



النشرة الوبائية السعودية



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Assessment of health services provided to pilgrims by Saudi Boy Scouts and their exposure to health risks during these activities in Hajj 1429H.

This study was conducted to describe the health services provided by Saudi Boy Scouts and to identify the health risks to which they may be exposed during these activities. The study objectives were to assess the health services provided to pilgrims by Saudi boy scouts in Makkah during Hajj 1429 H, assess the training and protective measures of the scouts, assess their exposure to health risks as part of their activities in Mina, and evaluate the relationship of demographic factors and experience on these health risks and protective measures.

A self-administered questionnaire based cross-sectional study was conducted. A sample size of 330 was calculated with 5% precision at 95% confidence level from a total population of 2264 Boy Scouts.

A total of 324 scouts participated in the study. Among respondents, 58.2% were under 20 years of age, 57.4% were participating for the first time. Among the studied sample, 84.6% had attended courses in first aid, 35.2% in cardiopulmonary resuscitation, 26% in disaster management, 26.5% in personal safety, and 11.3% had not attended any health related courses. Slightly over half of the participants (56.2%) had received a medical checkup prior to joining the Hajj duty. Out of 309, only 34.3% had a valid meningococcal vaccination, and 12.8% had received influenza vaccine.

The majority of scouts (92.6%) participated in directing the pilgrims in finding their way, 30.6% in guiding sick pilgrims to their camps after their recovery, 23.5% in guiding patients within various health facilities, and 21.9% in assisting medical staff in emergency situations. Table 1 describes the state of knowledge of participating scouts regarding First-Aid.

Out of 324 scouts, 37.7% had faced acute medical emergencies among pilgrims.

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Assessment of health services provided to pilgrims by Saudi Boy Scouts and their exposure to health risks during these activities in Hajj 1429H, cont...

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During their activity 34% had faced overcrowded situations without a face-mask, 4.6% had sustained injury by a sharp object, 4.6% had been exposed to body fluids, stool or urine of a patient, 4% had been exposed to blood and 0.6% had sustained a needle injury in a medical facility.

- Reported by: Dr. Muhra Mansi Al-alwy, Dr. Abdul Jamil Choudhry, Dr. Ibrahim Kabbash (Field Epidemiology Training Program).

Editorial notes: The actual service of Saudi Boys Scouts Association (SBSA) began in 1382 H, formed by a group of concerned people, when a total of 150 scouts from Jeddah and Makkah participated. Initially there were participations from other Arabic and Islamic countries, and then SBSA limited participation to Saudi scouts only. The number of scouts increased, over the years, to more than 2,000 from all over the Kingdom, with service camps gaining great interest and support from the government of Saudi Arabia.

During Hajj, a large number of the activities performed by scouts' are related to health. Under the umbrella of the Ministry of Health, they participate directly in serving sick hajjis as a first line health provider, by directing sick pilgrims within various health facilities, guiding them to their camps after their recovery, providing first aid, helping the medical providers and transferring/evacuating the patients, when necessary.

Scouts also participate in other services during hajj that contribute to maintaining health and preventing diseases, under supervision of Ministry of Hajj and Municipality, such as guiding Hajjis in order to reduce their exposure to exhaustion, tiredness, physical and emotional stress, which leads to increased mortality and morbidity.^{1,2} This service is especially useful because of

the large numbers of elderly people performing Hajj.

During conduction of their activities, scouts are exposed to various risk factors at least equal to pilgrims, if not more. Everyone in Hajj has an extra risk of contracting infectious diseases such as Meningitis for example.³ In addition, the condition in the camps when living is limited to basic amenities thus rendering the scouts susceptible to environmental, food and waterborne infection.⁴

The study highlights the organized efforts of Saudi Boys Scouts Association during Hajj that depends totally on the volunteer work of young scouts. The majority of scouts was of a young age, when they are willing to learn and participate actively with proper guidance and support, but, on other hand, makes them more vulnerable to risks or difficulties during Hajj.

Unfortunately, the study revealed

that the training of scouts participating in Hajj was suboptimal. As with any health care provider, there is concern about the spread of blood-borne pathogens such as Hepatitis B and Human immunodeficiency virus through direct exposure to blood or needle stick injury, especially among young first aid providers.⁵

Boy scouts have a major contribution in guidance of pilgrims, assisting health care providers and providing first-aid during Hajj. It was recommended to facilitate boy scouts in conducting their activities efficiently and safely during Hajj by improving the frequency and quality of training courses in first aid and cardiopulmonary resuscitation. These courses should be made mandatory for all the scouts attending Hajj duty. Existing training requires more focus on health education for personal safety measures, such as importance of regular use of face-mask,

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Table 1: Knowledge of participating scouts regarding First-Aid, Hajj 1429 H.

