IRISH MEDICAL ORGANISATION
Ceardchumann Dochtúirí na hÉireann

IMO

Position Paper on Lifestyle and Chronic Disease

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IRISH MEDICAL ORGANISATION
Ceardchumann Dochtúirí na hÉireann

Mission Statement

The role of the IMO is to **represent** doctors

in Ireland and to **provide** them with all relevant services.

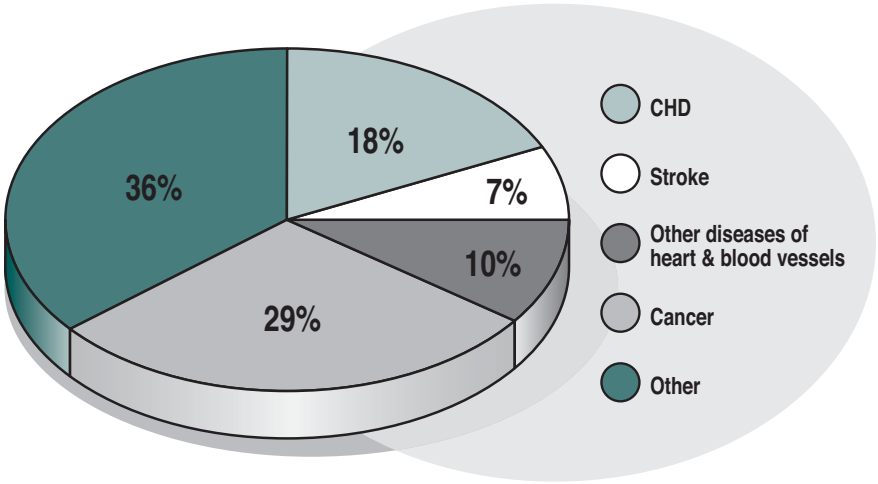
It is committed to the **development** of a caring,

efficient and effective Health Service.

Lifestyle and Chronic Disease

Chronic diseases such as cancer, cardiovascular disease, diabetes, mental health problems and asthma are a major cause of death and ill-health in Ireland and worldwide.[1] According to the World Health Organisation (WHO), chronic disease accounts for 86% of deaths in Europe.[2] In Ireland, cancer and cardiovascular disease are responsible for two-thirds of all deaths. Approximately 30% of individuals with cancer, cardiovascular disease or diabetes have major depression as a co-morbidity.[3] Certain lifestyle factors such as obesity, poor diet, physical inactivity and tobacco, alcohol and drug consumption are known to increase the risk of chronic disease. At least 80% of heart disease, stroke and type 2 diabetes as well as 40% of cancer could be prevented if certain major risk factors were eliminated.[4]

DEATH BY PRINCIPAL CAUSES (ALL AGES) 2006



Source: Central Statistics Office 2007

Chronic illness usually occurs in older people. Approximately three quarters of people over 75 years have at least one chronic condition and over a third of men over 60 years have two or more chronic diseases.[5] According to the Department of Health and Children, with Ireland's ageing population and if current disease trends continue, bed requirements will increase by 50-60% over the next 15 years.[6]

Members of the Irish Medical Organisation (IMO) are calling for the elaboration and implementation of an over-riding lifestyle policy for the prevention of chronic disease which facilitates and promotes healthy lifestyle choices among the general population.

Cancer

In 2005, 26,776 new cancers were registered by the National Cancer Registry Ireland (NCRI). The most common cancers were non-melanoma skin cancer (6,196 cases), cancer of the prostate (2,407 cases), breast cancer (2,379 cases) and colorectal cancer (2,184 cases). The number of new cases of invasive

1 Department of Health and Children (DOHC), 2008 *Tackling Chronic Disease: A Policy Framework for the Management of Chronic Diseases…p7*
2 World Health Organisation (WHO), 2005 *The Impact of Chronic Disease in Europe downloaded from* http://www.who.int/chp/chronic_disease_report/media/euro.pdf
3 DOHC, 2008 *Tackling Chronic Disease…p9*
4 DOHC, 2008 *Tackling Chronic Disease…p7* & WHO, 2005 *The Impact of Chronic Disease in Europe…*
5 DOHC, 2008 *Tackling Chronic Disease…p10*
6 DOHC, 2008 *Tackling Chronic Disease…p12*

cancer has been rising steadily by 2.7% since 1994. In 2004, 7,870 people died of cancer. Lung cancer was the most common cause of death in men (982 deaths) followed by colorectal (557) and prostate (547). In women breast cancer was the most common cause of death by cancer (663) followed by lung (400) and colorectal (400).[7]

The steady increase in cancer numbers is due to two factors:

- Ireland's ageing population – most cancers occur in the over 65 age-group (65% in men and 54% in women).
- An increase in underlying cancer rates – in women significant increases between 1994 and 2003 have been recorded in cancers of the liver (10.7%), kidney (3.5%), thyroid (2.9%), breast (2.8%) and lung (2.3%). In men significant increases have been recorded in cancer of the prostate (8.6%), liver (7.4%), testis (5.5%), kidney (4.3%) and melanoma (3.9%).[8]

The NCRI has predicted that by 2020 the number of new cancers will rise to 41,743, almost double the annual number in 1998-2002. Most extra cases (70%) will be due to continued demographic changes and the remainder due to continued increases in underlying cancer rates. The largest projected increases for both sexes are in cancers of the liver, kidney and in melanoma. For women increases in cancer of the breast and lung are expected to continue, while for men continued increases in cancer of the prostate and testis are also forecast.[9]

Known lifestyle risk factors that contribute to cancer include tobacco, alcohol, poor diet and physical inactivity.[10]

According to the American Cancer Society and Cancer Research UK, tobacco accounts for approximately 30% of cancer deaths. Smoking is the cause of lung cancer in 86-90% of cases and is also an established risk factor for cancers of the aero-digestive tract, pancreas, bladder, stomach, liver, kidney, cervix and certain forms of leukaemia.[11]

