Hidden Risks in the Endangered Environment
Mei NG
Director of Friends of the Earth (HK)

**CO**
Urban levels of Carbon Monoxide have increased rapidly and are now similar to roadside levels. Carbon Monoxide in urban areas is mostly from vehicle emissions, but other sources like coal combustion are regional sources of increasing concern to Hong Kong. Although we are not close to the toxic levels of the 8-hour pollution standard, long term exposure to elevated CO is probably reducing our health, alertness, and productivity.

**NO2**
NO2 produces ozone, smog, and acid rain in various chemical reactions. The steady increase in Hong Kong NO2 pollution shows no sign of slowing down due to local and regional emissions growth from vehicles and power plants. Renewable energy and non-combustion power sources like fuel cells are required to reverse this trend.

**Respirable Suspended Particulates (RSP)**
Hong Kong exceeds its own annual RSP guideline, and far exceeds the RSP guideline of the USA. Hong Kong is paying for this pollution because international businesses re-locate offices, chronic respiratory illness reduces productivity, and more income is spent on health care. Main RSP sources include diesel vehicles, paved road dust from all vehicles, and un-filtered combustion sources like coal power plants and cement factories.

**Respiratory Problems**
Although the death rate from respiratory diseases like bronchitis and asthma has been going down for 25 years, there has been a remarkable increase in the number of patients seeking medical help for these problems since the mid-1980's. This means that more and more people are living with chronic medical problems due to air pollution. This is the product of our economic system which values growth more than quality of life.

**Fresh Water**
Hong Kong’s thirst for water is increasing with demand from households and to a lesser extent from the commercial sector. Balancing this increase, the demand from industry is falling rapidly, so Hong Kong’s overall demand appears “steady”, but this steady trend will not last much longer if the domestic and commercial demand keeps growing. The increasing cost of importing and treating water from Guangdong has to be compared to the costs of conserving and recycling water locally. Also, the large system leakage is a major waste of valuable water.

**Passenger Journeys**
The rate of use of public transport in Hong Kong is declining for all modes except the KCR. At the same time, the rate of passenger journeys by private vehicle is increasing rapidly. A combination of factors is probably leading to this trend. Increasing cross-border commuting is increasing the demand on the KCR. Within Hong Kong, increasing wealth is making cars affordable to more people, uncomfortable public transport creates additional pressure to buy a car, new road building promotes the mobility of private cars, increasing air pollution makes people avoid walking or waiting for buses, and the highly centralised business district requires people to commute if they want access to jobs.

**Land Use Change**
Arable land continues to disappear at the expense of development projects. In some cases the pressure for new housing and facilities for the growing population is so great that the loss of arable land is unavoidable. However, no attempt has been made to integrate agriculture with new communities. In many cases, arable land is disappearing under sprawling transport infrastructure with no consideration for the multi-functional use of the valuable land.

**Public Space**
Hong Kong’s public open space is about half that of Singapore. Despite an increasing trend of public open space through the 1990’s, Hong Kong has now shown a decline since 1997. At the same time, roads are taking an increasing share of urban space. This development is a vicious cycle because as more people get into cars to escape the cramped city, they demand more road space. This type of defensive spending creates economic growth but loss of quality of life.
Solid Waste
Landfills in Hong Kong are rapidly being filled up. Construction and demolition (C+D) waste, which does not include waste to public fills or reclamation sites, and domestic waste are most responsible for the disposal problem. Most of the recycled, or "recovered", component of Hong Kong's waste stream is due to the export of scrap steel, copper, and aluminum from the construction industry and consumer appliances. Most of the packaging and organics of the domestic waste are not recycled. Much of the waste problem could be eliminated with proper systems and places for waste sorting, and more realistic time schedules for building demolition and construction.

Genetically Modified Food – A Scientist's View
Samuel S. M. SUN
Professor & Chairman, Department of Biology, The Chinese University of Hong Kong

Food procurement is one of the most important activities of human being. Through hunting and gathering, domestication, selection of natural variations and cross breeding of plants and animals, humans have been continuously developing and improving the methods of food procurement since early history. Because of the rapid growth in human population, alarming loss of agricultural lands, and leveling off of major crop yields, for the past several years and the foreseeable future, food security has become a major world concern, particularly for scientists who are interested or involving in food supply.

