



Sultanate of Oman

Ministry of Health



Certification of Oman's Vaccine Cold Store

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Sultanate of Oman is once again in the limelight for its spectacular performance in health services. Oman was the first country in the world to be certified by WHO/UNICEF in the area of primary vaccine store management following an external assessment by the visiting experts team.

The Oman's EVSM Assessment

(Following text is reproduced from the "Vaccine Management Newsletter, January 2004" a WHO publication).

The Oman primary vaccine store became the first to meet the new WHO/UNICEF criteria or Effective Vaccine Store Management (EVSM). The announcement was made at the closing session of the recent GTN/VMTC vaccine store management training course in Muscat. The vaccine store was assessed by an external international team during 16 to 22 October 2003.

The goal of the EVSM initiative is to encourage countries to fully protect vaccines through effective equipment procurement and maintenance, as well as adoption of appropriate management and training procedures at both primary and intermediate stores.

Primary vaccine stores are of the highest priority as they have an effect on the quality of vaccine delivered nationwide. Effective management, adequate

funding and well-maintained equipment are key to safe vaccine storage and delivery. The EVSM initiative is intended to set international standards for the management of vaccines in primary stores, to reinforce the importance of effective logistics, and to encourage countries to develop and maintain systematic and verifiable management practices and help secure adequate levels of funding.

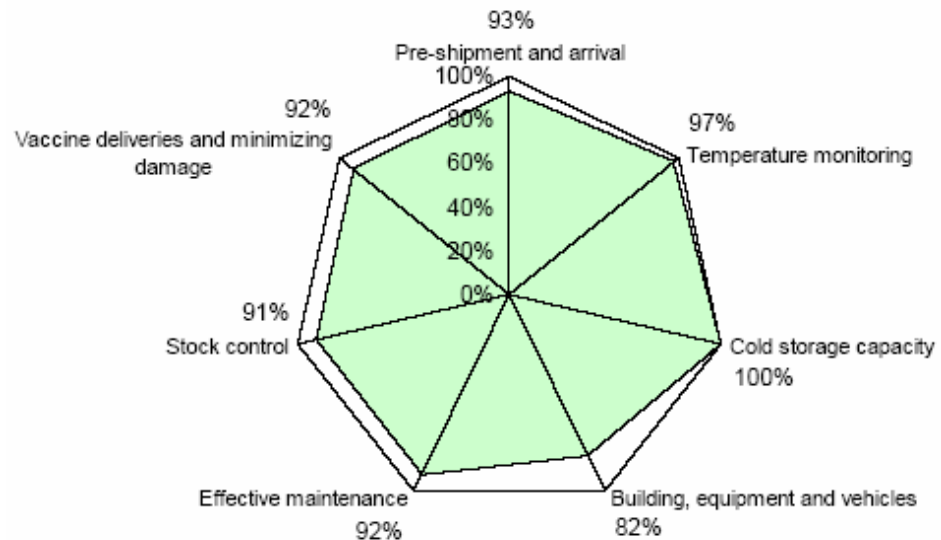
The participants of the first GTN/VMTC vaccine store management training course were also involved in the EVSM assessment during their visit

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Oman's Winning EVSM Score



“The EVSM initiative is intended to set international standards for the management of vaccines in primary stores”.

to Oman's primary vaccine store. They were asked to cross check the stock records of BCG vaccine, and conduct physical counts of BCG vaccine and its diluent in stock. All stock records and physical counts of vaccine and diluent were in perfect match of 127,240 doses.

We offer our congratulations to the team at the Oman Primary Vaccine Store as they exceeded the required 80% score in all areas of vaccine cold store management.

The First Global Training Course

The FIRST global training course on 'Vaccine Store Management' was held in Muscat, Sultanate of Oman from 18th to 22nd October 2003 in Hotel Radisson SAS.

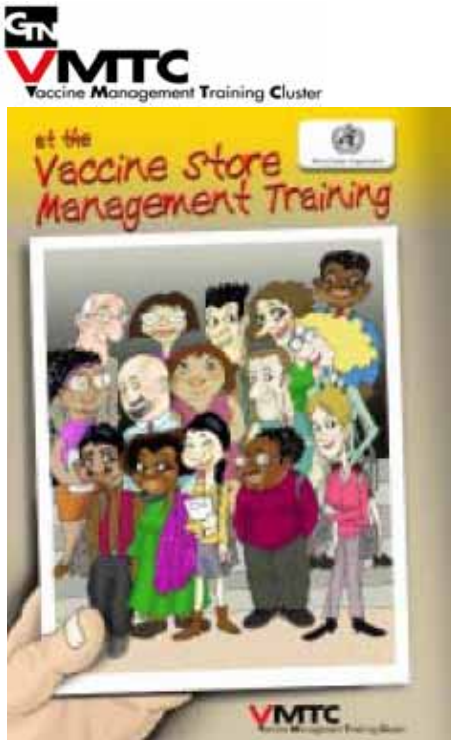
Total 15 candidates were trained during the course that included 3 from *Sudan*, 2 each from *Nigeria, Malawi, Yemen* and *Oman* while 1 from *Zambia, Solomon Islands, Fiji* and *Thailand*. Three trainers/coaches were from

The Vaccine Cold Store Management

EVSM tool assesses whether over the past 12 months that:

1. All vaccine shipments were in satisfactory condition when received in the primary stores
2. All vaccines have been stored within WHO recommended temperature ranges
3. The capacity of cold storage has been sufficient to meet the demand
4. The buildings, equipment and transport available to the programme have enabled the cold store to function effectively
5. All buildings, equipment and transport have been correctly maintained
6. Stock management has been effective
7. Deliveries of vaccine to the next intermediate level have been timely, sufficient and correct
8. Minimal damage has occurred during vaccine distribution
9. The facility has followed standard operating procedures
10. Human and financial resources have been sufficient





WHO HQ and EMRO while from Oman four facilitators participated in the training course.

The training course was inaugurated at the hands of HE the Undersecretary of Health Affairs, Ministry of Health. The inauguration ceremony was attended by senior Ministry officials.

Every day the training would commence at 8:00 in the morning and would continue till 5:30 in the evening. The morning and the post-lunch sessions would start with a warm-ups conducted either by the facilitator or the trainees. These warm-ups helped the creation of informal atmosphere conducive for adult learning. The trainees laughed a lot and felt relaxed and were eager to learn. At the end of the day the trainers meeting would take place discussing about the days work and exchanging positive and negative feedbacks from each other. The theme however was to always encourage the new trainers. The next day's

programme would be discussed and the sessions would be allocated and shared amongst the trainers. The trainers would discuss the session plan. All this led to a high quality of training imparted during the course. This fact was amply substantiated by the individual feedback received from the trainees at the end of the course.

During the course the trainees especially appreciated the practical exercises and group work, the simulation game, the right and the wrong practices – video, and the field visit to Oman's primary vaccine store.

The course material was structured and prepared in a novel way. The use of interwoven cartoon characters was very effective. The session plans and the resource material were appropriate to the needs of the training. The follow-up plan was well thought of and would certainly further enhance the impact of the training in actually modifying the practices of the trainees.

A brainstorming session was held amongst the trainers at the end to evaluate the entire course with suggestions to improve. Actions required to be taken by the WHO and by the Muscat centre trainers were defined.

