

December 2008



Editorial Board

Executive Editor:

Dr Ali Jaffer Mohammed

Special Issue on:
**Environmental
 and
 Occupational
 Health**

Associate Editors for this issue:

Dr Salim Al-Wahabi

Dr Issa Al Shuaili

Dr Salah Al Zadjali

Dr Adil Al-Wahabi

Ph Sheika Al-Harathi

Dr G.Gururaj

Inside this issue:

World Health Day	1
World Day for Safety and Health at Work-place	1
Medical Waste Management	2
Injuries in Oman	4
Role of Primary Health Care Physician's in Occupational and Environmental Medicine	6
Occupational Hazards in Hospitals	8
Central Poisoning Registry	11
The Workplace: A Priority Setting for Health Promotion	12
How Important Is Product Labeling in Preventing Poisoning?	15

Community Health & Disease Surveillance Newsletter

WORLD HEALTH DAY, Protecting Health From Climate Change

The World Health Organization (WHO) marks its anniversary on the 7th of April every year as the World Health Day; and **this year's theme was 'Protecting Health from Climate Change'**. In order to spread the word and to contribute positively in making real changes in our environments and work places, the Ministry of Health represented by DEOH has carried out a wide range of functions and activities. These are some of them:-

Official ceremony on the day of the event under the auspices of the Under-secretary of the Ministry of Environment and Climate Affairs. Program included opening speeches, honoring financial sponsors, having an art gallery; and an exhibition for displaying and distributing related written materials.

- Sending SMSs to Oman mobile and Nawras customers: e.g. Nawras sent 1 million messages.

- Displaying 20 large posters on the sides of streets in Muscat.

- Having several talks on TV and radio.

- Muscat City Center event organized a 2 days' long educational and fun activity in collaboration with WHO, Climate Change Count Down, Environmental Society of Oman, and Ministry of Environment and Climate Affairs.

Activities included:

- an art exhibition

- short educational quizzes

- distribution of T-shirts

- displaying and distribution of educational materials

- having live quizzes (Al-Wisal FM radio station, which covered the event live from 4 – 8 pm on both days)

- collecting pledges

**World Day
 for
 Safety
 and Health
 At Work-
 place**



For the second time in a row, we celebrated "World Day for Safety and Health at Work" on the 28 of last April; and this year's theme focused on the management of risks at workplaces. In order to strengthen the inter-sectoral collaboration, which is one of the most essential elements in public health practice, this occasion emphasized the vital roles of the National Occupational Health and Safety Committee. As such, all sectors, represented in the Committee from both the government and private parties, were invited to take an active part. Further, all regions were requested to activate the celebration locally so as the message get spread all over the country.

All the way through, the occasion was extensively covered by the mass media, where the main messages of the event were featured on Oman TV, aired twice on radio, and covered by Arabic newspapers: Oman, Al-Shabiba, and Al-Watan.



Medical Waste Management: A Continuing Challenge

Each one of us keeps on asking this question on a daily basis: If you have some wrapping paper of a suturing set, blood soaked gloves, batteries, a medical gadget, culture media, a bottle of toluene, and a needle, how are you going to dispose of each of these items?

Although MOH has accomplished significantly good outcomes in managing governmental medical waste in Muscat region, the whole country is still facing several unresolved issues. Medical waste management has a broad perspective and a variety of points need to be considered in future plans in order to solve the existing problems.

Definitions and Categories

Medical waste is any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in relevant research, or in the production or testing of biological matter.

Interestingly, 75–90 % of health care waste is non-risky i.e. it can be dealt with as general or domestic waste and disposed of through municipality. Such wastes often originate from administrative and housekeeping functions, and from maintenance processes. The remaining 10–25 % represent hazardous and potentially risky wastes. Hazardous medical waste is categorized as follows:

- infectious waste: including sharps, blood, body fluids, pathological and microbiological wastes.
- Pharmaceutical
- Radioactive
- Chemical
- Pressurized containers

Planning

All the relevant details (e.g. sources, quantities, frequency e.g. daily or

monthly, and types: infectious, cytotoxic, chemical, wastes with high heavy-metal content...) of currently produced wastes in each department should be documented.

Waste Minimization

A very clear vision for the future should be outlined. For example, based on current practices, MOH needs to start an initiative to reduce future wastes by a certain percentage within a certain period of time (e.g. reducing future wastes by 5 % each year over the next 5 years) so as to have an *objective measurable scale*.

A successful plan can to be augmented by adhering to the following guidelines.

