

Why You Should Be Worried About the Anti-Vax Movement

and what Secular Coalition for America, and the North Carolina branch are doing about it.

Put Kids First!

Getting started...

- * I am not a medical professional, or a health worker.
- * I am a grandparent of children some of whom have not been vaccinated, so I am concerned, and want to learn more.
- * EHST and its national organization, the AEU are supporting members of the Secular Coalition of America who is spearheading this campaign.
- * Thanks to Susanne Werner, chair of the NC chapter of SCA, who did the majority of research, and gave me her slides which I have trimmed to fit our time schedule.
- * These slides and notes will be made available to EHST members, and visitors, and will be placed on our website.

Main points for today

- * Brief history of vaccine preventable diseases (VPDs) in the U.S.
- * New trends rejecting vaccinations as threat to children and the rise of some old childhood diseases
- * Review exemptions to laws requiring vaccinations
- * What the Secular Coalition is doing about this, and how you can help

The state of Vaccine Protected Diseases (VPDs)

- Smallpox Eradicated in 1980
(Some estimates - killed 300 million in the 20th century worldwide.)
- Polio May Be Eradicated by 2018
(Prior to vaccine in US, 15,000 people annually were paralyzed by it. CDC)
- Measles/Rubeola Eliminated From the US in 2000
(Decade before vaccine, annually 3-4 million people got it, 400-500 died, 48,000 hospitalized, and 4,000 suffered encephalitis. CDC)
- In 1976 Pertussis (Whooping Cough) Cases Dropped to All Time Low
- National Vaccination Rates High, State Exemption Levels Low
(CDC Press Release 8/27/15)
- NC ranks 13th and 20th Nationally on 2013 National Immunization Surveys for 19-35 month olds (latter includes pneumococcal conjugate vaccine; CDC)

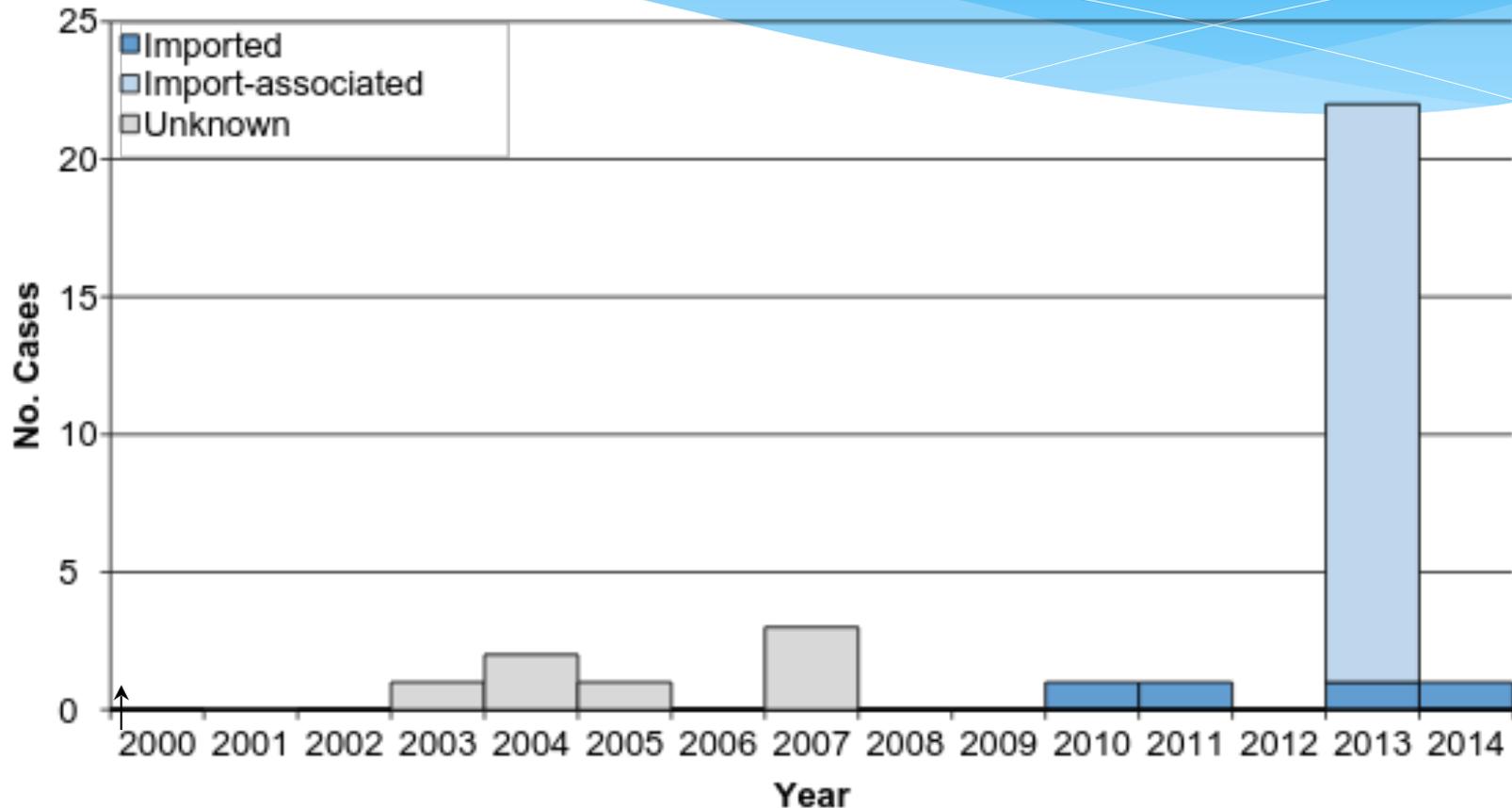
Re-emergence of Vaccine Preventable Diseases