Overall the entire course was a memorable and pleasant experience not only to the trainees but also to the trainers and would certainly benefit the cause of vaccine management.

The next course in Oman is scheduled from 9th to 13th October 2004.



*The WHO Vaccine Management Newsletter
is posted at...*

[http://www.who.int/vaccines-access/
vacman/VMTC/VMTCmain.htm](http://www.who.int/vaccines-access/vacman/VMTC/VMTCmain.htm)

"We (WHO) offer our congratulations to the team at the Oman Primary Vaccine Store as they exceeded the required 80% score in all areas of vaccine cold store management".

Risk Factors of PEM in Children below 3 Years of Age

Summary

A study on the risk factors associated with Protein Energy Malnutrition (PEM) among children under the age of three years in Oman was conducted in 2002. The present study was planned as a response to the question raised about the high levels of PEM in Omani children.

A matched case-control design was employed through screening of all children between the age of 0-3 years in more than 50 villages in 4 administrative regions. The screened children were matched for age, sex and place (village) of residence and matched pairs were verified by the study coordinator. A questionnaire was administered through an interview with the mothers of the cases and controls. In addition samples of blood, stool and water were collected to measure haemoglobin of mothers, parasitic infestations of children, and water contamination in the households of the subjects.

The total number of children included in the final analysis after exclusion of mismatched children, subjects of missing values on important variables etc. was 380 (190 each of cases and controls)

Several socio-economic, environmental and maternal health factors were studied and univariate analysis showed that among the factors studied, household income was significantly associated with low-weight-for-age (p-value=0.03). The odds ratio of malnutrition among families earning RO 250 or lower was 2.34, compared to families earning RO 500 or more, whereas in middle income families (250-499) the O.R. was 1.5. Income per person in terciles, and terciles of poverty gap showed the same results (Table 1)

Low birth weight children were also at higher risk of developing malnutrition

(O.R.=5.8, P-value <0.0001). Mothers whose height was less than 151 cm had an odds ratio of 2.6 compared to tall mothers (height >156 cm), and this ratio was statistically significant (p=0.0003). Schooling of mother was important in univariate analysis where children of illiterate mothers had O.R. of 2.06 compared to secondary school mothers, and that of mother with primary, elementary schooling was 1.34, and 0.98 consecutively. Children of working mothers were at lower risk of being malnourished (O.R. 5.8, p-value=0.01)

Feeding practices were significantly associated with PEM among children, where the feeding index constructed showed a significant association, though a number of factors seemed to confuse the results. Children reported to be fed in a plate alone were at higher risk of being malnourished (odds ratio=1.7, p-value=0.019), whereas monitored children also seemed to be at higher risk of being malnourished (odds ratio=4.7, and p-value=0.0001).

Multivariate analysis was carried out to control for the confounding variables. The variable included in the model were; birth-weight, height of mother, diarrhea in the last 15 days, child given infant formula regularly, child eats in a separate plate, schooling of mother, mother has job outside house, head of household, water quality index, and income

The results revealed that after adjustment the variables that remained significant were birth-weight (odds ratio=8.4, p=0.001), height of mother (O.R. 2.7, p=0.0027), diarrhea in the last 15 days (O.R.3.9, p=0.0029), giving infant formula (O.R. 2.2, p=0.014), eating in a separate plate (O.R. 2.1, p=0.024), mother has a job (O.R. 0.1, P=0.023), and most importantly the water quality index (O.R. 4.7, p=0.0018). Income was not statistically sig-

“The present study was planned as a response to the question raised about the high levels of PEM in Omani children.”

nificant in the multivariate analysis.

An important finding is that birth-spacing was found not to be associated with PEM in this population

Conclusions

In conclusion it is evident that among the population studied, the risk factors of malnutrition in this study could be grouped into;

- **Maternal:** such as maternal height, and if the mother has a job. The latter could be a factor of maternal education, and thus require long term strategies.
- **Child related:** Low birth weight which is related to maternal nutritional status.
- Diarrhoea, bottle feeding and feeding practices are factors that require public health interventions.
- Water quality need to be addressed as a factor on a policy makers levels.
- The association between income and malnutrition becomes in-significant when adjusted for other factors; therefore it does not seem to be a vital factor in

this situation.

Recommendations

- A study to assess the risk factors associated with low-birth weight, possible through a causal model approach and recommend appropriate action.
- To launch an awareness and social marketing campaign that focuses on caring and feeding practices
- To review the CDD program in order to take appropriate action for prevention and control, in addition to prompt response to diarrhoeal diseases by ORS.
- Further support the BFHI program and ensure promoting exclusive breastfeeding up to the age of 6 months, timely introduction of complementary foods and continue breastfeeding into the second year as well as promotion of adequate complementary feeding practices and transition to family diet.
- Review and support the development of water supply systems to ensure hygienic water in each household, including clean sources, transport and pipes, in-house water tanks and periodic examination of

- *“The association between income & malnutrition becomes in-significant when adjusted for other factors; therefore it does not seem to be a vital factor in this situation.”*

Table 1
Adjusted & Non-Adjusted Analysis of Factors Associated with PEM
Among Omani Children (6m to 3yr)



Variable	Response Category	Unadjusted*	Adjusted**
		Statistical probability	
Birth weight < 2500gm	Yes / No	0.0003	0.001
Height of mother	<151 cm / 151-156 cm / ≥ 156 cm	0.0005	0.0027
Child had diarrhoea in last 15 days	Yes / No	0.09	0.0029
Child given infant formula	Yes / No or gave and stopped	0.09	0.014
Child eats in separate plate	Yes / No	0.046	0.024
Schooling of mother	None / Primary / Elementary / Secondary or more	0.05	0.053
Mother has outside job	Yes / No	0.022	0.023
Head of household	Father / Mother or other relative	0.093	0.084
Water quality index	Bad / Average or Good	0.019	0.0018
Per capita household income	< RO30 / RO 30-60 / ≥ RO 60	0.12	0.16

*Univariate conditional logistic regression models, Response is case/control. Regressor: variable as in column one.

** Multivariate conditional logistic regression model. Response is case/control. Regressors: all variables in column one included in the model

Cholera in Al Sawadi Village (South Batinah)

Case report

On the night of 20th September 2003 a nine year old girl was referred from Barka Polyclinic to Rustaq Hospital with history of loose stools and vomiting since one day. She was stable but dehydrated. Intravenous fluids were started and on the next day the treating Paediatrician on suspicion requested for stool examination. The routine examination turned out negative. The child's clinical condition improved. Two days later the patient's eleven year old sibling (brother) was also referred from Barka polyclinic with typical rice water stools and with severe dehydration. He was admitted and intravenous fluid replacement was started along with further laboratory tests.

*"The isolated organisms were later confirmed as *Vibrio cholerae*, serovar O1, Ogawa, biovar El Tor by the Central Public Health Laboratory".*

Laboratory tests: In the meantime the stool culture from the first case in alkaline peptone water showed darting motility typical of *Vibrio cholerae* while routine direct stool microscopy of the second case also revealed the motile organisms. Both cases then were notified as probable Cholera. The isolated organisms were later confirmed as *Vibrio cholerae*, serovar O1, Ogawa, biovar El Tor by the Central Public Health Laboratory on 22 September.