First-Aid Knowledge Variables	Freq.	%
Dealing with collapsed person :		
Check the response	184	56.8
Call for help	38	11.7
Open the air way	64	19.8
I don't know	38	11.7
Total	324	100.0
Ratio of chest compression to mouth-mouth breathing in CPR:		
5:1	115	35.5
15:2	43	13.3
30:2	81	25.0
I don't know	85	26.2
Total	324	100.0
Dealing with a victim with bleeding extremities:		
Carry the patient to the hospital	21	6.5
Apply pressure on the wound	132	40.7
Apply tourniquet	131	40.4
I don't know	40	12.3
Total	324	100.0
Dealing with a victim with epileptic fits:		
Restrain the patient	153	47.2
Put the patient in left lateral position	92	28.4
Watch till the fit cards	21	6.5
I don't know	58	17.9
Total	324	100.0

Hepatitis "A" Outbreak in Rania, Taif region, 2009.

On 15/1/1430H, the General Health Directorate of Taif region reported an unusually large number of hepatitis A cases from different villages of Rania, an area located in Makkah Al Mokarramah region, south west Saudi Arabia (total population 13500). A team from the Field Epidemiology training program (FETP) investigated this outbreak.

A case control study was conducted to identify risk factors associated with the occurrence of the disease. The objectives of this study were to describe the outbreak, identify possible risk factors, and provide recommendations for control and prevention.

All villages of Rania area were included. A case was defined as any person living in the catchments areas of Rania, who had presented to the PHCC with jaundice, and/or had been diagnosed as suffering from hepatitis A clinically, and/or confirmed by laboratory tests, during the period from 14/01/1430 to 15/02/1430 H (10 January to 10 February 2009). A control was defined as any person who lived in the same area who had not complained of jaundice symptoms before 15/02/1430H (10 February 2009). Three controls were selected for each case, either from the same household or nearest neighbor. Data was collected by face to face interviews and documented on a structured data collection instrument.

The epidemic curve showed three peaks (once every 1-2 weeks) which most likely represents person to person transmission and may be some sort of extended common source (Figure-1).

The cases were scattered over 8 villages. We were able to identify and interview 25 cases that fulfilled the case definition criteria. Their ages ranged from 7-15 years (mean \pm Standard Deviation (SD) of 11.2 \pm 2.2 years). There were 17 males (68%), and 8 females (32%). Twenty three cases were students at different levels, 23 (92%) were Saudis and 2 (8%) were Yemenis.

Symptoms reported were vomiting (72%), fever (68%), dark urine (64%), jaundice (48%), nausea (48%), anorexia (48%), abdominal pain (40%), diarrhea (27.6%), headache (24%), itching (24%), muscles and joints pain (20%), and

general weakness (12%).

We were able to identify and interview 75 controls. Their ages ranged between 4 – 17 years (mean \pm SD of 11.2 \pm 3.13 years); 46 males (61.3%), and 29 females (38.7%); 71 were students; 69 (92%) were Saudis and 6 (8%) were Yemeni.

Among the 25 cases, 18 (72%) reported contact with a known case of jaundice, compared to 33 (44%) of the 75 controls (OR= 3.27, 95% CI=1.22 – 9.21) and this association was statistically significant. The risk was much higher when the jaundiced cases were school peers (OR=16, 95% CI= 2.82 – 103), which was statistically significant. However, contact with a jaundiced person who lived in the same household (OR=2.12, 95% CI=0.53 – 8.48), or was a relative (OR =1.33, 95% CI= 0.16 – 9.11), or neighbor (OR=3, 95% CI=0.31 – 26.0), was not statistically significant. Those who attended school were less likely to acquire hepatitis A in comparison to those who did not (OR = 0.65, 95% CI= 0.09 – 5.49), but this was not statistically significant.

The study showed that 76% of cases washed their hands before eating, compared to 96% of controls (OR= 0.13, 95% CI= 0.02 – 0.67). Washing hands with water and soap before eating was reported by 28% of cases compared to 72% of controls (OR= 0.06, 95% CI= 0.01 – 0.39). Washing hands after eating was reported by 96% of cases, compared to 97.3% of controls (OR=0.66, 95% CI= 0.04 – 19.22). On the other hand, 72% of cases washed hands after going to toilet compared to 96% of controls (OR= 0.11,

95% CI= 0.02 – 0.53). Washing hands with water and soap after going to toilet was reported by 8% of cases, compared to 13.3% of controls (OR= 0.09, 95% CI= 0.01 - 0.89).

