

# RUB OUT RUBELLA CAMPAIGN IN LANE COUNTY, OREGON

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A rub out rubella campaign in Lane County, Oreg., has raised the rubella immunization level there for the target age group—1 to 12 years—to almost 90 percent. This level makes the Lane County program rank among the

most successful local rubella immunization projects carried out in the United States. To achieve this level, the county used large numbers of volunteers in a carefully planned and well-publicized mass immunization program that won wide community support and participation.

Epidemiologic data suggest that rubella tends to manifest itself in irregular cycles; peaks of activity are observed in the United States about every 6 to 9 years, with lessened activity in between. Such a peak was observed in 1964. Therefore, according to the cyclic theory, rubella might be expected to peak again as early as 1971 or as late as 1973.

## **National Program**

To prepare for possibly increased rubella activity in the years 1971–73, Congress estab-

lished a national Stop Rubella Program in 1970, which distributed the newly licensed rubella vaccines. This distribution was done according to the recommended guidelines for use of the vaccine set up by the Advisory Committee on Immunization Practices of the Public Health Service. The Center for Disease Control coordinated the program, which was supported by national Comprehensive Health Funds (314E). Local and State authorities, however, implemented it.

### **State Immunization Program**

The Stop Rubella Program made the rubella vaccines available to the States in September 1969. In the summer of 1970, the Oregon State Board of Health obtained funds from the State Emergency Legislative Board to conduct an immunization program. With this support, extensive immunization projects were carried out in Oregon in the fall of 1970. Immunization levels of more than 65 percent in the target age group of children 1 to 12 years of age were thereby achieved in some areas of the State.

These immunization projects, however, were chiefly centered on the densely populated areas of Portland, on the metropolitan tri-county area of Multnomah, Washington, and Clackamas, and on Marion County.

### **Need for County Program**

Lane County was not included in these first immunization efforts, but the staff of the county health and sanitation department believed that there were good reasons for conducting a rubella immunization campaign. In a message in February 1970 to the county medical society, some of these reasons were pointed out by Dr. David P. Ruppert (de-

ceased), who was the county health officer. "There are approximately 40,000 children between the ages of 1 and 12 years in Lane County," he told the society. "With approximately 12,000 of these recently immunized by private physicians and the health department and with perhaps another 4,000 possessing previous immunity to the disease, we have a population of roughly 20,000 preschoolers and elementary school students as a reservoir from which rubella is at present being transmitted. This is the source from which susceptible pregnant women run a 25 plus chance of bearing a child with a rubella-caused defect."

The county health department staff knew of 23 or 24 children in the county who had been damaged in the rubella epidemic of 1964 because their mothers had contracted the disease while pregnant. If 80 percent or more of the children in the county between 1 and 12 years of age could be immunized against rubella, the chance of another epidemic would be greatly reduced and protection could be afforded some 39,000 women in the county of child-bearing age (15-39 years).

The resources for a mass immunization effort were available. The State board of health had assured the health department of a ready supply of vaccine and free use of injector equipment. The Jaycees and National Foundation-March of Dimes, which had been helping with the rubella immunization projects in other parts of Oregon, were eager to help. The county health department also sought and received the endorsement of the county medical society for the project, and it agreed to provide emergency backup during the clinics.

### **Organizing the Campaign**

The health department staff decided the best approach would be to hold clinics during a 4-week period in which it would try to immunize all the nonimmunized county children 1 to 12 years old. A short intensive program seemed to afford the best chance of keeping community interest high. To get a picture of how the many tasks connected with the clinics were handled, see "Conducting Mass Immunization Clinics," on page 14.

By mid-March 1971, the school superintendents had offered school facilities as sites for the clinics, and members of the health department staff then met with school personnel to set definite dates for them. The period selected was April 19 through May 13, 1971.

A rubella steering committee was appointed, comprised of representatives from the Jaycees and National Foundation-March of Dimes, Parent-Teacher Associations, the news media, and the county health department, as well as mothers of children born with rubella defects—who were among the most interested and helpful of all committee members.

