1.0 Introduction

Substance misuse features in all aspects of modern society and almost everyone knows of someone who has been affected, either as a direct or indirect consequence of alcohol or drugs. Public health is about helping people to stay healthy, and protecting them from threats to their health. It is important that everyone is able to make healthier choices, regardless of their circumstances, and to minimise the risk and impact of illness and this includes substance misuse (tobacco, alcohol and drugs).

The Marmot review (2011) into health inequalities recommends that action on health inequalities requires action across all the social determinants of health, including education, occupation, income, home and community.

The UK has higher rates of alcohol and illicit substance misuse in comparison to Europe, the reasons for which are poorly understood. Public health interventions for addictions range from lobbying for changes to legislation governing the control and supply of substances and interventions aiming to tackle causes of social inequalities and risks of addiction, to community-based interventions offering risk minimisation services. Public health interventions have long focused on the control and use of tobacco and alcohol, but also increasingly on illicit substance misuse. However since the late 1980's there was a public health imperative to control the spread of blood-borne viruses (BBVs) heightened by the emergence of HIV. The risk minimisation approach has also been dominant in recent years due to an emphasis on reducing crime and public disorders related to substance misuse. Health promotion messages have been used to target at risk groups and social marketing strategies used to profile communities to target services locally. There is an increasing emergence of clinicians and commissioners who wish to understand the cultural context of addiction in order to deliver more appropriate and specific services.

Between 2011 and 2012, an estimated 8.9% of adults used an illegal drug. For young people aged between 16 and 24, the figure was 19.3%. Although this is the lowest level of drug use since we started collecting figures in 1996, drug misuse continues to have a negative effect on the health, wellbeing and quality of life in too many people. It also drains public resources. For example, crimes related to drugs cost the UK £13.3 billion every year (Public Health England (PHE), 2013). Smoking causes more preventable deaths than anything else – nearly 100,000 in the UK during 2012 (ASH, 2014). There is also an impact on smokers' families: each year, UK hospitals see around 9,500 admissions of children with illnesses caused by second-hand smoke.

LEARNING OUTCOMES

Medical students will gain knowledge in:

1. Understanding the theoretical principles underpinning public health (epidemiology, health promotion and health needs assessment).
2. Awareness of the importance of public health interventions in the control of supply and demand for alcohol, tobacco and illicit substances.
4. Understanding the legislative framework governing the role of classification of substances, legislation and licensing laws.
5. Understanding the role of clinicians in public health.
6. Awareness of the role of health professionals in advising policy makers on medical evidence.
7. Awareness of politicisation of drugs and alcohol.
8. Awareness of the role of the media in public health messages.

2.0 Context and definitions

2.1 WHO definition

Public health refers to all organized measures (whether public or private) to prevent disease, promote health, and prolong life among the population as a whole. Its activities aim to provide conditions in which people can be healthy and focus on entire populations, not on individual patients or diseases. Thus, public health is concerned with the total system and not only the eradication of a particular disease (WHO 2014) The three main public health functions are:
- The assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities
- The formulation of public policies designed to solve identified local and national health problems and priorities.
- To assure that all populations have access to appropriate and cost-effective care, including health promotion and disease prevention services.

2.2 US definition

Public health is defined as the science of protecting the safety and improving the health of communities through education, policy making and research for disease and injury prevention.
Public health involves the application of many different disciplines, which include Biology, Anthropology, Public policy, Mathematics, Engineering, Education, Psychology, Computer science, Sociology, Medicine, Business, and others.

The definition of public health is different for every person. Whether you like to crunch numbers, conduct laboratory or field research, formulate policy, or work directly with people to help improve their health, there is a place for you in the field of public health. Being a public health professional enables you to work around the world, address health problems of communities as a whole, and influence policies that affect the health of societies.

2.3 The UK Faculty of Public Health definition

This is described as the science and art of promoting and protecting health and well-being, preventing ill-health and prolonging life through the organised efforts of society.

The Faculty’s approach is that public health:

- is population based.
- emphasises collective responsibility for health, its protection and disease prevention.
- recognises the key role of the state, linked to a concern for the underlying socio-economic and wider determinants of health, as well as disease
- emphasises partnerships with all those who contribute to the health of the population.