Vaccination of the population at risk with immunoglobulin was carried out by the preventive department of Al Taif health directorate as part of the control measures; 52% of controls had received the vaccine, and 36% of the cases had also been vaccinated. Those who had received the vaccine among controls were protected against infection (OR= 0.52, 95% CI = 0.18 – 1.45).

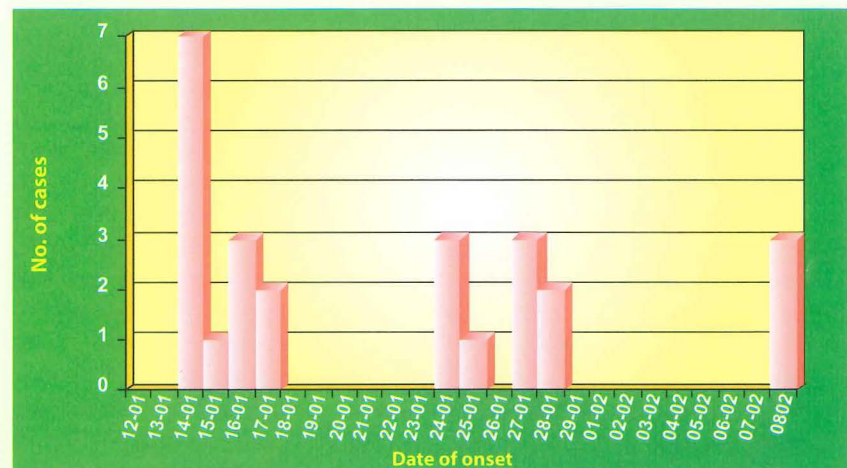
There were 2 different water sources from scattered wells around the area. The water was brought to the households by the tank vehicles (Wayet) in all the villages where cases were reported. Schools in these areas used the same water source as houses.

There was no general sewage system in these villages; each house either had its own sewage system (sewage tank or bayara), or had artesian-well-holes for sewage disposal done by digging a deep hole down to 40 meter below ground. We found that 92% of cases and 96% of controls used these sewage tanks, and 8% of cases and 4% of the controls used artesian well-hole (OR= 0.48, 95% CI = 0.06 – 4.41), indicating that type of sewage disposal was not a risk factor for acquiring infection.

All the cases and controls used the same source of water for drinking,

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Figure 1: Date of onset for 25 Hepatitis A cases, Rania, Taif, 2009



Hepatitis "A" Outbreak in Rania, Taif region, 2009, cont ...

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tank vehicles (Wayet) and did not know the exact source, except either (Alhojra) which is the collection of many wells, or AlHasawi which is superficial pools of water inside the valley. We were not able to distinguish if a specific well caused the outbreak.

The majority of both cases (80%) and controls (68%) drank from the pipes at their houses (OR=1.88, 95% CI = 0.57 – 6.54); 95.7% of cases drank water from coolers at schools compared to 84.5% of controls. Eating food bought from outside was not associated with acquiring infection (OR=1.06, 95% CI = 0.38 – 3.02).

– Reported by: Dr. Ali M. Al wadey, Dr. Mohammed Almazroa, Dr. Osamah Al Hayani (Field Epidemiology Training Program).

Editorial notes: Although Hepatitis A is a self-limited disease, with fulminant hepatitis and deaths occurring in only a small number of patients, it is a major cause of morbidity and economic loss.^{1,2} Hepatitis A occurs sporadically and epidemically worldwide, with a tendency to cyclic recurrences.³ It is typically an infection of younger patients and is related to conditions of cleanliness and hygiene. It is mainly acquired by the fecal-oral route, but can be transmitted from fecally contaminated food and water.²

Hepatitis A is endemic in many parts of the world, including Saudi Arabia, such that nearly 41% of cases of viral hepatitis in the western province have been reported as HAV.⁴ In 1989, a community-based study of all viral hepatitis reporting the age related prevalence of antibody to HAV (anti-HAV) among 4375 Saudi children (1-10 years) was found to be 52%.⁵

In this study, despite all efforts, no source of infection that could explain a common source model was identified, whether in household or school environments. Also, a person-to-person transmission pattern could not be established due to a high proportion of sub clinical cases. Unfortunately, facilities for HAV isolation with sub typing were not available and the outbreak was disrupted by passive immunization of most of the population by immunoglobulin. However, the cumulative evidence in support of

Photograph of Alhasawa (superficial collection of water), Rania, Taif.



person-to-person transmission is large. The epidemic curve exhibits multiple peaks, and sequential transmission from one area to another is quite supportive to person-to-person transmission model.

