

ALERT: OREGON'S IMMUNIZATION REGISTRY

OREGON'S IMMUNIZATION ALERT Registry is now available for use by health-care providers statewide. ALERT is an electronic repository that now holds data from more than 715,000 patients with information on 4.7 million immunizations. About 80% of Oregon's children under age three have immunization data recorded in ALERT. Providers have immediate access to children's immunization records, regardless of where they received their shots. This article summarizes the current status of ALERT and how health-care providers can get the most out of it.

WHO IS PARTICIPATING IN ALERT?

- Most providers who give immunizations in Oregon participate in ALERT:
- *Clinics.* 92% of private clinics that give childhood immunizations are enrolled in ALERT. These represent more than 94% of all Oregon immunization providers.
 - *Managed-Care Plans.* ALERT receives immunization data from Regence Blue Cross and Blue Shield of Oregon, Kaiser Permanente Northwest, and Providence Health Systems. And this list is growing. (Call us if you are interested in electronic transfer from your Plan.)
 - *County Health Departments.* 31 of 34 health departments submit all their immunization data to ALERT. The remaining counties are working toward regular data exchange.

Because data are sent by almost all providers who give immunizations, records are available on many Oregon children; most complete are records for children under age 5.

WHY AN IMMUNIZATION REGISTRY?

In Oregon, 96% of children entering kindergarten and first grade are appropriately immunized.¹ This impressive level, among the highest in the world, contrasts sharply with the relatively low

immunization rate seen among children <2 years of age. With only 73% of Oregon children 19-35 months of age having completed 4 DTP, 3 polio and 1 MMR shots, Oregon ranks 47th among the states and falls significantly below her year 2000 goal of 90% immunized (table *verso*).² Low preschool vaccination rates are not without consequences: the nationwide epidemic resurgence of

HOW TO USE ALERT

- Call or fax ALERT with a list of children you need to check:
Phone: 800/980-9431
Phone: 503/731-3348
Fax: 503/731-3042
Email: ohd.alert@state.or.us
- ALERT will then fax the immunization histories back to enrolled providers. (Providers not currently enrolled can do so quickly.)
- ALERT staff will respond promptly, providing histories within minutes.
- Visit our web site:
www.ohd.hr.state.or.us/ccfh/imm/alert/oregonho.htm

measles in 1989-1991 affected mainly pre-school children and was attributable to low immunization rates in this age cohort.³

Preschool children may be underimmunized for a variety of reasons. Some parents have philosophical objections to immunizations. Believe it or not, some parents have not memorized the recommended childhood immunization schedule. Indeed, a 1994 Health Division study of two-year-olds showed that a major reason Oregon children are missing immunizations is that parents don't know that their children are due, indicating that the complexity of the immunization schedule is itself a barrier. Some children are lost in the shuffle when parents move or change physicians.

When children present to emergency departments or urgent-care centers for treatment of unrelated problems, and parents don't bring documentation of immunization histories, opportunities for getting kids up to date may be squandered.

ALERT is no panacea, but for these last two groups, at least, ALERT can be used to assess vaccination needs quickly so that the opportunity to give a shot is capitalized upon. Because 76% of underimmunized children are missing only one, two or three immunizations, universal use of a tracking and recall system to remind parents when immunizations are due should go a long way toward improving our immunization rates. The Advisory Committee on Immunization Practices, the American Academy of Family Physicians, and the American Academy of Pediatrics have all recommended the regular use of reminder/recall systems by public and private health-care providers in settings that have not achieved high documented levels of age-appropriate vaccinations. Research shows that tracking and reminder systems significantly increase immunization rates.⁴

PROVIDER USES OF ALERT—CURRENT AND PLANNED FOR 1999:

As of now, ALERT can do the following:

- *Consolidate immunization records* from all providers into one accessible record for each child.
- *Provide a child's immunization history* so that when seeing a patient for the first time, the clinician can obtain immunization histories for pediatric appointments or walk-ins. Eliminating duplicate records is a major operational project for ALERT during 1999. Once the de-duplication process is completed, ALERT will be able to:
- *Provide information on immunizations still needed* for each child in the system.

