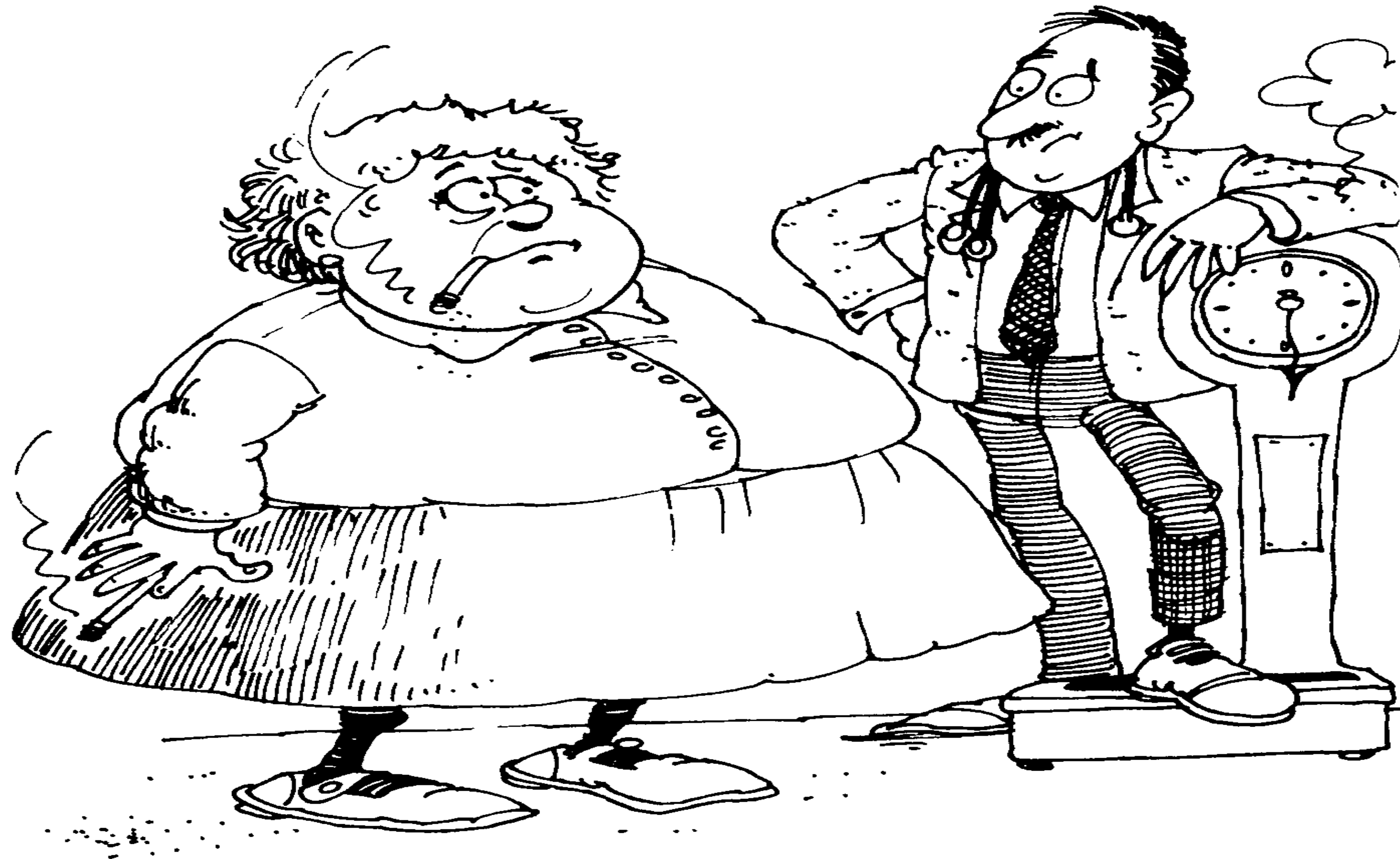
Management of problem alcohol use

Eilish Gilvarry

Issues

- Prevalence
- Consequences
- Assessments
- Brief interventions
- Detoxifications
- Relapse prevention
- Care planning
- Blood parameters



WHY ALCOHOL ?

Alcohol is the 3rd biggest risk factor for ill-health in Europe

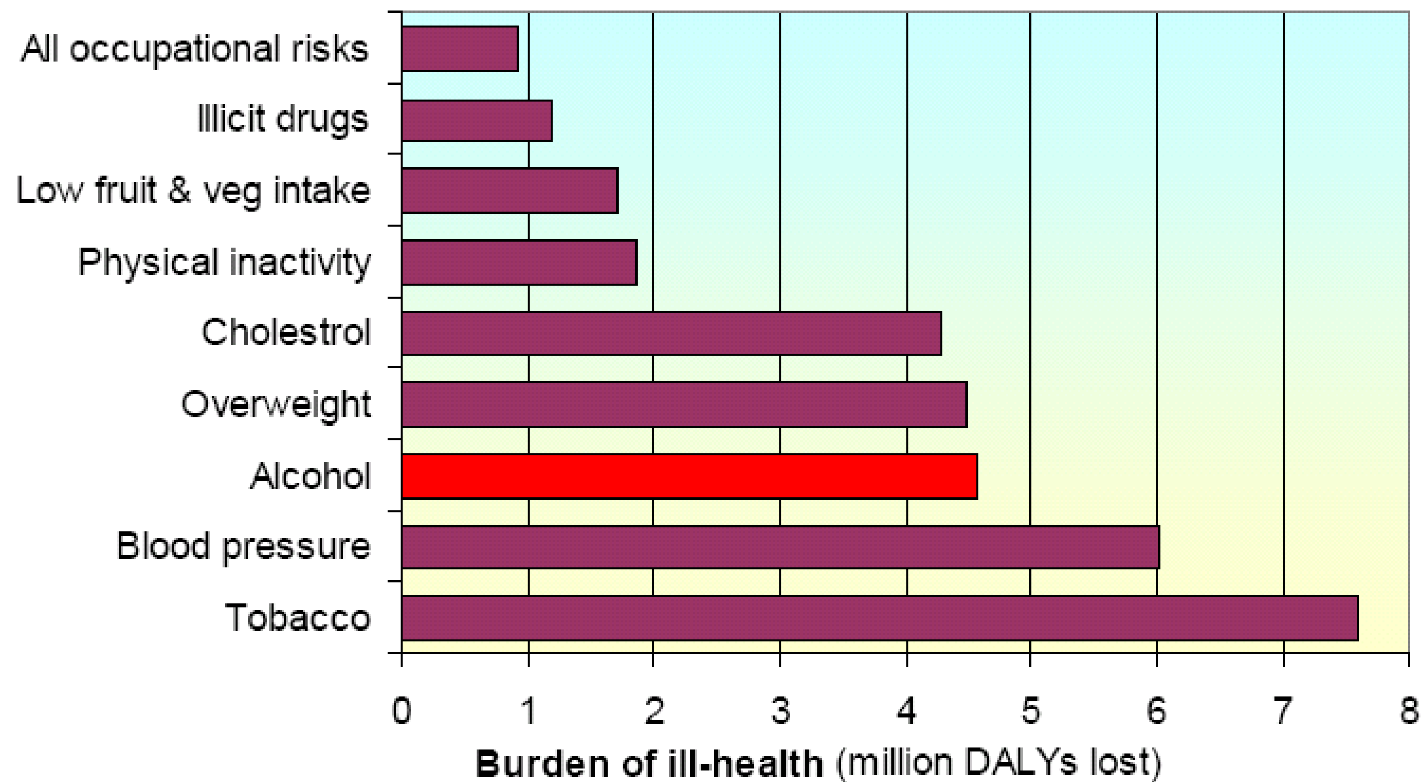


Figure 6.5 Top 10 risk factors for ill-health in the European Union. *Adapted from WHO's Global Burden of Disease study (Rehm et al. 2004)*