Alcohol contributes to 6% of cancer deaths in the UK. Long-term heavy consumption substantially increases the risk of cancer of the liver, bowel, rectum and colon. Combined with smoking, alcohol consumption is estimated to account for 75% of all upper aero-digestive cancers. Alcohol has also been linked to approximately 4% of breast cancers.[12]

In the UK and the US one quarter to one third of cancer deaths are linked to poor diet, physical inactivity, and carrying excess weight. Evidence shows a relationship between excess bodyweight and cancers of the endometrium, kidney, oesophagus and colon, and for breast cancer in post-menopausal women.[13]

Heart Disease and Stroke

Cardiovascular disease (CVD), including coronary heart disease, stroke and other diseases of the circulatory system, is the principal cause of death in Irish people. In 2006, 9,662 people died of CVD representing 36%

7 National Cancer Registry Ireland (NCRI) 2006, *Cancer in Ireland 1994-2005 a summary. p1*
8 National Cancer Registry 2006, *Trends in Irish cancer incidence 1994-2002, with projections to 2020. p2* http://www.ncri.ie/pubs/pubfiles/proj_2020.pdf
9 National Cancer Registry 2006, *Trends in Irish cancer incidence…p4*
10 American Cancer Society (ACS), 2008 *Cancer Prevention* downloaded from http://www.cancer.org/docroot/PED/ped_1.asp?sitearea=PED&level=1 and Cancer Research UK, 2005 *Cancer and Lifestyle* downloaded from http://info.cancerresearchuk.org/cancerstats/causes/lifestyle/
11 ACS 2008, *Cancer Prevention*… and Cancer Research UK 2005, *Cancer and Lifestyle*
12 Cancer Research UK 2005, *Cancer and Lifestyle…*
13 ACS, 2008 *Cancer Prevention*… and Cancer Research UK 2005, *Cancer and Lifestyle…*

of all deaths, higher than cancer which accounted for 29% of deaths.[14] Death rates from CVD have been decreasing steadily. Deaths from ischaemic heart disease fell 30.8% from 7,314 in 1997 to 5,064 in 2005 while deaths from stroke fell 25.8% from 2,733 in 1997 to 2,029 in 2005.[15]

The decline in mortality rates have been attributed to two factors.

- Improved medical and surgical treatments have increased the survival rates from heart disease and stroke.[16] In 2003, 71,224 people were discharged from hospital with a diagnosis of CVD of which 24,012 (33.7%) were discharged with coronary heart disease and 10,410 (14.6%) with stroke.[17] Primary care prescribing for cardiovascular conditions has increased two-to four-fold from 2000 to 2005. This has been accompanied by a similar increase in costs.[18]
- The reduction in population risk factors, mainly high cholesterol levels, high blood pressure and smoking have also contributed to the fall, however, these have been offset by increases in obesity, physical inactivity and diabetes.[19]

The Irish Heart Foundation fears the trend in mortality from CVD will be reversed if obesity is not tackled urgently.[20] According to the World Heart Federation excess fat affects blood pressure and blood lipid levels, and interferes with the ability to use insulin effectively, causing diabetes. A person who has diabetes is twice as likely as someone who does not, to develop cardiovascular disease.[21] A diet high in saturated fat and low in fruit and vegetables is estimated to cause about 31% of coronary heart disease and 11% of stroke worldwide, while physical inactivity increases the risk of heart disease and stroke by 50%.[22]

Smoking continues to contribute to CVD. Women who smoke are at a higher risk of heart attack than men who smoke. The risk of heart attack is doubled in a woman who smokes three to five cigarettes a day.[23] A man would have to smoke six to nine cigarettes a day to double his risk. Other factors that contribute to heart disease and stroke are high alcohol consumption and psychosocial factors such as low socio-economic status, low social support, and stress at work or in difficult family circumstances.[24]

Diabetes Mellitus

Exact figures on the prevalence of diabetes in Ireland are unavailable. The Institute of Public Health in Ireland estimated in 2005 that 67,063 adults (aged 20 years and over) in Northern Ireland (5.4%) and 141,063 adults in the Republic of Ireland (4.7%) had diabetes (diagnosed or undiagnosed).[25] The Diabetes Federation of Ireland believes the number of people in Ireland with type 2 diabetes to be as high as 200,000 and that a

14 Central Statistics Office (CSO) 2007
15 DOHC 2007, *Health in Ireland – Key Trends 2007. p10*
16 Health Service Executive (HSE) 2007, *Ireland take Heart - Audit of Progress on the Implementation of Building Healthier Hearts 1999 – 2005. p45*
17 HSE 2007, *Ireland take Heart…p32*
18 HSE 2007, *Ireland take Heart…p14*
19 HSE 2007, *Ireland take Heart…p45*
20 Irish Heart Foundation 2008, *Facts on Heart disease and stroke,* downloaded from http://www.irishheart.ie/iopen24/defaultarticle.php?cArticlePath=7_18
21 World Heart Federation (WHF) 2008, *Cardiovascular disease risk factors*, downloaded from http://www.world-heart-federation.org/cardiovascular-health/cardiovascular-disease-risk-factors/
22 WHO 2003, *The Atlas of Heart Disease and Stroke p25* downloaded from http://www.who.int/cardiovascular_diseases/en/cvd_atlas_03_risk_factors.pdf
23 WHF 2008, *Cardiovascular disease risk factor…*
24 Fourth Joint European Societies, Task Force on Cardiovascular Disease Prevention in Clinical Practice. 2007 *European guidelines on CVD prevention.* European Journal of Cardiovascular Prevention and Rehabilitation; 14 (Suppl 2): S1-113. www. escardio.org
25 The Institute of Public Health in Ireland 2006, *Making Diabetes Count: A systematic approach to estimating population prevalence on the island of Ireland in 2005 p9* www.inispho.org

further 100,000 people have high blood glucose levels and will only be diagnosed when they present with a complication of diabetes. This figure is expected to double by 2015 in line with current trends in obesity.[26]

Left untreated diabetes and the complications from diabetes are major causes of ill health and premature death.