Three key domains of public health practice

<table>
<thead>
<tr>
<th>Health Improvement</th>
<th>Inequalities, Education, Housing, Employment, Family/community, Lifestyles, Surveillance and monitoring of specific diseases and risk factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving services</td>
<td>Clinical effectiveness, Efficiency, Service planning, Audit and evaluation, Clinical governance, Equity</td>
</tr>
<tr>
<td>Health Protection</td>
<td>Infectious diseases, Chemicals and poisons, Radiation, Emergency response, Environmental health hazards</td>
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</tbody>
</table>

2.4 The nine key areas for public health practice

The Faculty’s core values are that public health practice should be equitable, empowering, effective, evidence-based, fair and inclusive. In light of these core values, and the three domains of public health practice, nine key areas for public health practice have been agreed.

The nine key areas are:

- Surveillance and assessment of the population’s health and well-being
- Assessing the evidence of effectiveness of health and healthcare interventions, programmes and services
- Policy and strategy development, and implementation
- Strategic leadership and collaborative working for health
- Health Improvement
- Health Protection
- Health and Social Service Quality
- Academic Public Health
- Public Health Intelligence

2.5 What do public health professionals do?

- Public health professionals perform one or more of these ten essential services
- Monitor the health status of a community to identify potential problems
- Diagnose and investigate health problems and hazards in the community
- Inform, educate, and empower people about health issues, particularly the underserved and those at risk
- Mobilize community partnerships to identify and solve health problems
- Develop policies and plans that support individual and community health efforts
- Enforce laws and regulations that protect health and ensure safety
- Link people to needed personal health services and ensure the provision of health care when otherwise unavailable
- Ensure a competent public health and personal health care workforce
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services
- Research new insights and innovative solutions to health problems

2.6 UK Government strategies

There is a range of Government strategies that focus on public health related to lifestyle issues including substance misuse, including the following 8 policies

1. Giving all children a healthy start in life
2. Creating a lasting legacy from the 2012 Olympic and Paralympic Games
3. Reducing drugs misuse and dependence
4. Reducing smoking
5. Reducing obesity and improving diet
6. Helping more people survive cancer
7. Planning for health emergencies
8. Reducing harmful drinking

The following three are of particular relevance to substance misuse (drugs, alcohol and tobacco)

2.6.1 Drug policy

It sets out the government’s approach to tackling drugs and addressing alcohol dependence, both of which are key causes of societal harm, including crime, family breakdown and poverty. These are helping people recover from drug dependence, preventing young people from becoming drug misusers, helping offenders who misuse drugs get treatment, providing information on what works best, restricting the supply of illegal drugs and a focus on recovery.

2.6.2 Alcohol policy
The Government’s alcohol strategy (2012) focusses on reducing harmful drinking, improving treatment for alcohol dependence, sharing responsibility with industry, making cheap alcohol less available, local action and stopping advertising appealing to young people

https://www.gov.uk/government/publications/alcohol-strategy

2.6.3 Tobacco control policy
The government wants to reduce the harm tobacco causes by stopping people taking up smoking and helping more people to quit


These case studies highlight some of the current issues and effectiveness strategies of public health that affect substance misuse.

Reducing the incidence of Hepatitis and HIV/AIDS – An example of effectiveness
The introduction of needle and syringe exchange schemes in the late 1980’s was a public health response to the rise of HIV/AIDS and other blood borne viruses to reduce the incidence of sharing and re-using of injecting equipment, which reduces the spread of HIV, hepatitis B and hepatitis C among people who inject drugs and the wider community.

Minimum pricing and alcohol advertising – an example of evidence not accepted by policy makers
Minimum pricing is favoured by most public health groups and bodies, given the link between price and consumption. However, the policy is seen as risky political territory given that around half of the public are thought to oppose it. Ending sports sponsorship by alcohol companies is favoured by many health groups largely due to the reach and influence sports advertising has on children and young people.

Tobacco control – an example of a new intervention where recent evidence which has initiated debate
Electronic cigarettes have helped almost nine out of ten smokers quit tobacco completely (Dawkins et al (2013), although it still remains controversial in the UK.
for the treatment of addiction to doctors licensed by the Home Office (and in Scotland, by the Scottish government).

4.0 Presentations

4.1 Special/Distinctive features

Public health and change
- Public health interventions are both proactive and reactive
- Proactive policies attempt to reduce substance misuse related harm prior to initiation, for example by classifying new substances as they are developed and therefore attempting to limit supply to the market
- Reactive policies aim to respond quickly to epidemics in substance misuse. For example, as new substances or diseases emerge educational campaigns respond to provide early advice to limit potential harms and appropriate interventions have been initiated (e.g. needle exchange services)

The emphasis for many years has been one of harm minimisation in reducing harms associated with substance use such as, Blood borne Virus (BBV), crime, and associated morbidity. However, some services are now adopting a recovery focussed model of treatment and management which promotes abstinence.

