

### Factors affecting the decision of marriage among incompatible couples in the Saudi premarital screening program, 1425H.

Under the Royal decree of 4/1/1423 H (i.e. 8/3/2002 G) the Ministry of Health in Saudi Arabia set organizational arrangements for the Saudi Premarital Screening Program, which started on 1/1/1425 H under the second Royal decree, which made premarital screening for genetic diseases mandatory for all couples who plan to marry. The marriage contract would not be issued until the result of this screening test was submitted. However, couples still have the choice of getting married in spite of incompatible results.

This study aimed to identify the proportion of incompatible results among all the couples who had undergone the premarital screening test during a period of one year (1/1/1425 to 30/12/1425), to ascertain the decision of marriage following incompatible results, and to study factors influencing the decision.

A two-part phone-call based structured questionnaire was designed, the first part to collect information for the descriptive component, and the second for the case-control study. After obtaining the final approval from the concerned authorities, a list of names of couples with incompatible results along with their contact numbers, test results and any information about their marriage decision was obtained from the national premarital screening program. All the couples for whom information about marriage decision was not available in the record were contacted by phone.

After the first six months of starting the program, the total screened were 145593 individuals; Sickle cell trait was found among 3.7%, Sickle cell disease 0.27%, Thalassemia minor 2.7% and Thalassemia major 0.06%. Regions with the highest numbers of trait and cases for both disorders were Al-Ahsa, Eastern province, Qunfudah, Jazan and Makkah, in descending order.

Basic data was available for 1211 couples who were found positive (not compatible) during the selected study period. Among the traceable incompatible couples, 830 were incompatible due to sickle cell disease (791 (95.3%) patients and 39

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(4.7%) carriers). Among those 731 (88.1%) had married or decided to marry and 99 (11.9%) had decided not to marry. Among the traceable incompatible couples, 1074 were incompatible due to Thalassemia (1055 (95.3%) patients and 39 (4.7%) carriers). Among those 945 (88.0%) had married or decided to marry and 129 (12.0%) couples had decided not to marry.

Among 582 individuals who were interviewed by phone, 302 were khatibs (males) and 280 were makhtoobas (females). The ages of the khatibs ranged from 17-46 years (mean 27.4, standard deviation SD  $\pm$  4.5). The ages of the makhtoobas ranged from 15-44 years (mean 23, SD  $\pm$  4.69). Only 8 (2.7%) of the 302 khatibs were illiterate and 89 (29.4%) university level. From the 280 makhtoobas 5 (1.8%) were illiterate, and 89 (31.8%) university level.

Regarding their source of income, 263 (90.4%) khatibs were independent, 19 (6.5%) were fully dependent on their families and 9 (3.1%) were partially dependent on their families. Among makhtoobas 121 (41.6%) were independent regarding their source of income, 154 (52.9%) were dependent on their families, and 16 (5.5%) were partially dependent on their families.

For purpose of the case-control study, all the couples who decided not to marry were identified as cases. For identification of controls, couples were randomly selected among those who decided to marry despite a mismatched screening test result, with a ratio of 5 controls to one case. A total of 291 individuals were selected, among those 52 (17.9%) had decided not to marry (cases) while 239 (82.1%) had either married or decided to marry (controls). Among respondents who decided not to marry (cases) 26 (50%) were males and 26 (50%) females, their ages ranged from 19 to 39 years (mean 25.4, SD  $\pm$  4.65). Among those who decided to marry (controls), 125 (52.3%) were males and 114 (47.7%) were females; their ages ranged from 15-46 years (mean 25.4, SD  $\pm$  5.1 years).

Factors influencing the decision of marriage among incompatible couples are presented in table 1.

Regarding knowledge of the

existence of a compulsory Premarital screening program, only 6 (11.5%) of those who decided not to marry had not known about its existence compared to 42 (17.6%) of those who decided to marry.

Regarding knowledge of the main purpose of the Premarital screening program, among those who decided not to marry, 48 (92.3%) thought the purpose was to avoid certain diseases in prospective children, and 4 (7.7%) did not know. Among those who decided to marry, 197 (82.4%) thought the purpose was to avoid certain diseases in prospective children, 23 (9.6%) did not know the purpose, 9 (3.8%) answered that the purpose was to detect certain diseases in the couple, and 10 (4.2%) were not sure.

Among those who decided not to marry, 50 (96.2%) had the premarital screening test before melka (marriage contract), compared to 221 (92.5%) of those who decided to marry (OR=2.04,

95% CI 0.43 – 13.14).

Among those who decided not to marry, only 24 (46.2%) were asked by the health facility to visit the counseling clinic compared to 66 (27.6%) of those who decided to marry (OR=2.25, 95% CI 1.16 – 4.34). Among them, only 22 (42.3%) of those who decided not to marry, actually visited the counseling clinic compared to 84 (35.1%) of those who decided to marry (OR=1.35, 95% CI 0.70 – 2.60).

