

2006 SELECTIVE REVIEW RESULTS
CALIFORNIA DEPARTMENT OF HEALTH SERVICES, IMMUNIZATION BRANCH

Introduction

The annual selective review conducted each spring provides information on compliance with the California School Immunization Law. The purpose of this review is to evaluate the enforcement of the immunization requirements and the follow-up of students who are missing immunizations. This report presents results from this year's selective review and the attached tables present comparisons of immunization coverage among the selected child care centers and schools.

Methods and Participants

This year's selective review was conducted in a sample of approximately 2-5% of California's child care centers and schools. Local health departments visited 278 child care centers, 240 schools with kindergartens, and 200 schools with seventh grades. During this site visit there was a short interview with child care providers and school administrators. In addition, a complete review of student immunization records was conducted. For child care and kindergarten, data were analyzed by comparing immunization coverage rates reported by schools during the fall and those reported by local health departments during the spring. For seventh grade, schools did not report on immunization coverage rates during the fall.

Results and Discussion

Overall, results of the 2006 selective review indicate that child care centers and schools are in compliance with the California School Immunization Law. Over 90% of child care, kindergarten and seventh grade students had received all the required immunizations and coverage for each vaccine was above 95%.

Child Care (Table 1)

Selective review of child care centers occurs biennially. The percent of children with all required immunizations measured during this year's spring selective review ($91.9 \pm 1.4\%$) was similar to that during the fall assessment ($93.2 \pm 1.3\%$). Estimates of immunization coverage in the selected child care centers were also similar across different types of facilities (public, private, or Head Start).

Kindergarten (Table 2)

The percent of kindergarten students with all required immunizations measured during the spring selective review ($94.8 \pm 1.2\%$) was similar to that during the fall assessment ($93.6 \pm 1.3\%$). As in previous years, estimates of immunization coverage in the selected kindergartens varied by the type of school (public or private). In the spring, the percent of students with all required immunizations was higher in public schools ($95.6 \pm 1.2\%$) than in private schools ($88.2 \pm 4.4\%$).

Seventh Grade (Table 3)

The percent of seventh grade students with all required immunizations measured during the spring selective review was $95.8 \pm 1.0\%$. Only $2.78 \pm 0.84\%$ of seventh grade students were missing one or more of the required immunizations. The percent of

students with permanent medical exemptions and personal beliefs exemptions were $0.11 \pm 0.06\%$ and $1.30 \pm 0.47\%$, respectively.

Conclusion

Maintaining compliance with the California School Immunization Law requires child care providers and school administrators to have a thorough understanding of the immunization requirements. Selective review provides an opportunity to educate staff regarding the requirements and to emphasize the importance of following up on students who are missing immunizations. Higher coverage levels measured in the spring could be an indication that follow-up of conditional entrants is occurring. Conversely, similar or lower estimates of coverage measured in the spring could be an indication that more support and training for schools in conducting follow-up would be beneficial.

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Table 1: Child Care Immunization Coverage, Comparison of Fall 2005 Assessment and Spring 2006 Selective Review

	All Facilities n = 278		Public Facilities n = 64		Private Facilities n = 168		Head Start Facilities n = 46	
	Fall 2005 Assessment	Spring 2006 Selective Review	Fall 2005 Assessment	Spring 2006 Selective Review	Fall 2005 Assessment	Spring 2006 Selective Review	Fall 2005 Assessment	Spring 2006 Selective Review
Total Enrollment	16,195	18,187	3,682	4,389	10,219	11,362	2,294	2,436
All Required Immunizations	93.2% \pm 1.3%	91.9% \pm 1.4%	96.0% \pm 2.0%	94.0% \pm 3.8%	91.4% \pm 1.9%	90.0% \pm 1.7%	97.0% \pm 1.2%	97.0% \pm 1.8%
Conditional Entrants	5.44% \pm 1.27%	6.69% \pm 1.36%	3.64% \pm 1.93%	5.35% \pm 3.76%	6.69% \pm 1.84%	8.06% \pm 1.58%	2.75% \pm 1.18%	2.71% \pm 1.76%
Permanent Medical Exemptions	0.15% \pm 0.08%	0.12% \pm 0.07%	0.03% \pm 0.05%	0.09% \pm 0.18%	0.22% \pm 0.13%	0.13% \pm 0.08%	0.04% \pm 0.08%	0.08% \pm 0.11%
Personal Belief Exemptions	1.17% \pm 0.34%	1.27% \pm 0.32%	0.38% \pm 0.30%	0.57% \pm 0.33%	1.68% \pm 0.50%	1.78% \pm 0.47%	0.17% \pm 0.17%	0.16% \pm 0.16%
DTaP (4+) ¹	96.4% \pm 0.9%	96.2% \pm 1.1%	97.5% \pm 1.3%	96.6% \pm 3.6%	95.4% \pm 1.4%	95.4% \pm 1.0%	98.8% \pm 0.5%	99.0% \pm 0.7%
Polio (3+) ²	97.4% \pm 0.8%	97.3% \pm 1.0%	98.7% \pm 0.9%	97.2% \pm 3.5%	96.5% \pm 1.1%	96.9% \pm 0.8%	99.3% \pm 0.4%	99.5% \pm 0.5%
MMR (1+) ³	97.3% \pm 0.8%	97.0% \pm 1.0%	98.6% \pm 1.1%	97.0% \pm 3.6%	96.3% \pm 1.2%	96.5% \pm 0.9%	99.7% \pm 0.2%	99.3% \pm 0.6%
Hib (1+) ⁴	97.4% \pm 0.8%	96.0% \pm 1.1%	98.7% \pm 0.9%	95.8% \pm 3.6%	96.7% \pm 1.2%	95.5% \pm 1.0%	98.6% \pm 0.9%	98.8% \pm 0.7%
Hep B (3+) ⁵	96.9% \pm 0.8%	96.9% \pm 1.0%	98.1% \pm 1.2%	97.1% \pm 3.5%	96.0% \pm 1.1%	96.4% \pm 0.9%	99.0% \pm 0.4%	99.1% \pm 0.7%
Var (1+) ⁶	96.3% \pm 0.9%	96.5% \pm 1.0%	98.1% \pm 1.4%	96.7% \pm 3.6%	95.0% \pm 1.3%	95.9% \pm 0.9%	99.4% \pm 0.3%	99.3% \pm 0.5%