- *Diabetic retinopathy* is an important cause of blindness. After 15 years of diabetes, approximately 2% of people become blind, and about 10% develop severe visual impairment.
- *Diabetic neuropathy* is damage to the nerves as a result of diabetes, and affects up to 50% of people with diabetes. Combined with reduced blood flow, neuropathy in the feet increases the chance of *foot ulcers* and eventual *limb amputation*.
- Diabetes is among the leading causes of *kidney failure*. 10-20% of people with diabetes die of kidney failure.
- Diabetes increases the risk of *heart disease* and *stroke*. 50% of people with diabetes die of *cardiovascular disease* (primarily heart disease and stroke).[27]

The cost of diabetes treatment increases as complications of the condition develop. Medical costs for a person with type 2 diabetes are on average 1.5 times greater than those of a person without diabetes. The presence of microvascular (eye and kidney) complications doubles the costs, macrovascular (cardiovascular) complications trebles the costs incurred, whilst the presence of both micro and macrovascular complications increases costs by more than 5 times.[28]

While the risk of type 1 diabetes is likely to be associated with hereditary or genetic factors, low physical activity levels, poor diet and excess body weight are known risk factors for type 2 diabetes. Up to 58% of type 2 diabetes can be attributed to excess body fat.[29] Obesity and diabetes are so intertwined that the US has coined a new phrase “diabesity”.[30]

Suicide and Mental Health Problems

In Ireland almost 500 deaths from suicide are registered annually and approximately 11,000 episodes of self-harm are treated in Irish hospitals. An unknown number of people suffering from depression are undiagnosed, but the HSE estimates up to a million people in Ireland or approximately one in four persons will develop suicidal thoughts, a feeling of hopelessness or poor mental health during their lifetime.[31]

While women are three to four times more likely to suffer from depression than men,[32] four times more men die from suicide than women. The highest rates of deliberate self-harm are among females aged 15-19 years while suicide rates are highest for males aged 20-29.[33]

While genetic factors can account for up to 40% of the risk of depression, there is evidence that stressful life events - such as bereavement, relationship problems, job loss, financial difficulties or illness - can lead to the onset of depression in one in twelve cases. Substance abuse and personality disorders also contribute to

26 Diabetes Federation of Ireland 2006, *The Way Forward 2006-2010: Strategy of the Diabetes Federation of Ireland p5*
27 WHO 2006 *Diabetes factsheet No 312*…downloaded from http://www.who.int/mediacentre/factsheets/fs312/en/index.html
28 Diabetes Federation of Ireland 2006, *The Way Forward 2006-2010…p8*
29 DOHC 2005, *Obesity: The Policy Challenges. The Report of the National Task Force on Obesity. p51*
30 Diabetes Federation of Ireland 2006, *The Way Forward 2006-2010…p6*
31 HSE 2007, *Mental Health in Ireland: Awareness and Attitudes* pp5-10
32 Aware leaflet 2008 *A Better Understanding of Depression* http://www.aware.ie/information.php
33 National Suicide Research Foundation (NSRF) 2005, *National Registry of Deliberate Self Harm – Annual Report 2005. pp13-15*

suicide, so also does alcohol consumption. Alcohol is estimated to be a determining factor in one in six suicides.[34]

In order to maintain good mental health and to cope with stressful life events, the HSE and mental health organisations recommend a healthy diet, exercise and adequate rest. Alcohol and recreational drugs can have a detrimental effect on mood and should be avoided particularly by individuals prone to mood disorder.[35]

Chronic Obstructive Pulmonary Disease and Asthma

Chronic obstructive pulmonary disease (COPD) and asthma accounted for 1,259 deaths in 2006[36] and 13,293 hospital admissions in 2004.[37]

COPD is a lung disease characterised by chronic obstruction of lung airflow that interferes with normal breathing and encompasses 'chronic bronchitis' and 'emphysema', terms which are no longer widely used. COPD is not simply a "smoker's cough" but an under-diagnosed, life-threatening lung disease.[38]

Exact figures for people suffering from COPD are unavailable, but COPD accounted for 8,256 hospital admissions in 2004.[39] The primary cause of COPD is tobacco smoke (including second-hand or passive exposure). Other factors that contribute to the disease include indoor and outdoor air pollution and occupational dusts and chemicals (vapours, irritants, and fumes).[40]

Asthma is a chronic disease characterised by recurrent attacks of breathlessness and wheezing, with relatively low mortality rates.[41] 470,000 people in Ireland have asthma. For the majority of people the condition is mild and has relatively little impact on their everyday lives. But approximately 6,300 suffer from severe asthma including disturbed sleep and attacks leading to debilitating breathlessness and limiting speech. 25,000 visits to A&E and 6,000-7,000 hospital admissions per year are asthma-related. 80-100 asthma-related deaths are recorded in Ireland annually, a figure which is predicted to increase by almost 20% over the next 10 years.[42]

The causes of asthma are not completely understood. Known asthma triggers are similar to the risk factors for COPD and include, outdoor and indoor allergens (pollen, pollution, dust mites, pet hair etc.), chemical irritants in the workplace and tobacco smoke.[43] 75% of people with asthma become wheezy in a smoky room. Medication is used to control asthma - relievers for those who suffer from mild asthma and preventers for those who have a moderate to severe asthma condition.[44]

In addition to medication, certain lifestyle choices can help to control asthma such as avoiding triggers