- * Pertussis (aka whooping cough) : 1975 there were 1,738 cases, but in 2014 there were 28,660 cases (CDC), and in 2015 48,227, the highest since 1955.
- * Mumps: 2012 there were 229 cases, but in 2014 there were 1,115 (CDC)
- * Measles/Rubeola: 2013 there were 188 cases, but in 2014 that number more than tripled to 664 cases (WHO) including...

Disneyland Measles Outbreak 2014

- * One international traveler attending Disneyland started the outbreak
- * Sickened 147 people in U.S, spread to half dozen states
- * Canadian province of Quebec as of April 2015 still had 159 people sickened in part due to low vaccination rate
- * Those infected were either not vaccinated, or were under 12 months of age (too young for the vaccination)
- * Theme parks like Disneyland make perfect places for outbreaks of highly communicable diseases: people from around the world visit, it is a destination for immune compromised children (Make a Wish Foundation).
- * An unvaccinated person has a 90% chance of catching measles from an infected person's sneeze or touching a contaminated surface within a 2 hour timeframe.

Number of Cases of Measles Reported In North Carolina by Import Status, 2000-2014



Measles declared eliminated in United States in 2000

2013 NC Measles Outbreak

- Information from Susan Sullivan of the Communicable Disease Program of the NC Dept of Public Health (not a part of PKF).
- April 14, 2013 - report from NC hospital of two suspected measles cases
- Both households had contact with unvaccinated traveler who recently returned from India
- Traveler had experienced similar symptoms
 - Admitted to hospital
 - Measles testing not ordered
- Families affected lived in largely unvaccinated communities in Orange, Stokes, and Forsyth counties.

