know your numbers
Alcohol, Health and the NHS

• England 2013:

• 15% of men and 20% of women did not drink any alcohol in the last year.

• Of those who do drink; 18% of men and 13% of women drank at an increased risk of harm (more than 4 units for men, or 3 units for women, but less than double).

• 5% of men and 3% of women drank at higher risk levels (more than 8 units for men or 6 units for women a day or 50 or 35 units a week).

• Although drinking trends are going down, the impact of people’s long term drinking and binge drinking (double the lower limit 6) over time is placing more demands on our National Health Service.
• In 2013/14, there were an estimated 1,059,210 admissions related to alcohol consumption where an alcohol-related disease, injury or condition was the primary reason for hospital admission or a secondary diagnosis.

• Of these the highest number of admissions, 511,260 (48 per cent of all admissions), were due to cardiovascular disease in 2013/14.

• In England, in 2013 there were 6,592 alcohol-related deaths, a 1% increase from 2012 (6,495) and a 10% increase from 2003 (5,984).

• For 16-24-year olds, 26% of deaths in males and 23% of deaths in females have been attributed to alcohol consumption.

• Alcohol is the leading cause of death among 15 to 49 year olds (PHE alcohol evidence review).

• Source: From Health and Social Care Information Centre June 2015
The Estimated Cost of Alcohol Harm

- To society is £21 billion per year.
- To NHS is £3.5 billion per year
- This is equal to £120 for every taxpayer.

(House of Commons Health Select Committee on the Government’s Alcohol Strategy – Third Report of Session 2012-2013)
National Guidance on Alcohol Consumption

• The Chief Medical Officer has guidance on alcohol consumption to reduce health harms.

• This is described in term the number of ‘units’.

• In addition the Royal College of Psychiatrists has given guidance (based on old guidelines) for older adults.
Your Turn!

What do you think the recommended daily unit consumption is?

• Adult female
• Adult male
• A young person 15-17 years
• Child under 15
• Older adult 65+
## Unit Consumption Answers

### What do you think the recommended daily unit consumption is?

<table>
<thead>
<tr>
<th>Adult Male and Female</th>
<th>14 units per week spread over several days, with benefit of 2 or more alcohol free days</th>
</tr>
</thead>
<tbody>
<tr>
<td>A young person 15-17 years</td>
<td>Parents and young people should be aware that drinking, even at age 15 or older, can be hazardous to health and that not drinking is the healthiest option for young people. If 15 to 17 year olds do consume alcohol they should do so infrequently and certainly on no more than one day a week. Young people aged 15 to 17 years should never exceed recommended adult limits and on days when they drink, consumption should usually be below such levels.</td>
</tr>
<tr>
<td>Child under 15</td>
<td>None. Children and their parents and carers are advised that an alcohol-free childhood is the healthiest and best option, However, if children drink alcohol, it should not be until at least the age of 15 years</td>
</tr>
<tr>
<td>Older adult 65+</td>
<td>Half the adult consumption</td>
</tr>
</tbody>
</table>
Chief Medical Officers’ guideline 2016

• **Men and Women:**
  • You are safest not to drink regularly more than 14 units per week, to keep health risks from drinking alcohol to a low level.
  • If you do drink as much as 14 units per week, it is best to spread this over 3 days or more. If you have one or two heavy drinking sessions, you increase your risks of death from long term illnesses and from accidents and injuries.
  • The risk of developing a range of illnesses (including, for example, cancers of the mouth, throat and breast) increases with any amount you drink on a regular basis.
  • If you wish to cut down the amount you’re drinking, a good way to help achieve this is to have several drink-free days each week.
What does that mean?

• Men and Women
• **14 units per week** spread over several days

6 pints of 4% ABV beer/lager/Ale
*Beck’s Vier, Boddingtons, Carling, Carlsberg, Fosters, Guinness, John Smith’s, Stella (low strength)*

6 MEDIUM 175ml glasses of 13% ABV wine.
(most wine is between 12-15%)
What does that mean?

- **Men and Women**
- **14 units per week** spread over several days

5 PINTS (568mls) 4.5% ABV Cider. Bulmers, Gaymer, Magners, Stella Cidre, Strongbow.

14 single shots (25ml) 40% ABV
If you are pregnant or planning a pregnancy, the safest approach is not to drink alcohol at all, to keep risks to your baby to a minimum. Drinking in pregnancy can lead to long-term harm to the baby, with the more you drink the greater the risk. Most women either do not drink alcohol (19%) or stop drinking during pregnancy (40%). The risk of harm to the baby is likely to be low if a woman has drunk only small amounts of alcohol before she knew she was pregnant or during pregnancy. Women who find out they are pregnant after already having drunk during early pregnancy, should avoid further drinking, but should be aware that it is unlikely in most cases that their baby has been affected. If you are worried about how much you have been drinking when pregnant, talk to your doctor or midwife.
Alcohol Risk Levels

• **Lower risk**- If your drinking falls on or below the lower risk guidelines. (14 units per week spread over 3 or more days.)