Reduction of Sources of Wastes

Where feasible, the MOH needs to consider purchasing alternative items that are environmentally-friendly such as:

- purchasing reusable items that can be disinfected e.g. by autoclaving
- digital thermometers and sphygmomanometers in order to eliminate or at least to reduce mercury wastes
- Items with minimal wrapping paper to reduce paper wastes
- Selection of PVC-free medical devices and plastics

Selection of all syringe components made of the same type of plastic to facilitate recycling. A comprehensive list of alternative and environmentally-friendly medical items is available at <http://www.h2e-online.org>

Recycling

Several types of wastes might be collected in separate containers and recycled later on. Examples are:

- paper; including uncontaminated wrap-



“10-25 % of health care waste is hazardous and potentially risky waste”

Such wastes should be managed appropriately following up-to-date guidelines

ping paper of sterile instruments

- Glass
- Cardboard
- drink cans
- some types of plastics
- mercury

At present, paper-based and wooden-made containers are collected for recycling in Khoula Hospital, although the hospital does not generate any income from it as the collecting company gets these containers for free!

If recycling facilities are not available in Oman, exportation of these wastes to neighboring countries can be considered.

Benefits of recycling are:

- provides the MOH with an additional source of financial income
- reduces the burden of waste disposal
- protects our health and environment

Alternative Waste Disposal Methods

Although incineration used to be the commonest method for infectious waste disposal, health facilities should consider the following emerging alternatives in order to reduce costs and protect the environment:

- autoclaving
- microwave irradiation with either infrared or gamma rays
- chemical disinfection with e.g. chlorine compounds

These methods, which are often combined with shredding and compacting to reduce the volumes of wastes, render the medical wastes non-infectious so that they can be managed as municipality waste and disposed of in sanitary landfills (not dumping areas as the ones still in use in Oman).

Continuous Education and Monitoring

Continuous staff education and supervision is a vital necessity in order to introduce new behaviors and positively change the improper waste management practices of medical staff and cleaners.

Continuous monitoring, which is coupled with rewarding for good practices and notices of warnings or punishments for rectifying malpractices, should be implemented.

A Practical Example for Waste Minimization Practices

Formaldehyde

Formalin is commonly used in medical laboratories as a preservative and fixative for specimens. Almost all hospitals in Oman dispose of formalin by draining it into the sinks, although both of the International Agency for Research on Cancer (IARC) and American Environmental Protection Agency (EPA) have determined that formaldehyde is probably carcinogenic to humans.

Alternative Options to Reduce Formalin Wastes:

- purchasing decisions: less hazardous chemicals can be selected and used for preserving specimens
- Recycling: formaldehyde can be recovered and re-used from wastes by distillation and filtration processes that can be carried out within hospitals. Automatic recovering machines are available in the market.
- Waste treatments: formalin wastes can be neutralized and converted to safer products before drainage into the sewer system so as to reduce their environmental adverse effects.



Benefits of Recycling:

- reduces the burden of waste disposal
- protects our health and environment
- provides MOH with an additional source of financial income

The present situation analysis reveals that injuries, especially road traffic injuries, falls, poisoning and occupational injuries are major priority problems and are on the increase in Oman.

Injuries In Oman: A Hidden Epidemic

- The Sultanate of Oman is witnessing an epidemiological transition from Communicable Diseases to Non-communicable Diseases (NCDs) and injuries due to overall socio-economic changes, concerted efforts for CD control, life style changes, demographic transition and an increased migration. While this has been the general pattern, a selective examination of ranking orders reveals that injuries and poisoning are the 2nd leading cause of mortality and 3rd leading cause of morbidity in Oman in 2006 (table below). A further examination as per age groups

Rank	Mortality	Morbidity
1	Circulatory system disorders	Respiratory system disorders
2	Injuries and Poisoning	Complications of pregnancy and childbirth
3	Neoplasm	Injuries and poisoning
4	Respiratory system disorders	Circulatory system disorders
5	Endocrine and metabolic disorders	Digestive system disorders

reveals that they are the leading causes of deaths and hospitalisations.

Injury information systems

In Oman, Injuries are reportable events and not mandatory notifiable events (except RTIs and unnatural injury deaths). The Ministry of Health, Department of Traffic, and Royal Omani police are all involved in the information gathering process. However, each one of them has its own independent systems. So, the country does not have an integrated injury surveillance system.

At the level of each health care institution and in each A& E department, a number of forms are filled in e.g. Medico legal form for RTIs, death notification form, poisoning registry form which was introduced in 2002, and surveillance form for occupational injuries.

