Did the national campaign for poliomyelitis vaccination achieve its objectives

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ABSTRACT
Objectives: To verify whether the national poliomyelitis vaccination campaign has achieved its objectives. Setting: Various regions in the Kingdom of Saudi Arabia (KSA) including Riyadh, Jeddah, Mekkah, Tabbouk and Gizan. Material and methods: Randomized samples were obtained using the Bowleg's proportional allocation scheme. Housing blocks were selected using simple random sampling procedures. All Saudis and non-Saudis in the selected blocks were screened using a pre-tested questionnaire administered in a face-to-face interview by trained interviewers. The data combined with those of an earlier pilot survey carried out in Al-Khobar area were analyzed. Results: A total of 646 households were surveyed; Riyadh 160, Jeddah 82, Mekkah 50, Tabbouk 164, Gizan 83 and Al-Khobar 107. The under five population of children was 618. The coverage of the target population was Riyadh 88%, Jeddah 74%, Mekkah 93%, Tabbouk 97%, Gizan 100% and Al-Khobar 100%. Conclusion: The overall percentage coverage in the Kingdom was 92% which attests to the success of the campaign. An area concern is Jeddah where the percentage coverage was 74% and should receive more attention during the next national vaccination campaign as well as mopping up vaccinations.

Saudi Medical Journal 1998; Vol 19 (1) : 13-14

Keywords: Poliomyelitis, eradication vaccination, Saudi Arabia.

In May 1988, the World Health Organization (WHO) pledged to eradicate poliomyelitis by the year 2000 and strategies for achieving this objective were clearly defined. To that effect a nationwide poliomyelitis vaccination campaign was carried out in KSA from the 11th to 13th of Jamada II, 1416H (4th to 6th November 1995) and 13th to 15th of Rajab 1416H (25th to 27th November 1995). Trained health workers administered vaccination on door-to-door basis to all children under 5 years of age. The aim of the program was to vaccinate at least 80% of this targeted population. The present nationwide study was done to find out whether the national vaccination campaign had achieved its objectives or not.

Material and methods. A randomly selected group of household samples were chosen from representative provinces in the Kingdom. The selected provinces were considered at high risk for poliomyelitis. The collective population selected in the provinces represent 45% of the total population of the Kingdom. The selected areas included: Riyadh, Jeddah, Mekkah, Tabbouk and Gizan. Housing blocks were selected using random sampling procedure. All Saudis and non-Saudis in the selected households were screened using a pre-tested questionnaire administered in face-to-face interview by trained interviewers. The questionnaire covered areas of placement of stickers on the immunized households, the accuracy of information displayed in these stickers, the number of vaccinated and non-vaccinated children, the reason for non-vaccination and whether or not the immunized children received certificates of vaccination. Islamic guidance and ethics, local customs and individual wishes were closely observed. The results of an earlier pilot study in Al-Khobar area were combined with results of the current study for final analysis.

Results. A total of 646 household were surveyed: Riyadh 160, Jeddah 82, Mekkah 50, Tabbouk 164,

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Gizan 83 and Al-Khobar 107. Table 1 gives the distribution of children and the percentage coverage of the targeted population in these regions. The overall percentage coverage was 92%. Reasons for missing the vaccination are shown in Table 2. The survey also showed that vaccination was provided mainly by the national vaccination teams (59.6%), followed by primary health care centers (38.3%) and mobile private teams (1.4%). Vaccination cards were given to 67.8% of the targeted population.

Discussion. Efforts to eradicate poliomyelitis by the year 2000 under the guidance and directives of the WHO continue to bear their benefits. The incidence of poliomyelitis infection is dropping worldwide\(^1\)\(^-\)\(^4\) and some parts of the world were successful in total eradication of poliomyelitis.\(^5\)\(^-\)\(^9\)

One of the major reasons for such achievements is the establishment of national mass campaigns administering oral polio vaccine to all children under 5 years of age. The Kingdom of Saudi Arabia has established successfully such a program. Our present survey showed a high percentage coverage of the target population in Riyadh, Makkah, Tabbouk, Gizan and Al-Khobar (Table 1). However it was noted that the Jeddah region had a low percentage coverage of 74%. This low coverage in Jeddah is particularly worrying because every year more than a million pilgrims arrive from all over the world forming a venue of potential infections. However, the M.O.H. plans mopping up vaccinations of high risk areas including Jeddah and Makkah. In general the given main reasons for low coverage were lack of knowledge about the campaign, non-attendance by the screening team and absence of the father. These reasons were markedly different from those seen in other parts of the world that include inadequate political support for eradication, insufficient funding, especially for the purchase of vaccine, intensive migration process and some shortcomings in the organization of the health care services.\(^3\)\(^-\)\(^5\)

In conclusion, the Kingdom’s first national vaccination campaign was well planned and executed by the MOH, despite some less than ideal results in the Jeddah region. The MOH has started paving the way to the poliomyelitis free-status. Other governmental and private institutions should help maintain and support these efforts until the time when the Kingdom of Saudi Arabia would be declared a "Poliomyelitis-Free country".

References