This outbreak is very similar to a previous hepatitis A outbreak that occurred at a rural community in Jazan region in 2001, in which person-to-person transmission was implicated.⁶ This outbreak can be treated as an exacerbation of the endemic person-to-person, feco-oral transmission of disease which is prevalent in such areas with poor water supply and low socioeconomic status.²

The study clearly showed the absence of any causal role of environmental risk factors or water supply for disease transmission. Immunoglobulin mass vaccination applied by the preventive department of Altaif health Directorate was efficient in controlling the outbreak when direct contacts were vaccinated.

General measures for hepatitis A prevention include hygienic and sanitary measures to prevent transmission of any enteric illness. In household settings, good personal hygiene, including good hand-washing practices and attention to proper food preparation are important in reducing the risk of transmission. At the community level, provision of safe drinking water and proper disposal of sanitary waste will reduce the incidence of hepatitis A. Future similar outbreaks could be prevented mainly by water source

control. Following basic hygienic practices and vaccination helped in epidemic control. It is recommended to start health education campaigns especially among school children, particularly in endemic areas over Saudi Arabia.

References:

1. Stapleton JT and Lemon SM. Hepatitis A and hepatitis E. In: Infectious Diseases. Hoeprich PD, Jordan MC, and Ronald AR (eds.), 5th ed. Philadelphia, Lippincott co, 1994, pp: 790-797.
2. Hollinger FB and Ticehurst JR. Hepatitis A virus. In: Fields Virology. Fields BN, Knipe DM, and Howley PM (eds.), 3rd edition. Philadelphia, Lippincott – Raven, 1996, pp 735-782.
3. RG & Granoff A, eds. Encyclopedia of Virology, London, Academic Press Ltd, 1994; pp 546-554.
4. Shobokshi OA, Serebour FE. The etiology of acute viral hepatitis in the western region of Saudi Arabia. Trans Soc Trop Hyg 1987; 81:219-21.
5. Al-Faleh FZ, Ayoola EA, Arif M, Ramia S, AL-Rashed R, Al-Jeffry M et al. Seroepidemiology of hepatitis B virus infection in Saudi Arabian children: a baseline survey for mass vaccination against hepatitis B. J Infect 1992; 24:197- 206.
6. Kholeli AN, Choudhry AJ, Turkistani 6. AM. An outbreak of hepatitis A in Jizan, 2002.

Foodborne outbreak in Ahad Rafidah, Saudi Arabia, February 2009.

On Friday 27 February 2009 at 5.30 pm several cases of gastroenteritis arrived to the emergency department of Ahad Rafidah hospital, Asir region. The main complaints were diarrhea, abdominal pain and fever. Preliminary interviews revealed that all of them belong to one extended family who shared a reception dinner at the home of one of them on Wednesday 25 February at 9.30pm. A team from the Field Epidemiology Training Program (FETP) joined the investigation to identify the food items responsible for the outbreak and determine the cause of infection.

A retrospective cohort study was conducted to identify food items and other contributing factors responsible for the outbreak. Case definition included any guest who developed any of the following symptoms: diarrhea, nausea, vomiting, abdominal pain, or fever, after eating dinner on Wednesday 25th of February at 9.30 pm.

Data was collected via face to face interview of all family members who had attended the implicated dinner, using a food-borne disease questionnaire that inquired on demographic data, clinical presentation, times when the symptoms appeared, whether they were admitted to hospital or not, and detailed history of food items consumed. After that, the laboratory results of the blood and stool cultures were collected from the division of preventive medicine in Asir health directorate.

Data were entered, tabulated and analyzed using Epi-Info software. Two by two (2x2) tables were constructed to compare the attack rate of gastroenteritis by exposure to different food items. Relative risk was used to identify food items causing the gastroenteritis and 95% confidence intervals were calculated.

Out of the 35 guests, 27 matched the case definition with attack rate of 77.1%. Ages ranged between 2 to 55 years, with a mean of 20 years. The male: female ratio was 1:1.5. The main symptoms were abdominal pain (100%), diarrhea (92.6%)

and fever (77.7%). Twenty (74%) of the sick people were initially hospitalized. All recovered without complications, except for 3 (11.1%) who had bloody diarrhea, two of whom were 2 years old. By the morning of Wednesday the 4th of March 2009, all of the patients had been discharged.

The incubation period ranged from 36 to 63 hours, with a mean of 50 hrs and a median of 48 hrs. Among 6 food items consumed, meat (Relative Risk RR= 9, 95% CI = 1.42-57.12), and rice (RR= 3.7, 95% CI = 1.11-12.36) were significantly associated with illness (Table 1).