At the level of police, interactions with the Directorate of Traffic revealed that police document information on deaths and injuries primarily due to road traffic injuries, and at times for other injuries. RTI and injury details are coded along with anatomical codes used to describe injuries of body organs. The central unit compiles, analyses data and publishes annual reports and fact sheets on road traffic injuries.

Besides, it is very likely that other organisations like industries, insurance and private health care establishments have different formats for documenting injury information.

From the above, it is evident that paral-

lel systems are in place and there is no central agency to collect, analyse, report and disseminate injury information. Also, probably a significant underreporting of **injuries' mortality, morbidity and disability** exists in Oman. In addition, collected information is not analysed from an IPC perspective.

Injury burden and impact

Injuries and poisoning accounted for 5.3% of outpatient contacts in 2006. Inpatient morbidity showed that injuries and poisonings contributing for 14% of total admissions in 2006.

In 2006, there were 3,027 reported deaths in MOH institutions with male and female deaths accounting for 1,795 and 1,232, respectively. Injuries and poisoning contributed for 7% (207 deaths) of total deaths; with males and females accounting for 162 (78%) and 45(22%) deaths, respectively. However, this does not include police registered deaths.

Age distribution of injuries

Injury and poisoning were the first leading cause of hospital mortality in less than 45 years old age group.

Geographical distribution of injuries:

Among the 10 geographical regions of Oman, Muscat region registered the highest number of injuries for both outpatient and inpatient categories; probably because

it is the most densely populated region, and due to having the highest number of motor vehicles. There was some minor variation across regions with North Al-Batinah and Al-Dakhliyah regions occupying second and third positions, respectively.

Injuries and Children

In Oman, children less than 15 years, constitute 35% of the total population, and 28% are 15-24 years old.

As children move from protected environments of early days onto roads, playgrounds and to independent states of mobility, injuries are likely to increase. A selective examination of morbidity and mortality after removing those due to CDs, indicate that injuries are a leading cause of death, hospitalisation and disability. Injuries among girls also interfere with social aspects of marriage and fertility.

In 2004, MOH reports demonstrated **that nearly 7.2% of children's deaths** were due to injuries, mainly RTIs, falls and poisoning. RTIs alone contributed for 16% of deaths in 1-15 years old. Among those hospitalised, falls and RTIs accounted for 41% and 14%, respectively. Childhood disability assessment in 1999 showed that between 25-50,000 children less than 15 years old were disabled.

Due to the widespread ramifications of injuries, an urgent and comprehensive injury surveillance programme is needed in Oman.

The amount and type of information for surveillance should be driven by the situation analysis findings.

The programme needs to be integrated between police, health and insurance sectors and used by all other partners as well.



Role of Primary Health Care Physician's in Occupational and Environmental Medicine

There is an increasing concern that our health care system is not well prepared to address problems related to an important sector of medicine, namely occupational and environmental health. In addition, there is a growing public recognition of and apprehension about the adverse health effects that are associated with exposures to hazardous substances at home, workplaces, and in the general environment.

In fact, only oil and gas sectors are committed to occupational and environmental medicine to some extent, whereas no concern is given to this in other sectors or in the MOH. Accepting this reality, most individuals with occupational or environmental illnesses and injuries have to obtain their medical care from physicians who are not specialized in either one of these fields.

Obviously, primary health care physicians are the ones who should first get trained in these aspects since they are the first contact line with our clients. They need to be alert to any potential occupational or environmental causes for the problem and they must then call upon the resources of the complex health care system for an accurate diagnosis and appropriate therapy. For these reasons, there is a need to explore how to improve the role of the primary care physicians in relation to environmental and occupational medicine. Integrated programs, supportive environments in the health care system, and continuous education for the medical personnel are basic requirements to achieving our goal.

Analysis of the Problem

Estimations in the Eastern Mediterranean region indicate that around 19 - 25% of the total burden of diseases are due to environmental exposure and the work-related injuries and illnesses. In Oman, the preliminary statistics show that the prevalence of occupational injuries is significant. In 2006 and 2007, the incidence of Occupational injuries were 1.8 and 1.4 cases per 1000 population; respectively. Although there is an existing national notification system for occupational injuries, the precise incidence, prevalence data, and occupational fatalities are still unavailable and difficult to be ascertained. There are several reasons for this difficulty, as follows:

- 1- The long latency period between exposure and disease manifestation, and the multifactorial etiology of chronic diseases.
- 2- lack of the recognition and diagnosis of occupational diseases by physicians.
- 3- underreporting problems.