The discovery of the double helical structure of genetic material DNA in 1953 triggered off rapid developments in DNA technology. By 1980 the first plant gene was isolated and in 1983 the first transgenic plant generated. In 1996 the world witnessed the marketing of the first genetically modified (GM) food, the delay-softening tomato. The new technologies, through gene addition, gene subtraction, and metabolic engineering, were shown capable of generating improved and new plant varieties and foods. More importantly, biotechnology is able to overcome the two limitations of conventional cross breeding method, namely the species/sexual barrier and the lengthy breeding program. Biotechnology thus offers the potential of unlimited possibility and unprecedented opportunity for food production and improvement.

However, GM food, though with great promise, had generated much concern from different sectors of the society. In this lecture, the following major issues will be analyzed and discussed through a scientist's view:

1) Do we need GM food?
2) Is GM food natural?
3) Is GM food safe to consume?
4) Are the environmental concerns on GM crops valid?
5) What are the benefits and risks of GM food? and
6) What are the future prospects of GM food?

Eye and Computer
Dennis S. C. LAM
Professor & Chairman, Department of Ophthalmology & Visual Sciences, The Chinese University of Hong Kong

The use of computer has become an integral part of our everyday modern life. We will be getting more and more dependent on computer technology and its use will become indispensable. One of the potential risks that concern computer users is eye damage. In lay people's mind, there is worry about harmful radiation emitted from the video display terminals (VDTs) and the risk of damaging their eyes with too much computer work. However, no such proof was available in literature. On the other hand, there are complaints on symptoms related to visual fatigue such as sensitivity to glare, and aching or sore eyes, since the use of VDT is a visually demanding task.

This talk will cover an overview after analyzing the scientific data in the literature and distinguish facts form myths regarding computer related eye problems. Moreover, practical tips on how to avoid ocular fatigue and other eye symptoms from VDT use will be introduced:

1) What is the optimal working distance?
2) What is the optimal position of VDT?
3) How to prevent visual discomfort?
4) Is there any relaxing exercise that may be useful?
5) What is the optimal brightness and contrast of VDT?
Computer and Orthopaedics
Po-chin LEE
Orthopaedic Surgeon

The introduction of the computer has brought rapid progress in orthopaedic research and practice. However, the extensive use of computer in offices and homes has resulted in increased incidence of musculoskeletal complaints that are allegedly caused by the frequent use of the computer. There are complaints of neck and back pain due to prolonged sitting posture. The use of the keyboard and the mouse is alleged to be associated with a myriad of upper limb conditions, the most notable one being the carpal tunnel syndrome. Together with other constrictive tenosynovitis and a constellation of upper limb painful conditions, they are described under the term Repetitive Stress Injury.

One must aware that, in addition to repetitive use of the upper limb and prolonged sitting posture, the computer has also brought about other changes. The rapid flow of information, hitherto unknown in the pre-computer era, brings about an increased pace of work and increased stress.

While ergonomics principles should be followed when using the computer and there are various methods that will bring more comfort at a workstation, it is not the single answer to all the musculoskeletal complaints arising out of the use of the computer.

Whether computer use per se is the cause of these work-related musculoskeletal disorders remains controversial. In recommending ergonomic intervention, the clinician must not forget making an accurate clinical diagnosis of the patient's condition. Attention should also be paid to other medical and risk factors that may contribute to the musculoskeletal complaints.