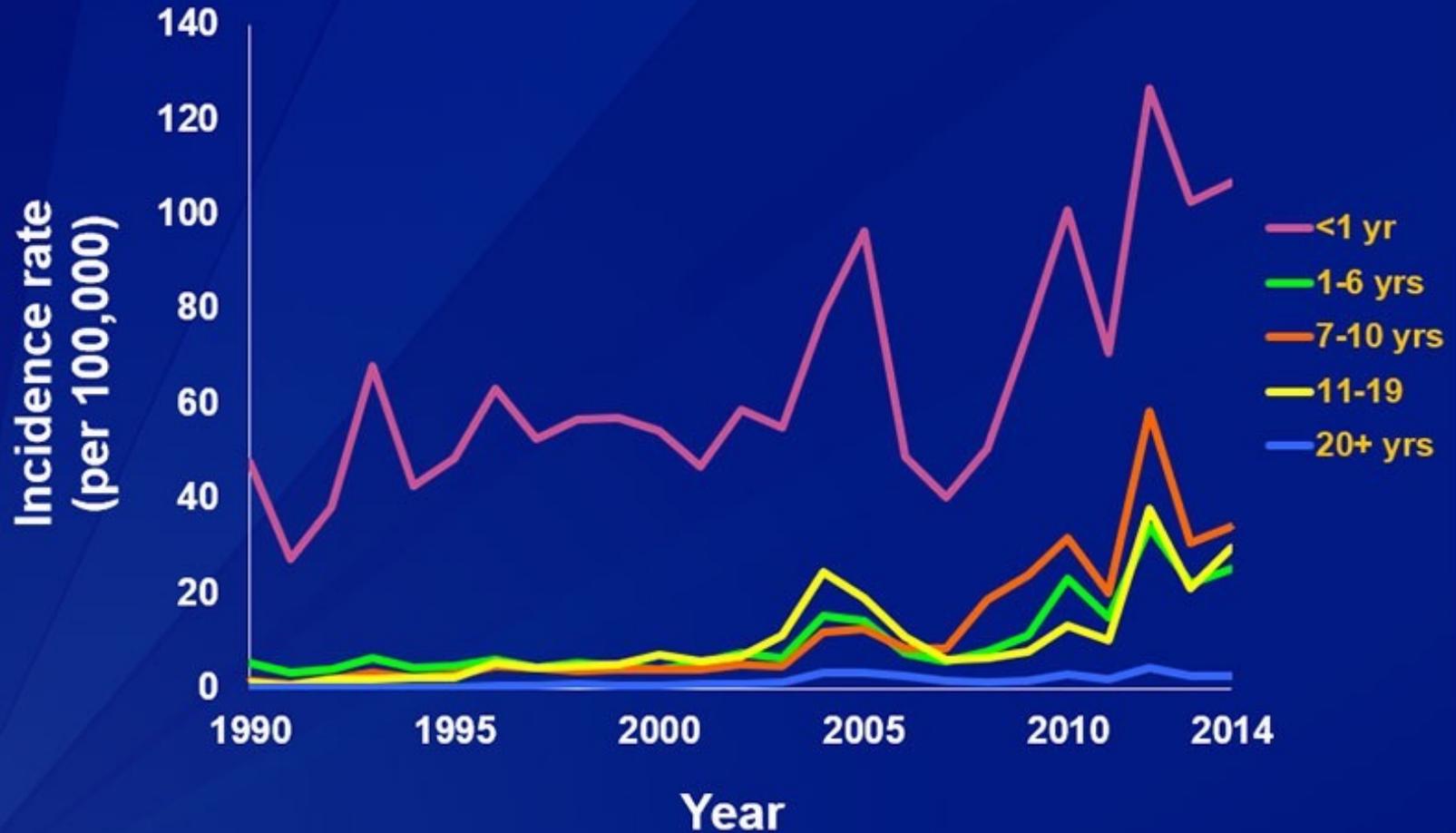
2013 NC Measles Outbreak Response

- In response to this outbreak:
 - 30 isolation orders were issued from 5 counties
 - 89 quarantine orders were issued in 8 counties
 - Intensive investigation of large-scale exposures in several venues, including
 - Hospitals
 - Physician offices
 - Festivals / public gatherings
 - over 1,000 contacts identified and investigated
 - 1,500 doses of MMR vaccine were made available to 20 counties
- These outbreaks are costly both in terms of human suffering and personnel and financial costs to identify and contain the outbreak.

Pertussis aka Whooping Cough

- * Pertussis is a lung infection that can cause a severe cough lasting for weeks.
- * Spreads via air when a person coughs, sneezes, or even breathes. Can spread from initial symptoms for at least 2 weeks after coughing starts.
- * Complications in infants and children: slowed or stopped breathing, pneumonia, seizures, dehydration, weight loss, hearing loss, and brain damage.
- * Children under one are most affected, followed by children aged 7-10 years old.
- * Pertussis outbreaks are increasing...

