## Epidemiologic Notes and Reports

## Effects of Restricting Federal Funds for Abortion - Texas

In August 1977, federal funds for legally induced abortion for Title XIX (Medicaid)and Title XX-eligible women were restricted. Texas became 1 of the 31 states that subsequently withdrew the use of state funds to finance legally induced abortion. Recently the Texas State Department of Health attempted to measure the impact of that decision in 4 ways.

The first method was to review in detail all abortion-related deaths occurring in Texas from 1975 through 1979. Since the restriction, 1 Medicaideligible woman in Texas died from septic complications of an illegal abortion (1,2). She had previously obtained 2 legally induced abortion procedures funded by Medicaid. This death occurred along the Texas-Mexican border, an area associated with higher reported rates of complications after illegal abortion (3).

Secondly, in a large metropolitan area of Texas, a review was undertaken of 600 consecutive hospital charts of women with abortion-related complications that caused them to seek emergency medical care. The chart review revealed no increase after the restriction, compared to the time interval before the restriction, in either the number or proportion of Medicaid- or Title XX-eligible women admitted for abortion complications. If a large proportion of women were resorting to illegal abortion, such complications would be expected to increase.

A third approach to measure the impact of the restriction was an attempt to estimate the number of legally induced abortions among Medicaid-eligible women which were not obtained because of the restriction. A model developed by Princeton University's Office of Population Research was used to examine the proportion of pregnancies among such women that were terminated by abortion before and after the restriction of public funds (4). The expected number of abortions for 1978 was derived by applying the proportion of pregnancies that were terminated by abortion within a 6-month interval in 1976 to the number of pregnancies in the corresponding 6 -month interval in 1978. Based on these projections, an estimated $35 \%$ of pregnant Medicaideligible women who would have obtained a publicly funded, legally induced abortion before the funding restriction, did not obtain one afterwards.

Finally, continuation of pregnancy to term was assessed by comparing the fertility rate among Medicaid-eligible women, before and after the restriction, to the fertility rate among women not eligible for Medicaid in Texas. The fertility rate for the latter group increased $1.6 \%$ from 1976 to 1977 and $0.6 \%$ from 1977 to 1978 . On the other hand, the fertility rate among Medicaid eligible women increased $4.2 \%$ and $12.0 \%$ during the same periods, an increase consistent with the estimated percentage of pregnant Medicaid women not obtaining an induced abortion.

Reported by M Chrissman, R Moore, Nova Health Systems, Inc., San Antonio, Texas; L Mondy, PhD, $B$ Weber, MSW, Texas Dept of Human Resources; WP Peter, MD, PC Price, MD, CR Webb, Jr, MD, State Epidemiologist, Texas State Dept of Health; JR Trussell, PhD, J Menken, PhD, Princeton University, Princeton, New Jersey; Field Services Unit, and Abortion Surveillance Br, Family Planning Evaluation Div, Bur of Epidemiology, CDC.

Editorial Note: On February 19, 1980, the U.S. Supreme Court temporarily supported a lower-court ruling that restriction of federal funds for medically necessary abortions was unconstitutional. The ruling broadened the definition of "medically necessary abortion" to include the woman's age, her familial situation, and physical, emotional, and psychological factors relevant to her well-being. The final ruling on this issue is pending.

Several previous investigations have examined the health effects of the restriction of federal funding for abortions $(4,5)$. The present study in Texas found more than onethird of the legal abortions expected among Medicaid-eligible women were not obtained in the postfunding restriction period. The data cited from the present study are consistent with those from a previous investigation in Texas, which found approximately $40 \%$ of the expected number of subsidized abortions were not being obtained in the interval after the funding restriction (5). Those low-income women who obtained legal abortions apparently paid for them through a combination of reduced clinic fees, public funds for ancillary services, and private sources (5).

In Texas, pregnant, low-income women who do not have federal or state funds for abortions do not appear to be resorting to illegal abortions to terminate unwanted pregnancies. These findings are consistent with those from a national monitoring system (3), which also could not document that the restriction of public funds for abortion caused a large percentage of Medicaid-eligible women to choose self-induced or non-physicianinduced abortions.

This decrease in expected legal abortions, the absence of an increase in illegal abortion, and the rising fertility rate among Medicaid-eligible women in Texas all imply that a substantial portion of women who would have obtained a publicly-funded abortion before the restriction are now more likely to continue their pregnancies to term.

## References

1. MMWR 1977; 26:361.
2. MMWR 1978; 27:175.
3. Cates $W$ Jr, Kimball AM, Gold J, et al. The health impact of restricting public funds for abortion. October 10, 1977-June 10, 1978. Am J Public Health 1979;69:945.
4. Trussell J, Menken J, Lindheim B, Vaughan B. The impact of restriction of Medicaid funding for abortion. Fam Plann Perspect (in press).
5. Rubin GL, Gold J, Cates W Jr. Response of low income women and abortion facilities to restriction of public funds for abortion: a study of a large metropolitan area. Am J Public Health 1979; 69:948-50.

## Pesticide Poisoning in an Infant - California

On January 15, 1980, an 11-day-old boy was brought to San Francisco General Hospital because of a cyanotic spell. While in the Pediatric Outpatient Department, he had a respiratory arrest. He was promptly resuscitated but remained limp and relatively unresponsive to needle sticks. On physical examination he was noted to have pinpoint
pupils and excessive salivation. Narcotic intoxication was initially suspected, and naloxone was given but without benefit. He required mechanically-assisted ventilation for the next 16 hours.

Further history revealed that he was born following a normal pregnancy and delivery, and that he had been discharged from the nursery at age 3 days. He was initially kept at a relative's house because of his parents' concern about termite and roach spraying that had been done in their home around the time of delivery. He was bottle fed and had developed vomiting and increasing lethargy before the cyanotic episode. The parents did not think that the child had been directly exposed to the sprays, although the house had continued to smell strongly of insecticides.

Among the initial differential diagnoses were averted sudden infant death syndrome, toxin exposure, infant botulism, sepsis, and congenital adrenal syndrome. Because organophosphate poisoning was suspected, the infant was treated with atropine and promptly became more responsive. Red blood cell cholinesterase levels were depressed to $50 \%$ of normal low baseline levels, consistent with organophosphate poisoning. The San Francisco County Health Department was promptly notified of the suspected poisoning. The infant made a steady recovery and 8 days after admission was discharged to his parents (in temporary housing). Medical follow-up will include neurologic examinations and remeasurement of cholinesterase values.

The California Department of Food and Agriculture sampled for pesticides in the infant's home. The pesticide chlorpyrifos (Dursban) was found on dish towels, food preparation surfaces, and the infant's clothing.
Editorial Note: Chlorpyrifos is a commonly used "crack and crevice" insecticide with a long half life ( $>30$ days) indoors. Use of this agent on food preparation surfaces is illegal. The infant's exposure to the pesticide was most likely both oral and cutaneous and probably lasted during the time he was in the home. It is unclear how the pesticide contaminated the infant's clothing-possibly it was due to placing the clothing on shelving that had been sprayed.