These factors become even more significant in the case of estimating environmentally related diseases. Unfortunately, primary health care physicians are inadequately trained in occupational and environmental medicine. The absence of a solid foundation in these fields as well as in the related disciplines of epidemiology and toxicology makes most of these physicians hard-pressed; especially that the general medical literature contains relatively little about occupational and environmental medicine.

“A significant number of illness, injury, and death is attributable to or affected by occupational and environmental conditions”.

In order to ensure adequate undergraduate, graduate, and continuing medical education in occupational and environmental medicine, there must be trained and qualified faculty at Sultan Qaboos Medical College; and Oman Medical Specialty Board should offer official training programs. On the other hand, the physicians' attitudes toward health promotion and disease prevention play an important role. The current evidence suggests that physicians do a less than optimal job of delivering clinical preventive services. There are numerous constraints to the active participation by the primary care physicians. Some of these are the following:

- Occupational and environmental events are often difficult and time consuming to diagnose.
- Lack of available information to support the primary care practitioner.
- Lack of understanding of the legal aspects associated with occupational and environmental health issues.

How much primary health care physicians can realistically contribute?

It is unreasonable to think that most primary care physicians will become experts in ergonomics, toxicology, epidemiology, industrial hygiene, and the other disciplines central to the practice of occupational and environmental medicine. But at a minimum level, all primary care physicians should be able to identify possible occupationally or environmentally induced conditions and make the appropriate referrals for follow up. In order to carry out this minimum standard of care, physicians must:

- Know some basic principles of occupational and environmental diseases and understand the difficulties in precisely defining an individual patient's exposures.
- Know how to take an appropriate history in those clinical situations in which occupational or environmental diseases are part of the differential diagnosis.
- Report all occupational injuries using Occupational Injury Notification form .
- Be sensitive to the ethical, social, and legal implications of the diagnosis of an occupational or environmental disease.
- Be alert to utilize opportunities for the prevention of occupational and environmental illness in patients under their care.

Principal recommendations to enhance the role of primary care physicians

1- Recommendations to Foster the Role of Primary Care Physicians in Patient Care Activities

a- bring to the attention of practicing physicians more educational and empowering information by:

- Encouraging the publication of articles and reviews in the various journals dealing with occupational medicine.
- Encouraging special publications or bulletins dealing with related topics.
- Encouraging the inclusion of relative material and topics in the continuing medical education programs .

b- Efforts should also be made to increase the total number of primary care physicians with some special interest and training in these fields.

DEOH will start a training program in environmental and occupational medicine for FAMCO residents in 31 Jan –11 Feb 2009

Occupational and environmental medicine are fast growing fields that must be emphasized on in view of our country's accelerated industrial growth.

Industries are growing fast in Oman and need proper attention from occupational medicine professionals.

2-Recommendations Related to the Education of Future Physicians

a- Occupational and environmental medicine should be better represented in the medical school curriculum. It should be a vital part of the traditional clinical assignments.

b- Academic credentials in teaching and research; for example, more career development awards similar to those that have been successful in other medical disciplines; should be established.

c- Residency programs directed toward the production of general physicians in both internal medicine and family practice should be adjusted to provide more active clinical experience in occupational and environmental medicine. They should also contain instruction in such topics as epidemiology and risk assessment.

d- Fellowship training in occupational and environmental medicine should be started, and residents should be encouraged to participate in research activities.

e- All educational efforts in occupational and environmental medicine should emphasize the physician's role in disease prevention and health promotion.



Occupational Hazards in Hospitals

When we speak about occupational health, people think that this field is only practiced in industries. However, occupational health is broader than this; and is applicable to all workers in all workplaces. Today, more than 28,875 Omani hospital employees; in a wide range of specialties; perform a variety of duties. In these workplaces, they are exposed to many safety and health hazards including infectious, physical, and chemical hazards. **Unfortunately, workers' safety in health care establishments is still not adequately highlighted.** There are many factors contributing to the lack of emphasis on this issue. First, Hospital workers have been viewed as health professionals capable of maintaining their health without assistance. Second, the availability of informal consultations with hospital physicians reduces the use of **'worker health services'**. **Finally, hospitals are oriented toward treating diseases rather than maintaining health.**

Who is at risk?

Few workplaces are as complex as hospitals since they do not only provide the basic health care needs for a large number of people, but they are often used as teaching and research centers as well.