34 Walsh D 2008, *Suicide, attempted suicide and prevention in Ireland and elsewhere*. Health Research Board (HRB) Overview Series 7. Dublin: Health Research Board pp52-54.
35 Aware leaflet 2008, *Continuing your Recovery from Depression – A Guide to Staying Well* and HSE 2007, *Your Mental Health Information Booklet*
36 CSO 2008, Deaths from principal causes registered in the years 1998 to 2006 downloaded from http://www.cso.ie/statistics/principalcausesofdeath.htm
37 Irish Thoracic Society 2008, *Ireland Needs Healthier Airways and Lungs – the Evidence INHALE report 2nd Edition p.43*
38 WHO 2007, *Chronic obstructive pulmonary disease (COPD) Fact Sheet No 315* downloaded from http://www.who.int/mediacentre/factsheets/fs315/en/index.html
39Irish Thoracic Society 2008, *Ireland Needs Healthier Airways and Lungs…p43*
40 WHO 2007, *Chronic obstructive pulmonary disease (COPD) Fact Sheet No 315*
41 WHO 2007*, Asthma Fact Sheet No. 307* downloaded from http://www.who.int/mediacentre/factsheets/fs307/en/index.html
42 Asthma Society of Ireland 2007, *Severe Asthma in Ireland and Europe – A Patient's Perspective*.
43 WHO 2007*, Asthma Fact Sheet No. 307*
44 Asthma Society of Ireland 2008, *Take Control of your Asthma. pp16-17*

including tobacco smoke, eating a balanced diet and taking regular exercise. Losing weight combined with a more active lifestyle, can help to improve lung function. Food allergies and exercise can also trigger attacks; it is recommended that if certain foods such as cow's milk, eggs, fish, shellfish, yeast products, nuts, etc. trigger an attack they should be avoided[45] and if exercise triggers an attack, a reliever inhaler should be used immediately before warm up.[46]

Lifestyle Statistics

Chronic diseases and mental health problems are largely attributable to common lifestyle factors such as poor diet and physical inactivity (causing obesity), tobacco, alcohol and drug abuse. Alcohol and substance abuse also lead to accidental injury and death and other preventable diseases. Despite this, trends in obesity and alcohol and drug consumption continue to rise, though smoking rates have stabilised.

Chronic diseases and associated mortality are unevenly distributed across social groups, as are the underlying lifestyle factors that contribute to them.[47] 38% of those at risk of poverty and 47% of those living in consistent poverty report having a chronic illness compared to 23% of the general population.[48] Mortality rates from chronic diseases are three times higher in the lowest occupational classes than in the highest.[49] Rates of obesity, tobacco, alcohol and drug consumption are all higher amongst lower income groups.

Lifestyle choices are established in childhood and adolescence. In Ireland, high rates among young people for all risk factors prevail.

Obesity

According to the Survey of Lifestyle, Attitudes and Nutrition (SLÁN) 2007 report, levels of overweight and obesity in Ireland have increased substantially since 1998.[50] Self-reported body mass index (BMI) figures show the percentage of overweight men has increased from 39% in 1998 to 43% in 2007 and obesity in men has increased from 12% in 1998 to 16% in 2007. For women, self-reported BMI figures show the percentage of overweight women increased from 25% in 1998 to 28% in 2002 and 2007. Obesity in women also increased from 10% in 1998 to 14% in 2002 dropping slightly to 13% in 2007.[51]

	1998	2002	2007	2007
	Self-reported BMI			Measured BMI
Overweight men	39%	38%	43%	45%
Obese men	12%	15%	16%	24%
Overweight women	25%	28%	28%	33%
Obese women	10%	14%	13%	26%

Source: Morgan et al 2008, SLÁN 2007

45 Asthma UK 2008, *Healthy Lifestyles- Diet and Food* downloaded from http://www.asthma.org.uk/all_about_asthma/healthy_lifestyles/diet_food.html
46 Asthma UK 2008, *Healthy Lifestyles- Exercise* downloaded from http://www.asthma.org.uk/all_about_asthma/healthy_lifestyles/exercise.html
47 DOHC, 2008 *Tackling Chronic Disease…p11*
48 Combat Poverty Agency 2007, *Health Policy Statement June 2007. p4*
49 DOHC, 2008 *Tackling Chronic Disease…p11*
50 Morgan K, McGee H, Watson D, Perry I, Barry M, Shelley E, Harrington J, Molcho M, Layte R, Tully N, van Lente E, Ward M, Lutomski J , Conroy R, Brugha R 2008, *SLÁN 2007: Survey of Lifestyle, Attitudes & Nutrition in Ireland.* Main Report. Dublin: Department of Health and Children p102
51 Morgan et al 2008, *SLÁN 2007…p102*

The reality however in 2007 shows the levels of overweight and obesity in Ireland are far greater. Measured BMI levels showed 45% of men are overweight and 24% are obese. And for women measured BMI levels show 33% are overweight and 26% are obese.[52] These figures reveal that 10% of men and 18% of women either do not realise or are unwilling to admit that they are overweight or obese.

Obesity is linked to a range of serious physical and mental health problems. At least three quarters of type 2 diabetes, a third of ischaemic heart disease, a half of hypertensive disease, a third of ischaemic strokes and about a quarter of osteoarthritis can be attributed to excess weight gain. A fifth of colon cancers, a half of endometrial cancers and one in eight breast cancers in post-menopausal women are also attributable to excess weight. Obesity is also a feature of many adults with mental health conditions particularly depressive and anxiety disorders.[53]

Three principal factors contribute to obesity. To a certain extent genetic factors contribute to obesity, but for the majority of overweight and obese people, poor nutrition and lack of exercise are the principal causes.[54] Evidence shows that energy dense foods - foods that are high in fat, sugar and starch – promote weight gain and obesity. "The greatest contributors to fat intake in the Irish diet are meats (23%), spreads (butter, margarine – 17%), cakes and biscuits (9%) and milk and yoghurt (9%)."[55]

Physical activity is also an important determinant of body weight. "It is now widely accepted that adults should be involved in 45-60 minutes, and children should be involved in at least 60 minutes per day of moderate physical activity in order to prevent excess weight gain."[56] According to the SLÁN report, 55% of adults reported being physically active, that is either taking part in exercise or sport 2-3 times per week for a minimum of 20 minutes or engaging in more general activities, like walking, cycling or dancing, 4-5 times per week for a minimum of 30 minutes. 24% reported some activity but not at the level great enough to be considered 'physically active' and 22% reported being physically inactive citing "no time" as the principal reason.[57]

