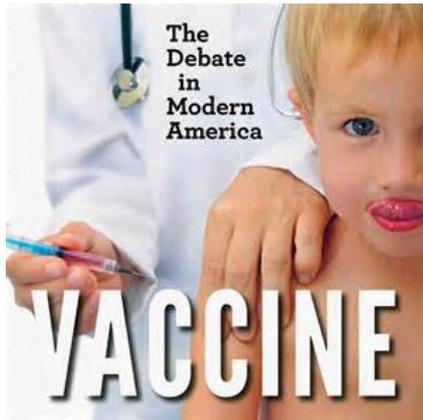


- Describe the current impact of vaccine hesitancy in California
- List the main factors that lead to public distrust of vaccine recommendations
- Discuss the main challenges we face in vaccine communication
- Provide some main talking points on the common vaccine safety concerns



# Vaccination is a top Public Health achievement of the 20th Century

MMWR 1999; 48:241



**98 million Americans were given polio vaccine contaminated with cancer-causing virus, admits CDC**  
[asheepnomore.net](http://asheepnomore.net)

The Truth About Misinformation  
A Sheep No More

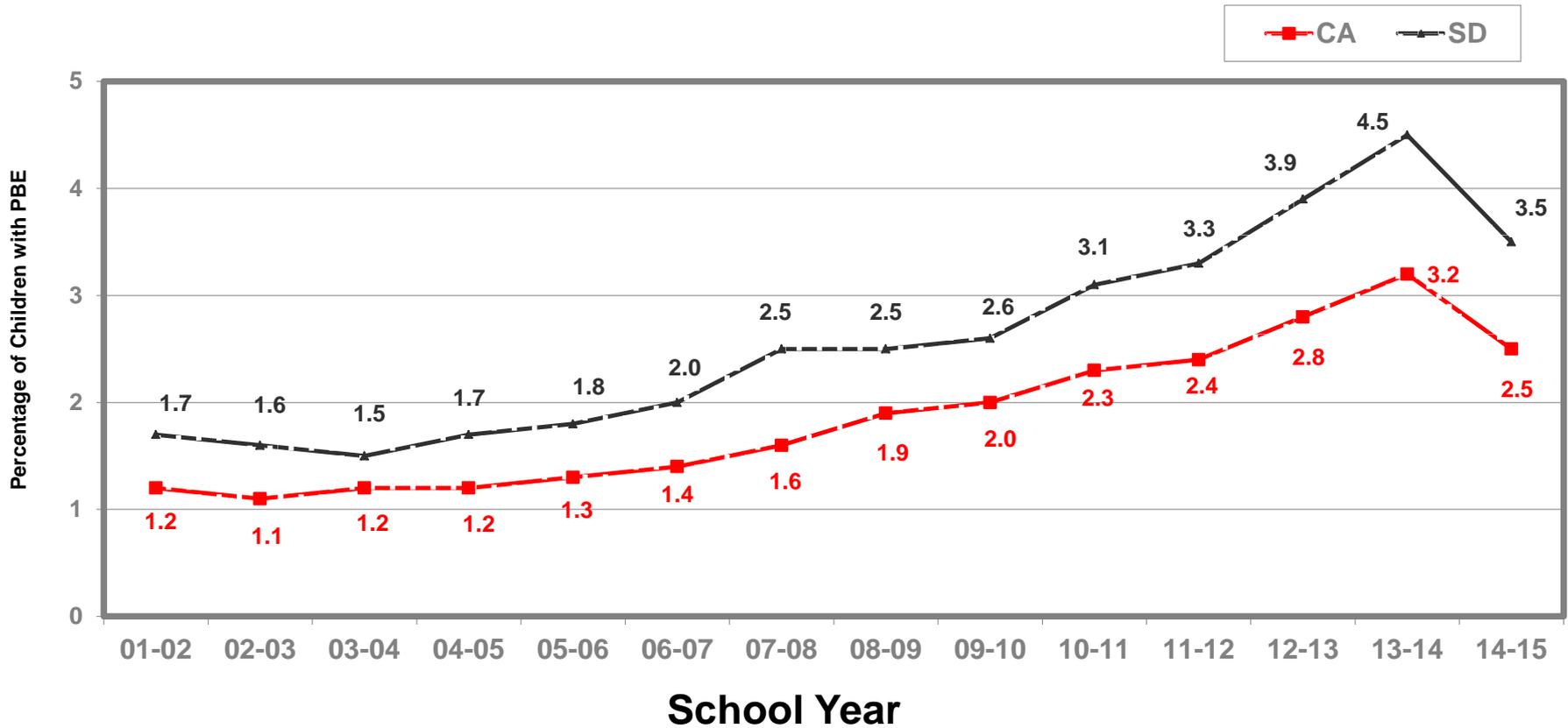
**MACLEAN'S**

## OUR GIRLS AREN'T GUINEA PIGS

A new investigation of the hidden dangers of the vaccine that is making us healthier and wealthier. Experts say it's not just a matter of life and death.

PEOPLE WHO...  
THE...  
THE...  
THE...

# PERSONAL BELIEF EXEMPTIONS (PBE) KINDERGARTEN ENTRANCE ASSESSMENT 2001-2014



2014-15 California kindergartners= 535,234 (13,592 students with PBE status) among 8,170 schools  