Reported pertussis incidence by age group: 1990-2014



SOURCE: CDC, National Notifiable Diseases Surveillance System and Supplemental Pertussis Surveillance System

Pertussis Facts

- * Infants can't be vaccinated until 2 months old. In infants under 1 yr old, half would need hospitalization and 1 in 100 will die.
- * Pertussis vaccine reduces incidence by 98% after 5 doses with no serious side effects, but boosters are required to maintain immunity.
- * Grandparents should check their vaccinations for boosters before visiting newborns; remember symptoms appear similar to the common cold.
- * 2010 outbreak in California: 9,477 infected and 10 infant deaths, biggest outbreak since 1945. It was clustered in populations of personal belief exemptions; the kindergarten vaccination rate was only 91%.
- * 2014 cases in NC: 727, roughly 4 times the number in 2011. 63 of 100 NC counties had pertussis.
- * Pertussis and the measles spread rapidly ...

'A very tenacious disease'

When an outbreak occurs, pertussis spreads rapidly because one case can lead to a dozen more.

Number of usual secondary transmissions

ONE CASE OF =	LEADS TO HOW MANY OTHER CASES
Measles 	 12 to 18
Pertussis 	 12 to 17
Diphtheria 	 6 to 7
Rubella 	 6 to 7
Polio 	 5 to 7
Smallpox 	 5 to 7
Mumps 	 4 to 7

Source: Michigan Center for Public Health Preparedness

Journal Sentinel

The Anti-Vaxxers

- * They do love their children, and are concerned for their well being. However, their claims are not based all the scientific evidence.
- * Tend to be affluent, educated, Gen Xers. Also those drawn to “natural” (homeopathic) remedies which are seen as “safe” because they have been used for centuries “without harm”.
- * Many Libertarians also express concern with government (FDA) overreach, powerful pharmaceutical businesses and over zealous science with more and more vaccines being recommended. See article in reason.com that I have included in my notes.

The Anti-Vaxxers continued...

- * Misinformation on the internet also contributes to the natural fears that parents have, from the desire to protect their children from harm, e.g., flame retardants in mattresses cause SIDS.
- * Claims: vaccines are not safe, have toxic ingredients (mercury), use aborted fetuses, many more children with bad reactions than is admitted, natural immunity is better, causes autism which was later debunked as an “elaborate fraud” (British Medical Journal).
- * We can all agree that vigorous public debate is good, and evidence based concerns must be voiced. New vaccine requirements should result from such a vigorous public debate, rather than from fear, distrust, and misinformation.