Among those who decided not to marry only 17 (32.7%) knew about their disease status before they did the premarital screening test; 21 (40.4%) had a known family history of Sickle cell anemia; 12 (23.1%) had a known family history of Thalassemia. Among those who decided to marry 40 (16.7%) knew about their disease status before they did the premarital screening test; 60 (25.1%) had a family history of Sickle cell anemia; and 23 (9.6%) had a Family history of Thalassemia. Among

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**Table 1: Factors influencing the decision of marriage 2006.**

Risk factors	Decided not to marry (n=52)		Decided to marry (n=239)		OR	CI 95%
	No	%	Mean	SD $\pm$		
<b>Knowledge about disease status before PMS :</b>						
Yes	17	32.7%	40	16.7%	2.42	1.17 - 4.97
No	35	67.3%	199	83.3%		
<b>Family history of Sickle cell anemia :</b>						
Yes	21	40.4%	60	25.1%	1.89	0.93 – 3.82
No	25	48.1%	135	56.5%	Ref.	Ref.
Don't know	6	11.5%	44	18.4%	0.74	0.25 – 2.05
<b>Family history of Thalassemia :</b>						
Yes	12	23.1%	23	9.6%	2.83	1.17 – 6.80
No	28	53.8%	152	63.6%	Ref.	Ref.
Don't know	12	23.1%	64	26.8%	1.02	0.46 – 2.24
<b>Premarital screening test result of Sickle cell anemia :</b>						
Both patient/carrier	21	70%	85	62.5%	1.40	0.56 – 3.60
One only patient/carrier	9	30%	51	37.5%		
<b>Premarital screening test result of Thalassemia :</b>						
Both patient/carrier	26	89.7%	96	71.1%	3.52	0.94 – 15.54
One only patient/carrier	3	10.3%	39	28.9%		
<b>Blood relation between the couple :</b>						
2 <sup>nd</sup> degree relation	16	30.8%	89	37.2%	0.61	0.29 – 1.25
3 <sup>rd</sup> degree relation	4	7.7%	30	12.6%	0.45	0.12 – 1.50
Other relation	3	5.8%	22	9.2%	0.46	0.10 – 1.7
No relation	29	55.8%	98	41%	Ref.	
<b>Counseling clinic visit recommended :</b>						
Yes	24	46.2%	66	27.6%	2.25	1.16 - 4.34
No	28	53.8%	173	72.4%		

# Infection control practices in MOH dental clinics, Jazan, 2006.

This study was conducted to assess infection control practices in MOH dental units in Jazan, Saudi Arabia. It was accomplished using a cross-sectional survey confined to Ministry of Health (MOH) dental practices in Jazan region.

Dental care in Jazan is delivered at 3 levels: Primary Health Care Centers (PHCC), General hospitals, and the Dental Care Center. All dentists working at these health facilities were selected, and completed a self-administered questionnaire. The response rate was 100%.

There were 78 respondent dentists, of mean age 33.9 years (Standard Deviation SD  $\pm 7.8$ ) with almost half (47.4%) in the age group 31-40 years. Males constituted 63 (80.8%) and females 15 (19.2%); 13 (16.7%) were Saudis and 65 (83.3%) non-Saudis; 58 (74.4%) were married and 20 (25.6%) single; 70 (89.7%) were general practitioners and 8 (10.3%) were specialists. Almost half 34 (43.6%), were working at PHCCs, 29 (37.2%) in hospitals and 15 (19.2%) in the dental care center. Their mean experience was 11.8 years (SD  $\pm 6.7$ ), and 24 (30.8%) had experience ranging from 6-10 years. On average, a dentist examined 19 patients per day, most 52 (66.7%) examined more than 15 patients daily.

A total of 20 (25.6%) dentists reported a history of needle stick injury

during treatment of patients, and 6 (7.7%) reported they had one or more cut wounds on their hands at the time of this survey. Of the total, 80.7% stated that they had been vaccinated against Hepatitis B virus (HBV), and 50 (64.1%) mentioned that they always took each patient's medical history before treatment.

Of the studied dentists, 68 (87.2%) stated that they always used high volume suction besides saliva ejectors during dental treatment; all (100%) reported always washing their hands before starting treatment; all (100%) always used gloves and all (100%) wore a face mask for each patient during dental treatment; 76 (97.4%) of those wearing a facemask changed it after each patient. Protective glasses (eye glasses, eye protector, or single face shield) were always worn by 46.2%. All the dentists always wore uniform coat during dental treatment, 42 (53.8%) changed it daily and 4 (5.1%) changed it if dirty. Only half of the dentists in this study 43 (55%) always used a rubber dam during dental treatment. More than half 42 (53.8%) always gave their patients a mouthwash before starting dental treatment.

All stated that hepatitis and AIDS viruses are the most important infectious diseases in a dental clinic, 89.7% said they refused to treat AIDS patients and 46.2% refused to treat hepatitis patients.