Beside doctors and nurses being exposed to hazards such as infectious diseases, toxic substances, back injuries, and radiation; many other workers are affected equally. For example, maintenance workers are potentially exposed

Biological	Human immunodeficiency virus (HIV), vancomycin resistant enterococcus (VRE), methicillin resistant staphylococcus aureus (MRSA), hepatitis B & C viruses, tuberculosis
Chemical	Ethylene oxide, formaldehyde, glutaraldehyde, wastes of anesthetic gases, hazardous drugs such as cytotoxic agents, ribavirin
Psychological	Stress, workplace violence, shiftwork, inadequate staffing, heavy workload, increased patient acuity
Physical	Radiation, lasers, noise, electricity, extreme temperatures, workplace violence
Environmental, Mechanical, Biomechanical	Tripping hazards, unsafe/unguarded equipment, air quality, slippery floors, confined spaces, cluttered or obstructed work areas/passageways, forceful exertions, awkward postures, localized contact stresses, vibration, temperature extremes, repetitive/prolonged motions or activities, lifting and moving patients

Examples of Hazards in Hospitals

to solvents, asbestos, and electrical hazards. Housekeepers are exposed to detergents and disinfectants that can cause skin rashes; and eye and throat irritation. Furthermore, food service workers face problems such as cuts from sharp-edged equipment, burns from hot surfaces and steam

lines, and falls on slippery floors. Radiology technicians are potentially exposed to radiation from X-rays and radioactive isotopes. Operating-room workers may face the increased risk of reproductive problems as a result of exposure to wastes of anesthetic gases.

Occupational health hazards to health care workers can be classified as biological, chemical, psychological, physical and environmental. Examples are shown in table (1). Furthermore, table (2) shows the hazards according to their location in the hospital.

What are the commonest health hazards?

In the USA, Studies show that the most frequent injuries are strains and sprains, followed by puncture wounds, abrasions and contusions, lacerations, back injuries, burns, and fractures. On the other hand, the most frequent illnesses were respiratory problems, infections, dermatitis, hepatitis, and drug or medication reactions.

Location	Hazard
Patient care	Infectious diseases
	Radiation
	shifts
Pharmacy	Pharmaceuticals
	Antineoplastic agents
Pathology	Infectious diseases
	Formaldehyde
Radiology	Radiation
	Pushing, pulling
Other e.g. Food services, laundries,	Wet floors Sharp equipment noise

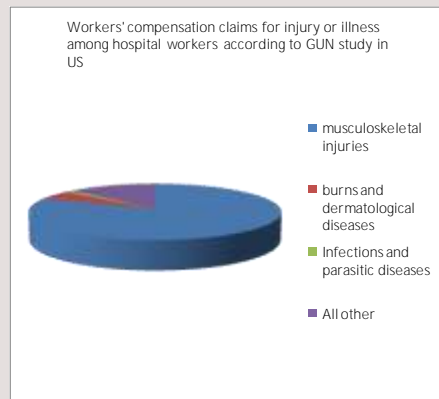
Examples of Hazards in Different Locations



Hospital hazards do exist and cause many problems to health staff

Occupational hazards in hospitals

The following table (right) represents guidelines for reducing the incidence of injuries and diseases among health care workers. Every effort should be made to address all major health and safety hazards that might be encountered in hospitals or other health care centers.

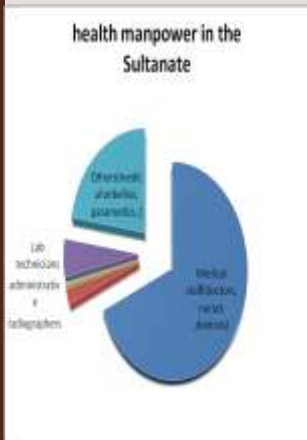


Conclusion:

The issue of health-care worker's safety is always underestimated. Nowadays, workers' health and safety is being considered as a part of quality assurance programs and used in hospital accreditations. Many efforts should be combined to develop effective occupational health programs to address this issue. These programs may include:

- Pre-placement periodic physical examinations, including a complete medical history and medical surveillance
- Periodic health appraisal examinations
- Health and safety education
- Immunizations
- Care for illnesses and injuries at work
- Health counseling
- Environmental control and surveillance
- Health and safety records system

