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Assessment of vaccination status and other preventive practices among health care workers, Hajj, 1428 H (2007 G).

Contact of health care workers (HCW) such as physicians, nurses, laboratory technicians and administrative staff with patients or infected material of patients, put them at risk of exposure and further transmission of infectious diseases, including vaccine preventable diseases like Hepatitis B, Influenza and Meningococcal Meningitis. Maintenance of safety of health care workers is an essential component of successful employee health program, which can safeguard the health workers and also protect patients from becoming infected through exposure to infected HCWs. A cross-sectional self-administered questionnaire based study was conducted among HCWs in Makkah during hajj season 1428 H, to assess their vaccination status against meningococcal disease, influenza, and hepatitis B; and to assess their knowledge and practices regarding standard protective measures against blood-borne and air-borne infections during their work. A stratified random cluster sampling technique was used to recruit the study sample.

Out of 641 HCWs, 67.9% were from 3 hospitals and 32.1% were from 13 primary health care centers (PHCCs). Ages ranged between 21 and 63 years (mean 36.3 ± standard deviation (SD) 9.9 years); 64.3% were male; and 50.9% were Saudis. Nurses constituted 44.0% of respondents, 39.3% were doctors and 16.7% were other paramedic and administrative staff; 76.0% were originally from Makkah region, and overall 55.0% were participating in hajj for the 4th time or more.

Of the total, 91.4% had received meningococcal vaccine; among whom 74.7% had a valid meningococcal vaccine (i.e. received more than 10 days to less than 3 years ago) while 12.8% received vaccine more than 3 years ago and 12.5% received vaccine less than 10 days before they reached Makkah. Reasons given by the 92 HCWs who did not receive meningococcal vaccination during the last 3 years included non-availability of vaccine in their health facility (56.6%), not recommended by MoH (18.5%) and being busy (17.4%). Only 29.6% had received

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Assessment of vaccination status and other preventive practices among health care workers, hajj 1428 H.

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influenza vaccination within the previous 6 months. Reasons given for not getting the influenza vaccine included non-availability at their health facility (48.2%), not effective (19.6%), not recommended by MoH (11.3%) and no need (9.2%). As shown in table 1 valid meningococcal vaccination was statistically significantly higher among HCW from PHCCs compared to those from hospitals, and those working in outpatient departments as compared to inpatient departments. Influenza vaccination was significantly higher among females and non-Saudis. Most HCWs (66.8%) had received 3 doses of hepatitis B vaccine, 9.5% had received 2 doses, 7.6% had received 1 dose, and 16.1% had not received any.

Regarding various infection control measures, 70.5% had heard about universal precautions; of whom 48.2% had read about infection control policy from some book, 12.9% from some journal, and only 3.3% from the internet. Regarding training, 33.5% had attended a course on infection control within the previous year, 17.0% had attended a course in the previous 1-5 years, 4.5% had attended a course over 5 years ago, and 44.9% had never attended.

Table 2 demonstrates practices of HCW regarding infection control safety measures. Among those who ever sustained needle pricks during hajj duty (20.0%); only 26.2% were notified to health authorities, of which 70.6% had their blood tested for Hepatitis B, C and HIV.

– Reported by: Dr. Hanan Al Shaikh, Dr. Abdul Jamil Choudhry, Dr. Osamah Al-Hayani (Field Epidemiology Training Program).

Editor's notes: Vaccination against diseases such as hepatitis B, Influenza and meningococcal meningitis, in addition to optimal personal hygienic practices, such as hand washing, use of protective barriers and safe handling of sharps can minimize the risk of infections associated with patient contact among HCWs .[1,2]

Meningococcal disease remains a major public concern and the epidemiology of the disease changes rapidly. Effective protection and control measures with vaccine for major serogroups are recommended to reduce the impact of the disease over the world.[3] This study demonstrated that compliance of HCWs to meningococcal meningitis was only 74.7%, which is considered low, especially since the vaccine is freely available (although half of the HCWs who were not vaccinated claimed it to be unavailable at their health facilities), and strongly recommended by the MoH for workers in hajj. Regarding Influenza, vaccinating HCWs against influenza reduces nosocomial infection and worker absenteeism.[4,5] Influenza vaccine is one of the optional vaccinations recommended for hajj. Only a small proportion of HCWs had been vaccinated against influenza, and the main reason given was again non-availability of the vaccine. Both these findings indicate that there is some problem with availability of these vaccines, which need rectification by the authorities to improve the coverage.

Hepatitis B virus infection is a well-known risk for HCWs who perform tasks that require contact with blood, body fluids, and sharps, especially in countries where Hepatitis B is still endemic.[1,6] Although Hepatitis B vaccine is not a specific requirement for hajj, it is expected that all HCWs are vaccinated as a routine, however, the study findings do not conform with this expectation.