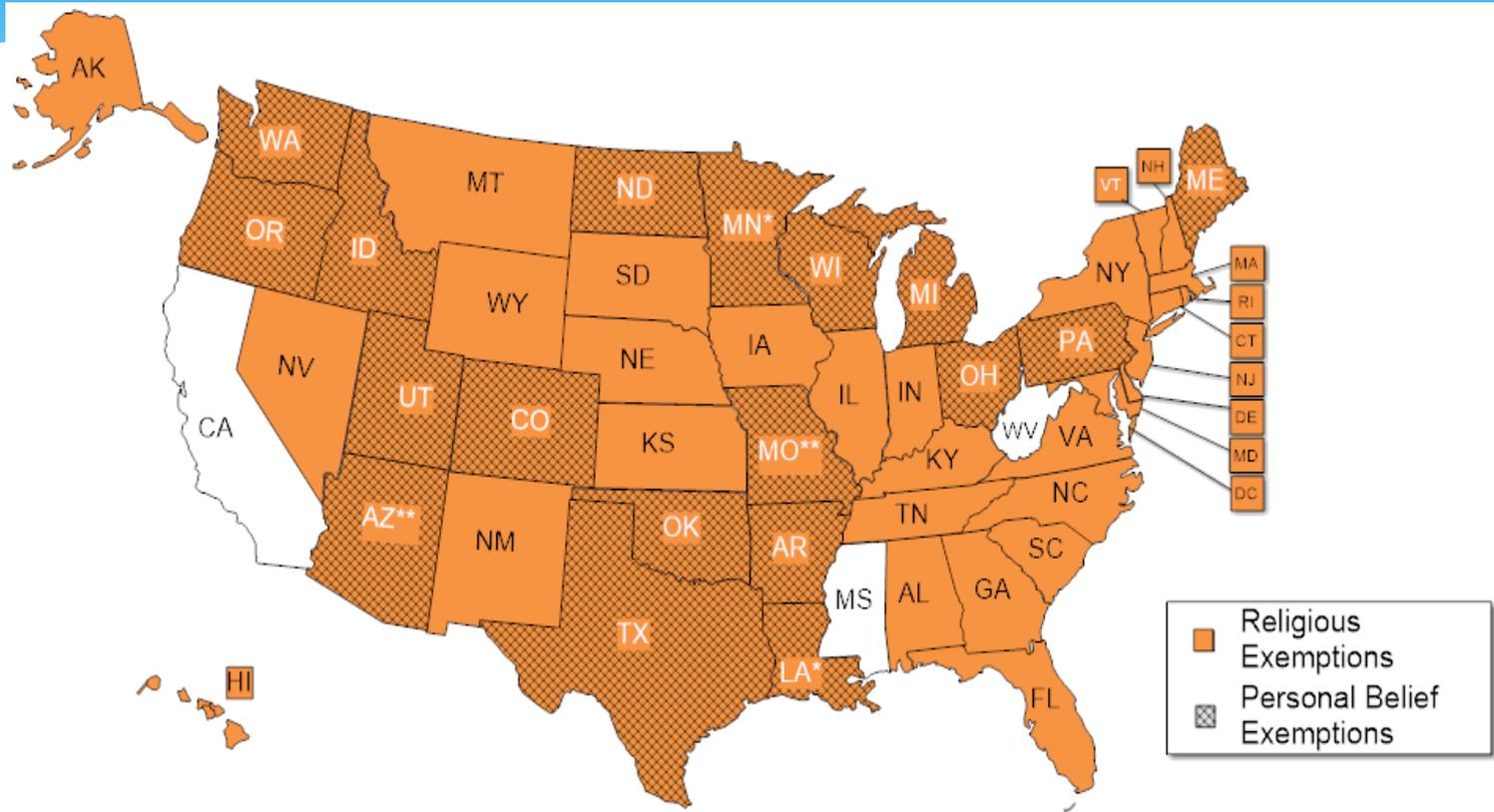
Effect of anti-vaxxers

- * In 2011 the Associated Press reported that exemption levels in 8 states had reached 5% or greater.
- * CDC reported 2014: 1266 vaccine exemptions for NC kindergartners almost 90% used religious exemption.
- * Buncombe County has low vaccination rate with pockets of 70%, way below the 95% required for herd immunity.

Exemptions for vaccinations

- * There are three types of exemptions for vaccinations:
 - * medical - the vaccination would cause medical harm to the child or adult (too young, people with immunodeficiencies, cancer patients undergoing chemotherapy, etc.) verified by a doctor - all states allow this.
 - * religious - person claims that they have a religious objection to vaccinations; claim does not normally require substantiation - 47 states allow this.
 - * personal/philosophical - a person has a personal, or philosophical objection to vaccinations - 20 states allow this. NC recently removed this as a viable exemption! In states which allow personal/philosophical and religious exemptions, the former is used more often.

Nonmedical Vaccine Exemptions



Medical based exemptions

- * People with medical exemptions are particularly in harms way when vaccination rates fall below the 95% required for “herd immunity”. Their lives depend upon high vaccination rates. One source, reason.com, cites that an estimated 10 million people are immune compromised through no fault of their own!
- * Todd Stiefel is one prominent Libertarian and secularist and is dependent upon herd immunity due to a medical condition. Founder of Stiefel Freethought Foundation, and proponent of Put Kids First.

Eliminating personal/philosophical exemptions...

- * Vermont followed by Maine, Pennsylvania and Washington have either passed or introduced bills to eliminate the personal/philosophical exemptions in an effort to boost vaccination rates. Religions exemptions were kept in place.
- * Anecdotal reports from Vermont indicate that parents are switching to a “religious” exemption rather than be forced into getting their children vaccinated.
- * Why should religious belief trump personal/philosophical (nonreligious) belief?
- * In Illinois local public officials are expected to determine whether the parent’s Certificate of Religious Exemption is valid or not; they look for key phrases to distinguish between moral and religious reasons. Only the latter get approved. (Key words: deity, higher power, faith, prayer), so secular reasons don’t count!

Current North Carolina Immunization Law

- * All children must be vaccinated for diphtheria, tetanus, whooping cough, poliomyelitis, red measles (rubeola), and rubella (German measles). NC Commission for Public Health (part of NCDHHS) can add vaccines to this list. However loopholes exist...
- * Enforcement is done via school attendance requirements, including colleges.
- * Home schoolers are required to comply but no paperwork is required nor any reporting required unless local school administration requests it.
- * Allows religious exemption (but no personal exemptions). Such exemptions do not even require a notary public to verify that the parent signed the document!
- * Note that isolation and quarantine authority of non-immunized children during an outbreak of a VPD overrides any exemptions.