- *Produce automatic patient recalls for past due shots.* ALERT plans to make available during 1999 a recall system that will include histories and forecasts of needed immunizations. To improve immunization patterns, ALERT is currently working with a large pediatric clinic, as follows: (1) given a list of current patients by the provider, ALERT produces immunization histories for each child; (2) the providers validate the consolidated histories against their own charts; (3) ALERT provides the clinic with a report of overdue immunizations and mailing labels for parents; and (4) the provider sends out postcard recalls to parents. Please contact ALERT (ohd.alert@state.or.us) if your clinic would like to initiate a similar project. Recalls can be sent directly from the ALERT system to the parents or in summary form to the providers so that they can provide the follow-up. (While the Standards for Pediatric Immunization Practices encourage all providers to notify patients of appointments for shots, a national survey revealed that only 13% of private physicians use any method to identify or notify under-vaccinated children.)
- *Calculate coverage rates* for each medical practice; these could then be used for Health Plan Employer Data and Information Set (HEDIS) reporting.
- *Pilot assessment tools.* Their purpose is to diagnose service-delivery problems, to identify changes in policy and practice, and to monitor and adjust interventions. For example,

assessment can identify missed opportunities to immunize during well-child and other clinic visits. Multnomah County Health Department primary-care clinics have illustrated the potential improvement in quality of care to which assessment can lead: using CDC's Clinic Assessment Software Application (CASA), they saw up-to-date immunization rates go from 52% in 1994 to 92% in 1995 for all children 24-35 months of age who were seen in primary-care clinics and had had at least one well-child visit.

- *Provide Internet-based histories.* ALERT plans to implement a secure web site for access by authorized users during the last quarter of 1999.
- *Provide histories for child-care centers.* By fall of 1999 ALERT plans to provide some immunization histories to child-care facilities that provide lists of their kids. Eventually, similar reports will be available for schools.

Thanks to Oregon's private providers and a well functioning public-private partnership, Oregon has strong participation and, therefore, a registry that can be worthwhile for all providers. Over half the funding for ALERT is from Oregon Health Systems in Collaboration — a private, nonprofit organization — a private, nonprofit organization. ALERT also received one of 16 national grants from the Robert Wood Johnson Foundation's "All Kids Count." This grant was a recognition of Oregon's progress in developing a statewide registry. The balance of the funding is from the Office of Medical

Assistance Programs and the Oregon Health Division. Efforts to develop immunization registries are being made in every state, but few of them are beyond the planning stages. The Centers

**Vaccines Among Children
 19-35 months of age, 1997**

Vaccines	U.S.	Ore.
4:3:1*	78%	73%
4 DTP	81%	78%
3 Polio	91%	88%
1 Measles	91%	88%
3 Hib	93%	92%
3 Hepatitis B	84%	83%
1 Varicella	26%	29%

*4 DTP, 3 polio, 1 MMR

for Disease Control and Prevention acknowledges that there are as yet no fully functional state immunization registries in the USA. However, they consider Oregon's registry one of the most mature, due primarily to the high volume of data transmitted and enthusiastic participation by our private providers.

REFERENCES

1. Oregon Health Division. Annual immunization assessment report for school year 1997-98.
2. Centers for Disease Control and Prevention. National, state, and urban area vaccination coverage levels among children aged 19-35 months — United States, 1997. *MMWR* 1998; 47:547-54.
3. The National Vaccine Advisory Committee. The measles epidemic: the problems, barriers and recommendations. *JAMA* 1991; 266:1547-52.
4. Gostin LO, Lazzarini JD. Childhood immunization registries. *JAMA* 1995; 274:1793-9.