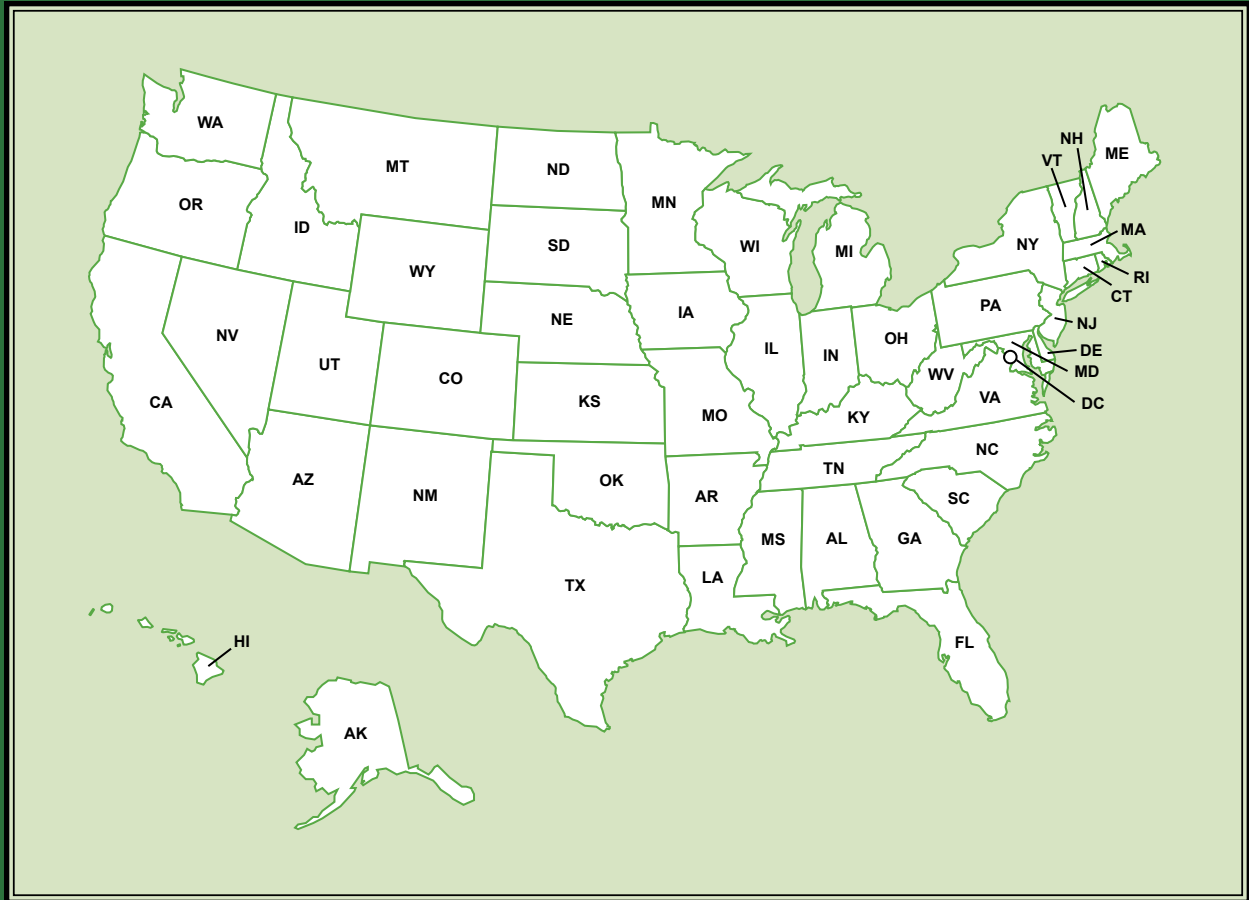


Child Care Immunization Requirements: Are the Children Protected?



A report on state immunization requirements and immunization coverage rates among children in child care programs

NPI

NATIONAL PARTNERSHIP FOR IMMUNIZATION[®]

PROMOTING IMMUNIZATION ACROSS THE LIFESPAN

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**A Report on State Immunization Requirements
and Immunization Coverage Rates
among Children in Child Care Programs**



NATIONAL PARTNERSHIP FOR IMMUNIZATION®

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The National Partnership for Immunization (NPI) is a non-profit organization dedicated to reducing the nationwide incidence of vaccine-preventable diseases through increased use of licensed vaccines. NPI's mission is to encourage greater awareness, acceptance and use of vaccines by people of all ages through partnerships with public and private organizations.

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Executive Summary

It's irrefutable – vaccines save lives, reduce disease incidence and severity and improve the quality of life for individuals and communities throughout the US. The evidence is overwhelming. Compared to the mid-twentieth century, prior to the advent of many of the currently available vaccines, the incidence of diseases like measles, mumps and polio has decreased by 95% or more. With falling disease rates, hospitalization and mortality rates have also fallen. This is equally true for other, once formidable and deadly, scourges of childhood – diphtheria, pertussis (whooping cough), rubella (German measles), *Haemophilus influenzae* type b disease and chickenpox (varicella).

Protecting children from vaccine-preventable diseases has been both a longstanding public health priority in the US and an ongoing challenge for the public health community. This priority reflects society's disquiet with images of children hospitalized because of measles, chickenpox or other preventable diseases. The challenge is that in the virtual absence of so many of these diseases, parents and others often fail to appreciate that vaccinations are necessary to continue to keep these diseases at bay.

State requirements that children enrolling in preschool programs receive age-appropriate vaccinations have been particularly effective tools for ensuring that children are protected against specific vaccine-preventable diseases. Children in such settings are especially vulnerable to infection because of close personal contact with other children. By requiring certain immunizations as a condition of enrollment in child care facilities, states put facility operators as well as parents and guardians on notice that disease prevention is a priority.

In this report the National Partnership for Immunization examines immunization coverage rates among children in child care programs in each state and the District of Columbia relative to the preschool immunization requirements in each jurisdiction. To do so, NPI compiled information from state preschool assessments conducted during the 2003-2004 school year to determine coverage rates, examined the results of the Centers for Disease Control and Prevention's 2004 survey of preschool assessment practices to learn how coverage data are collected, and conducted a survey of immunization program managers to better characterize how requirements are implemented in each state.

Not surprisingly, child care immunization requirements differ from state to state. Most require age-appropriate immunization with the universally recommended vaccines against poliomyelitis (polio), diphtheria, tetanus, pertussis, measles, mumps, rubella and *Haemophilus influenzae* type b (Hib). Two additional universally recommended vaccines, varicella and hepatitis B, are required in the majority of states, while the newest of the universally recommended vaccines, the pneumococcal conjugate, is required in only a few states. The hepatitis A vaccine, which is recommended only for children in certain geographic areas, is required in very few states.

Child care immunization requirements generally apply to children in licensed day care and Head Start programs, and in many states to those in parochial and/or non-parochial pre-kindergarten programs. Children in family day care often are not covered by state child care immunization requirements, and in some states the requirements may apply only to children in facilities that have a certain number of enrollees or that meet other criteria.

The practices and procedures used to determine the number of children in child care facilities that have received the required vaccines also vary from state to state. Responsibility for establishing the immunization status of children resides with the operators of the facilities, with oversight by one or more state agencies. In some states, information about vaccine coverage is solicited from facility operators, while in most states operator records are audited by the responsible agency or agencies. Most states monitor the immunization status of children of all ages, while other states focus on children within defined age groups. Although most states indicate that the immunization status of all children in all facilities is reviewed, in practice many review the status of far fewer children; some states review less than 10% of enrollees. In a number of states, assessing the immunization status of child care enrollees is confounded because as many as 17% of children do not have adequate vaccination records. In addition, about 1.1% of children in child care programs nationwide have medical, religious or philosophical exemptions from state immunization requirements.

For those vaccines that have the longest history of required use, coverage rates in most states are generally high and in accord with, or within reach of, the *Healthy People 2010* Objective 14-23 goal of immunizing 95% of children in day care programs against polio, diphtheria, pertussis,

measles, mumps and rubella. Although not currently covered under Objective 14-23, use of Hib vaccine is generally comparable, and varicella and hepatitis B vaccination rates in most states are likely to achieve similarly high rates by 2010. Pneumococcal vaccine use rates are not well characterized because of the relatively recent licensure of the vaccine and the slow pace at which it has been added to the list of those required for child care enrollment.

These observations are tempered by the fact that there are a few states in which coverage rates are low enough to cause concern about the vulnerability of children to vaccine-preventable diseases. Moreover, because in some states coverage rates are based on assessment of the immunization status of relatively small numbers of children relative to total child care enrollment, it is unclear how many children may be at risk for acquiring and/or transmitting these diseases.

This analysis indicates that those states which have already met or exceeded the *Healthy People 2010* Objective 14-23 goal of immunizing 95% of children in day care programs against polio, diphtheria, pertussis, measles, mumps and rubella were successful because:

- Their regulations were clear about the roles and responsibilities of the agency or agencies responsible for coverage assessment and enforcement;
- The responsible agency or agencies were provided with strong enforcement tools, such as enrollee expulsion and the ability to suspend the license, fine or otherwise penalize operators of non-compliant facilities;
- The state public health agency was adequately staffed, funded, and able to devote the necessary time to assessment and enforcement activities; and
- Multiple agencies (e.g., public health, social services and education) were engaged and able to effectively leverage resources and responsibilities, resulting in greater protection of children.

By utilizing these approaches or best practices, all states can achieve the *Healthy People 2010* immunization goals, but more importantly can ensure that all children enrolled in child care programs in each state are fully protected against vaccine-preventable diseases. Doing so will protect the children, their families and their communities by reducing the burden of disease and improving the quality of life for everyone.

Introduction

Vaccination is one of the few tools available to health care professionals that actually prevents disease – Most merely treat disease *symptoms*.¹ Importantly, many vaccines protect not only the vaccine recipient, but also those who are unvaccinated because of underlying medical conditions that prevent them from being immunized. This is known as community or herd immunity^{2,3} and occurs when a substantial proportion of people in the community are vaccinated – The greater the number of protected individuals the lower the likelihood of person-to-person transmission of the disease. Widespread use of vaccines protects individuals, reduces the threat of disease within the community, and limits the health and economic burdens associated with disease.^{1,4,5}

Historically, many of the now vaccine-preventable diseases were responsible for high rates of morbidity (illness) and mortality among children.⁶ These high rates occurred because of the relative ease with which diseases such as diphtheria, pertussis (whooping cough), measles or chickenpox could be transmitted from child to child in school or, more recently, in day care or Head Start settings. Recognizing this, public health officials in the 1940s began calling for the routine immunization of children against diphtheria and whooping cough.^{7,8} As new vaccines were licensed for use in the US (e.g., measles, mumps and rubella (1971), *Haemophilus influenzae* type b (1990), hepatitis B (1980s), chickenpox (1995) and pneumococcal conjugate (2000)⁹) they too were added to the list of vaccines recommended for children.¹⁰ The recommendations provided guidance to health care professionals and to the parents and guardians of young children on reducing the risk that children will acquire any of these serious, life-threatening diseases.

Statutory requirements that children receive certain vaccines as a condition of their enrollment in schools were first established during the 19th century,¹¹ and have since been extended to children in preschool facilities. Immunization laws reflect the desire to improve public health by creating environments in child care and school settings that limit the potential for child-to-child transmission of disease. Studies demonstrate that such laws are effective in reducing the burden of vaccine-preventable diseases,¹²⁻¹⁴ and that exemptions from required vaccinations increase the risk of disease.^{15,16} Although recommendations for the use of licensed vaccines in the US is a federal responsibility, authority

to impose, implement and enforce immunization requirements resides with the individual states.

Today, in spite of having strong, medically- and scientifically-based recommendations and state requirements for childhood immunization, many children remain inadequately protected against vaccine-preventable diseases.^{17,18} Between 1995 and 2001, the number of unvaccinated children between 19 and 35 months of age was annually estimated to range between 14,719 and 24,073, with many more children not being fully immunized.¹⁷ Children in this age range who are ostensibly up to date on their immunizations frequently are under-protected because of delays in meeting the recommended immunization schedule.¹⁸ All non-immunized and under-immunized children are at risk for acquiring and transmitting vaccine-preventable diseases, which can set the stage for disease outbreaks in child care facilities, schools and communities.

Why do large numbers of children in the US remain at risk for acquiring potentially deadly yet vaccine-preventable diseases? This question is especially pertinent because all states have immunization requirements for children in preschool programs. What factors contribute to the persistence of disease vulnerability among the nation's children, particularly those in child care programs?

This report explores the complex relationships between state immunization requirements and immunization coverage rates among children in day care and Head Start programs. The review begins by examining how vaccine use among child care enrollees is determined: How often assessments are conducted, which children are included or excluded from the evaluation process and other factors that influence estimates of coverage, including exemptions from requirements. Coverage rates for each of the currently recommended childhood vaccines are examined among day care and Head Start enrollees in each state. The report concludes by exploring administrative and other factors that affect compliance with the requirements; the consequences for children, parents and guardians and child care operators when children are not in compliance; and how compliance assessment and enforcement activities are related to coverage rates. From this analysis, programs and processes responsible for high immunization rates are identified to create a best practice model for effective implementation of child care immunization policies.

Methods

Information about each state's immunization requirements for children in day care and Head Start facilities (collectively referred to as child care) was obtained from several sources. Every two years the Centers for Disease Control and Prevention (CDC) collects data on immunization of children in child care programs in each state, the District of Columbia and certain urban areas. The 2003-2004 school year report¹⁹ identifies those vaccines that are required for children enrolling in child care programs in each state and provides estimates of the numbers of children enrolled, immunized and exempted from immunization requirements. Data from this report¹⁹ were used to calculate immunization coverage rates and the percentage of children receiving exemptions from state immunization requirements. The District of Columbia is treated as a state for this analysis.

In 2004 the CDC conducted a survey of state immunization programs to characterize how each state assesses immunization coverage among children in child care programs.²⁰ This survey provided information about the types of preschool programs covered by each state's immunization requirements, the ages of children included in the assessments and the frequency and level of effort devoted by public health personnel to assessment and enforcement activities. Additional information was obtained by reviewing state statutes,²¹ as well as official state agency Web sites.

In addition, the National Partnership for Immunization (NPI) conducted a survey of state immunization managers from January through March 2005 to obtain supplemental information about exemptions from immunization requirements, responsibilities for enforcing the requirements, the consequences when children are not in compliance, and factors contributing to the state's ability to achieve day care immunization coverage rates consistent with the *Healthy People 2010*²² Objective 23-14. The survey also explored the role of various state agencies in compliance assessment and enforcement, and the resources and tools available for these activities. In some cases respondents were contacted by telephone or e-mail to provide further clarification.

Limitations

As this report documents, the methods used to assess compliance with preschool immunization requirements

vary considerably among the states. These differences and incomplete reporting of assessment results limit comparisons among states and create gaps and uncertainty in the knowledge base. Neither the CDC assessment practices survey nor the NPI survey was completed by all states; 48 of 51 states (94.1%) returned the CDC survey and 36 (70.6%) returned the NPI survey. For both studies, not all states responded to all questions. In light of the information gaps and uncertainties, the information presented offers a broad characterization of child care immunization requirements in the US and their implementation and effectiveness.

Results

1. Which states have child care immunization requirements?

All states have immunization requirements for children enrolling in day care and Head Start programs; however, the specific requirements differ considerably between states (see Section 2). In most states the required vaccines are specified by state statutes,²⁰ while in others (e.g., Alabama, Arkansas, Florida, New York and South Carolina²¹) the statutes place vaccine selection responsibilities on the state board of health, the state health agency or the state's chief health official. In this report, the term requirement refers to any state immunization requirement, regardless of its statutory basis.