 San Diego kindergartners=43,827 (1,518 students with PBE status) among 609 schools

# FACTORS THAT HAVE INCREASED CONCERN



## Distrust

- Industry
- Government
- Doctors

## Uncertainty

Rapid increase in the number of vaccines

Rapid increase in the number of cases of autism

Internet/Media/Celebrities

# KNOW YOUR SOURCE



*"On the Internet, nobody knows you're a dog."*

# WE ARE LOSING THE BATTLE



|              | 2008 | 2009 | 2010 | 2011 | 2012 |
|--------------|------|------|------|------|------|
| DTaP 3 doses | 96.2 | 95   | 95   | 95.5 | 94.3 |
| MMR          | 92.1 | 90   | 91.5 | 91.6 | 90.8 |
| Hep B        | 93.5 | 92.4 | 91.8 | 91.1 | 89.7 |

MMWR/September 13, 2013 / 62(36);733-740

# SOME CHALLENGES IN COMMUNICATING ABOUT VACCINES

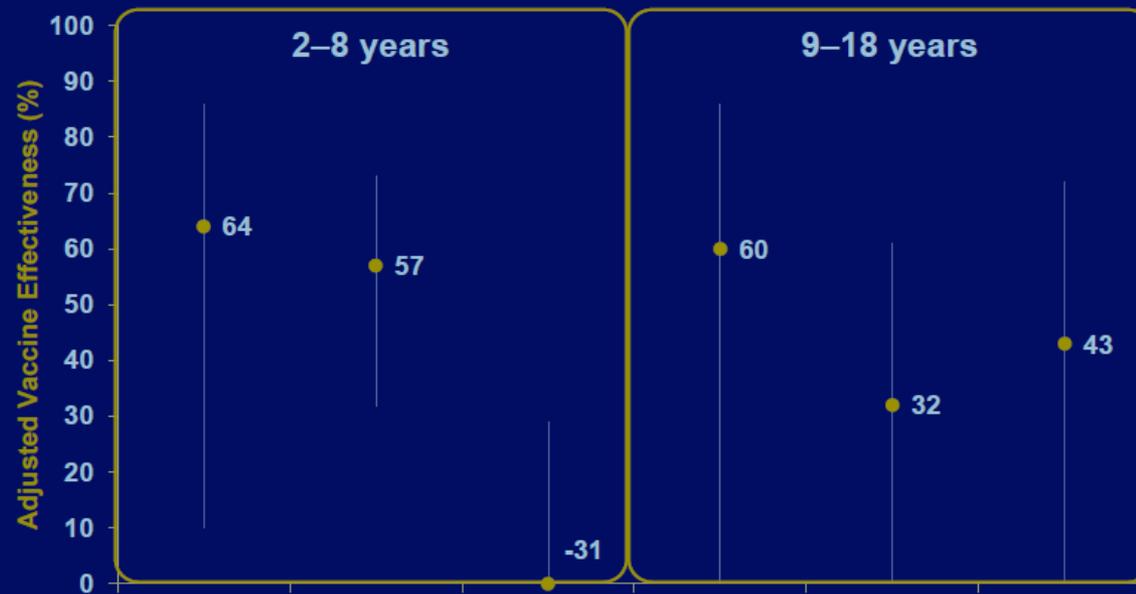


- Vaccines don't always work
- Vaccines VERY rarely have serious adverse effects
- Vaccines make people lose sight of the reasons we give them
- It is human nature to assume a causal link between two things that are temporally associated
- Doctors don't like to talk about sex
- Emotion trumps science

