# .. NEWSLETTER... NEWSLETTER... NEWSLETTER...

TOWARDS HEALTH FOR ALL BY THE YEAR 2000 IN THE EASTERN MEDITERRANEAN REGION OF THE WORLD HEALTH ORGANIZATION نخو بحقيق المهت للجميع بحلول عام ٥٠٠٠ في اقليم منتلمة المست المعالمية لشرق البحر الابيين المتوسط VERS LA SANTE POUR TOUS EN L'AN 2000 DANS LA REGION DE LA MEDITERRANEE ORIENTALE DE L'ORGANISATION MONDIALE DE LA SANTE

EMR Newsletter No. 13

IN THIS ISSUE
<u>Road Traffic Accidents</u> in the Gulf Region: Seminar in Kuwait
<u>Health Manpower Development:</u> A self-help (do-it-yourself) "kit" for producing learning materials
Progress of the <u>Expanded Programme of</u> <u>Immunization</u> in the United Arab Emirates in the Republic of Sudan in the Syrian Arab Republic
<u>Maternal and Child Health:</u> Low birth weight, its causes and remedies
Environmental Health: Solid wastes management, How to keep your city clean
<u>Communicable Diseases:</u> On the re-use of waste water during cholera epidemics

#### ROAD TRAFFIC ACCIDENTS IN THE GULF REGION

The Arab countries of the Gulf Region (Bahrain, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates) have recently experienced rates of economic growth unparalleled in the modern world. One of the consequences was the considerable extension of the surfaced (tarmac) road network. But oil wealth did not only bring benefits to the people, it also brought some problems. Increasing urbanization and the dramatic rise in the number of vehicles on the road led to traffic congestion in urban areas, and traffic accidents. By 1971, there was already a total of 27 500 accidents in the Gulf Region, but by 1976 the total had nearly doubled to 53 000 accidents, including 3027 deaths (even with the exclusion of Iraq). One can imagine, by extrapolation, what the figure would be today. Apart from human lives and suffering (many chronic disabilities are due to traffic accidents), the estimated cost of road accidents to the seven Gulf Arab States was about \$ one billion each year in the mid-seventies.

# The Kuwait Seminar

Two WHO consultants participated in a Road Traffic Accidents Seminar, in Kuwait, in March last, organized by the Directorate General for Health in Arab Countries of the Gulf. The task of the WHO consultants was to provide advice, to give an overview of recent trends in road safety in the Region and to show how these related to trends in other motorized countries where efforts are being made to reduce traffic accidents and their effects. About 100 participants from the seven countries attended the Seminar, including hospital clinicians, health administrators, traffic police, engineers and planners.

#### Recommendations of the Kuwait Seminar

Reckless drivers should be treated severely and considered a threat to public safety. There are three main factors in any traffic accident: the driver, the vehicle and the road. However, the responsibility falls in the first place on the driver since man is the inventor of the vehicle and the builder of the road, and should be able to master both.

The recommendations made by the Kuwait Seminar considered all these factors and many others such as the planning of towns and suburbs, the training of traffic police and of course appropriate legislation and exchange of information.

Among the main recommendations were:

- standardization of road signposts;
- standardization of minimum driving age (17 years);
- establishment of a vehicle testing laboratory in Saudi Arabia to check vehicle specifications for the entire Gulf Region;
- specialist training for traffic police personnel;
- establishment of a Traffic Institute to examine problems and possible solutions, to be staffed by technical personnel working in teams. This same personnel could also be responsible for training courses on traffic and safety matters.

Among other items discussed were also alcohol consumption and the use of safety belts.

#### First aid in case of accident

Attention was devoted by medical specialists to emergency systems to deal with victims of road traffic accidents. Adequate human and material resources should be made available to perform first-aid activities, starting immediately on the spot and continuing in the ambulance until arrival at hospital emergency services.

# Health education and information of the public

A matter considered as most important by the Seminar was the recurrent question of educating the public by introducing the subject of road traffic safety into the curriculum of schools, faculties of education and teachers' training colleges.