All participant dentists sterilized hand pieces by autoclaving; 76.9% disposed of the used needle and sharp instruments in a special safety container. Five (38.5%) of the dentists who reported examining or treating 10 patients or under daily were compliant to infection control precautions, whereas among those examining more than 10 patients daily, 7 (10.8%) were compliant to infection control precautions. Those who examined 10 or less patients daily were about five times more likely to be compliant than those who examined more than 10 patients daily; which was statistically significant (OR=5.12, CI= 1.32-20.28). The primary source of infection control information for 93.6% were dental colleges. Dentists who had received their knowledge from dental colleges were more compliant to infection control practices, compared to those who received their knowledge from other sources, eg. journals, conferences, etc, and this was also statistically significant (OR=0.10, CI= 0.014 – 0.640). Only 15.4% of respondents were found to follow the full requirements of infection control practices.

**– Reported by: Dr. Abdu Dahlan, Dr. Abdullah Al Rabeah, Dr. Nasser Al-Hamdan (Field Epidemiology Training Program).**

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**Table 1: The studied variables and compliance among dentists, MOH dental clinics, Jazan, 2006**

		Compliant		Non-Compliant		Odds Ratio	95% CI
		No.	%	No.	%		
Setting	Hospital	3	10.3	26	89.7	0.51	0.12-2.07
	Other	9	18.4	40	81.6	0.51	0.12-2.07
Age group	≤30 Years	4	21.1	15	78.9	1.70	0.45-6.41
	>30 Years	8	13.6	51	86.4	1.70	0.45-6.41
Gender	Male	9	14.3	54	85.7	0.67	0.16-2.84
	Female	3	20.3	12	80	0.67	0.16-2.84
Nationality	Saudi	4	30.8	9	69.2	3.17	0.79-12.73
	Non-Saudi	8	12.3	57	87.7	3.17	0.79-12.73
Degree	GP	11	15.7	59	84.3	1.30	0.15-11.68
	Specialist	1	12.5	7	87.5	1.30	0.15-11.68
Daily work load	≤10 patients	5	38.5	8	61.5	5.12	1.32-20.28
	>10 patients	7	10.8	58	89.2	5.12	1.32-20.28
Source of knowledge	College	9	12.3	64	87.7	0.10	0.01-0.64
	Other	3	60	2	40	0.10	0.01-0.64
Experience	≤10 Years	8	20.5	31	79.5	2.26	0.62-8.23
	>10 Years	4	10.3	35	89.7	2.26	0.62-8.23

# Foodborne outbreak among 4 families in Taif city, Saudi Arabia, July 2006.

On the morning of July 27<sup>th</sup> 2006, several cases complaining of gastrointestinal symptoms of diarrhea, vomiting, abdominal pain and fever, presented to King Faisal hospital in Taif city. They belonged to one extended family. A team was formed from the preventive medicine department in Taif directorate, to confirm the occurrence and extent of this food poisoning outbreak, to determine the source of the outbreak, and to suggest recommendations to prevent similar outbreaks.

A retrospective cohort study was conducted to identify food items and other contributing factors. The extended family consisted of the nuclear families of 4 brothers living in 4 separate but adjacent houses. They denied sharing any meal that night or having any similar medical episode before that night. They had dinner at 10:00 pm that night each family separately. At about 2:00 am several members from each family started to experience gastroenteritis like symptoms then were taken to hospital.

The total family members were 64, 24 (37.5%) belonged to the 1st family, 23 (35.9%) the 2nd family, 10 (15.6%) the 3rd family, and 7 (10.9%) to the 4th family. Their ages ranged from 3-57 years (mean 19.4, median 15); 59 (92.2%) were Saudi, 43 (67.2%) were females.

Thirty-nine (60.9%) family members were ill, the majority developed diarrhea (97.4%), 2 had bloody diarrhea, 79.5% had fever, 71.8% abdominal pain, and 46.1% vomiting. Abdominal pain was the first symptom that appeared in 15 (38.5%), followed by fever in 14 (35.9%), then diarrhea 10 (25.6%). Patients experienced symptoms of gastroenteritis at 2:00 am July 27<sup>th</sup> 2006, up to 10:00 pm of the same day. The mean incubation period was 10 hours; median 2 hours, range 2-24. The Epidemic curve suggested a common point source outbreak (Figure 1).

Out of food items served for dinner for the 4 families, raw milk, which was shared among the four families, was significantly associated with the illness (RR=5.45, 95% CI =1.9-15.6). Other food items such as bread (RR =1.34, 95% CI = 0.88—2.02), vegetables (RR=1.25, 95% CI=0.68-2.28) were not statistically significant.

Twenty individuals were admitted into hospital. Of those, a 14 year old girl was admitted to ICU with kidney impairment and hypotension but recovered shortly

and was discharged after 1 week. Also, a 22 year old mentally retarded male with cerebral palsy since birth died after 3 days of onset.