Out of the 24 stool samples collected from cases 5 (20.8%) were positive for Salmonella, 4 (16. 4%) were positive for Amoeba and 4 (16. 4%) were positive for both.

On inspection of the kitchen where food preparation took place, general hygiene and cleanliness of the food containers were not adequate. Water supply was of unknown source and date. No food remains were found to obtain food samples. Inspection of the two food handlers was satisfactory; however, one of them had positive stool cultures for Amoeba, but neither had Salmonellosis.

- Reported by: Dr. Muhra M. Al-Alwy, Dr. Mohammed A. Al-Mazroa, Dr. Mohammed Naguib (Field Epidemiology Training Program).

Editorial notes: Food borne disease (FBDs) is a general term for health

problems caused by consumption of contaminated food. They are classified as intoxication or infection based on the causative factor.^{1,2}

During the period from 1416 through 1425H, reported outbreaks of FBDs in Saudi Arabia were (3,877) with a total of (26,707) cases, more than half of them were hospitalized. Salmonella species was attributed to 41.4% of these outbreaks.³

In spite of the fact that the immediate source and reservoir could not be clearly identified, meat and rice were the most probable immediate sources of infection. Based on the incubation period, clinical picture and results of stool cultures, Salmonella was considered the causative agent of this foodborne outbreak in presence of co infection by Entamoeba histolytica.

References:

- Centers for Disease Control and Prevention (CDC). Diagnosis and Management of Foodborne Illnesses. MMWR Weekly Rep. January 26, 2001 / 50(RR02);1-69.
- Louisiana Office of Public Health – Infectious Disease Epidemiology Section, Food-borne Outbreak Investigation. Bioterrorism Manual. Revised 12/21/2004.
- Ministry of Health. Food Poisoning Accidents during the years 1421-1422. Annual Report. Riyadh (KSA): Food Poisoning Department, Ministry of Health; 2002.

Table 1: Attack rates and relative risks for food items of food poisoning outbreak in Ahad Rafidah, Saudi Arabia February 2009.

Food items	Eaters			Non Eaters			RR	CI 95%
	Ill	Well	AR %	Ill	Well	AR %		
Meat	26	0	100	1	8	10	9	57.12-1.42
Rice	25	2	90	2	6	30	3.7	12.36-1.11
Meglgal	15	7	70	12	1	90	0.7	1.02-0.53
Yogurt salad	9	5	60	18	3	90	0.75	1.15-0.49
Green salad	7	4	60	20	4	80	0.76	1.24-0.47
Dessert	17	7	70	10	1	90	0.78	1.08-0.57

ملخص باللغة العربية

تقييم الخدمات الصحية المقدمة من قبل الكشافة السعودية والمخاطر الصحية التي يتعرضون لها في موسم الحج لعام ١٤٢٩ هـ.

عدد كبير من أنشطة الكشافة خلال موسم الحج تتعلق بالصحة. هدفت هذه الدراسة إلى إلقاء الضوء على هذه الخدمات بالإضافة لدراسة نوعية المخاطر التي قد يتعرض لها الكشافة أثناء تأديتهم لها، وما إذ كانت خصائصهم الشخصية، خبراتهم، وطرق تدريبهم تشكل أي تأثير على مستوى الخدمات المقدمة أو نسبة الخطر التي يتعرضون لها. تم إجراء دراسة مقطعية في منى بتاريخ ١٠-١١-١٢ من ذي الحجة لعام ١٤٢٩ هـ.

تراوحت أعمار الكشافة ما بين ١٥ إلى ٤٢ سنة (متوسط 19 ± 2.5). وكان غالبيتهم ١٨١ (٥٥,٩%) في المرحلة الثانوية، ١٣٨ (٤٢,٥%) في الكلية، ونسبة ضئيلة في المرحلة المتوسطة ٥ (١,٦%). من بين ٣٢٤ كشاف مشارك، ١٧٦ (٥٤,٣%) حمل رتبة كشاف، ١٤٧ (٤٥,٣%) رتبة جوال واحد قائد عشيرة (٠,٤%). ١٨٦ (٥٧,٣%) كانوا يشاركون للمرة الأولى، ٦٦ (٢٠,٥%) للمرة الثانية، و ٧٢ (٢٢,٢%) للمرة الثالثة أو أكثر. الغالبية ٢٧٤ (٨٤,٦%) قد تلقوا دورات تدريبية في الإسعافات الأولية، ٨٦ (٢٦,٥%) في السلامة الشخصية، ٨٤ (٢٦%) في التصرف أثناء الأزمات، ١١٤ (٣٥,٣%) في الإنعاش القلبي الرئوي، و ٣٦ (١١,٢%) لم يتلقوا أي دورات. بالنسبة لمعرفتهم العامة بالإسعافات الأولية ١٩,٩% منهم حصلوا على درجة عالية. وقد أثبتت الدراسة أن درجة معرفة الكشافة تتأثر بالدورات التدريبية في الإسعافات الأولية $p=0,001$ والإنعاش القلبي والرئوي $p=0,006$.