While individuals have responsibility for their own behaviour, the WHO suggest a wide range of environmental factors influence individual energy intake and expenditure and can therefore be considered obesogenic. These include family practices, school policies and procedures, transport and urban planning policies, commercial marketing activities and policies on food supply and agriculture.[58]

It is generally accepted that the main barriers to healthy food choices are their affordability and one's level of disposable income. The cost of school sports activities and gym fees can also influence an individual's physical activity levels.[59] According to the SLÁN Report 2007, there are higher levels of obese adults in lower social classes 5-6 compared with other groups (SC1-2: 13%, SC 3-4: 15%, SC 5-6: 18%).[60] Higher social classes are more likely to consume five or more daily servings of fruit and vegetables (SC1-2: 71%, SC 3-4: 64%, SC 5-6: 58%)[61] and be physically active (SC1-2: 59%, SC 3-4: 55%, SC 5-6: 53%).[62]

52 Morgan et al 2008, *SLÁN 2007…p101*
53 WHO 2007, *The Challenge Of Obesity In The WHO European Region And The Strategies For Response: Summary* edited by F. Branca, H. Nikogosian and T. Lobstein p10
54 European Commission Directorate-General for Health and Consumer Protection (EC DGSanCo) 2006, *Nutrition and Obesity Prevention Factsheet* downloaded from http://ec.europa.eu/health/ph_determinants/life_style/nutrition/documents/nut_obe_prevention.pdf
55 DOHC 2005, *Obesity: The Policy Challenges. The Report of the National Task Force on Obesity p32*
56 DOHC 2005, *Obesity: The Policy Challenges…p6*
57 Morgan et al 2008, *SLÁN 2007…pp51-52*
58 WHO 2007, *The Challenge Of Obesity…p13*
59 DOHC 2005, *Obesity: The Policy Challenges…p70*
60 Morgan et al 2008, *SLÁN 2007…p99*
61 Morgan et al 2008, *SLÁN 2007…p64*
62 Morgan et al 2008, *SLÁN 2007…p51*

Few statistics exist for obesity among children in Ireland. According to the WHO Health Behaviour in School Aged Children (HBSC) survey in 2002, 14.4% of 13 year old boys and 12.6% of 15 year old girls were overweight or obese.[63] More recent figures from the Irish HBSC study 2006 show that 39% of children report eating sweets and 26% drink soft drinks on a daily basis.[64] 53% of children report exercising four or more times a week while 11% exercise less than weekly. Exercise participation decreases in adolescence particularly amongst girls. 42% of 15-17 year olds (both sexes) and only 28% of 15-17 year old girls exercise four or more times per week.[65]

Tobacco

In 2005, one year after the introduction of smoke-free workplace legislation, the Office of Tobacco Control reported a 94% compliance rate in all workplaces inspected and overwhelming support for the law as 96% of people believe that the smoke-free law is a success.[66] Analysis of the tests show that levels of carbon monoxide have decreased by 45% in non-smoking bar workers.[67]

Despite the workplace tobacco ban, almost 6,000 people continue to die each year in Ireland from a smoking related disease and approximately 1,500 people are diagnosed with lung cancer each year.[68] According to the SLÁN report 29% of adults surveyed currently smoke (of which 83% smoke everyday, 17% smoke some days). Rates of smoking have decreased since 1998 (33% of respondents) but there is little change since 2002 (27% of respondents). Highest smoking rates are reported amongst lower social class groups (SC 1-2: 24%, SC 3-4: 30%, SC 5-6: 37%).[69]

Some 95% of lung cancers are caused by smoking. One quarter of deaths from coronary heart disease and 11% of all stroke deaths are attributable to smoking. Smokers are two to three times more likely to suffer a heart attack compared to non-smokers.[70] Second-hand smoke also increases the risk of coronary heart disease among non-smokers by 25-35%.[71]

Smoking is an addiction that begins in adolescence. According to a survey commissioned by the Office of Tobacco Control, 78% of smokers started smoking before they reached the age of 18, and 53% before they reached the age of 15.[72] Currently 16% of 12-17 year olds smoke,[73] with peers and family remaining a strong influence. 92% of young smokers report that a friend smokes and 75% that a family member smokes.[74]

Harmful Use of Alcohol

Ireland ranks among the highest consumers of alcohol in Europe. Alcohol consumption per adult (15 years and over) rose from 9.8 litres of pure alcohol in 1987 to 13.3 litres in 2006, peaking at 14.3 litres in 2001. Ireland ranks third highest in alcohol consumption in the enlarged Europe where the average annual consumption per adult is 10.2 litres of pure alcohol.[75] In 2007, 28% of people reported binge drinking

63 DOHC 2005, *Obesity: The Policy Challenges…p27*
64 S. Nic Gabhainn, C. Kelly and M. Molcho 2007, *The Irish Health Behaviour in School-aged Children (HBSC) Study 2006* Health Promotion Research Centre, National University of Ireland, Galway and Department of Health and Children pp33-35
65 Nic Gabhainn et al, 2007, *HBSC Study 2006…p41*
66 Office of Tobacco Control (OTC) 2005*, Smoke-Free Workplaces in Ireland A One-Year Review…p4*
67 OTC 2005*, Smoke-Free Workplaces in Ireland …p10*
68 OTC 2007, *Annual Report 2006…pp2-3*
69 Morgan et al 2008, *SLÁN 2007…p74*
70 OTC 2007, *Annual Report 2006…p3*
71 OTC 2004, *Second-hand Smoke: the facts*
72 OTC 2006, *Children, Youth and Tobacco: Behaviour, Perceptions and Public Attitudes…p16*
73 OTC 2006, *Children, Youth and Tobacco…p11*
74 OTC 2006, *Children, Youth and Tobacco …p14*
75 Hope A. 2007, *Alcohol consumption in Ireland 1986-2006*, HSE – Alcohol Implementation Group. p5