The steering committee held its first formal meeting on March 29, 1971, and discussed the objectives of the immunization program and the best methods to implement it; each community group took on a task. Publicity for the program and the recruitment of volunteers began at once. At the subsequent meetings, held weekly, each group reported its progress and any difficulties encountered. Thus, no part of the campaign fell behind. Such regular communication was vital.

Before the first clinic, all nurses who were to be members

## Conducting Mass Immunization Clinics

1. Get school principals' permission to hold clinics at schools.
2. Notify all groups that could play an active role in immunization program; meet with their representatives, discuss objectives and methods, and assign tasks to each group. In Lane County's rub out rubella campaign, tasks were assigned as follows:

Jaycees	Publicity.
Parent Teachers Associations	Recruitment of volunteers.
School personnel	Set up clinic dates. Distribute permit slips to students. Operate telephone teams, call all parents who respond No on slip and try to convert to a Yes. Record date of immunization on school health card.
March of Dimes	Coordinate project; direct team meetings. Provide answering service.
Volunteers	Assist at clinics. Help in completion of health department immunization record cards.
School booster clubs	Provide diversion for children at clinics.
Oregon State Board of Health	Supply vaccine and injection equipment. Provide publicity packets for local use. Offer inservice training on use of injectors and suggestions for clinical procedures.

3. Collect data on each school's enrollment, including the probable numbers of preschoolers in the surrounding area, in order to calculate the amount of vaccine needed at each clinic.
4. Contact all nursery schools and other preschools, distribute permission slips for parents, and suggest which elementary school clinic preschool children can attend.
5. Set up procedure for emergencies and prepare emergency kit for each of the teams doing the immunizations. Notify private physicians in outlying areas to be on call.
6. Provide inservice education for staff nurses and interested community groups.
7. Meet with volunteers at each school; orient to their clinic jobs.
8. Order clinic supplies and distribute to each immunization team.
9. After each clinic, collect all permissions slips signed by parents and assist in gathering statistics.
10. Send volunteers thank you letters before they serve at clinics. Of utmost importance. Notes of appreciation afterwards also good.

of the three injector teams received intensive inservice training. Personnel from the State board of health taught them how to use the jet injector guns and also instructed the health educators in the mechanical maintenance of the equipment. Consultants from the board discussed the suggested procedures for the clinics with the nurses and provided details about administration of the vaccine.

Various forms and form letters were devised to send to parents and guardians. One was a permission slip on which the parent or guardian was to indicate whether or not he would permit the child to be immunized. If the parent or guardian gave a negative answer, he was asked to give his reason. Tabulation of these reasons helped to determine more accurately the prior immunity level of the groups.

The health department staff got in touch with the parents of nonimmunized children who gave negative responses on the permission slip. Often misconceptions could be clarified. For example, some parents believed that their children had already been immunized against rubella when they had actually been immunized against rubeola. Some parents also assumed that their children had experienced rubella when they had in fact had some other skin disease. Several parents believed that a child who contracted rubella would be better immunized than if he received the vaccine. Other parents feared that their children would get rubella even after immunization—they were told how small the chance is of this occurring (1/10th of 1 percent). Many youngsters who would not have originally participated were thus vaccinated after the misunder-

standings of their parents were corrected.

A form entitled "Attention Parents" was also distributed at the clinics. It provided a record of the child's immunization along with a description of possible reactions to the drug. Under the arrangement with the county medical society, local physicians were on call in outlying areas during the period of the clinics to cover any emergencies arising from adverse reactions. A copy of the procedure to follow in such instances was included with each injector team's emergency kit. Fortunately, no emergencies occurred.

### Operation of Clinics

The immunization clinics were held at 90 elementary schools within a period of less than 20 days. A combination of nurses and about 10 volunteer mothers was used at each school. The volunteers were trained by a school or public health nurse. They assisted in various ways at the clinics and performed such tasks as completing the immunization record cards of the health department.