أما بخصوص الإجراءات الوقائية المتخذة وجدت الدراسة أن ١٤٦ (٤٥,١%) من الكشافة لم يخضعوا لفحص طبي قبل انضمامهم للحج وأن من بينهم ٨,٦% مصاب بالربو، و ١,٥% مصاب بالسكري، ٤ (١,٢%) كانوا يعانون من ارتفاع ضغط الدم وبنسب مماثلة ٣ (٠,٩%) لكل من فقر الدم المنجلي، فقر الدم والأكزيما.

أوضحت الدراسة أن ٤٣,٣% فقط تلقوا تطعيم الحمى الشوكية في التوقيت المناسب، و ١٢,٨% فقط كانوا قد تلقوا تطعيم الانفلونزا خلال أقل من

سنة أشهر.

بخصوص الخدمات المقدمة من قبل الكشافة، فغالبيتهم ٣٠٠ (٩٢,٦%) قاموا بإرشاد الحجاج التائهين، ٩٩ (٣٠,٦%) قاموا مصاحبة المرضى من الحجاج إلى مخيماتهم بعد شفائهم، ٧٦ (٢٣,٥%) قاموا بإرشاد وتوجيه المرضى في المرافق الصحية و ٧٠ (٢١,٦%) شاركوا في منع الازدحام أمام المرافق الصحية. ١٢٠ (٣٧,٧%) سبق لهم مواجهة حالات مرضية بين الحجاج، تنوعت من المشاكل الصحية البسيطة ٥٣ (٤٣,٤%)، فقدان الوعي ٤٨ (٣٩,٣%)، إصابات شديدة ٣٥ (٢٨,٧%) وأزمات قلبية ٢٢ (١٨%).

أثناء تأديتهم لعملهم، ٦٢,٧% التزموا بارتداء كاماة الوجه غالبية الوقت، ١١٠ (٣٤%) وجدوا أنفسهم عرضة للزحام الشديد ولم يكونوا مرتدين للكاماة، ١٥ (٤,٦%) أصيبوا بأدوات حادة، ١٣ (٤%) تعرضوا لدم مريض أو شخص آخر، ١٥ (٤,٦%) تعرضوا لبراز أو البول مريض أو شخص آخر، و ٢ (٠,٦%) أصيبوا بوخز الإبر في منشأة طبية.

خلال موسم الحج أصيب ٧٢ (٢٢,٢%) من الكشافة بنزلات البرد، ٣٦ (١١,١%) بالأم أسفل الظهر، و ٢٣ (١٠,٢%) أصيبوا بشد عضلي.

أوضحت الدراسة الحاجة لتكثيف الدورات الصحية و رفع مستوى التحصين ضد الحمى الشوكية و الانفلونزا، والالتزام بالفحص الطبي قبل الانضمام للحج.

إعداد: د. مهرة العلوي، د. عبد الجميل شوردي، د. إبراهيم كباش (برنامج الوبائيات الحقلية).

فاشية تسمم غذائي بأحد ريفية في عام ١٤٢٩ هـ.

عند الساعة الخامسة والنصف من عصر يوم الجمعة ٢٧ فبراير ٢٠٠٩ توافد عدد من الأشخاص على قسم الطوارئ بمستشفى أحد ريفية العام يشكون من نزلات معوية حادة أثر تناولهم وجبة عشاء في منزل أحدهم يوم الأربعاء ٢٥ فبراير. قام فريق من برنامج الوبائيات الحقلية بزيارة لأحد ريفية للتأكد من وجود الفاشية ومدى انتشارها

ومسبباتها، لاقتراح التوصيات المناسبة لمنع حدوث ذلك مستقبلاً.

قام فريق البحث بزيارة لمديرية الشئون الصحية بعسير للحصول على قائمة مبدئية بالحالات ونتائج الفحوصات المخبرية. تم أخذ عينات عشوائية من الأطعمة الموجودة بالمطبخ والأدوات المستخدمة بالطبخ. وقد تم التوصل إلى بقية الضيوف عن طريق المرضى المسجلين. قرر فريق البحث إجراء دراسة أترابية و قد عرفت الحالة بأي شخص تناول طعام العشاء في تلك المناسبة يوم الأربعاء الموافق ٢٥ فبراير وظهرت عليه أحد هذه الأعراض: مغص بالبطن، إسهال، غثيان، قيء، أو ارتفاع في درجة الحرارة.