Due attention should be paid to the creation of traffic awareness by the public to make people cognizant of the causes and consequences of traffic accidents, and to teach them the proper rules of traffic.

Finally a proposal was made to institute a "Safety Week" in each and every country, during which an intensified information campaign would be launched, using television radio and in press.

# Follow-up in Mexico City in November

Some 20 participants from 9 countries in the WHO Eastern Mediterranean Region have been invited to take part in the *Conference on Road Traffic Accidents in Developing Countries* scheduled to take place in Mexico City in November 1981. Participants include representatives from national authorities and institutions concerned with the prevention and control of road traffic accidents and road safety research. One outcome of the Conference is expected to be the establishment of priority action programmes to be developed at national level.

HMD...HMD...HMD...HMD...HMD...HMD...HMD...HMD...HMD...HMD...HMD...HMD...HMD...HMD...HMD...HMD...HMD...HMD...

#### A SELF-HELP (DO-IT-YOURSELF) "KIT" FOR PRODUCING LEARNING MATERIALS

A very familiar problem exists in many educational institutions in both developer and developing countries: too many people requiring simple illustration for teaching or publishing purposes expect this work to be done by professional illustrators without realizing that they themselves could well meet their own needs.

Thus educational establishments in Democratic Yemen, Kuwait, Pakistan, Saudi Arabia, Sudan and the Yemen Arab Republic were recently visited by a WHO consultant who demonstrated a"do-it-yourself" illustration system in use at the Royal Postgraduate Medical School in London since 1975. This system literally turns even an amateur draughtsman or woman into a professional practically overnight, enabling him or her to produce charts, graphs, statistical illustration of all kinds, flow charts and stylized anatomical drawings. The system is finally only limited by the capacity of the user's imagination. In short, it is a "door opener" for those who hitherto felt that lack of graphic illustrations prevented them from publishing, or illustrating a lecture.

# What does the system offer ?

It is evident that at most of the institutions visited by the WHO consultant in the six countries of the Eastern Mediterranean Region, teaching and learning is sometimes slowed down by the lack of simple rapidly-produced illustrations. Also, the shortage of published material from certain developing areas may lead better-endowed nations to ignore situations which exist in these areas and thus miss opportunities for cooperation which could be of mutual benefit.

Once established, the system offers many advantages e.g.: making one's own drawings and slides for teaching; exploring the limitation of different audio-visual media; preparation of research data for reports and publication; how to make the best of overhead projectors in the art of good lecturing; photographic technique in clinical work and the use of the camera in the operating theatre. This minimal enumeration shows that subjects peripheral to simple drawing techniques are dealt with during training on the use of the system.

EPI...EPI

PROGRESS OF THE EXPANDED PROGRAMME OF IMMUNIZATION IN THE REGION

# In the United Arab Emirates

The immunization activities in the United Arab Emirates have made substantial progress toward the goal of protecting young children against the six main childhood diseases (diphtheria, pertussis, tetanus, poliomyelitis, measles and tuberculosis) singled out by the WHO Expanded Programme of Immunization (EPI). At the request of the Federal Government, a five-member international team was assigned by the World Health Organization (WHO) to participate in a review of these activities earlier this year, in collaboration with the Ministry of Health, including the school health immunization programme, the examination of the central vaccine stock and cold storage facilities, and the review of surveillance, training and health education activities.

The programme has strong support from the Ministry of Health and the Department of Public Health and is well founded in maternal and child health (MCH) services. These have enrolled a very large proportion of mothers and children, and provide excellent points of contact for immunization. MCH centres, which are directly responsible for giving the vaccines, do a satisfactory job, both from the technical point of view and in establishing effective relationships with mothers. Coverage with diphtheria-pertussis-tetanus (DPT) and oral polio vaccines (OPV) is high. Only measles coverage needs improvement, the team estimated, although it is largely given in combination with mumps and rubella vaccines (MMR). The team therefore recommended that immunization for measles start as from the age of nine months and that it be given simultaneously with DPT and polio.