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Table 1: Demographic determinats of meningococcal and influenza vaccination among Health Care workers, Hajj 1428 H.

Demographic characteristics	Meningococcal vaccination status				P-value	Meningococcal vaccination status				P-value
	Vaccinated (N =586)		Not vaccinate (N =55)			Vaccinated (N =586)		Not vaccinate (N =55)		
	No.	%	No.	%		No.	%	No.	%	
Age group										
21-30	206	88.4	27	11.6		101	43.3	132	56.7	
31-40	206	92.0	17	8.0		108	48.4	115	51.6	
41-50	112	92.5	9	7.4	0.13	63	52.1	58	46.9	0.11
>50	62	96.8	2	3.1		38	59.4	26	40.6	
Sex										
Male	380	92.2	32	7.8	0.17	185	44.9	227	55.1	0.02
Female	202	89.8	23	10.2		125	54.6	104	45.4	
Nationality										
Saudi	302	93.0	23	7.0	0.17	121	37.2	204	62.8	0.001
Non Saudi	284	90.0	32	10.0		189	59.8	127	40.2	
Occupation										
Doctor	139	93.0	11	7.0	0.53	82	54.7	68	45.3	0.07
Paramedical	447	91.0	44	9.0		228	46.4	263	53.6	
Health facility										
Hospital	386	88.5	50	11.5	<0.01	217	49.8	219	50.2	0.31
PHC	200	97.5	5	2.5		93	45.4	112	54.6	
Department										
Out patient	397	94.1	25	5.9	<0.01	196	46.2	226	53.8	0.18
In patient	586	86.3	30	13.7		114	53.8	105	44.8	

Measles outbreak and measles vaccination status among children in Tathleeth, Assir, Saudi Arabia, 2007 (1428H) .

From the 1st of January to the end of July 2007 G (1428H), there was an increase in the number of measles cases in Assir region, with 552 suspected and 247 confirmed cases. The highest number (132) was reported from Tathleeth sector, in Eastern Assir. This was the first reported measles outbreak in Tathleeth. The objectives of this study were to describe the distribution and dynamics of this outbreak, assess measles vaccination status of children registered at Primary Health Care Centers (PHCC), and recommend appropriate measures for improvement of vaccination to prevent future measles outbreaks.

A cross-sectional study was conducted to describe the current outbreak, in addition to a retrospective cohort study for children registered at PHCC for the Expanded Program of Immunization (EPI) to evaluate the role of timing of vaccination in the occurrence of measles. The study population for the cross-sectional study, was all measles cases reported from January to July 2007 from all PHCCs in Tathleeth sector. For the retrospective cohort study, the population was all children registered at PHCCs for EPI during the period 2000-2005, from 4 PHCCs launched before 2000, Tathleeth, Amwah, Jash, and Subaikhah. A case was defined as any person who had fever and skin rash and/or laboratory confirmed in Tathleeth sector from January to July 2007.

A total of 132 cases were registered at 12 PHCCs of Tathleeth during the study period, of which the highest 58 (44.0%) were registered at Tathleeth PHCC, where the first case appeared. The onset of the outbreak was January 2007, the offset was in July 2007, and the peak was in April 2007, as shown in figure 1.

Among the total cases, there were 67 (50.8%) females and 65 (49.2%) males. Ages ranged between 5 months-50 years (mean 15 and 5 months, ± SD 12). All cases were Saudis except one.

Among all cases, 15.0% resided inside Tathleeth city, and 44.0% had been treated at Tathleeth PHCC. All cases (100.0%) experienced fever and skin rash, 24.0% loss of appetite, 22.0% headache, 6.0% cough, 4.0% fatigue, 2.4% vomiting, and 0.7% had either abdominal pain, diarrhea, pallor, dizziness or red eyes. There was no history of contact with a known measles case.

Among females, 78.0% were non-vaccinated, 12.0% partially vaccinated and 10.0% completely vaccinated. Among males, 37.0% were non-vaccinated, 15.0% partially vaccinated and 48.0% completely vaccinated. Partial vaccination was defined as receiving only a single dose of either MMR1 (1st dose MMR vaccine) or measles vaccine. Complete vaccination was defined as receiving 2 doses either (MMR1+measles vaccine) or (MMR1+MMR2) or 3 doses (MMR1+MMR2+measles). Laboratory results showed that 97 cases were anti-measles IgM positive.