Healthy Computer Usage: Modelling of Computer-related Discomforts in Hong Kong
Chetwyn C. H. CHAN
Hong Kong Occupational Therapy Association

This research aimed to model the musculoskeletal discomfort of VDT workers. The ergonomic workstation features, psychosocial status and age of the workers, and duration of VDT work were the independent variables of this study. A total of 166 female VDT workers in an educational institution participated in an interview and on-site surveillance. The interview was to obtain the information on the workers' musculoskeletal discomfort, psychosocial status, and work pattern. The ergonomic features of the workstation were recorded and measured on-site. A multiple regression model was established with four significant variables for predicting the musculoskeletal discomfort of the female workers. The results indicate that the number of ergonomic features of workstations was a significant predictor. Other significant predictors include the psychosocial status and age of the workers, and the duration of the VDT work. By putting these variables as the covariates, the workers with workstations having more ergonomic features had significantly less discomfort in the neck. Our findings further support that the musculoskeletal discomfort of VDT workers is multi-factorial in nature. The use of a comprehensive model, including both the physical and psychosocial elements of the workers, the workstation design, and the nature of the work task, seems to be necessary for capturing this phenomenon. Such a conceptualization will enhance the improvement in the effectiveness of interventions for VDT workers and prevention of occupational injuries at the work site.

Psychiatry and Computer
Chung-kwong WONG
Psychiatrist

The computer has become an essential tool for adults and children. While it enhances efficiency and enables the solution of complex problems, it has also become a mental health and a moral hazard for some. The reasons for such hazard will be discussed including personality, attitude to life, habits and family relationship. Special emphasis will be put on child mental health. Four solutions to assist children to acquire healthy habits in using the computer and to help those who have become "problematic users" will be discussed. First, handling the fundamental reason of children who indulge in computers, i.e. lack of high quality stimulation and activities in their daily life, and hence the first solution is not so much to stop children from getting near the computer but rather to provide a rich daily repertoire for them. Second, the preventive strategy of teaching children to observe and monitor their behaviour and to enhance their self-discipline, rather than for parents to "unplug" the computer. Third, the psychological strategy of "empowerment", i.e. to "empower" rather than to "over-power" children who have become addicted to computers so that these children will acquire the motive and capability of overcoming their "computer-addiction". Finally, the overall innovative concept of "Net-Q" will be shared.
**Epilepsy and Computer**

Shun-ping WU  
The Hong Kong Society of Child Neurology & Developmental Paediatrics

Computer screen has been regarded as a potential trigger for seizures, especially in children with photosensitive epilepsy. In Western countries the incidence of photosensitive epilepsy was reported to be 1 in 4000. Thus it can estimate that about 5% of epileptic patients are photosensitive.

Photosensitive epilepsies are triggered by flickering lights of a narrow frequency range, usually below 15 Hz. The computer screens, whether cathode emission or liquid crystal display (LCD), have a flicker frequency of 50-75 Hz. They are unlikely to directly trigger epilepsy. Regular use of computer at work with softwares that do not flicker would be safe for patients with epilepsy, photosensitive or otherwise.

The use of computer for recreation is becoming increasingly popular. Seizures that are associated with video-games, however, cannot always be ascribed to photosensitivity. Non-photic factors like excitement, fatigue, sleep deprivation might be important in triggering seizures. The prevalence of this type of epilepsy is not known, although it is likely to be low.

A recent study found that in non-photosensitive epileptic patients the occurrence of seizures while playing video-game is no more likely compared with other common leisure pursuits.

For most epileptic patients the use of computer does not trigger seizure. Even for those with photosensitivity, prudent use of the computer and avoiding programs that causes the computer to flicker would be advisable. Fatigue and sleep deprivation should also be avoided.