This case demonstrates several important points: 1) pesticide and other intoxications may mimic the sudden infant death syndrome, 2) pesticides must be used with extreme care, particularly in home settings, 3) infants and children have increased susceptibility to such agents, and 4) pesticide-related illnesses need to be reported promptly. (In this case, the law required that the county health officer be notified within 24 hours.)
Reported by J Dunphy, MD, M Kesselbrenner, MD, A Stevens, B Vlec, MD, San Francisco General Hospital; RJ Jackson, MD, Epidemiologic Studies Laboratory, California State Dept of Health Services, in the California Morbidity, April 11, 1980.

## Follow-up on the Health Status of the Cuban Refugees

Approximately 100,000 Cuban refugees have arrived in the United States since April 21, 1980. Since the last MMWR report (1), 2 more centers-Fort Indiantown Gap, Pennsylvania, and Camp McCoy, Wisconsin-have been opened to process these refugees. There are now 5 such centers.

As of May 29, 54,953 refugees had been medically screened. From that group, 47,920 received chest X rays; 175 demonstrated suspected active or active tuberculosis (class A ). and 596 , suspected inactive tuberculosis (class $B$ ). All abnormal $X$ rays are followed up with

## Cuban Refugees - Continued

sputum examinations. The processing center or a hospital under contract to the center follows up all such patients with appropriate treatment, except at Opa-Locka; at that site, because of the lack of housing facilities, further diagnostic evaluation is being done by the local health department and private health-care providers.

To date, 47,790 persons 15 years of age and older have received a serologic test for syphilis; 2,089 ( $4.4 \%$ ) were reactive. Four of these persons have been diagnosed as having primary syphilis and 7, secondary syphilis. Of the patients with reactive serologies, 1,209 ( $57.9 \%$ ) have been treated thus far. The minimum a patient receives is 2.4 million units of benzathine penicillin $G$. Those patients who remain in camp long enough receive a total of 7.2 million units, an amount sufficient to cure asymptomatic neurosyphilis; others are referred to the health department in the jurisdiction where they are to reside for completion of therapy.

A total of 2,769 children and young adults have been immunized with multiple-antigen measles-mumps-rubella (MMR) vaccine.

Two sporadic, non-fatal cases of Group B meningococcal meningitis occurred at Fort Chaffee, Arkansas. The patients were both males, aged 25 and 39 years. The close contacts of each patient received rifampin prophylaxis, and no further cases have occurred. Reported by the Cuban Refugee Activity, Quarantine Div, Special Pathogens Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

## Reference

1. MMWR 1980;29:217-8.

| DISEASE | 22nd, WEEK ENDING |  | $\begin{gathered} \text { MEDIAN } \\ \text { 1975-1979 } \end{gathered}$ | CUMULATIVE, FIRST 22, WEEKS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { May J1, } \\ 1980 \\ \hline \end{gathered}$ | $\begin{gathered} \text { June 2. } \\ 1979 \\ \hline \end{gathered}$ |  | $\begin{gathered} \text { May } 31 . \\ 1980 \end{gathered}$ | $\begin{gathered} \text { June } 2 . \\ 1979 \end{gathered}$ | $\begin{gathered} \text { MEDIAN } \\ 1975.1979 \\ \hline \end{gathered}$ |
| Aseptic meningitis | 62 | 67 | 51 | 1.281 | 1.091 | 844 |
| Brucallosis | 1 | - | 3 | 70 | 43 | 78 |
| Chickanpox | 5,590 | 5,301 | 5,098 | 126.367 | 147,812 | 129,124 |
| Diphtheria | - | 1 | 1 | 2 | 4 | 45 |
| Encaphalitis: Primary (arthropod-borne $\mathbf{\&}_{1}$ unspec.) | 12 | ${ }^{9}$ | 12 | 245 | 208 | 257 |
| Post-infectious | 1 | 10 | 7 | 73 | 101 | 101 |
| Hepatitis, Viral: Type B | 354 | 243 | 249 | 6,800 | 5.838 | 6.201 |
| Type A | 447 | 467 | 554 | 10.921 | 12.361 | 13,503 |
| Malaria Type unspacified | 238 | 143 | 150 | +,857 | +.214 | 3,569 |
| Malaria | 45 | 8 | 8 | 655 | 206 | 167 |
| Measler (rubeola) | 598 | 372 | 1.272 | 9,514 | 8.920 | 17.293 |
| Meningococcal infections: Total | 32 | 49 | 27 | 1.363 | 1.382 | 938 |
| Civilian Military | 32 | 49 | 27 | 1.357 | 1.374 | 933 |
| Mumps Military | 170 | 423 | 423 | 5,796 | 8 8.792 | 12.822 |
| Pertussis | 14 | 18 | 18 | 5.746 | -.721 | 12.822 514 |
| Rubella (Garman measles) | 233 | 342 | 680 | 2.448 | 8.515 | 12.109 |
| Tetanus | - | 1 | 3 | 20 | 20 | 22 |
| Tubarculos is | 525 | 486 | 508 | 11.088 | 11.323 | 12.598 |
| Tularemia | 1 | 4 | 3 | 37 | 61 | 49 |
| Typhoid fever | 9 | 15 | 7 | 145 | 175 | 146 |
| Typhus fever, tick borne (Rky. Mt. spotted) | 17 | 29 | 26 | 145 | 143 | 143 |
| Venereal diseases: <br> Gonormea: Civilian | 16.956 | 16,850 | 16.577 | 393.546 | 398.351 | 394.959 |
| Military | 408 | 480 | 471 | 10,951 | 11.526 | 11.526 |
| Syphilis, primary \% secondary: Civilian | 550 | 381 | 358 | 10.961 | 10.120 | 10.120 |
| Military | 4 | 9 | 5 | 139 | 130 | 131 |
| Rabies in animals | 168 | 121 | 60 | 2.692 | 2,004 | 1,226 |

TABLE II. Notifiable diseases of low frequency, United States

|  | CUM. 1980 |  | Cum. 1980 |
| :---: | :---: | :---: | :---: |
| Anthrax | - | Poliomyalitis: Total | 4 |
| Botulism (Calif. 1) | 20 | Paralytic | 2 |
| Cholera (Calif. 3) | 6 | Paittacosis (Utah 1) | 30 |
| Congenital rubella syndrome (Mass. 1, Ore. 1, Calif. 1) | 38 | Rabies in man | - |
| Leprosy (Va. 1, Miss. 1) | 73 | Trichinosis | 46 |
| Leptospirosis | 23 | Typhus fever, flea-borne (endemic, murine) | 20 |
| Plague (N. Mex. 111 | 1 |  |  |

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending
May 31, 1980, and June 2, 1979 (22nd week)


| Guam | NA | NA | NA | NA | - | NA | - | - | NA | NA |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| P.R. | NA | NA | NA | 1 |  |  |  |  |  |  |
| V.I. | - | - | 27 | - | - | - | - | - | 2 | 5 |
| Pac. Trust Terr. | NA | NA | NA | NA | NA | - | NA | - | - | NA |