The Investigation Team in the Field: 23 sep'03



Both the patients in the hospital were isolated. Arrangements were made for collection of stool samples from contacts. No other family contacts had complaints of similar nature. All the health staffs from in the region were kept on high alert.

Epidemiological investigation

The investigation was conducted on 23rd September to ascertain the probable source of infection and also for applying control measures. Stool samples (35) were collected from household and neighbourhood contacts of which two of the siblings tested positive (identical isolate) while immediate neighbourhood contacts were all negative. Water samples from possible sources of infection were also collected.

The Polluted Shallow well in the Courtyard



One of the overhead reservoirs was found positive for the same organism.

Exposure history

- There was no history of food intake from outside sources within the last five days.
- There was no history of contact with anybody other than those in the house and the neighbourhood.
- There was no history of travel by any members of the family.
- Specific enquiries were made into the

possibility of contacts with expatriates of Asian origin however no such history could be elicited.

- There was no history of diarrhoeal episodes in the neighbourhood for the past one week.
- No other school children had any history of loose stools.

Environmental factors

The house was located in *Al Sawadi* village on the seaside with total 12 family members. All houses in the village were independent units with a compound wall and a separate septic tank. There were domestic animals within the courtyard. The house had two bedrooms and a guest room.

Water Source: Piped water was provided to the village by a private water supply agency. Their reservoir was located at a distance of 7 km from the village. Although

The Water Tank Positive for *V. cholerae*



facilities for chlorination were available, at the time of inspection the system was not functioning. The water sample collected from one of the overhead reservoirs in the house was found to be contaminated by the same organism (*Vibrio cholerae* O1, *Ogawa*, *El Tor*) responsible for causing the disease.

There was a narrow shallow well within

the courtyard where clothes and vessels were being washed. The water appeared to be grossly polluted. They were instructed not to use the well water for even washing

Separate Septic Tank Outside the Compound



purpose. The well water tested negative for *Vibrio cholerae*.

Source of Infection

Both the reported cases of cholera were from a single household amongst about 600 others in *Al Sawadi* village in Barka Wilayat. The isolated organism was *Vibrio cholerae*, serotype O1, *Ogawa*, *Biotype El Tor*. The organism was virulent leading to severe diarrhoea (rice water stools) and moderate to severe dehydration in the admitted cases. Two contacts from the same household (siblings) with mild diarrhoea were also positive for cholera. The same organism was also isolated from one overhead water tank.

There was no available evidence from the epidemiological investigation to suggest the possibility of infection from outside. If the water supply system was contaminated more households should have been affected. There were no reports of similar illness in the neighbourhood despite vigorous enquiry. The infection and the episode remained confined to a single household. A possibility of focal and transient contami-

“Both the reported cases of cholera were from a single household amongst about 600 others in Al Sawadi village in Barka Wilayat”.

nation of the water storage tank leading to a whole spectrum of infection within the members of the affected family seems to be the only explanation. However how the organisms managed to enter the water supply remains a matter of speculation.

Public Health Actions

Community

• *“The available evidence suggests transient contamination of water supply in the affected household being responsible for the cases of cholera”.*

- Stool samples (35 samples) from family and immediate neighbourhood contacts was collected and tested of which two siblings were positive. Follow-up stool samples after one week were all negative.
- Chemoprophylaxis with Doxycycline (as a single dose) was administered to all household and immediate neighbourhood contacts.
- Water samples were collected from various sources that included patients' house, a house before and one after the patient's house with respect to water supply system, the pumping station and the well. The contaminated reservoir in the house was disinfected.
- Water samples were tested on a weekly basis from the affected areas for a review period of three months.
- Awareness was created in the neighbourhood regarding the necessity of reporting to health facility in case of loose motions.
- Health staffs from Barka and Mussana Polyclinic maintained a high alert and had taken all necessary steps for early detection of cases. All cases of diarrhoea presenting with dehydration were subjected to stool culture.

A mechanism of heightened surveillance was maintained for a period of three months to detect any unusual clustering of

diarrhoea cases within the affected Wilayat.

Conclusions

- These two cases of cholera with typical presentation were reported for the first time amongst the nationals since the surveillance system was launched in Oman in 1991. Earlier cholera cases on record were atypical with mild to 'no' diarrhoea and complete absence of dehydration.
- The outbreak was peculiar since it remained entirely confined to a single household.
- The available evidence suggests transient contamination of water supply in the affected household. However, how and from where the organisms entered the water tank remained a mystery. Probably an unidentified community contact of Asian origin might have been responsible.
- All follow-up water samples (collected on weekly basis for three months) were negative.
- No secondary or additional cases were reported during the entire follow-up period of three months despite heightened surveillance.
- The Ministry of Regional Municipalities, Environment and Water Resources has taken several initiatives in Al Sawadi village in the wake of this incident such as scrutinizing the water supply system, monitoring of chlorination of the water supply etc.



Communicable Diseases Quarterly Report

Fourth Quarter (October to December 2003)

ICD Code	Diseases	2003				2002	2003		
		Fourth Quarter				Q4	Q1	Q2	Q3
		Oct	Nov	Dec	Total	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep
GROUP 'A' DISEASES									
A00	Cholera	-	-	-	0	-	-	-	2+1(i)
A20	Plague	<i>Never Reported</i>							
A36	Diphtheria	<i>Never Reported</i>							
A39	Meningococcal infection	-	1	2	3	-	1	4	2
A80	Poliomyelitis	<i>Last Case in 1993</i>							
	Acute Flaccid Paralysis	2	1	1	4	5	4	3	2
B05	Measles	-	-	-	0	1	1	-	-
B06	Rubella & [CRS]	1	-	-	1	-	-	-	-
A95	Yellow fever	<i>Never Reported</i>							
A82	Rabies	-	-	-	0	-	-	-	1
A75.0	Louse-borne typhus	<i>Never Reported</i>							
A68	Relapsing fever	<i>Last Case in 1997</i>							
A33	Tetanus Neonatorum (NNT)	<i>Last Case in 1995</i>							
A99	Viral Hemorrhagic fever	-	-	-	0	-	-	-	-
GROUP 'B' DISEASES									
A03.0	Typhoid fever	6	4	1	11	10	9	17	13
A01.4	Paratyphoid fever	-	-	1	1	4	4	2	2
A02	Food poisoning	35	44	36	115	150	201	256	307
A22	Anthrax	<i>Never Reported</i>							
A23	Brucellosis	13	7	14	34	29	50	55	57
A37	Pertussis	5	6	14	25	15	30	49	43
A35	Tetanus (Excluding NNT)	-	1	1	2	2	-	-	1
A90	Dengue	-	-	1 (i)	1 (i)	1 (i)	-	2 (i)	1 (i)
	Viral Hepatitis - Total	63	52	65	180	322	416	361	269
B15	Viral Hepatitis 'A'	25	27	36	88	75	121	53	91
B16	Viral Hepatitis 'B'	5	1	7	13	4	7	18	14
B17.1	Viral Hepatitis 'C'	6	3	-	9	2	-	2	8
8B17.0	Viral Hepatitis 'D' among 'B'	-	-	-	0	-	-	-	-
B17.2	Viral Hepatitis 'E'	1	1	1	3	-	1	-	3
B19/B17.8	Viral Hepatitis (Unspecified)	26	20	21	67	240	287	288	153
B55	Visceral Leishmaniasis	-	-	-	0	-	-	-	-
	Cutaneous Leishmaniasis	-	-	-	0	4	9	1	3
B65	Schistosomiasis	-	-	-	0	1	15	24	41
B74	Filariasis	-	-	-	0	-	-	1 (i)	1 (i)
B72	Dracunculiasis	<i>Certified by WHO as Eradicated from Oman</i>							
G00.0	Haemophilus influenzae type b, Meningitis	2	1	-	3	3	1	-	3
G00.1-9	Bacterial meningitis other than Nm & Hib	5	3	3	11	10	11	10	8
A87	Viral meningitis	2	2	2	6	1	6	2	8
G03	Meningitis - Unspecified	1	1	5	7	4	11	1	13
A30	Leprosy	-	-	1	1	2	3	1	2
A15-A19	Pulmonary Tuberculosis Sputum Positive	9	4	11	24	24	16	27	24
	Pulmonary Tuberculosis Sputum Negative	1	-	2	3	3	9	11	7
	Extra Pulmonary Tuberculosis	8	9	4	21	16	21	32	18
B50-B54	Malaria (All sources)	138	73	62	273	99	58	124	286
	HIV [AIDS]	9 [4]	7 [1]	2 [3]	18 [8]	14 [3]	5 [5]	10 [6]	6 [5]
A50-A53	Syphilis	9	2	6	17	32	31	30	32
A54	Gonococcal Infections	24	11	20	55	46	23	58	62
GROUP 'C' DISEASES									
A03	Shigellosis	48	52	81	181	417	238	234	171
A06	Amoebiasis	428	257	499	1,184	1,624	1,667	1,259	1,153
A09	Acute Gastro-Enteritis & Diarrhoea	8,845	8,766	12,520	30,131	37,823	36,282	24,205	22,732
B01	Chicken Pox	1,761	2,164	3,614	7,539	4,409	5,476	7,349	4,313
B26	Mumps	101	112	145	358	571	376	636	288
A71	Trachoma	26	24	32	82	74	176	65	100
J10-J11	Influenza	219	175	139	533	1,202	468	425	460