Both blood and stool specimens were negative for the 20 patients who had been hospitalized. No food samples had been taken from food remnants of the suspected dinner, but 2 samples of the raw milk were taken and were sent to the Public Health laboratory in Makkah, and to King Abdulaziz University College of Medicine laboratory in Jeddah. Both came positive for E-coli.

**- Reported by: Dr. Adel Abu Bakr, Dr. Mohammed AlMazroua, Dr. Nasser Al Hamdan (Field Epidemiology Training Program).**

**Editorial notes:** Foodborne diseases outbreaks are recognized by the occurrence of illness within a usually short but variable period of time, among individuals after consuming a food in common. They can be divided according to etiology into 4 groups: bacterial, viral, parasitic, and chemical. The time of onset of symptoms may range from under 1 hour to over 48 hours of consuming the contaminated food. The incubation period of the illness can give a clue to the responsible causative agent.<sup>1</sup>

Escherichia coli (E. coli) are one of the main species of bacteria living in the lower intestines of mammals, where they are abundant. The E. coli strain O157:H7 is one of hundreds of strains of the

bacterium that causes illness in humans. They produce a toxin very similar to that seen in dysentery. O157:H7 is further notorious for causing serious, life threatening complications such as Hemolytic Uremic Syndrome.<sup>2</sup>

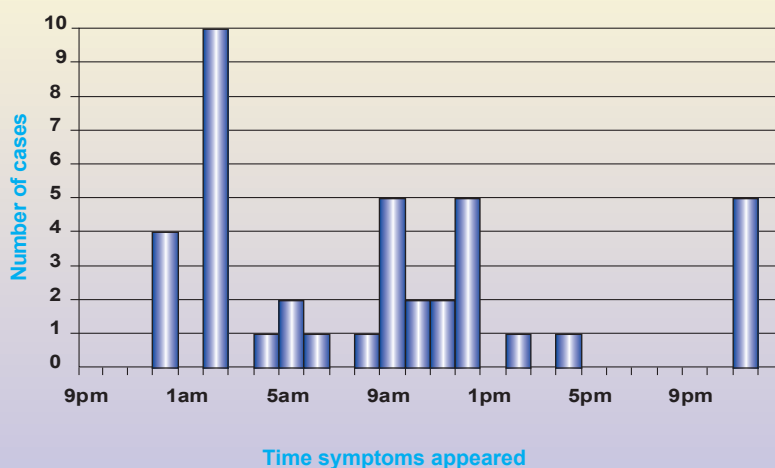
Severity of the illness varies considerably; it can be fatal, particularly to young children, the elderly or the immunocompromised, but is more often mild. E. coli can harbor both heat-stable and heat-labile enterotoxins. The latter, is highly similar in structure and function to Cholera toxin, preventing intestinal cells from absorbing water, causing diarrhea.<sup>3,4</sup> Symptoms of E. coli include severe stomach cramps and diarrhea (sometimes bloody), fever and vomiting. Most patients recover within ten days.<sup>4</sup>

The clinical, laboratory, and epidemiological data point to E-coli as the most likely causative organism of this outbreak. This is illustrated by the fact that it was isolated from the 2 subsequent samples of raw milk. The clinical picture with predominance of diarrhea (over 97%), with 2 cases with bloody diarrhea, and presence of fever 79%, is compatible with E-coli infection. The fact that one case had similar symptoms to Hemolytic-Uremic syndrome, and the death of the mentally retarded male are both characteristic of infection with certain strains of E-coli.

Consumption of the unpasteurized the raw milk was the most important factor that led to this outbreak. Health education

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**Figure 1:**  
**Epidemic curve of Foodpoisoning outbreak, Taef, 2006.**



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those who were asked to visit the counseling clinic, only 72 (67.9%) actually visited the clinic.

**– Reported by: Dr. Faisal M. AlEnzy, Dr. Osamah A. AlHayani, Dr. Nasser A. AlHamdan, Dr. Abdul Jamil Choudhry (Field Epidemiology Training Program), Dr. Fahad AlSuwaidi (Department of Non-Communicable Diseases).**

**Editorial notes:** Premarital screening is one of the important measures which can help reduce the incidence of genetic diseases particularly in Middle Eastern countries which are characterized by older paternal and maternal ages and the high frequency of consanguineous marriages.<sup>1</sup>

Saudi Arabia is a large country with different cultures, social, and demographic features between different regions and occasionally within the same region itself. Indeed, the Saudi premarital screening program had a major objective to reduce

the prevalence of genetic disorders in Saudi Arabia, thus decreasing the suffering of Saudi families and reducing the burden on health facilities and blood banks through avoidance of marriages among high risk couples. Up to date, the Saudi Premarital Screening Program only covers two blood diseases: Sickle cell disease and Thalassemia, which represent serious medical, social and economic problems to the family and to the public. The majority of incompatible couples in this study due to sickle cell disease and Thalassemia were reported from the Eastern, Western and South-western parts of the country, which conforms to the known disease prevalence pattern. The fact that the majority of participants in the study were related, gives an indication that consanguinity is the root of the problem.<sup>2</sup> These results are similar to a study of the premarital screening program in Bahrain, which is explained by the shared social and demographic characteristics between the two countries.<sup>1</sup>

It was found that if the respondents

knew about their disease status before screening they were much more likely to decide against marriage than the ones who did not.