خمس و ثلاثون شخص تناولوا طعام العشاء تلك الليلة، ٢٧ (٧٧,١%) منهم طابق تعريف الحالة، ٥٩,٣% منهم نساء. تراوحت أعمارهم ما بين السنتين إلى ٥٥ سنة (متوسط ٢٠)، ٢٠ (٧٤%) تم تنويمهم بالمستشفى. وقد استمرت فترة حضانة المرض من ٣٦ إلى ٦٣ ساعة.

أكثر الأعراض التي ظهرت على المصابين كان المغص (١٠٠%) يليه الإسهال ٩٢,٦%، ثم السخونة ٧٧,٧% وأقل الأعراض ظهوراً كان الإسهال المدمي ١١,١% والدوار ٧,٤%.

من بين أصناف الطعام التي قدمت تلك الليلة وجدت الدراسة أن اللحم ذا علاقة مؤثرة بالتسمم (نسبة الخطورة ٩ ومعامل الثقة بين ١,٤٢ إلى ٥٧,١٢)، وكذلك الأرز (نسبة الخطورة ٣,٧ ومعامل الثقة بين ١,١١ إلى ١٢,٣٦). وقد أوضحت التحاليل المخبرية وجود نوعين من البكتريا، السالمونيلا لدى ٥ (٢٠,٨%) من المصابين والأميبا لدى ٤ (١٦,٤%) و كلاتهما لدى ٤ (١٦,٤%) آخرين. وقد سجلت أصابها أحد الطباقين بالأميبا.

يتضح من خلال النتائج والأعراض الإكلينيكية وفترة الحضانة أن السالمونيلا هي الجرثومة المسببة للمرض بمصاحبة جرثومة الأميبا، وأن اللحم و الأرز هما الناقلان الرئيسيان للمرض. الكشف الطبي للعاملين بالمطابخ والمراقبة الدورية للنظافة العامة وطرق إعداد الطعام بجانب التوعية الصحية يساهم بالحد من حالات التسمم.

إعداد: د. مهرة العلوي، د. محمد المزروع،

د. محمد نجيب (برنامج الوبائيات الحقلية).

Assessment of health services provided to pilgrims by Saudi Boy Scouts and their exposure to health risks during these activities in Hajj 1429H, cont...

(Continued from page 10)

timing of meningococcal vaccination, avoidance of exposure to blood or other body fluids of patients and communication skills.

References:

1. Landry P, Slama S.V. Pilgrimage and other mass gatherings: epidemiology and prevention. *Rev Med Suisse*. 2008 May 14; 4(157):1192-5.
2. Ahmed QA, Arabi YM, Memish ZA. Health risks at the Hajj. *Lancet*. 2006 25;367(9515):1008-15.
3. Balkhy HB, Memish ZA. Meningococcal carriage among local inhabitants during the pilgrimage 2000-2001. *international journal of antimicrobial agent*. 2003; 21(2):107-111.
4. Shafi S, Memish ZA, Gatrada AR, Sheikh A. Hajj 2006: communicable disease and other health risks and current official guidance for pilgrims. *Euro Surveill*. 2005 Dec 15; 10(12): PP E051215.2.
5. Ng YW, Hassim IN. Needle stick injury among medical personnel in Accident and Emergency Department of two teaching hospitals. *Med J Malaysia*. 2007

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Inside the Kingdom

7 June, 2009: Smoking: Improving the Role of Health Care.

Location: King Fahad Medical City, Riyadh, KSA.

Contact: Continuing Medical Education Department, Academic and training Affairs, King Fahad Medical City, P.O. Box 59046 Riyadh 11252.

Tel.: 288-9999 Ext. 7497 / 4114 / 4454. Fax: 288-999 Ext. 4118 / 4292.

E-mail: cme@kfmc.med.sa.

Website: www.kfmc.med.sa

18 August, 2009: A/H1N1 Symposium.

Location: Makkah, Saudi Arabia.

Venue: King Abdullah Medical city, Al Noor Specialist Hospital.

Contact: Mrs. Amal Adnan Saad. Postgraduate studies, training and Research Center, Al Noor Specialist Hospital. Tel. 00966(2)5165000 ext. 7161/7106. Fax. 00966(2)5664393.

Outside the Kingdom

2-4 October, 2009: 4th International Public Conference on Vaccination.

Location: Reston, VA, United States

Contact: Barbara Loe Fisher

Email: contactnvc@gmail.com

<http://www.nvc.org/Events.aspx>

4- 6 October, 2009: 3rd Vaccine Global Congress.