**HIV Infection and Pregnancy**

Lowina H. Y. TSE  
The Obstetrical & Gynaecological Society of Hong Kong

Dyslipidaemia is one of the major risk factors for the Human immunodeficiency virus (HIV) infection, first described in 1981 in homosexual men, is now affecting a more general population, notably women and children. Globally, the male to female ratio of patients affected is approximately one. In Hong Kong, more than half of the patients with HIV infection acquired the disease through heterosexual transmission. Up to February 2001, we have twelve children infected through the perinatal route. For eight of them, their mothers were not aware of their infection status prior to delivery. Since the landmark study (PACTG076) in 1994 demonstrating effectiveness of prophylactic zidovudine in the reduction of mother-to-child transmission (MTCT), other measures such as avoidance of breast-feeding and elective Caesarean section before rupture of membrane have been confirmed to reduce the risk of MTCT. Hence, there is obvious advantage in knowing the serostatus for HIV infection for a pregnant woman. A feasibility study has been conducted in Kwong Wah Hospital in 1999 to evaluate the applicability of universal screening of pregnant women for HIV infection with an opt-out approach. Of the 5597 women recruited in an eleven-month period, 5449 (97.5%) women accepted the test. Three asymptomatic pregnant women with HIV infection were detected. A territory-wide screening programme for Hong Kong is worth consideration.

**Injury Prevention in the Clinical Setting**

Chun-bong CHOW  
The Hong Kong College of Paediatricians

Injury is a major cause of morbidity, disability and mortality in children. Injuries are not random and uncontrollable events of fate. They are the result of the complex interaction of human (host), vector (agent) and socio-economic environment and can be studied in an organized fashion using the three methods of scientific investigation: epidemiology, biomechanics and behavioural science. Majority can be predicted and thus prevented. Readily available and accurate injury data are important for the assessment of the size of the problem, the design of prevention strategies and the evaluation of control measures.

Health care providers have numerous opportunities to identify parents and children at higher risk of unintentional injury and to counsel on child safety practices that reduce rates of unintentional injuries. However, parents will need repetitive reinforcing messages to be delivered in an effective manner that are relevant to their children. Clinical interventions are most effective when they are combined with an array of other health education and behavior change strategies such as counseling, demonstrations, the provision of subsidized safety devices, and reinforcement. As recommended by American Academy of Pediatrics, anticipatory guidance for injury prevention should be an integral part of the medical
care provided for all infants, children, and adolescents. This guidance needs to be appropriate for the child’s age and locale.

Obesity: Type 2 Diabetes in Childhood – A Worldwide Epidemic
Elaine Y. W. KWAN
The Hong Kong Paediatric Society

Type 2 diabetes has previously been reported to account for less than 2% of children with diabetes mellitus. However, type 2 diabetes mellitus in youth is now emerging as a serious clinical entity and has recently been recognized as a potential public health problem in North America. Several studies over the last two decades suggest evidence of an increasing secular trend in type 2 diabetes among children. In Cincinnati USA, the incidence of Type 2 diabetes in adolescents increased tenfold between 1982 to 1994 (0.7 to 7.2 cases per 100,000 persons per year). The percentage of new onset diabetes in adolescents that had type 2 diabetes increased from 5% to 40% from 1982 to 1994. The prevalence of type 2 diabetes, ascertained by population screening, rose from 27 to 53 per 1000 girls and from 24 to 38 per 1000 boys aged 15-19 years between the periods of 1967-1976 and 1987-1996 in Pima Indians in Arizona, USA. Type 2 diabetes in childhood now accounts for 8-45% of new cases of diabetes in some paediatric diabetes clinics in the US. The incidence of type 2 diabetes in Japan, detected by urine glucose screening, also increased from 0.2 to 2.0 per 100,000 per year in primary school children and from 7.3 to 13.9 per 100,000 per year in high school children from 1976 to 1995. Data from Libya, Bangladesh, and aboriginal children in Australia and Canada indicate that childhood type 2 diabetes is occurring in these populations as well.

Most of the reported cases are associated with obesity and peripheral insulin resistance in ethnic minority groups with a family history of type 2 diabetes. Fifty percent to 92% of children with type 2 diabetes are either overweight or obese, and 38% are morbidly obese. Seventy-two percent to 100% of children have a family history of type 2 diabetes and 60-90% of children have acanthosis nigricans. Other less well defined risk factors include: a history of fetal hyperinsulinism caused by maternal gestational diabetes and small for gestational age. Youth with type 2 diabetes can present with symptoms ranging from severe manifestations of insulin deficiency and ketosis to asymptomatic glycosuria. However, most of them have mild or no symptoms. The mean age of diagnosis is around 13.5 years, with the majority of patients in mid-puberty. There is slightly more female than male.