State child care immunization requirements in 45 of the 48 states (93.8%) participating in the CDC practices survey²⁰ apply to children enrolled in licensed day care and in Head Start programs. Immunization requirements in Pennsylvania and West Virginia apply to children in day care but not Head Start programs. Head Start programs, which are federally funded, differ from day care programs in that enrollees are required to be given all age-appropriate vaccinations.²³ Arkansas, the District of Columbia and Florida did not participate in the survey.

Child care immunization requirements in many states also apply to children in parochial and non-parochial pre-kindergarten (Figure 1A) and in family day care programs²⁰ (Figure 1B). In 35 states (72.9%) the requirements apply to non-parochial pre-kindergarten programs. The same states, with the exception of

Figure 1A. States with child care immunization requirements apply to children in both parochial and non-parochial pre-kindergarten programs (green).¹⁹ Wyoming's mandates apply only to children in non-parochial pre-kindergarten programs.¹⁹

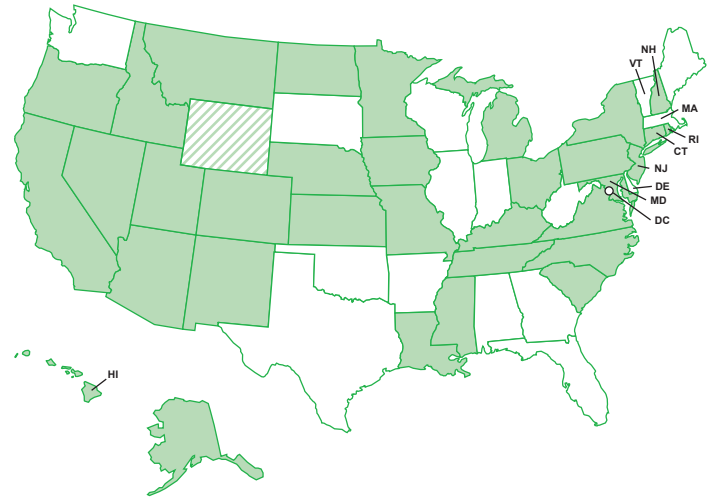
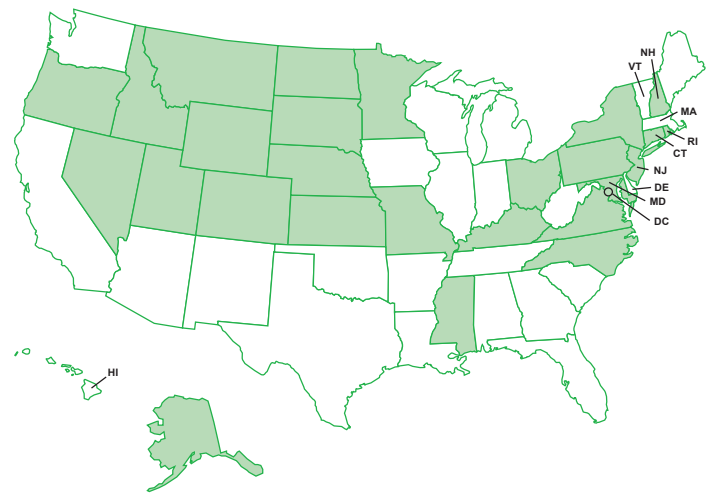


Figure 1B. States with child care immunization requirements that apply to children in family day care programs (green).¹⁹



Wyoming, also require immunizations for children in parochial pre-kindergarten programs.²⁰ Twenty-six (26) states (54.2%) apply immunization requirements to family day care programs.²⁰ In addition to the information from the 48 states participating in the survey, Arkansas' requirements apply to all child care facilities.²¹ Florida's apply to children in licensed day care facilities and in unlicensed family day care facilities.²¹

Some states employ additional criteria for the application of child care immunization requirements. For example, in Missouri the requirements apply to public, private and

parochial day care centers, preschools or nursery schools caring for 10 or more children.²⁰

Finding: Although most states require vaccination of children in licensed day care and Head Start facilities, requirements in some states do not apply to parochial and non-parochial pre-kindergarten and family day care programs. Excluding children in certain types of child care facilities from state immunization requirements may leave many at risk for vaccine-preventable diseases.

2. What vaccines are required for children in child care facilities?

State child care immunization requirements acknowledge the complexities of the childhood immunization schedule¹⁰ by providing for age-appropriate immunization of child care enrollees. Thus, for children enrolled in a single facility the number of vaccines each has received, as well as the number of doses of each multi-dose vaccine received, will vary.

Table 1 summarizes state immunization requirements that apply to children enrolling in child care programs. The table is a composite of information from the 2003-2004 school year report,¹⁹ the practices survey²⁰ and information obtained from state statutes.²¹ State-specific information is provided in the State Summaries (Section 7). All states require that children enrolling in child care programs receive vaccines against polio, diphtheria, tetanus, pertussis, measles and rubella. The diphtheria, tetanus and pertussis vaccines are administered as a combination vaccine,²⁴ but unlike the other vaccine-preventable diseases, tetanus is not transmitted from person to person. The mumps vaccine, which is typically administered in combination with the measles and rubella vaccines,²⁵ is not required in Iowa.

Immunization against *Haemophilus influenzae* type b²⁶ is required in all states except Kansas and West Virginia (Table 1). Hepatitis B immunization²⁷ is required in all but eight states: Alabama, Indiana, Iowa, Kansas, Montana, Nevada, New Jersey and Utah (Table 1). Hepatitis A vaccine, which is recommended for children only in states and certain other jurisdictions where there is a high incidence of disease,²⁸ is required for child care enrollees in Alaska, Arizona, Oklahoma and Texas (Table 1).

The two most recently licensed childhood vaccines, those protecting against chickenpox (varicella)²⁹ and pneumococcal disease,³⁰ have gradually been added to state immunization requirements. At the time of the 2003-2004 school year assessment,¹⁹ varicella vaccine was not required in 16 states; since then, six have added this vaccine to their child care immunization requirements²¹ (Table 1). According to the school year report,¹⁹ the more recently licensed pneumococcal conjugate vaccine was required for day care enrollees in Indiana, Maine and Pennsylvania and for Head Start enrollees in Kansas and Maine. Colorado, Maryland, Minnesota, Rhode Island, Tennessee and Texas have since added this vaccine to their child care immunization requirements²¹ (Table 1).

Finding: Specific vaccine requirements for children in child care facilities vary from state to state. Vaccines with longer histories of use are required in all states, while requirements for use of newer vaccines have been adopted more slowly. Because child care immunization requirements are effective in protecting children from vaccine-preventable diseases, establishing requirements for all universally recommended vaccines should be a public health priority.

3. How many children in child care facilities have received the required vaccines?

This is the central question posed by the CDC's biannual preschool immunization assessment. Although the 2003-2004 school year report¹⁹ indicates the number of day care and Head Start enrollees vaccinated in each state, evaluation of the results is constrained by several factors. A number of states did not submit data or submitted incomplete data, and the methods used to assess coverage differed among the states. Varying proportions of day care and Head Start enrollees were included in the assessments, and the reported findings were often incompletely validated.²⁰ Nevertheless, the 2003-2004 school year data constitute the best available information on the immunization status of children in child care programs across the nation.

Before examining vaccine coverage rates, it is important to recognize some additional factors that influence the collection of the biannual assessment data. These factors²⁰ limit the ability to compare coverage between states and create uncertainty in some states as to whether the

Table 1. Vaccines required for children in day care and Head Start programs in each state. Required vaccines were determined from the 2003-2004 school year report.¹⁹ Vaccines that were mis-categorized in the school year report or that have more recently been added to state immunization requirements²¹ are indicated in bold. See State Summaries for state-specific details.

	Polio	Diphtheria- Tetanus- Pertussis	Measles	Mumps	Rubella	Hib	Varicella	Hepatitis B	PCV	Hepatitis A
Alabama	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Alaska	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Arizona	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Arkansas	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
California	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Colorado	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Connecticut	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Delaware	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
District of Columbia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Florida	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Georgia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Hawaii	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Idaho	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Illinois	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Indiana	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Iowa	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No
Kansas	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No
Kentucky	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Louisiana	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Maine	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Maryland	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Massachusetts	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Michigan	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Minnesota	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Mississippi	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Missouri	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Montana	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Nebraska	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Nevada	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
New Hampshire	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
New Jersey	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
New Mexico	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
New York	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
North Carolina	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
North Dakota	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Ohio	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Oklahoma	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Oregon	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Pennsylvania	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Rhode Island	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
South Carolina	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
South Dakota	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Tennessee	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Texas	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Utah	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Vermont	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Virginia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Washington	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
West Virginia	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No
Wisconsin	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Wyoming	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No

reported data are representative of actual coverage. The divergent methodologies are of concern to the CDC, the Association of Immunization Managers and others, and may lead to some degree of standardization of assessment methods in the future.

3.1 How frequently is the immunization status of child care enrollees determined?

The CDC's practices survey²⁰ found that immunization assessments are conducted annually in 33 of the 47 states

(70.2%) participating in the survey. In addition, Alabama conducts an annual assessment, and Mississippi, which does not follow a fixed assessment schedule, checks immunization records annually. The District of Columbia did not complete the survey, but conducts preschool assessments annually. Two states (4.3%), Nevada and Oklahoma, conduct assessments biannually, and 10 states (21.3%) do not have a specified frequency for conducting assessments. In 41 states (87.2%), child care immunization regulations specify which vaccines, or vaccine antigens in the case of combination vaccines, are included in the assessments. Child care immunization requirements in Alabama, Delaware, Georgia, Kansas, Louisiana, Ohio and South Dakota do not identify which vaccines are included in the assessments.

Finding: The frequency with which preschool immunization assessments are conducted varies among states, with most conducting assessments annually. Most state requirements indicate which vaccines are to be assessed. Annual assessment of immunization coverage among children in child care facilities offers the best means of assuring that enrollees are protected against vaccine-preventable diseases.

3.2 How many children are in child care programs, and how many are assessed?

During the 2003-2004 school year,¹⁹ the number of children enrolled in day care ranged from 1,512 in Montana to 379,735 in California. Maine, Nebraska, New Hampshire and Texas did not provide day care enrollment data. Enrollment in Head Start programs ranged from 1,010 in Wyoming to 76,940 in California.¹⁹ Maine, Nebraska, New Hampshire and Pennsylvania did not report the number of children enrolled in Head Start programs. Maryland does not specifically collect information about immunization coverage among children in Head Start programs, although some Head Start enrollees may be included in the day care assessment. In Connecticut, Georgia, Idaho and North Dakota, day care assessments include children enrolled in Head Start programs.

The number of children included in a state's assessment is influenced by the age of the enrollees.²⁰ For example, 34 of 48 states (70.8%) include children of all ages before kindergarten in their assessments. But of those 34 states, Nebraska's assessment focuses on children two years of age, New Hampshire includes children of kindergarten

Table 2. Ages of children included in day care and Head Start immunization assessments in states that do not use the definition of all ages before kindergarten.²⁰

Arizona	Birth to 5 years of age
California	2 years to 4 years, 11 months of age
Georgia	Any child attending preschool or an after school program
Illinois	2 to 6 years of age
Indiana	15 to 23 months of age and 2 to 6 years of age
Kentucky	3 months of age and older
Maine	2 years of age and older and not enrolled in kindergarten
Massachusetts	2 years of age and older
Montana	24 to 35 months of age, and review all others
Ohio	20 months to 5 years of age
Pennsylvania	2 months to 5 years of age
Rhode Island	19 to 59 months of age
South Carolina	Older than 3 months and less than 6 years of age
Wisconsin	2 to 4 years of age

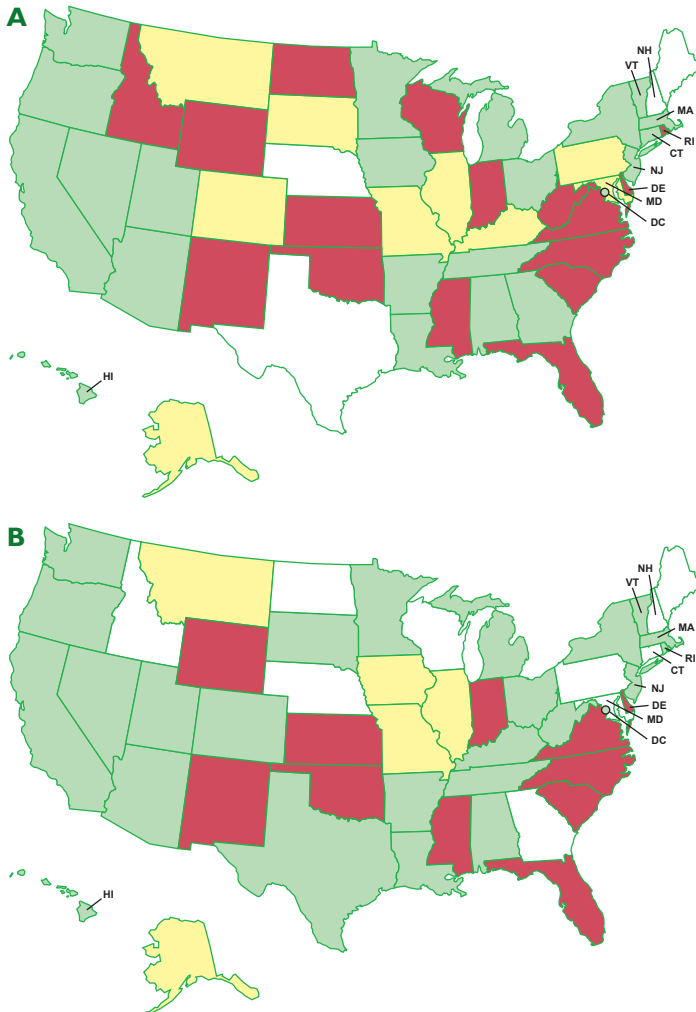
age in districts that do not offer public kindergarten, and Virginia's assessment focuses on children older than 24 months. In addition, 14 states (29.2%) define the population to be assessed by other age criteria (Table 2). Assessments are confounded by the ages of the children at the time of the assessments are conducted because of the age-dependent immunization schedule¹⁰ that is used to establish the time at which the various vaccines are given.

Finding: Because children of various age groups are included or excluded from preschool immunization assessments, the actual number of child care enrollees protected by required vaccines is difficult to establish in many states. Conducting immunization assessments of all child care enrollees would provide greater confidence that these children are adequately protected against vaccine-preventable diseases.

The percentage of children in day care and Head Start facilities that were included in the 2003-2004 school year assessments¹⁹ varied substantially between the two types of programs and among the states (Figure 2). Of the 47 states reporting day care or combined day care and Head Start assessments, 18 (38.3%) assessed 97.8% or more of the enrollees. For the 42 states separately reporting Head Start assessments, 22 (52.4%) conducted assessments of more than 99% of enrollees.

However, in many states (Figure 2), assessments involved fewer than 50% of enrollees.¹⁹ This occurred in 16 (34%) of the states reporting day care or combined day care and Head Start assessments, and in 11 (26.2%) of the states separately reporting Head Start data. Both day care and Head Start assessments in Delaware, Florida, Mississippi,

Figure 2. Percent of children in day care (A) and Head Start (B) programs in each state whose immunization status was determined during the 2003-2004 school year.¹⁸ Green – 80% or more, yellow – 50-79%, red – less than 50%, uncolored – data not available. Connecticut, Georgia, Idaho and North Dakota include children in Head Start programs in day care assessments.



South Carolina and Wyoming included less than 10% of enrollees in each type of program. Idaho, New Mexico, North Carolina and Virginia conducted day care assessments of fewer than 10% of day care enrollees.

According to the practices survey,²⁰ most states (72.3%) conduct assessments in all preschool facilities and most (76.1%) include all children in each facility. This is at variance with the 2003-2004 school year data.¹⁹ In the survey, 13 states indicated that not all facilities were assessed, with eight states indicating that random sampling protocols were used to determine the number of

children to be assessed. The remaining five states reported using other approaches to sampling. For example, Ohio solicits voluntary submission of assessment data from facility operators; about 50% of centers actually respond. Massachusetts and Wyoming also base assessments on data submitted by operators, although the Wyoming report is based only on assessments in licensed day care facilities. Data on total day care enrollment in Wyoming is provided to the public health agency by another agency.