All in all it can be said that immunization activities are developing well in the United Arab Emirates, although the team advised that protection against tetanus in the form of tetanus toxoid (TT) should also be administered to pregnant women since it protects the baby against tetanus of the new-born. In the Republic of Sudan

In the Sudan, the Expanded Programme of Immunization (EPI) is an integral part of the primary health care (PHC) programme under the authority of the Government, with WHO and UNICEF cooperation.

The programme is being implemented in 24 urban areas in 12 of the 18 provinces of the country. A cola chain system is being set up in areas where the programme is carried out. Qualified national and international personnel is being recruited and assigned. The EPI staff at all levels is being trained through international courses, national workshops, seminars, lectures and on-the-job training. Health education activities are promoted with the assignment of a health educator to the programme; preparation and printing of posters and other materials are under way. The achievements of the programme are constantly evaluated in all areas, and surveys of the target diseases are carried out in some pilot places.

Funds for the EPI are provided by the Sudanese Government whose contribution amounted to US\$ 1,268,822 for 1980-81. For the same period, contributions from WHO and UNICEF amounted to a total of \$ 856,057, mainly for the provision of personne' training, transport and cold chain equipment.

In Sudan as in many other countries, one of the main constraints to the harmonious deployment of any immunization programme is the organization of a cold chain to protect the vaccines and guarantee their potency even when transported to the remotest places. It is only after cold chain facilities are installed that vaccines and other supplies can be distributed properly. Furthermore, cold chain systems must be kept in good condition in order to prevent any interruption of the health team's work.

If external cooperation continues, the reasonable objectives set in the EPI plan of action for 1981-82, i.e. 40 to 50 per cent coverage in the areas of implementation, should be reached. This means that if the 45 towns supplied with electricity for the operation of the cold chain are covered, about 160,000 children should be fully immunized by the year 1982. It is to be remembered that the long-term overall objective of the WHO Expanded Programme of Immunization is to vaccinate all children against the six diseases in any given country by 1990.

#### In the Syrian Arab Republic

In the Syrian Arab Republic, where the Expanded Programme of Immunization (EPI) is mostly carried out by MCH centres in urban areas and by mobile teams in rural areas, the Ministry of Health reports that the programme is progressing satisfactorily in spite of an inadequate number of vehicles to perform the task. Syria expects to reach the WHO/EPI 1990 target date - all children vaccinated against the six main childhood diseases - by 1983.

A total of 866 457 doses of vaccines - including three doses of DPT, three doses of oral polio vaccine (OPV) and one dose of measles vaccine - have been administered to children under five years of age during the first six months of 1981 in six "mohafazat" (governorates), including the main cities of Damascus, Aleppo and Latakia, which constitute phase I of the programme. Six other "mohafazat" (out of a total of fourteen) will be included in the next phase, according to the plan of action. In addition, and duringthe same period, 81791 booster doses of DPT/OPV have been administered, an increase of more than 50 per cent over the previous period. Also, a total of 16,110 doses of tetanus toxoid (TT) have been given to pregnant women, each of whom received two doses.

A total of 42 vaccinators and field evaluation personnel have been trained during the same period (January-June 1981).

As regards health education and information of the public, a distinct fall in the coverage has been noticed for the administration of the second and third doses of DPT/OPV when intense propaganda decreases. On the contrary, when effective use is made of television and other media, as in the case of the first round of vaccinations, the coverage increases considerably, up to 50 and 100 per cent.

MCH...MCH...MCH...MCH...MCH...MCH...MCH...MCH...MCH...MCH...MCH...MCH...MCH...MCH...MCH...MCH...MCH...MCH...I

#### LOW BIRTH WEIGHT, its causes and remedies

At the request of the Ministry of Health, a WHO consultant visited Oman to inquire about the incidence of low birth weight among babies. As a result, it was found that a tremendous change had occured over the past five years: mothers are now much more open to advice and more conscious of the importance of health.