Example of hazard	Preventive measures
Infectious hazards	<ul style="list-style-type: none"> • follow the "infection control standards" protocol. • ensure availability of gloves and other protective equipment and cleansing agents • establish a sharps program • establish an immunization program for all workers
Chemicals	<ul style="list-style-type: none"> • work closely with the workplace health & safety committee to identify chemicals used and find out what health effects they may have • maintain all MSDS (material safety data sheets) • eliminate toxic chemicals or substitute with less toxic alternatives when possible.
Radiation	<ul style="list-style-type: none"> • provide personal protective equipment (PPE) such as shield aprons and safety glasses • establish procedures for use of diagnostic equipment and PPE • minimize exposure time to radiation • ensure warning signs are posted where appropriate
Repetitive Strain Injuries	<ul style="list-style-type: none"> • provide ergonomically correct tools and equipment • allow staff control over how they organize their work day • promote rest breaks



Central Poisoning Registry

Collecting data and getting the number of poisoning cases from all the regions and two referral hospitals in Muscat was not an easy thing to do. However, with the help of the focal points, the problem was overcome; and the difference can be easily seen by looking at the total number of registered

Central Registry of Poisoning : Data of 2002 - 2007 (Total number of cases & Sex distribution)			
Year	Total No.	Males (%)	Females (%)
2002	5995	54	46
2003	6732	55.4	44.6
2004	6828	56.7	43.3
2006	6995	62.8	37.2
2006	9439	54.1	45.9
2007	9424	54.0	46.0

cases (5995 poisoning cases) in 2002, when surveillance was first started, compared to 9424 cases in 2007 (table 1 above).

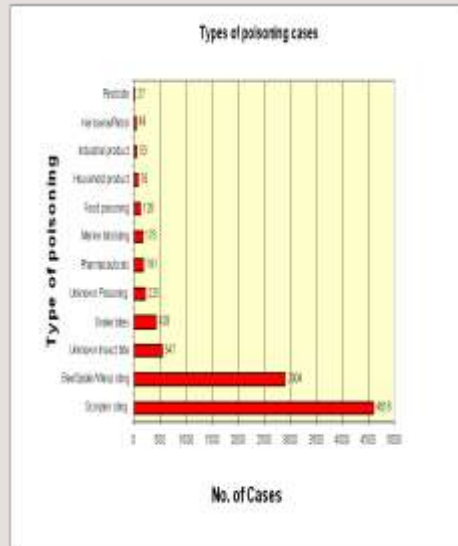
Interestingly, male to female ratio remained almost constant throughout the reporting period.

The continuous increase in the number of reported cases indicates the stability of the system. It also shows an increase in awareness level as well as a satisfactory improvement in establishing and maintaining the reporting mechanism.

Contrary to our expectations and international trends, comparison between adults and children younger than 12 years old showed that many more adult cases are usually being reported e.g. only 39 % of poisoning cases in 2007 were children (table 2 right).

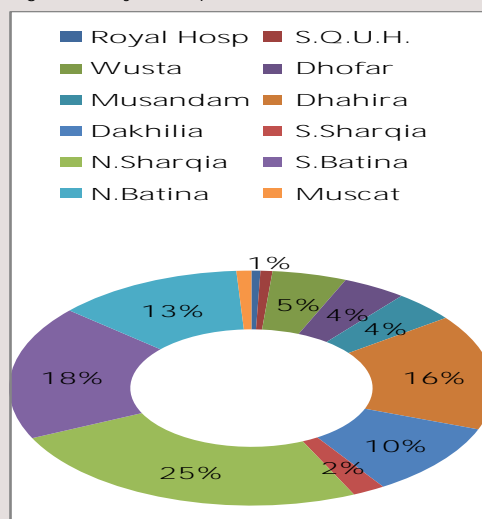
Scorpion stings, followed by bee/spider/wasp stings were consistently the commonest two causes throughout the years (graph on the top right)

On the other hand, the total number and



ranking of Pharmaceuticals' accidental and intentional poisonings declined steadily; from 7.6 % and being the 3rd cause in 2002 to 2.0 % and becoming the 6th cause in 2007.

The Poison control Center continues its efforts to provide the medical community with seminars, workshops, and technical guidelines in order to raise awareness and to improve the management of poisoning cases all over the country. The graph below shows the poisoning cases in different regions, Royal hosp. & SQUH in 2007.



Group	No.	%
Adult	3637	61
Children < 12 years	2358	39
Males	3228	54
Females	2767	46

(Table2) Age and sex distribution of 9424 registered cases in 2007



The Workplace: A Priority Setting for Health Promotion

The workplace, along with schools, hospitals, cities, and markets, have been considered as cornerstones in health promotion programs of the 21st century. The workplace directly influences the physical, mental, economic and social well-being of workers and in turn the health of their families, communities and the whole society. It offers an ideal setting and infrastructure to support the promotion of health of **a large audience**. In addition, a worker's health is also affected by non-work related factors.