Finding: Nearly half of the states conduct assessments on less than half of the children in child care programs. Such small sample sizes, unless statistically based and well validated, raise concerns that the immunization status of child care enrollees may not be accurately characterized. Comprehensive assessment of all children in child care programs affords the best measure of how well these children are protected against vaccine-preventable diseases.

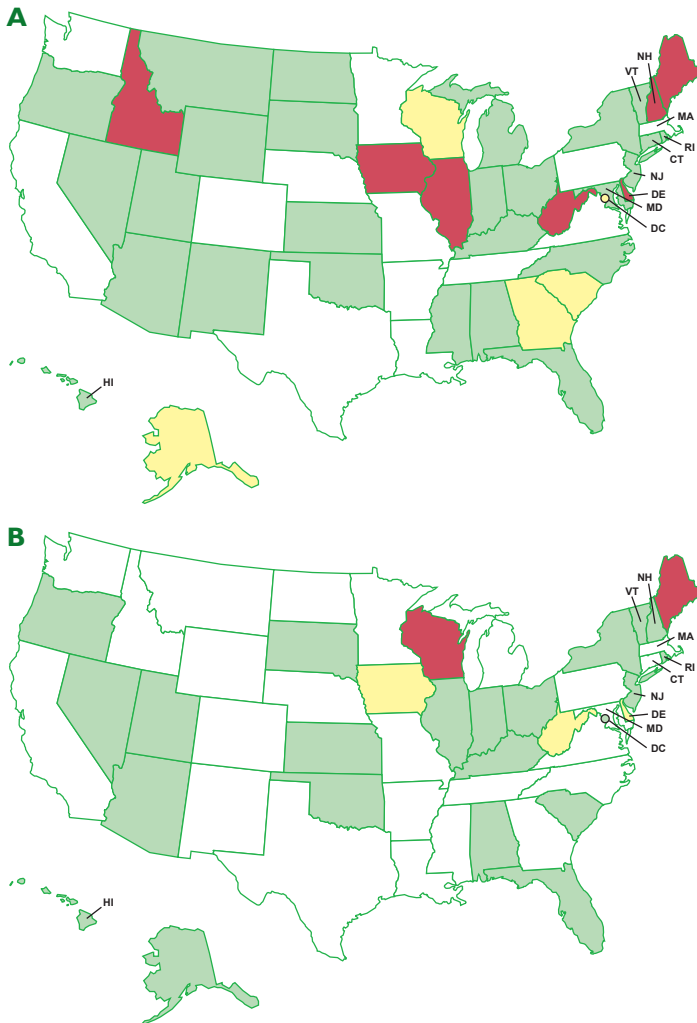
3.3 Are all immunization records reviewed during assessments?

The assessment process typically involves an examination of the immunization records of children enrolled in child care programs. During the 2003-2004 school year,¹⁹ 38 states (76.0%) indicated that immunization records were not available for all children included in the child care assessments.

The percentage of assessed children without immunization records ranged from 0.1% to 17.1% in the 38 states (Figure 3A) reporting day care or combined day care and Head Start data.¹⁹ The absence of immunization records was greatest in Maine (17.1% of assessed enrollees), followed by Illinois (10.8%), Delaware (8.1%), Iowa (7.3%), New Hampshire (6.8%) and West Virginia (6%). In 27 of the 38 states (71.1%), no more than 2.8% of the assessed children (the 38-state average) lacked immunization records.¹⁹

In the 27 states that separately reported data for Head Start enrollees¹⁹ (Figure 3B), an average of 1.3% of children assessed were without immunization records. Twenty-one (21) of these states (77.8%) reported missing records for 1.3% or less of the assessed Head Start enrollees. Florida reported that all 2,030 assessed Head Start enrollees were able to provide immunization records. Among Head Start enrollees, the states with the largest proportions of

Figure 3. Percent of children in day care (A) and Head Start (B) programs in each state for whom immunization records were not available during the 2003-2004 school year.¹⁸ Green – 2.5% or less, yellow – 2.6-5%, red – more than 5%, uncolored – data not available. Connecticut, Georgia, Idaho and North Dakota include children in Head Start programs in day care assessments.



assessed children without immunization records were Maine (8.9%), Wisconsin (5.1%), West Virginia (3.6%), Iowa (3.3%) and Delaware (3.2%).

Finding: Immunization records are frequently missing for children in child care programs, and in some states the number of missing records is substantial, particularly among day care programs. Uncertainty about the vaccination status of children lacking records raises questions about how well they are protected against vaccine-preventable diseases and the potential for disease outbreaks in the facilities they attend.

3.4 How many children have medical exemptions from immunization requirements?

All states with immunization requirements provide for exemptions from the requirements if the vaccine(s) is medically contraindicated.³¹ In 36 of 43 states (83.7%) providing 2003-2004 school year data,¹⁹ less than 1% of the assessed day care enrollees had received medical exemptions. Medical exemption rates of 1% or more occurred in Michigan (1%), Texas (1.2%), Illinois (1.3%), Indiana (1.5%) and Florida (1.6%). Alaska and Wyoming both recorded medical exemptions for 2.7% of enrollees.

Thirty-seven (37) states provided information about medical exemptions to Head Start immunization requirements.¹⁹ Medical exemptions were held by less than 1% of the assessed children in each of 29 states (78.4%). Between 1% and 1.9% of Head Start enrollees in Alaska, Arkansas, Florida, Illinois, Maine, New Mexico and Ohio were medically exempted from the immunization requirements. In Wyoming, 2.6% of Head Start enrollees were medically exempted.

Finding: Medical exemptions were established for an average of 0.4% of assessed day care enrollees and an average of 0.5% of Head Start enrollees during the 2003-2004 school year. These children are most likely to benefit from the community immunity that occurs when other child care enrollees are immunized in accord with state requirements.

3.5 How many children have religious exemptions from immunization requirements?

During the 2003-2004 school year,¹⁹ 34 of 40 states (85%) indicated that less than 1% of assessed children in day care or combined day care and Head Start programs had established religious exemptions to state immunization requirements. Alaska, Arizona, California, Texas and Wyoming had religious exemption rates ranging from 1% to 1.9%. Oregon reported a religious exemption rate of 3.4%. Mississippi is the only state that does not offer a religious exemption from child care immunization requirements.²¹

Among the 27 states submitting Head Start data for the 2003-2004 school year,¹⁹ 24 (88.9%) had religious exemption rates of 0.5% or less. Religious exemption rates were greater than 1% in New Hampshire (1.1%), Oregon (1.3%) and Michigan (1.4%).

Finding: On average, 0.5% of day care enrollees and 0.3% of Head Start enrollees had religious exemptions from child care immunization requirements during the 2003-2004 school year. Children exempt from child care immunization requirements on religious grounds are at risk for acquiring and/or transmitting vaccine-preventable diseases.

3.6 How many children have philosophical (personal) exemptions from immunization requirements?

Philosophical (personal) exemptions to immunization were allowed in 18 states during the 2003-2004 school year.¹⁹ Several states, such as Texas and Wisconsin, do not offer philosophical exemptions, but have broadly defined the religious exemptions that encompass personal religious beliefs or reasons of conscience.²¹ Of the 14 states submitting day care or combined day care and Head Start assessment data for the 2003-2004 school year,¹⁹ six (42.9%) had philosophical exemption rates of 1.3% or more. These included Colorado (2.2%), Idaho (1.5%), Maine (1.3%), Michigan (2.6%), Missouri (1.5%) and Washington (1.9%). The remaining eight states (57.1%) had rates of 0.8% or less. Ten (10) states reported philosophical exemptions among Head Start enrollees, with seven (70%) having rates of less than 1%. Philosophical exemption rates among children in Head Start programs were greatest in Colorado (1.3%), Michigan (1.3%) and Missouri (1.5%).

Finding: Philosophical exemption rates averaged 1.0% among day care enrollees and 0.8% among Head Start enrollees during the 2003-2004 school year. Children with philosophical (personal) exemptions from child care immunization requirements are at increased risk for acquiring and/or transmitting vaccine-preventable diseases.

These variations in assessment practices provide a backdrop for the results of the 2003-2004 school year assessments. In general, assessment practices appear to be more rigorous at Head Start than at day care facilities, with greater proportions of Head Start enrollees than day care enrollees being assessed. Similarly, children in Head Start programs are less likely than those in day care programs to have missing immunization records or to have medical, religious or philosophical exemptions to immunization requirements. These differences likely reflect federal oversight of Head Start programs.²³

4. What are the vaccine coverage rates among children in child care facilities?

Vaccine coverage rates were calculated from the 2003-2004 school year data.¹⁹ Rates were compared to the target coverage rates established as part of the *Healthy People 2010*²² public health goals. These national goals provide useful benchmarks for assessing the effectiveness of state child care immunization requirements.

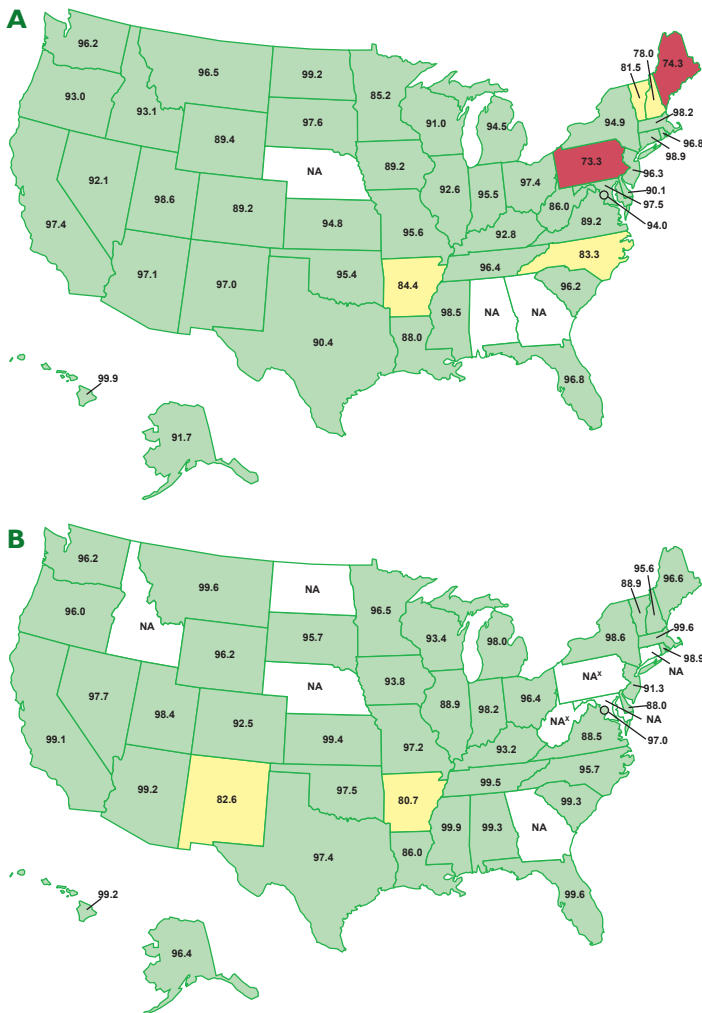
*Healthy People 2010*²² Objective 14-23 sets the goal of immunizing 95% of children in day care in 2010 against polio, diphtheria, pertussis, measles, mumps and rubella. Three other universally recommended vaccines – Hib,²⁶ hepatitis B²⁷ and varicella²⁹ – are not included under this objective, but are specified under Objective 14-22,²² which established the goal of immunizing 90% of all children 19 to 35 months of age with these vaccines.

The *Healthy People 2010* immunization and disease prevention goals are currently undergoing mid-decade review, and Objectives 14-22 and 14-23 may be adjusted to reflect recent progress in protecting children against vaccine-preventable diseases.³² The review also provides for consideration of establishing goals relative to more recently licensed vaccines (e.g., the pneumococcal conjugate vaccine).³⁰ In addition, five years after a newly licensed vaccine is recommended by the federal Advisory Committee on Immunization Practices, the US Department of Health and Human Services establishes a CDC performance target for the vaccine that is based on Objective 14-22.^{22,33} In 2001, a 90% coverage rate performance measure was established for the varicella vaccine. In 2006, a similar performance measure will be established for the pneumococcal conjugate vaccine.³³ The profound role that immunization requirements have played in reducing the burden of disease¹²⁻¹⁴ underscores the importance of efforts to implement child care requirements for all universally recommended vaccines.

4.1 Polio

Among day care enrollees, polio immunization rates during the 2003-2004 school year¹⁹ were generally high and consistent with the *Healthy People 2010*²² goal of achieving a coverage rate of 95%. In 22 (45.8%) of the 48 states reporting day care and combined day care and Head Start data, the 95% goal had been achieved or exceeded (Figure 4A). Twenty (20) states (41.7%) had coverage

Figure 4. Percent of children in day care (A) and Head Start (B) programs in each state who were in compliance with state polio immunization requirements during the 2003-2004 school year.¹⁸ Connecticut, Georgia, Idaho and North Dakota include children in Head Start programs in day care assessments. States not requiring this vaccine are indicated with an X.



rates between 85% and 94.9%. Arkansas (84.4%), North Carolina (83.3%) and Vermont (81.5%) lagged slightly behind most other states. Coverage rates in Maine (74.3%), New Hampshire (78%) and Pennsylvania (73.3%) suggested that substantial numbers of children in day care programs in those states were under-immunized and not in compliance with state requirements.

Polio vaccine use among children in Head Start programs in the 43 states reporting 2003-2004 school year data¹⁹ was robust (Figure 4B). Thirty (30) states (69.8%) had coverage rates of 95% or greater and 11 states (25.6%) had

rates between 85% and 94.9%. Arkansas (80.7%) and New Mexico (82.6%) had the lowest rates.

Finding: During the 2003-2004 school year, most states had polio vaccine coverage rates among children in child care programs that met or exceeded the *Healthy People 2010* goal. Maine and Pennsylvania need to markedly increase polio immunization among children in day care facilities in order to achieve the 2010 goal.

4.2 Diphtheria-Tetanus-Pertussis

Of the 48 states reporting diphtheria-tetanus-pertussis vaccine use among day care and combined day care and Head Start enrollees during the 2003-2004 school year,¹⁹ 17 (35.4%) had coverage rates of 95% or greater (Figure 5A), consistent with the *Healthy People 2010* goal for day care coverage. Twenty-one (21) states (44.5%) had rates between 85% and 94.9%. Ten states (21.8%) had coverage rates below 85%; the lowest rates occurred in Arkansas (79.1%), Delaware (77.5%), Maine (74.9%), New Hampshire (77.7%), North Carolina (75.2%), Pennsylvania (68.9%) and Vermont (78.6%).

Diphtheria-tetanus-pertussis immunization is required for children enrolled in Head Start programs in all states except West Virginia. Twenty-two (22) of the 43 states (51.2%) reporting vaccine coverage among children in Head Start programs¹⁹ had rates of 95% or greater (Figure 5B). Eighteen (18) states (41.9%) had rates ranging from 85% to 94.9%. Rates in Arkansas (73.9%), New Mexico (79.8%) and Virginia (78.3%) lagged further behind.

Finding: Diphtheria-tetanus-pertussis vaccine coverage rates among children in day care and Head Start programs during the 2003-2004 school year in many states met or exceeded the *Healthy People 2010* goal. However, a number of states will need to boost immunization efforts substantially to achieve the goal in a timely manner, particularly among day care enrollees.