- Acute: toxic poisoning, overdose deaths
- Chronic exposure: liver disease, cognitive impairment, lung cancer (nicotine)
- Harm to others: road traffic accidents, injuries, violence, families/children
- Indirect harm: infection – HIV, Hepatitis B/C, crime and consequences

Prevalence

- 33% men, 16% women drink at risk – hazardous/harmful (HSCIC 2013)
- Alcohol dependence: 4% overall, 6% of men and 2% of women (1.6 million people in England 16-65) (NICE 2011)
- Overall only 6% per year receive treatment – long development, limited availability of treatment, under-identified
- No safe level – risk increases with increasing consumption (WHO 2014)
- 13-20% hospital admissions alcohol related
- Peak periods up to 70% of admissions to A&E
- Alcohol related admissions increasing

(Health First 2013, Drummond 2011)

Alcohol and harm

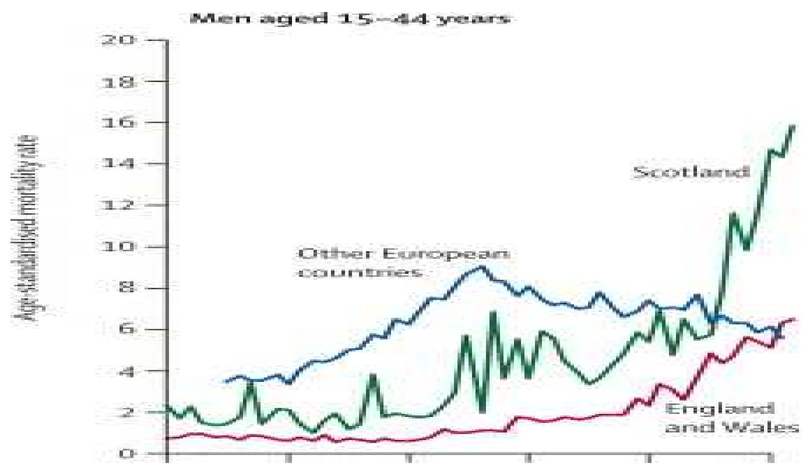
- Global Burden of disease study – increasing prevalence of many conditions: pancreatitis, ALD, liver cancer; 40-100% increases in past 20 years (Murray et al, 2013)
- Alcohol dependence increase x 56% (Murray et al 2013)
- Medical inpatient units - 31% AUD (Bell et al 2011)
- Psychiatric unit: prevalence of misuse 50% and dependence 23% (Barnaby et al 2003)

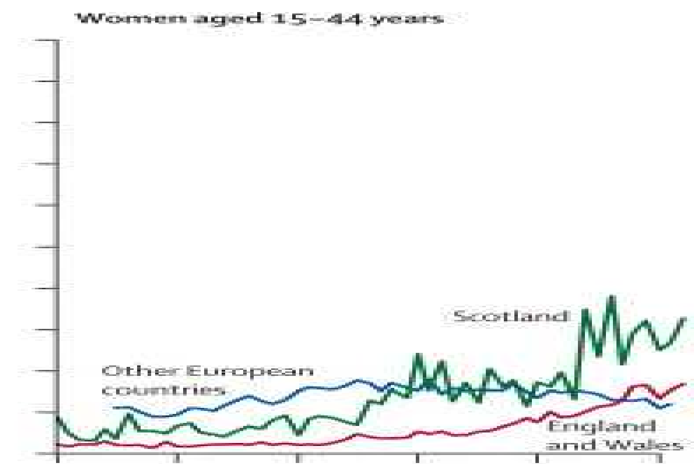
Scale of the problem

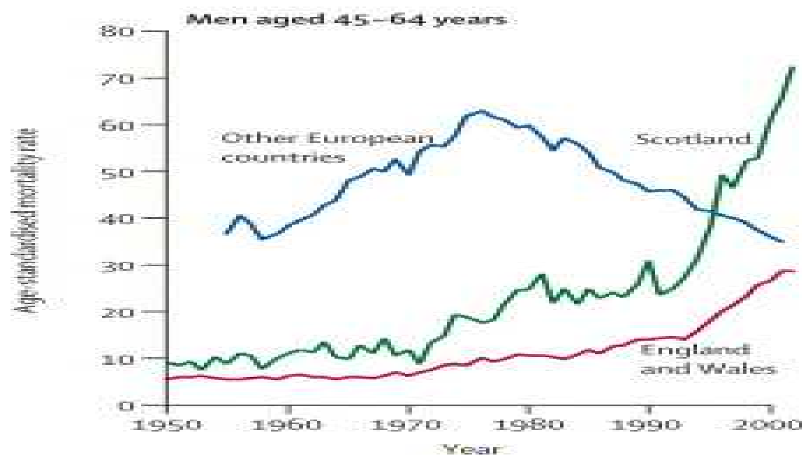
- Alcohol related deaths doubled - from 4000 in 1992 to 8748 in 2011
- Majority - 2/3 - from liver disease, but many more deaths part related to consumption - in 2005, estimated 15,000+ died from alcohol attributable causes (Jones et al 2008)
- 15% road deaths were victims of drink driving 2011

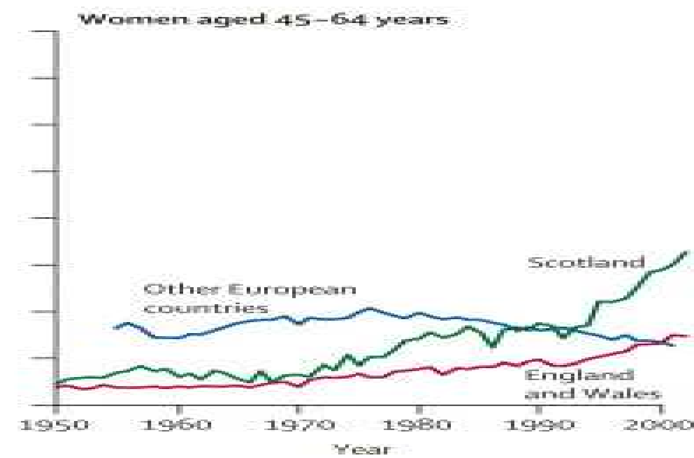
Institute of Alcohol Studies; Alcohol and Health
Alcohol harm reduction strategy for England, Cabinet Office UK
Office for National Statistics; Alcohol Deaths, Jan 2008
Department of Health (2008a) – Health First 2013