Location: Singapore

Contact: Melissa Blake Vaccine Congress Secretariat, Tel: +44 (0) 1865 843721, Fax: +44 (0) 1865 843958

Email: m.blake@elsevier.com

Mail: Elsevier, The Boulevard, Langford LMark ane, Kidlington, Oxford, OX5 1GB, UK.

<http://www.vaccinecongress.com>

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- **Dr. Randa Nooh**
Consultant Epidemiologist, Bulletin Editor
- **Dr. Abdul Jamil Choudhry**
Consultant Epidemiologist.

Selected notifiable diseases by region, Apr - Jun 2009

	Riyadh	Makkah	Jeddah	Madinah	Taif	Qassim	Eastern	Hasa	Hafr Al-batin	Asir	Bisha	Tabuk	Hail	Al-Shamal	Jizan	Najran	Baha	Al-Jouf	Goriat	Gonfuda	TOTAL
Measles	3	0	1	0	0	2	2	0	0	1	0	2	0	10	0	0	0	0	0	0	21
Mumps	4	0	3	0	0	3	0	0	0	6	0	0	0	1	0	0	0	0	0	0	22
Rubella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Varicella	2258	421	894	534	593	1277	1805	1363	428	1020	283	317	242	206	128	527	96	219	103	93	12807
Meningitis mening.	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	3
Meningitis other	53	0	6	3	11	9	16	4	1	2	4	1	5	0	0	4	0	1	1	0	121
Hepatitis B	242	0	284	189	52	75	195	6	4	77	9	98	8	28	78	45	5	35	2	17	1449
Hepatitis C	164	1	200	39	17	35	103	7	0	22	12	25	2	4	6	8	1	22	6	2	676
Hepatitis unspecified	23	0	4	0	0	2	1	2	0	7	0	1	1	0	43	0	0	0	0	0	84
Hepatitis A	35	17	26	59	33	26	11	5	25	25	10	11	4	2	31	44	6	2	1	0	373
Typhoid & paratyphoid	0	0	36	2	0	2	21	3	0	10	11	0	2	1	0	4	0	1	0	4	97
Amoebic dysentery	21	5	489	12	13	4	258	24	0	48	30	0	3	4	0	1	0	0	0	0	912
Shigellosis	5	0	1	0	0	1	5	2	1	0	1	7	0	0	0	4	0	1	0	0	28
Salmonellosis	87	0	14	10	0	5	134	22	8	2	7	16	0	0	0	41	0	3	1	2	352
Brucellosis	181	3	26	54	104	451	106	18	88	177	85	13	220	44	22	57	0	43	7	15	1714
Dengue Fever	2	1218	854	0	12	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	2090

Comparisons of selected notifiable diseases, Apr - Jun 2008 - 2009

DISEASE	Apr - Jun		Change %	Jan - Jun		DISEASE	Apr - Jun		Change %	Jan - Jun	
	2009	2008		2009	2008		2008	2007		2009	2008
Cholera	1	2	-50	1	7	Meningitis mening	3	0	100	5	7
Diphtheria	1	0	100	1	0	Meningitis other	121	78	55	203	299
Pertussis	15	11	36	25	30	Hepatitis B	1449	1488	-3	2908	5066
Tetanus, neonat	1	4	-75	8	13	Hepatitis C	676	667	1	1451	2733
Tetanus, other	1	3	-67	4	4	Hepatitis unspecified	84	47	79	180	255
Poliomyelitis	18	37	-51	40	121	Hepatitis A	373	421	-11	857	1678
Guillain Barre Syndrome	21	70	-70	64	158	Amoebic dysentery	97	79	23	153	269
Measles	22	11	100	107	31	Amoebic dysentery	912	688	33	1665	3311
Mumps	0	0	0	3	15	Shigellosis	28	57	-51	70	188
Rubella	12807	26648	-52	23531	60007	Salmonellosis	352	356	-1	602	1292
Varicella	2090	490	327	2718	913	Brucellosis	1714	1288	33	2807	3447

Diseases of low frequency, Apr - Jun 2009

Yellow fever, Plaque, Poliomyelitis, Rabies, Ecchinococcosis: No Cases.

Pertussis: 15 Cases (Qassim 13, Eastern 1, Hail 1).

Neonatal Tetanus: 1 Case (Shammal).

Guillain Barre Syndrome: 18 Cases (Riyadh 3, Madinah 2, Tabuk 2, Eastern 2, Jeddah 2, Makkah 2, Taif 1, Bisha 1, Jazan 1, Najran 1, Goriat 1).