In the retrospective cohort study, from 2000 to 2005, 5447 children were registered at the participant PHCCs. By the time of data collection (July 2007), 27 (0.5%) had died and 756 (13.9%) had moved. There were 3154 (57.9%) children from Tathleeth PHCC, 1084 (19.9%) from Amwah, 622 (11.4%) from Jash and 587 (10.8%) from Subaikhah. Among them, there were 49.2% females and 50.8% males. Their ages ranged between 19-92 months (mean 54 months, SD ± 20 months). Cases were almost evenly distributed among age groups. Most of the children resided outside Tathleeth city (80.0%).

Among the studied children, 87.2% had received at least one dose of vaccination, while 12.8% had not been vaccinated at all. Overall, 33.1% had been completely vaccinated, and 54.1% partially vaccinated. Of the total, 84.7% had received MMR1 vaccine by the time of record review. The highest percentage vaccinated was among those who had been registered during 2000 (98.2%), and the lowest among those registered during 2001 (80.3%). The highest percentage of vaccination was among those registered at Subaikhah PHCC (99.8%); and the lowest at Amwah (71.4%). Almost complete MMR1 vaccination pattern was observed at Subaikhah PHHC throughout the study period. Jash PHCC showed consistent over 90.0% MMR1 vaccination with minor fluctuation, while Amwah PHCC showed a very high peak of 98.6% in 2000 which fell to 21.0% in 2001, and fluctuating widely since then. Tathleeth PHCC showed a gradual uneven decline from 97.7% in 2000 to 75.4% in 2005.

Only 6.0% of children had received the 2nd dose of MMR vaccine (MMR2), the highest was among those registered during 2002 (21.8%), followed by 2003 (11.1%), 2001 (1.4%) and 2000 (0.3%). Children registered during years 2004 and 2005 had not received the MMR2.

Among the total study subjects, 29.9% had received the Measles vaccine as part of EPI: 95.1% of children registered in 2000 and 78.7% of those registered in 2001.

When vaccination status was stratified by current age, 80.7% of children "19-30 months" and 84.4% of the "31-42 months" age groups had received MMR1 dose alone. Among children 43-54 months of age, 73.6% had received

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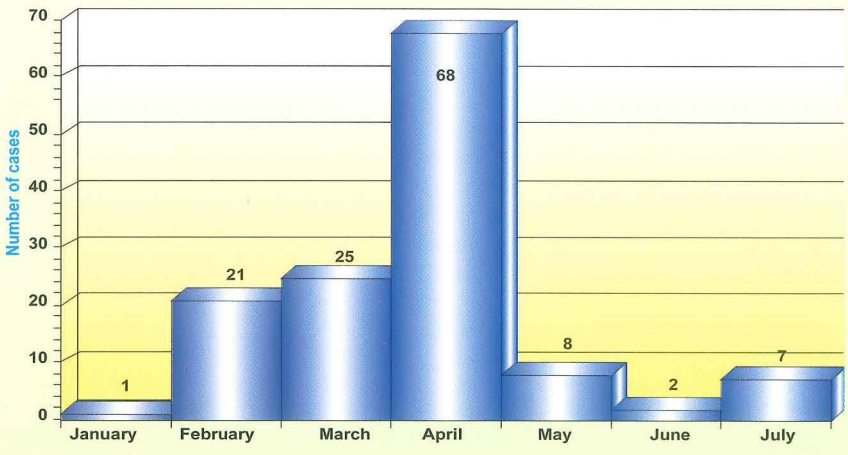
Figure 1: Epidemic curve of measles outbreak, January - July 2007, Tathleeth Sector, Assir.



Measles outbreak and measles vaccination status among children in Tathleeth, Assir, Saudi Arabia, 2007 (1428H) cont...

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MMR1 alone and 11.0% had received MMR2; among children 5566- months, 60.7% had received MMR1 and 21.9% had received MMR2. Only 77.4% of children in the 6778- months age group had received MMR1 alone and 1.5% had received MMR2; 97.9% of children 79 months and above had received MMR1 alone and only 0.2% had received MMR2.

The Saudi EPI program recommends that all children receive MMR1 at 12 months of age and MMR2 at school entry (46- years). In line with these recommendations, delay in MMR1 vaccination was defined as any child who had not received his/her MMR1 or had received it at or after 13th months. Among the studied children, 50.7% had delayed MMR1 vaccination. The proportion of those who had delayed vaccination did not show any specific trend and fluctuated between 41.9% and 60.0% over the years. Within the PHCCs, Subaikhah performed better than others (28.5% delayed vaccination) and poorest in Amwah (67.2% delayed vaccination). When delay in vaccination was assessed by current age, among children 1942- months, 82.7% had received MMR1 on schedule before 13 months. Among children 6792- months, only 0.9% had received MMR2 on schedule, while 99.1% had not. Although 16.3% of children aged 4366- months had received MMR2 vaccine, however, keeping in view the recommended age of vaccination (46- years), it is not possible to comment on the proportion not on schedule at this stage.