Mortality increase



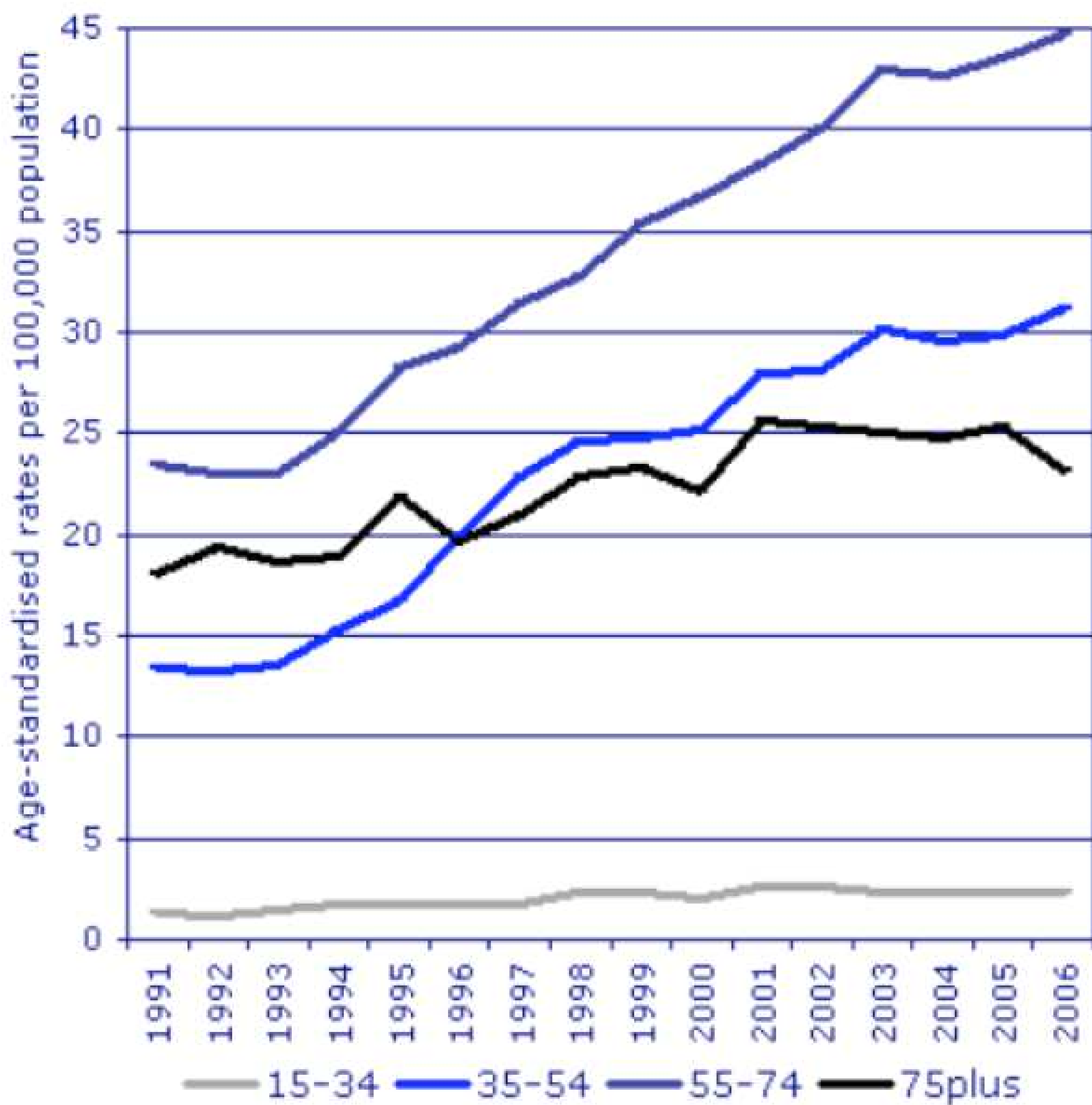


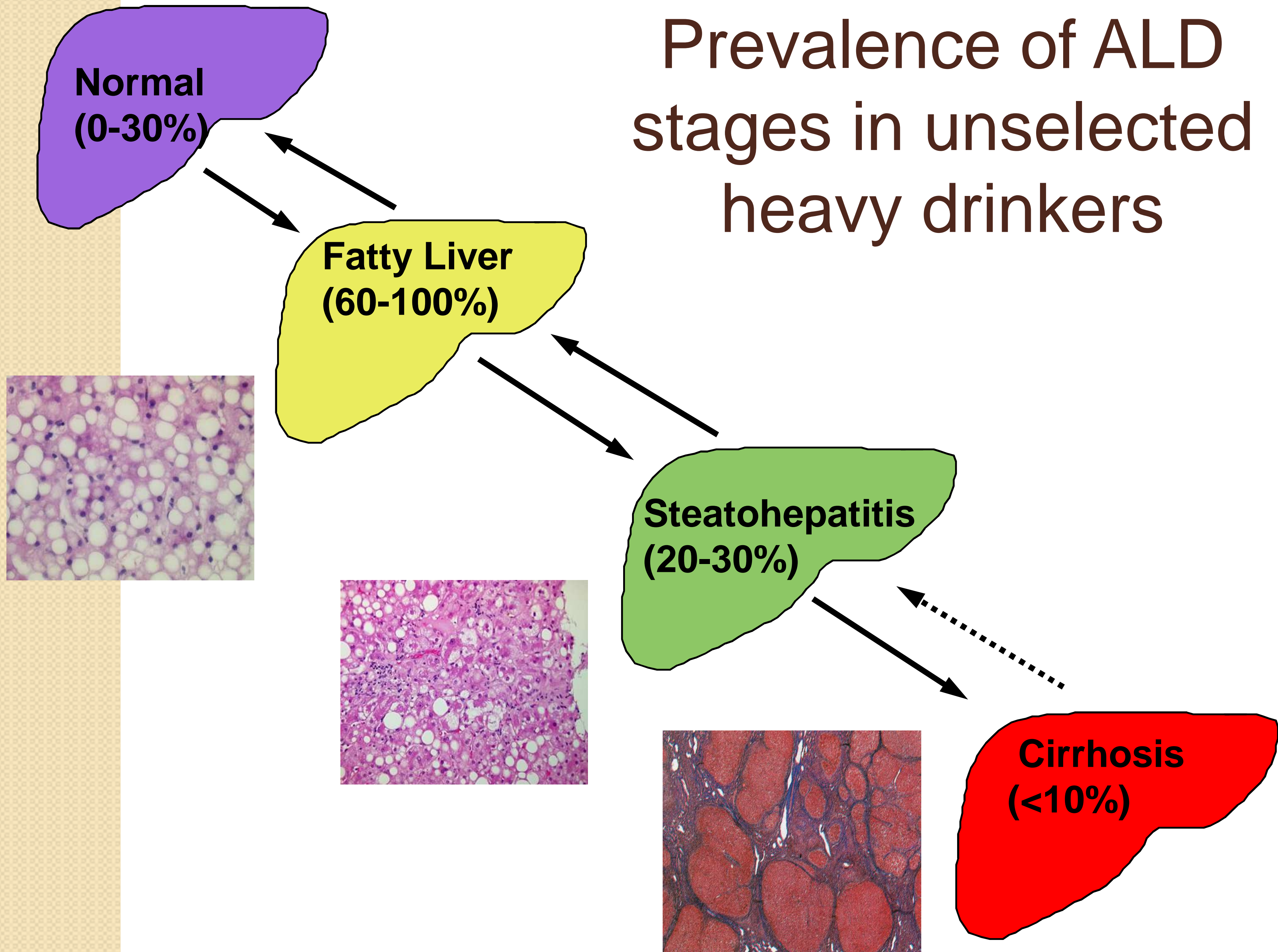




Leon et al Lancet 2006

Male alcohol-related death rates by age group, United Kingdom, 1991-2006[15]




