

# The ABCs of PBEs

## *Personal Belief Exemption (PBE) Policy for Immunization: What you should know*

Colorado has the 6<sup>th</sup> highest rate of Personal Belief Exemptions (PBE) for immunizations in the U.S., with 4.3% of children exempted from vaccines in the 2012-13 school year. This equates to nearly 3,000 kindergartners entering school without protection from one or more vaccine-preventable diseases. With Colorado pertussis (whooping cough) cases at epidemic levels, high exemption rates could increase the risk of vaccine-preventable diseases within Colorado schools and communities.

Immunizations are a safe, easy, and effective way to keep Colorado kids healthy. Join us in supporting efforts to encourage informed decision making on immunizations.



### **Vaccines play a vital role in keeping Colorado children and communities healthy.**

In Colorado, vaccines have proven to be very effective against protecting children from diseases such as measles, varicella, and Hib (a cause of meningitis).

For each Colorado birth cohort vaccinated in accordance with the 0-6 year CDC immunization schedule...

- 652 lives were saved
- 310,608 cases of disease were prevented
- Over \$211 million in direct costs were saved
- Over \$1 billion in direct plus indirect costs were saved
- \$10.20 was saved for every one dollar invested in 0-6 year old vaccinations

Despite evidence that vaccines are safe and effective, over 20% of Colorado 2-year-olds are under-immunized and **Colorado ranks 22<sup>nd</sup> out of all states** for childhood immunization rates.

**Colorado is also experiencing a whooping cough (pertussis) epidemic.** In 2012, there were 1,505 confirmed cases of whooping cough in Colorado—the highest rate in 64 years. In 2013, there were 1,458 reported cases. Studies show that children who are not vaccinated are 22-28 times more likely to get pertussis than their immunized peers.

## In Colorado, obtaining a PBE could not be easier.

Currently, parents need only provide their signature to exempt their child from a vaccine. For this reason, some parents exempt out of convenience, rather than a strongly held personal belief. (See below box.)

Personal belief exemptions (PBEs) are the primary reason for exemption from recommended vaccines and account for over 90% of all exemptions for Colorado kindergarteners from 2003-2012.

### Colorado's PBE Policy

As a condition of enrollment in a licensed child care facility and/or Colorado public school, Colorado law requires children to be immunized per the vaccine schedule required by the Colorado Board of Health (BOH) rule 6 CCR 1009-2, which closely aligns with the Center for Disease Control and Prevention's approved immunization schedule recommended by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), the American Academy of Family Physicians (AAFP), and the American College of Obstetricians and Gynecologists (ACOG) unless they are exempt. In order to be compliant with BOH rule 6 CCR 1009-2, the school must have on file for each student the official certificate of immunization documenting that all required immunizations were received. If the student is not up to date on required immunizations, the school is to contact the parent to inform them that they have 14 days to either receive the immunization(s) or make a written plan to receive the immunization(s) and the student is referred to as being "in process." If the student does not fulfill the plan, the student shall be suspended or expelled from school for non-compliance as noted in Section 25-4-907, C.R.S. However, the student has the option of claiming an exemption in order to be in compliance. Currently, the state allows three different types of exemptions for immunizations: medical, religious, and personal belief.

Colorado's **Personal Belief Exemption** (PBE) policy for immunizations allows children to be exempt from state mandated vaccinations by submitting to the student's school a Certificate of Immunization with the statement of personal exemption signed by the parent(s) or the emancipated student indicating that they have a personal belief that is opposed to immunizations. (This exemption is only required to be completed upon enrollment and does not need to be revisited by the parent or student in subsequent years.)

*Excerpted from "Colorado's Personal Belief Exemption Policy for Immunizations: Stakeholder Engagement Process," prepared by the Keystone Group, October 2013.*

## Vaccination is not just a personal choice.

Choosing to delay or refuse immunization for your child can affect your family, friends and community.