1. Four or more doses of any diphtheria and tetanus toxoids and pertussis vaccines including diphtheria and tetanus toxoids, and any acellular pertussis vaccine

2. Three or more doses of any poliovirus vaccine

3. One or more doses of measles, mumps, and rubella vaccines, separately or combined on or after the 1st birthday

4. One or more doses of *haemophilus influenzae* type b vaccine vaccine on or after the 1st birthday

5. Three or more doses of hepatitis B vaccine

6. One or more doses of varicella vaccine, adjusted for history of varicella disease

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Table 2: Kindergarten Immunization Coverage, Comparison of Fall 2005 Assessment and Spring 2006 Selective Review

	All Schools n = 240		Public Schools n = 160		Private Schools n = 80	
	Fall 2005 Assessment	Spring 2006 Selective Review	Fall 2005 Assessment	Spring 2006 Selective Review	Fall 2005 Assessment	Spring 2006 Selective Review
Total Enrollment	14,641	15,030	12,864	13,274	1,777	1,756
All Required Immunizations	93.6% \pm 1.3%	94.8% \pm 1.2%	93.8% \pm 1.5%	95.6% \pm 1.2%	92.1% \pm 2.5%	88.2% \pm 4.4%
Conditional Entrants	5.08% \pm 1.31%	3.79% \pm 1.10%	4.97% \pm 1.45%	3.06% \pm 1.10%	5.85% \pm 2.38%	9.34% \pm 4.45%
Permanent Medical Exemptions	0.10% \pm 0.06%	0.14% \pm 0.07%	0.10% \pm 0.07%	0.14% \pm 0.07%	0.11% \pm 0.15%	0.17% \pm 0.19%
Personal Belief Exemptions	1.23% \pm 0.40%	1.30% \pm 0.40%	1.14% \pm 0.43%	1.17% \pm 0.43%	1.91% \pm 0.92%	2.28% \pm 0.85%
DTaP (4+) ¹	97.2% \pm 0.8%	98.0% \pm 0.7%	97.2% \pm 0.8%	98.6% \pm 0.6%	96.9% \pm 1.5%	93.3% \pm 4.1%
Polio (3+) ²	97.4% \pm 0.8%	98.2% \pm 0.7%	97.5% \pm 0.9%	98.8% \pm 0.6%	96.9% \pm 1.5%	93.8% \pm 3.8%
MMR (2+) ³	97.3% \pm 0.8%	98.3% \pm 0.6%	97.3% \pm 0.9%	98.8% \pm 0.5%	96.7% \pm 1.5%	94.2% \pm 3.2%
Hep B (3+) ⁴	98.5% \pm 0.4%	99.2% \pm 0.3%	98.4% \pm 0.5%	99.2% \pm 0.3%	99.1% \pm 0.6%	98.9% \pm 0.7%
Var (1+) ⁵	99.0% \pm 0.4%	99.2% \pm 0.4%	99.0% \pm 0.4%	99.1% \pm 0.4%	99.0% \pm 0.7%	99.4% \pm 0.5%

1. Four or more doses of any diphtheria and tetanus toxoids and pertussis vaccines including diphtheria and tetanus toxoids, and any acellular pertussis vaccine

2. Three or more doses of any poliovirus vaccine

3. Two or more doses of measles, mumps, and rubella vaccines, separately or combined on or after the 1st birthday

4. Three or more doses of hepatitis B vaccine

5. One or more doses of varicella vaccine, adjusted for history of varicella disease

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Table 3: Seventh Grade Immunization Coverage, Spring 2006 Selective Review

	All Schools n=200	Public Schools n=102	Private Schools n=98
	Spring 2006 Selective Review	Spring 2006 Selective Review	Spring 2006 Selective Review
Total Enrollment	18,808	16,780	2,028
Records Reviewed	12,017	10,017	2,000
All Required Immunizations	95.8% \pm 1.0%	96.1% \pm 1.2%	94.3% \pm 1.8%
Conditional Entrants	2.78% \pm 0.84%	2.56% \pm 0.95%	3.90% \pm 1.68%
Permanent Medical Exemptions	0.11% \pm 0.06%	0.12% \pm 0.07%	0.05% \pm 0.09%
Personal Belief Exemptions	1.30% \pm 0.47%	1.20% \pm 0.54%	1.80% \pm 0.70%
MMR (2+) ¹	98.1% \pm 0.6%	98.3% \pm 0.7%	97.2% \pm 1.3%
Hep B (3+) ²	98.6% \pm 0.6%	98.7% \pm 0.7%	98.4% \pm 0.8%

1. Two or more doses of measles, mumps, and rubella vaccines, separately or combined on or after the 1st birthday

2. Three or more doses of hepatitis B vaccine