



Alcohol

Introduction

This activity involves some quick multi-choice questions on alcohol and then a data analysis question on relative and absolute risks.

Part 1 How much do you know about alcohol?

Answers

- 1 - B
- 2 - A
- 3 - C
- 4 - B
- 5 - C
- 6 - C

Part 2 Risk data

This would be suitable for homework

Suggested answers

1. *A direct correlation, risk increases with consumption*
2. *For men aged 45 –54 alcohol consumption of around 7 units a week produces the lowest relative risk. Risk increases relative to no alcohol above 20 units a week, there is then a direct correlation between consumption and risk.*
- 3.

	Age 16 - 24	Age 45 – 54
Total number in the UK 2002	3.5 million	3.8 million
Relative risks		
risk of death relative to non-drinkers if drinking 35 units a week	1.4	1.08
percentage increase in death rate	40%	8%
Absolute risks		
death rate per 10 000 per year for non-drinkers in this age group	6	41
death rate per 10 000 per year for those drinking 35 units a week in this age group	8.4	44.3

4. How would you answer the question 'Which age group is more at risk from alcohol?' Consider both the relative risk and the absolute numbers dying.

The relative risk is far greater for the younger men, an increase of 40%

However because few young men die the absolute increase is greater for the older men - an increase of 3.3 per 10 000 as compared to 2.4 per 10 000.

5. Use the data in Figure 3 to explain the difference between relative risk and absolute risk and which provides the more useful information.

Relative risk compares the risk of one group with that of another, in this case the risk of death in those drinking 35 units a week is compared with the risk of those of the same age who do not drink at all. It is a useful way of identifying risk factors. However it tells us nothing at all about how great the risk is. An increase of 40% in a low risk is still quite a low risk.

Figures 1 and 2 are reproduced from the AS SPU 1 examination June 2005, with kind permission from AQA.

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Alcohol

Part 1 How much do you know about alcohol?

1. A unit of alcohol is how many grams of alcohol

- A 15g
- B 8g
- C 5g
- D 20g

2. Alcohol increases your risk of death. For 15 – 24 year olds what is the threshold below which alcohol has no risk

- A 0 units per week
- B 3 units per week
- C 7 units per week
- D 14 units pre week

3. The drink drive limit in the UK is

- A 0.0% alcohol in blood
- B 0.5 % alcohol in blood
- C 0.8 % alcohol in blood
- D 1.0 % alcohol in blood

4. The percentage of motor accidents in the UK that are caused by alcohol is

- A 5%
- B 20%
- C 30%
- D 50%

5. The percentage of murders in the UK in which alcohol is involved is

- A 5%
- B 10%
- C 25%
- D 40%

6. One can of lager contains how many units of alcohol

- A 0.5
- B 1
- C 2
- D 3

Part 2 Risk data

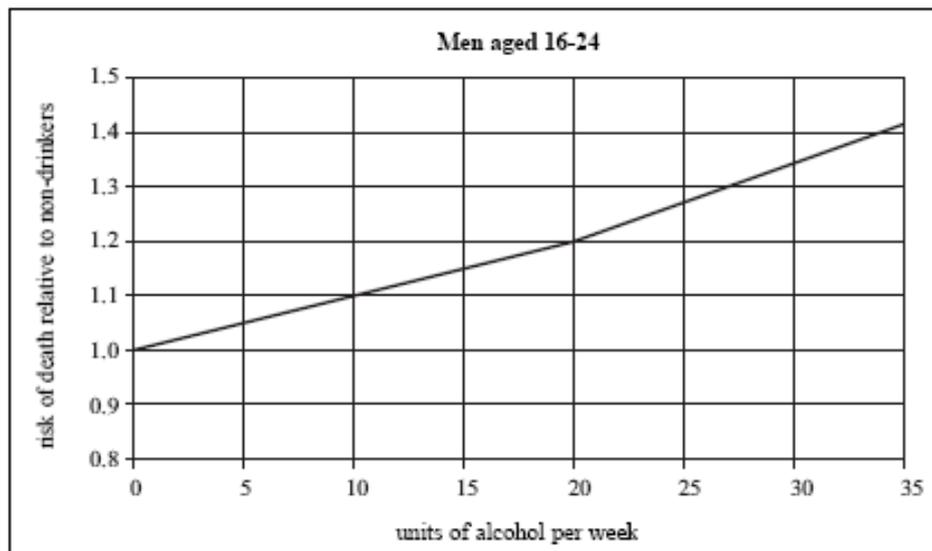


Figure 1 The relationship between alcohol consumption and the relative risk of death in one year from all causes for men aged 16-24

1. Describe the relationship between alcohol consumption and risk of death shown in Figure 1.

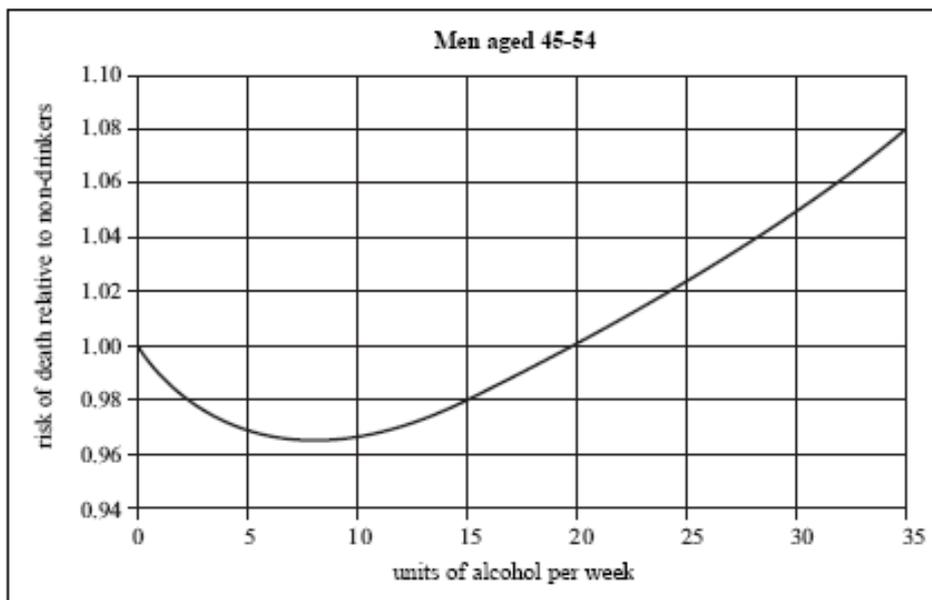


Figure 2 The relationship between alcohol consumption and the relative risk of death in one year from all causes for men aged 45-54

2. What conclusions can you draw from Figure 2?

	Men aged 16 - 24	Men aged 45 – 54
total number in the UK 2002	3.5 million	3.8 million
Relative risks		
risk of death relative to non-drinkers if drinking 35 units a week		
percentage increase in death rate		8%
Absolute risks		
death rate per 10 000 per year for non-drinkers in this age group	6	41
death rate per 10 000 per year for those drinking 35 units a week in this age group		44.3

Figure 3 Relative and absolute risks from alcohol for men in the UK

- Complete Figure 3 using data from Figures 1 and 2.
- How would you answer the question 'Which age group is more at risk from alcohol?'. Consider both the relative risk and the absolute numbers dying.
- Use the data in Figure 3 to explain the difference between relative risk and absolute risk.
- Write a headline for a news story on why the government should do more to reduce drinking in young people. Include data from the table to dramatise the harmful effects of alcohol.
- Write a headline for a news story sponsored by the drinks industry on why the risks to young people are exaggerated. Include data from the table to support your point.