Communicable Diseases Quarterly Report by Regions

Fourth Quarter (October to December 2003)

ICD Code	Diseases	Total	Muscat	Dhofar	Dakhliyah	North Sharqiyah	South Sharqiyah	North Batinah	South Batinah	Dhahira	Musandam	Al-Wustah
GROUP 'A' DISEASES												
A00	Cholera	0	-	-	-	-	-	-	-	-	-	-
A20	Plague	<i>Never Reported</i>										
A36	Diphtheria	<i>Last Case in 1992</i>										
A39	Meningococcal infection	3	-	-	1	-	1	1	-	-	-	-
A80	Poliomyelitis	<i>Last Case in 1993</i>										
	Acute Flaccid Paralysis	4	1	-	-	-	1	-	1	1	-	-
B05	Measles	0	-	-	-	-	-	-	-	-	-	-
B06	Rubella & [CRS]	1	1	-	-	-	-	-	-	-	-	-
A95	Yellow fever	<i>Never Reported</i>										
A82	Rabies	0	-	-	-	-	-	-	-	-	-	-
A75.0	Louse borne typhus	<i>Never Reported</i>										
—A68	Relapsing fever	<i>Last Case in 1997</i>										
A33	Tetanus Neonatorum (NNT)	<i>Last Case in 1995</i>										
A99	Viral Haemorrhagic fever	0	-	-	-	-	-	-	-	-	-	-
GROUP 'B' DISEASES												
A03.0	Typhoid fever	11	2	1	-	-	-	6	2	-	-	-
A01.4	Paratyphoid fever	1	-	-	-	-	-	-	-	1	-	-
A02	Food poisoning	115	22	4	13	5	8	38	8	17	-	-
A22	Anthrax	<i>Never Reported</i>										
A23	Brucellosis	34	1	32	-	-	-	1	-	-	-	-
A37	Pertussis	25	10	2	5	5	-	2	-	1	-	-
A35	Tetanus (Non NNT)	2	-	1	1	-	-	-	-	-	-	-
A90	Dengue	1 (i)	-	-	-	-	-	1 (i)	-	-	-	-
	Viral Hepatitis - Total	180	8	15	13	4	44	34	43	14	1	4
B15	Viral Hepatitis 'A'	88	-	-	5	-	25	14	38	2	1	3
B16	Viral Hepatitis 'B'	13	-	-	3	-	1	3	3	3	-	-
B17.1	Viral Hepatitis 'C'	9	2	-	3	-	1	1	1	1	-	-
B17.0	Viral Hepatitis 'D' among 'B positive'	0	-	-	-	-	-	-	-	-	-	-
B17.2	Viral Hepatitis 'E'	3	-	-	2	-	-	-	1	-	-	-
B19/B17.8	Viral Hepatitis Unspecified	67	6	15	-	4	17	16	-	8	-	1
B55	Visceral Leishmaniasis	0	-	-	-	-	-	-	-	-	-	-
	Cutaneous Leishmaniasis	0	-	-	-	-	-	-	-	-	-	-
B65	Schistosomiasis	0	-	-	-	-	-	-	-	-	-	-
B74	Lymphatic Filariasis	0	-	-	-	-	-	-	-	-	-	-
B72	Dracunculiasis	<i>Certified by WHO as Eradicated from Oman</i>										
G00.0	Haemophilus influenzae type b, Meningitis	3	1	-	-	-	1	-	1	-	-	-
G00.1-9	Bacterial meningitis (except Nm & Hib)	11	1	2	-	1	3	3	1	-	-	-
A87	Viral meningitis	6	1	-	1	1	-	1	1	1	-	-
G03	Meningitis - Unspecified	7	1	2	-	2	-	2	-	-	-	-
A30	Leprosy	1	-	1	-	-	-	-	-	-	-	-
A15-	Pulmonary Tuberculosis Sputum Positive	24	8	-	-	1	-	7	4	1	3	-
	Pulmonary Tuberculosis Sputum Negative	3	1	1	-	-	-	-	1	-	-	-
	Extra Pulmonary Tuberculosis	21	1	7	2	2	3	2	3	-	1	-
B50-	Malaria (All sources)	273	75	4	6	3	11	88	40	33	12	1
	HIV [AIDS]	18 [8]	7 [4]	3 [1]	0 [0]	0 [0]	0 [0]	7 [2]	0 [1]	1 [0]	0 [0]	0 [0]
A50-	Syphilis	17	3	4	-	-	1	5	2	2	-	-
A54	Gonococcal Infections	55	9	14	-	-	17	7	2	6	-	-
GROUP 'C' DISEASES												
A03	Shigellosis	181	38	10	39	49	12	7	7	9	3	7
A06	Amoebiasis	1,184	195	6	137	156	272	39	26	152	7	194
A09	Acute Gastro-Enteritis & Diarrhoea	30,131	4,440	4,246	3,830	2,641	3,123	4,910	3,958	1,872	477	634
B01	Chicken Pox	7,539	1,640	56	530	555	602	1,508	1,076	713	331	38
B26	Mumps	358	124	14	34	13	15	24	27	105	1	1
A71	Trachoma	82	30	1	5	7	-	4	23	12	-	-
J10-J11	Influenza	533	247	-	18	35	4	20	-	209	-	-