– Reported by: Dr. Jaber Sharaheeli, Dr. Abdul Jamil Choudhry, Dr. Randa Nooh (Field Epidemiology Training program).

Editorial notes: Measles is a highly infectious viral disease caused by a Morbillivirus. Humans are the only reservoir. Transmission is primarily person-to-person via aerosolized droplets or direct contact with nasal and throat secretions of infected persons. In a non-immune person exposed to measles, after an incubation period of about 10 to 12 days (range 718- days), prodromal symptoms of fever, malaise, cough, coryza (runny nose), and conjunctivitis appear. Within 2 - 4 days of prodromal symptoms, a maculo-papular rash appears behind the ears and on the face along with high fever. The rash spreads to the trunk and extremities and lasts 37- days. Individuals with measles are infectious 2 - 4 days before through 4 days after rash onset. Measles leads to complications, and even deaths, among those under 5 and over 20 years. There is probably lifelong immunity, both after natural infection or vaccination. The efficacy of measles vaccine is 85.0% globally and 90.0% if administered at 9 months and higher if given later.[1]

The EPI is one of the most cost-effective health programs.[2] In Saudi Arabia, vaccination against measles began in 1974 for children aged 1 to 9 years. One-dose Schwartz vaccine became a compulsory requirement for obtaining a birth certificate in 1982, to increase the coverage rate, which subsequently rose from 8.0% in 1980 to 80.0% in 1984 and to over 90.0% in 1990. Although this was accompanied by a remarkable decrease in measles incidence, the overall impact of measles immunization was unsatisfactory. The two-dose schedule was implemented in 1991, with the first dose given at 6 months of age, followed by a second dose at 15 months. In 2002, the schedule was changed to a first dose of MMR given at 12 months followed by a second dose at 5 years. However, since this change, a number of outbreaks of measles have been reported in different parts of the Kingdom.[3] Some of the suspected reasons for these outbreaks are decreased threshold of herd immunity besides the increased proportion of susceptible individuals, which may be compounded by vaccine failure of the first dose. Explosive outbreaks with devastating clinical and public health consequences can occur in an environment that has been free of measles for more than a decade. Transmission of the measles virus, once reestablished, can be very difficult to interrupt.[4,5]

Measles epidemics can occur even in highly vaccinated populations. This can be contributed to a variety of factors including failure to seroconvert and waning of vaccine-induced immunity. The mean duration of vaccine-induced protection in the absence of re-exposure is 25 years. However, after long-term absence of circulatory virus, the mathematical model predicts that all seroconverted vaccinees have titers below the protective threshold.[4,5,6]

The most likely incriminated factors in the development and spread of the current measles outbreak in Tathleeth region were reduced herd immunity, low vaccination coverage and delayed administration, increased susceptible individuals, congested populations, nature of measles epidemiology and nature of vaccines against it.

Vaccination against measles needs to be strengthened in Tathleeth, particularly in the catchment areas of Amwah and Tathleeth PHCCs. This is required both in terms of quantity and quality, i.e. improving the proportion of children to be vaccinated in a timely manner. The supervisory mechanism for EPI also requires strengthening, with continuous evaluation and active response. A vaccination campaign was suggested to provide an additional 2nd dose of MMR/Measles to children registered in years 2000 and 2001. Children who have not received the 2nd dose of MMR/Measles should be targeted for vaccination.

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Food Borne Outbreak in Bisha City, Saudi Arabia, May 2007.

On 9:00 am, Thursday 3rd of May 2007, several patients began to arrive at the emergency department of King Abdullah hospital in Bisha city. All mentioned a history of eating a meal on the same afternoon through midnight of the previous day (Wednesday 2nd of May) from the same restaurant. A team from the Field Epidemiology Training Program conducted an investigation to identify the food item(s) responsible for this outbreak, determine the source of infection, and recommend measures to prevent similar outbreaks in the future.

A case control study was conducted. A case (patient) was defined as any person who ate from the implicated restaurant on the 2nd of May, and developed one or more of the following symptoms: diarrhea, nausea, vomiting, abdominal pain, and fever. The controls were those who shared eating the food from the same restaurant. We took a sample of 55 cases and 55 controls and inquired about food consumption, clinical symptoms and admission history.