- Not everyone in a community is able to be vaccinated, but everyone benefits from vaccination. When the majority of people in a community are protected through vaccination, there is less opportunity for diseases to enter. This concept is known as herd immunity or community immunity.
- Some people cannot receive some or all vaccines for medical reasons and are especially at-risk for vaccine-preventable diseases and their complications, such as newborns, pregnant women, children and adults who have chronic illness, children with certain allergies, and the elderly. These individuals rely on the vaccinated members of their communities to shield them from potentially serious illness.
- When less than 90% of children are immunized in a particular community, these pockets of low vaccination create an environment where infectious disease can take hold and spread.

## The number of unvaccinated children is growing.

Although most parents understand the importance of immunizing their children, the [exemption rates](#) for unvaccinated children are increasing.

- There were three times as many unvaccinated U.S. children in the U.S. in 2010 than in 2001.
- Nationally, 1% of children are unvaccinated; but certain communities have higher rates of vaccine refusal.
- Schools in some communities report exemptions as high as [15% to 20%](#).

## States determine school immunization requirements.

States determine their own [school requirements](#) which typically correspond with recommendations from the [Advisory Committee on Immunization Practices](#).

- All states require immunizations for school entry. All 50 states allow exemptions for medical reasons and 48 states allow religious exemptions.
- At least [19 states](#), including Colorado, allow parents to exempt based on personal or philosophical beliefs.
- The process for obtaining personal belief exemptions varies in states. In states like Colorado, parents sign a pre-written statement on a school immunization form; they do not need to show that they have researched risks and benefits, nor discussed the issues with their health care provider. In other states, parents must demonstrate that they have considered the risks and benefits of vaccines. As a result of new legislation in Oregon, parents who claim an exemption will need to obtain the signature of their primary care provider or prove that they watched an educational video.

## States with lenient or less rigorous requirements for claiming a personal exemption have higher rates of exemptions.

- The average exemption rate [increased at a faster rate](#) in states that have an easy process for claiming exemptions than in states that have a more rigorous process for obtaining an exemption.
- [Vaccine refusal](#) is associated with ease of obtaining exemptions from school immunization requirements for their children.

- The risk associated with increasing numbers of children with nonmedical exemptions is exacerbated because these children are often [geographically clustered](#).

### **States with permissive or easy procedures for claiming PBEs also have higher rates of vaccine preventable diseases.**

- States that made it easy to get exemptions had 90% more cases of whooping cough than states with more stringent requirements.
- Schools with exemption rates as low as 2% – 4% are at [increased risk for disease outbreaks](#).
- Children who are not vaccinated are 22-28 times more likely to get pertussis than their immunized peers. They are also [22 to 35 times more likely](#) to get measles than vaccinated children.
- A recent study showed that if states even modestly increased the restrictiveness of PBE laws, national pertussis cases could decrease by 1.14% or 171 cases each year.
- Evidence shows that refusal of immunization results in higher risk of vaccine-preventable diseases for both the children who are exempted and to others in the community. This is a problem especially for medically vulnerable children who cannot be vaccinated and are most susceptible to complications associated with these diseases.
- The incidence of vaccine-preventable disease in children is [directly correlated](#) with the use of non-medical exemptions in states that allow them. States with higher exemption rates were more likely to see higher rates of pertussis.
- State laws relating to non-medical or personal exemptions—and specifically the ease of claiming an exemption—have an impact on the [prevalence of exemptions](#) and the prevalence of some diseases.

### **High rates of immunization coverage are necessary to prevent the spread of vaccine-preventable diseases.**

No vaccine is 100% effective. High immunization rates help to preserve herd immunity and protect individuals who cannot be vaccinated.

A very small percentage of children in the U.S. are completely unvaccinated—[about 0.3%](#)—however, they tend to cluster in certain geographic areas. Clustering of unvaccinated children in certain communities [diminishes the herd immunity](#) for everyone living in that area. These “hot spots” are at-risk for infectious disease outbreaks.

### **It's important to strike a balance between preserving parental choice and protecting public health.**

Lenient immunization policies—including a relatively simple process for claiming a personal exemption—threaten the health of our children.

Under the recommended changes, parents will still be allowed to exempt their child from school-required vaccines after discussing the risks and benefits with a medical provider.