• **Increased risk**- If you are regularly exceeding the lower risk guidelines, you start to risk longer-term harm to your health. Alcohol-related illnesses include liver and heart diseases, various cancers and stroke.

• **Higher risk of harm** - If you regularly consume more than double the upper limit of the lower risk guidelines your health will almost certainly be harmed.
What is a Unit and How do I calculate it?

• 1 unit = 8g/10ml of pure alcohol.
• To work out the units of different drinks use the following formula.

\[
\text{Unit(s)} = \frac{\%ABV \times \text{volume (ml)}}{1000}
\]

Here’s an example

A pint of lager (ABV) 5.3% x (volume) 568 mls ÷ 1000 = 3 units
Your Turn!

- Using the formula \( \%\text{ABV} \times \text{Volume} \div 1000 = \text{UNITS} \) calculate the following.

<table>
<thead>
<tr>
<th>Volume</th>
<th>ABV</th>
</tr>
</thead>
<tbody>
<tr>
<td>275mls</td>
<td>4.5%</td>
</tr>
<tr>
<td>125mls</td>
<td>12%</td>
</tr>
<tr>
<td>568mls</td>
<td>6.1%</td>
</tr>
<tr>
<td>25mls</td>
<td>40%</td>
</tr>
<tr>
<td>568mls</td>
<td>4.5%</td>
</tr>
<tr>
<td>175mls</td>
<td>14%</td>
</tr>
</tbody>
</table>
Unit answers

• Using the formula %ABV x Volume ÷ 1000 = UNITS calculate the following.

<table>
<thead>
<tr>
<th>Volume</th>
<th>%ABV</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>275mls</td>
<td>4.5%</td>
<td>1.2</td>
</tr>
<tr>
<td>125mls</td>
<td>12%</td>
<td>1.5</td>
</tr>
<tr>
<td>568mls</td>
<td>6.1%</td>
<td>3.5</td>
</tr>
<tr>
<td>25mls</td>
<td>40%</td>
<td>1</td>
</tr>
<tr>
<td>568mls</td>
<td>4.5%</td>
<td>2.5</td>
</tr>
<tr>
<td>175mls</td>
<td>14%</td>
<td>2.3</td>
</tr>
</tbody>
</table>
What does this tell us?

• Not many drinks are a single unit!
• Pouring drinks without a measure makes it difficult to keep track of units
• If a person drinks alcohol s/he needs to be able to calculate his/her units (go to the Know Your Numbers campaign [www.facebook.com/iknowmynumber](http://www.facebook.com/iknowmynumber)) and how this relates to national consumption guidance (DoH)
• As a member of staff you can educate patients about units

Why is this important?
Alcohol consumption and health.

The diagram gives an overview of the damage alcohol can do to someone’s health.
Alcohol Consumption and Health Cont.

- **Medical Information** When you reduce your drinking short term effects of alcohol can improve; sleeplessness, stress, memory loss, sweating, shaking, loss of appetite, stomach problems, anxiety, diarrhoea, sickness, bad skin and weight gain.

- **Weight gain** - Alcohol contains lots of calories, almost as many as pure fat! [nhs.uk/Livewell/alcohol/Pages/calories-in-alcohol.aspx](nhs.uk/Livewell/alcohol/Pages/calories-in-alcohol.aspx)

<table>
<thead>
<tr>
<th>Image</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wine</td>
<td>148</td>
</tr>
<tr>
<td>Coffee</td>
<td>260</td>
</tr>
<tr>
<td>Bottle</td>
<td>411</td>
</tr>
<tr>
<td>Pizza</td>
<td>1577</td>
</tr>
</tbody>
</table>

![Calorie comparison chart](chart.png)
Alcohol increases the risk of many medical conditions including heart attack, stroke, pancreatitis and high blood pressure.

- **Cancer** - Alcohol increases the risk of 7 types of cancer (liver, bowel, breast, mouth, pharyngeal, oesophageal and laryngeal cancer).

- **Liver Disease** – Alcohol can cause inflammation in the liver, whether the heavy drinking is every day or just a few days a week. Over time scarring and cirrhosis can occur.

Healthy liver, Fatty Liver, Cirrhotic Liver
Alcohol consumption and levels of risk.