The concept of 'health promoting workplace' (HPW) is becoming increasingly relevant as more private and public organizations started to recognize that future success in a globalizing marketplace can only be achieved with a healthy, qualified and motivated workforce.

HPW can ensure a flexible and dynamic balance between organizational targets and customer expectations on one hand; and **employees' skills and health needs on the other**. This can assist companies and work organizations to accomplish better outcomes in the current and continuously-competing marketplaces. For many nations, the development of HPW will be a prerequisite for sustainable social and economic developments.

Benefits of Workforce Health Promotion

Occupational health is fundamental in public health. It is becoming increasingly clear that major diseases (e.g. AIDS, heart disease) need workplace programs as part of the disease control strategies.

If such programs are adopted, a tremendous amount of benefits can be reaped. These benefits are greater for low-paid workers in high risk occupations and settings, and in this way occupational health interventions contribute in reducing inequities.

Proper attention to workers' health and safety has extensive benefits such as:

- healthy workers are more productive and raise healthy families
- safe workplaces contribute to sustainable development, which is the key for poverty prevention
- the processes of protecting workers, surrounding communities and the environment for future generations have important common elements such as pollution control and exposure reduction
- much pollution and many environmental exposures that are hazardous to health arise from industrial processes that can be controlled by occupational health and safety programs

Occupational health is fundamental in public health. It is becoming increasingly clear that major diseases (e.g. AIDS, heart disease) need workplace programs as part of the disease control strategies.



- occupational safety and health can contribute to improving the employability of workers, through workplace redesign, maintenance of a healthy and safe work environment, training and retraining, assessment of work demands, medical diagnosis, health screening and assessment of functional capacities.

For the organization	For the employee
a well-managed health and safety program	a safe and healthy work environment
a positive and caring image	enhanced self-esteem
improved staff morale	reduced stress
reduced staff turnover	improved morale
reduced absenteeism	increased job satisfaction
increased productivity	increased skills for health protection
reduced health care/insurance costs	improved health
reduced risk of fines and litigation	improved sense of well-being

Benefits of Healthy Workplaces

Workplace health promotion — What is it?

Workplace health promotion is a result of the combined efforts of employers, employees and society to improve the health and well-being of people at work. This vi-

sion of workplace health promotion places particular emphasis on improving the work organization and working environment, increasing workers' participation in shaping the working environment, and encouraging personal skills and professional development. Workplace health promotion focuses on a number of factors that may not be sufficiently covered in the legislation and practice of occupational health program, such as the organizational environment, the promotion of healthy lifestyles such as banning smoking, promoting for physical activity and healthy diet, and non-occupational factors in the general environment. Non-occupational factors include family welfare, home and commuting conditions, and community factors which affect workers' health.

Workplace health promotion supports a participatory process to help promote a stronger implementation of occupational and environmental health legislation. It suggests tools for maintaining or strengthening a national healthy workplace initiative, such as an awards system as an incentive for participating enterprises, and creation of healthy workplace networks. To be successful, workplace health promotion has to involve the participation of employees, management and other stakeholders in the implementation of jointly agreed initiatives and should help employers and employees at all levels to increase control over and improve their health.

Effective health promotion assists employers to adopt appropriate administrative procedures; and workers to use safe working practices. Occupational

Workplace health promotion is a result of the combined efforts of employers, employees and society to improve the health and well-being of people at work

health personnel benefit from training and education in health promotion to enable them to implement it as a part of their occupational health practice.

Experience in workplace health promotion has shown that competitions and awards are valuable in engaging enterprises in occupational health and safety activities. Firms and enterprises achieve valuable publicity and a boost in staff morale through competing to become the most healthy and caring company.

Advocacy has a key role in building and maintaining health promotion at workplace and is essential to shape the social and political climate for occupational health.

Health promotion that introduces healthy lifestyles and supports the maintenance of such lifestyles with appropriate information, counseling and educational measures should be undertaken as part of the occupational health and safety program.

Concluding message

Workplaces are considered as important settings for health promotion practices. They can be used to address both occupational health issues and general health promotion topics; and can provide a basis for many health interventions. Workplace health promotion involves: health education directed at the workforce; service improvement including introduction of occupational health services; and advocacy to implement policies on health issues.