Notified Communicable Diseases by Regions

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ICD Code	Diseases	Total	Muscat	Dhofar	Dakhliyah	North Sharqiyah	South Sharqiyah	North Batinah	South Batinah	Dhahira	Musandam	Al-Wustah
GROUP 'A' DISEASES												
A00	Cholera	2+1 (i)	-	1 (i)	-	-	-	-	2	-	-	-
A20	Plague	<i>Never Reported</i>										
A36	Diphtheria	<i>Last Case in 1992</i>										
A39	Meningococcal infection	10	2	1	1	-	3	1	1	1	-	-
A80	Poliomyelitis	<i>Last Case in 1993</i>										
	Acute Flaccid Paralysis	13	2	-	-	-	3	2	2	3	-	1
B05	Measles	1	-	-	-	-	-	1	-	-	-	-
B06	Rubella & [CRS]	1	1	-	-	-	-	-	-	-	-	-
A95	Yellow fever	<i>Never Reported</i>										
A82	Rabies	1	-	1	-	-	-	-	-	-	-	-
A75.0	Louse borne typhus	<i>Never Reported</i>										
—A68	Relapsing fever	<i>Last Case in 1997</i>										
A33	Tetanus Neonatorum (NNT)	<i>Last Case in 1995</i>										
A99	Viral Haemorrhagic fever	0	-	-	-	-	-	-	-	-	-	-
GROUP 'B' DISEASES												
A03.0	Typhoid fever	51	13	6	5	-	-	13	6	3	1	4
A01.4	Paratyphoid fever	9	1	1	3	-	-	2	1	1	-	-
A02	Food poisoning	891	74	61	130	37	123	176	213	69	-	8
A22	Anthrax	<i>Never Reported</i>										
A23	Brucellosis	199	3	194	-	-	1	1	-	-	-	-
A37	Pertussis	149	43	6	15	7	2	44	5	26	-	1
A35	Tetanus (Non NNT)	3	-	1	1	-	-	1	-	-	-	-
A90	Dengue	4 (i)	1 (i)	-	-	-	-	2 (i)	-	1 (i)	-	-
	Viral Hepatitis - Total	1,243	65	82	133	301	180	239	104	58	12	69
B15	Viral Hepatitis 'A'	373	21	2	95	3	53	45	86	5	7	56
B16	Viral Hepatitis 'B'	65	5	5	12	1	13	9	12	8	-	-
B17.1	Viral Hepatitis 'C'	21	4	1	9	-	1	1	3	2	-	-
B17.0	Viral Hepatitis 'D' among 'B'	0	-	-	-	-	-	-	-	-	-	-
B17.2	Viral Hepatitis 'E'	13	-	-	5	-	-	3	1	4	-	-
B19/B17.8	Viral Hepatitis Unspecified	771	35	74	12	297	113	181	2	39	5	13
B55	Visceral Leishmaniasis	0	-	-	-	-	-	-	-	-	-	-
	Cutaneous Leishmaniasis	13	1	4	2	3	1	2	-	-	-	-
B65	Schistosomiasis	167	1	166	-	-	-	-	-	-	-	-
B74	Lymphatic Filariasis	2 (i)	-	-	-	-	-	-	-	1 (i)	-	1 (i)
B72	Dracunculiasis	<i>Certified by WHO as Eradicated from Oman</i>										
G00.0	Haemophilus Meningitis (Hib)	7	1	1	1	-	1	1	2	-	-	-
G00.1-9	Bacterial meningitis except Nm & Hib	40	8	7	2	9	3	6	5	-	-	-
A87	Viral meningitis	22	2	-	3	1	1	5	3	7	-	-
G03	Meningitis - Unspecified	32	4	2	1	4	2	17	-	1	-	1
A30	Leprosy	7	1	5	-	-	-	-	1	-	-	-
A15-A19	Pulmonary Tuberculosis Sputum Positive	90	31	3	4	3	5	23	12	3	5	1
	Pulmonary Tuberculosis Sputum Negative	30	8	6	2	1	1	2	7	3	-	-
	Extra Pulmonary Tuberculosis	92	24	20	7	3	6	18	8	3	2	1
B50-B54	Malaria (All sources)	741	294	19	38	25	35	133	75	82	38	2
B20-24	HIV [AIDS]	51 [31]	17 [10]	6 [2]	1 [1]	0 [0]	1 [1]	11 [10]	2 [2]	6 [4]	0 [1]	0 [0]
A50-A53	Syphilis	113	22	4	1	-	25	36	6	16	2	1
A54	Gonococcal Infections	211	40	46	3	-	51	31	9	19	7	5
GROUP 'C' DISEASES												
A03	Shigellosis	830	148	22	213	209	91	25	30	71	8	13
A06	Amoebiasis	5,265	639	23	1,016	677	1,130	371	125	735	73	476
A09	Acute Gastro-Enteritis & Diarrhoea	1,13,468	16,862	12,553	14,773	10,623	12,471	20,770	13,974	7,910	1,843	1,689
B01	Chicken Pox	24,711	6,157	1,908	2,445	1,706	1,502	5,151	2,720	1,995	976	151
B26	Mumps	1,664	367	67	457	56	44	194	149	318	7	5
A71	Trachoma	424	86	7	71	56	-	18	95	91	-	-
J10-J11	Influenza	1,927	481	-	163	390	4	161	1	727	-	-

Selected Communicable Diseases by Wilayat

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Region	Wilayat	Acute Flaccid Paralysis	Measles	Rubella	Pertussis	TB (Total)	TB Sputum Positive	Tetanus (Ex. NNT)	Malaria (All)	Viral Hepatitis (Total)	Leprosy	Meningo. Infection	Hib Meningitis	Leishmaniasis
MUSCAT	Muscat				6	4	2		8	9				1
	Seeb				14	25	14		128	10		1		
	Muttrah				4	16	8		49	11			1	
	Bowsher	2		1	10	7	2		70	13		1		
	Al Amerat				8	9	4		39	7				
	Quriyat				1	2	1			15	1			
DHOFAR	Salalah				5	21	1		19	43	4	1	1	3
	Thumrait					1				5				
	Taqah				1	3	1			1				
	Mirbat					2	1	1		4				1
	Sudah										1			
	Rakhyut					1								
	Dhalqut					1				25				
	Muqshan									4				
NORTH BATINAH	Sohar	2			14	14	7		74	80		1	1	1
	Shinas				2	4	4		4	13				
	Liwa		1		1	1			1	53				
	Saham				12	8	2		23	60				1
	Khabura				3	6	5	1	12	11				
	Suwaig				12	10	5		19	22				
SOUTH BATINAH	Rustaq	1			1	8	2		14	45	1		1	
	Nakhl					1	1			1			1	
	Wadi Maawil	1							1	1				
	Al Awabi													
	Musanah				1	10	4		7	35				
DAKHLIYAH	Barka				3	8	5		53	22		1		
	Nizwa				1	2			12	41				
	Bahla				3	6	2		9	48		1		1
	Adam				2				3	7				
	Hamra				2	1	1	1		9				
	Manah								3	4			1	1
	Sumail				2	1			2	4				
	Izki				2	2			4	20				
Bid Bid				3	1	1		5						
DHAHIRA	Ibri				19	2	1		17	18		1		
	Yanqul	1			3	1				4				
	Dhank				2				4	1				
	Buraimi	2			2	5	2		53	35				
	Mahda					1			8					
NORTH SHARQIYAH	Ibra				3	2	1		7	20				
	Mudhaibi				1	2			10	181				
	Bidiyah					2	1		3	23				2
	Al-Qabel								2	65				1
	Dima Al-Tayeen				3	1	1		2	4				
	Wadi Bani Khalid								1	8				
SOUTH SHARQIYAH	Sur	2			2	5	3		24	43		1		1
	Masirah					3	1		1	8				
	Al Kamil & Al Wafi								4	12				
	BBB Ali	1				4	1		5	68		2	1	
	BBB Hassan								1	49				
MUSANDUM	Khasab					7	5		7	2				
	Dibba								25	8				
	Bukha								6					
	Madha													
AL-WUSTAH	Haima								2	2				
	Duqum				1					56				
	Mahoot					1	1			7				
	Al-Jazer	1				1				6				
NATIONAL TOTAL		13	1	1	149	212	90	3	741	1243	7	10	7	13