Prevalence of ALD stages in unselected heavy drinkers
Normal (0-30%)
Fatty Liver (60-100%)
Steatohepatitis (20-30%)
Cirrhosis (<10%)

ALD in unselected drinkers:

- Normal 0-30%
- Fatty liver 60-100%
- Steatohepatitis 20-30%
- Cirrhosis <10%

Acute problems

- Homicide /other intentional injuries
- Suicide/ self harming behaviour
- Domestic violence
- Accidents- all types
- Public disorder
- Alcohol poisoning
- Indirect- STDs, unwanted pregnancy etc

Range of problems social

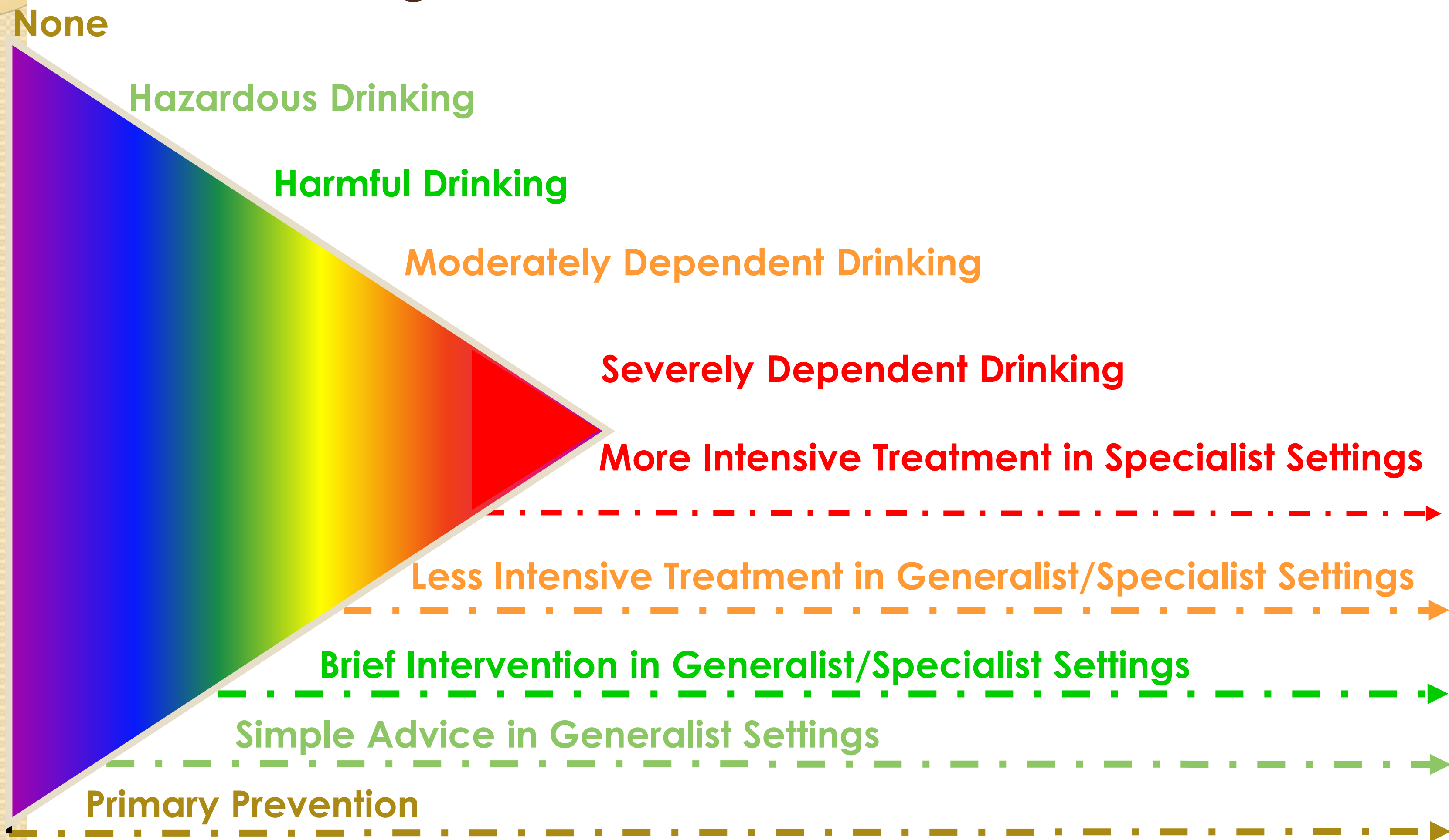
- Lower workplace productivity(Est 6.5B)
- Unemployment
- To family & social networks
- Truancy & school exclusion
- Homelessness
- Economic costs 20B at the least –not counting human cost

- CNS; ataxia, WE, neuropathies,
- CVS: hypertension, CVA,
- GIT/liver: hepatitis, fatty liver, cirrhoses
- Increased risk of cancers
- Foetal alcohol syndrome/spectrum
- Mortality
- Drink driving accidents

- Increased prevalence of alcohol dependence in those with psychiatric/psychological problems
- Dependence and harm
- Increased association with self harm and suicide
- 1:2 of D/A clients have mental health problems at least
- 1:3 severe mental illness –have SUD (Weaver 2003)
- Alcohol and other drugs

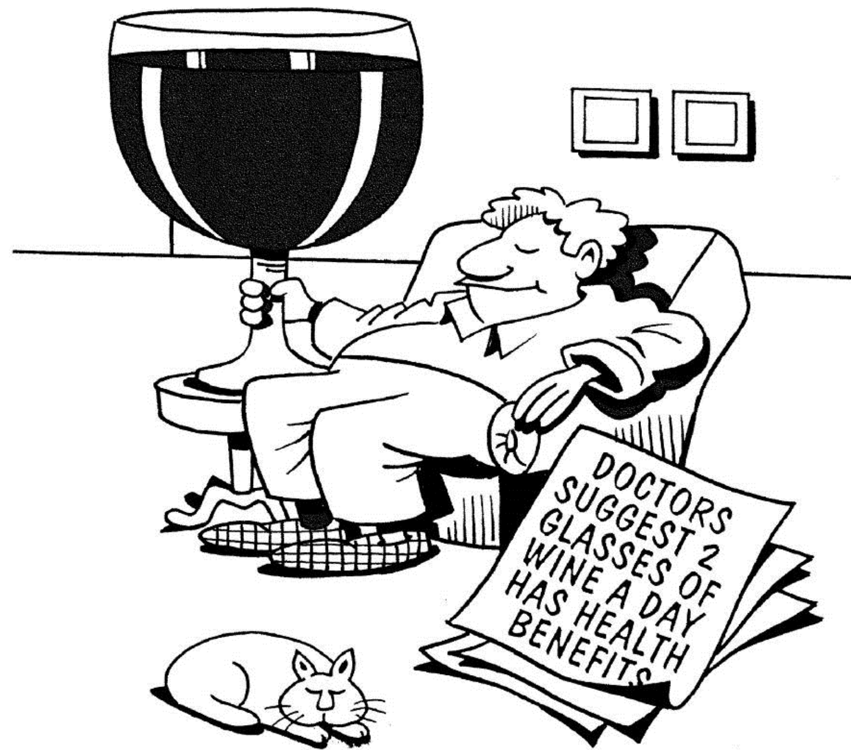
- Proportion increasing.
- High rates-mental/physical health problems
- Cognition function and alcohol
- Complex: eg alcohol and prescribed drugs
- Different aetiologies: eg bereavement, physical ill-health
- Increased risk at lower levels of use
- Subtle presentation
- Psychiatric co-morbidities
  (College report 2011)

Spectrum of responses



- Preventative measures and active treatments
- NICE: Guidelines, technology appraisals, Quality Standards
- Effective commissioning - balance across public health and individual treatment modalities
- Different interventions at different times in different contexts

How much is too much?