# LAIV VACCINE EFFECTIVENESS 2013-2014



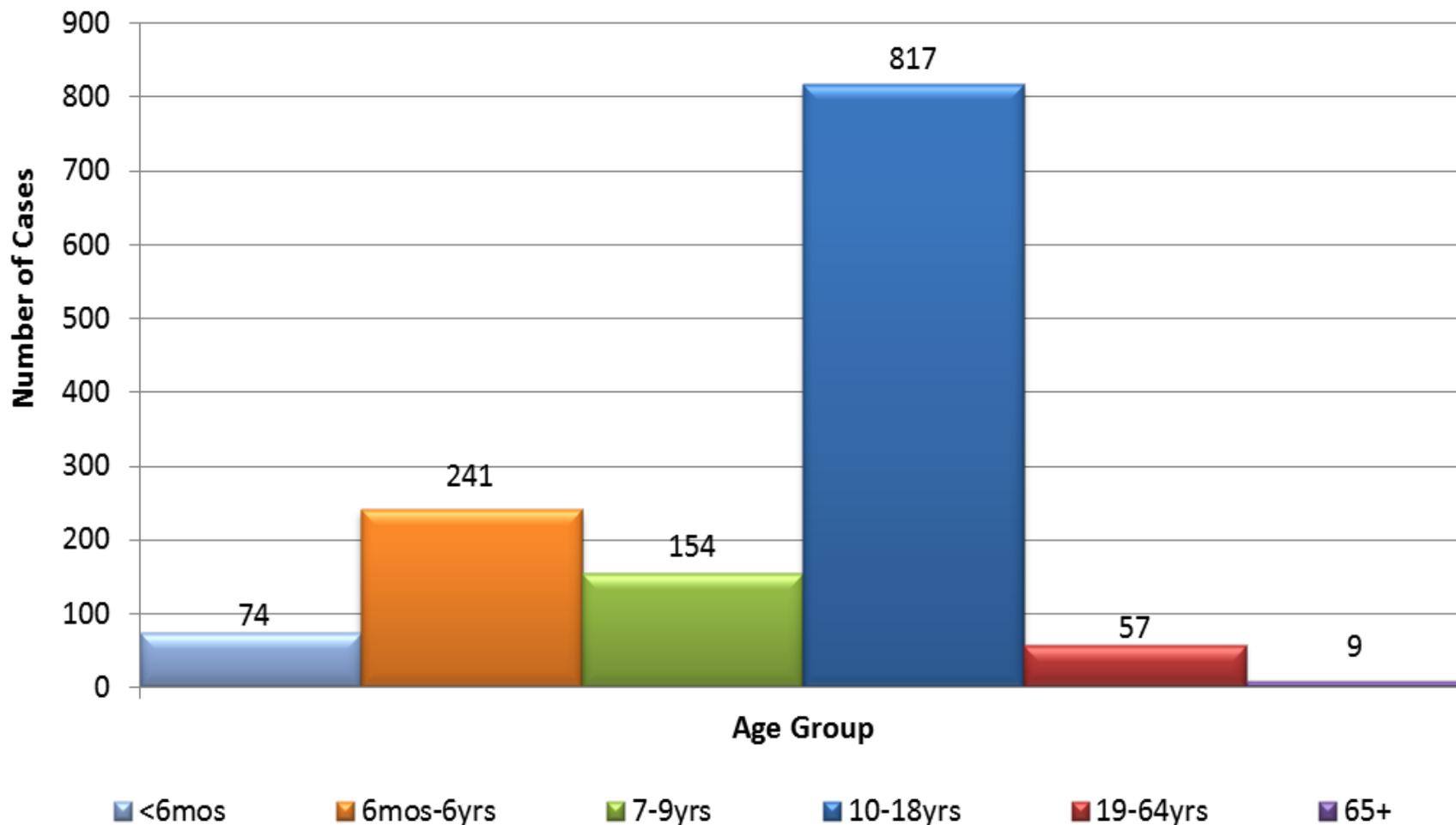
## LAIV effectiveness against medically-attended influenza, by season and age category



|              | 2011-12 | 2012-13 | 2013-14 | 2011-12 | 2012-13 | 2013-14 |
|--------------|---------|---------|---------|---------|---------|---------|
| Total, Flu + | 168     | 391     | 127     | 100     | 347     | 99      |
| LAIV, Flu +  | 6       | 35      | 22      | 6       | 26      | 12      |