### **Strengthening the process to claim an exemption preserves parental choice and promotes informed decision making.**

- Requiring parents to demonstrate that they have received credible, science-based information about the risks and benefits of vaccines promotes informed decision-making about childhood vaccines.
- The change will ensure that exemption reflects a strongly held and well-informed decision.
- Parents still have the option of exempting their child from school-required vaccines, but they will make that decision after considering the evidence of the relative risks and benefits of vaccines and the diseases they prevent.
- **A parent’s decision to refuse vaccination for their child carries risk for their child and others. For these reasons, it is important that Colorado develops a PBE policy that ensures careful consideration of the research about vaccine risks and benefits.** States like Washington or Oregon offer a process that preserves informed parental choice by requiring parents to speak with their medical provider or show that they’ve reviewed a science-based educational module (Oregon). This is not unreasonable or an undue burden for such a serious decision.

### Colorado Stakeholders developed recommendations to strengthen PBE.

This summer and fall (2013) the Colorado Department of Public Health and Environment (CDPHE) partnered with the Colorado Children’s Immunization Coalition to convene a statewide stakeholder process to study Colorado’s PBE policy. The stakeholder process culminated in a [report](#) that makes six recommendations (Table 1).

- The process involved a broad, diverse group of stakeholders representing a variety of groups and perspectives, including parents, health care providers, school executives and advocates—people who are invested in and committed to improving children’s health.
- The vast majority of stakeholders agree with the recommendations in the report, which include two categories of recommendations: **1) disclosure of public health benefits and risks to parents and 2) disclosure of immunization exemption data** by licensed child care facilities and public schools.
  - The report does not recommend eliminating the personal belief exemption.
  - The recommendations strengthen current policies and protect personal freedoms. Parents would be required to take additional steps to educate themselves about the risks and benefits of vaccines before electing an exemption.

**Table 1. Stakeholder PBE Recommendations, 2013**

Stakeholder Support	Recommendation
FULL CONSENSUS	1) Colorado Department of Education (CDE) and/or Board of Education to hold school districts accountable for immunization policy. 2) CDPHE, CDE and Colorado Department of Human Services to establish joint policy on immunization data collection and sharing.
MAJORITY SUPPORT	3) Require education and/or counseling prior to exemption. 4) Publically available publication of immunization and exemption rates by schools and licensed child care centers.
HIGH LEVELS OF SUPPORT	5) Medical practitioner or health official signature for exemption.

	6) Annual renewal of exemption.
--	---------------------------------

Source: "Colorado's Personal Belief Exemption Policy for Immunizations: Stakeholder Engagement Process," prepared by the Keystone Group, October 2013.

### Vaccines save lives.

Vaccines are considered one of the greatest public health achievements of the 20<sup>th</sup> century. Thanks to vaccines, we rarely see diseases like polio, measles or mumps in the U.S. But diseases are only a plane ride away. If we stop vaccinating, these diseases can and will return.

- Diseases that once injured or killed children have been [eliminated completely](#) and others are close to elimination, mostly because of safe and effective vaccines (CDC, 2011).
- **Worldwide, vaccines save an estimated 3 million children's lives every year.**

### Vaccines save money.

- In 2012, there were [\\$26.5 million in hospital charges](#) for care related to vaccine-preventable diseases in Colorado children ages 0-19.
- Every dollar spent on childhood immunizations [saves \\$18.40](#).
- For every dollar spent on immunizing a 0-6 year old, more than \$10 is saved in direct and indirect costs.

### Vaccines are safe.

- Vaccines undergo [rigorous safety testing prior](#) to being approved by the FDA and are continually monitored for [safety](#). All the [ingredients are tested and are safe](#). Vaccines are also studied to be [administered together](#) to protect children.
- In January 2013 the Institute of Medicine (IOM) published the [most comprehensive examination of the immunization schedule](#) to date, and the report uncovered no evidence of major safety concerns associated with adherence to the CDC-recommended childhood immunization schedule.
- There are [risks](#) associated with delaying or refusing vaccines. Some vaccine-preventable diseases still circulate in the U.S., including whooping cough, chickenpox, Hib (a cause of meningitis), and influenza. These and other vaccine-preventable diseases can range from mild to severe and life-threatening.