The role of the family in decision making cannot be ignored, as it was observed that the couples related to each other were more likely to continue with the marriage indicating some sort of family pressure. On the other hand when it came to decision making, although most of the decision was done by khateb or makhtooba or both but family members were more in favor of stopping an unsafe marriage; which could be used in promoting the objectives of the program.

The Premarital screening program in its first year has been able to avert only one-eighth of the marriages among incompatible couples. This rate is expected to increase as the test increases in popularity among society. Significant promotive factors in deciding not to marry included knowledge about disease status before screening, family

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**Editorial notes:** With the rise in the number of people infected with hepatitis B and the AIDS viruses, cross infection has become of paramount concern. Dental care professionals are at an increased risk of cross infection while treating patients. In this study, 100% of participant dentists wore masks and 97.4% changed it during treatment and between patients. These results are much higher than previously reported in other countries, 75% in Kuwait,<sup>1</sup> and 64.8% in New Zealand.<sup>2</sup>

Recently, there have been several reports about transmission of infection as a result of inadequate sterilization of handpieces.<sup>3,4</sup> In our study, all respondents sterilized handpieces.

If the recommended Infection Control practices are used, the risk of occupationally acquired infection with bloodborne pathogens is limited to sharp injuries, which can be minimized if puncture-proof

containers for sharps disposal are used. About 76.9% of respondents in this study maintained special containers for sharps disposal, 55.1% used rubber dams in their restorative procedures, and 15.4% were fully compliant with infection control procedures. In a previous study among private dental clinics in Riyadh, special containers for sharps disposal were maintained by only 8.4%, only 6.4% used rubber dams, and only 8.4% were fully compliant with the list of infection control procedures.<sup>5</sup>

This study investigated a limited range of items on infection control and has focused on barrier methods, HBV vaccination, and sterilization. More research is needed to provide comprehensive data on compliance with all recommended infection control programs by general dentists and specialists. New methodological techniques need to be introduced for the assessment of compliance of the dental team with Infection Control Practices. It is also recommended to

include a larger observational element within the study design in order to reduce socially desirable responses.

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## ملخص باللغة العربية

### العوامل المؤثرة في اتخاذ قرار الزواج عند الخاطبين غير المتوافقين في برنامج الفحص الطبي ما قبل الزواج في المملكة العربية السعودية لعام ١٤٢٥هـ.

يعتبر الفحص الطبي قبل الزواج من البرامج الوقائية الأولية. حيث يتم الفحص عن مجموعة من الأمراض الوراثية والمعدية لتجنب أو تقليل نسبة حدوث الزواج غير الآمن. مرض الأنيميا المتجلية وكذلك التلاسيميا تم اختيارها ليعتبر لها فحص طبي قبل الزواج في المملكة العربية السعودية وذلك لأنها من أكثر الأمراض الوراثية انتشاراً بالمملكة إضافة إلى تسببها بزيادة التكاليف المالية الطبية والضغط الاجتماعي على المريض ومن حوله. الهدف الأساسي من هذه الدراسة المقطعية تقدير عدد من تزوجوا ومن لم يتزوجوا من اللذين كانوا متجهين إلى زواج غير آمن و تحديد العوامل الاجتماعية والديموغرافية وتأثير التثقيف الطبي وخدمات المشورة الطبية والوراثية على القرار بإكمال أو إيقاف الزواج بين الخاطبين الغير متوافقين. ليعتبر عمل التوصيات المناسبة لرفع أداء وجوده عمل البرنامج الهادف إلى تقليل نسبة الزواج غير الآمن.

تم في المرحلة الأولى من الدراسة تقدير عدد الغير متوافقين من الذكور والإناث الذين تم عمل فحص طبي قبل الزواج لهم خلال الفترة من ٢٠٠٤/٢/٢١ م إلى ٢٠٠٥/٢/١٠ م. وفي المرحلة الثانية تم عمل دراسة ضابطة بنسبة ١:١. حيث تم اختيار عينة عشوائية وتقسيم المجموعة إلى جزأين (تزوجوا أو لم يتزوجوا). تم استخدام الهاتف لجمع المعلومات المطلوبة للاستبيان. وكذلك تم عمل جداول لمقارنة العوامل المؤثرة على قرار الزواج.