References

Canadian Centre for Occupational Health

and Safety 2008, Health Promotion at workplace,

<http://www.ccohs.ca/>

World Health Organization 2008, The workplace: A priority setting for health promotion,

<http://www.who.int/en/>

DEOH efforts in health promotion at workplace:

- Incorporation of the concept of health promotion at workplaces in the Regulation of Occupational Safety and Health for Establishments governed by the labor law, issued by Ministerial Decision No. (286/2008)
- In this Regulation there is a special chapter about healthy workplace: chapter 2.
- Article 26: the work place must be supportive for general health by adoption of the following:
 - 1- Promoting healthy food and physical activity in workplaces
 - 2- Banning of smoking in workplaces
 - 3- Enhancing psychological health by supporting the **worker's adaptation to new work environment**
- Oman is the first country in the region to adopt the healthy work place initiative

DEOH is working hard to play a vital role in advocating for the implementation of healthy workplaces in all sectors



How Important Is Product-Labeling in Preventing Poisoning?

Product labels are an essential part of risk communication. They provide the user with information about the chemical identity of substances, their hazardous nature, response advice in case of any exposure, instructions for storage and use, and cautions or warnings. The information may be given in words or displayed as symbols or pictograms. A great deal of regulations and standards governing labeling of various products need to be complied with whether the items are still in cargo or being sold in their final containers to consumers.

Appropriate labeling is invaluable. However, it becomes totally ineffective if the print is too small to be easily read or if it is not in the local language. Additionally, even good labels will be useless if the original container has been discarded and the product decanted into another container or repacked locally. This is unfortunately a common practice in the markets e.g. some dealers buy pesticides or kerosene in bulk and then sell them in small amounts with no labels or incomplete and wrong ones.

The Poison Control Centre came across three pesticide products that had wrong, incomplete and illegible labels. Two of them were repacked locally with absolutely wrong and incomplete labels. These two solid products are available in the market as rat poisons. The Centre was contacted by the Directorate General of Criminal Inquiries and Investigations, Royal Oman Police, requesting to know the ingredients of commonly used rodenticides. However, further discussions and chemical analysis of the products revealed the presence of an insecticide Methomyl (a toxic carbamate preparation) and Benzene hexachloride



(HCH), a banned persistent organic pollutant, both of which, are in fact not rat poisons.

The third product was an imported pesticide (nitricide). The chemical ingredients, the directions for use, warnings, and first aid measures in case of exposure were not clear to the extent that the doctors treating the case in the A & E were unable to determine the type of the pesticide and therefore contacted the Poison Control Centre and sent us the container for identification.

On the other hand, the appearance of a container is an important factor in childhood poisonings since the ones that resemble food or beverage containers carry an obvious hazard. A product labeled as "lamp oil" in one of the supermarkets in Muscat came to our notice. The bottle looked exactly as a drinking water bottle (picture below). Surprisingly, the label did not have any instructions, ingredients or warnings in Arabic. Such containers result in a high possibility of accidental ingestion of kerosene; particularly by children and elderly, who cannot read English.



To prevent any poisonings, the concerned regulatory authorities were informed of all three products in order to take necessary actions such as recalling the items from the market.

To prevent any poisonings, the concerned regulatory authorities were informed of all three products in order to take necessary actions such as recalling the items from the market.



"The wisest mind has something yet to learn."



Sultanate of Oman
Ministry of Health

Address for Communication:

Directorate General of Health Affairs
Ministry of Health HQ, PO Box 393, PC 113,
MUSCAT , Sultanate of Oman

Tel: + (968) 24 600808

Fax: + (968) 24 696099

E-mail: dg-ha@moh.gov.om

Visit: [http://
www.moh.gov.om](http://www.moh.gov.om)

Your contribution is valuable to us:

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

Note to contributors:

While submitting articles related to studies conducted in Oman, the authors should attach a copy of the approval of ethical committee/research committee of the institution or the Regional Directorate.

Your opinion matters to us. Any suggestions to improve the contents and the design of this Newsletter will always be gratefully received.

Any material from this newsletter may be reproduced, copied or distributed for non-commercial purposes provided the source is appropriately quoted.

Citation should be according to the following example: Ministry of Health Oman, National Response Strategy for HIV/AIDS in Oman, Comm & Dis Surv Newsletter, 2008; 17 (1): 1-6.

Editorial Board

Back issues of this Newsletter are posted in PDF format on...

<http://www.emro.who.int/emrinfo/oman-newsletter.asp>
<http://www.moh.gov.om/> ...Reports & Publications

Disclaimer

The statements of facts and opinions expressed in the articles of this newsletter are solely those of the respective authors and or contributors.

This Newsletter is published by
Directorate General of Health Affairs,
Ministry of Health, Oman

©Ministry of Health, Oman

Sponsored by