4.3 Measles-Mumps-Rubella

In the US, the combination measles-mumps-rubella (MMR) vaccine is preferentially used to prevent these three diseases.²⁵ Vaccination against each is required for child care enrollment in all states except Iowa and West Virginia. These two states require the measles and

Figure 5. Percent of children in day care (A) and Head Start (B) programs in each state who were in compliance with state diphtheria-tetanus-pertussis immunization requirements during the 2003-2004 school year.¹⁸ Connecticut, Georgia, Idaho and North Dakota include children in Head Start programs in day care assessments. States not requiring this vaccine are indicated with an X.

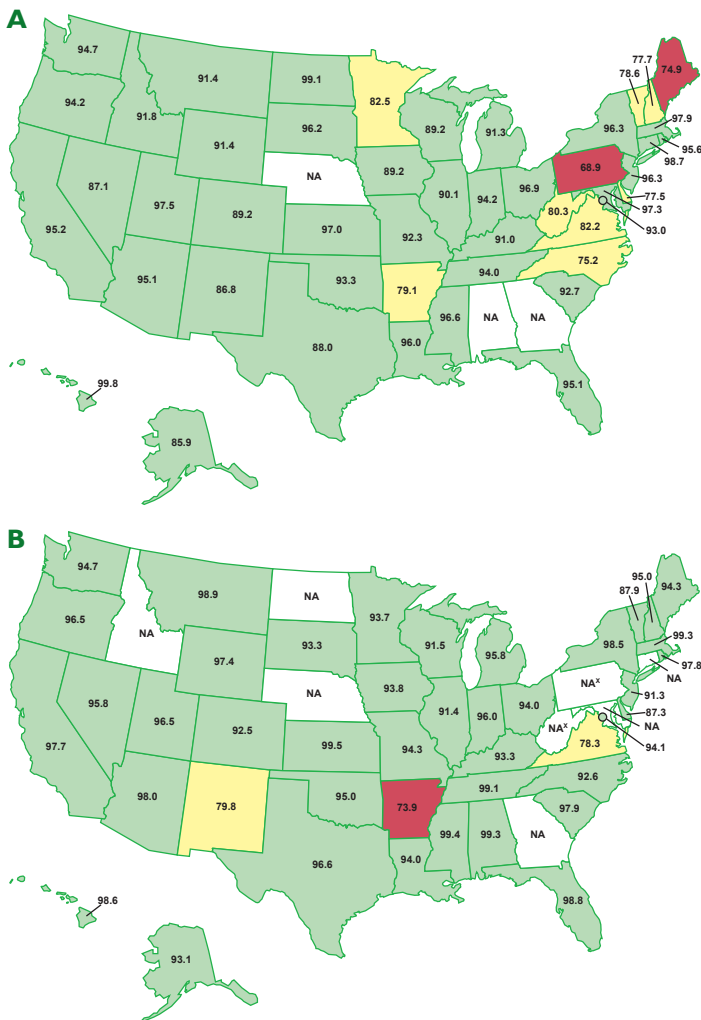
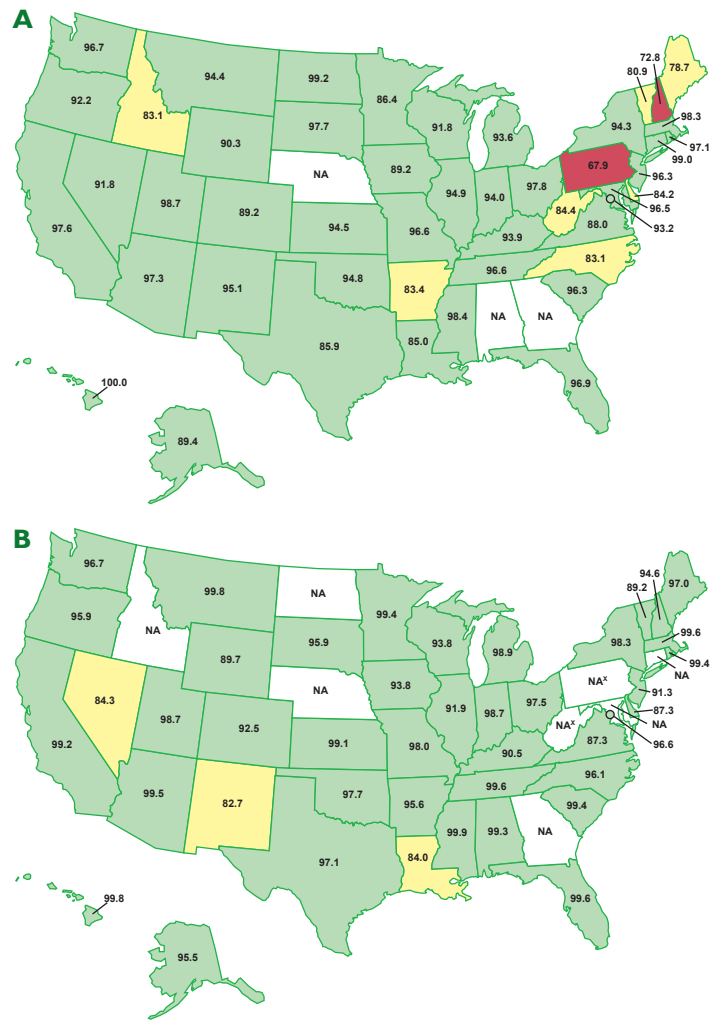


Figure 6. Percent of children in day care (A) and Head Start (B) programs in each state who were in compliance with state measles immunization requirements during the 2003-2004 school year.¹⁸ Connecticut, Georgia, Idaho and North Dakota include children in Head Start programs in day care assessments. States not requiring this vaccine are indicated with an X.



rubella antigens, but not the mumps antigen, for child care enrollees.²⁰ School assessment data were reported separately for each of the three MMR antigens.

Coverage rates for the measles, mumps and rubella antigens are illustrated in Figures 6, 7 and 8, respectively. Approximately 40% of the 48 states reporting data for day care or day care and Head Start programs combined had coverage rates of 95% or more for each antigen (Figures 6A, 7A and 8A). Coverage rates were between 85% and 94.9% in 20 states (41.7%) for measles and in 18 states (37.5%) for both rubella and mumps. Nine states had rates

of less than 85% for each of the three vaccine antigens, and Texas was below 85% for both mumps and rubella.

Of the 43 states reporting vaccine use among Head Start enrollees, 29 (67.4%) had coverage rates of 95% or more for each of the three vaccine antigens (Figures 6B, 7B and 8B). Between 11 (25.6%) and 13 (30.2%) states had coverage rates between 85% and 94.9% for each of the three vaccine antigens. Louisiana and Nevada had rates of less than 85% for each of the three, and New Mexico was below 85% for measles and rubella.

Figure 7. Percent of children in day care (A) and Head Start (B) programs in each state who were in compliance with state mumps immunization requirements during the 2003-2004 school year.¹⁸ Connecticut, Georgia, Idaho and North Dakota include children in Head Start programs in day care assessments. States not requiring this vaccine are indicated with an X.

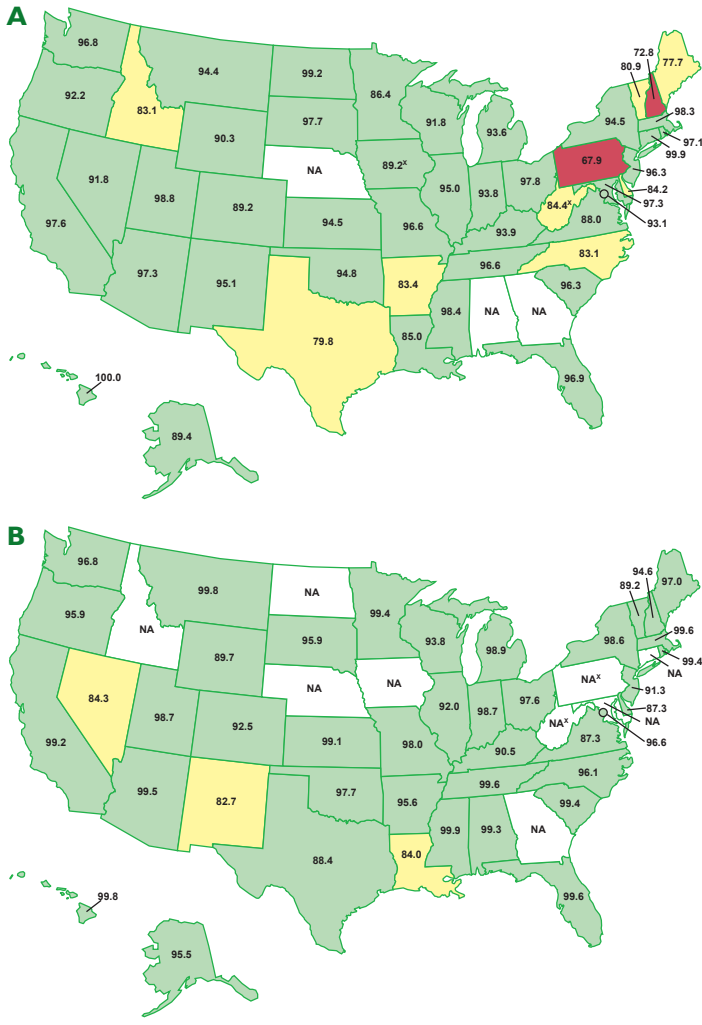


Figure 8. Percent of children in day care (A) and Head Start (B) programs in each state who were in compliance with state rubella immunization requirements during the 2003-2004 school year.¹⁸ Connecticut, Georgia, Idaho and North Dakota include children in Head Start programs in day care assessments. States not requiring this vaccine are indicated with an X.

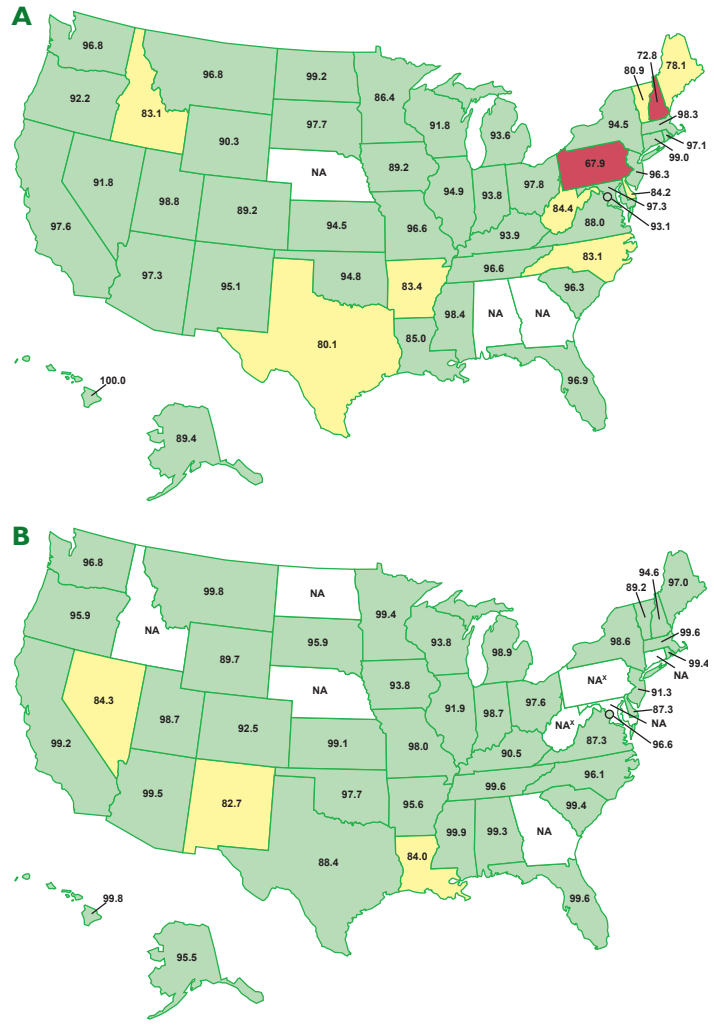


Table 3. States with measles, mumps and rubella vaccine antigen coverage rates among child care enrollees during the 2003-2004 school year¹⁹ that differed by more than two percentage points.

	Number Assessed (%)	Measles	Mumps	Rubella
Day care				
Montana	875 (57.9)	94.4%	94.4%	96.8%
Texas	87,822 (NA)	85.9%	79.8%	80.1%
Head Start				
Texas	18,057 (100)	97.1%	88.4%	88.4%

Because the combination MMR vaccine is used almost exclusively in the US,²⁵ coverage rates against measles, mumps and rubella would be expected to be identical. However, coverage rates for the three differed among day care enrollees in 10 states and among Head Start enrollees in five states. In most cases, the rates differed by two percentage points or less, likely reflecting inaccuracies in data collection or compilation. In Montana and Texas the differences were more substantial (Table 3), suggesting the need for re-examining immunization records or reporting practices in those states.

Finding: Less than half of the 48 states that submitted 2003-2004 school immunization data for children in day care programs met or exceeded the *Healthy People 2010* goal for the measles, mumps and rubella vaccines, while nearly two-thirds of the 43 states reporting data for Head Start enrollees had coverage rates of 95% or more. Attaining and sustaining high coverage rates are essential to protecting children, their families and their communities.

Finding: Disparities in measles, mumps and rubella vaccination rates among children in child care programs in Montana and Texas are unexpected and warrant further investigation.

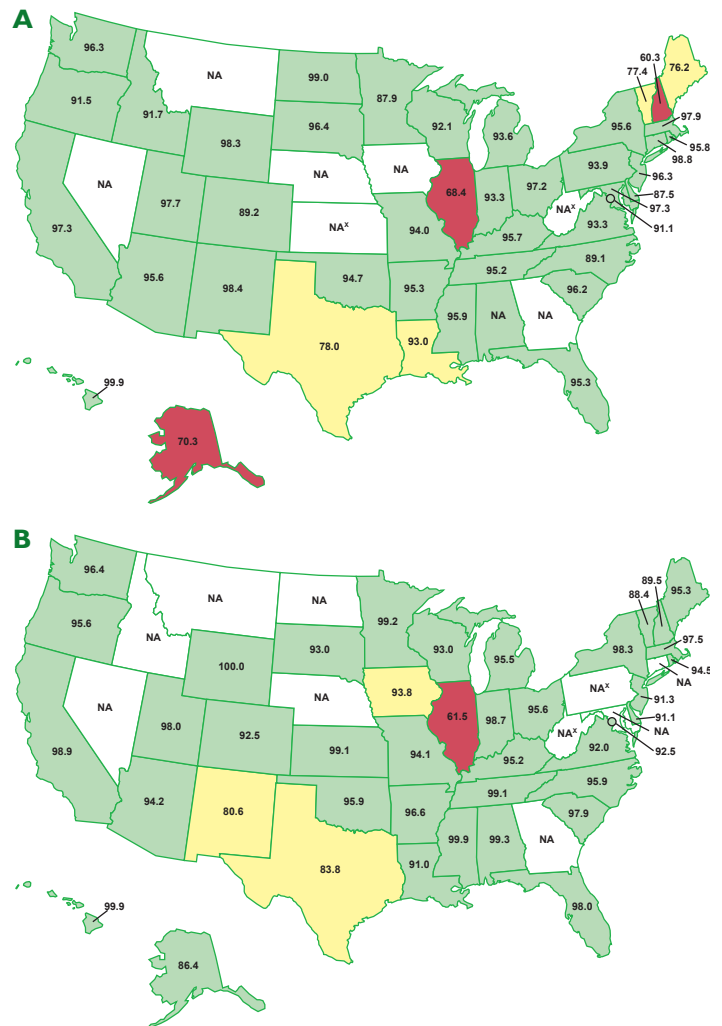
4.4 *Haemophilus influenzae* type b

Immunization against *Haemophilus influenzae* type b (Hib) is recommended for all children,²⁶ but it is not included in the *Healthy People 2010* day care immunization goals (Objective 14-23).²² Hib is required for children in day care in all states except Kansas and West Virginia. Of the 43 states reporting Hib coverage data during the 2003-2004 school year¹⁹ for day care and day care and Head Start programs combined, 33 (76.7%) had coverage rates of 90% or greater (Figure 9A). Colorado (89.2%), Delaware (87.5%), Minnesota (87.9%) and North Carolina (89.1%) were just below the *Healthy People 2010* goal of 90% for all children 19 to 35 months of age (Objective 14-22).²² Six states (14%) had substantially lower coverage rates: Arkansas (70.3%), Illinois (68.4%), Maine (76.2%), New Hampshire (60.3%), Texas (78%) and Vermont (77.4%).