Throughout an entire year, mothercraft classes had been conducted by Egyptian public health nurses. They explained the importance of personal hygiene and proper diet to the mothers in Arabic, and made use of diet sheets to teach pregnant women.

Ramadan fasting does not seem to have an effect on the weight of babies in Moslem countries. Even if pregnant women fast, they eat during the night and continue taking multivitamins and iron tablets, so their own weight does not decrease.

# What is low birth weight ?

When a baby's weight is under 2500 grams at birth it is considered as low. Generally, the causes of low birth weight can be attributed, first of all, to malnutrition, then to infections, inherited factors, toxaemia and hypertension, and finally to other factors such as frequent births (hence the necessity of spacing them), high altitudes, cigarette smoking, chronic alcoholism, frequent X-irradiation, improper medication, etc. In developing countries, nevertheless, low birth weight is often due also to poor antenatal care associated with malnutrition. For reasons which are not yet very clear, but probably stem from deeply rooted traditions and beliefs, some women in certain areas eat less during their pregnancy (see our Feature on good and bad traditional practices, October 1980). This, combined with the relatively reduced availability of a good quantity and variety of food, may be responsible for a higher percentage of low birth weight in these areas.

#### How to remedy low birth weight

To reduce the number of babies with a low birth weight, WHO stresses the importance - in addition to increasing the number of competent obstetricians in any country - of antenatal care and its application by properly staffed and supervised MCH centres able to give advice on nutrition and hygiene to pregnant women; detect those among them with anaemia, hypertension and other complications and refer them to the competent obstetricians mentioned above; and play an important educational role. Much of the antenatal advice could be given by properly trained nurses with a good knowledge of the local language. It goes without saying that primarily the extent of the role of malnutrition as a cause of low birth weight should be assessed. ис...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ...ЕНЕ.

SOLID WASTE MANAGEMENT: HOW TO KEEP YOUR CITY CLEAN

On the occasion of his visit to a capital city of our Region to deal with solid waste management, a WHO specialist enunciated a certain number of facts, factors, rules and recommendations which are valid for most big cities in this part of the world.

The first and foremost rule is that "refuse should never touch the ground from the time of its lifting until it is finally disposed of on the sanitary landfill site". This, according to our specialist, is the Golden Rule of solid waste management. Now, how to apply it ? "Never put refuse or litter on the ground", our specialist goes on to say, "always put it into a container with a lid. Never dump any refuse from a container on to the ground; always tip it into a bigger container or into a refuse collection vehicle."

More often than not the method for collecting refuse in big Middle Eastern cities consists of sweeping up and loading by hand garbage which has been dumped on the ground. Apart from a waste of labour (although it may provide labour for many jobless people), there is a chance that the refuse will be scattered by the wind and will cause fly breeding where it has been dumped, to say nothing of foul odours. The WHO specialist also noticed that refuse collection vehicles were losing part of their load all along the roads to the final landfill because they were uncovered. Trailers should not be used for refuse transport unless they are suitably covered.

#### How it should be done

To endeavour to manage solid waste in big cities, it is essential to encourage public cooperation with a "Keep your city as tidy as you keep your own home" campaign. The same applies to the country as a whole. It is more important to motivate the public to cooperate than to pass laws which anyway are seldom respected.

Each building should be provided with at least one adequate covered dustbin (a dustbin for each householder or shopkeeper). Dustbins are the best receptacles for storage of refuse. They should be covered and sufficiently heavy, and not overfilled, so that stray cats and dogs cannot scatter the contents on the pavement. They should be emptied often enough so that people will not need to dump refuse beside them when they are full. Such dustbins or containers should be emptied directly into refuse collection vehicles in the streets and the refuse carried either to transfer stations or its last destination, the landfill site. Collection by this house-to-house method is the most economical and the "Royal Road" to good solid waste management, expert dixit.