### San Diego County Number of Pertussis Cases Reported by Age Group, 2014 YTD



# COMPREHENDING VERY LOW RISK



|  |                |
|--|----------------|
| Guillain-Barre following influenza vaccine | 1 in a million |
| Dying in a Tsunami                         | 1 in 500,000   |
| Dying by dog bite                          | 1 in 150,000   |
| Dying of heart disease                     | 1 in 5000      |
|  |                |

# MEASLES!

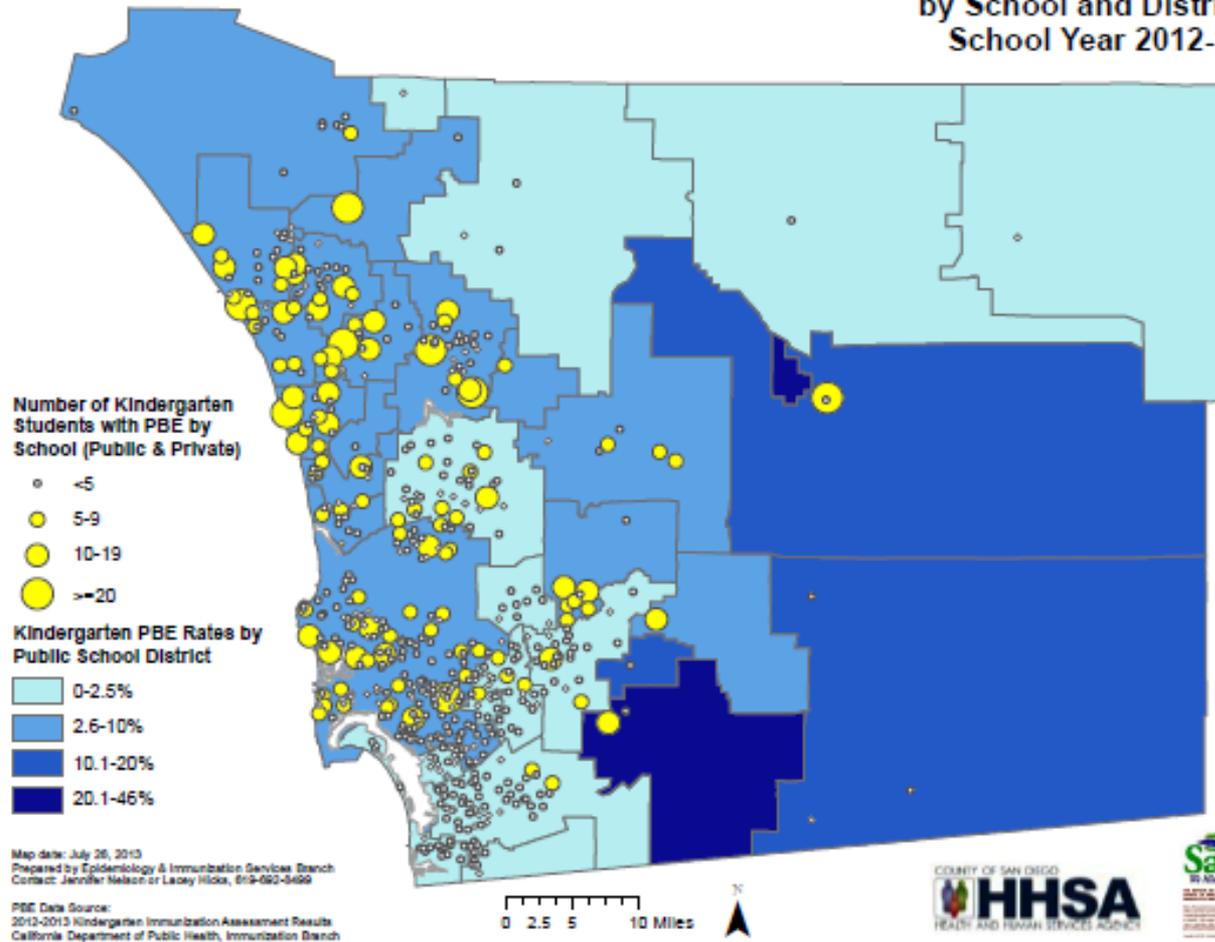


- Measles is very contagious
- Mostly unimmunized affected
- Spread widely
- Big public health response
- Extensive media coverage
- Spawned legislation in many states





### San Diego County Personal Belief Exemptions (PBE) Among Kindergarten Students by School and District School Year 2012-13



# TEMPORAL RELATIONSHIPS



# VACCINE SAFETY DATALINK (VSD)



LIVE WELL  
SAN DIEGO

In 1990, the CDC started its Vaccine Safety Datalink project—VSD for short.

Eight large health maintenance organizations (HMOs) joined with the CDC to help keep an eye on vaccine safety.

Since its beginning in 1990, VSD has collected safety statistics on more than 7 million people who have received vaccines. These statistics are a powerful tool for assuring safety.





## Top 5 reasons for not vaccinating daughter, among parents with no intention to vaccinate in the next 12 months, NIS-Teen 2012

|                             |       |
|-----------------------------|-------|
| Not needed or necessary     | 19.1% |
| Not recommended by provider | 14.2% |
| Safety concern/side effects | 13.3% |
| Lack of knowledge           | 12.6% |
| Not sexually active         | 10.1% |



## **HPV Vaccine Communications During the Healthcare Encounter**

- ❑ HPV vaccine is often presented as 'optional' whereas other adolescent vaccines are recommended**
- ❑ Some expressed mixed or negative opinions about the 'new vaccine' and concerns over safety/efficacy**
- ❑ When parents expressed reluctance, providers were hesitant to engage in discussion**