*Injector teams.* Each of the three injector teams covered one area of the county—Eugene, Springfield, or outlying parts. Each team visited two or more schools a day to cover its area according to schedule. The district of Eugene used four of its nurses on its injector team. Springfield used its two high school nurses and two public health nurses. Two nurses hired by the county for the duration of the campaign covered the outlying area.

*Publicity.* The Jaycees were responsible for publicity, and the rub out rubella campaign received wide coverage on radio



*Lane County's rub out rubella poster child—Ronald Van Domelon*

and television and in newspapers and other media. The radio and television stations peaked their publicity about the campaign just before the first clinic was held. Interested citizens joined in taping 20-second spots for radio and television. Local dairies and bak-

eries delivered posters and pamphlets to private homes and grocery stores. The highlight of local publicity came with the presentation of Lane County's own poster child on March 1, 1971. When attendance at the clinics appeared to slacken somewhat, a



*Scene at immunization clinic during Lane County's rub out rubella campaign*

second public relations effort was launched midway in the campaign.

### Results and the Future

The table shows the results of Lane County's rub out rubella campaign. The 89.83 percent immunization level attained, as of June 1, 1971, in the age group 1 to 12 years is considerably higher than the level in the same group in the United States as of August 20, 1971. The proportion of this target age group immunized in

the United States by that date was 48 percent, according to the Center for Disease Control.

The proportion of children 1-4 years old immunized in the county was 31 percent and in the United States, 36.8 percent. In the age group 5-9 years (the group thought to be the primary transmitters of rubella), 69 percent of the county children and 66 percent of U.S. children had been immunized at the stated cut-off dates.

As to a possible epidemic in

the period 1971-73, there has been no evidence of increased rubella activity in the United States in 1971, and epidemiologists at the Center for Disease Control speculate that because of the mass immunization efforts throughout the nation, rubella activity may even show a decrease in the years 1971-73.

Members of the Lane County health department staff are convinced that the county would never have achieved such high levels of immunity without extensive preclinic planning and publicity. As to the future, whether such mass immunizations will be carried out again will depend on the level of immunity retained. Future efforts will possibly be restricted to areas with insufficient levels of herd immunity.

### Summary

A rub out rubella campaign carried out in Lane County, Ore., in the spring of 1971 has resulted in an immunization level in the age group 1 to 12 years of 89.83 percent. The national level for this age group, as of August 1, 1971, was 48 percent. The staff of the county health department attributes the successful outcome to extensive advance planning and wide publicity.

Representatives of the Jaycees, National Foundation-March of Dimes, Parent-Teachers Associations, and news media, as well as mothers of children born with rubella defects, served with county health department staff members on a steering committee that met weekly to plan and direct the campaign.

The immunization clinics were held at 90 elementary schools within a period of less than 20 days. The Oregon State Board of Health supplied the rubella vaccine and injector guns. Some 200 volunteers assisted at the clinics.

### Preschool and elementary school children in Lane County, Ore., immunized against rubella by June 1, 1971

Time of immunization	Preschool		Elementary		Total	
	Number	Percent <sup>1</sup>	Number	Percent <sup>2</sup>	Number	Percent
Before rub out rubella campaign.....	4,800	31.2	7,200	27.7	12,000	29.0
During campaign.....	5,581	36.2	18,529	71.2	24,110	58.3
End of campaign to June 1, 1971.....	500	3.9	554	2.1	1,054	2.5
Total.....	10,881	71.3	26,283	101.0	37,164	89.8

<sup>1</sup> Based on census figures for children 1-4 years.

<sup>2</sup> Based on elementary school enrollment.

NOTE: Figures on the precampaign immunizations (all performed by private physicians) were obtained from the Oregon State Board of Health. The distribution of the 12,000 precampaign immunizations between the preschool children and the elementary school children was only an approximation. It now seems probable that a greater number of them should have been assigned to the preschool group. Figures for the total target population were also estimates.