Hib vaccination is required for Head Start enrollees in all states but Pennsylvania and West Virginia. Forty (40) states provided Hib coverage data,¹⁹ with 35 (87.5%) having rates of 90% or more (Figure 9B). Five states (12.5%) had rates between 80.6% and 89.5%. Only one state, Illinois (61.5%), reported extremely low Hib vaccine use among Head Start enrollees.

Finding: Hib vaccination rates among children in day care and Head Start programs during the 2003-2004 school year were 90% or greater in most states. Coverage rates among children in child care programs in Alaska, Illinois and New Hampshire were well below the 2010 target for children 19 to 35 months of age (Objective 14.22), suggesting that substantial numbers of children in those states may be inadequately protected against Hib disease.

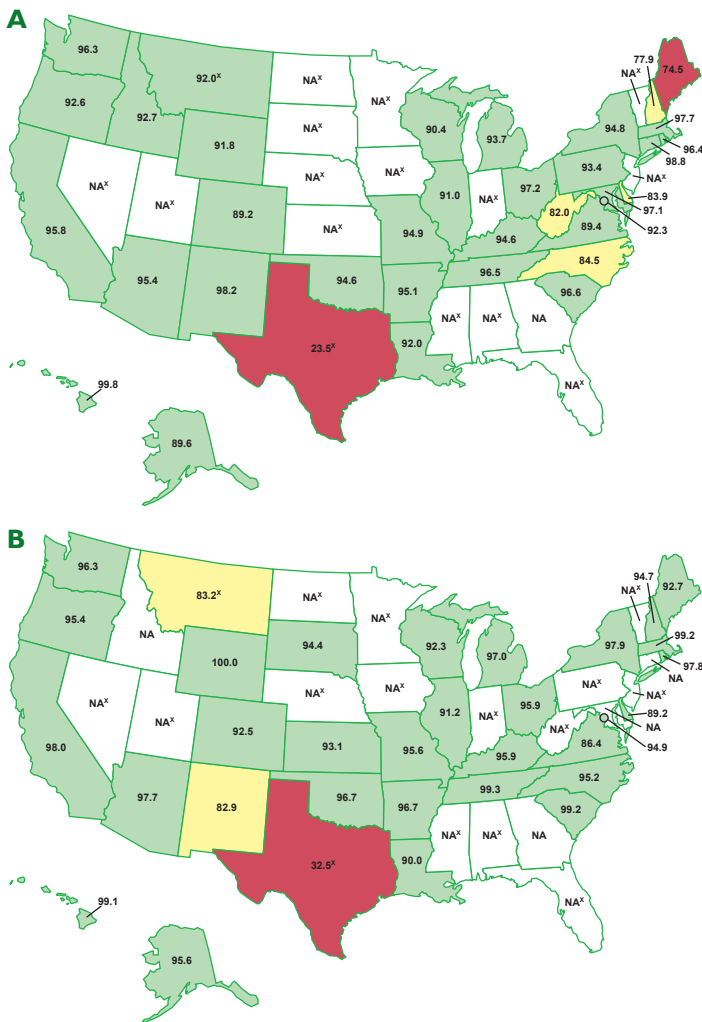
Figure 9. Percent of children in day care (A) and Head Start (B) programs in each state who were in compliance with state *Haemophilus influenzae* type b immunization requirements during the 2003-2004 school year.¹⁸ Connecticut, Georgia, Idaho and North Dakota include children in Head Start programs in day care assessments. States not requiring this vaccine are indicated with an X.



4.5 Hepatitis B

Vaccination against hepatitis B virus is universally recommended,²⁷ but is not currently included in the *Healthy People 2010* Objective 14-22²² day care immunization goals. Hepatitis B vaccination is included under the 2010 goal of immunizing 90% of all children 19 to 35 months of age (Objective 14-23). This vaccine is not required for day care enrollees in 16 states (Figure 10A). Of the 34 states with hepatitis B immunization requirements that reported coverage data for the 2003-2004 school year,¹⁹ 27 (79.4%) had rates of 90% or more.

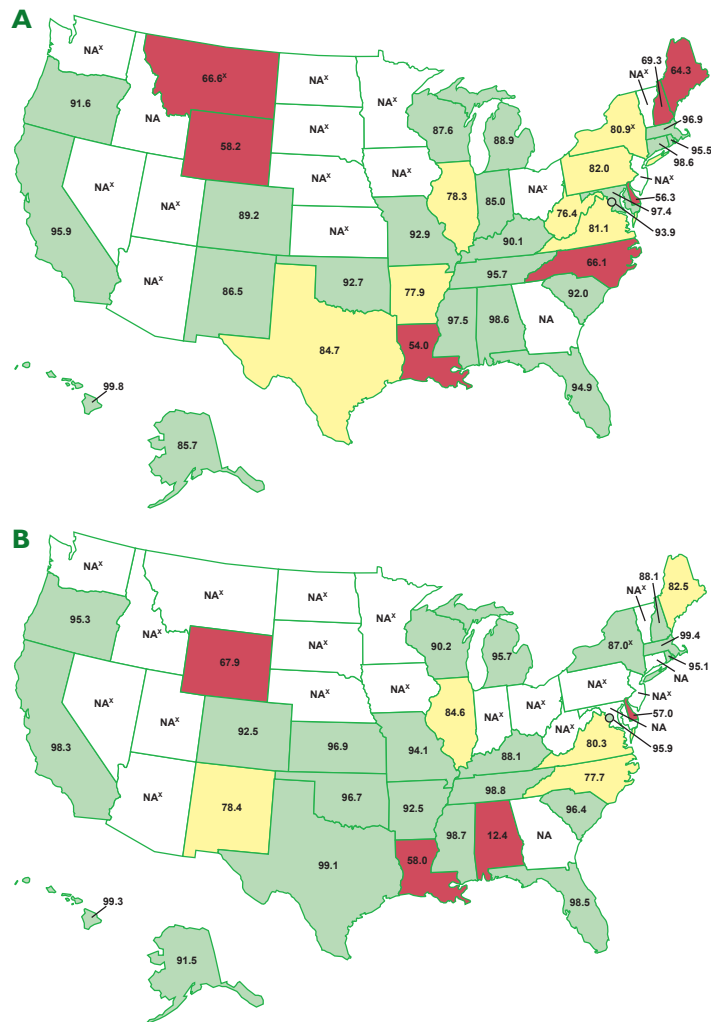
Figure 10. Percent of children in day care (A) and Head Start (B) programs in each state who were in compliance with state hepatitis B immunization requirements during the 2003-2004 school year.¹⁸ Connecticut, Georgia, Idaho and North Dakota include children in Head Start programs in day care assessments. States not requiring this vaccine are indicated with an X.



Alaska, Colorado, Delaware, North Carolina, Virginia and West Virginia had rates between 82% and 89.6%, with Maine (74.5%) and New Hampshire (77.9%) having lower coverage rates. Neither Montana nor Texas requires hepatitis B immunization for day care enrollees; these states had coverage rates of 92% and 23.5%, respectively.

Hepatitis B vaccination is not required for Head Start enrollees in 17 states. Thirty (30) states provided coverage data for Head Start enrollees, with 27 states (90%) having rates of 90% or more (Figure 10B). Delaware (89.2%), New Mexico (82.9) and Virginia (86.4%) had slightly lower rates. Although not requiring hepatitis B

Figure 11. Percent of children in day care (A) and Head Start (B) programs in each state who were in compliance with state varicella immunization requirements during the 2003-2004 school year.¹⁸ Connecticut, Georgia, Idaho and North Dakota include children in Head Start programs in day care assessments. States not requiring this vaccine are indicated with an X.



immunization for Head Start enrollment, Montana, South Dakota and Texas had coverage rates of 83.2%, 94.4% and 32.5%, respectively.

Finding: Hepatitis B immunization is not required for children in child care programs in nearly one-third of the states. Of the states that required use of this vaccine during the 2003-2004 school year, 76.5% had coverage rates of 90% or more among day care enrollees and 90% had comparable coverage rates among Head Start enrollees. Opportunities exist in many states to better protect children against hepatitis B.

4.6 Varicella

Varicella vaccination is universally recommended,²⁹ but is not currently included in the *Healthy People 2010* day care immunization goals.²² It is included under Objective 14-22²² of immunizing 90% of all children 19 to 35 months of age. During the 2003-2004 school year,¹⁹ varicella vaccination was not required for day care enrollees in 16 states (Figure 11A). Among the 34 states with varicella immunization requirements for day care enrollment that reported coverage data, 16 (47.1%) had rates of 90% or more and nine states (26.5%) had rates between 81.1% and 89.2%. The remaining nine states (26.5%) had rates ranging from 54% (Louisiana) to 77.9 % (Arkansas). States with lower coverage rates generally did not implement varicella vaccination requirements until 2002 (Delaware – 56.3%, Illinois – 78.3%, Maine – 64.3% and North Carolina – 66.1%)³⁴ or 2003 (Louisiana – 54% and New Hampshire – 69.3%).²¹ Montana and New York did not require varicella immunization for day care enrollees, but had coverage rates of 66.6% and 80.9%, respectively.

Varicella vaccination was not required for Head Start enrollees in 18 states at the time of the survey (Figure 11B). Nineteen (19) of the 30 states (63.3%) that required use of this vaccine had coverage rates of 90% or more. In five states (16.7%), coverage rates among Head Start enrollees ranged from 80.3% to 88.1%. The other six states requiring varicella immunization had rates ranging from 12.4% (Alabama) to 78.4% (New Mexico). Again, the relatively recent adoption of varicella immunization requirements in several states accounts for some of the observed low rates. New York did not require use of this vaccine by Head Start enrollees, but had a coverage rate of 87%.

Finding: Use of the varicella vaccine by children in child care programs varied from state to state during the 2003-2004 school year, with modest numbers of states attaining or approaching the 2010 target of immunizing 90% of children 19 to 35 months of age, which became a CDC performance measure in 2001.³³ Varicella vaccine coverage data illustrate the value of immunization requirements because states with such requirements typically protect greater proportions of children against chickenpox and its complications.

4.7 Pneumococcal Conjugate

The pneumococcal conjugate vaccine (PCV) is the most recently licensed childhood vaccine³⁰ that is recommended for all children; it is not included in the *Healthy People 2010* immunization goals for children in day care or those between 19 and 35 months of age.²² In 2006, the US Department of Health and Human Services will establish a performance measure for the CDC of immunizing 90% of children 19 to 35 months of age with PCV.³³

During the 2003-2004 school year,¹⁹ PCV was required for day care enrollees in Indiana, Maine and Pennsylvania. Indiana and Pennsylvania had PCV coverage rates of 75.8% and 46.6%, respectively. At that time, PCV was required for Head Start enrollees in Maine, which did not provide coverage data. In Wyoming, which did not require use of this vaccine for either day care or Head Start enrollees, coverage rates of 8.2% and 23.1% were observed among children in the respective programs. Since then, Colorado, Maryland, Minnesota, Rhode Island, Tennessee and Texas have added PCV to their child care immunization requirements.

Finding: As the most recently licensed vaccine for young children, requirements for PCV use are slowly being implemented. The high coverage rates achieved among children in child care programs by other vaccines illustrate the value of preschool immunization requirements in protecting children from vaccine-preventable diseases.

4.8 Hepatitis A

Use of hepatitis A vaccine was not reported by any of the states participating in the CDC survey. The hepatitis A vaccine is currently recommended for children in certain geographical areas and risk groups;²⁸ there is no *Healthy People 2010* immunization goal²² for the use of this vaccine among day care enrollees.

5. Coverage Rate Summary

Depending on the vaccine, up to 48 states reported coverage data for children in day care or day care and Head Start programs combined. Similarly, up to 43 states reported separate coverage data for children in Head Start programs. With the exception of the varicella vaccine,

Table 4. Average and median vaccine coverage rates for eight childhood vaccines* among children enrolled in day care (DC) and Head Start (HS) programs in the US during the 2003-2004 school year.¹⁹ The percentage of states with coverage rates for each vaccine within each of 11 categories is indicated.

	Polio		Diphtheria-Tetanus-Petussis		Measles		Mumps		Rubella		Hib		Hepatitis B		Varicella	
	DC	HS	DC	HS	DC	HS	DC	HS	DC	HS	DC	HS	DC	HS	DC	HS
Number of states	48	43	48	43	48	43	48	42	48	43	43	41	34	33	34	30
Average coverage rate	92.4	95.4	90.3	94.1	91.6	95.4	91.5	95.2	91.5	95.2	91.6	93.9	90.5	92.7	84.5	86.7
Median coverage rate	94.7	96.6	92.5	95	94.2	97	94.2	96.9	94.2	96.8	95.2	95.5	93.6	95.6	88.3	92.5
% of states with rates of:																
95-100%	45.8	72.1	35.4	51.2	39.6	67.4	41.7	66.7	41.7	65.1	51.2	56.1	38.2	57.6	26.5	46.7
90-94.9%	27.1	11.6	29.2	37.2	27.1	16.3	25	14.3	25	16.3	25.6	29.3	38.2	27.3	20.6	16.7
85-89.9%	14.6	11.6	14.6	4.7	14.6	9.3	12.5	11.9	12.5	11.6	9.3	7.3	8.8	6.1	17.6	6.7
80-84.9%	6.3	4.7	6.3		12.5	7	12.5	7.1	14.6	7		4.9	8.8	6.1	8.8	10
75-79.9%	2.1		10.4	4.7	2.1		4.2		2.1		7		2.9		8.8	6.7
70-74.9%	4.2		2.1	2.3	2.1		2.1		2.1		2.3		2.9			
65-69.9%			2.1		2.1		2.1		2.1		2.3				5.9	3.3
60-64.9%											2.3	2.4			2.9	
55-59.9%															5.9	6.7
50-54.9%															2.9	
<50%														3.0		3.3

* The other universally recommended childhood vaccine, the pneumococcal conjugate, is not included because it is required in only a few states and there is currently little coverage data available.

which was licensed in 1995 and has only gradually been incorporated into state child care immunization requirements, and the more recently licensed pneumococcal vaccine, coverage rates for the other seven vaccines were generally quite high among the reporting states during the 2003-2004 school year¹⁹ (Table 4).

Among the states reporting data for day care and day care and Head Start programs combined, the average coverage rate for each vaccine was 90.3% or greater. For each vaccine, the median coverage rate was between 2.2 (diphtheria-tetanus-pertussis) and 3.8 (varicella) percentage points above the mean, indicating that the majority of states had coverage rates greater than the mean. Similarly, among states reporting coverage rates for children in Head Start programs, the average for each vaccine was 92.7% or more, and again, the median coverage rate for each exceeded the average rate by as much as 5.6 percentage points (varicella). Both the average and median coverage rates for each vaccine were greater among Head Start enrollees than among day care enrollees. This difference likely reflects immunization requirements specific to these federally funded programs.²³

The 2003-2004 school year data¹⁹ indicated that children in day care and Head Start programs in most states were immunized with most vaccines at rates consistent with the

Healthy People 2010 goals.²² These findings suggest that states already attaining the target rates should be able to sustain those rates through and beyond 2010. States not yet attaining the 2010 target rates, but having vaccine-specific coverage rates of 85% or more are considered likely to achieve the day care goals by the target date. Meeting the 2010 goals is likely to be more challenging for states that had coverage rates of less than 85% during the 2003-2004 school year.