Screening tools

- AUDIT 10 items (Saunders 1993)
- AUDIT-C 3 items (Bush 1998)
- SMAST- G (derived from the MAST) 10 items (Blow 1998)
- CAGE (Ewing 1984) for dependence-not harm
- PAT (Touquet)

(Berks &McCormick 2008)

Alcohol Users Disorders Identification Test (AUDIT)

Questions	Scoring System					Your Score
	0	1	2	3	4	
How often do you have a drink that contains alcohol?	Never	Monthly or less	2 - 4 times per month	2 - 3 times per week	4+ times per week	
How many standard alcoholic drinks do you have on a typical day when you are drinking?	1 - 2	3 - 4	5 - 6	7 - 8	10+	
How often do you have 6 or more standard drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often in the last year have you found you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often in the last year have you failed to do what was expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often in the last year have you needed an alcoholic drink in the morning to get you going?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often in the last year have you had a feeling of guilt or regret after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often in the last year have you not been able to remember what happened when drinking the night before?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
Have you or someone else been injured as a result of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
Has a relative/friend/doctor/health worker been concerned about your drinking or advised you to cut down?	No		Yes, but not in the last year		Yes, during the last year	

Scoring: 0-7 – sensible drinking, 8-15 – hazardous drinking, 16-19 – harmful drinking and 20+ – possible dependence

The Fast Alcohol Screening Test (FAST)

Questions	*Scoring Scheme*					*Enter score below:*
	Score					
	0	1	2	3	4	
1.How often do you have 8 (for a man) 6 (for a woman) or more drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
Only consider questions 2, 3 and 4 if the response to question 1 is less than monthly or monthly.						
2. How often During the last year have you been unable to remember what happened the night before because you had been drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
3. How often during the last year have you failed to do what is normally expected of you because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
4. In the last year has a relative or friend, or a doctor or a health worker been concerned about your drinking or suggested you cut down?	No		Yes, on one occasion		Yes, on more than one occasion	
					Total:	

SASQ

- **Stands for Single Alcohol Screening Question**
- **"When was the last time you had more than X drinks in 1 day", where X=6 for women and X=8 for men**
- **Never/ More than 12 months ago/ 3-12 months ago/ Within the past 3 months**
- **"Within the past 3 months" = +ve response**
- **Sensitivity and specificity = 86% for detecting hazardous drinking in past 3 months or alcohol use disorder in past year**
- **Equally efficient among men and women**

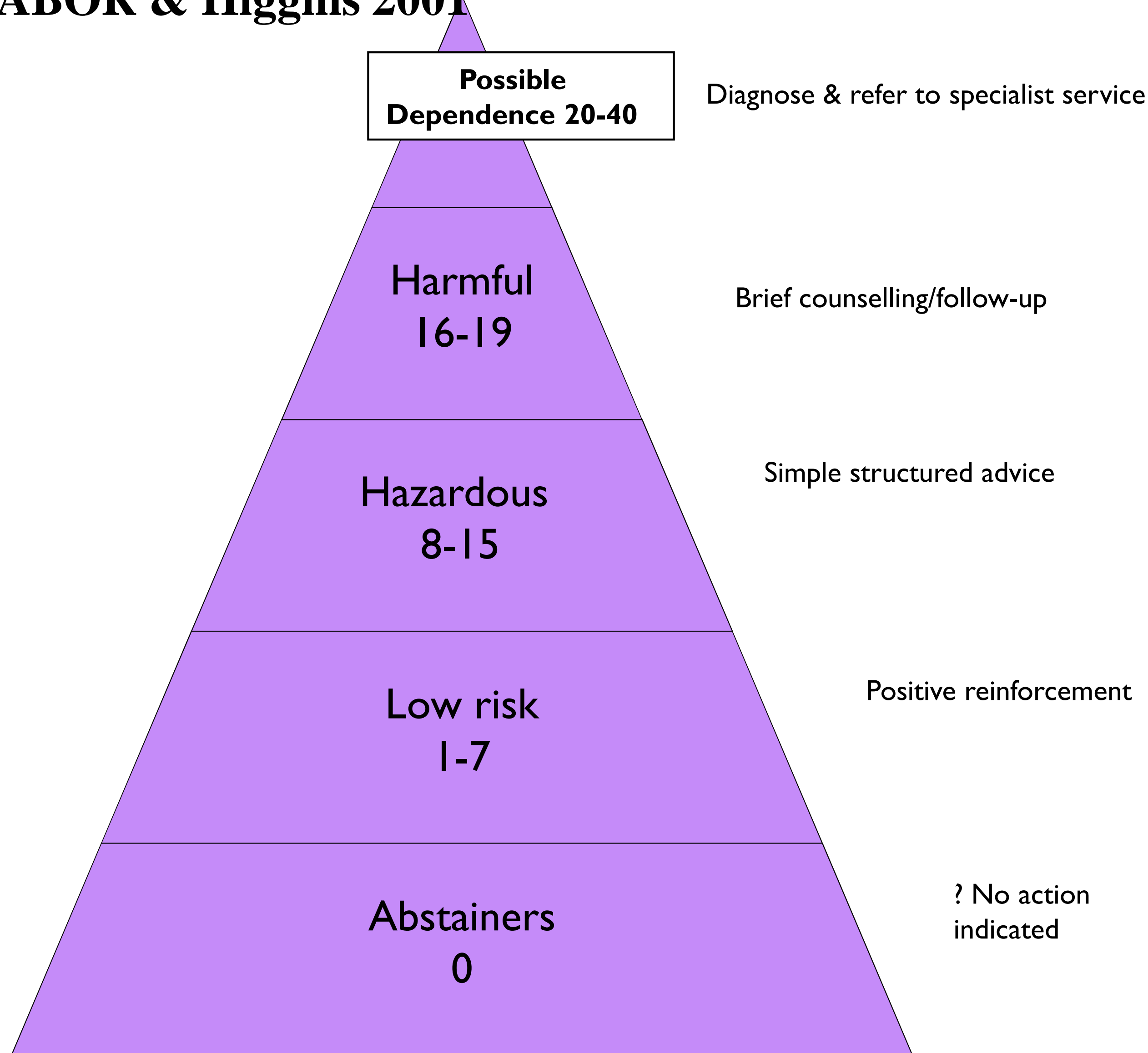
(Williams & Vinson 2001)

What do the finding of screening mean?