NN: Not notifiable.
All delayed reports and corrections will be included in the following weak's cumulative totals.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending
May 31, 1980, and June 2, 1979 (22nd week)

| REPORTING AREA | MEASLES (RUBEOLA) |  |  | MENING OCDCCAL INFECTIONS TOTAL |  |  | MUMPS |  | PERTUSSIS | RUBELLA |  | tetanus <br> CUM <br> 1980 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980 | CUM. <br> 1980 | CUM. 1979 | 1980 | CUM. <br> 1980 | $\begin{aligned} & \text { CUM. } \\ & 1979 \end{aligned}$ | 1980 | CUM. | 1980 | 1980 | CUM. <br> 1980 |  |
| UNITED STATES | 598 | 9,514 | 8.920 | 32 | 1,363 | 1.382 | 170 | 5.794 | 14 | 233 | 2,448 | 20 |
| NEW ENGLAND | 12 | 574 | 240 | 2 | 81 | 65 | 11 | 502 | 1 | 7 | 172 | - |
| Maine | - | 25 | 11 | - | 3 | 2 | 10 | 267 | - | 3 | 66 | - |
| N.H. | 6 | 264 | 25 | - | 6 | 7 | 1 | 14 | - | 1 | 29 | - |
| Ve. | 2 | 223 | 90 | - | 9 | 3 | - | 5 | - | - | I | - |
| Mass. | 4 | 41 | 11 | - | 28 | 21 | - | 111 | 1 | 3 | 57 |  |
| R.I. | - | 2 | 102 | - | 6 | 4 | - | 16 | - | - | 7 | - |
| Conn. | - | 19 | 1 | 2 | 29 | 28 | - | 89 | - | - | 12 | - |
| MID. ATLANTIC | 158 | 2,956 | 895 | 11 | 251 | 194 | 12 | 661 | 4 | 77 | 380 | 2 |
| Upstate N.Y. | 23 | 554 | 434 | 1 | 84 | 69 | 2 | 77 | 4 | 6 | 146 | 1 |
| N.Y. City | 60 | 807 | 398 | 1 | 71 | 51 | 5 | 52 | - | 5 | 67 | - |
| N.J. | 46 | 638 | 42 | 3 | 46 | 51 | 3 | 81 | - | 1 | 61 | - |
| Pa. | 29 | ¢ 57 | 21 | 6 | 5 C | 23 | 2 | 651 | - | 65 | 106 | 1 |
| E.N. CENTRAL | 158 | 1.474 | 2.233 | - | 144 | 138 | 56 | 2.246 | 3 | 58 | 625 | - |
| Ohio | - | 154 | 123 | - | 52 | 48 | 27 | 983 | 3 | - | 2 | - |
| Ind. | 4 | 80 | 145 | - | 27 | 31 | 5 | 87 | - | 37 | 258 | - |
| III. | 41 | 249 | 1.052 | - | 19 | 3 | 4 | 254 | - | 10 | 141 | - |
| Mich. | 8 | 192 | 554 | - | 38 | 40 | 11 | 684 | - | 1 | 110 | - |
| Wis. | 105 | 799 | 355 | - | 8 | 16 | 9 | 238 | - | 10 | 114 | - |
| W.N. CENTRAL | 49 | 1,068 | 1,111 | - | 50 | 46 | 8 | 200 | - | 8 | 162 | 2 |
| Minn. | 47 | 881 | 711 | - | 15 | 9 | 1 | 10 | - | 1 | 24 | 1 |
| lowa | - | - | 14 | - | 5 | 5 | 1 | 34 | - | - | 3 | - |
| Mo. | - | 61 | 350 | - | 18 | 24 | - | 66 | - | 1 | 38 | - |
| N. Dak. | - | - | 6 | - | 1 | 1 | - | 3 | - | - | 5 | - |
| S. Dak. | - | - | 1 | - | 4 | 2 | - | 1 | - | - | - | - |
| Nabr. | - | 59 | - | - | - | - | - | 9 | - | - | - | - |
| Kans. | 2 | 67 | 29 | - | 7 | 5 | 6 | 77 | - | 6 | 92 | 1 |
| S. ATLANTIC | 72 | 1,540 | 1, 376 | 7 | 330 | 355 | 35 | 751 | 3 | 13 | 249 | 5 |
| Del. | - | 1 | 1 | - | 2 | 5 | 2 | 36 | - | - | - | - |
| Md. | - | 39 | 7 | - | 32 | 25 | 26 | 234 | - | - | 49 | - |
| D.C. | - | - | - | - | 1 | - | - | 2 | - | - | - | - |
| Va. | 29 | 269 | 165 | 5 | 32 | 45 | 1 | 46 | - | 12 | 46 | 1 |
| W. Va. | NA | 15 | 48 | - | 11 | 6 | NA | 58 | NA | NA | 14 | 1 |
| N.C. | 1 | 106 | 102 | 1 | 66 | 51 | 1 | 74 | - | - | 40 | - |
| S.C. | - | 132 | 116 | - | 42 | 46 | - | 194 | - | - | 49 | 2 |
| Ga. | 28 | 669 | 332 | - | 62 | 55 | - | 1 | 2 | - | - | - |
| Fla. | 14 | 309 | 605 | 1 | 82 | 122 | 5 | 106 | 1 | 1 | 51 | 1 |
| E.S. CENTRAL | 9 | 250 | 133 | 4 | 131 | 107 | 8 | 725 | - | - | 71 | 3 |
| Ky. | - | 42 | 20 | 2 | 46 | 18 | 4 | 649 | - | - | 33 | 1 |
| Tenn. | 9 | 130 | 46 | 2 | 32 | 34 | - | 21 | - | - | 33 | 1 |
| Ala. | - | 17 | 50 | - | 32 | 25 | - | 11 | - | - | 4 | 1 |
| Miss. | - | 61 | 17 | - | 21 | 30 | 4 | 44 | - | - | 1 | - |
| W.S. CENTRAL | 46 | 819 | 801 | 6 | 152 | 223 | 8 | 197 | 2 | 3 | 87 | 3 |
| Ark. | - | 7 | 7 | 2 | 12 | 20 | 2 | 16 | - | - | 2 | 1 |
| La. | 4 | 13 | 207 | 4 | 54 | 86 | - | 57 | 1 | - | 8 | 1 |
| Okla. | 40 | 882 | 22 | - | 13 | 22 | - | - | 1 | 1 | 2 | - |
| Tex. | 2 | 117 | 565 | - | 73 | 95 | 6 | 124 | - | 2 | 75 | 1 |
| MOUNTAIN | 42 | 233 | 244 | 1 | 43 | 61 | 7 | 142 | - | 5 | 19 | - |
| Mont. | - | 1 | 49 | - | 2 | 4 | 3 | 45 | - | - | 22 | - |
| Idaho | - | - | 4 | 1 | 4 | 4 | - | 11 | - | - | 12 | - |
| Wyo. | - | - | 36 | - | 2 | 1 | - | - | - | - | - | - |
| Colc. | 5 | 13 | 32 | - | 11 | 4 | 2 | 30 | - | - | 3 | - |
| N. Mex. | - | 2 | 32 | - | 6 | 4 | - | - | - | - | 5 | - |
| Ariz. | 31 | 169 | 67 | - | 6 | 30 | 1 | 21 | - | 4 | 14 | - |
| Utah | 2 | 41 | 15 | - | 2 | 6 | - | 26 | - | - | 19 | - |
| Nev. | 4 | 7 | 9 | - | 10 | 8 | 1 | 9 | - | 1 | 4 | - |
| PACIFIC | 52 | 800 | 1.887 | 1 | 181 | 193 | 25 | 370 | 1 | 62 | 623 | 5 |
| Wash. | 11 | 153 | 1.022 | - | 33 | 31 | 6 | 109 | - | 7 | 59 | - |
| Orag. | 1 | 1 | 48 | - | 37 | 14 | 5 | 48 | - | 5 | 42 | $\overline{5}$ |
| Calif. | 40 | 436 | 743 | 1 | 109 | 136 | 13 | 197 | 1 | 50 | 518 | 5 |
| Alaska | - | 5 | 15 | - | 2 | 4 | - | 10 | - | - | 2 | - |
| Hawaii | - | 5 | 59 | - | - | 8 | 1 | 6 | - | - | 2 | - |
| Guam | Na | 3 | 3 | - | 1 | 1 | Na | 3 | NA | NA | - | - |
| P.R. | 4 | 63 | 242 | - | 1 | - | 4 | 104 | - | - | 9 | 6 |
| V.I. | NA | 4 | 4 | - | 1 | 3 | NA | 1 | NA | Na | - | - |
| Pac. Trust Terr. | NA | 3 | 6 | - | - | 1 | NA | 8 | NA | NA | 1 | - |