Cross-sectional and longitudinal studies have shown that excessive body weight and increased abdominal fat distribution are major risk factors for adult-onset type 2 diabetes in many ethnic groups. The emergence of type 2 diabetes in children has paralleled or followed the epidemic of childhood obesity observed in the USA and Japan. The prevalence of overweight in children aged 6-17 years in USA was 22% and 11%, based on the age- and sex-specific 85th and 95th percentiles, respectively, for body mass index. Between 1975 and 1995, the prevalence of obesity in Tokyo children increased from less than 5% to more than 8%, while the incidence of type 2 diabetes more than tripled. The mean weight of Pima Indian children increased significantly between the periods 1967-1976 and 1987-1996. In the Cincinnati study, obesity was identified as a major risk factor for type 2 diabetes in addition to family history and ethnicity.

The adverse effect of obesity on glucose metabolism is evident early in childhood. In healthy white children, total adiposity accounts for ~55% of the variance in insulin sensitivity. Obese children are hyperinsulinemic and have ~40% lower insulin stimulated glucose metabolism compared with non-obese children. Moreover, the amount of visceral fat in obese adolescents is directly correlated with basal and glucose-stimulated hyperinsulinemia and inversely correlated with insulin sensitivity. In African-American children, insulin-stimulated glucose metabolism decreases and fasting insulin levels increase as BMI increases. In a longitudinal study of young adults, the strongest predictor for increase in both insulin and glucose concentrations was an increase in BMI.

Few data on follow up suggest a high prevalence of microvascular and macrovascular complications among young adults who developed type 2 diabetes during childhood.

The World Health Organisation (WHO) proposed a system of classification of obesity based on BMI, basing on mortality outcomes. However, the Asia-Pacific Committee recommends lower cut-offs for Asians basing on data from Hong Kong, Singapore and Mauritius: BMI 23.0 kg/m2 as overweight and 25.0 kg/m2 as obesity. In a study of 1513 Hong Kong Chinese, the risk of diabetes, hypertension, dyslipidaemia and albuminuria starts to increase at BMI of about 23 kg/m2. The overall prevalence of overweight and obesity in China are 12.1% and 11.9% respectively. In Hong Kong, the prevalence of overweight and obesity in 10- and 15-year old boys and girls are 20.3% and 10.1%, and 10.3% and 6.3% respectively. In our obesity clinic, oral glucose tolerance test (OGTT) was performed in 62 children with BMI of 23 and above. Four children have diabetes as
defined by fasting blood glucose of 7.8 mmol/L or 2-hour blood glucose after OGTT of 11.1 mmol/L. Impaired fasting glucose with fasting blood sugar between 6-7 mmol/L was detected in 3 children while impaired glucose tolerance was detected in 13 children.

The American Diabetic Association and the American Academy of Paediatrics recommend screening for type 2 diabetes in overweight children (BMI >85th percentile for age and sex, weight for height >85th percentile, or weight >120% of ideal for height) who have two of the following risk factors:

1) A positive family history of type 2 diabetes in a first or second degree relative
3) Signs of insulin resistance or conditions associated with it – acanthosis nigricans, hypertension, dyslipidaemia, polycystic ovarian syndrome

Testing should be done two-yearly starting at the age of 10 years or at onset of puberty, by fasting plasma glucose or 2 hours post-prandial glucose.

Primary prevention efforts can be directed to high-risk individuals. Lifestyle interventions focusing on weight management and increasing physical activity should be promoted in all children, especially those at risk for development of type 2 diabetes.

