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CHRONIC DISEASE

Chair: Dr. Judith Mackay, China

Plenary IX DEVELOPMENTS IN THE EPIDEMIOLOGY OF AGEING

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The ageing of the population is unprecedented in human history and still continuing. Average life expectancy has doubled in most human populations over past 20th century. The number of people aged 60 years and over in the UK is projected to increase from 12 million (20% of the population) in 2001 to 18 million in 2031 (30% of the population).

The societal consequences are substantial. Issues include employment, for example, duration of active working life and duration of post retirement years, education, taxation and savings, pensions, and social structures. Health in an older population is a major issue, as this will influence the ability of older people to continue making active contributions as well as the amount and duration of dependency and need for long term care at the end of life.

The risk of disability and ill health tends to increase with increasing age. By age 75 or so about half the population have some limitation in activity and about a fifth are unable to carry out some major activity. Much current debate concerns how best to treat, support, and care for, the projected great increase in persons with impairments, disability and handicap resulting from the ageing of the population. These numbers are projected to increase two to threefold over the next few decades. However, such morbidity projections are highly sensitive to small changes in incidence and prevalence of disability.

Large international variations and secular trends indicate a large proportion of disability associated with ageing is potentially preventable or at least postponeable and research indicates that modifiable environmental factors, particular lifestyle factors such as diet, physical activity and smoking and infection may play a major role. A central challenge must be how we ensure optimal physical and psychological functioning at older ages in as many people as possible and identify policies that help maintain health and independence in an ageing population.

REFERENCES

1. **Khaw KT.** Healthy ageing. *BMJ* 1997;**315**:1090–6.
2. **Khaw KT.** How many, how old, how soon? *BMJ* 1999;**317**:1350–2.
3. **Khaw KT,** Wareham N, Bingham S, *et al*. Combined impact of health behaviours and mortality in men and women: the EPIC-Norfolk prospective population study. *PLoS Med* 2008;**5**:e12.
4. http://www.epic-norfolk.org.uk.

Plenary XI EPIDEMIOLOGY AND THE CONTROL OF DISEASE IN CHINA, WITH EMPHASIS ON THE CHINESE BIOBANK (KSCDC) PROJECT

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As many other developing countries, China now is facing a double burden of disease as a result of epidemiological transition and Non-communicable disease (NCD) will be a major factor (challenge) which caused quality decline of Chinese population health and growth of economic burden in healthcare. In the era of evidence-based medicine and decision making today, as a developing country, China is lack of local scientific evidence. It will affect the effectiveness of NCD prevention and control.

In such circumstances and on the basis of decade's cooperation and trust with the University of Oxford, we have started China's biobank study Kadoorie Study of Chronic Disease in China in 2004. Kadoorie Study of Chronic Disease in China, an international prospective project, aims to establish the basis of blood-based health database, from the genetic, environmental and lifestyle aspects to deeply study and understand causes, risk factors, pathogenesis, prevalence patterns and trends of major chronic diseases in China (such as stroke, coronary heart disease, cancer, diabetes, hypertension, etc) which endanger health of Chinese population. This study with duration of 15–20 years will also provide scientific evidence for strategy planning of NCD prevention and control, development of new treatment and intervention approach. A total of about 515 000 adults aged 30–79 have been recruited from the general population in 10 geographically defined regions (five rural and five urban) of China, with quite different disease profiles and quite different risk exposures, with extensive data collection by questionnaire, physical measurement and blood sample collection and storage. It is a multi-factor, multi-disease, multi-disciplinary large-scale chronic disease epidemiological study on causes, and is also one of the largest long-term blood-based population cohort studies ever conducted in the world. It is worth mentioning that all gene specimens are kept in China and all associated intellectual property rights are owned by China, which breaks new ground for Chinese and foreign international cooperation.

In this presentation, as a principle investigator of this study in China, I will introduce study design, baseline description and main results of this study as far as now for your information.