- ❑ Some providers shared parents' views that teen was not at risk for HPV and could delay vaccination until older**

# MENINGOCOCCAL DISEASE ON COLLEGE CAMPUSES



# PARENT ISSUES



Are vaccines safe?

Do vaccines cause autism?

Aren't we overwhelming the immune system?

Isn't natural immunity better?

Diseases no longer exist—or aren't that dangerous

It is all a giant money-fueled conspiracy

It's my right to decide what's best for my child



# ADDRESSING PARENT ISSUES



Know the source of the information you are receiving

Vaccines are safe

Risk from vaccines are less than the risk from the disease

Vaccines do not cause autism

Natural immunity is not better

The diseases are here now and remain dangerous

A choice not to immunize leaves you/your child at risk and also places others at risk

# VACCINES DURING PREGNANCY





Vaccine Safety Datalink study of 26,229 pregnant women who received Tdap during their pregnancy

Vaccination was not associated with adverse birth outcomes (premature delivery, SGA infants)

Vaccination was not associated with hypertensive disorder of pregnancy

Vaccination was statistically associated with chorioamnionitis (6.1% of vaccinated compared to 5.5% of unvaccinated women)

# INFORMATION FOR HEALTH-CARE PROFESSIONALS



NNII ([www.immunizationinfo.org](http://www.immunizationinfo.org))

VEC ([www.vaccine.chop.edu](http://www.vaccine.chop.edu))

IAC ([www.immunize.org](http://www.immunize.org))

CDC/NIP ([www.cdc.gov/nip](http://www.cdc.gov/nip))

AAP ([www.aap.org](http://www.aap.org))

AAFP ([www.aafp.org/](http://www.aafp.org/))

IVS ([www.vaccinesafety.edu](http://www.vaccinesafety.edu))

Vaccine Page ([www.vaccines.org](http://www.vaccines.org))

Every Child by Two ([www.ecbt.org](http://www.ecbt.org))

CDPH.gov (shot for shot)

PKIDS (<http://www.pkids.org/>)



We are gradually losing the battle on vaccine communication

Multiple factors lead to public distrust of vaccine recommendations

We need to continue to develop new communication strategies related to vaccines



**Steve Breen** THE SAN DIEGO UNION-TRIBUNE

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