Cases (81.8%) were more likely than controls (5.5%) to have eaten the Russian salad with mayonnaise (Odds ratio (OR) = 78; 95% Confidence Interval (CI) 20.21 - 301.04). Eating Mutabal (OR = 34.2; 95% CI 7.57 - 154.80) and Shawarma (OR = 3.1; 95% CI 1.09 -8.62) were found to have an association with food poisoning. Salmonella of serotype enteritidis was isolated from 51 patients. Out of the 51 positive patients, 29 were positive in stool culture, and 22 were positive in rectal swab. Five of the food handlers had Salmonella enteritidis serotype positive on rectal swab.

Mayonnaise was prepared at the restaurant by blending egg yolk with oil and vinegar. After it was prepared, the mayonnaise was mixed with carrots and cabbage to produce the Russian salad. After that, the Russian salad was placed in medium sized plastic containers to be distributed with each roast chicken meal. The plastic containers that included the Russian salad remained at room temperature for over 3 hours. Any leftover Russian salad was used the following day.

– Reported by: Dr. Ibrahim A. Al-Honazil, Dr. Abdul Jamil Choudhry, Dr. Faisal M. Al-Enezy (Field Epidemiology Training Program).

Editorial notes: On the basis of this investigation, it is obvious that Salmonella entiritidis was the cause of the outbreak; however, the immediate source and reservoir could not be clearly identified.

The main source of Salmonella infection in a large number of outbreaks was found in chicken meat and eggs. In USA, one of every 4 chickens was found to be infected with Salmonella.[1] In Saudi Arabia, during the period from 1416 to 1425 H. Salmonella organisms accounted for 41.4% of all reported food poisoning outbreaks, coming in first rank.[2]

In this outbreak, the Russian salad and/or mutabal were the most probable immediate source of infection. The reservoir could be the raw eggs used for the mayonnaise added to the Russian salad, which may have cross contaminated the mutabal. On the other hand, it could be that the infected food handlers themselves contaminated both foods.

Regulations requiring the use of packed mayonnaise only in restaurants should be strictly enforced. It was also recommended to increase the periodic checkup of food handlers, with their health certificate to be issued quarterly.

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Table 1: Odd ratios and 95% Confidence Intervals for food items served in implicated restaurant, Bisha, May 2007 (n=55)

Health Status Factors	Cases		Controls		OR	95% CI
	Ate	Did Not eat	Ate	Did Not eat		
Russian Salad	45 (81.8%)	10 (18.2%)	3 (5.5%)	52 (94.5%)	78	20.21-301.04
Mutabla	31 (56.4%)	24 (43.6%)	2 (3.6%)	53 (96.4%)	34.2	7.57-154.80
Roast Chicken	32 (58.2%)	23 (41.8%)	39 (71.0%)	16 (29.0%)	0.57	0.26-1.26
Rice	4 (7.3%)	51 (92.7%)	20 (36.4%)	35 (63.6%)	0.14	0.04-0.44
Shawarma	15 (27.3%)	40 (72.7%)	6 (11.0%)	49 (89.0%)	3.1	1.09-8.62
Hummos	17 (30.9%)	38 (69.1%)	12 (21.8%)	43 (78.2%)	1.6	0.68-3.78

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ملخص باللغة العربية

توقيت التحصين ضد الحصبة و دوره في تفشي الحصبه في منطقة تثليث عام ١٤٢٨هـ (٢٠٠٧م).

الحصبة مرض فيروسي شديد العدوى ينتقل من شخص لآخر عبر الإفرازات الأنفية أو عبر الرذاذ المنتشر في الهواء. أهم الأعراض المصاحبة له حرارة شديدة وطفح جلدي و وهن عام. قد تحدث مناعة ضده مدى الحياة بعد الإصابة به أو بعد التطعيم ضده. يعتبر اللقاح الواقي من الحصبة فعال بشكل كبير وهو متوفر من حوالي ٤٠ سنة و كان يعطى بمفرده بمقدار جرعة واحده ثم أصبح يعطى ضمن لقاح الثلاثي الفيروسي MMR بمقدار جرعتين. بدأ تقديم لقاح الحصبة في المملكة العربية السعودية عام ١٩٧٤م بمقدار جرعة واحدة من عمر١-٩ سنوات وفي ١٩٨٢م صدر مرسوم ملكي بأن يكون لقاح الحصبة ضمن متطلبات الحصول على شهادة الميلاد للطفل. لم تسجل أي فاشية للحصبة في منطقة تثليث وهذه تعتبر أول فاشية للحصبة في هذه المنطقة.

هدفت الدراسة إلى وصف كامل لفاشية الحصبة الحالية في منطقة تثليث، تقييم دور توقيت التطعيم ضد الحصبة في ظهور هذه الفاشية، و تقديم التوصيات اللازمة للوقاية من مثل هذه الفاشية.