(consuming 6 or more standard alcoholic drinks on one occasion) at least once a week, with higher rates reported in lower social class groups (SC 1-2: 24%, SC 3-4: 29%, SC5-6: 34%).[76]

Alcohol is associated with more than 60 acute and chronic health disorders ranging from accidents and assaults to mental health problems, cardiovascular disease, liver cirrhosis and certain cancers, including cancer of the upper aero-digestive tract, colorectum and breast. Acute conditions are more prevalent amongst younger people while chronic conditions including liver disease more often affect older people.[77]

According to the National Drug Treatment Reporting System alcohol is the main problem substance in Ireland with 16,020 cases of problem alcohol use treated between 2004 and 2006. Of these 21% reported problem use of another substance namely cannabis, cocaine, ecstasy and amphetamines.[78]

In a study of attendance at Accident and Emergency departments 2003-2004, 28% of injuries were related to alcohol consumption. Alcohol related injuries were higher at the weekend, accounting for 36% of injuries on a Sunday.[79] 61% of those presenting with alcohol related injuries had consumed 12 or more drinks.[80]

Alcohol was considered to be a contributory factor in 36% of road fatalities,[81] 56% of suicides tested positive for alcohol[82] and according to the National Suicide Research Foundation there was evidence of alcohol consumption in 41% of all cases of self-harm.[83]

According to the HBSC study 2006, 53% of children (10 to 17 years old) report ever having had an alcoholic drink and 20% report having been drunk in the past month. Among 15 to 17 year olds, over a third report being drunk and almost half report having had an alcoholic drink in the last month.[84]

Drug Abuse

In Ireland, lifetime use of any illegal drugs among all adults (aged 15-64) increased between 2002/3 and 2006/7 from 19% to 24%. Particular increases were observed in the lifetime use of cannabis (from 17% to 22%), cocaine (from 3% to 5%) and magic mushrooms (from 4% to 6%). In 2006/7 lifetime use was highest among respondents aged 25-34 years (34%) and last year and last month use was highest for those aged 15-24 years, 15% and 6% respectively.[85]

The dangers of drugs depend on the substance and the setting:

> **Sedatives** such as alcohol, heroin and tranquilisers can be fatal if an overdose is taken. They can also affect co-ordination, making accidents more likely. Use of sedatives can also lead to physical dependence and withdrawal symptoms. Injecting drugs, particularly heroin, can lead to the spread of blood borne diseases such as HIV and Hepatitis B and C.

76 Morgan et al 2008, *SLÁN 2007…p81*
77 Mongan D, Reynolds S, Fanagan S and Long J 2007, *Health-related consequences of problem alcohol use. Overview 6* Dublin: Health Research Board pp45-46
78 Fanagan S, Reynolds S, Mongan D and Long J (2008) *Trends in treated problem alcohol use in Ireland, 2004 to 2006. HRB Trends Series 1.* Dublin: Health Research Board pp1-2
79 Hope A, Gill A, Costello G, Sheehan J, Brazil E and Reid V 2005, *Alcohol and injuries in the accident and emergency department - a national perspective*. Dublin: Department of Health and Children pp15-17
80 Hope A et al 2005, *Alcohol and injuries…p23*
81 HSE 2006, *Alcohol in Fatal Road Crashes in Ireland in 2003…p3*
82 Bedford D, O'Farrell A and Howell F (2006). *Blood Alcohol Levels in Persons who Died from Accidents and Suicides*. Irish Medical Journal, 99, 3, pp80–83.
83 NSRF 2006 *National Registry of Deliberate Self Harm Ireland 2005 Annual Report…p7N*
84 Nic Gabhainn et al 2007, *HBSC Study 2006…pp23-26*
85 National Advisory Committee on Drugs (NACD) & Drug and Alcohol Information and Research Unit (DAIRU) 2008, *Drug use in Ireland and Northern Ireland – First results from the 2006/2007 Drug Prevalence Survey…p1*

Stimulants such as amphetamines, cocaine, crack and ecstasy can produce anxiety or panic attacks particularly if taken in large quantities. They can also be dangerous for people who have heart or blood pressure problems.

Hallucinogens such as LSD and magic mushrooms and to a lesser extent cannabis and ecstasy can sometimes produce very disturbing experiences and may lead to erratic or dangerous behaviour particularly if the user is already unstable.[86]

Mixing cocaine and alcohol increases the risk of a heart attack by 24 times. Yet despite this, 57% of users are either unaware or don't believe that there is an increased danger in taking alcohol and cocaine.[87]

Direct drug related deaths reported by the CSO rose dramatically in Ireland from 19 to 122 from 1994 to 1999. The figure fell to 90 deaths in 2002 and rose again to 112 in 2004.[88]

According to the Hospital In-Patient Enquiry (HIPE) scheme there were 46,459 overdose cases in the period 1996 to 2004 with people in the 15-24 age group at highest risk.[89] In 2005 the National Registry of Deliberate Self Harm recorded 10,262 presentations to hospital of deliberate self harm made by 8,160 individuals. Drug overdose was the most common method of self-harm accounting for 7,121 (69%) presentations.[90]

The Health Protection Surveillance Centre (HPSC), at the end of 2006, reported 4,419 diagnosed HIV cases in Ireland. 1,327 cases (30%) were probably infected through injecting drug use of which 57 were newly diagnosed in 2006. Reported cases of hepatitis C rose to 1,439 in 2005, compared to 1,154 cases in 2004.[91]