- The following table highlights the importance of:
  - drinkers need to know their unit consumption (Know Your Numbers) in order to keep to low risk drinking levels
  - providing patient education, advice and screening for those attending hospital

<table>
<thead>
<tr>
<th></th>
<th>Regularly consuming 25g (3 units) daily</th>
<th>Regularly consuming 50g (6 units) daily</th>
<th>Regularly consuming 100g (12 units) daily</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cancers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mouth and throat</td>
<td>96%</td>
<td>211%</td>
<td>545%</td>
</tr>
<tr>
<td>Colon</td>
<td>5%</td>
<td>10%</td>
<td>21%</td>
</tr>
<tr>
<td>Oesophagus</td>
<td>39%</td>
<td>93%</td>
<td>259%</td>
</tr>
<tr>
<td>Rectum</td>
<td>9%</td>
<td>19%</td>
<td>21%</td>
</tr>
<tr>
<td>Liver</td>
<td>19%</td>
<td>40%</td>
<td>81%</td>
</tr>
<tr>
<td>Larynx</td>
<td>43%</td>
<td>102%</td>
<td>286%</td>
</tr>
<tr>
<td>Breast</td>
<td>25% (f)</td>
<td>55% (f)</td>
<td>141% (f)</td>
</tr>
<tr>
<td><strong>Cardiovascular</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td>43%</td>
<td>104%</td>
<td>315%</td>
</tr>
<tr>
<td>Ischaemic stroke</td>
<td>-10%</td>
<td>17%</td>
<td>337%</td>
</tr>
<tr>
<td>Haemorrhagic stroke</td>
<td>19%</td>
<td>82%</td>
<td>370%</td>
</tr>
<tr>
<td>Cardiac arrhythmias</td>
<td>51%</td>
<td>123%</td>
<td>123%</td>
</tr>
<tr>
<td>Oesophageal varices</td>
<td>26%</td>
<td>854%</td>
<td>854%</td>
</tr>
<tr>
<td>Unspecified liver disease</td>
<td>26%</td>
<td>854%</td>
<td>854%</td>
</tr>
<tr>
<td>Acute and chronic pancreatitis</td>
<td>34%</td>
<td>74%</td>
<td>219%</td>
</tr>
</tbody>
</table>
For female **Breast Cancer**, relative risks of both illness and death from the disease increase:

- by 16% if drinking regularly at 2 units (16 grams) per day (equivalent to the proposed guideline level)
- by 40% if drinking regularly at 5 units (40 grams) per day (more than double the proposed guideline level)

For **Cirrhosis of the Liver**, for men, relative risks of death from the disease increase:

- by 57% if drinking regularly at 2 units (16 grams) per day (equivalent to the proposed guideline level)
- by 207% if drinking regularly at 5 units (40 grams) per day (more than double the proposed guideline level)
Alcohol Health Harm

For **Ischaemic Stroke**, for men, relative risks of death from the disease:
- decrease by 11% if drinking regularly at 2 units (16 grams) per day (equivalent to the proposed guideline level)
- increase by 3% if drinking regularly at 5 units (40 grams) per day (more than double the proposed guideline level)

For **Cardiac Arrhythmias**, for men, relative risks of illness and death from the disease increase:
- by 13% if drinking regularly at 2 units (16 grams) per day (equivalent to the proposed guideline level)
- increase by 34% if drinking regularly at 5 units (40 grams) per day (more than double the proposed guideline level)
Support

• **Tips on how to cut down:**
  [http://www.nhs.uk/Change4Life/Pages/cutting-down-alcohol.aspx](http://www.nhs.uk/Change4Life/Pages/cutting-down-alcohol.aspx)

• **Drinks Diary App:** drinkcoach.org.uk

• **Leaflet:** ‘Your drinking and You’ NHS leaflet

• **Key websites:**
  - [www.twitter.com/iknowmynumber](http://www.twitter.com/iknowmynumber)
  - [www.facebook.com/iknowmynumber](http://www.facebook.com/iknowmynumber)
  - [http://www.nhs.uk/Tools/Pages/Alcohol-unit-calculator.aspx](http://www.nhs.uk/Tools/Pages/Alcohol-unit-calculator.aspx)
  - [www.nhs.uk/Change4Life/Pages/drink-less-alcohol.aspx](http://www.nhs.uk/Change4Life/Pages/drink-less-alcohol.aspx)
  - [http://www.alcohollearningcentre.org.uk/eLearning/IBA/platforms](http://www.alcohollearningcentre.org.uk/eLearning/IBA/platforms)
  - [https://www.drinkaware.co.uk/](https://www.drinkaware.co.uk/)