تم جمع المعلومات من ٥٨٢ شخص (٢٩١ خابط (رجل) و٢٩١ مخطوبة (امرأة)) وهم جميع الأشخاص اللذين كانت أرقام الاتصال بهم صحيحة و وافقوا على التعاون مع جامعي البيانات بواسطة الهاتف. أعمار الخاطبين من الرجال تراوحت بين ١٧ إلى ٤٦ بمتوسط  $27.4 \pm 4.5$ ، بينما كانت أعمار المخطوبات من النساء تتراوح بين ١٥ إلى ٤٤ بمتوسط  $23 \pm 4.7$ . بالنسبة للمستوى التعليمي ٤ (١.٤%) من الخاطبين كان أمياً و ٩٠ (٣٠.٩%) كانوا من الجامعيين. بينما ٩ (٣.١%) من المخطوبات من الأميات و ٨٨ (٣٠.٢%) من الجامعيات.

الذين كانوا يعلمون بوجود مرض الدم الوراثي لديهم قبل إجراء الفحص الطبي قبل الزواج ١٧ (٣.٢٧%) من اللذين قرروا عدم إكمال الزواج، إضافة إلى ٤٠ (١٦.٧%) من اللذين قرروا إكمال الزواج. ٢١ (٤.٠٤%) ممن قرروا عدم الزواج و ٨٩ (٣١.٨%) ممن قرروا الزواج كان لديهم تاريخ عائلي لمرض أنيميا الدم المتجلية. وكذلك ١٢ (٢٣.١%) ممن قرروا عدم الزواج و ٢٣ (٩.٦%) ممن قرروا الزواج كان لديهم تاريخ عائلي لمرض التلاسيميا. اثنتان وسبعون (٦٧.٩%) من اللذين طلبت منهم

المشنة الصحية زيارة عيادة المشورة الوراثية، قاموا بالفعل بزيارة العيادة. ٤١% من قرارات إكمال الزواج تمت عن طريق الخاطب أو المخطوبة بشكل أساسي، بينما الباقي تم بضغط من قبل عائلات المتزوجين.

يعتبر برنامج الفحص الطبي قبل الزواج من البرامج الوقائية الجديدة والمهمة في المملكة العربية السعودية. وقد استطاع البرنامج إيقاف بعض الزوجات الغير آمنة و يحتاج إلى مزيد من الدعم والتطوير للوصول إلى أهدافه الهامة.

إعداد: د. فيصل العنزي، د. أسامة الحياتي، د. ناصر الحمدان، د. عبد الجميل شودي (برنامج البوابيات الحقلية)، د. فهد السويدي (الإدارة العامة للأمراض غير المعدية).

### مكافحة العدوى في عيادات الأسنان التابعة لوزارة الصحة في منطقة جازان ١٤٢٧ هـ.

مكافحة العدوى والتحكم في منع انتقالها من شخص إلى آخر سواء من الطبيب إلى المريض أو العكس أو من مريض إلى مريض أصبحت من أهم الأمور المطروحة للنقاش في مجال طب الأسنان اليوم. ولقلة الدراسات التي عملت لتقييم مستوى التعقيم ووسائل مكافحة العدوى في عيادات الأسنان التابعة لوزارة الصحة في المملكة العربية السعودية، كان هذا البحث الذي خصص لدراسة مستوى التعقيم في عيادات طب الأسنان الحكومية التابعة لوزارة الصحة في مدينة جازان سواء العيادات بالمستشفيات أو بمراكز الرعاية الأولية أو في مركز طب الأسنان.

استخدمت طريقة المسح الشامل لعيادات الأسنان في مدينة جازان وذلك لتقييم مدى معرفة الأطباء والمرضى بطرق الوقاية من العدوى وكيفية انتقالها وما هو سلوكهم تجاه هذا الموضوع ومقارنة النتائج بنتائج دراسات عالمية أخرى. اختيرت ٧٨ عينة تشمل جميع أطباء الأسنان في منطقة جازان على النحو التالي: جميع مستشفيات المنطقة وعددها ١٥ مستشفى، كل عيادات الأسنان في مراكز الرعاية الأولية وعددها ٣٤ عيادة أسنان، ومركز طب الأسنان الوحيد بمنطقة جازان. استخدم استبيان لجمع المعلومات لكل طبيب أو طبيبة.

كانت نسبة الاستجابة من قبل الأطباء المستهدفين با لدراسة ١٠٠%. متوسط عمر الأطباء المستهدفين كان  $33.9 \pm 7.8$  عاماً، وكانوا من جنسيات مختلفة، منهم ١٦.٧% سعوديين و ٨٣.٣% غير سعوديين والغالبية منهم ٨٩.٧% كانوا أطباء مقيمين و ١٠.٣% كانوا أخصائيين في مختلف تخصصات طب الفم والأسنان. كانت الخبرة لمعظم هؤلاء الأطباء من ٦ إلى ١٠ سنوات (٣٠.٨%) ومتوسط الخبرة كان (١١.٨ + ٦.٧ عاماً). أكثر من نصف الأطباء المستهدفين يقومون بفحص وعلاج أكثر من ١٥ مريض يومياً. تعرض ٧.٧% إلى الإصابة خطأً بالإبرة أثناء علاج المرضى. ذكر ٨٠.٧%

بأنهم قد قاموا بأخذ التطعيم ضد التهاب الكبد الوبائي (ب). ٦٤.١% منهم ذكروا حرصهم على اخذ التاريخ الطبي للمريض قبل العلاج. جميع الأطباء ذكروا بأنهم يرتدون القفازات ويلبسون الكمامة دائماً أثناء علاجهم. وأكثر هؤلاء كانوا يستبدلون الكمامات بين كل مريض وآخر (٩٧.٤%).