Lifestyle Policy Rationale

It is estimated that three quarters of healthcare expenditure is allocated to the treatment of chronic diseases. Approximately 80% of GP consultations, 66% of emergency admissions and 60% of hospital bed days are related to chronic diseases and their complications.[92] With Ireland's ageing population and if current trends continue, bed requirements will increase by 50-60% over the next 15 years.[93] According to the WHO, "a small shift in the average population levels of several risk factors can lead to a large reduction in the burden of chronic disease,"[94] yet the OECD estimates that only 3% of healthcare expenditure in Ireland is spent on prevention and public health programmes.[95]

The WHO recommend that strategies for tackling chronic diseases shift away from reactive acute health care toward **promotion, prevention and control**, with interventions to address both the underlying causes and to reduce the development of chronic conditions and complications for people at high risk or with established chronic disease.[96]

An all-government or **cross-sector approach** is needed to tackle the underlying influences on lifestyle that

86 Drugscope 2008 *Drug Dangers* downloaded from http://www.drugscope.org.uk/resources/mediaguide/drugdangers.htm
87 HSE 2008 *Mixing cocaine and alcohol increases heart attack risk by 24 times* downloaded from http://www.drugs.ie/news/583/
88 Reitox National Focal Point 2007, *National Report to the EMCDDA by the Reitox National Focal Point. IRELAND: New developments, trends and in-depth information on selected issues* downloaded from http://hrbndc.imaxan.ie/ebookeditor/add_eb_cont.php?chapid=252
89 Reitox National Focal Point 2007, *National Report to the EMCDDA…*
90 NSRF 2005, *National Registry of Deliberate Self Harm – Annual Report 2005…p7*
91 Reitox National Focal Point 2007, *National Report to the EMCDDA…*
92 DOHC 2008, *Tackling Chronic Disease…p12*
93 DOHC 2008, *Tackling Chronic Disease…p12*
94 World Health Organization (WHO), 2005, *Preventing chronic diseases: a vital investment : WHO global report. p96*
95 DOHC 2008, *Tackling Chronic Disease…p15*
96 WHO 2005, *Preventing chronic diseases…p90*

lie outside the domain of the health sector. These include poverty, lack of education and unhealthy environmental conditions.[97] Lifestyle risk factors such as unhealthy diets and physical inactivity, are also influenced by sectors outside health, such as transport, agriculture and trade. An intersectoral committee should be created to develop and prioritise schemes that promote healthy living across all sectors.[98]

Because different diseases have common risk factors, prevention **strategies should be integrated in an overriding healthy lifestyle policy**. For example the Diabetes Federation of Ireland found that despite the relationship between cardiac disease and diabetes, diabetes was almost excluded from the Government's Cardiovascular Strategy.[99] The National Drugs Strategy Team also recognised the need to forge links with the National Alcohol Policy to ensure complementarity between different measures.[100] An overriding lifestyle policy established by the Department of Health and Children can minimise duplication and fragmentation.[101]

Strategies should be integrated across settings, such as health centres, schools, workplaces and communities.[102] For example, the Department of Education and Science should encourage schools to develop policies to promote healthy eating and active living. Such policies should address opportunities for physical activity and what is being provided in school meals. Workplaces in both the private and public sectors should have a healthy work-life balance policy.[103]

A population-wide approach is needed to take the focus away from the individual. Population–wide initiatives include legislation, tax and price intervention, information and awareness campaigns and proven screening procedures.

Legislation is a fundamental element of effective public health policy and practice.[104] The workplace smoking ban in 2004 was widely accepted and led to a reduction in carbon monoxide levels in non-smoking bar workers. Further legislation is needed on tobacco, alcohol and high fat products, including sales, marketing and advertising restrictions.

Taxes and price Intervention can be used to promote healthy living and to fund disease prevention programmes. Young people and poor people are known to be the most responsive to price change. For example, a 10% price increase in tobacco products has been shown to reduce demand by 3-5% in high-income countries.[105]

While individuals make their own lifestyle choices, **information and awareness campaigns** create awareness of the dangers associated with those choices and equip the general population to make informed decisions about their health. Because risk behaviours are commonly established in childhood and adolescence,[106] and rates are higher in lower socio-economic groups, campaigns should be aimed both at the general population and at high-risk groups, particularly young people and lower income groups.

Proven screening procedures exist for a limited number of chronic diseases including elevated risk of cardiovascular disease and breast and cervical cancer.[107]

An investment approach is needed in the promotion of healthy lifestyles and the prevention of chronic

97 WHO 2005, *Preventing chronic diseases…p129*
98 WHO 2005, *Preventing chronic diseases…p129*
99 Diabetes Federation Of Ireland 2005, *The Way Forward 2006-2010*
100 National Drugs Strategy Team 2005, *National Drugs Strategy Progress Report*
101 WHO 2005, *Preventing chronic diseases…p129*
102 WHO 2005, *Preventing chronic diseases…p129*
103 DOHC 2005, *Obesity: The Policy Challenges…*
104 WHO 2005, *Preventing chronic diseases…p135*
105 WHO 2005, *Preventing chronic diseases…p98*
106 WHO 2005, *Preventing chronic diseases…130*
107 WHO 2005, *Preventing chronic diseases…p103*

diseases and mortality associated with lifestyle choices. Funding for lifestyle promotion should be clearly defined in the annual budget. Investment should be long-term with return measured in terms of expected health gains and other desired outcomes.[108]

Taxes such as levies on tobacco and alcohol should be ear-marked for health initiatives.[109] Proceeds from the Criminal Assets Bureau that relate to drugs could be spent on drug awareness programmes for example.

Health services organisation and delivery should be reoriented away from reactive acute health care towards clinical prevention and control,[110] including budgeting and the provision of resources for the expansion of primary care services.

Clinical interventions designed to reduce both the onset of disease and the development of complications, should be based on overall risk. Individuals are at highest risk when they have several risk factors or when they have established disease.[111]

Registration of the diagnosis as well as the stage of the disease is an important tool for implementing an individual disease management plan. Patient information systems or registries facilitate the organisation of patient information, tracking and planning of patient care, provision of support for patient self-management and scheduling of patient follow-up.[112] The National Cancer Registry is the only chronic disease registry in Ireland.[113] Registration can also help identify people at risk of second chronic diseases and be used for monitoring the effectiveness of health promotion and disease prevention programmes.