NA: Not available.
All delayed reports and corrections will be included in the following week's cumulative fotals.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending
May 31, 1980, and June 2, 1979 (22nd week)

| feporting area | TUBERCULOSIS |  | TULA. femia | TYPHOID FEVER |  | TYPHUS FEVER (Tiek-borne) (AMSF) |  | Venereal diseases (Civilian) |  |  |  |  |  | RABIES (in Animals) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | GONOAFHEA |  |  | SYPHILIS IPri. \& Sae.) |  |
|  | 1980 | $\begin{aligned} & \text { CUM. } \\ & 1980 \end{aligned}$ |  | CUM. <br> 1980 | 1980 |  |  | $\begin{aligned} & \text { CUM. } \\ & 1980 \end{aligned}$ | 1980 | $\begin{aligned} & \text { CUM. } \\ & 1980 \end{aligned}$ | 1980 | CUM. <br> 1980 | $\begin{aligned} & \text { CUM. } \\ & 1979 \end{aligned}$ | 1980 | CUM. 1980 | CUM. 1979 | CUM. <br> 1980 |
| UNITED STATES | 525 | 11,088 | 37 | 9 | 145 | 17 | 145 | 16.956 | 393.546 | 398.357 | 550 | 10,961 | 10.120 | 2,692 |
| NEW ENGLAND | 13 | 307 | - | - | 4 | - | 1 | 365 | 10.123 | 10.158 | 8 | 287 | 183 | 22 |
| Maine | - | 23 | - | - | - | - | - | 16 | 590 | 701 | - | 4 | 5 | 16 |
| N.H. | - | 6 | - | - | - | - | - | 15 | 332 | 345 | - |  | 12 | 1 |
| $\mathrm{V}_{2}$ | - | 9 | - | - | - | - | - | 7 | 246 | 226 | - | 3 | - | - |
| Mass. | 10 | 161 | - | - | 2 | - | 1 | 146 | 4.163 | 4.114 | 3 | 186 | 114 | 1 |
| R.I. | 2 | 35 | - | - | 1 | - | - | 35 | 605 | 836 | $\overline{5}$ | 11 | 6 | - |
| Conn. | 1 | 73 | - | - | 1 | - | - | 146 | 4,181 | 3.936 | 5 | 83 | 46 | 4 |
| MID. ATLANTIC | 68 | 1.890 | 1 | 6 | 40 | - | 4 | 1.576 | 42.575 | 42.212 | 65 | 1,576 | 1.550 | 6 |
| Upstate N.Y. | 14 | 368 | - | - | 5 | - | 1 | 299 | 7.948 | 6.603 | 4 | 128 | 111 | 3 |
| N.Y. City | 27 | 683 | 1 | 3 | 17 | - | - | 700 | 16.937 | 16.838 | 47 | 1.037 | 1.059 | - |
| N.J. | 13 | 389 | - | 2 | 8 | - | 2 | 152 | 7,610 | 7.952 | 9 | 206 | 202 | 2 |
| Pa. | 14 | 450 | - | 1 | 10 | - | 1 | 425 | 10.080 | 10.819 | 5 | 205 | 178 | 1 |
| E.N. CENTRAL | 70 | 1.598 | 1 | - | 10 | - | 1 | 2,421 | 61,768 | 61.737 | 46 | 1. 051 | 1.350 | 366 |
| Ohio | 22 | 275 | - | - | 3 | - | 1 | 638 | 16.667 | 17,078 | - | 163 | 240 | 18 |
| Ind. | 7 | 174 | - | - | - | - | - | 248 | 6,083 | 5,269 | 1 | 87 | 71 | 42 |
| III. | 18 | 583 | - | - | 3 | - | - | 668 | 19.313 | 19,718 | 26 | 583 | 834 | 209 |
| Mich. | 20 | 475 | 1 | - | 3 | - | - | 641 | 13,672 | 14,163 | 19 | 174 | 155 | 1 |
| Wis. | 3 | 91 | - | - | 1 | - | - | 226 | 6.033 | 5.509 | - | 46 | 44 | 96 |
| W.N. CENTRAL | 24 | 376 | 6 | 1 | 3 | - | 2 | 578 | 17.655 | 19.215 | 4 | 126 | 132 | 859 |
| Minn. | 2 | 50 | 1 | - | 1 | - | - | 50 | 2,981 | 3.305 | 3 | 44 | 39 | 77 |
| lowa | - | 32 | 1 | - | - | - | - | 85 | 1,930 | 2.400 | - | 8 | 21 | 172 |
| Mo. | 8 | 179 | 3 | - | - | - | 2 | 236 | 7,554 | 8. 222 | - | 63 | 50 | 230 |
| N. Dak. | - | 20 | - | - | - | - | - | 14 | 258 | 332 | - | - | 1 | 91 |
| S. Dak. | 2 | 22 | - | - | 1 | - | - | 33 | 538 | 663 | - | 1 | 1 | 157 |
| Nohr. | 8 | 20 | 1 | - | - | - | - | 102 | 1,490 | 1,247 | - | 4 | 2 | 43 |
| Kans. | 4 | 53 | - | 1 | 1 | - | - | 58 | 2,904 | 3,046 | 1 | 6 | 18 | 89 |
| S. ATLANTIC | 131 | 2,565 | 7 | - | 20 | 7 | 96 | 4.886 | 96.939 | 95.465 | 121 | 2,600 | 2,417 | 174 |
| Del. | 5 | 36 | - | - | 1 | - | - | 68 | 1,325 | 1.562 | - | 6 | 13 | - |
| Md. | 15 | 334 | 1 | - | 2 | 1 | 9 | 326 | 10.108 | 11.660 | 3 | 178 | 170 | - |
| D.c. | 8 | 140 | - | - | 3 | - | - | 277 | 6,890 | 6,092 | 11 | 181 | 186 | - |
| $V \mathrm{~V}$. | 23 | 289 | - | - | 3 | 2 | 15 | 387 | 8,337 | 9.127 | 15 | 234 | 233 | 4 |
| W. Va. | NA | 102 | - | NA | 1 | NA | 1 | NA | 1,157 | 1.362 | NA | 10 | 37 | 3 |
| N.C. | 10 | 430 | 2 | - | 1 | 3 | 46 | 644 | 14.402 | 14.078 | 6 | 189 | 200 | 4 |
| S.C. | 10 | 228 | - | - | 3 | 1 | 20 | 491 | 9.337 | 8,801 | 10 | 136 | 112 | 30 |
| Ga. | 23 | 331 | 4 | - | - | - | 3 | 769 | 18.213 | 18.627 | 28 | 782 | 646 | 96 |
| Fla | 37 | 675 | - | - | 6 | - | 2 | 1.924 | 27.170 | 24,156 | 48 | 884 | 820 | 37 |
| E.S. CENTRAL | 38 | 1,020 | 4 | - | 5 | 3 | 13 | 1.550 | 32,386 | 34.364 | 53 | 868 | 657 | 155 |
| Ky. | 3 | 215 | - | - | 2 | 1 | 1 | 216 | 4.698 | 4.421 | 6 | 68 | 66 | 67 |
| Tenn. | 17 | 350 | 4 | - | - | 1 | 8 | 459 | 11.320 | 12.072 | 15 | 347 | 274 | 72 |
| Ala | 6 | 282 | - | - | 1 | 1 | 3 | 538 | 9.693 | 10,450 | - | 173 | 133 | 16 |
| Miss. | 12 | 173 | - | - | 2 | - | 1 | 337 | 6.675 | 7,421 | 32 | 280 | 184 | - |
| W.S. CENTRAL | 73 | 1.110 | 13 | - | 16 | 6 | 26 | 1.993 | 51.087 | 51.975 | 120 | 2,148 | 1,768 | 796 |
| Ark. | 5 | 107 | 11 | - | - | 1 | 5 | 258 | 3.817 | 4,003 | 5 | 72 | 51 | 102 |
| La. | 13 | 208 | - | - | - | - | - | 385 | 9.072 | 9,207 | 26 | 509 | 412 | 6 |
| Okla | 8 | 111 | 1 | - | 1 | 5 | 13 | 177 | 5,057 | 4.672 | 6 | 39 | 33 | 132 |
| Tex. | 47 | 684 | 1 | - | 15 | - | 8 | 1.173 | 33.141 | 34,093 | 83 | 1,528 | 1. 272 | 556 |
| MOUNTAIN | 12 | 301 | 3 | 2 | 9 | 1 | 2 | 509 | 15,210 | 15,795 | 46 | 275 | 197 | 73 |
| Mont. | - | 11 | 1 | - | 1 | 1 | 1 | 17 | 556 | 797 | - | 1 | 6 | 9 |
| Idaho | - | 10 | 1 | 1 | 1 | - | - | 40 | 711 | 655 | - | 16 | 14 | - |
| Wyo. | 2 | 15 | - | - | - | - | - | 27 | 435 | 362 | - | 7 | 5 | - |
| Colo. | 2 | 34 | - | - | 2 | - | - | 225 | 4.058 | 4,185 | 6 | 65 | 47 | - |
| N. Mex. | 1 | 66 | - | - | 1 | - | - | 30 | 1,884 | 2.080 | 8 | 52 | 34 | 20 |
| Ariz. | 7 | 131 | 1 | - | 2 | - | - | 68 | 4.219 | 4.480 | 31 | 93 | 60 | 44 |
| Utah | - | 19 | - | 1 | 2 | - | 1 | 30 | 713 | 813 | - | 5 | 3 | - |
| Nev. | - | 15 | - | - | - | - | - | 72 | 2.634 | 2,443 | 1 | 36 | 28 | - |
| PACIFIC | 96 | 1.921 | 2 | - | 38 | - | - | 3,078 | 65.803 | 67.436 | 87 | 2,030 | 1. 866 | 241 |
| Wash. | 18 | 159 | 2 | - |  | - | - | 221 | 5.330 | 5.785 | NA | 91 | 111 | - |
| Oreg. | 2 | 80 | - | - | 4 | - | - | 181 | 4.715 | 4.259 | - | 44 | 82 | - |
| Calif. | 74 | 1.639 | 2 | - | 34 | - | - | 2,551 | 52,694 | 54.038 | 84 | 1, 817 | 1.618 | 198 |
| Alaska | \% | 24 | - | - | - | - | - | 78 | 1.612 | 2,215 | 1 | 4 | 12 | 43 |
| Hawaii | 2 | 19 | - | - | - | - | - | 47 | 1.452 | 1.139 | 2 | 74 | 43 | - |
| Guam | NA | 15 | - | NA | - | NA | - | NA | 31 | 42 | NA | - | - | - |
| P.R. | 2 | 60 | - | - | 1 | $\stackrel{+}{\square}$ | - | 30 | 2.083 | 859 | 13 | 228 | 201 | 20 |
| V.I. | NA | - | - | NA | - | NA | - | NA | 74 | 81 | NA | 8 | 3 | - |
| Pac. Trust Terr. | NA | 23 | - | NA | - | NA | - | NA | 181 | 207 | NA | - | 1 | - |