- A positive screen indicates a high likelihood of alcohol-related risk or harm
- Screening questionnaires are not diagnostic instruments
- However, they are highly accurate
- Patients who screen positively will benefit from brief intervention
  - Structured advice
  - Extended (motivational) intervention

Drinker typology based on AUDIT scores

BABOR & Higgins 2001



What is brief alcohol intervention?

- **"… the giving of information, advice and encouragement to the patient to consider the positives and negatives of their drinking behaviour, plus support and help to the patient if they do decide they want to cut down on their drinking."**
- **"Brief interventions are usually 'opportunistic' – that is, they are administered to patients who have not attended a consultation to discuss their drinking"**

(from the *Alcohol Harm Reduction Strategy for England,* p.37)

BI structure – FRAMES

- Feedback (personalised)
- Responsibility (with patient)
- Advice (clear, practical)
- Menu (variety of options)
- Empathy (warm, reflective)
- Self-efficacy (boosts confidence)

How much is too much?

Simple Structured Advice

UNITS

Are you at risk from drinking alcohol?

Risk	AUDIT Score	Men	Women	Common Effects
SENSIBLE	0 - 7	21 units or fewer per week or up to 4 units per day	14 units or fewer per week or up to 3 units per day	• Increased relaxation • Reduced risk of heart disease • Sociability
HAZARDOUS	8 - 15	22 - 49 units per week or regular drinking of more than 4 units per day	15 - 35 units per week or regular drinking of more than 3 units per day	• Less energy • Depression/Stress • Insomnia • Impotence • Risk of injury • High blood pressure
HARMFUL	16 - 19	50 + units per week	36 + units per week	• All of the above and... • Memory loss • Increased risk of liver disease • Increased risk of cancer • Possible alcohol dependence

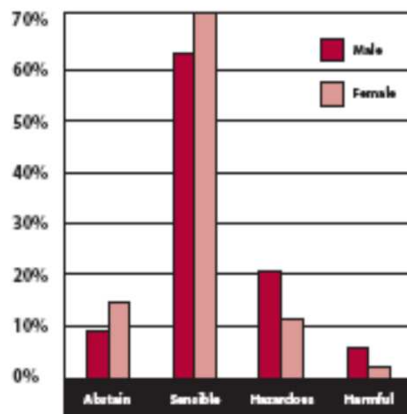
- At an AUDIT score of 20+ do an assessment for alcohol dependence and consider referring.
- Binge drinking is considered to be drinking twice the daily limit in one sitting (8 units for men, 6 units for women).
- There are times when you will be at risk even after two or three drinks. For example, when exercising, operating heavy machinery, driving or if you are on certain medication.
- If you are pregnant it is recommended that you completely abstain from drinking alcohol.
- As well as keeping to weekly and daily limits it is recommended that 2 days of the week should be alcohol-free.

How do you feel?

Your screening score suggests you might be at risk of problems in the future. **What do you think?**

You appear to be drinking at a rate that increases your risk of harm. **What do you think?**

What is everyone else like?



Most people are sensible drinkers

What are the benefits of cutting down?

Physical

- Reduced risk of injury
- Reduced risk of high blood pressure
- Reduced risk of cancer
- Reduced risk of liver disease
- Reduced risk of brain damage
- Sleep better
- More energy
- Lose weight
- No hangovers
- Improved memory
- Better physical shape

Psychological/Social/Financial

- Improved mood
- Less hassle from family
- Reduced risk of drink driving
- Save money

Making your plan

- Have your first alcoholic drink after starting to eat
- Quench your thirst with non-alcoholic drinks before alcohol
- Avoid salty snacks when drinking alcohol
- Avoid drinking in rounds or in large groups
- Switch to low alcohol beer/lager
- Take smaller sips
- Plan activities and tasks at those times you usually drink
- When bored or stressed have a workout instead of drinking
- Explore interests - cinema, exercise, etc.
- Avoid going to the pub after work
- Avoid or limit the time spent with 'heavy' drinking friends
- Any ideas? - Things you have tried?

What targets should you aim for?

'How to do it'

Men
4 or less standard drinks daily
21 or less standard drinks weekly

Women
3 or less standard drinks daily
14 or less standard drinks weekly
No drinks advised during pregnancy

Dependent Drinkers
No drinks are safe

Remember, nobody's perfect!

If at first you don't succeed, try again.

This brief intervention package is based on the Drink-Less programme originally developed at the University of Sydney as part of a W.H.O. collaborative study.

How much is too much?

Extended Brief Intervention

ASSESSING READINESS TO CHANGE

Importance of changing drinking behaviour

On a scale of 0 (not at all) to 10 (very important) what number would you give yourself right now?

- Why are you here and not higher? Or lower?
- What would need to happen for you to get to a higher point?
- How can I help you get from where you are now to a higher number?

Confidence about changing drinking behaviour

On a scale of 0 (not at all) to 10 (very confident) what number would you give yourself right now?

- Why are you here and not higher? Or lower?
- What would need to happen for you to get to a higher point?
- How can I help you get from where you are now to a higher number?

The pros and cons of changing your drinking

What are the good things about changing your drinking and what are the not so good things?

Pros	Cons
....	....
....	....
....	....
....	....
....	....

Where does this leave you?

A six-step plan for changing your drinking habits

Identify good reasons for changing: Can you think of 2-3 good reasons?

Reason 1 ....

Reason 2 ....

Reason 3 ....

Set yourself a goal to achieve change: Is this achievable?

What? ....

Where? ....

When? ....

Recognise difficult times or situations: When might be the hardest times?

Time 1 ....

Time 2 ....

Time 3 ....

Prepare for difficult times/situations: Think of a ways of dealing with hard times?

Time 1 ....

Time 2 ....

Time 3 ....

Find someone to support you: Is there a family member/friend who might help?