Why are religious exemptions a bad idea?

- * Separation of church and state should be applied here. Exemptions should be based only on medical reasons.
- * Almost no mainstream religion has a formal anti-vaccine doctrine (see skepticalraptor.com reference).
- * Christian Scientists do NOT have rules against vaccines, but some Christian Scientists do believe vaccinations are inconsistent with their belief in the power of prayer.
- * The Amish have NO prohibition on vaccinations; vaccination rates vary from one community to another.
- * The Dutch Reformed Church does have a tradition of refusing vaccines, going back to late 1800s. Outbreak of measles in 2013 with 1,226 cases in one community in the Netherlands.
- * If the official religious doctrine of a denomination does not state rejection of vaccinations, then why should an individual follower be allowed to claim that it does?



Secular Coalition for America

The mission of the Secular Coalition for America is to increase visibility of and respect for nontheistic viewpoints in the United States, and to protect and strengthen the secular character of our government as the best guarantee of freedom for all.

Voting Member Organizations

American Atheists

American Ethical Union

American Humanist Association

Black Nonbelievers, Inc.

Camp Quest

Freethought Society

Secular Student Alliance

Military Association of Atheists and Freethinkers

Society for Humanistic Judaism

Hispanic American Freethinkers

UU Humanists

Recovering From Religion

Institute for Humanist Studies

Center for Inquiry

SCA Advocates for religiously neutral legislation - key issues:

- * **Health & Safety:** The health and safety of an individual should not be compromised by the religious beliefs of another person or group.
- * **Education:** Children should not be subjected to religious education or exercises in our public schools.
- * **Tax Policy:** Religious organizations and individuals should not be exempt from the requirements and restrictions of tax policy.
- * **Discrimination:** Personal religious beliefs do not justify prejudicial actions that violate discrimination laws.
- * **Government Actions:** The government and officials acting in their government capacity, should not endorse religious beliefs, one religion over another or religion over non-religion.

What does SCA Do Specifically?

- * Lobbies for key issues in Congress.
- * Sponsors a Lobby Day for secular activists from all over the US in Washington, DC.
- * Major sponsor for 2016 Reason Rally.
- * SCA and SCA NC Issue Action Alerts to supporters on matters of importance; quick and easy to do!
- * Assists state SCA chapters to organize and function.
- * Helps with annual Lobby Day at state chapters by providing talking points and materials regarding legislation in each state
- * SCA and SCANC needs your support for this initiative!

LOBBY DAY NC April 14, 2015



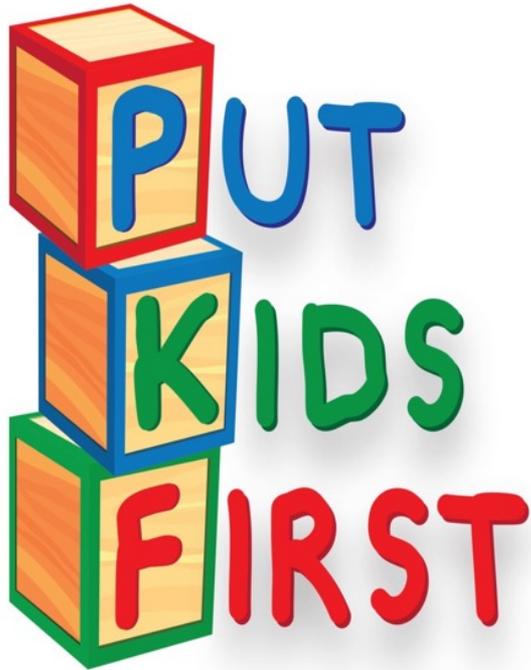
California and North Carolina

- * California in 2015 passed a law to restrict exemptions for vaccinations to medical reasons only despite a strong and well funded anti-vaccine effort. SCA was a partner in Vaccinate California, a coalition that championed this legislation.
- * In 2015 NC legislators also attempted to limit exemptions for vaccinations but did not get very far. Yet 78% of Americans believes all children should be vaccinated.
- * NC is one of 10 campaign states where SCA hopes to build successful campaigns to roll back exemptions for medical reasons only!