NA: Not available
All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE IV. Deaths in 121 U.S. cities, * week ending May 31, 1980 (22nd week)

| heporting area | ALL CAUSES, by age (YEARS) |  |  |  |  | $\begin{aligned} & \text { P\& } 1^{\bullet-} \\ & \text { TOTAL } \end{aligned}$ | REPORTING AREA | all caldes, gy age (years) |  |  |  |  | $\left\lvert\, \begin{aligned} & \text { PRI } \\ & \text { TOTAL } \end{aligned}\right.$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { ALL } \\ \text { AGES } \end{gathered}$ | $>65$ | 45.64 | 25-44 | $<1$ |  |  | ALL AGES | $>85$ | 45-6A | 25-44 | $<1$ |  |
| NEW ENGLAND | 608 | 411 | 133 | 29 | 16 | 37 | S. ATLANTIC | 1,196 | 695 | 333 | 99 | 34 | 40 |
| Boston, Mass. | 175 | 116 | 36 | 11 | 6 | 16 | Atlanta, Ga. | 121 | 69 | 36 | 13 | 2 | 6 |
| Bridgeport, Conn. $\dagger \dagger$ | 40 | 28 | 9 | 2 | 1 | 3 | Baltimore, Md. | 235 | 125 | 80 | 14 | 5 | 2 |
| Cambridga, Mass. | 22 | 18 | 3 | - | - | 4 | Charlotte, N.C. | 59 | 35 | 17 | 4 | 3 | 4 |
| Fall River, Mass. | 32 | 22 | 7 | 2 | - | - | Jacksonville, Fla. | 92 | 54 | 28 | 7 | - | 4 |
| Hartiord, Conn. | 61 | 38 | 14 | 3 | 1 | 1 | Miami, Fla. | 142 | 84 | 33 | 12 | 5 | - |
| Lowall, Mass. | 34 | 18 | 12 | 2 | 1 | 2 | Nortolk, Va. | 48 | 28 | 16 | 1 | 2 | 3 |
| Lynn, Mass. | 16 | 12 | 4 | - | - | - | Aichmond, Va. | 63 | 35 | 20 | 8 | - | 5 |
| Naw Badford, Mass. | 19 | 16 | 1 | 1 | - | 3 | Sevannah. Ga. | 40 | 26 | 11 | 1 | 2 | 1 |
| Naw Haven, Conn. | 46 | 26 | 14 | - | 4 | 2 | SL Petershurg. Fla. | 84 | 62 | 18 | 1 | 2 | 6 |
| Prowidence, R.I. | 52 | 37 | 11 | 2 | 1 | 3 | Tampa, Fla. | 52 | 28 | 14 | 7 | 2 | 2 |
| Somervilla, Mass | 2 | 2 | - | - | - | - | Washington, D.C. | 219 | 122 | 53 | 27 | 9 | 6 |
| Springfield, Mass | 38 | 23 | 13 | 1 | 1 | - | Wilmington, Dal. | 41 | 27 | 7 | 4 | 2 | 1 |
| Watartury, Conn. | 32 | 22 | 5 | 3 | 1 | 2 |  |  |  |  |  |  |  |
| Worcestir, Mass. | 39 | 33 | 4 | 2 | - | 1 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | E.S. CENTRAL | 639 | 372 | 177 | 45 | 15 | 27 |
|  |  |  |  |  |  |  | Birmingham, Ala. | 78 | 54 | 16 | 4 | - | 2 |
| MID. ATLANTIC | 2,302 | 1,527 | 485 | 183 | 47 | 88 | Chattanooga, Tenn. | 40 | 33 | 9 | 2 | - | 2 |
| Albany, N.Y. | 39 | 27 | 7 | 1 | 3 | - | Knaxville, Tenn. | 49 | 33 | 9 | 6 | 1 | - |
| Allentown, Pa | 20 | 13 | 7 | - | - | - | Louiswille, Ky. | 79 | 42 | 28 | 3 | 2 | 7 |
| Buffalo, N.Y. | 120 | 78 | 33 | 4 | 2 | 4 | Memphis, Tenn. | 170 | 92 | 49 | 16 | 2 | 8 |
| Camden, N.J. | 33 | 21 | 9 | 1 | 1 | 1 | Mobile, Ala. | 50 | 28 | 15 | 2 | 2 | 3 |
| Elizabath, N.J. | 19 | 11 | 5 | - | 1 | - | Montgomery, Ala- | 56 | 32 | 18 | 2 | 3 | 2 |
| Erie, Pa. $\dagger$ | 30 | 16 | 8 | 2 | 3 | 1 | Nashville, Tenn. | 111 | 58 | 33 | 10 | 5 | 3 |
| Jarsey City, N.J. | 48 | 34 | 7 | 3 | 2 | 2 |  |  |  |  |  |  |  |
| Nawark, N.J. | 60 | 24 | 20 | 8 | 3 | 6 |  |  |  |  |  |  |  |
| N.Y. City, N.Y. | 1.306 | 891 | 242 | 120 | 19 | 44 | W.S. CENTRAL | 1,063 | 602 | 277 | 88 | 39 | 31 |
| Patarson, N.J. | 26 | 16 | 7 | 1 | 1 | - | Austin, Tex. | 29 | 17 | 6 | 1 | 3 | 2 |
| Philadalphia, Pa, $\dagger$ | 195 | 114 | 48 | 21 | 6 | 13 | Baton Rouga, La. | 41 | 32 | 3 | 2 | 1 | 2 |
| Pittsburgh, Pat $\dagger$ | 61 | 35 | 20 | 4 | 1 | - | Corpus Christi, Tex. | 34 | 18 | 8 | 4 | 3 | - |
| Heading, Pa | 28 | 25 | 3 | - | - | 1 | Dallas, Tex. | 124 | 59 | 36 | 16 | 7 | 1 |
| Rochestar, N.Y. | 113 | al | 21 | 7 | 2 | 8 | El Paso, Tex. | 52 | 33 | 12 | 2 | 2 | 1 |
| Schenectady, N.Y. | 24 | 15 | 6 | 3 | - | 3 | Fort Worth, Tax. | 63 | 46 | 11 | 2 | 2 | 6 |