Physical Fitness of Hong Kong Children
Alison MCMANUS
Physical Education & Sports Science Unit, The University of Hong Kong

Are young people in Hong Kong fit? If we focus on aerobic (or cardiopulmonary) fitness the available data demonstrate that boys have higher levels of fitness than girls even in primary school, and the sex difference becomes more pronounced as young people progress through secondary school. There is however, no published evidence to demonstrate that young people's aerobic fitness is low, or that it has deteriorated over the last 50 years. What is clear is that children are not physically active and the evils of passive leisure pursuits on children's physiological performance and health are now evident in Hong Kong. The clinical dividends of enhancing physically active behaviour in terms of promoting skeletal health, reducing body fatness, increasing aspects of health-related fitness and enhancing psychological well-being have been demonstrated in children. Furthermore, there is strong evidence to suggest that adult physical activity has its origins in behaviour established in childhood and adolescence. Children's spontaneous activity patterns are unique and the determinants of these need to be better understood. Various questions still remained unanswered for the Hong Kong child – How much activity is enough? Are the effects lasting? Encouraging Hong Kong children to be more physically active is a very real challenge for all those interested in the health of children in the Third Millennium.

Healthy Childhood and Adolescent – Allergy
Adrian WU
Hong Kong Society for Immunology

The incidence of allergic diseases, which include allergic rhinitis, asthma, atopic dermatitis and food allergies, is on the rise in the developed world. It has reached epidemic proportions in some nations, where the prevalence of allergic diseases can reach as high as 30%. What are the factors responsible for this increase, and are there any measures to prevent allergies? Data from recent studies suggest that lifestyle during the early years have the greatest influence in the development of allergies. Genetic predisposition to allergies can already be detected during early post-natal period by examining the chord blood IgE levels, and the T cell response to antigen stimulation. Early infant feeding is an important influence in the development of allergic diseases; breast feeding or the use of extensively hydrolysed infant formulas can reduce the incidence of allergic diseases, and this effect can still be seen at 18 years of age. Exposure to infectious diseases early on in life also has a profound influence. The risk of atopy is inversely correlated to the rate of positive tuberculin response. Children from large families and children placed in nurseries during infancy are less prone to allergies than children from small families who stayed at home. Farmer's children who are exposed to increased levels of endotoxins are only 50% as likely to develop allergic diseases than their neighbours from non-farming families. On the other hand, exposure to indoor allergens during early life increases the risk of allergy. The increase in time spent indoors and the use of central air condition/heating with corresponding decrease in fresh air circulation is probably partly responsible for the increase in atopy. Clinical trials in reducing indoor allergen exposure during early life are ongoing at present.
Food Safety – How to Reduce Risk?
Yuk-yin HO
The Hong Kong Society of Community Medicine

Introduction
Food is essential to sustain life but it is also a source of health hazards. Food hazards in food can cause acute food poisoning, allergic reaction, as well as long term health effects such as carcinogenicity. To improve food safety, tripartite collaboration of the government, trade and consumers is of fundamental importance.

Methods
Risk assessments, covering microbiological and chemical hazards, were conducted on a range of food items, namely sushi/sashimi, sandwiches, mooncakes, Chinese New Year food and foods contaminated with aflatoxins. The assessments were performed based on results of routine food surveillance programme carried out by the food authority from 1996 to 2000.

Results
With respect to microbiological risks, there was a steady improvement in hygienic quality. Of the three high-risk food items studied, pathogens were isolated in a small number of samples, ranging from 0.3% in sushi/sashimi to 3.7% in snowy mooncake. With respect to chemical risks, prohibited colouring matter and non-permitted preservatives were detected in 2.8% and 4.0% of the samples respectively. Aflatoxins were detected in 7.6% of food samples examined. The levels of aflatoxins ranged from 0.2 g/kg in vegetable oil to 1.45 g/kg in peanuts and peanut products.

Conclusion
Although the studies suggested that the risks posed by the hazards identified were small, preventive measures should be strengthened to further reduce the risks. The food trade is advised to adhere to Good Manufacturing Practice and to observe specific legal limits. The consumers are reminded of the importance of a balanced diet and to take appropriate hygienic measures to reduce microbiological risk. Individuals of vulnerable groups should avoid exposing to food hazards that they are susceptible to.