Generally, for each vaccine there were more states with day care coverage rates below 85% than states with comparably low Head Start coverage rates (Table 4). For example, in seven states polio vaccine use among children in day care programs was below 85%, while in only two states were Head Start coverage rates below 85%. Similarly, the lowest reported coverage rates for each vaccine were more commonly observed among children in day care programs than among those in Head Start programs, again reflecting the federal requirements for the latter.²³

Excluding the two newest vaccines, varicella and the pneumococcal conjugate, 13 states had coverage rates among children in day care programs of less than 85% for one or more vaccines. Three states had coverage rates below 85% for only one vaccine each: Illinois for hepatitis B and both Minnesota and Virginia for diphtheria-

tetanus-pertussis. Idaho and Texas both lag with respect to mumps and rubella, with Idaho also lagging for measles and Texas for Hib. Arkansas, Delaware, North Carolina, Pennsylvania, Vermont and West Virginia trail with regard to measles, mumps, rubella and diphtheria-tetanus-pertussis. With the exception of Delaware, these same states also have polio vaccine coverage rates below 85%. Hepatitis B coverage rates trail in Delaware, North Carolina and West Virginia. Arkansas and Vermont lag with respect to Hib. Coverage rates for all seven vaccines are below 85% in Maine and New Hampshire.

Similarly, and excluding the varicella and pneumococcal conjugate vaccines, vaccine coverage rates of less than 85% among children in Head Start programs were observed in only seven states. New Mexico was just below the benchmark for all vaccines. Louisiana and Nevada both fall short on measles, mumps and rubella vaccines. Illinois and Texas lag with respect to Hib. Arkansas trails for polio, measles and diphtheria-tetanus-pertussis, and Virginia falls short on the latter.

6. What other factors affect compliance assessment and enforcement?

6.1 Commitment of staff and time

The CDC practices survey²⁰ provided insight into the resources available to states for conducting preschool immunization assessments and enforcing child care immunization requirements. In 43 (91.5%) of the 47 participating states, assessment activities involve full-time public health personnel. Thirty (30) states (63.8%) rely exclusively on full-time staff, while 13 states (27.7%) use both full- and part-time public health staff for these activities. In four states (8.5%), Louisiana, Ohio, Rhode Island and Vermont, part-time public health personnel are solely responsible for preschool assessments.

The number of public health personnel engaged in assessment activities²⁰ varies from state to state (Table

Table 5. Approximate number of full- and part-time public health personnel in each state engaged in immunization assessment activities for preschool facilities.²⁰

Number of Staff	Full-time Staff		Part-time Staff	
	Number of States	%	Number of States	%
1-4	24	55.8	6	35.3
5-9	7	16.3	3	17.6
10-19	2	4.7	2	11.8
20 or more	10	23.3	6	35.3

Table 6. Approximate amount of time (months) that public health personnel in each state devote to collecting and reporting preschool immunization assessment data.²⁰

Number of Months	1	2	3	4	5	6
Number of States	2	3	6	9	5	21

5). In 24 (51.1%) of 43 states that engage full-time public health staff in these activities, one to four staff members are assigned to this work, while 10 states (23.3%) assign 20 or more full-time personnel to assessments. A similar pattern occurs among states that employ part-time public health staff for these activities. For the states relying only on part-time public health staff for assessment activities, Rhode Island engages 1 to 4 staff members, Louisiana and Ohio 5 to 9 each and Vermont 10 to 19.

The CDC practices survey²⁰ indicated that states devote one to six months to conducting, evaluating and reporting on preschool immunization assessments (Table 6). Twenty-one (21) states (45.7%) estimate that the assessment process entails six months of effort. Twenty (20) states (43.5%) devote three to five months to these activities. Connecticut and Wyoming each spend one month on assessments, and Idaho, North Dakota, Oregon and Pennsylvania invest two months each on this work.

Finding: Public health personnel are involved in varying numbers and for varying periods of time in preschool immunization assessments in all states. Many states engage various state, county and/or local agencies in their assessment and enforcement activities (see State Summaries, Section 7). In some states personnel from other agencies may contribute substantively to these activities.

6.2 Enforcement responsibility

According to the NPI survey, in most states the state public health department or its equivalent is the principal agency responsible for enforcing immunization requirements for child care programs. In 12 (34.3%) of 35 responding states, this agency had sole responsibility for enforcement, while in four states (11.4%) this responsibility is shared with the state department of education. In five states (14.3%), responsibility is shared between public health and the state department of social services. Alabama split the responsibilities between education and social services, and Washington involves all three state agencies.

Other enforcement models were also reported. Enforcement in five states (14.3%) was the responsibility of the state social services department. In Rhode Island, enforcement of day care requirements is the responsibility of social services, and Head Start requirements are the responsibility of the department of education. In the District of Columbia, enforcement is handled through the Department of Regulatory Affairs. Massachusetts relies on day care and Head Start operators to enforce the state's requirements. Montana defers Head Start-related enforcement to the federally sponsored program office. Enforcement responsibilities in North Carolina reside with county or local health departments.

Finding: Responsibilities for enforcing state child care immunization requirements reside with various agencies and combinations of agencies. In most states, the state public health department is a key player in such activities. In some cases (see State Summaries, Section 7), lack of clarity about agency responsibilities impedes assessment and enforcement.

6.3 Sources of funding for assessment and enforcement

The sources of funding for child care immunization assessment and enforcement vary from state to state, according to the NPI survey. The majority of states rely exclusively or in part on Section 317³⁵ funds for these activities. Seven (20.6%) of 33 responding states use only Section 317 funds, while five states (14.7%) use Section 317 funds and funds from the Vaccines for Children³⁵ (VFC) program for this type of work. State public health department funds supplement federal funding in 14 states (41.2%).

Alabama draws funds from the state's public health, education and social services departments to augment Section 317 funding. Oklahoma supplements Section 317 money with funds from the state's public health and social services departments. In Georgia, Section 317 money is supplemented with funds from the state's public health and education departments. Maryland's assessment and enforcement activities are supported exclusively with state education department funds.

In 12 states (35.3%), county and/or local health department funds supplement state and federal funds. In Iowa, assessment and enforcement activities are supported only through county/local public health departments. County/local education departments in Alabama and New York,

and school districts in California, contribute funding for assessment and enforcement in those states. The Indiana legislature specifically appropriates funds for assessment/enforcement activities in that state.

Finding: States use a variety of funding sources to support child care immunization assessments. Sources include federal, state, and local funds, and various combinations of those funds. Competition for discretionary funds and shifting funding priorities at all levels of government likely limit the resources available for child care assessment and enforcement activities in many states.

6.4 Responsibility for compliance determination

Most states (91.4%) participating in the NPI survey place day-to-day responsibility for determining if a child has received the required immunizations on the operators of day care and Head Start facilities. Evidence for compliance with state requirements, as well as documentation of exemptor status, is typically filed with the operator of the facility. In 14 states (38.9%), state and/or local agencies share these responsibilities with facility operators.

Finding: Day care and Head Start operators in most states are charged with determining if, and maintaining evidence that, children in their facility have received the required vaccines or have established medical, religious or philosophical exemptions.

6.5 Consequences when non-compliant children are identified in child care facilities

When assessments or audits identify non-compliant children in a facility (i.e., children who have not received all required age-appropriate immunizations) states can invoke a variety of enforcement measures to bring the children into compliance. In addition, many states impose penalties on operators for enrolling non-compliant children. The NPI survey examined the policies and tools available to enforcement agencies relative to non-compliant children and their parents/guardians, day care and Head Start operators, and health care providers. These measures were ranked as weak if the agency issued only notices, moderate if the agency issued reprimands or required training or education programs and strong if the agency expelled non-compliant children, suspended

facility operating licenses and/or imposed fines or other penalties on operators.

In the majority of states (77.8%) completing the NPI survey, parents/guardians are notified if their child is not in compliance, and they are given a grace period to have the child immunized. During this period the child usually remains in the facility, although in some states children are dismissed until evidence is provided that they have received the required vaccine(s), have an appointment to be vaccinated or have obtained an exemption. In Nebraska, non-compliant children in Head Start, but not day care, are subject to dismissal. Commentary on several surveys suggested that expulsion may be underutilized in some states, reflecting ambiguity in enforcement policies and reluctance to remove children from important educational or social service programs.

Operators of day care and Head Start facilities in which non-compliant children are enrolled are subject to various enforcement actions. With the exception of Nebraska and Oregon, all participating states indicated that operators of day care facilities in which non-compliant children are enrolled receive a written notice when the presence of such children is determined through the assessment process. In Iowa and Kansas the strongest penalty for persistent compliance problems is a reprimand, while in 16 states (44.4%) operators that do not correct immunization-related problems risk loss of their operating license, fines or other penalties. In most states, day care and Head Start operators face similar consequences for enrolling non-compliant children. Kansas is tougher on day care operators than on Head Start operators; the reverse is true in Montana and Utah. The survey did not address the specific criteria for invoking the stronger penalties.

Health care providers are rarely brought into enforcement activities. Only nine (9) states (25%) notify health care providers when non-compliant child care enrollees are identified. Georgia offers immunization requirement-related educational programs to health care providers who serve non-compliant children.

Finding: The tools available to agencies responsible for enforcing state child care immunization requirements vary from relatively weak measures such as letters of notification to strong measures such as expulsion, license suspension and fines. States are approximately equally divided between those with weak and those with strong enforcement tools.

6.6 Immunization exemption processes

Both the CDC practices survey²⁰ and the NPI survey explored the processes by which parents/guardians may obtain medical, religious or philosophical or personal exemptions from immunization requirements for children enrolled in child care programs. For states that did not respond to either survey, state statutes²¹ and other reports³⁶ were examined to better understand the exemption process.

All states permit medical exemptions to child care immunization requirements. In each state some form of health care provider documentation (e.g., completed and signed forms or certificates) is required in order for a medical exemption to be recorded.

Religious exemptions can be established in 37 states (72.5%) with a written statement or completed form submitted by a parent or guardian to the child care operator and/or a state or local agency.²⁰ In Florida and Utah, a health department official must sign the document. Thirteen (13) states (25.5%) require the parent or guardian to submit a notarized statement or form, or an affidavit.²⁰

Of the 17 states (33.3%) that permit philosophical (personal) exemptions,²⁰ 13 (76.5%) require a written statement or completed form from the parent or guardian.²¹ California, Minnesota, Nebraska and New Mexico require a notarized statement or form, or an affidavit.

Finding: In each state, establishing a medical exemption requires supporting documentation from a health care professional. Securing a religious or philosophical exemption in most states that offer such exemptions typically involves submitting a statement or form. In some states the required statements or forms must be notarized, or an affidavit submitted.

6.7 Public health implications of enrolling non-compliant and vaccination-exempted children in child care programs

The 2003-2004 school year data¹⁹ can be used to construct a simple model to illustrate public health concerns associated with enrolling non-compliant and vaccination-exempted children in child care programs. Although several states did not submit data, the assessment indicated that over 4.7 million children were enrolled in child care programs in the US at that time. If the nation had achieved the *Healthy People 2010* goal²² of protecting 95% of

4.7 million children against polio, diphtheria-tetanus-pertussis, measles, mumps and rubella, 235,000 children would have been unprotected against these diseases. In addition, the assessment indicated that approximately 1.1% of assessed children had medical, religious or philosophical exemptions from immunization, which likely is an underestimate because many states did not provide this information. Based on 4.7 million enrollees, 51,700 exempt children would be added to the ranks of the unprotected, bringing the total to 286,700 or, on average, 5,622 per state.

Because unimmunized children are at risk both for acquiring and transmitting vaccine-preventable diseases, the NPI survey examined whether communities have access to information about unprotected children in child care settings. Of the 36 participating states, only Colorado and Kansas have provisions for day care and Head Start operators to notify parents/guardians about children in their facility who are exempt from the state's immunization requirements. In Colorado, such notification is given at the operator's discretion.

Seven states (19.4%) reported maintaining registries of children exempt from child care immunization requirements. Information about exempt children in Colorado is maintained in the state immunization registry. The other states that manage such information are the District of Columbia, Florida, Oklahoma, Rhode Island, Utah and Wyoming; Montana maintains this type of information only for children in Head Start programs.

Finding: Despite the public health value of vaccines, very few states maintain registries of children who are non-compliant with or exempt from immunization requirements. Similarly, very few have provisions for notifying parents/guardians about other children enrolled in their child's preschool program that are exempt from state immunization requirements. Better maintenance and communication of such information would enhance public health in all states.

7. State Child Care Immunization Practices

Beginning on page 25 are summaries of how each state approaches child care immunization, the requirements, coverage rates, assessment and enforcement practices and responsibilities and perspectives on each state's success relative to the *Healthy People 2010* objectives.²² The

information is drawn from the 2003-2004 school year data,¹⁹ the CDC practices survey²⁰ and the NPI survey on child care immunization requirements. The summaries are intended to capture in broad strokes the situation in each state. Vagaries in the interpretation of survey questions, incomplete information, missing data and even the passage of time necessarily influence the content of each summary. Nevertheless, they offer a state-by-state picture of immunization policy and practices relative to children in child care programs as the nation approaches the mid-point in its quest to achieve the *Healthy People 2010* goals.

7.1 Success Stories

In terms of immunization requirements, success might best be defined as protecting the greatest number of children possible from vaccine-preventable diseases. From this analysis it is clear that states like Arizona, California, Hawaii, Massachusetts, New Jersey, Tennessee, Washington and others are doing quite well. In these states, immunization coverage rates meet or exceed the *Healthy People 2010* goals for most if not all vaccines, including some of those not currently specified in the 2010 targets. Many states, such as the District of Columbia, Michigan, Nevada, Oregon and others have coverage rates that are well within reach of achieving the 2010 goals, as well as establishing similar coverage rates for other universally recommended vaccines that are not specifically included in those goals.

Achieving high levels of protection against vaccine-preventable diseases reflects other programmatic successes. These include effective education and outreach efforts that foster compliance, and strong assessment programs that account for all children in all child care facilities. Often, these activities result from key partnerships and collaborations between various state, county and local agencies that bring public health, education and social services together to foster good health and disease prevention. In the case of Head Start programs, federal oversight clearly contributes to attaining and maintaining high vaccination rates.

7.2 Trouble Spots

This analysis revealed two major concerns with respect to how well child care immunization requirements are protecting children against vaccine-preventable diseases. A substantial number of states, such as Florida, Indiana,

Kansas, Mississippi, North Dakota and Rhode Island, have impressively high coverage rates, yet the rates are based on assessments involving only small proportions of the children enrolled in child care programs. The large number of children unaccounted for is troubling in terms of assessing how well these children are protected.

The second area of concern involves states such as Arkansas, Delaware, Maine, New Hampshire, North Carolina, Pennsylvania, Texas, Vermont and West Virginia where coverage rates substantially trail the *Healthy People 2010* goals and the proportion of children included in the assessments is often a small fraction of the child care population. These states, and several others, seemingly have large numbers of children at risk for acquiring and transmitting vaccine-preventable diseases.

7.3 Lessons Learned

Although all states have immunization requirements for children in child care facilities, the details vary considerably from state to state. The specific vaccines required differ somewhat, and day care requirements may not be identical to requirements for children in Head Start programs. Day-to-day responsibility for determining whether children are in compliance generally resides with the operators of day care and Head Start programs.

One of the few consistent observations is that all states provide for medical exemptions from child care immunization requirements when appropriate documentation is provided by a health care professional. Written statements of religious or philosophical objections to child care immunization usually suffice in states offering such exemption categories. Some states require notarized statements or affidavits to establish such exemptions.

States differ in the approaches used to assess how well children in child care programs are protected against vaccine-preventable diseases. These range from soliciting data from program operators to conducting onsite assessments. Assessments can involve all child care enrollees within a state or selected subsets of children reflecting specific age ranges, enrollment in certain types of facilities or population-based sampling strategies.