ذكر ١٠٠% من الأطباء أن فيروس الكبد الوبائي والإيدز من أكثر الأمراض المعدية خطورة في عيادة طبيب الأسنان. تعلم ٩٣.٦% من الأطباء البرامج والوسائل لمكافحة العدوى أثناء الدراسة الجامعية. رفض ٨٩.٧% أن يقوموا بعلاج أي مريض يحمل فيروس الإيدز، ورفض ٤٦.١% أن يقوموا بعلاج أي مريض يحمل فيروس الكبد الوبائي.

جميع الأطباء يقومون بتقييم الحفار بواسطة جهاز التعقيم الحراري، يقوم ٧٦.٩% برمي الإبر المستخدمة والآلات الحادة في علب خاصة آمنة.

الأطباء العاملون في عيادات مراكز الرعاية الأولية ومركز طب الأسنان وجد أنهم أكثر متابعة وتطبيقاً لمكافحة العدوى من الأطباء الآخرين العاملين في المستشفيات. الأطباء ذوا الخبرة أكثر من ١٠ سنوات كانوا أقل تطبيقاً واتباعاً لوسائل مكافحة العدوى من غيرهم من الأطباء ذوا خبرة أقل من ١٠ سنوات. الأطباء اكبر من ٣٠ سنة من العمر كانوا أكثر تطبيقاً واتباعاً لوسائل مكافحة العدوى من الأطباء ذوا الفئة العمرية أقل من ٤٠ سنة. الأطباء الذين يفحصون أقل من ١٠ مرضى في اليوم أكثر تطبيقاً واتباعاً لوسائل مكافحة العدوى من الأطباء الذين يفحصون أكثر من ١٠ مرضى في اليوم وكان هذا ذو دلالة إحصائية (OR = ٥.٢١، CI = ١.٣٢٢ - ٢٠.٢٨٠).

تم الاستنتاج من هذه الدراسة إن فئة قليلة من الأطباء المستهدفين كانوا مطبقين لبرامج ووسائل مكافحة العدوى في عيادات طب الأسنان الموضوعة من قبل CDC، ADA و كانت هذه الملاحظة معتبرة.

تمت التوصية على توفير نموذج ولوائح علمية عن كيفية تطبيق وإجراء وسائل مكافحة العدوى والحد من انتشارها، التأكيد على جميع العاملين في مجال صحة الفم والأسنان أن يقوموا بتطبيق البرامج اللازمة لمكافحة العدوى وانتقال المرض في عيادة طب الأسنان وذلك وفق التوصيات الدولية، وضع برامج ودورات تدريبية لزيادة الوعي والإدراك لدى العاملين في مجال صحة الفم والأسنان عن الأمراض المعدية مثل التهاب الكبد والفيروسى والإيدز وإعطاء الثقة لعلاج المرضى الحاملين لهذه الفيروسات، التأكيد على جمع العاملين في مجال صحة الفم والأسنان على أخذ التطعيمات اللازمة وخاصة التطعيم ضد مرض التهاب الكبد الفيروسي نوع (ج) وزيادة المتابعة للقطاع الصحي العام (الحكومي) للتقييم والتأكيد على وجود والأجهزة الخاصة بالتعقيم والتطهير ووسائل مكافحة العدوى اللازمة.

إعداد: د. عبده دحلان، د. عبدالله الربيع، د. ناصر الحمدان (برنامج البوابيات الحقلية).

## Factors affecting the decision of marriage in Saudi Premarital Screening Program, cont

(Continued from page 29)

history of thalassemia, and if both of the couples were suffering from sickle cell disease. Health facilities have failed to advise people to visit counseling clinics, which themselves were unable to significantly modify the marital decision of couples.

Timing of premarital screening should be made much earlier than maleka, to avoid social embarrassment by withdrawing from marriage at a late stage of commitment. An option which needs exploration is introduction of screening program at the end of secondary school.

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## Foodborne outbreak among 4 families in Taif city, cont...

(Continued from page 28)

education is recommended to discourage people from consuming unpasteurized raw milk.

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## Mark your calendar . . .

### Inside the Kingdom

#### **May 27-28, 2007: Aspects in Nutrition.**

Venue: King Fahad Medical City Conference Hall, King Fahad Medical City, Riyadh, Kingdom of Saudi Arabia.

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#### **May 30, 2007: Focus on Health Problems at our schools.**

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Contact: King Fahad Medical City, P.O.Box 59046, Riyadh 11525. Tel.