Many public health interventions have been shown to achieve health outcomes (e.g. smoke free hospitals) and save money.

More upstream interventions by public health, for example in collaboration with local government, may seek to improve access to educational or employment opportunities and other measures to reduce deprivation.

4.2 Barriers

- media and advertising messages promoting alcohol use
- health and social care practitioners insufficiently trained to address public health issues
- evidence-based policies / interventions are not always accepted by policy makers and not widely disseminated.

### Public health interventions and associated substances

<table>
<thead>
<tr>
<th></th>
<th>ALCOHOL</th>
<th>TOBACCO</th>
<th>OPiates/Opioids</th>
<th>SEDATIVE HYPNOTICS</th>
<th>CANNABIS</th>
<th>STIMULANT DRUGS</th>
<th>HALLUCINOGENS</th>
<th>VOLATILE SUBSTANCES</th>
<th>DESIGNER DRUGS</th>
<th>OVER THE COUNTER DRUGS</th>
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<tbody>
<tr>
<td>Legal framework- classification of illicit substances, misuse of Drugs Act, medicines Act, international policies and policing interventions around supply of drugs</td>
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<tr>
<td>Legal framework – taxation, licensing laws, legal age limits, advertising warnings, smoking bans</td>
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<td>Legal framework – driving legislation</td>
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<tr>
<td>Risk minimisation/Education/Prevention – government and charitable advertising campaigns: e.g. drink driving campaigns (‘known your limits’), BHF anti-smoking adverts, packing labelling, smoking cessation advertising</td>
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<td>Risk minimisation – outreach, health and voluntary and other community based advice</td>
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<td>Prevention – alcohol, smoking and drug education in schools</td>
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<td>Prevention – government funded and voluntary advice services</td>
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<tr>
<td>Prevention – screening (Alcohol Use Disorders Identification test) and brief intervention or referral</td>
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<td>Prevention – health advice and brief intervention in primary care</td>
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5.0 Communication approaches
Public health interventions to address alcohol, tobacco and illicit substance related harm operate at 3 core levels, (individual, community and population) evidencing a holistic multi-pronged approach to tackling substance misuse. Public health interventions attempt to address problems across a range of agencies working in a partnership, including, health, social and criminal justice agencies, service users and carer groups, and other stakeholders. Social marketing is also a key strand to the communication of prevention and interventions messages.

Alcohol
Societal – Alcohol licensing laws, taxation, legal age for alcohol consumption, alcohol control zones, driving legislation
Risk minimisation – Education / prevention – government funded education campaigns (‘know your limits,’ drink driving at Christmas campaigns)
Screening and brief interventions or referral in primary care or secondary care.
http://www.alchohollearningcentre.org.uk/Topics/Browse/Brief Advice/

Tobacco
Societal: Tobacco licensing laws, taxation, legal age for tobacco consumption and enforcement with retail outlets, smoking in public places bans, tobacco advertising bans.
Risk minimisation – smoking cessation services – tiers 1, 2 and 3, national smoking cessation campaign
Education / prevention - government funded educational campaigns, health messages on cigarette packets, charity education campaigns (British Heart Foundation).
http://smokefree.nhs.uk/

Illicit substances
Licenseing of drugs see http://www.homeoffi ce.gov.uk/drugs/licensing
Regulation of UK medicines (see http://www.mhra.gov.uk/Howweregulate/Medicines/index.ht)
Risk minimisation: Needle exchange services, maintenance treatment to prevent wider public health problems associated with substance misuse (BBV spread, crime, impact on children)
Education / prevention: Government funded internet and telephone advice services (FRANK), drop in and advice services (government funded or charity), advice ‘at point of contact,’ e.g. nightclubs, ‘SOS’ buses in towns, drugs education in schools, youth services. (See http://www.talktofrank.com/)

Effectiveness
There are varied sources of evidence on the effectiveness of public health interventions. Better evidence exists around effective public health interventions in smoking than any other addiction. Societal level public health interventions have been shown to be effective in reducing smoking (e.g. taxation, and mass media effects) and are widely believed to have important benefits for alcohol (e.g. the drink driving campaigns, with drink driving now widely regarded as culturally unacceptable).
Risk minimisation approaches, in recent years, have been a focus of attention within public health, and are deemed to have been widely beneficial in limiting the spread of BBVs and reducing the impact on society of illicit drug use for example by maintaining opiate users in treatment and limiting crime associated with the use of illicit drugs. International policies controlling the supply of illicit substances are likely to have an important impact, but this is hard to quantify.

6.0 References and useful resources

November 2014