Assessment and enforcement of child care immunization requirements involve a variety of state, county and local agencies that can include public health, education and

social services. At times these partnerships are seen as a boon to ensuring that children are appropriately immunized. In other instances, lack of clarity about specific roles and responsibilities of the involved agencies compromise the ability to assess compliance and to enforce the requirements.

There are substantial disparities among states with respect to the tools available to enforce immunization requirements. Although non-compliant children are generally subject to expulsion, it is unclear how often such steps are taken. In many states, day care and Head Start operators are subject to only mild penalties (e.g., notification or reprimand) for permitting non-compliant children to enroll in child care programs.

A host of mechanisms are used to provide funding for assessment and enforcement activities. Efforts in some states are funded entirely through the Section 317 program and others rely on Vaccines for Children program funds, or combinations of the two. State and/or local funding supplements federal funds in many states, and some states conduct these activities exclusively with state and/or local funds. A commonly heard perspective, independent of states' coverage rates and assessment and enforcement mechanisms, was that more staff and financial resources are needed to maintain or improve coverage rates and the attendant assessment and enforcement activities.

7.4 Best Practices

Immunization requirements are valuable tools for ensuring that children are adequately protected against vaccine-preventable diseases, yet there is no standard approach to their implementation, compliance assessment and enforcement. An array of models is currently used in the US and yield comparable outcomes with respect to vaccine use rates. Yet within this diversity there are a number of factors that can contribute to protecting the greatest number of child care enrollees from vaccine-preventable diseases.

Considerable variability exists with respect to the types of child care facilities in which children are subject to immunization requirements. In the interest of better protecting all children, there is value in defining child care as broadly as possible to encompass all relevant settings. Similarly, because child care programs serve children of widely varying ages, assessments should focus across the age spectrum as well as across the spectrum of facility

types to provide the fullest measures of vaccine use and, hence, protection from disease.

The requirements that work best are those that clearly articulate the required vaccines, how compliance will be assessed and how enforcement will be managed. Requirements that inadequately address issues such as these can lead to confusion or inaction. Importantly, requirements need to identify the agency or agencies that are responsible for assessment and compliance enforcement. In the case of the latter, the enforcing agency must have effective tools to ensure that child care operators are diligent in determining enrollee compliance, and that they provide complete and timely assessment information as required by the appropriate agency. Currently, in too many states enforcing agencies can do little more than notify operators that children in their facilities are not in compliance.

Assessments often leave many children unaccounted for and raise questions about how well children in child care are protected against vaccine-preventable diseases. Clearly, more resources will need to be devoted to such efforts in many, if not most, states, but doing so will provide greater confidence that the children are adequately protected.

Vaccines save lives and reduce the burden of disease. Child care immunization requirements are an important means for assuring that the benefits of vaccines are extended to those who are often among the most vulnerable. The challenge public health faces is to make sure that state immunization requirements are used effectively to attain and sustain the highest levels of vaccine protection possible. As one NPI survey respondent wrote, “If we did not have immunization requirements for day care and Head Start entry, our immunization coverage rates would be even lower than they are now.”

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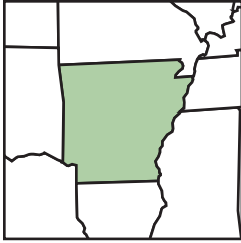
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State Summaries



2003-2004 School Year	Day Care		Head Start	
Number Enrolled	30,302		6,840	
Number Assessed	30,302	100.0%	6,840	100.0%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort:
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	84.4%	Y	80.7%	NA
Diphtheria-Tetanus-Pertussis	Y	79.1%	Y	73.9%	NA
Measles	Y	83.4%	Y	95.6%	Assessment Funding: NA
Mumps	Y	83.4%	Y	95.6%	
Rubella	Y	83.4%	Y	95.6%	Enforcing Agency: NA
Hib	Y	95.3%	Y	96.6%	
Hepatitis B	Y	95.1%	Y	96.7%	
Varicella	Y	77.9%	Y	92.5%	
Hepatitis A	N		N		
PCV	N		N		

Exemptions

	Allowed	% Exempted	Allowed	% Exempted	Process
Medical	Y	0.2%	Y	1.0%	Health care provider documentation
Religious	Y	<0.1%	Y	0.4%	Written statement/form
Philosophical	N	0.1%	N	0.8%	

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

Child, parent/guardian:	NA
Day care operator:	NA
Head Start operator:	NA
Health care provider:	NA

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care immunization requirements?

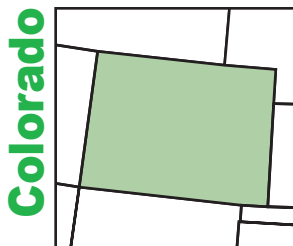
Day care: NA Head Start: NA

Observations

Immunization coverage rates among children enrolled in child care programs in Arkansas during the 2003-2004 school year were generally below the *Healthy People 2010* goals. Rates tended to be greater for several of the newer vaccines, e.g., Hib, hepatitis B and varicella, than for those that have been in use longer. The state reported in the school year assessment that some children had philosophical exemptions from the state requirements, but state statutes do not provide for such exemptions.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>



2003-2004 School Year	Day Care		Head Start	
Number Enrolled	103,958		5,497	
Number Assessed	70,835	68.1%	5,997	100.0%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort: Annual 1-4 full-time, 1-4 part-time staff 6 months
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	89.2%	Y	92.5%	Assessment Funding: Section 317 VFC State public health department Enforcing Agency: State public health department State education department
Diphtheria-Tetanus-Pertussis	Y	89.2%	Y	92.5%	
Measles	Y	89.2%	Y	92.5%	
Mumps	Y	89.2%	Y	92.5%	
Rubella	Y	89.2%	Y	92.5%	
Hib	Y	89.2%	Y	92.5%	
Hepatitis B	Y	89.2%	Y	92.5%	
Varicella	Y	89.2%	Y	92.5%	
Hepatitis A	N		N		
PCV	Y*		Y*		

*Not required at the time of the 2003-2004 assessment

Exemptions

	Allowed	% Exempted	Allowed	% Exempted	Process
Medical	Y	0.2%	Y	0.1%	Health care provider documentation
Religious	Y	0.1%	Y	0.1%	Signed statement by parent/guardian
Philosophical	Y	2.2%	Y	1.3%	Signed statement by parent/guardian

Compliance Assessment

Responsible for assuring compliance with requirements: Day care / Head Start operator

Consequences of child found not to be in compliance -

Child, parent/guardian:	Notification, expulsion
Day care operator:	Notification
Head Start operator:	Notification
Health care provider:	None

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: At operator's discretion Head Start: At operator's discretion

Does the state maintain a registry of those exempted from child care immunization requirements?

Day care: Yes Head Start: Yes

Observations

Based on the 2003-2004 school year assessments, Colorado is well poised to achieve the *Healthy People 2010* immunization goals for children in child care facilities. Although two-thirds of day care and all Head Start enrollees were assessed, there is room for improvement through increased commitment of resources to the assessment process and more diligent enforcement efforts, according to the NPI survey. The consequences for facility operators enrolling non-compliant children are weak. There are relatively large numbers of children in Colorado that are exempt from immunization, which is cause for concern. These children, plus those who are not in compliance with the child care immunization requirements, are at risk for acquiring and transmitting vaccine-preventable diseases.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 National Partnership for Immunization Survey, 2005, Immunization Mandates for Entry into Day Care and Head Start Programs

2003-2004 School Year	Day Care	Head Start
Number Enrolled	58,014	Included in day care assessment
Number Assessed	58,014	100.0%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort:
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	98.9%	Y	NA	Annual 5-9 full-time staff 1 month
Diphtheria-Tetanus-Pertussis	Y	98.7%	Y	NA	Assessment Funding: Section 317 VFC
Measles	Y	99.0%	Y	NA	
Mumps	Y	99.0%	Y	NA	State public health department
Rubella	Y	99.0%	Y	NA	
Hib	Y	98.8%	Y	NA	Enforcing Agency: State public health department
Hepatitis B	Y	98.8%	Y	NA	
Varicella	Y	98.6%	Y	NA	State public health department
Hepatitis A	N		N		
PCV	N		N		



Connecticut

Exemptions	Day Care		Head Start		Process
	Allowed	% Exempted	Allowed	% Exempted	
Medical	Y	0.2%	Y	NA	Health care provider documentation
Religious	Y	0.3%	Y	NA	Signed statement by parent/guardian
Philosophical	N		N		

Compliance Assessment

Responsible for assuring compliance with requirements: Day care / Head Start operator and state / local health department

- Consequences of child found not to be in compliance -
- Child, parent/guardian: Notification, expulsion
 - Day care operator: Notification
 - Head Start operator: Notification
 - Health care provider: Notification

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care:	No	Head Start:	No
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Does the state maintain a registry of those exempted from child care immunization requirements?

Day care:	No	Head Start:	No
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Observations

Connecticut's child care immunization requirements were effective in helping the state to exceed the *Healthy People 2010* immunization goals among day care enrollees during the 2003-2004 school year. The state's success is attributable to devoting adequate staff and resources to assessment and enforcement, according to the NPI survey. Attainment of these high coverage rates is particularly impressive given the relatively weak enforcement tools available. The absence of specific data on vaccine use among Head Start enrollees is of concern because of uncertainty about how well those children are protected against vaccine-preventable diseases.

Sources

- CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
- CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
- National Partnership for Immunization Survey, 2005, Immunization Mandates for Entry into Day Care and Head Start Programs



2003-2004 School Year	Day Care		Head Start	
Number Enrolled	31,401		1,779	
Number Assessed	1,091	3.5%	158	8.9%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort: Annual 1-4 full-time staff 6 months
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	90.1%	Y	88.0%	Assessment Funding: NA
Diphtheria-Tetanus-Pertussis	Y	77.5%	Y	87.3%	
Measles	Y	84.2%	Y	87.3%	Enforcing Agency: NA
Mumps	Y	84.2%	Y	87.3%	
Rubella	Y	84.2%	Y	87.3%	
Hib	Y	87.5%	Y	91.1%	
Hepatitis B	Y	83.9%	Y	89.2%	
Varicella	Y	56.3%	Y	57.0%	
Hepatitis A	N		N		
PCV	N		N		

Exemptions

	Allowed	% Exempted	Allowed	% Exempted	Process
Medical	Y	NA	Y	NA	Health care provider documentation
Religious	Y	NA	Y	NA	Notarized statement
Philosophical	N		N		

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

Child, parent/guardian:	NA
Day care operator:	NA
Head Start operator:	NA
Health care provider:	NA

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care immunization requirements?

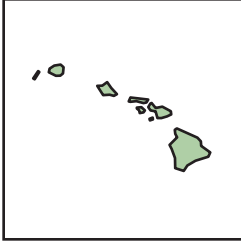
Day care: NA Head Start: NA

Observations

During the 2003-2004 school year, immunization coverage rates among children in Delaware's day care and Head Start programs trailed the *Healthy People 2010* goals. Although Delaware dedicates considerable time and staff resources to the assessment effort, the state has a relatively large number of day care enrollees. Delaware uses a systematic random sampling method to determine the number of children to include in the assessments. However, the small percentage of children assessed raises concerns about how well children in this state are protected against vaccine-preventable diseases.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>



2003-2004 School Year	Day Care		Head Start	
Number Enrolled	16,044		2,653	
Number Assessed	15,852	98.8%	2,629	99.1%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort: Annual 1-4 full-time staff 6 months
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	99.9%	Y	99.2%	Assessment Funding: NA
Diphtheria-Tetanus-Pertussis	Y	99.8%	Y	98.6%	
Measles	Y	100.0%	Y	99.8%	Enforcing Agency: NA
Mumps	Y	100.0%	Y	99.8%	
Rubella	Y	100.0%	Y	99.8%	
Hib	Y	99.9%	Y	99.9%	
Hepatitis B	Y	99.8%	Y	99.1%	
Varicella	Y	99.8%	Y	99.3%	
Hepatitis A	N		N		
PCV	N		N		

Exemptions	Day Care		Head Start		Process
	Allowed	% Exempted	Allowed	% Exempted	
Medical	Y	<0.1%	Y	0.1%	Health care provider documentation
Religious	Y	0.8%	Y	0.4%	Written statement
Philosophical	N		N		

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

Child, parent/guardian:	NA
Day care operator:	NA
Head Start operator:	NA
Health care provider:	NA

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care immunization requirements?

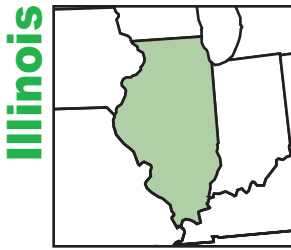
Day care: NA Head Start: NA

Observations

Immunization coverage rates among children in Hawaii's day care and Head Start programs during the 2003-2004 school year exceeded the *Healthy People 2010* goals. The state's assessment process includes virtually all children in such facilities, as well as those in parochial and non-parochial pre-kindergarten programs.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>



2003-2004 School Year	Day Care		Head Start	
Number Enrolled	104,382		17,103	
Number Assessed	65,046	62.3%	11,540	67.5%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort: Frequency not specified 5-9 full-time staff 3 months
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	92.6%	Y	88.9%	Assessment Funding: NA
Diphtheria-Tetanus-Pertussis	Y	90.1%	Y	91.4%	
Measles	Y	94.9%	Y	91.9%	Enforcing Agency: NA
Mumps	Y	95.0%	Y	92.0%	
Rubella	Y	94.9%	Y	91.9%	
Hib	Y	68.4%	Y	61.5%	
Hepatitis B	Y	91.0%	Y	91.2%	
Varicella	Y	78.3%	Y	84.6%	
Hepatitis A	N		N		
PCV	N		N		

Exemptions	Day Care		Head Start		Process
	Allowed	% Exempted	Allowed	% Exempted	
Medical	Y	1.3%	Y	1.6%	Health care provider documentation
Religious	Y	0.3%	Y	0.5%	Signed statement
Philosophical	N		N		

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

Child, parent/guardian:	NA
Day care operator:	NA
Head Start operator:	NA
Health care provider:	NA

Are parents/guardians of children in a facility notified about that presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care immunization requirements?

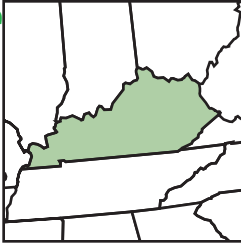
Day care: NA Head Start: NA

Observations

Immunization coverage rates among children in day care and Head Start programs in Illinois during the 2003-2004 school year were generally on target for achieving the *Healthy People 2010* goals. However, the state's preschool immunization assessment only accounts for children two to six years of age, and more than 30% of child care enrollees were not included in the assessment. This suggests that many children may be at risk for acquiring and transmitting vaccine-preventable diseases.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>



2003-2004 School Year	Day Care		Head Start	
Number Enrolled	82,003		18,689	
Number Assessed	45,284	55.2%	16,018	85.7%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort: Annual 1-4 full-time staff 6 months
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	92.8%	Y	93.2%	Assessment Funding: NA
Diphtheria-Tetanus-Pertussis	Y	91.0%	Y	93.3%	
Measles	Y	93.9%	Y	90.5%	Enforcing Agency: NA
Mumps	Y	93.9%	Y	90.5%	
Rubella	Y	93.9%	Y	90.5%	
Hib	Y	95.7%	Y	95.2%	
Hepatitis B	Y	94.6%	Y	95.9%	
Varicella	Y	90.1%	Y	88.1%	
Hepatitis A	N		N		
PCV	N		N		

Exemptions

	Allowed	% Exempted	Allowed	% Exempted	Process
Medical	Y	0.1%	Y	0.1%	Health care provider documentation
Religious	Y	0.2%	Y	0.1%	Sworn statement
Philosophical	N		N		

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

Child, parent/guardian:	NA
Day care operator:	NA
Head Start operator:	NA
Health care provider:	NA

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care Immunization requirements?

