NUTRITION & HEALTHY EATING

SUBJECT OVERVIEW: CONTENT

- Introduction to nutrition
- Ways to evaluate nutritional status
- Methods of dietary assessment
- Current nutrition policies, systems and guidelines
- Food sources and role of micronutrients and macronutrients in the aetiology of chronic diseases, such as obesity, cardiovascular disease, diabetes and cancer
- Nutrition requirements across the various stages of the lifecycle
- Eating patterns of vulnerable groups at risk of food insecurity
- Principles in community and public health nutrition
- Interpretation of food labels, nutrition information panels and nutrition claims

WEEK 10
PRINCIPLES IN COMMUNITY AND PUBLIC HEALTH NUTRITION

PUBLIC HEALTH

"The art and science of preventing disease, prolonging life and promoting health through the organised efforts of society"
Acheson, 1988; World Health Organisation

PUBLIC HEALTH ACTIVITY IN AUSTRALIA

- 8 core categories: *focus on bold areas only*
  1. Communicable disease control
     - HIV/AIDS, hepatitis C, sexually transmitted infections, needle and syringe programs and other communicable disease control.
  2. **Selected health promotion**
     - healthy lifestyle and a healthy social environment, and health promotion activities that address health risk factors such as sun exposure, poor nutrition and physical inactivity > promotes physical activity and nutrition
  3. Organised immunisation
     - immunisation clinics, school immunisation programs, immunisation education, public awareness, immunisation databases and information systems.
  4. Environmental health
     - health protection education (for example safe chemical storage and water pollutants), expert advice on specific issues, development of standards, risk management and public health aspects of environmental health protection.
  5. **Food standards and hygiene**
     - development, review and implementation of food standards, regulations and legislation, as well as the testing of food by regulatory agencies.
  6. Screening programs:
     - breast cancer screening, cervical screening, and bowel cancer screening programs.
  7. Prevention of hazardous and harmful drug use:
     - reduce and prevent the overuse or abuse of alcohol, tobacco, illicit and other drugs of dependence.
  8. **Public health research**

PUBLIC HEALTH NUTRITION

"The promotion and maintenance of nutrition-related health and wellbeing of populations through the organised efforts and informed choices of society"
The Barcelona Declaration, 2006

"The art and science of promoting population health status via sustainable and equitable improvements in the food and nutrition system. Based upon public health principles, it is a set of

comprehensive and collaborative activities, ecological in perspective and intersectoral in scope – including environmental, educational, economic, technical and legislative measures."

Hughes and Somerset, 1997

WHY DO WE NEED PUBLIC HEALTH NUTRITION?

- To improve the health and well-being of the population (helps reduce chronic diseases)
- To reduce the prevalence of nutrition-related chronic disease
- To improve nutrition-related health outcomes of vulnerable groups
    - e.g. geographically and socially disadvantages populations; 'Close the Gap' for indigenous communities
- Poor quality diets and nutrition are associated with: (directly relates to public health nutrition - decreasing the risk of diseases based on poor nutrition)
    - Obesity
    - Cardiovascular disease – CHD and stroke
    - Type 2 diabetes
    - Some cancers
    - Dental caries
    - Osteoporosis
    - Dementia
- Whereas, good nutrition might lower the global burden of disease.
    - For cardiovascular disease disability adjusted life years (DALYs):
        - 42% due to poor fruit and vegetable intake
            - Increasing intake can decrease risk greatly by 42%
        - 22% due to diets low in seafood and omega 3 fatty acids
        - 17% due to diets high in sodium (in conjunction with potassium)
        - 9% due to diets high in trans fats
        - 2% due to diet high in sugar sweetened beverages (increase in triglycerides > increases risk of CVD)
- Vegetables Case Study:
    - Average Australian only eats 2.3 serves of vegetables per day (recommended amount is 5 serves)
        - Only 4% of Australians meet 5 a day recommendation
    - 1.4% of the total burden of disease for Australia could be attributed to low consumption of vegetables = $1.4 billion in total health expenditure
    - If consumption of vegetables in Australia were ↑ 10% = ↓ $99.9 million government health expenditure
        - The economic burden of these diseases would be decreased if consumption of vegetables were increased by 10%

PUBLIC HEALTH NUTRITION ACTIVITIES

- Surveillance or monitoring food and nutrition situations of populations
    - Surveys sent to households based on nutritious foods being consumed to understand the diet of individuals and find correlation between results, identifying the diseases that are re-occurring
- Nutrition-related disease prevention
    - Nutritional education given, assistance by organisations, social media has the ability to reach out to the general young adult population and spreading policies (changing food supply and choices available)
- Health promotion and education e.g. via social marketing for greater reach to the whole population

- Policies and legislations – around food supply, choice, access, consumption
- Research
- Public nutrition health activities are carried out by the Australian Government – national, state and local, as well as non-government agencies (e.g. Cancer Council), and private health professionals. Often, they are integrated with community nutrition efforts

SOCIAL MARKETING CAMPAIGNS TARGETING OBESITY

Part 1: Measure Up

2008-2010

- Aim: raise awareness of why behavioural change is necessary, in relation to how positive lifestyle changes can a longer, healthier, better quality life with a lower risk of chronic illness
- Target audience: men and women aged 25-50 years who have children; and all men and women aged 45-65 years
- Campaign highlighted link between increased waist circumference (94cm for men and 80cm for women) and risk of chronic disease (focused on waist circumference > better than BMI in measuring risk of diseases but is invasive hence BMI is preferred even though its' not reliable)
- Outcomes:
    - Increased knowledge and personal relevance of the link between waist circumference and chronic disease and waist measuring behaviour (awareness of the relevance and meaning of numbers)
    - No significant changes in reported fruit and vegetable intake nor in physical activity (aim was not achieved successfully)

Part 2: Swap It, Don't Stop It

2011-2013 (not enough funding hence program did not last)

- Aim: education on **how** to make small lifestyle changes to improve health
- Target audience: men and women aged 25-50 years who have children; and all men and women aged 45-65 years
- Key messages:
    - Change is easier than you think
    - Small changes can make a big difference
    - Small changes add up
    - You just have to swap some things around
    - You don't have to give up everything you love
- Examples:
    - Swap big for small
    - Swap often for sometimes
    - Swap sitting for moving
    - Swap watching for playing
- Outcomes:
    - Small number of positive changes in awareness, attitudes and behaviours relating to health lifestyles and chronic diseases as the campaign was straightforward especially for individuals with low literacy rates
    - Some individuals had taken action in line with the campaign's 'how to' messages
        - May have been due to minimal social media awareness
        - No significant changes however more positive behaviours were observed in terms of nutrition intake and physical activity
    - Prompted 14% of the target group to 'be a swapper' and adopt healthier living practices however the campaign as not as successful in terms of the whole population