

Reports from the regions

Measles reported from peripheral hospitals, Riyadh region, 1997 -

Measles is a pramxoviral disease (morbilliviruses) which is very highly communicable. The mode of transmission is droplet, direct contact with nasal or throat secretions of the patient or, at times, through articles freshly soiled with the nasal or throat secretions. A very high degree of herd immunity (94%) is required to interrupt its spread in the community. Immunity acquired after contacting the disease is lifelong.

The incubation period is about 10 days, varying from 7 to 18 days. The period of communicability extends from slightly before the prodrome to 4 days after the appearance of the rash, though it is minimal after the second day of rash. The vaccine virus is non-communicable. Passive immunity vertically transmitted to the infant lasts for 6-9 months.

Outbreaks of measles in previously vaccinated children, in age group 5 to 19 years, have been attributed to primary vaccine failures. A study of the overall time trends for 1997 and 1998 and other comparative descriptive variables is presented here.

According to the KSA Ministry of Health, measles is defined as: "History of generalized blotchy rash lasting for 3 or more days with fever and history of one of the following: cough, runny nose, red eyes, or Koplik spots."

Based on this case definition, 225 cases were reported from the peripheral hospitals in the Riyadh region in 1997, and 355 in 1998. Because of the introduction of electronic reporting and recording systems, better reporting should definitely be a factor for the apparent increase in 1998.

For the year 1997, the maximum number of cases were reported in week 20 (24 cases), while in 1998 the peak was in week 37 (23 cases). The peak reporting in 1997 probably represents the maximum incidence in early spring, which is known. The peak in 1998 represents a rise in late summer. As regards the geographical distribution, Wadi Al Dawasar, with only 4 cases in 1997, topped the list in

1998 with 115 cases. Al Majmaah moved from sixth in 1997 (6 cases) to third in 1998 (47 cases). The Afeef area reported 23 cases in 1997 and 73 cases in 1998. Compared to the other regions in KSA from 1997-1998, Riyadh had 1437 cases and outnumbered Asir, Jeddah, and Madinah which had 1182, 948, and 889 respectively.

An analysis of the top three reporting areas in 1998 shows the following: 47% of the cases reported in Wadi Al Dawasar in 1998 were from the age group 5 to 14 years, while 26% were from the 15 to 44 years age group; in total, 73% were aged from 5 to 44 years of age. Among the cases reported from Majmaah, 36% were from the age group 5 to 14 years, 59% aged 15 to 44 years; in total, 85% were aged 5 to 44 years. In Afeef also, the age distribution was the same, 54% from the 5 to 14 years age group, 38% from 15 to 44 years, and in total, 93% from 5 to 44 years.

Taken together, in the three areas

with the apparent outbreaks, the most prevalent age group was the 5 to 14 years group (47%). This coincides with findings in other countries, like the United States, where primary vaccine failure led to similar outbreaks. Such outbreaks should become less with the two-dose vaccine schedule.

—Reported by: Dr. Saud N. Al-Sahli, Primary Health Care Specialist, General Directorate of Health Affairs, Riyadh region

Editorial note: a nationwide measles vaccination campaign targeting 6-18 years old school children was launched. The first part was conducted in September 1998 and covered intermediate and secondary school children, 1.6 million were vaccinated (96.4% of targeted). The second part is planned to be conducted in January 2000, which would cover all primary and first year of intermediate schools, around 2.3 million children are targeted.

Table 1: Comparison of geographical distribution of measles, peripheral hospitals, Riyadh region, 1997 - 1998

Area	1997	1998
Wadi Al Dawasar	4	115
Afeef	23	73
Al Majmaah	6	47
Others	192	120
Total	225	355

Figure 1: Measles cases reported by international weeks, from peripheral hospitals, Riyadh region, 1997 - 1998