### The benefits of vaccination far outweigh the risks.

- Like any medication or medical intervention, vaccines can cause adverse reactions. The most common vaccine [side effects](#) are mild (e.g., a sore arm or mild fever). In many cases, the risk of a serious allergic reaction to a vaccine is 1 in one million.
- Vaccine side effects are minimal in comparison to the diseases they prevent. The diseases we vaccinate against are real and potentially dangerous.

For example: Prior to the chickenpox (Varicella) vaccine, 10,600 people were hospitalized and 100 to 150 died as a result of chickenpox in the U.S. [every year](#). In contrast, about 1 in 5 children will experience soreness or swelling where the shot was given, 1 in 10 will have mild fever, and 1 in 25 will have a [mild rash](#) after receiving the chickenpox vaccine.

## What does the Institute of Medicine (IOM) Say about Vaccine Safety?

- “The current recommended U.S. childhood immunization schedule is timed to protect children from 14 pathogens by inoculating them at the time in their lives when they are most vulnerable to disease.”
- “Before the ACIP recommends adding a new vaccine to the immunization schedule, it reviews comprehensive data about that vaccine’s safety and efficacy in clinical trials, injuries and deaths caused by the disease the vaccine is designed to combat, and the feasibility of adding the new vaccine into the existing schedule, among other factors.”
- “Delaying or declining vaccination has led to outbreaks of such vaccine-preventable diseases as measles and whooping cough that may jeopardize public health, particularly for people who are under-immunized or who were never immunized.”
- “States with policies that make it easy to exempt children from immunization were associated with a 90 percent higher incidence of whooping cough in 2011.”
- “...**the IOM committee finds no evidence that the schedule is unsafe.** The committee’s review did not reveal an evidence base suggesting that the U.S. childhood immunization schedule is linked to autoimmune diseases, asthma, hypersensitivity, seizures, child developmental disorders, learning or developmental disorders, or attention deficit or disruptive disorders.”

*Source: “The Childhood Immunization Schedule and Safety,” Report Brief, January 2013.*

## Children are best protected when they are vaccinated according to the CDC-recommended childhood immunization schedule.

- This is the best way to protect infants and children by providing immunity early in life, [before children are exposed](#) to potentially life-threatening diseases.
- There is [no known benefit](#) to delaying vaccines; in fact, delaying vaccines puts children [at risk](#) of vaccine-preventable disease.
- Each year, the vaccine schedule is determined by an expert panel of top disease experts and doctors based on the most recent scientific data and is approved by the American Academy of Pediatrics, the Centers for Disease Control and Prevention, and the American Academy of Family Physicians.
- These experts determine each vaccine’s dose timing using two factors. First, it is scheduled for the age when the body’s immune system will respond best. Second, it is balanced with the [need to provide protection](#) to infants and children at the earliest possible age.
- The January 2013 IOM report reaffirmed research that shows that delaying or declining vaccination has led to outbreaks of such vaccine-preventable diseases as measles and whooping cough that may jeopardize public health, particularly for people who are under-immunized or who were never immunized.

## Act Now!

- **Submit a [statement of support](#)** as an individual or on behalf of your organization.
- [Sign up](#) to receive PBE-related policy alerts from CCIC.
- **Parents: Visit and sign up at [heathyschoolsco.org](http://heathyschoolsco.org)**, a brand-new website created by parent advocates to rally Colorado parents around this issue.
- **Contact your Colorado legislator.** To find your legislator, visit: [www.vote-smart.org](http://www.vote-smart.org).

## More Resources:

[Immunize for Good](#)

[The Centers for Disease Control and Prevention \(CDC\)](#)

[Children's Hospital of Philadelphia Vaccine Education Center](#)

[Immunization Action Coalition](#)

[Colorado Department of Public Health and Environment \(CDPHE\) Immunization Section](#)

[Colorado Children's Immunization Coalition](#)

[Colorado Children's Campaign](#)

Colorado Children's Immunization Coalition  
ccicoffice@childrenscolorado.org | 720-777-5340 | 13123 E. 16th Ave. B281 | Aurora, CO 80045  
[www.ChildrensImmunization.org](http://www.ChildrensImmunization.org) & [www.ImmunizeforGood.com](http://www.ImmunizeforGood.com)

*Keeping Colorado kids healthy!*