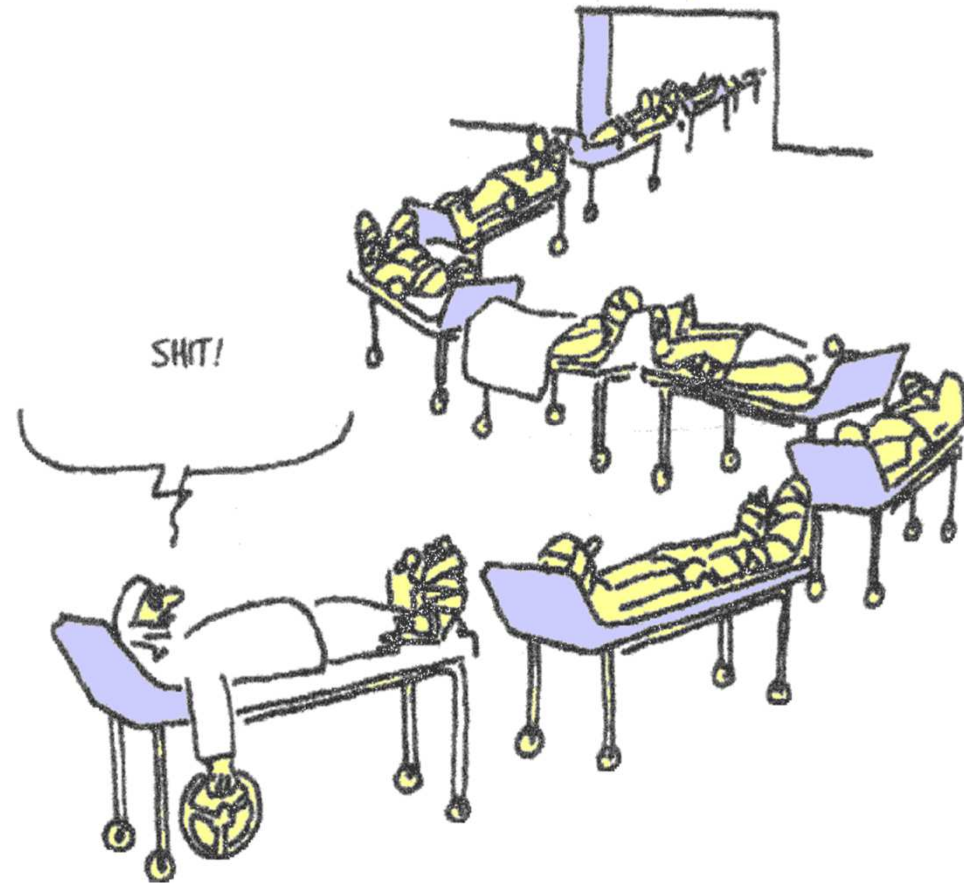
Who? ....

Remember, nobody's perfect!

If at first you don't succeed, try again.

This brief intervention package is based on the Drink-Less programme originally developed at the University of Sydney as part of a W.H.O. collaborative study.

Less hidden in secondary care



Assessment

- Diagnosis of pattern and dependence
- Risk assessment
- Use of tools –AUDIT.SADQ/LDQ/
- Physical and mental health needs
- Cognition/Housing/employment/criminality
- Support /family
- Motivational approaches
- Development of clusters (NICE 2011)

If you don't think about it, you wont see it

- Index of suspicion
- Screening – ask everyone–SMAST-G (College report 2011)
- Medical conditions-related?
- Awareness of inconsistencies, masking of symptoms
- Associations-many other physical conditions
- Investigations- physical and testing

- Management of withdrawal
- Reduction of harms/treatment of physical consequences
- Prevention of complications
- Relapse prevention
- Stability / quality of lifestyle
- Management of comorbid psychiatric disorders
- Monitoring and careful follow-up.

Management of Acute Alcohol Withdrawal

- Strong desire/sense of compulsion
- Impaired capacity to control substance taking behaviour
- Physiological withdrawal state
- Tolerance
- Preoccupation with use
- Persistent use despite clear evidence of harmful consequences

(ICD 10)

Withdrawal management

- Fixed dose
- Symptom triggered
- Front loading (NICE 2010)

- Adjunctive medication
- Monitoring
- BDZ, generally long acting
- Management of confusional state- DT
- Prophylactic vits/ treatment of WE

DETOXIFICATION

- Benzodiazepines Mayo – Smith 1997, BAP 2004
- Chlormethiazole –inpatient Morgan 1995
- Carbamazepine Williams 1998
- Different regimes BAP 2004
- Settings - dependent on severity
- Management of complications
- NICE-2010 symptom triggered in hospital

ACUTE ALCOHOL WITHDRAWAL FEATURES

- Early
  - Onset 3-12h, peak 24-48h, lasts 5-7days
  - Tremor, sweating, anorexia ,nausea, anxiety, insomnia, tachycardia, systolic hypertension, headache

- Severity assessment – experience and CIWA-Ar

Who is at Risk of Severe Withdrawal

HISTORY OF WITHDRAWAL SEIZURES
HISTORY OF DELIRIUM TREMENS
BLOOD ALCOHOL LEVEL >1000mg/L
with signs of autonomic excitation

- **Criteria for Admission**

- Admit patients in acute withdrawal who are at high risk of severe withdrawal, DTs or withdrawal seizures.

Withdrawal Seizures

- 10-60h, peak 12-24h, grand-mal, usually self-limiting
- Rare to have first seizure after 48 hours
- Predisposing factors: ↓Glu, ↓K^+, ↓Mg^{2+}, epilepsy

Withdrawal seizures

- It is rare for alcohol related seizures not to be self-terminating
- The goal is to prevent incidence by instituting a sufficient detoxification regime
- Phenytoin is ineffective in management of alcohol related seizures
- Lorazepam is effective for both control and prevention of seizures NICE 2010

Delirium Tremens

- 48-72h, confusion, agitation, hallucinations, paranoia
- **HYPERTENSION, TACHYCARDIA, HYPERPYREXIA**
- ~ 5% incidence, precipitated by concurrent (febrile) illness
- Death rate 5-10%, older, arrhythmias, concurrent illness

Delirium Tremens

- Serious complication of alcohol withdrawal

Insufficient or Ineffective treatment

Patients presenting late with established symptoms who have not yet received any treatment

- Occurs 48-72 hours
- Mortality
- 1st line oral Lorazepam
- 2nd line IV Lorazepam/Olanzapine/Haloperidol
- Involve senior clinicians early

Clinical Institute Withdrawal Assessment of Alcohol Scale, Revised (CIWA-Ar)

Patient:_________________________ **Date:** ________________ **Time:** _______________ (24 hour clock, midnight = 00:00)

Pulse or heart rate, taken for one minute:_________________________ **Blood pressure:**______

NAUSEA AND VOMITING -- Ask "Do you feel sick to your stomach? Have you vomited?" Observation.
0 no nausea and no vomiting
1 mild nausea with no vomiting
2
3
4 intermittent nausea with dry heaves
5
6
7 constant nausea, frequent dry heaves and vomiting

TACTILE DISTURBANCES -- Ask "Have you any itching, pins and needles sensations, any burning, any numbness, or do you feel bugs crawling on or under your skin?" Observation.
0 none
1 very mild itching, pins and needles, burning or numbness
2 mild itching, pins and needles, burning or numbness
3 moderate itching, pins and needles, burning or numbness
4 moderately severe hallucinations
5 severe hallucinations
6 extremely severe hallucinations
7 continuous hallucinations

TREMOR -- Arms extended and fingers spread apart. Observation.
0 no tremor
1 not visible, but can be felt fingertip to fingertip
2
3
4 moderate, with patient's arms extended
5
6
7 severe, even with arms not extended

AUDITORY DISTURBANCES -- Ask "Are you more aware of sounds around you? Are they harsh? Do they frighten you? Are you hearing anything that is disturbing to you? Are you hearing things you know are not there?" Observation.
0 not present
1 very mild harshness or ability to frighten
2 mild harshness or ability to frighten
3 moderate harshness or ability to frighten
4 moderately severe hallucinations
5 severe hallucinations
6 extremely severe hallucinations
7 continuous hallucinations

PAROXYSMAL SWEATS -- Observation.
0 no sweat visible
1 barely perceptible sweating, palms moist
2
3
4 beads of sweat obvious on forehead
5
6
7 drenching sweats

