State of Alaska Epidemiology

Bulletin

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90% IMMUNIZATION LEVELS BY AGE 24 MONTHS
CAN ALASKA ACHIEVE THE "YEAR 2000" GOAL?

Introduction: National Health Objectives for the Year 2000 include increasing basic immunization series levels to **at least 95% for school children and children in licensed childcare facilities** and **to at least 90% for children under age two.** Basic immunization series completion levels of greater than 95% among Alaska school children and children attending licensed childcare facilities have been maintained since 1984 and 1986, respectively. In order to estimate Alaska's progress toward achieving 90% vaccination levels among children under age two, the Alaska Immunization Program conducted a state-wide retrospective study of vaccination histories of Alaskan kindergartners.

Results: 494 of 859 (57.5%) Alaska kindergartners surveyed during the 1990-91 school year had completed the basic immunization series (4 DTP, 3 OPV, and 1 MMR) by their 24-month birthday. Vaccination levels for separate vaccines were highest for MMR (79.3%) and lowest for DTP-4 (61.7%). Of kindergartners surveyed, 640 (74.5%) had received OPV-3 by age 24 months. Regional immunization levels by 24 months of age were highest for the Southwest Region (76.4%) and lowest for the Gulf Coast (38.7%) (Table 1).

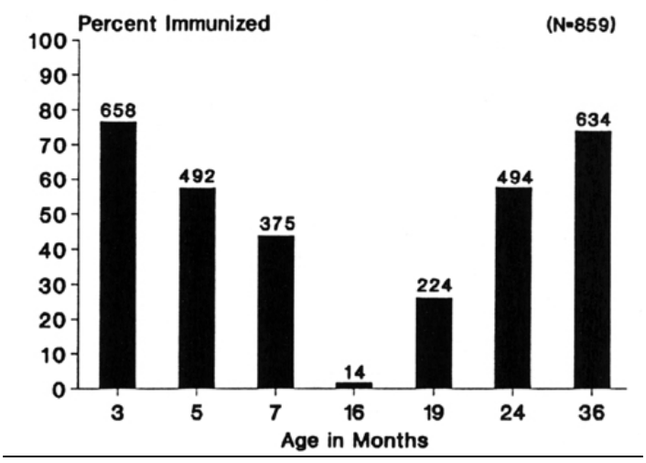
TABLE 1: Percent of Children Completing Primary Series by 24 Months of Age, Alaska Retrospective Survey, 1990-91.

Region	Number Surveyed	4 DTP by Age 2		3 OPV by Age 2		MMR by Age 2		4 DTP 3 OPV 1 MMR by Age 2	
	n	n	%	n	%	n	%	n	%
Anchorage/ Mat-Su	393	236	60.1	289	73.5	299	76.1	214	54.5
Southeast	101	70	69.3	81	80.2	88	87.1	68	67.3
Gulf Coast	75	33	44.0	42	56.0	55	73.3	29	38.7
Southwest	106	82	77.4	94	88.7	97	91.5	81	76.4
Interior	135	78	57.8	95	70.4	101	74.8	74	54.8
Northern	49	31	63.3	39	79.6	41	83.7	28	57.1
All Surveyed Regions	859	530	61.7	640	74.5	681	79.3	494	57.5

Age-appropriate vaccination levels were highest at 3 months of age (76.6%). The level of full, age-appropriate immunization declined gradually after the 3-month vaccination due date, dropped sharply at 16 months (1.6%), increased to 57.5% by 24 months and to 73.8% by 36 months of age (Figure 1).

Two hundred thirty (35%) of 658 kindergartners who were adequately immunized by three months of age were lost to on-time vaccination follow-up by 24 months of age. Eighty-nine (36%) of 246 children who received MMR on or after their 18-month birthday, and were due for DTP-4 at the time of MMR vaccination, missed an opportunity for DTP-4 vaccination at the time MMR was administered.

Figure 1. Age-Appropriate Immunization Levels, Alaska Retrospective Survey, 1990-91.



Summary: Fully one-fifth of Alaskans two years old and younger who are eligible for vaccination, may be unprotected against measles infection. Over 40% may lack one or more vaccinations that could lower their risk of acquiring common childhood diseases.

Recommendations: Alaska health care providers can help to improve the level of protection against vaccine-preventable disease among children under age two.

1) **Implement patient-tracking systems for on-time vaccination of 0-2 year olds and reminder-recall notification of parents.**

2) **Review current data about adverse events associated with vaccination and educate parents about the risks and benefits of vaccination.**

3) **Screen a child's vaccination history carefully at all office or clinic visits, regardless of the reason for the visit. Administer all vaccines for which a child is eligible simultaneously.**

4) **Review conditions inappropriately regarded as routine contradictions for vaccination.**

5) **Eliminate barriers to the receipt of vaccinations--including excessive administration costs, physical examination requirements, and limited clinic hours during which vaccinations are given.**

(Contributed by Janine Schoellhorn, MS, MPH, Section of Epidemiology. Thanks to Gladys Decker, RN, and Deanne Harms, RN, Section of Epidemiology)