Week 3 Notes

Types of harms
- Medical:
  - Organ damage, Neurotoxicity, Infections, Fetal exposure, Dependence, Injuries
- Social:
  - Relationships, Low education, Violence, Accidents, Criminality, Burden on health
  - Damaged relationships
  - One punch fatalities
- system/resources
- Economic:
  - Poor occupational attainment, Financial hardship, Poverty, Cost to employers, Homelessness,
  - Cost of healthcare

Burden of disease
- World Health Organisation(WHO):
  - U.N. agency for public health
  - Strongly linked to UNODC
  - Estimate the burden of disease produced by addictive compounds
- Estimation is based upon 3 main sources:
  - Prevalence & exposure to substances
  - Proportion of "problem users" is estimated
  - Disease categories are identified which have been demonstrated to be causally linked to use of the substance through epidemiological & experimental studies.
    - e.g. Alcohol: fetal alcohol syndrome, various cancers, liver cirrhosis, Korsakoff's Syndrome, diabetes, stroke, heart disease, road traffic accidents, violence (Rehmet al. 2009, The Lancet, 373, 2223).
- WHO uses two metrics when reporting on the burden of disease:
  1.Number (or percentage) of deaths attributable to the substance.
  2.Disability-adjusted life years (DALYs)
  - The sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability.
- Deaths: tobacco is 2nd in 2004 & alcohol is 8th
  - Illicit drugs do not make this list
- DALYs: alcohol is 3rd, tobacco is ranked 6th& illicit drugs are ranked 18th.
- Collectively, substance use (alcohol + tobacco + illicit drugs) is by far the leading cause of the global burden of disease compared to any other single category.

Harms to users
- Nutt et al. (2007): experts rated harm potential of various substances
  - 9 parameters, 3 types of harms (see table)
  - 4 point scale:
    - 0= no risk -3= extreme
- Scores from two independent expert groups were strongly correlated indicating broad consensus amongst experts
- No significant correlation between these harm rankings &the UK criminal classification scheme

Different systems of harm estimation
- Two systems, different conclusions. Why?
  - WHO's conclusions reflect the absolute prevalence of different drugs within the entire population
  - Nutt's conclusions reflect harms incurred by the drug using sub-population

- If at comparable doses, some illicit drugs are truly more harmful than legal drugs then increasing the prevalence of illicit drugs (via decriminalisation or legalisation) may substantially increase the prevalence of
use of these illicit substances & thus global burden of disease indexed by the WHO's deaths and DALYs
metrics.
- Decriminalisation or legalisation may protect the individual & society from harms of substance use
- Drug law reform debate

Poorer educational attainment
- Adolescent onset of substance use
  - Clear evidence of an association between drug use (especially early cannabis initiation) & poorer educational attainment (Macleod et al. 2004, The Lancet; Lynskey& Hall Addiction, 95,).
    - What drives this association is not clear
- Drug use may cause poorer educational attainment by:
  - Producing a behavioural disorder
  - De-motivation
  - Adoption of countercultural values
  - Occupying study time
- Drug use leads to poor education
- Poorer education attainment may cause drug use because:
  - Individuals who are failing at school have less incentive to concentrate on their studies and so allocate more time to leisure.
  - Selling drugs may be an attractive alternatives to a low level job
    - Exposure leads to use.
- Drug use & poorer educational attainment may be reciprocally causal in that they promote each other.