Day care: NA Head Start: NA

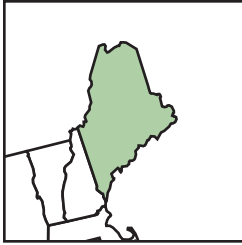
Observations

During the 2003-2004 school year, immunization coverage rates among children in Kentucky's day care and Head Start programs were slightly below the *Healthy People 2010* goals, suggesting that the state should easily achieve those targets. Even for the newer, universally recommended vaccines coverage rates were quite high. However, because the assessment did not include nearly 45% of day care enrollees and 15% of those enrolled in Head Start programs, there are concerns about how well the coverage rates reflect the immunization status of Kentucky's entire child care population.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>

Maine



2003-2004 School Year	Day Care	Head Start
Number Enrolled	NA	NA
Number Assessed	6,319	1,695

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort: Frequency not specified 1-4 full-time staff 5 months
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	74.3%	Y	96.6%	Assessment Funding: NA
Diphtheria-Tetanus-Pertussis	Y	74.9%	Y	94.3%	
Measles	Y	78.7%	Y	97.0%	Enforcing Agency: NA
Mumps	Y	77.7%	Y	97.0%	
Rubella	Y	78.1%	Y	97.0%	
Hib	Y	76.2%	Y	95.3%	
Hepatitis B	Y	74.5%	Y	92.7%	
Varicella	Y	64.3%	Y	82.5%	
Hepatitis A	N		N		
PCV	Y	NA	Y	NA	

Exemptions	Day Care		Head Start		Process
	Allowed	% Exempted	Allowed	% Exempted	
Medical	Y	0.4%	Y	1.5%	Health care provider documentation
Religious	Y	0.2%	Y	0.1%	Written statement
Philosophical	Y	1.3%	Y	0.8%	Written statement

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

Child, parent/guardian:	NA
Day care operator:	NA
Head Start operator:	NA
Health care provider:	NA

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care immunization requirements?

Day care: NA Head Start: NA

Observations

Children enrolled in Maine's Head Start programs during the 2003-2004 school year had immunization coverage rates that were in line with the *Healthy People 2010* goals. Coverage rates among children enrolled at that time in the state's day care programs were notably lower and trailed the 2010 goals by a wide margin. The state's assessment process addresses only children two years of age and older who are not enrolled in kindergarten. These factors, as well as the absence of information about the proportion of child care enrollees included in the assessment, raise concerns about how well children in Maine are protected against vaccine-preventable diseases.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>

2003-2004 School Year	Day Care		Head Start	
Number Enrolled	100,853		8,873	
Number Assessed	100,853	100.0%	8,873	100.0%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, Varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort:
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	96.3%	Y	91.3%	Annual 20+ full-time; 20+ part-time staff 6 months
Diphtheria-Tetanus-Pertussis	Y	96.3%	Y	91.3%	Assessment Funding: State public health department County/local public health department
Measles	Y	96.3%	Y	91.3%	
Mumps	Y	96.3%	Y	91.3%	
Rubella	Y	96.3%	Y	91.3%	
Hib	Y	96.3%	Y	91.3%	Enforcing Agency: State public health department State social services department
Hepatitis B	N		N		
Varicella	N		N		
Hepatitis A	N		N		
PCV	N		N		



Exemptions	Day Care		Head Start		Process
	Allowed	% Exempted	Allowed	% Exempted	
Medical	Y	0.1%	Y	<0.1%	Health care provider documentation
Religious	Y	0.3%	Y	0.1%	Written request
Philosophical	N		N		

Compliance Assessment

Responsible for assuring compliance with requirements: Day care / Head Start operator

Consequences of child found not to be in compliance -

Child, parent/guardian:	Notification, expulsion at operator's discretion
Day care operator:	Notification, fines, other penalties
Head Start operator:	Notification, fines, other penalties
Health care provider:	None

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: No Head Start: No

Does the state maintain a registry of those exempted from child care immunization requirements?

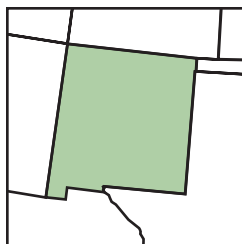
Day care: No Head Start: No

Observations

Children enrolled in New Jersey's child care programs during the 2003-2004 school year were close to or exceeded the *Healthy People 2010* immunization goals. Unlike most other states, coverage rates were higher among children in day care programs than among those in Head Start programs. According to the NPI survey, additional staff and financial resources are still needed to enhance the state's assessment and enforcement activities. Local public health departments play key roles in assessments and can fine operators of facilities where children are not in compliance with state requirements.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 National Partnership for Immunization Survey, 2005, Immunization Mandates for Entry into Day Care and Head Start Programs



2003-2004 School Year	Day Care		Head Start	
Number Enrolled	40,654		5,695	
Number Assessed	3,786	9.3%	625	11.0%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort:
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	97.0%	Y	82.6%	NA
Diphtheria-Tetanus-Pertussis	Y	86.8%	Y	79.8%	NA
Measles	Y	95.1%	Y	82.7%	Assessment Funding:
Mumps	Y	95.1%	Y	82.7%	NA
Rubella	Y	95.1%	Y	82.7%	
Hib	Y	98.4%	Y	80.6%	
Hepatitis B	Y	98.2%	Y	82.9%	Enforcing Agency:
Varicella	Y	86.5%	Y	78.4%	NA
Hepatitis A	N		N		
PCV	N		N		

Exemptions

	Allowed	% Exempted	Allowed	% Exempted	Process
Medical	Y	0.5%	Y	1.9%	Health care provider documentation
Religious	Y	NA	Y	NA	Notarized statement
Philosophical*	Y	0.8%	Y	NA	Notarized statement

*Includes religious exmptors

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

Child, parent/guardian:	NA
Day care operator:	NA
Head Start operator:	NA
Health care provider:	NA

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care immunization requirements?

Day care: NA Head Start: NA

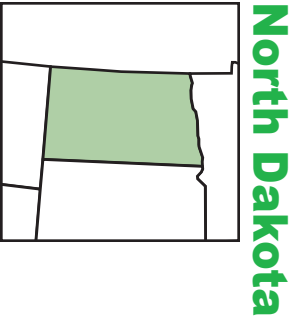
Observations

Children enrolled in day care programs in New Mexico during the 2003-2004 school year generally had immunization coverage rates near or above the *Healthy People 2010* goals, even for some of the newer vaccines that are not included in the goals. Unlike the situation in most other states, coverage rates among the state's Head Start enrollees were below those observed among day care enrollees, and below the 2010 goals. The state uses a simple random sampling method to determine which children are to be included in the assessment. This leads to estimates of compliance based on about 10% of the child care population. It is unclear whether this size sample is sufficient to accurately reflect how well the overall child care population is protected against vaccine-preventable diseases.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>

2003-2004 School Year	Day Care	Head Start
Number Enrolled	36,071	Included in day care assessment
Number Assessed	13,223	36.7%



Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort: Frequency not specified 1-4 full-time staff 2 months
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	99.2%	Y	NA	Assessment Funding: NA
Diphtheria-Tetanus-Pertussis	Y	99.1%	Y	NA	
Measles	Y	99.2%	Y	NA	Enforcing Agency: NA
Mumps	Y	99.2%	Y	NA	
Rubella	Y	99.2%	Y	NA	
Hib	Y	99.0%	Y	NA	
Hepatitis B	N		N		
Varicella	N		N		
Hepatitis A	N		N		
PCV	N		N		

Exemptions	Day Care		Head Start		Process
	Allowed	% Exempted	Allowed	% Exempted	
Medical	Y	0.1%	Y	NA	Health care provider documentation
Religious	Y	<0.1%	Y	NA	Signed certificate
Philosophical	Y	0.2%	Y	NA	Signed certificate

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

- Child, parent/guardian: NA
- Day care operator: NA
- Head Start operator: NA
- Health care provider: NA

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care immunization requirements?

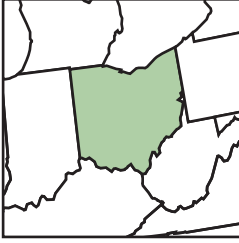
Day care: NA Head Start: NA

Observations

During the 2003-2004 school year, immunization coverage rates among children in North Dakota’s day care programs exceeded the *Healthy People 2010* goals. However, because the assessment included only about one third of the children enrolled in such programs, it is unclear how well children in this population group are protected against vaccine-preventable diseases. The absence of data for the state’s Head Start enrollees raises a similar concern.

Sources

- CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
- CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>



2003-2004 School Year	Day Care		Head Start	
Number Enrolled	140,736		27,994	
Number Assessed	121,596	86.4%	27,994	100.0%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort: Annual 5-9 part-time staff 3 months
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	97.4%	Y	96.4%	Assessment Funding: NA
Diphtheria-Tetanus-Pertussis	Y	96.9%	Y	94.0%	
Measles	Y	97.8%	Y	97.5%	Enforcing Agency: NA
Mumps	Y	97.8%	Y	97.6%	
Rubella	Y	97.8%	Y	97.6%	
Hib	Y	97.2%	Y	95.6%	
Hepatitis B	Y	97.2%	Y	95.9%	
Varicella	Y*		Y*		
Hepatitis A	N		N		
PCV	N		N		

*Not required at the time of the 2003-2004 assessment

Exemptions

	Allowed	% Exempted	Allowed	% Exempted	Process
Medical	Y	0.4%	Y	1.3%	Health care provider documentation
Religious	Y	0.3%	Y	0.1%	Signed statement
Philosophical	N		N		

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

Child, parent/guardian:	NA
Day care operator:	NA
Head Start operator:	NA
Health care provider:	NA

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care immunization requirements?

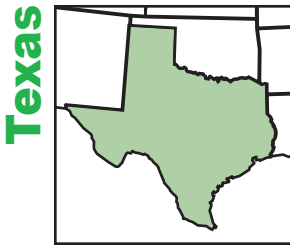
Day care: NA Head Start: NA

Observations

During the 2003-2004 school year, children in Ohio's day care and Head Start programs had immunization coverage rates that were near or above the *Healthy People 2010* goals, even for some of the vaccines not specifically identified in the goals. The state's assessment process includes children between 20 months and five years of age. About 15% of children enrolled in day care programs were not included in the 2003-2004 assessment.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>



2003-2004 School Year	Day Care	Head Start	
Number Enrolled	NA	18,057	
Number Assessed	87,822	18,057	100.0%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort: Annual 20+ full-time; 20+ part-time staff 6 months
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	90.4%	Y	97.4%	Assessment Funding: NA
Diphtheria-Tetanus-Pertussis	Y	88.0%	Y	96.6%	
Measles	Y	85.9%	Y	97.1%	Enforcing Agency: NA
Mumps	Y	79.8%	Y	88.4%	
Rubella	Y	80.1%	Y	88.4%	
Hib	Y	78.0%	Y	83.8%	
Hepatitis B	N	23.5%	N	32.5%	
Varicella	Y	84.7%	Y	99.1%	
Hepatitis A	Y*		Y*		
PCV	Y*		Y*		

*Not required at the time of the 2003-2004 assessment

Exemptions

	Allowed	% Exempted	Allowed	% Exempted	Process
Medical	Y	1.2%	Y	0.3%	Health care provider documentation
Religious	Y	1.9%	Y	<0.1%	Notarized affidavit (includes reasons of conscious)
Philosophical	N		N		

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

Child, parent/guardian:	NA
Day care operator:	NA
Head Start operator:	NA
Health care provider:	NA

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care immunization requirements?

Day care: NA Head Start: NA

Observations

During the 2003-2004 school year, immunization coverage rates among children in child care programs in Texas varied considerably for different vaccines – for most, the rates lagged behind the *Healthy People 2010* goals. For vaccines included in the 2010 goals, rates ranged from 79.8% to 90.4% among day care enrollees and from 88.4% to 97.4% among Head Start enrollees. Coverage rates were generally lower for vaccines not included in the *Healthy People 2010* goals, especially among children in day care programs.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>



2003-2004 School Year	Day Care		Head Start	
Number Enrolled	11,393		1,181	
Number Assessed	11,393	100.0%	1,181	100.0%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort: Frequency not specified 10-14 part-time staff 5 months
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	81.5%	Y	88.9%	Assessment Funding: NA
Diphtheria-Tetanus-Pertussis	Y	78.6%	Y	87.9%	
Measles	Y	80.9%	Y	89.2%	Enforcing Agency: NA
Mumps	Y	80.9%	Y	89.2%	
Rubella	Y	80.9%	Y	89.2%	
Hib	Y	77.4%	Y	88.4%	
Hepatitis B	Y*		Y*		
Varicella	N		N		
Hepatitis A	N		N		
PCV	N		N		

*Not required at the time of the 2003-2004 assessment

Exemptions	Allowed	% Exempted	Allowed	% Exempted	Process
Medical	Y	NA	Y	NA	Health care provider documentation
Religious	Y	NA	Y	NA	Written statement
Philosophical	Y	NA	Y	NA	Written statement

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

Child, parent/guardian:	NA
Day care operator:	NA
Head Start operator:	NA
Health care provider:	NA

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care immunization requirements?

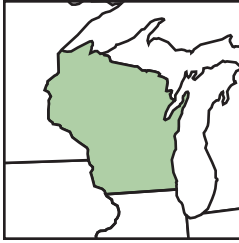
Day care: NA Head Start: NA

Observations

Immunization coverage rates among children in Vermont's day care and Head Start programs during the 2003-2004 school year substantially lagged the *Healthy People 2010* goals. This suggests that many children in the state may not be adequately protected against vaccine-preventable diseases.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>



2003-2004 School Year	Day Care		Head Start	
Number Enrolled	146,243		6,108	
Number Assessed	59,947	41.0%	6,877	>100%

Healthy People 2010 Goals: 95% of children in day care facilities should be immunized against polio, diphtheria, pertussis, measles, mumps and rubella; Hib, hepatitis B, varicella and PCV are recommended for all children

Required Vaccines	Day Care		Head Start		Assessment Effort: Annual 1-4 full-time staff 6 months
	Required	% Vaccinated	Required	% Vaccinated	
Polio	Y	91.0%	Y	93.4%	Assessment Funding: NA
Diphtheria-Tetanus-Pertussis	Y	89.2%	Y	91.5%	
Measles	Y	91.8%	Y	93.8%	Enforcing Agency: NA
Mumps	Y	91.8%	Y	93.8%	
Rubella	Y	91.8%	Y	93.8%	
Hib	Y	92.2%	Y	93.0%	
Hepatitis B	Y	90.4%	Y	92.3%	
Varicella	Y	87.6%	Y	90.2%	
Hepatitis A	N		N		
PCV	N		N		

Exemptions

	Allowed	% Exempted	Allowed	% Exempted	Process
Medical	Y	NA	Y	NA	Health care provider documentation
Religious*	Y	NA	Y	NA	Signed statement
Philosophical	N		N		

*Provides for exemptions on the basis of personal convictions

Compliance Assessment

Responsible for assuring compliance with requirements: NA

Consequences of child found not to be in compliance -

Child, parent/guardian:	NA
Day care operator:	NA
Head Start operator:	NA
Health care provider:	NA

Are parents/guardians of children in a facility notified about the presence of exempted/non-compliant children in that facility?

Day care: NA Head Start: NA

Does the state maintain a registry of those exempted from child care immunization requirements?

Day care: NA Head Start: NA

Observations

Immunization coverage rates among children in day care and Head Start programs in Wisconsin during the 2003-2004 school year were just below the *Healthy People 2010* goals. This suggests that the state is on target to achieve those goals by 2010. However, the state assessment is limited to children two to four years of age, and only 41% of day care enrollees were included in the 2003-2004 assessment. These observations raise concerns about how well children in Wisconsin are protected against vaccine-preventable diseases.

Sources

CDC biannual childcare assessment report, 2003-2004 school year, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>
 CDC survey of preschool assessment practices, 2004, <http://www2.cdc.gov/nip/schoolsurv/schoolrptg.html>



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