Evidence based treatment guidelines should be introduced and should be based on best research data available and should be established in consultation with healthcare professionals in the field. Effective clinical interventions include lifestyle behavioural change as well as medication and surgery.[114] For example, tobacco cessation, physical activity, dietary change and weight loss can reduce the risk of cardiovascular events by 60% in people with established heart disease and can also play a key part in achieving good blood glucose control in people with diabetes.[115]

All health care workers especially doctors must be encouraged to initiate discussion of lifestyle issues and risks with patients. Suitable training must be provided for doctors in both prevention and treatment and materials used should be universal and standardised. Patient's overall level of risk should be systematically assessed and monitored during health care visits[116] and services should be provided to **support patients in behavioural change** such as diet change and tobacco, alcohol and drug addiction treatments.

Health care workers can **strengthen patient self-management** by providing basic information about risk factors and providing the skills required to cope effectively with their own conditions.[117] According to the DOHC policy framework for the Management of Chronic Diseases, 75% of people living with a chronic condition are in a low-risk category and are amenable to self-management with some health professionals' support.[118]

108 WHO 2007, *The Challenge Of Obesity…p42*
109 WHO 2005, *Preventing chronic diseases…p133*
110 WHO 2005, *Preventing chronic diseases…p140*
111 WHO 2005, *Preventing chronic diseases…pp104-105 & p141*
112 WHO 2005, *Preventing chronic diseases…p110*
113 DOHC 2008, *Tackling Chronic Disease…p15*
114 WHO 2005, *Preventing chronic diseases…p111*
115 WHO 2005, *Preventing chronic diseases…p108*
116 WHO 2005, *Preventing chronic diseases…p141*
117 WHO 2005, *Preventing chronic diseases…p143*
118 DOHC 2008, *Tackling Chronic Disease…p20*

IMO Recommendations

Structural

- An intersectoral committee should be created to develop and prioritise schemes that promote healthy living across all Government departments.
- Because different diseases have common risk factors, prevention strategies should be integrated in an overriding healthy lifestyle promotion policy.
- Strategies should be integrated across settings, such as health centres, schools, workplaces and communities.
- A population-wide approach is needed to take the focus away from the individual and should include legislation, tax and price intervention, information and awareness campaigns and proven screening procedures.
- Because risk factors are established in childhood and adolescence and rates are higher in lower socio-economic groups campaigns should also be tailored toward young people and lower income groups.

Funding

- Taxes such as levies on tobacco and alcohol should be ear-marked for health initiatives.
- Funding for lifestyle health promotion should be clearly defined in the annual budget and protected.

Planning and Investment

- Planning and investment should be long-term with return measured in terms of expected health gains.

Health Services Organisation and Delivery

- Health services organisation and delivery should be reoriented away from reactive acute health care towards clinical prevention and control.
- Resources should be provided for the expansion of primary health care services with particular emphasis on lifestyle and chronic disease issues.
- Clinical interventions designed to reduce both the onset of disease and the development of complications, should be based on overall risk.
- Chronic disease registries should be established for patient management, to identify people at risk of second chronic diseases and for monitoring the effectiveness of health promotion and disease prevention programmes.
- Evidence based treatment guidelines should be elaborated and implemented across the health service. Treatment guidelines should be based on best research data available and established in conjunction with healthcare workers.
- All health care workers especially doctors must be encouraged and supported to initiate discussion of lifestyle issues and risks with patients. Suitable training must be provided for doctors in both prevention and treatment and materials used should be universal and standardised.

Patient Involvement

- Services should be provided to support patients in behaviour change.
- Patient self-management should be strengthened by providing basic information about risk factors and the skills to those at lower risk to manage their own conditions with some support from health care workers.

NOTE: IMO MOTIONS

In 2008 the IMO called on the Minister for Health and Children and the Government to further legislate to protect people from passive smoking and to label tobacco and alcohol products:

- to extend legislation on smoke free work places to include all work places not covered by the legislation and in particular the workplaces in the psychiatric sector;
- to extend the legislation on protecting people from passive smoking to include children in cars;
- to outline a timeframe for the introduction of graphic warning labels on all tobacco products packaging;
- to introduce a "Don't Drink and Drive" Warning Label on all alcohol products;
- to introduce gram of alcohol and calorie content labelling on all alcohol beverage containers.

In 2007 the IMO called on the Government to legislate on drugs, alcohol and road safety calling for:

- the introduction of field impairment testing to detect drivers driving under the influence of drugs;
- to reduce the legal limit of alcohol for driving to 20mg/100ml blood for all drivers.

The IMO has for a number of years called on the Minister for Finance to increase the price of a packet of 20 cigarettes by €2 and in 2008 called on the Minister to bring in a sliding scale of alcohol taxes with the lowest tax on low alcohol beer and the highest tax on spirits. The National Taskforce on Obesity further recommends that the Department of Finance carry out research to examine the influence of fiscal policies on consumer purchasing and their impact on overweight and obesity such as the taxing of high-fat foods and subsidies for healthier food.

Position Papers by the Irish Medical Organisation are available at www.imo.ie

Suicide Prevention	Sep 2008
Protecting the Vulnerable – A Modern Forensic Medical Service	Mar 2008
Disability, Ages (0 – 18 years)	Nov 2007
Co-location and Acute Hospital Beds	Jul 2007
Role of the Doctor	Apr 2007
Medical Schools	Aug 2006
Obesity	Apr 2006
Care of the Elderly	Jan 2006
Health Service Funding	Mar 2005
Acute Hospital Bed Capacity	Mar 2005
Medical Card Eligibility	Mar 2005
Road Safety	Mar 2005
Accident & Emergency	Mar 2005
Manpower	Mar 2005