Pest Control – Dengue Vector Control – A Lifestyle Issue
Ming-chi YUEN
The Hong Kong Society of Community Medicine

Background
Dengue fever endangers the health of people especially those living in tropical and subtropical regions. Aedes albopictus, which is one of the commonly found mosquitoes in Hong Kong, is one of the vectors for this disease in many places including Hawaii, the Philippines and part of China. With the breeding of Aedes albopictus in Hong Kong and the large number of visitors traveling between Hong Kong and other areas, control of the mosquito is important for preventing the introduction and local transmission of dengue fever.

Method
Study on distribution of the mosquito has to be carried out for instituting effective control on the insect. Oviposition trap has been used for attracting aedes mosquitoes to lay eggs so as to detect the presence of the vector. The traps were set in 34 areas throughout Hong Kong. The survey was carried out in 3 phases (Phase I (January to April), Phase II (May to August) and Phase III (September to December)) with the same area surveyed once in each phase. The percentage of oviposition trap with breeding of the vector is recorded as the "Ovitrap Index". The Ovitrap Indices indicates the extensiveness of the breeding of the vector in an area.

Result
Breeding of Aedes albopictus had been detected in the 34 areas surveyed. The average Ovitrap Indices obtained from the 34 areas in Phase I, II and III of the survey were 6.2%, 34.2% and 11.1% respectively. The monthly average Ovitrap Indices obtained from these areas indicated the breeding of the vector began in March 2000. The extensiveness of the breeding reached the peak in June (monthly average Ovitrap Index was 48.6%) and then declined in the second half of the year. The monthly average Ovitrap Indices obtained in July, August and September were below 40.0% and those obtained in October, November and December were below 20.0%.

Conclusion
Aedes albopictus distributes widely in Hong Kong. A seasonal fluctuation in the extensiveness of the breeding of the mosquito had been observed. Improper disposal of small containers especially empty soft drink cans and lunch boxes as well as disused tyres was found to be not uncommon in the territory. This creates ubiquitous breeding places for the mosquito. Proper disposal of containers is important to controlling the breeding of the mosquito.

Mobile Phone and Brain Tumour
Yiu-wah FAN
The Hong Kong Neurosurgical Society

The use of mobile phone and development of tumour has been a topic of interest for the public as well as
physicians. We examined the biophysics of cellular phone and reviewed the evidence in the literature (including experimental animal studies and human epidemiological studies) related to the topic. We found no evidence to support a causal relationship between the use of mobile phone and development of brain tumour. A large scale population studies is required to address the problem.

Healthy Sex
Bill T. H. WONG
Hong Kong Urological Association

Before 1970, sexual dysfunction was thought to be caused almost entirely by psychological abnormalities. Patients with sexual problems were reluctant to seek medical advice. The management of patients with sexual dysfunction has since undergone enormous change. With the advent of penile implant surgery in late 1970's, intracorporeal injection of vasoactive agents in 1980's, transurethral medication in 1995, and oral medication in late 1990's, the multitude of treatment options has resulted in a significant increase in patients seeking medical advice.

The effect of the natural process of ageing on sexuality, the medical conditions that are frequently associated with ageing, as well as the effect of medications for these conditions, impair sexual performance. As life expectancy increases, it is natural for couples to express interest in maintaining an active sexual life. There has also been increasing openness in discussing sexual dysfunction over the past few years. Thus more and more patients volunteer to their family physicians or attending specialists their sexual concerns.

Younger couples can also have sexual problems. The Massachusetts Male Ageing Study estimates that 52% of men between 40 and 70 years of age have some degree of erectile dysfunction. Moreover, patients with other medical problems – for example, post myocardial infarction, post cancer surgery with a new stoma, low back pain, or even post spinal cord injury – would in the past result in cessation of sexual life. Nowadays, with advice on lifestyle readjustments, proper counselling and education of patients and their partners, all can be rehabilitated to make the most of their capabilities, to benefit from a healthy sexual relationship.

