

# Assessment of knowledge, attitude and reported practices of surveillance teams in Holy places during Hajj 1427 H.

During Hajj each year, special teams are formed to implement the Surveillance system. Efficient functioning of this system is dependent on competent personnel who perform their duties in accordance with its standard protocols.<sup>1</sup>

This is a cross sectional interview-based study. Its objectives were to assess the knowledge and practices of members of the surveillance teams during Hajj. The study was conducted among all staff of the surveillance teams assigned to the Holy places during Hajj season 1427 H.

The level of knowledge among members of surveillance teams was assessed for each specialty in 3 fields: knowledge of the basic components of surveillance system, knowledge of infectious diseases of special importance during hajj, and knowledge of protocol of duties assigned by MOH to all teams according to each specialty. They were classified as "Satisfactory" (50% correct answers) and "Not Satisfactory" (< 50% correct answers) according to the scores they received.

The total number of surveillance team members interviewed were 62; 22 (35.5%) physicians, 22 (35.5%) nurses, and 18 (29%) health inspectors, working at 5 hospitals in Makkah; 18 (29%) at Ajjad hospital, 17 (27.4%) at King Abdulaziz hospital, 16 (25.8%) at King Faisal hospital, and 11 (17.7%) at Alnoor and Hira hospitals.

Participants were allocated by MOH into 2 types of teams: 41 (66.1%) field teams and 21 (33.9%) internal teams (working inside the hospitals only). Each team included physicians, nurses, and health inspectors. Their experiences in the health field ranged from 3-30 years, 4 (6.5%) had never worked previously in hajj, and 8 (12.9%) had never previously worked with surveillance teams during hajj. Ages ranged from 22-55 years (mean 40.4), males constituted 82.3%. Nationality distribution was: Saudis 24 (38.7%), Egyptians 14 (22.6%), and Sudanese 12 (19.4%), who together comprised (80.7%) of the total team members, the rest belonged to 7 different nationalities.

Those who had received training were 62.9%. Regarding participants' level of knowledge of the basic components of the surveillance system;

35.5% were satisfactory, and 64.5% were not satisfactory. As for each specialty, 68.2% of physicians, 9.1% of nurses and 27.8% health inspectors had satisfactory level of knowledge (p-value < 0.001). Among those with satisfactory knowledge, 48.7% had received training in surveillance. (p-value < 0.001).

Regarding knowledge of infectious diseases of special importance during hajj, 64.5% had satisfactory knowledge, and 32.3% did not. As for level of knowledge for each specialty, 86.4% of physicians, 50% of nurses, and 55.6% of health inspectors were satisfactory. Among those with satisfactory level of knowledge 76.9% had received training (p-value < 0.001).

Regarding knowledge of the protocol of duties assigned by MOH to all teams according to each specialty, 70.9% were satisfactory, and 29.1% were not. As for each specialty, 72.7% of Physicians, 77.3% of nurses, and 61.1% of health inspectors were satisfactory.

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**Editorial notes:** The health surveillance program in Saudi Arabia began in 1933 with a royal decree implementing communicable disease prevention. In 1940, Aramco began malaria control activities, particularly in the Eastern Regions, to protect its employees from major endemic health problems. Taking its responsibility as the site of Islam's two holiest cities seriously, the government started its own malaria control efforts in 1952 in order to protect pilgrims on their route to Makkah and Madinah. This program was later expanded to include

all malarious areas in the kingdom. In 1963, the government and the World Health Organization agreed on a plan of operation along the lines of the worldwide malaria control program. In 1979, the first comprehensive annual report of communicable diseases was published by the department of preventive medicine, MOH, and the surveillance system has been expanded over the years.<sup>2,3</sup>

This study showed that physicians had significantly better knowledge of the surveillance system as compared to nurses and health inspectors. The level of knowledge among those who had received training was significantly better than those who had not. It is therefore obvious that training and education make a difference in the level of knowledge of team members about the surveillance system, and the important infectious diseases during Hajj.

It was recommended that MOH intensify training sessions to members of the surveillance teams in hajj, especially for health inspectors and nurses. Another study should be conducted to assess the real practice of surveillance teams not only reported practices to help bridge the gap between practice and theory.

## References:

1. Teutsch SM, Churchill RE. Principles and practice of public health surveillance 2nd ed. Oxford, New York: Oxford University Press, 2000
2. Ministry of Health. Surveillance in Saudi Arabia. Saudi epidemiology bulletin 1993;1(2).
3. Centers for Disease Control and Prevention: Updated guidelines for evaluating public health surveillance systems: Recommendations from the Guidelines Working Group. MMWR 2001, 50(RR-13):1-35.

**Table 1: Relationship of health status factors with development of foot ulcers among male diabetic patients in Riyadh, Saudi Arabia 2007.**

| Knowledge               | OCCUPATION       |                  |                  |                  | Total |
|-------------------------|------------------|------------------|------------------|------------------|-------|
|                         | Health inspector | Nurse            | Physician        |                  |       |
| <b>Satisfactory</b>     | 5 27.8%          | 2 9.1%           | 15 68.2%         | 22 35.5%         |       |
| <b>Not Satisfactory</b> | 13 72.2%         | 20 90.9%         | 7 31.8%          | 40 64.5%         |       |
| <b>Total</b>            | <b>18 100.0%</b> | <b>22 100.0%</b> | <b>22 100.0%</b> | <b>62 100.0%</b> |       |
| Chi-squared = 17.436    |                  |                  |                  |                  |       |
| P-value < 0.001         |                  |                  |                  |                  |       |