Age Distribution of Communicable Diseases

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ICD Code	Diseases	Total	Age Groups in Years								
			< 1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	> 45
GROUP 'A' DISEASES											
A00	Cholera	2+1 (i)	-	-	-	2	-	-	1 (i)	-	-
A20	Plague	Never Reported									
A36	Diphtheria	Last Case in 1992									
A39	Meningococcal infection	10	7	2	-	-	-	-	-	1	-
A80	Poliomyelitis	Last Case in 1993									
	Acute Flaccid Paralysis	13	1	9	3	-	-	-	-	-	-
B05	Measles	1	-	-	-	-	1	-	-	-	-
B06	Rubella & [CRS]	1	1	-	-	-	-	-	-	-	-
A95	Yellow fever	Never Reported									
A82	Rabies	1	-	-	-	-	-	-	-	-	1
A75.0	Louse borne typhus	Never Reported									
A68	Relapsing fever	Last Case in 1997									
A33	Tetanus Neonatorum	Last Case in 1995									
A99	Viral Haemorrhagic fever	0	-	-	-	-	-	-	-	-	-
GROUP 'B' DISEASES											
A03.0	Typhoid fever	51	1	8	5	5	3	6	9	8	6
A01.4	Paratyphoid fever	9	-	1	-	-	-	-	5	2	1
A02	Food poisoning	891	11	95	160	151	129	103	123	79	40
A22	Anthrax	Never Reported									
A23	Brucellosis	199	1	37	55	39	17	6	17	11	16
A37	Pertussis	149	94	13	15	25	2	-	-	-	-
A35	Tetanus (Non NNT)	3	-	-	-	-	-	-	-	1	2
A90	Dengue	4 (i)	-	-	-	-	-	2 (i)	-	1 (i)	1 (i)
	Viral Hepatitis - Total	1243	4	228	590	197	46	39	44	33	62
B15	Viral Hepatitis 'A' (ELISA)	373	-	83	212	59	6	3	5	-	5
B16	Viral Hepatitis 'B' (ELISA)	65	1	2	2	2	5	16	13	10	14
B17.1	Viral Hepatitis 'C' (ELISA)	21	-	-	2	-	-	-	2	3	14
B17.0	Viral Hepatitis 'D' (ELISA) among 'B'	0	-	-	-	-	-	-	-	-	-
B17.2	Viral Hepatitis 'E' (ELISA)	13	-	-	-	1	-	1	5	3	3
B19/B17.8	Viral Hepatitis Unspecified	771	3	143	374	135	35	19	19	17	26
B55	Visceral Leishmaniasis	0	-	-	-	-	-	-	-	-	-
	Cutaneous Leishmaniasis	13	-	1	-	-	5	4	2	-	1
B65	Schistosomiasis	167	-	-	35	21	46	13	16	19	17
B74	Lymphatic Filariasis	2 (i)	-	-	-	-	-	-	2 (i)	-	-
B72	Dracunculiasis	Certified by WHO as Eradicated from Oman									
G00.0	Haemophilus type b Meningitis	7	4	2	1	-	-	-	-	-	-
G00.1-9	Bacterial meningitis other than Nm & Hib	40	19	10	3	4	-	-	-	-	4
A87	Viral meningitis	22	4	2	5	6	3	-	1	1	-
G03	Meningitis - Unspecified	32	7	4	13	4	2	1	-	-	1
A30	Leprosy	8	-	-	-	-	-	1	-	2	5
A15-A19	Tuberculosis: Sputum Positive	90	-	-	-	-	8	16	12	11	43
	Tuberculosis: Sputum Negative	30	-	-	5	1	3	5	5	4	7
	TB Extra-Pulmonary	112	1	1	-	4	12	9	20	17	48
	HIV [AIDS]	52 [31]	-	-	1 [0]	-	-	8 [3]	23 [12]	14 [5]	6 [11]

Note:

- The quarterly data are provisional & should be scrutinized & verified by the focal point of communicable diseases (Epidemiologist) in the regions. Previous quarter data would be finalized in the following quarter after receiving the feedback.
- Tuberculosis & Leprosy data are for nationals only.
- (i) = imported case.
- Currently laboratory diagnostic procedures for classification of Viral hepatitis into serotypes are in the process of being laid down and. Hence cases not subjected to testing are still being categorized as unspecified viral hepatitis.
- High incidence of Schistosomiasis in Dhofar in 2003 compared to previous years was as a result of school/population survey.

Monthly Incidence of Communicable Diseases: 2003 & Annual Incidence: 1991 to 2002