تكونت الدراسة من جزئين. الجزء الأول دراسة مقطعية عرضية للفاشية الحالية، والجزء الثاني دراسة قطيعية استرجاعية لجميع الأطفال الذين تم تسجيلهم في سجلات الفحوصات بالمراكز الصحية خلال الأعوام من ٢٠٠٠-٢٠٠٥م.

بالنسبة للجزء الأول من الدراسة، تم أخذ كل الحالات (١٣٢) التي سجلت في جميع المراكز الصحية (١٢ مركز). و بالنسبة للجزء الثاني تم أخذ كل الأطفال المسجلين في السجلات من ٢٠٠٠-٢٠٠٥م من ٤ مراكز صحية من أصل ٨ ، أنشئت قبل عام ٢٠٠٠م، وهذه الأربعة هي مركز صحي تثليث، مركز صحي الأمواه، مركز صحي الصبيخة، و مركز صحي جاش.

عرفت الحالة كأي شخص ظهرت عليه الحمى والطفح الجلدي بالإضافة الى النتائج المخبرية من يناير ٢٠٠٧ الى يوليو ٢٠٠٧ في منطقة تثليث.

فيما يتعلق بالدراسة المقطعية للفاشية التي بدأت في يناير وانتهت في يوليو ٢٠٠٧، كان هناك ١٣٢ حالة سجلت في تثليث وظهرت ذروة الحالات في شهر يوليو ٥١،٥٪ وكانت أغلب الحالات (٤٤٪) بالإضافة إلى أول حالة مسجلة في مركز صحي تثليث. نسبة الإناث ٥٠،٨٪ والذكور ٤٩،٢٪. كل الحالات من السعوديين ما عدا حالة واحدة. كل الحالات ظهر عليها الطفح الجلدي والحرارة وهناك ٩٧ حالة أثبتت مخبريا. من الحالات كان هناك ٥٧،٦٪ لم يتلقوا أي تطعيم ضد الحصبة و ١٣،٦٪ قد تلقوا جرعة واحدة فقط.

فيما يتعلق بالدراسة القطيعية الإسترجاعية، كان هناك ٥٤٤٧ طفلاً سجلوا من عام ٢٠٠٠-٢٠٠٥م، أي خلال ٦ سنوات، منهم ١٢،٨٪ لم يطعموا ضد الحصبة و ٥٤،١٪ تلقوا جرعة واحدة فقط من التطعيم، بينما ٣٣،١٪ كانوا قد تلقوا كامل الجرعات. وقد كان ٥٠،٧٪ لم يطعموا في الوقت المناسب، بل كان هناك تأخير في تطعيمهم. وجدت الدراسة ان مركز صحي الصبيخة أفضل مركز صحي في إعطاء التطعيمات، يليه مركز صحي جاش، أما المركز الأقل أداءا فكان مركز صحي الأمواه. لوحظ أن الأطفال المسجلين خلال عامي ٢٠٠٠ و٢٠٠١ لم يأخذوا جرعة الثلاثي الفيروسي بشكل مناسب.

قد ترجع الأسباب في ظهور هذه الفاشية إلى نقص مناعة المجتمع، إنخفاض نسبة التطعيمات، زيادة الأشخاص القابلين للإصابة، إضافة إلى طبيعة مرض الحصبة وكذلك طبيعة اللقاح الواقي منها.

تمت التوصية على رفع مستوى التطعيم ودقة التوقيت في إعطائه خصوصا في منطقة الأمواه، تكثيف المتابعة من قبل الجهات المسؤلة عن التطعيم في منطقة تثليث، تقديم الشكر للمسؤلين في مركز صحي الصبيخة و جاش على جهودهم في التطعيم وحثهم على الإستمرار، و القيام بحملات لتطعيم الأطفال المسجلين عام ٢٠٠٠-٢٠٠١م بالجرعة الثانية من لقاح الثلاثي الفيروسي.

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فاشية تسمم غذائي ببكتريا السالمونيلا في مطعم، بيشة، ١٤٢٨هـ

في صباح يوم الخميس الموافق ١٥/ ٤/ ١٤٢٨هـ توافد العديد من الأشخاص على قسم الطوارئ بمستشفى الملك عبد الله ببيشة وهم يشكون من نزلات معوية على أثر تناولهم من أحد مطاعم بيشة يوم الأربعاء ١٤/ ٤/ ١٤٢٨هـ.

تم تكليف فريق من برنامج والوبائيات الحقلي بعمل دراسة وبائية لمعرفة المسبب لحالات التسمم الغذائي ومدى انتشارها واقتراح التوصيات المناسبة لمنع تكرار مثل ذلك مستقبلاً. قام فريق البحث بزيارة مستشفى الملك عبد الله ببيشة وتم مراجعة سجلات المصابين والتعرف على الأعراض والفحوصات المخبرية التي أجريت لهم.