# No need for sophisticated equipment, appropriate technology to be applied

This, of course, is an ideal and not-too-expensive system. Improvements, in most cases, can be made by simple hygienic methods and equipment which can be modified at low cost to meet requirements. Solid waste managers in the Region should not be tempted to copy the mistakes made in industrialized countries and which have resulted in a plethora of bureaucracy and costly, sophisticated equipment and machinery which must now be cut down because it takes too much of the municipality's budget. In a study made in Tunisia a few years ago, it was found that the cost-per-head of collecting refuse was about US\$ 1.6 while at the same time the costs in England were US\$ 6.0 per inhabitant in comparison. It must also be said that in developing countries - although the amounts of cans and plastics are gradually increasing with wider consumption - the quantities of refuse per inhabitant are still about a quarter of what is produced in a country such as the USA. Hence it may not be necessary, in these countries, to collect refuse every day, but only twice or three times a week. Other WHO specialists in the Region are also convinced, after studies lasting for six months, that such a method would prove satisfactory and economical.

# A word about scavengers and the recycling of refuse

Scavengers sorting refuse on landfill sites are usually scorned by the population and the refuse collection people themselves. But in fact they do a useful job: their work helps the nation, as the salvage they collect permits the reduction of imports. A scheme to upgrade and utilize scavengers is being carried out with success in one Eastern Mediterranean country. In a study made in Alexandria, Egypt, it was estimated that the "zabbalines" recycled 750 000 Egyptian pounds worth of goods per annum from a population of three million. Solutions to the overall waste problem must be devised to suit the situation in each country. In industrial countries, the trend is for people themselves to start sorting their own refuse. Thus. organic wastes can be put into one bin or sack and the inorganic fraction (glass, metal, plastic) into another. In short, with sympathetic, humane and understanding treatment, scavengers can be tactfully organized so that they can help in the waste-utilization programmes. They certainly sort refuse better, and more cheaply, than sophisticated machinery, and it is fortunate to find people willing to do such work for recuperation purposes, especially as plastics and glass are the most difficult items to separate mechanically from refuse.

#### Recuperation and compost

Recuperation, however, is not the only reason for separating inorganic refuse from the bulk. It also enables organic refuse to be used as compost to fertilize agricultural crops. It is particualrly important that plastic sacks are not chosen for collection of refuse for composting. In spite of their considerable advantages for economic and hygienic collection, plastic sacks are relatively expensive, can be torn by cats and dogs, and make the composting of refuse - the best way of re-using it - a much more difficult task. Finally it is also important to find ways of re-using plastics, as they are not degradable. This is done in some Eastern Mediterranean countries. The same applies to rubber tyres, which now can be used for road surfacing.

...CD....CD....CD....CD....CD....CD....CD....CD....CD....CD....CD....CD....CD....CD....CD....CD....CD....CD

#### ON THE RE-USE OF WASTE WATER DURING CHOLERA EPIDEMICS

In connection with the recent cholera outbreaks in some countries of the Region, one Government has asked the World Health Organization (WHO) to send a specialist to review sewage treatment and its re-use for agricultural irrigation and to present his views on the possible mode of transmission of the disease during the outbreaks. As far as the latter are concerned, the WHO consultant was of opinion that vegetable crops customarily eaten raw, which had been irrigated with inadequately treated sewage effluents played a role in the transmission of the disease. Cholera germs were found both in the sewage used for irrigation and on the vegetables themselves.

# WHO recommendations

Re-use of waste water, including sewage, when properly treated, presents a positive remedy to water shortage. WHO encourages irrigation with waste water as it is beneficial to agricultural economy, provided adequate safeguards are employed. Untreated or insufficiently treated sewage is a potential source of infective agents causing enteric diseases. The primary objective of any treatment of sewage intended to be used for irrigation is, therefore, the removal of these infective agents. For economic and practical reasons, chlorination is the method of choice for disinfection of waste water. WHO does not object to the use of insufficiently treated sewage for irrigation *restricted* to fruit trees, crops not used for human consumption, and crops which are always cooked before eating.