Primary care physicians can play a role in the care of patients with sexual disorders. When patients' problems are complex or multifactorial – psychogenic, vasculogenic, neurogenic, endocrine, etc. – they will benefit from a multidisciplinary approach from a team consisting of urologist, medical endocrinologist, sex therapist and nurse specialist. With coordinated patient's goal-directed management, patients can receive a comprehensive range of psychological, medical and/or surgical modalities of treatment and rehabilitation. This should be the way forward in managing sexual dysfunction, with the ultimate aim that all men and women can regain this vital element of human function, and enhance quality of life through healthy sex.

Promotion of Elderly Health
Kin-sang Ho
The Hong Kong Society of Community Medicine

In Hong Kong, we are facing an increasing population of elderly. By 2021, we shall have 15.7% of the total population of people age 65 and older. In a household survey coordinated by the Census and Statistics Department in 1999, about half of the elderly survey reported having one or more chronic diseases requiring long term follow-up. The leading causes of death in Hong Kong among those aged 65 and above (1998) are malignant neoplasm, heart disease, pneumonia, cerebral vascular disease and the major causes of disability among the elderly are stroke, dementia and fracture (Woo, Ho et al. 1998).

Most of these diseases or health problems are preventable through a comprehensive health assessment program specially catered for the elderly population together with health education and advice, life style modification and therapeutic intervention by the primary care team.

The Elderly Health Services (EHS) of the Department of Health (DH) was established with the mission to enhance primary health care for the elderly, improve their self-care ability, encourage healthy living and strengthen carer support so as to minimize illness and disability. The Chief Executive announced in his 1997 Policy Address the establishment of 18 Elderly Health Centres (EHC) and 18 Visiting Health Team (VHT) in accordance with the 18 districts.

The EHC provide comprehensive preventive, promotive and curative services to enrollees using the family medicine approach. The health assessment program not only screen for physical problems but also psychosocial problems and health risk factors. Great emphasis will be paid on health education, risk factor modifications and improving social function of the elderly.

With only 18 EHC, the number of elderly that can be enrolled is finite. Indeed, it is not the intention of DH to serve the entire elderly population. All primary care physicians can provide a similar type of promotive and preventive services for their elderly clients.
Opportunistic screening for diseases like hypertension, diabetes mellitus and cancer of cervix, and identification of risks factors like obesity, underweight osteoporosis and functional impairment can be offered. Screening tools like the Geriatric Depression Scale can be used for detect early signs of depression and simple “up and go” test can be used to detect instability and appropriate advice being given for fall prevention.

In essence, primary care physician is often the most influential person to offer counselling to the elderly through their long established doctor-patient relationship. We look forward to have their partnership in promoting health ageing for our elderly.

Genetic Basis of Low Back Pain
Kenneth M. C. CHEUNG
Hong Kong Orthopaedic Association

Disc degeneration has traditionally been thought to be related to age, injury and environmental risk factors, such as occupation and smoking. Histologically, it is manifested by a marked loss of aggrecan within the intervertebral disc with an associated loss of water content, resulting in a "black disc" on MRI. The molecular mechanisms causing disc degeneration is poorly understood.

Apart from environmental factors, recent evidence in twins suggests that degenerative disc disease (DDD) can be explained by genetic influences. Moreover aggrecan and specific vitamin D receptor gene polymorphisms have been associated with DDD. These observations tie in with the recent findings of an association between mutations in the collagen IX genes (COL9A2 and COL9A3) and patients with sciatica in Finland. In this Finnish study, the incidence of mutations in the collagen type IX (A2) gene was 4% and that of the collagen type IX (A3) gene was 24%. The same collagen type IX (A2) gene mutation has also been found in 1.2% of Germans with prolapsed intervertebral discs. As this collagen type IX (A2) gene is not found in any of the controls, this gene mutation is likely a causative one. We have also been performing a large-scale mutation screen on patients with low back pain and DDD using a candidate gene approach in Hong Kong Chinese subjects. Candidate genes, such as those encoding molecules important for matrix structure and turnover in the disc (collagen IX [COL9A1, COL9A2, COL9A3] and aggrecan), and regulatory molecules (e.g. Vitamin D receptor) are being systematically screened for mutations.

This presentation will review some of the scientific data on this issue, and discuss the possible genetics of degenerative disc disease.