تمت زيارة المطعم و أخذ عينات عشوائية من الأطعمة المحفوظة الموجودة مثل: السلطات والمقبلات والدجاج بالإضافة إلى مسحات من العاملين في المطعم.

بعد ذلك تمت مقابلة الحالات وسؤالهم عن أشخاص آخرين تناولوا الطعام معهم في نفس المطعم ولم تظهر عليهم أعراض مرضية.

عرفت الحالة بأي شخص تناول الطعام تم تحضيره يوم الأربعاء ١٤/ ٤/ ١٤٢٨هـ في ذلك المطعم وظهر عليه واحدة أو أكثر من هذه الأعراض وهي: الإسهال، الحمى، الغثيان، القيء، أو ألم البطن.

تمت مقابلة ١١٠ شخصاً من الذين تناولوا طعاماً من المطعم المذكور منهم ٥٥ (٥٠٪) حالة مصابة و٥٥ (٥٠٪) حالة ضابطة (غير مصابة). من بين الحالات المصابة كان ٣٣(٦٠٪) من الذكور و٢٢ (٤٠٪) من الإناث، تتراوح أعمارهم ما بين سنة واحدة و٤٧ سنة بمتوسط ٢٢سنة وكان معظمهم من السعوديين (٨٣،٦٪).

بين المنحنى الوبائي أن معظم الحالات ظهرت عند الساعة الخامسة صباحاً من يوم الخميس ١٥/ ٤/ ١٤٢٨هـ وحتى الساعة الحادية عشر صباحاً من نفس اليوم. أكثر الأعراض التي ظهرت على المصابين هي الإسهال (٩٨٪)، القيء (٩٦٪) ألم البطن (٧٤٪)، الحرارة (٧٣٪)، ثم الغثيان (٥٦٪). أخذت مسحات شرجية أو عينات البراز من ٥٥ مصاب، تم عزل السالمونيلا من ٥١ منهم ، (٥٤٪) من عينات البراز، (٤١٪) من المسحات الشرجية. وجد أن السلطة الروسية والمتبل قد يكونا السبب الرئيسي للفاشية، حيث وجد أن للسلطة الروسية معامل الأرجحية = ٧٨ ، ومعامل الثقة ٩٥٪ يتراوح بين ٢٠،٢١ إلى ٣٠١،٠٤ و بالنسبة للمتبل فكان معامل الأرجحية = ٣٤ ومعامل الثقة ٩٥٪تراوح بين ٧،٥٧ إلى ١٥٤،٨٠. وحيث أن هذين الصنفين ليس بينهم اشتراك في المكونات، فقد يكون السبب البيض الذي أعد به المايونيز وأضيف إلى السلطة الروسية قد وصل إلي المتبل عن طريق أواني التحضير والتقديم. أو قد يكون السبب أن أحد العاملين في المطعم نقل العدوى لهذين الصنفين من الطعام، بما أنه قد وجد أن خمسة من العاملين بالمطعم حاملين للسالمونيلا.

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Assessment of vaccination status and other preventive practices among health care workers, hajj 1428 H, cont...

(Continued from page 10)

Adaptation of universal precautions is an important way to minimize or prevent accidental exposure of HCWs to pathogens.[6] In this study, the worst practice was for hand washing. However, attending a course or reading on infection control significantly increased the knowledge and practices of HCWs, indicating the importance of education in improving the compliance of HCWs to infection control measures.

It can be concluded that vaccination of HCWs in hajj against meningococcal meningitis, influenza and hepatitis B is poor; moreover, their knowledge and practices regarding safety measures is suboptimal. Administrative actions, training activities and health education strategies should be implemented to improve the situation.

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Table 2: Practices of Health Care Workers regarding infection control safety measures, Hajj 1428 H

Safety measures	N	Alwys		Mostly		Sometimes		Rarely		Never	
		No.	%	No.	%	No.	%	No.	%	No.	%
Hand washing											
Before touching patient	559	133	23.8	198	35.4	169	30.2	49	8.8	10	1.8
After touching patient	558	359	64.3	139	24.9	52	9.3	7	1.3	1	0.2
After removing gloves	610	460	75.4	117	19.2	29	4.8	2	0.3	2	0.3
Changing gloves											
During care of single patient	546	270	49.5	115	21.1	130	23.8	21	3.8	10	1.8
In between patients	543	443	81.6	53	9.8	44	8.1	3	0.5	0	0.0
Wearing face mask	**585**	186	31.8	122	20.8	197	33.7	43	7.4	37	6.3
Recap needle	**532**	166	31.2	43	8.1	35	6.6	18	3.4	270	50.7