Diseases	2003													2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total												
GROUP 'A' DISEASES																									
Cholera	-	-	-	-	-	-	1(i)	-	2	-	-	-	2+1(i)	1+1(i)	6+2(i)	8+1(i)	7 (i)	-	-	-	-	-	-	-	
Plague	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	1	2	
Meningococcal inf.	-	-	1	-	2	2	1	-	1	-	1	2	10	6	15	28	2	4	8	7	4	2	15	7	27
Poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	-	-	-	-	-	-	2	-	4	
Acute Flaccid Paralysis	-	3	1	-	1	2	-	2	-	2	1	1	13	17	15	10	21	8	8	23	20	16	16	16	
Measles	1	-	-	-	-	-	-	-	-	-	-	-	1	5	13+2(i)	15	9	5	12	24	68	181	3,108	1,834	220
Rubella	-	-	-	-	-	-	-	-	-	1	-	-	1	3	-	3	5	4	7	10	46	109	1,253	211	6
Yellow fever	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	
Rabies	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	1	1	1	-	-	-	1 (i)	1	1
Louse-borne typhus	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	
Relapsing fever	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	1	1	-	1	-	-	
Tetanus Neonatorum	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	1	
Viral Hemorrhagic Fevers	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	2	3	1	1	2	NA	NA	NA	NA
GROUP 'B' DISEASES																									
Typhoid fever	2	4	3	9	7	1	2	6	6	6	4	1	51	70	94	117	106	89	114	147	213	152	117	102	100
Paratyphoid fevers	1	2	1	-	1	1	1	1	-	-	-	1	9	17	18	20	13	16	23	24	22	43	23	22	21
Food poisoning	56	20	128	20	109	136	196	74	37	35	44	36	891	929	1167	953	838	1062	978	753	596	512	531	338	259
Anthrax	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis	13	18	19	18	19	21	22	16	19	13	7	14	199	133	162	307	316	307	203	205	348	431	472	371	350
Whooping cough	8	9	13	22	15	13	18	14	12	5	6	14	149	96	54	190	205	484	694	73	108	168	239	45	26
Tetanus (Non NNT)	-	-	-	-	-	-	-	-	1	-	1	1	3	4	3	6	1	5	5	3	7	7	7	10	8
Dengue	-	-	-	-	-	2(i)	1(i)	-	-	-	-	1(i)	4(i)	1(i)	1 (i)	-	-	-	-	-	-	-	-	-	-
Viral Hepatitis - Total	148	156	118	167	104	108	87	81	94	63	52	65	1243	2,188	1,555	1,164	1,308	1,219	1,943	2,167	2,631	1,969	1,322	1,465	1,066
V. Hepatitis A	45	64	26	34	13	17	19	35	32	25	27	36	373	580											
V. Hepatitis B	10	1	-	6	11	8	5	6	5	5	1	7	65	53	59	49	85	313	499	437	622	494	420	368	245
V. Hepatitis C	1	-	-	1	1	1	4	2	2	6	3	-	21	14											
V. Hepatitis D (in B+)	-	-	-	-	-	-	-	-	-	-	-	-	0	1											
V. Hepatitis E	1	-	-	-	-	-	1	4	4	1	1	1	13	4											
V. Hepatitis-Unspecified	91	91	92	126	79	82	58	34	51	26	20	21	771	1,536	1,496	1,115	1,223	906	1,444	1,730	2,009	1,475	902	1,097	821
Cutaneous Leishmaniasis	3	3	3	1	-	-	1	2	-	-	-	-	13	12	9	14	20	25	25	24	14	11	12	9	1
Visceral Leishmaniasis	-	-	-	-	-	-	-	-	-	-	-	-	0	1	2	3	2	5	6	25	13	18	28	5	2
Schistosomiasis	1	4	12	63	38	8	16	-	25	-	-	-	167	1+1(i)	4 (i)	1+2(i)	3 (i)	11 (i)	10 (i)	7	6	7	14	6	9
Lymphatic Filariasis	-	-	-	1(i)	-	-	-	1(i)	-	-	-	-	2(i)	1(i)	3 (i)	2 (i)	1 (i)	1 (i)	2 (i)	5 (i)	-	-	-	-	1
Dracunculiasis	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	1 (i)	-
Hib Meningitis	-	-	1	-	-	-	1	1	1	2	1	-	7	26	25	20	31	23	17	20	19	12	11	4	NA
Bacterial Meningitis (other than Nm & Hib)	1	5	5	5	4	1	1	4	3	5	3	3	40	87											
Viral Meningitis	-	2	4	2	-	-	1	5	2	2	2	2	22	21											
Meningitis (unspecified)	7	2	2	-	1	-	-	3	10	1	1	5	32	16	97	154	175	127	167	221	171	142	131	49	NA
Leprosy	1	-	2	-	-	1	-	2	-	-	-	1	7	8	4	12	27	39	31	37	38	35	43	36	17
TB Sputum Positive	6	1	9	10	10	6	12	5	7	9	4	11	90	119	109	115	85	109	120	110	107	99	93	114	117
TB Sputum Negative	4	2	3	4	5	2	3	1	3	1	-	2	30	25	25	30	38	26	20	35	56	58	57	80	99
Extra-Pulmonary TB	7	8	6	12	10	10	7	5	6	8	9	4	92	96	87	98	70	77	91	71	64	69	51	50	73
Malaria	11	22	25	25	42	57	66	77	143	138	73	62	741	590	635	696	446	882	1027	1,265	1,801	7,215	16,787	14,827	19,274
HIV [AIDS]	1 [3]	3 [2]	7 [3]	6 [3]	2 [1]	5 [4]	3 [3]	4 [2]	2 [2]	9 [4]	7 [1]	2 [3]	51 [31]												
Syphilis	17	6	9	10	10	12	11	12	9	9	2	6	113	123	176	183	184	199	331	328	379	465	402	377	196
Gonococcal Infections	8	7	10	15	28	17	11	26	34	24	11	20	211	213	256	276	364	247	362	313	310	354	440	639	574
GROUP 'C' DISEASES																									
Shigellosis	54	89	101	95	91	48	54	60	57	48	52	81	830	1,158	1,523	1,582	1,427	1,381	1,738	2,636	2,449	2,388	1,641	1,680	1,971
Amoebiasis	484	610	575	606	413	240	319	372	462	428	257	499	5,265	5,440	5,047	4,312	4,387	4,381	5,567	6,969	3512	3,450	3,392	2,766	5,105
Ac. GE & Diarrhoea	11707	11028	13618	9485	8753	6029	5937	8526	8254	8845	8766	12520	1,13,468	1,12,904	1,09,065	112,212	105,378	96,908	135,506	162,535	178,823	196,761	198,975	193,709	227,127
Chicken Pox	1496	1643	2386	2870	2589	1898	1453	1386	1451	1761	2164	3614	24,711	15,410	15,038	15,803	12,103	9,345	23,293	18,591	14,185	22,261	23,793	22,600	17,779
Mumps	141	95	142	265	216	159	101	82	105	101	112	145	1,664	2,497	3,661	10,443	12,628	5,951	7,909	23,285	14,574	5,419	5,390	10,655	15,654
Trachoma	20	54	103	25	26	14	32	29	39	26	24	32	424	400	587	1,012	1,445	2,279	4,097	5,979	8426	11,328	13,196	10,142	10,117
Influenza	274	116	98	243	167	36	166	114	180	219	175	139	1,927	2,846	3,706	4,682	5,027	4,914	11,215	31,892	62,818	60,056	82,426	61,244	51,933