NC SB 346 in 2015

- * Introduced by Senators Jeff Tarte (R-Mecklenburg), Tamara Barringer (R-Wake), and Terry VanDuyn (D-Buncombe).
- * Would eliminate religious exemption for schools, public and private. However...
- * Would also allow home schoolers to be exempt!
- * Would eliminate the requirement that all children must be vaccinated!
- * Withdrawn after legislative building was swamped by religious conservatives who opposed it.
- * Sen. VanDuyn plans to reintroduce altered legislation this coming session, and SCA NC plans to support her, assuming the bill meets SCA expectations.
- * SCA NC wants to build a coalition of organizations concerned with vaccine issues such as the NC Pediatric Association, Vaccine Ambassadors, NC Immunization Coalition, and others.

What Can You Do?



- Fill out the PKF vaccine pledge card!
 - Your contact information will help with action alerts, and mailings.
 - Volunteer to help the campaign including contacting your representative in the legislature, use of social media, and phone banking.
 - Pledge to make a donation to the SCA or the PKF campaign.



www.secular.org/put-kids-first
northcarolina@secular.org

Twitter: @secularNC

www.facebook.com/SecularCoalitionNC

Links for additional information

NC Dept of Health and Human Services:

<http://www.immunize.nc.gov/schools/ncexemptions.htm>

<http://www.immunize.nc.gov/schools/ncruleslaws.htm>

SCA Secular Policy Guide: http://secular.org/files/model_secular_policy_guide1.pdf

Put Kids First campaign: <https://www.secular.org/put-kids-first>

UNC School of Government...

[https://www.sog.unc.edu/sites/www.sog.unc.edu/files/course_materials/Immunizations%20and%20NC%20Law%20\(Moore%20Morris\).pdf](https://www.sog.unc.edu/sites/www.sog.unc.edu/files/course_materials/Immunizations%20and%20NC%20Law%20(Moore%20Morris).pdf)

<https://www.sog.unc.edu/resources/microsites/north-carolina-public-health-law/isolation-and-quarantine>

Center for Disease Control

<http://www.cdc.gov/std/hpv/stdfact-hpv-vaccine-young-women.htm>

Anti-vaxxer websites, articles, etc:

http://www.naturalnews.com/042012_vaccine_facts_vaccine-damaged_children_CDC.html

<http://www.childandfamilyprotection.org/Vaccinations-Helping-Or-Hurting-Kids.html>

<http://www.childandfamilyprotection.org/TheGreaterGood.html>

<https://vactruth.com>

<http://drtenpenny.com/welcome-to-dr-tenpenny-com/>

Links for additional information - continued

News Articles, stats, and other sources...

<http://familydoctor.org/familydoctor/en/kids/vaccines/pneumococcal-conjugate-vaccine-what-a-parent-needs-to-know.html>

<http://www.immunize.nc.gov/data/immunizationrates.htm#NIS2>

http://www.huffingtonpost.com/2015/02/05/home-school-vaccination-_n_6624100.html

<http://www.newsobserver.com/news/politics-government/state-politics/article15402488.html>

<http://www.newsobserver.com/news/politics-government/politics-columns-blogs/under-the-dome/article15393977.html>

<http://www.upworthy.com/real-doctors-show-us-just-how-fed-up-they-are-on-jimmy-kimmels-late-night-show>

<http://reason.com/archives/2014/03/25/should-vaccines-be-mandatory/print>

<http://www.burlingtonfreepress.com/story/news/politics/2015/06/08/vaccine-exemption-religious-philosophical/28568043/>

<http://www.chicagotribune.com/news/ct-religious-exemption-vaccines-met-20150818-story.html>

Almost no mainstream religions appear to have a formal anti-vaccine doctrine. (The Skeptical Raptor Blog dated 9/21/2015) summarized a fascinating systematic review of the dogma of several religions with respect to vaccines and specific components of vaccines. The article was published in the highly respected and peer-reviewed medical journal, Vaccine, one of the top venues for vaccine research. See website:

<http://www.skepticalraptor.com/skepticalraptorblog.php/religions-state-vaccines/>