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Inside the Kingdom

April 27-30, 2008: First Saudi International Conference on Medical Education "Medical Education: Current Status and Challenges".
Location: King Fahad Medical City, Riyadh, Saudi Arabia.
Contact: www.simec2008.org

Outside the Kingdom

April 12-13, 2008: Unite For Sight 5th Annual International Health Conference: Building Global Health For Today & Tomorrow.
Location : Yale University, New Haven, Connecticut, USA.
Contact : Unite For Sight, 31 Brookwood Dr., Newtown, CT 06470.
email: JStaple@uniteforsight.org
www.uniteforsight.org

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Selected notifiable diseases by region, Apr — Jun 2008

	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	48	0	1	0	0	2	4	0	0	0	0	0	0	1	0	13	0	1	0	0	70
Mumps	1	1	5	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	11
Rubella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Varicella	3867	623	2057	719	507	3190	4184	3600	699	1757	814	1487	294	376	272	1013	194	661	95	239	26648
Meningitis mening.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meningitis other	6	3	22	0	8	13	8	6	1	3	0	3	4	0	6	0	0	2	0	0	85
Hepatitis B	300	1	205	100	13	138	296	4	3	84	12	71	2	32	71	55	1	62	7	31	1488
Hepatitis C	175	2	136	38	13	32	106	4	0	34	15	27	1	4	8	8	2	21	4	37	667
Hepatitis unspecified	6	0	9	1	0	0	0	1	0	4	0	0	0	0	26	0	0	0	0	0	47
Hepatitis A	36	34	51	46	21	6	18	5	3	26	1	9	11	10	25	54	16	3	38	8	421
Typhoid & paratyphoid	0	1	59	0	0	2	6	2	1	7	1	0	0	0	0	0	0	0	0	0	79
Amoebic dysentery	11	8	435	10	5	3	110	47	2	36	11	0	2	0	6	2	0	0	0	02	688
Shigellosis	21	0	5	0	0	1	4	5	0	0	0	3	0	1	0	17	0	0	0	0	57
Salmonelosis	138	1	8	0	0	8	125	24	10	2	8	2	0	3	2	15	0	3	4	3	356
Brucellosis	102	18	16	40	30	349	103	15	58	179	79	19	167	28	21	36	1	18	5	4	1288

Comparisons of selected notifiable diseases, Apr - Jun 2007 - 2008

DISEASE	Apr-Jun 2008	Apr-Jun 2007	Change %	Jan-Jun 2008	Jan-Dec 2007	DISEASE	Apr-Jun 2008	Apr-Jun 2007	Change %	Jan-Jun 2008	Jan-Jun 2007
Cholera	2	2	0	2	4	Meningitis mening	0	4	-100	3	13
Diphtheria	0	0	0	0	3	Meningitis other	85	80	6	168	316
Pertussis	11	24	-54	21	68	Hepatitis B	1488	1251	19	2865	4501
Tetanus,neonat	4	0	0	7	21	Hepatitis C	667	783	-15	1507	2776
Tetanus,other	3	1	200	4	6	Hepatitis unspecified	47	65	-28	140	192
Poliomyelitis	0	0	0	0	0	Hepatitis A	421	404	4	1068	1383
Guilain Barre Syndrome	37	19	95	60	93	Typhoid & paratyphoid	79	73	8	166	281
Measles	70	2130	-97	142	4648	Amoebic dysentery	688	778	-12	1565	3645
Mumps	11	13	-15	18	32	Shigellosis	57	23	148	105	154
Rubella	0	1	-100	0	32	Salmonellosis	356	579	-39	586	1894
Varicella	26648	17388	53	48356	47691	Brucellosis	1288	1419	-9	2206	4194

Diseases of low frequency, Apr – Jun 2008

- *Yellow fever, Plaque, Poliomyelitis, Rabies, Haemolytic Uraemic Syndrome: No Cases*
- *Pertussis: 11 Cases (Qassim 7, Jeddah 2, Bisha 1, Hasa 1)*
- *Neonatal Tetanus: 4 Cases (Makkah 12, Jeddah 2)*
- *Ecchinoccocosis: 2 Cases (Hafr Al-Batin 1, Riyadh 1)*
- *Guillian Barre Syndrome: 37 Cases (Riyadh 9, Jeddah 4, Qunfudha 3, Asir 1, Makkah 1, Qassim 3, Jazan 5, Eastern 2, Hafr Al-Batin 2, Madinah 1,Bisha 1, Al-Shammal 1, Najran 1)*