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## Alaska Falling Short on Vaccinating Children—Let's Focus Our Efforts!

### Background

Vaccines are among the most cost-effective disease prevention tools available; however, due in large part to undervaccination, tens of thousands of U.S. children still contract vaccine preventable illnesses annually.<sup>1</sup> The U.S. Centers for Disease Control and Prevention (CDC) publishes vaccine coverage rate data annually for children aged 19–35 months, kindergarteners, and adolescents aged 13–17 years. These data come from the National Immunization Survey (NIS), which uses a quarterly, random-digit-dialed sample of telephone numbers (both landline and cellular) to reach households with appropriately-aged children, followed by a mail survey sent to the children's vaccination providers to collect vaccination information.<sup>2-4</sup> The purpose of this *Bulletin* is to inform health care providers, school and daycare officials, parents, and other stakeholders about how Alaska's pediatric vaccine coverage rates ranked nationally in 2011, and to provide specific recommendations for improvement.

### CDC's 2011 National Immunization Survey Results

In the 2011 NIS, Alaska ranked 39<sup>th</sup> overall for the 4:3:1:0:3:1:4 vaccine coverage series for 19–35 month olds (Table 1).<sup>2</sup> Alaska's coverage ranking was among the lowest in the nation for rotavirus; *Haemophilus influenzae* type b (Hib); pneumococcal conjugate (PCV); and diphtheria, tetanus, and pertussis containing (DTP/DT/DTaP) vaccines.

**Table 1. Alaska's % Vaccine Coverage in Children Aged 19–35 Months, and Highest Ranking U.S. State, 2011 NIS**

Vaccine	AK's % Coverage (National Ranking)	Highest % (State)
DTP/DT/DTaP ≥3 doses	93.7 (40/50)	98.7 (LA)
DTP/DT/DTaP ≥4 doses*	77.4 (45/50)	92.3 (NE)
Poliovirus ≥3 doses*	93.3 (34/50)	98.5 (LA)
Measles/mumps/rubella (MMR) ≥1 dose*	90.8 (29/50)	96.6 (RI)
Hib ≥3 doses	89.7 (46/50)	97.3 (RI)
Hepatitis B birth dose	63.9 (41/50)	83.4 (ND)
Hepatitis B ≥3 doses*	93.3 (11/50)	97.1 (LA)
Varicella ≥1 dose*	87.2 (39/50)	94.2 (AL)
PCV ≥3 doses	90.9 (41/50)	98.5 (LA)
PCV ≥4 doses*	78.2 (46/50)	93.7 (NE)
Hepatitis A ≥1 dose	85.0 (15/50)	92.0 (GA)
Hepatitis A ≥2 doses	48.9 (30/50)	69.2 (NE)
Rotavirus	55.6 (48/49)	80.0 (MA)
4:3:1:0:3:1:4	69.0 (39/49)	83.5 (ND)

\*Vaccines in the 2011 4:3:1:0:3:1:4 series for 19–35 month olds.

Alaska was above the national mean for all of the vaccines that were examined among kindergarteners in 2011 (Table 2).<sup>3</sup>

**Table 2. AK's % Vaccine Coverage in Kindergarteners, and Highest Ranking U.S. State, 2011 NIS**

Vaccine	AK's % Coverage (National Ranking)	Highest % (State)
MMR	95.5 (19/47)	99.3 (TX)
DTaP/DT	96.0 (21/47)	99.7 (NE)
Poliovirus	97.4 (17/47)	99.6 (LA)
Hepatitis B	97.1 (18/43)	99.7 (TX)
Varicella 2 doses	93.6 (15/32)	99.2 (MS)

Alaska was below the national mean for three of the four vaccines that were examined among adolescents aged 13–17 years (Table 3), and was among the lowest nationally for tetanus, diphtheria and acellular pertussis (Tdap) and meningococcal vaccines in this age-group.<sup>4</sup>

**Table 3. AK's % Vaccine Coverage in Adolescents Aged 13–17 Years, and Highest Ranking U.S. State, 2011 NIS**

Vaccine	AK's % Coverage (National Ranking)	Highest % (State)
Varicella ≥2 doses	59.5 (35/50)	88.2 (NH)
Tdap ≥1 dose at age ≥10 years	65.6 (44/50)	95.0 (NH)
Meningococcal ≥1 dose	46.1 (46/50)	92.1 (IN)
Human papillomavirus in females ≥3 doses	40.4 (15/50)	56.8 (RI)

### Discussion

The 2011 NIS results indicate that Alaska's overall vaccine coverage rates are low compared to other states, especially among children aged 19–35 months and for varicella, Tdap, and meningococcal vaccines among adolescents. Alaska's American Indian/Alaska Native coverage rates are generally higher than the all-Alaska rates.<sup>5</sup> The greatest statewide improvements are likely to occur by focusing on specific problem areas, including the birth dose of hepatitis B, the 4<sup>th</sup> doses of DTaP and PCV, series completion for Hib and rotavirus, and adolescent doses of Tdap and meningococcal vaccines. Other factors influenced by health care providers that are likely to improve coverage rates include:

- *Establishing a clinical environment* that is committed to following CDC's pediatric vaccination schedule;
- *Ensuring that all clinic staff* (medical and non-medical) who interface with patients align with this priority;
- *Devoting time* to educating vaccine hesitant parents and provide them with accurate vaccination information (e.g., [www.immunize.org](http://www.immunize.org), [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines), [www.healthychildren.org/immunizations](http://www.healthychildren.org/immunizations));
- *Reminding parents* when their children are due to receive vaccines and call them back for missed appointments;
- *Reviewing each child's immunization history during every encounter* to determine vaccines indicated;
- *Enrolling in and using VacTrAK* to help maintain accurate and portable immunization data, to facilitate vaccine delivery and reminder recall, and to monitor clinic-level immunization service performance;<sup>6</sup> and
- *Being knowledgeable* about vaccine contraindications to prevent unwarranted medical exemptions.

Finally, school officials and daycare providers must assure that all enrolled children are in compliance with state vaccine requirements (4 AAC 06.055 and 7 AAC 57.550).<sup>7</sup>

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