WHO Short-Term Consultants' Mission to Oman: 2003

WHO STC(s)	Mission Objective/s	Period	National Focal Point
Mohammed Aideed Elmi	To assist MoH in preparation of modules for International Food Safety conference	5 Jan to 9 Jan	Ms. Deena Al Asfoor
Prof. Bernadette Modell	To review genetic diseases and assist in development of National Control Plan	10 Jan to 20 Jan	Dr. Ana Rajab
Dr. Heli Bathija Dr. Amel Fahmy Dr. Peter Hall Dr. Ramez Mahaini Dr. Ghada Hafez	To assess scaling up of the Reproductive Health and Birth Spacing Programme	25 Jan to 30 Jan	Dr. Yasmin Ahmed Jafer
Dr. Mervat El Guneidy	To conduct training programme for counselling	21 Feb to 21 Apr	Dr. Yasmin Ahmed Jafer
Dr. Mohammed Mansour Dr. Azza Gohar	To conduct qualitative component of Micronutrient Survey	21 Feb to 4 Mar	Ms. Deena Al Asfoor
Dr. Peter Hall Dr. Ramez Mahaini	Follow-up visit to continue preparation for the strategic assessment of Birth Spacing Programme	28 Feb to 2 Mar	Dr. Yasmin Ahmed Jafer
Dr. Gerrit Weeda	To review drug distribution and dispensing systems	28 Feb to 18 Mar	Ph. Nusaiba Habib
Dr. Faysal Najjar	To assist in reviewing and updating medical service charges	14 Jan to 17 Mar	Mr. Farzin Al Ajmi
Dr. Annemieke Van Middlekoop	To implement LAB IFA system at National Polio Laboratory and to provide training	4 Jan to 10 Apr	Dr. Suleiman Al Busaidy
Dr. Salah Ahmed El Badawy	To assist in preparation of intervention plan for Nizwa Healthy City Project and promotion of community based initiatives in Qalhat (South Sharqiyah)	6 Apr to 3 Jul 6 Oct to 5 Jan'04	Dr. Jawad Al Lawati Mr. Mohammed Al Farsi
Mr. Elias Al Aaraj	Follow-up mission to undertake a mid-term evaluation of Peer Education Project and also the final evaluation	21 Apr to 30 Apr 13 Oct to 24 Oct	Dr. Ali Ba Omar
Dr. Bruno Garin-Bastuji	To assist in evaluation of the Brucellosis Surveillance & Control Programme	25 Apr to 5 May	Dr. Salah Al Awaidy
Dr. Khaled Louhichi Dr. Abdel Baset Abdel Mouty Dr. Abdul Halim Jokhadar	To assist and facilitate the IEC advocacy workshop on adolescent health	25 Apr to 1 May	Dr. Yasmin Ahmed Jafer
Dr. M. Haytham Khayat	To assist in developing interventions for promoting Adolescent Health and to make recording sessions for Oman TV	25 Apr to 30 Apr	Dr. Yasmin Ahmed Jafer
Dr. Abdul Hannan Choudhury	To assess the possible elimination of Blinding Trachoma	8 May to 15 May	Dr. Rajiv Khandekar
Dr. Mubashar Raiz Sheikh Dr. Knud B. Matzan Dr. Omer Sleiman	To assist in the activities of the Health Cities Programme	14 May to 24 May	Dr. Jawad Al Lawati
Dr. Guitelle Baghdadi	To set up monitoring system for the National Drug Policy and promotion of rational use	31 May to 4 Jun	Ph. Nusaiba
Dr. Saqer Al Salem	To advice on Healthy Village Project at Kalhat (South Sharqiyah)	7 June to 8 Jun	Dr. Jawad Al Lawati
Dr. Ahmed Abdullatif	To attend First Gulf Workshop on Quality Assurance	1 Jun to 6 Jun	Dr. Said Al Lamki
Dr. Umit Kartoglu Dr. Mojtaba Haghgou	To prepare a film on vaccine management practices in Central Vaccine Stores	8 Jun to 13 Jun	Dr. Salah Al Awaidy
Dr. Antonio Montessor Prof. Vaughan Southgate	To assist in the Schistosomiasis Elimination Initiative and to review status of STH	20 Jun to 25 Jun	Dr. Salah Al Awaidy
Dr. Albert Nantel	To facilitate training course on Lead Poisoning with reference to women and child health	13 Sep to 15 Sep	Dr. Salim Al Wahaibi
Dr. Hassan Bella M. El Amin	To review current situation of training in School Health Programme	20 Sep to 30 Oct	Dr. Sahar Abdu
Dr. Martin Anton	To facilitate monitoring and training in national drug policy	27 Sep to 2 Oct	Ph. Sawsan Ahmed Jafer
Dr. A. Latif Dr. Hussain Abouzaid Ms. Ingy Manesterly	To conduct 11th round of Joint Programme Review Mission	5 Oct to 8 Oct	Dr. Ibrahim Abdul Rahim
Ms. Elham Monsef	Follow-up on planning National Micronutrient Survey	14 Oct to 23 Oct	Ms. Deena Al Asfoor
Dr. Hala Abou Taleb	To assist in mobilizing resources for expansion of HIV/AIDS prevention efforts among youth	20 Oct to 24 Oct	Dr. Ali Ba Omar
Dr. Adelheid Onyango	To close data management of the Multicentre Growth Reference Study	8 Nov to 11 Nov	Ms. Deena Al Asfoor
Dr. Madiha Fathy Ahmed	To assist in assessing the strategic needs of Birth Spacing Programme	5 Dec to 17 Dec	Dr. Yasmin Ahmed Jafer
Dr. Aly Haggag Ms. Lilian Hamilton	To assist in conducting training workshop on Good Manufacturing Practices	6 Dec to 11 Dec	Ph. Sawsan Ahmed Jafer
Dr. Afarin Rahimi	To explore IDU problem and advise on development of strategy for HIV/AIDS among IDU	6 Dec to 18 Dec	Dr. Ali Ba Omar
Ms. Lilas Tomeh	To conduct informal discussion with the national counterparts in nutrition health education and communication	20 Dec to 22 Dec	Ms. Deena Al Asfoor

Animal Bite Surveillance by Regions: *Annual Report 2003*

Region	Population at Risk (2002)	Type of Animal					Total Animal Bites	Rate per 10,000 population	Annualized Rates of Animal Bites in Previous Quarters			
		Fox or Wild	Dog	Cat	Other Domestic	Others (unknown)			2002		2003	
									Q4	Q1	Q2	Q3
Muscat	709776	-	69	84	5	1	159	2.2	3.5	2	3.9	4.1
Dhofar	237523	4	5	28	14	-	51	2.1	1	1.5	1.4	1
North Batinah	443967	3	91	83	25	-	202	4.5	1.7	4.1	0.6	0.9
South Batinah	255383	4	56	153	20	-	233	9.1	7.5	9.6	6.5	10.1
Dakhliyah	285312	3	22	87	5	-	117	4.1	4.8	3.4	5.9	4.1
Dhahira	226627	2	16	24	4	-	46	2	3.5	2.1	3.8	2.5
North Sharqiyah	147377	2	10	147	17	2	178	12.1	15.4	10.3	14.1	15.5
South Sharqiyah	174558	3	37	26	9	-	75	4.3	2.7	4.6	2.1	1.4
Musandam	35941	1	7	7	1	-	16	4.5	2.9	3.3	2.3	5.7
Al-Wustah	21278	1	1	8	6	1	17	8	8.6	15	7.6	7.6
Total	2537742	23	314	647	106	4	1094	4.3	4.2	4.2	4.1	4.3

Note: Rodent bites are excluded



Sultanate of Oman Ministry of Health

Directorate General of Health Affairs
Phone: + (968) 600808
Fax: + (968) 696099
E-mail: alijamoh@omantel.net.om

**MoH-HQ, PO Box 393, PC 113,
MUSCAT**
<http://www.moh.gov.om>

Direct all your queries to...

**Department of Communicable Disease
Surveillance & Control**
Phone: + (968) 601921, 607524
Fax: + (968) 601832
Email: awadymoh@omantel.net.om

Past issues of the Newsletter are available at...
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News Flash

The MoH Newsletter on WHO Website

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The Ministry of Health, since 1992 has been publishing these Newsletters consistently summarizing its activities and initiatives in the field of public health. The last 12 years of publications also highlighted the progress and the achievements of the national health programmes. WHO-EMRO in appreciation of these efforts has posted all MoH Newsletters on their website.

Your opinion matters to us:

Any suggestions to improve upon the contents & the design of this Newsletter will always be gratefully received.

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Please write to us concerning your ideas & experiences, both good & bad. sharing them with a wider audience could benefit others, leading to new ideas, techniques & policies & helping to avoid struggling with problems others have already solved.

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