

Week 7

Monday, September 5, 2016

Behavioural determinants of health

Lecture slides

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Health behaviours

- Some behavioural determinants of health have positive effects and others have negative effects on health.
- Preventative health behaviours are actions taken by a person to maintain, attain, or regain good health and to prevent illness. Examples include physical activity, sun protection and vaccinations.
- Behavioural risk factors are behaviours that increase the likelihood of experiencing ill health. Examples include tobacco use, unhealthy diet and alcohol.
- Influences > behaviour > health outcome

History of evidence

- 1920; Tobacco smoking - linked to health
- 1970; Tobacco smoking - guidelines and laws
- 2000; Tobacco smoking - changes in trends
- 1950; Physical activity - linked to health
- 1990; Physical activity - guidelines
- 2005; Sedentary behaviour - linked to health

Tobacco smoking

- Smoking is linked to cancers, cardiovascular disease, obesity, stroke and respiratory conditions.
- The prevalence of smoking was 22% in 2001.
- Thirteen years later there are 16% who smoke daily.
- 50-year cohort study showed that 50% of all continuing smokers are dead by age 70.
- Smoking cessation reduces risk of death; it is never too late to quit.
- Many prospective cohort studies.
- Newer areas of research include health outcomes of passive smoking, infant outcomes for smoking during pregnancy and vulnerable groups.

Dietary behaviours

- Dietary factors: excess total and saturated fat, fruit and vegetables, excess sodium, calcium and vitamin D, red meat, energy imbalance, and excess sugar.
- Respective health outcomes: heart disease, some cancers, stroke, osteoporosis, anaemia, overweight, obesity and oral health.
- In Australia, 92% did not eat 5 serves of vegetables and 52% did not eat two serves of fruit.
- In Queensland, 6% of children and 9% of adults eat recommended vegetables serves.
- Plethora of descriptive and experimental evidence.
- Now focusing on evaluating specific combinations of macronutrients in diets.
- The results of a cohort study conducted over eight years showed that a lower cancer risk was found among individuals with a greater adherence to a Mediterranean diet.

Physical activity

- Dose-response relationship with health.
- Health benefits include the reduction of cardiovascular disease, diabetes, osteoporosis, low back pain, arthritis, cancer and obesity; and the improvements of mental health, sleep quality, functional capacity and quality of life.
- 2007-08; 41% of persons aged 15 or over undertook sufficient physical activity to confer a health benefit.
- 2011-12; 43% of adults were sufficiently active to meet the recommended guidelines.

Sedentary behaviours

- Different activities that involve sitting and low levels of energy expenditure.

- Includes sitting during commuting, in the workplace, domestic environment and during leisure time.
- Transport, domestic and work used to be a lot more active.
- Health outcomes include mortality, cardiovascular disease, cancer, diabetes, metabolic syndrome, weight gain, abnormal glucose metabolism and other biomarkers of cardio-metabolic health.
- These behaviours have been detrimentally associated with health independent of leisure-time physical activity.
- Accumulation of studies in this field.
- Breaking up sedentary time by frequently transitioning from sitting to standing has beneficial associations with health outcomes.
- There have been limited longitudinal and experimental studies conducted in this field.

Prioritisation of efforts

- Burden of disease terms:
 - Disability adjusted life years (DALYs)
 - Years of life lost (YLL)
 - Years lost due to disability (YLD)
- One DALY is one lost year of healthy life. $DALY = YLL + YLD$.
- Nine national health priority areas: arthritis, asthma, cancer, cardiovascular disease, diabetes, injury prevention and control, mental health, obesity and dementia.
- They all relate to the behavioural determinants.
- National Chronic Disease Strategy includes action areas related to nutrition, physical activity and others.
- Strategic Directions for Chronic Disease Prevention 2008-2011 aims to increase the proportion of the Queensland population to undertake healthy behaviours.
- Lots of other health behaviours like sun safety behaviours, breastfeeding, illicit drug taking, safe sex, hygiene behaviours, safe driving behaviours and binge eating.