| Scranton, Pat $\dagger$ | 20 | 15 | 6 | 1 | - | - | Houstion, Tex. | 302 | 147 | 101 | 31 | 6 | 7 |
| Syracuse. N.Y. | 83 | 54 | 23 | 3 | 2 | 2 | Little Rock, Ark. | 54 | 38 | 9 | 2 | 2 | 3 |
| Trenton, N.J. | 34 | 23 | 9 | 1 | 1 | - | New Orieans, La | 128 | 72 | 27 | 15 | 4 | 2 |
| Utien, N.Y. | 18 | 16 | 1 | 1 | - | 1 | San Antonio. Tex. | 138 | 78 | 39 | 9 | 4 | 5 |
| Yonkers, N.Y. | 25 | 20 | 3 | 2 | - | 2 | Shraveport, La. | 39 | 21 | 13 | 1 | 4 | - |
|  |  |  |  |  |  |  | Tulsa, Okla | 59 | 41 | 12 | 3 | 1 | 2 |
| E.N. CENTRAL | 1,980 | 1,233 | 488 | 118 | 83 | 58 |  |  |  |  |  |  |  |
| Akron, Ohio | 53 | 34 | 12 | 4 | 2 | - | MOUNTAIN | 521 | 299 | 122 | 40 | 18 | 12 |
| Canton, Ohio | 44 | 29 | 11 | 3 | 1 | 2 | Albuquerque, N. Mex. 14 | 153 | 28 | 13 | 6 | 1 | 2 |
| Chicago, III. | 477 | 279 | 127 | 32 | 22 | 15 | Colo. Springr, Colo. | 25 | 18 | 3 | - | - | - |
| Cincinnati, Ohio | 119 | 81 | 32 | 2 | 1 | 4 | Danver, Colo. | 92 | 51 | 26 | 9 | 4 | 3 |
| Cleveland, Ohio | 172 | 91 | 52 | 12 | 13 | 6 | Laa Vegas, Nev. | 79 | 43 | 23 | 6 | 1 | 4 |
| Columbus, Ohio | 42 | 59 | 19 | 7 | 3 | 3 | Ogden, Utah | 15 | 11 | 3 | - | 1 | 1 |
| Dayton, Ohio | 90 | 60 | 19 | 7 | 1 | 2 | Phoenix, Ariz. | 94 | 55 | 20 | 4 | 6 | 1 |
| Datroit, Mich. | 231 | 144 | 52 | 21 | 8 | 4 | Puebla, Colo. | 27 | 18 | 5 | 2 | 1 | 1 |
| Evansville, Ind. | 40 | 26 | 9 | 3 | 1 | 2 | Salt Lake City, Utrah | 52 | 26 | 10 | 4 | 3 | - |
| Fort Wayne, Ind. | 40 | 28 | 8 | 2 | 1 | 1 | Tucson, Ariz. | 84 | 49 | 19 | 9 | 1 | - |
| Gary, Ind. | 16 | 1 | 9 | - | - | 1 |  |  |  |  |  |  |  |
| Grand Papids, Mich. | 56 | 40 | 9 | 3 | 2 | 4 |  |  |  |  |  |  |  |
| Indiznapolis, Ind. | 145 | 90 | 36 | 5 | 12 | 1 | PACIFIC | 1,542 | 950 | 358 | 122 | 56 | 51 |
| Madison, Wis. | 12 | 7 | 4 | - | 1 | 1 | Berkelay, Calif. | 15 | 11 | 2 | 1 | - | 1 |
| Milwaukee, Wis. | 142 | 101 | 32 | 1 | 5 | 2 | Fresno, Calif. | 50 | 33 | 11 | 7 | 3 | 4 |
| Paoria, III. | 34 | 20 | 8 | 1 | 5 | 2 | Glendale, Calif. | 13 | 9 | 3 | 1 | - | 1 |
| Rockford, 111. | 47 | 24 | 10 | 7 | 2 | 7 | Honolulu, Hawaii | 56 | 32 | 17 | 3 | 2 | 6 |
| South Bend, Ind. | 34 | 22 | 8 | 3 | 1 | 1 | Long Beach, Calif. | 87 | 52 | 26 | 4 | 3 | - |
| Toledo, Ohio | 86 | 56 | 22 | 2 | 2 | - | Los Angalas, Calif. | 370 | 216 | 81 | 42 | 13 | 8 |
| Youngrown, Ohio | 50 | 35 | 9 | 3 | 1 | - | Oakland, Calif. | 91 | 55 | 21 | 9 | 3 | 3 |
|  |  |  |  |  |  |  | Pasadena, Calit. | 34 | 23 | 8 | 2 | 1 | 6 |
|  |  |  |  |  |  |  | Portland, Orag. | 99 | 61 | 27 | 2 | 5 | - |
| W.N. CENTAAL | 638 | 428 | 137 | 21 | 24 | 20 | Sacramanto, Calif. | 83 | 45 | 24 | 5 | 4 | 3 |
| Des Moines, lowa | 59 | 37 | 14 | 2 | 2 | 1 | San Diego, Calif. | 129 | 81 | 2 d | 8 | 6 | - |
| Duluth, Minn. | 23 | 20 | 3 | - | - | 1 | San Francisco, Calif. | 135 | 84 | 34 | 10 | 3 | - |
| Kancas City, Kans. | 32 | 15 | 13 | 1 | 1 | 1 | San Jose, Calif. | 166 | 106 | 31 | 18 | 8 | 8 |
| Kansas City, Mo. | 111 | 71 | 25 | 0 | 4 | 2 | Soattle, Wash. | 112 | 75 | 27 | 7 | 2 | 5 |
| Lincoln, Nebr. | 28 | 19 | 4 | 2 | 1 | 2 | Spokane, Wash. | 59 | 41 | 11 | 2 | 3 | 4 |
| Minneapolis, Minn. | 81 | 04 | 9 | 3 | 4 | 2 | Tacoma, Wash. | 35 | 26 | 7 | 1 | - | 2 |
| Omaha, Nebr. | 60 | 38 | 14 | 1 | 5 | - |  |  |  |  |  |  |  |
| St. Lauis, Mo. | 136 | 49 | 33 | 1 | 5 | 4 |  |  |  |  |  |  |  |
| St. Paul, Minn. | 47 | 35 | 9 |  | 2 | 1 | TOTAL 10 | 0,449 | 6,517 | 2,510 | 745 | 332 | 364 |
| Wichita, Kans | 61 | 38 | 13 | 4 |  | 0 |  |  |  |  |  |  |  |

"Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fatal deaths are not included.
-*Preumonia and influenza
$\dagger$ Because of changes in reporting methods in these 4 Pennsylvania cities, these numbers are partial counts for the current weak. Complete counts will be available in 4 to 6 weeks.
$\dagger$ †Data not available this week. Figures are estimates based on average percent of regional total.

## Measles in High School Students - Pennsylvania

During the first 3 months of 1980, measles cases occurred in 3 isolated areas of eastern, central, and south-central Pennsylvania. Analysis of the central Pennsylvania outbreak again demonstrates that the age at which a child is vaccinated is more important in preventing disease than the time that has passed since vaccination (1,2).

A total of 52 cases* with onset from January 18-March 15 were investigated. $\dagger$ The age distribution of these cases is shown in Table 1. Of the 52 cases, 37 ( $71.2 \%$ ) occurred in the parochial school system, which consists of 3 elementary schools and a high school. The parochial high school had 20 of these cases among its 606 students, an attack rate of $3.3 \%$.

The high school's health records were reviewed, and data were analyzed in light of the susceptibility status of the students (Table 2). A child was considered susceptible to measles if his or her health record had 1) no evidence of measles immunization, 2) a past history of measles disease without serologic confirmation, or 3) evidence of measles immunization before 12 months of age or before 1968. For those children vaccinated
*A case was defined as 1) a rash illness with laboratory confirmation or 2) a strict interpretation of the standard case definition of fever, rash, cough or coryza, or conjunctivitis.
tData from other affected areas in Pennsylvania are being collected and will be similarly analyzed.
TABLE 1. Age distribution of measles cases, central Pennsylvania, January-March, 1980

| Age in <br> years | Number <br> of cases | Percent |
| :---: | :---: | :---: |
| $0-4$ | 2 | 3.8 |
| $5-9$ | 9 | 17.3 |
| $10-14$ | 30 | 57.7 |
| $15-19$ | 11 | 21.2 |
| Total | 52 | 100.0 |

TABLE 2. Attack rates for measles at a parochial high school, by immunization or disease history, central Pennsylvania, January-March, 1980

| Student's history of immunization or disease | Total enrollment | Number of cases | Attack rate percent |
| :---: | :---: | :---: | :---: |
| No immunization history | 64 | 6 | 9.4 |
| No immunization history; history of measles disease | 37 | 3 | 8.1 |
| Immunized before 1968: <br> a. at age less than 12 months <br> b. at age 12 months or older | $\begin{array}{rr} 160 \\ & 23 \\ 137 \end{array}$ | $\begin{array}{rr}8 & \\ 4 \\ \\ & 4\end{array}$ | $\begin{array}{r} 5.0 \\ 17.4 \\ 2.9 \end{array}$ |
| Immunized in 1968 and after: <br> a. at age less than 12 months <br> b. at age 12 months or older | $332$ $2$ $330$ | $2 \begin{array}{r} \\ \\ \\ \\ 2\end{array}$ | $\begin{aligned} & 0.6 \\ & 0.0 \\ & 0.6 \end{aligned}$ |
| Inadequate records | 13 | 1 | 7.7 |
| Total | 606 | 20 | 3.3 |

## Measles - Continued

before 1968, the attack rate was $17.4 \%$ for those under 12 months at the time of vaccination, but only $2.9 \%$ for those vaccinated at 12 months of age or older. However, attack rates were similar for those with a recorded history of measles ( $8.1 \%$ ) and for those whose records indicated neither disease nor vaccination (9.4\%).

Voluntary measles vaccination programs for susceptible children were held in all schools after immunization records were audited.
Reported by R Gens, MD, B Shaw, EJ Witte, VMD, Acting State Epidemiologist, Commonwealth of Pennsy/vania Dept of Health; Immunization Div, Bur of State Services, CDC.
Editorial Note: These data demonstrate that age at vaccination is more important than duration of time since vaccination in indicating immunity and that a parental history of disease is not an accurate indicator of immunity. As the Immunization Practices Advisory Committee stresses, the only acceptable proof of immunity is documentation of physiciandiagnosed measles or of vaccination given to a child over 12 months old (3).

