

## **The 1,343rd Meeting of the Brighton and Sussex Medico-Chirurgical Society took place on 7th April 2016 in the Audrey Emerton Building:**

Melanie Newport  
Professor in Infectious Diseases and Global Health/Brighton and Sussex  
Medical School.

The talk started with a brief highlight of her medical career with her GP's kindness being her main influence in becoming a doctor. Prof Melanie was privileged to start the elective programme for BSMS students to broaden their experience of other health care systems.

What is Global Health? Understanding the social, political, economic and cultural determinants of health and healthcare. This social discrepancy also includes local geography with a 7 year life expectancy difference between affluent parts of Brighton itself.

Measuring Global Health is a complex issue which could include life expectancy, disability life years, quality adjusted life years and infant and child mortality. Data collection is difficult and data quality is variable but is essential to quantify the problem.

90 % of global burden of disease is in the developing countries where only 10% of health care funds were spent. Globally 35% of risk factors are due to malnutrition, poor water/sanitation and hygiene. Unsafe sex and alcohol account for 7%. In contrast only alcohol accounts for more ill health (9%) with rest of the risks factors in the developed world.

Unfortunately 25% of the total burden of global ill health is in children. Two thirds of these children die within the first 48hours from preventable diseases/care. Mental health accounts for 10.5% of global disease but is a 'neglected disease' with depression accounting for 4% of the total and is on the increase. Intentional and unintentional injuries (road traffic accidents), is a significant contributor with 10% mortality.

The 20<sup>th</sup> century health revolution was due to improved sanitation, nutrition, housing and education (particularly of women) along with drug development and vaccines. However the 21<sup>st</sup> century health revolution is due to the Human Genome Project finished in 2003, shift from hypothesis driven to discovery driven research, personalized medicine and the challenge to capitalize on the potential to improve human health and well-being. Unfortunately the health revolution is not global with diarrhea and pneumonia being a major cause of infant mortality. Lack of health care workers in under developed countries compounds the problem. WHO estimates the need of at least another 4 million of Health care workers to deliver health care globally.

The ten Millennium Development Goals which were due to be delivered by 2015 have not been achieved. Four of these are health related:

- Childhood under 5 mortality rates
- Maternal health as many as 350,000 die annually from preventable complications during pregnancy and childbirth.

Prof Newport highlighted the collaborative research between Brighton medical school and Africa. This is important as most research is targeting Caucasian populations and might not apply to the African population.

Neglected medical diseases account for as much as malaria and tuberculosis but have much less research funds. BSMS has led in genetic research on Podoconiosis, a foot condition in the tropics with collaboration with Ethiopian scientists.

Environment and climate change again affect developing countries disproportionately. Emerging infectious diseases could be due to close human/animal cramped living conditions. Reemerging diseases such as Cholera can affect war/refugee populations. Another area of BSMS research is antimicrobial resistance affecting diseases such as malaria,

In 2006, the Brighton Lusaka Health Link was established with this University teaching hospital. The aim is to provide educational and clinical support for health care workers in Lusaka. The benefit is mutual with Brighton staff broadening their experience with short visits being organized for teaching projects. Examples of collaborative projects include an HIV nurses education project to train the trainers, develop the nurses' role and motivate them so they can make a difference.