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Website: [www.kfmc.med.sa](http://www.kfmc.med.sa)

### Outside the Kingdom

#### **June 19-21, 2007: 6th Jordanian Public Health Association Conference & 3rd TEPHINET Regional Scientific Conference**

Contact: Jordan FETP program director: Dr. Sami Sheikh Ali

([saadshali@hotmail.com](mailto:saadshali@hotmail.com)) at Directorate of Disease Control, Abdel Hamed Sharaf Street, Amman – Jordan.

Website: <http://jordan.tephinet.org/cgi-files>

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Consultant Epidemiologist.

## Selected notifiable diseases by region, Oct - Dec 2006

	Riyadh	Makkah	Jeddah	Madinah	Taif	Qassim	Eastern	Hasa	Hafr Al-batin	Asir	Bisha	Tabuk	Hail	Al-Shamal	Jizan	Najran	Baha	Al-Jouf	Goriat	Gonfuda	Gonfuda	TOTAL	
Measles	13	14	29	0	0	0	1	0	0	19	0	0	0	0	206	1	1	0	0	0	0	0	290
Mumps	1	0	0	364	0	1	0	0	0	0	0	0	3	0	0	0	217	0	0	0	0	35	3
Rubella	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Varicella	1158	122	594	4	166	1356	764	567	567	261	693	119	514	111	131	245	0	213	65	49	0	0	7744
Meningitis mening.	1	0	1	67	0	0	0	0	0	1	0	0	0	0	0	0	8	0	1	0	0	25	5
Meningitis other	16	0	5	26	6	7	2	13	13	1	2	0	9	1	0	3	3	0	5	0	0	18	74
Hepatitis B	183	0	308	0	10	80	110	3	3	1	62	16	78	2	4	26	0	0	42	5	0	0	1030
Hepatitis C	146	2	282	31	6	40	66	3	3	0	37	17	28	2	3	5	26	0	30	8	21	0	722
Hepatitis unspecified	10	0	3	3	0	0	1	5	5	0	7	0	13	6	0	22	1	0	0	0	0	6	67
Hepatitis A	34	6	35	13	2	49	24	15	15	8	44	1	30	23	37	42	1	0	24	8	0	0	460
Typhoid & paratyphoid	2	1	19	0	0	2	16	7	7	0	6	3	0	3	0	1	6	0	0	0	1	2	71
Amoebic dysentery	10	4	537	4	6	1	32	34	34	5	38	9	0	2	0	16	14	0	0	1	0	0	709
Shigellosis	7	1	1	24	0	4	6	2	2	0	0	1	2	0	17	1	24	0	3	1	0	0	54
Salmonellosis	127	2	48		0	9	114	27	27	11	9	14	11	0	19	1		0	23	1			434
Brucellosis	111	11	7		52	92	47	6	6	27	185	36	8	56	9	20		4	6	1			726

## Comparisons of selected notifiable diseases, Oct - Dec 2005-2006

DISEASE	Oct-Dec 2006	Oct-Dec 2005	Change %	Jan-Dec 2006	Jan-Dec 2005	DISEASE	Oct-Dec 2006	Oct-Dec 2005	Change %	Jan-Dec 2006	Jan-Dec 2005
Cholera	2	2	0	10	16	Meningitis mening	5	5	0	22	18
Diphtheria	0	0	0	2	7	Meningitis other	74	168	-56	395	510
Pertussis	7	2	250	34	21	Hepatitis B	1030	1031	0	4264	4209
Tetanus, neonat	2	6	-67	18	22	Hepatitis C	722	714	1	2964	2674
Tetanus, other	1	2	-50	8	10	Hepatitis unspecified	67	207	-68	691	1179
Poliomyelitis	0	0	0	0	0	Hepatitis A	460	666	-31	2631	2461
Guilain Barre Syndrome	24	36	-33	115	103	Amoebic dysentery	71	54	31	293	325
Measles	290	32	806	792	373	Amoebic dysentery	709	627	13	2907	2806
Mumps	3	11	-73	80	115	Shigellosis	54	59	-8	149	198
Rubella	2	1	100	23	18	Salmonellosis	434	346	25	1572	1349
Varicella	7744	9336	-17	43070	45389	Brucellosis	726	711	2	3997	3804

## Diseases of low frequency, Oct – Dec 2006

Yellow fever, Plaque, Poliomyelitis, Rabies, Haemolytic Uraemic Syndrome: No Cases

Pertussis: 7 Cases (Jeddah 4, Asir 2, Qassim 1)

Neonatal Tetanus: 2 Cases (Jeddah 2)

Ecchinococcosis: 3 Cases (Baha 2, Riyadh 1)

Guillian Barre Syndrome: 24 Cases (Eastern 4, Madinah 3, Taif 3, Hasa 3, Qassim 2, Asir 2, Makkah 1, Riyadh 1, Jazan 1, Jeddah 1, Baha 1, Al-Shammal 1, Qunfudah 1)