VISUAL DISTURBANCES -- Ask "Does the light appear to be too bright? Is its color different? Does it hurt your eyes? Are you seeing anything that is disturbing to you? Are you seeing things you know are not there?" Observation.
0 not present
1 very mild sensitivity
2 mild sensitivity
3 moderate sensitivity
4 moderately severe hallucinations
5 severe hallucinations
6 extremely severe hallucinations
7 continuous hallucinations

ANXIETY -- Ask "Do you feel nervous?" Observation.
0 no anxiety, at ease
1 mild anxious
2
3
4 moderately anxious, or guarded, so anxiety is inferred
5
6
7 equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions

HEADACHE, FULLNESS IN HEAD -- Ask "Does your head feel different? Does it feel like there is a band around your head?" Do not rate for dizziness or lightheadedness. Otherwise, rate severity.
0 not present
1 very mild
2 mild
3 moderate
4 moderately severe
5 severe
6 very severe
7 extremely severe

NICE physical care 2010

- Physical care CG100 – detoxifications, favoured symptom triggered over front loading or fixed dose regimes in hospitals
- CG115 - noted symptom triggered for inpatient settings and with sufficient monitoring
- Fixed dose regimes in community CG115
- Advice on management of delirium tremens and seizures

- Specialist services with integration and comprehensiveness

Packages of care

- Assessment
- Care planning/ Case management
- Withdrawal management
- Pharmacotherapy
- Psychosocial interventions
- Physical and psychiatric comorbidity /consequences
- Aftercare/recovery/reintegration

Pharmacological interventions

- Acute management of risk/OD-
- Detoxifications
- Relapse prevention- acamprosate, disulfiram and naltrexone, Nalmefene
- Treatment of co-morbid mental health and physical health
- Treatment of consequences to drug/alcohol
- Treatment of co-existing drug problems

Promoting relapse

- Reviewed - BAP(due 2012), NICE (2011)
- Recommendation - ‘after successful withdrawal for those with moderate / severe dependence consider use of acamprosate or naltrexone in combination with psychological interventions (CBT, behavioural therapies or SBNT) focused specifically on alcohol’
- For harmful / mild dependence if no response to psychological therapies alone
- Decision not to prescribe should be active

Promoting relapse - acamprosate

- Acamprosate - glutamatergic NMDA antagonist, good systematic reviews(Rosner 2010, NICE 2011, Slattery 2003) compared to placebo moderately effective in increasing abstinence
- Reduction of heavy drinking after relapse (NICE 2011 Chick 2003) similar to naltrexone (Rosner 2010)
- Who to give to ? Subgroups Project PREDICT to publish Mann (2009), Start after detox, up to 6 months if effect(NICE), others suggest to a year

Promoting relapse - naltrexone

- Naltrexone opioid antagonist - reduces craving NICE 2011, 50mg/d significantly reduces relapse to heavy drinking
- Start after detox, 6/12 ?optimal period not clear, unclear responders
- Injectable naltrexone - monthly- extended release
- Nalmefene - better safety profile
- No overall superiority of naltrexone over acamprosate

Promoting relapse - others

- Disulfiram supervised use important
- NICE (2011) second line use / patient preference
- Baclofen GABA-B agonist, consider if wants abstinence, not benefitted from acamprosate / naltrexone, high anxiety
- Anticonvulsants - topiramate (Shinn 2010, Johnson 2010)
- Pregabalin (Martinotti 2010)
- SSRIs – avoided?
- Aripiprazole, GHB, Ondansetron - single studies

Nalmefene

- Recent NICE advice -2014
- Use for those with no or mild dependence
- ?AUDIT score below 20
- Assessment and then review after 2 weeks
- Then use of nalmefene for period

Specialist addictions - alcohol

- Comprehensive assessment
- Psychosocial treatments: MI, SBNT, CBT etc
- Assisted withdrawal: BDZ, differing settings
- Relapse prevention pharmacotherapy: eg naltrexone, acamprosate, disulfiram, others
- Case management: integrated care
- Working with families, carers and recovery groups eg AA and other support groups

(NICE 2011)

Treatments

- Comprehensive assessments
- Manage all aspects – social, psychological and psychiatric difficulties
- Hopeful and aspirational
- Recovery – culture, other users, social capital
- Self help groups - not just signposting – active support to engage

Harmful and mild dependence

- Cognitive behavioural therapies, behavioural therapies or social network and environment based therapies=focus specifically on alcohol related cognitions, problems and social networks
- Behavioural couples therapy –
- If not responded add pharmacological approaches (NICE)

Moderate and severe dependence

- CBT, behavioural therapies, (usually for 12 weeks)
- Pharmacological therapies- treating of withdrawal and relapse prevention
- Treatment of co-morbid conditions using NICE guidelines
- Intensive programme: drug regimen, individual treatments, group treatments, psychoeducational interventions, self help groups, family and carer supports and case management (NICE 2011)

Self help groups

- AA / NA and other similar – principles of the 12 step approach
- SMART recovery - self management and recovery training
- Secular organisations for sobriety SOS
- Women for sobriety

ALCOHOLICS ANONYMOUS

Bill W and Dr Bob S 1935, Codified in 12 Steps 1939, Estimated 2 million active members, in 140 countries.

- Attendance – improvement in drinking behaviour

  Emrick 1993

- Number of meetings **Humphreys 1997,Finney et al 1999**
- 12 Step after inpatient treatment helped maintain gains

  Finney et al 1999

- 12 Step better for those with social drinking support system **Project Match 1999**

TESTING

- Role of Testing
- Clinical settings
- Courts and regulatory settings

Testing

- Breathalyser
- Blood tests:
  - FBC – full blood count
  - LFT – liver function tests to include Gamma-GT (gamma glutamyltransferase)
  - ALT - alanine aminotransferase
  - AST - aspartate aminotransferase
  - CDT- carbohydrate deficient transferrin
- Hair tests
- Urine tests / oral exudate

	CDT	GGT	ALT	AST	MCV
abnormal range	>1.6	>45/53	>37 U/L	>34U/L	>100 fl
Time to elevation	2-3/52	Up to 2 weeks	3-7 days	3-7days	>6 weeks
Time to reduce to normal levels	2 weeks of abstinence	2-6 weeks abstinence	Half life 24 hours	Half life – approx 50 hours	3 months
Sensitivity	55-90%	37-85%	AST:ALT ratio >2:1	70% sensitivity 92-100% specificity	20-70%
Specificity	92-97%	18-90%			36%

CDT

- Carbohydrate deficient transferrin
- 7-14 days
- Cut-off levels: labs, contexts
- Other causes: advanced liver disease, variants, rare syndromes, biological variability
- Interpretation: 95% specificity
- Amount consumed and %CDT not as reliable in pre-menopausal women
- Binge drinkers?
- Never interpret in isolation - combine with other tests and history

- Cannot be used to prove abstinence
- Cannot be used to determine amount or pattern of alcohol at particular time
- Must be longer segment – site of segment
- Use of both EtG (ethylglucuronide) and FAEE (fatty acid ethyl esters) to reduce possibilities of false positives and false negatives

Conclusions

- GP role crucial –positive culture
- Supportive to patient and families
- Physical and mental care important - prevention and treatment
- Comprehensiveness
- Integrated with other services
- issues of safeguarding, driving, professionals and drinking, fitness to work, etc