## References

1. Marks JS, Halpin TJ, Orenstein WA. Measles vaccine efficacy in children previously vaccinated at 12 months of age. Pediatrics 1978;62:955-60.
2. Shelton JD, Jacobson JE, Orenstein WA, et al. Measles vaccine efficacy: influence of age of vaccination versus duration of time since vaccination. Pediatrics 1978;62:961-4.
3. MMWR 1978;27:427-37.

## National Recall of Mushrooms Possibly Contaminated with Botulinal Toxin

Type B botulinal toxin has been identified by the Food and Drug Administration (FDA) in 2 swollen \#10 cans (4 lb., 4 oz.) of mushrooms produced by Emil Lerch, Inc., of Hatfield, Pennsylvania. As of June 3, no cases of botulism associated with this product had been reported. A national recall of all \#10 cans produced by this company since February 1977 was initiated on June 3; cans of this size usually are purchased by institutions such as restaurants or cafeterias, though it is conceivable that individual consumers might also purchase them.

The cans involved in the recall are labeled Even Tide brand and Chef's Finest brand, both packed by Emil Lerch, Inc. Also included are cans packed under the following private labels: Friends Golden Glow, distributed by Friends Coffee Company, North Canton, Ohio; Elizabeth Park, distributed by S. Vogel Sons, East Hartford, Connecticut; Railtons Barco brand and Railtons Natural brand, both distributed by B.A. Railton Company, Northlake, Illinois; Romayo brand, distributed by Romeo \& Sons, Inc., Uniontown, Pennsylvania; Mijla Special Mushrooms brand, distributed by Aljim Wholesale Grocery Company, Waterbury, Connecticut; Mando's brand, distributed by Mando's Italian Foods, Huntsville, Alabama; Pizza Systems, Inc., brand, distributed by Pizza Systems, Inc., Memphis, Tennessee; Veteran brand, distributed by Veteran Supply Company, Chicago, Illinois; Pomoco brand, distributed by Potter McCune Company, McKeesport, Pennsylvania.

The letters " $E$ " and " $L$," indicating manufacture by Emil Lerch, Inc., appear as 2 of 4 digits of the top line of a 2-line code stamped on the bottom of each recalled can. Reported by Epidemiology Br, Office of Executive Director, Regional Operations, FDA, and by Enteric Diseases Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

## Follow-up on Mount St. Helens

First analyses of settled volcanic dust collected in Washington State have been completed at the National Institute for Occupational Safety and Health (NIOSH) in Cincinnati. No significant elevations for any of 30 trace metals tested have been found.

On May 18 and 19, Region $X$ of the Environmental Protection Agency reported that levels of total suspended particulates in the air ranged as high as $30,000-35,000 \mu \mathrm{~g} / \mathrm{m}^{3}$ in the most heavily affected areas-levels which could potentially cause respiratory disease in the general population.

Preliminary NIOSH analyses have confirmed the presence of cristobalite at a concentration of $4 \%-6 \%$ of the total ash. Cristobalite is 1 of the 3 most common crystalline forms of free silica encountered in industry. Silicosis is an industrial disease that follows prolonged inhalation of free (crystalline) silica (chemical structure $\mathrm{SiO}_{2}$ ). At this low level of cristobalite in the ash, the potential for silicosis needs to be evaluated in workers who breathe high concentrations of fine particles of this ash for prolonged periods.

NIOSH has sent a team of industrial hygienists to the area to assist in the measurement of personal dust exposures of municipal workers; NIOSH will also identify other occupational groups with the potential of high exposure to assess possible health effects. It is not likely that the general population is at risk of silicosis from exposure to the above level of crystalline silica. However, given the high levels of total suspended particulates in the air, the uncertainty about future activity of the volcano and the persistence of ash, and the preliminary nature of these results, CDC will continue to expand surveillance of the population.

To date, 21 hospitals in the CDC surveillance network-all in areas with volcanic ash fallout-have completed reporting on the number of emergency-room visits for the period May $11-24,1980$. In this surveillance area, the Moses Lake, Washington, area has been affected most by the eruptions; thus, the 3 hospitals in that area are reported separately from the others in Washington State (Table 1).

The first volcanic eruption was on May 18. In the Moses Lake area, emergency-room visits increased $34.2 \%$ during the week after the eruption compared with the previous week; total hospital admissions increased by $5.5 \%$ during this time. A CDC team has

TABLE 1. Percent change in hospital emergency-room visits in 21 selected hospitals, Washington, Idaho, Montana, May 11-17 and May 18-24, 1980

| Week | Moses Lake Area, <br> Washington | Washington <br> (other) | Idaho | Montana |
| :---: | :---: | :---: | :---: | :---: |
| May 11-17 | 389 | 2,179 | 670 | 2.050 |
| May 18-24 | 522 | 2,237 | 690 | 2,215 |
| Percent change | +34.2 | +2.7 | -9.1 | +8.0 |

[^0]
## Mount St. Helens - Continued

departed for Moses Lake to review hospital and emergency-room records and to conduct a field survey of approximately 200 families and exposed workers to collect additional information on potential health problems.

Efforts are also under way to identify high-risk groups in the population, such as those with chronic respiratory disorders, for further evaluation.
Reported by J Allard, PhD, JA Beare, MD, Washington State Dept of Social and Health Services; NIOSH, Chronic Diseases Div, Field Services Div, Bur of Epidemiology, Tuberculosis Control Div, Bur of State Services, CDC.

## Erratum in New Textbook

There is a potentially serious typographical error in Principles and Practice of Infectious Diseases (John Wiley and Sons, New York, 1979). Table 4, Page 2107 should state that intravenous quinine for malaria is to be given over 60 minutes, not 6 minutes, as stated. The corresponding text is correct. This correction is being published at the request of the editors of the book, Gerald L. Mandell, M.D., (Charlottesville, Virginia), R.G. Douglas, M.D., (Rochester, New York), and J.E. Bennett, M.D., (Bethesda, Maryland). Correspondence should be addressed to Dr. Mandell at the Division of Infectious Disease, Box 385, University of Virginia School of Medicine, Charlottesville, Virginia 22908.
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES PUBLIC HEALTH SERVICE / CENTER FOR DISEASE CONTROL ATLANTA, GEORGIA 30333 OFFICIAL BUSINESS

Postage and Fees Paid U.S. Department of HHS HHS 396
Director, Center for Disease Control William H. Fonge, M.D.
Director, Bureau of Epidemiology Philip S. Brachman, M.D.
Editor Michael B. Gregg, M.D.
Managing Editor Anne D. Mather, M.A.
Mathematical Statistlclan Keowhan Chol, Ph.D.



[^0]:    The Morbidity and Mortality Weekly Report, circulation 88,700 , is published by the Center for Disease Control, Atlanta, Georgia. The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

    The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Send reports to: Center for Disease Control, Attn: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

    Send mailing list additions, deletions, and address changes to: Center for Disease Control, Attn: Distribution Services, GSO, 1-SB-36, Atlanta, Georgia 30333. When requesting changes be sure to give your former address, including zip code and mailing list code number, or send an old address label.

