



Institute  
and Faculty  
of Actuaries

# The Effect of Sugar on Health

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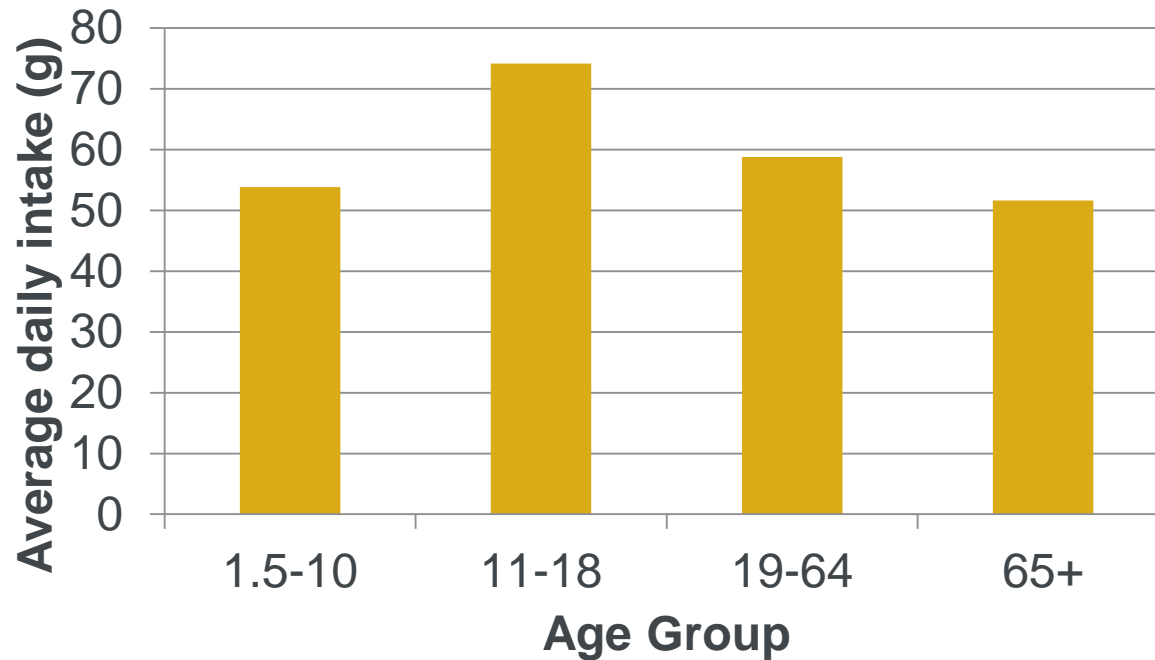


# Sugar is everywhere



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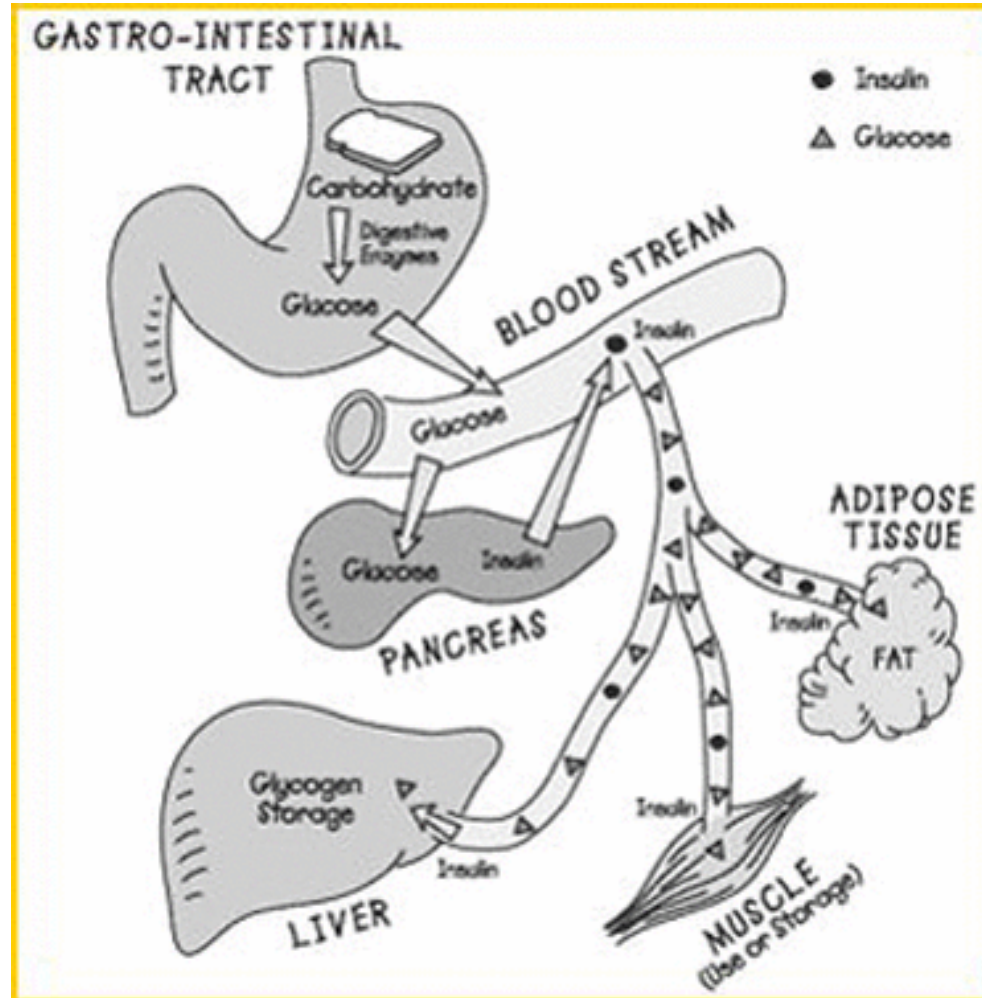
## Average Daily intake of Non-milk extrinsic sugars (g)



- WHO 2015 draft guidelines:
- Reduce sugar to <5% of total energy intake (~25g) a day

Source: National Diet and Nutrition Survey, 2008/2009 – 2011/2012

# The problem with sugar



# Why we love sugar

- Humans are designed to crave sugar
- Sugar has a similar effect on our brains as any addictive substance



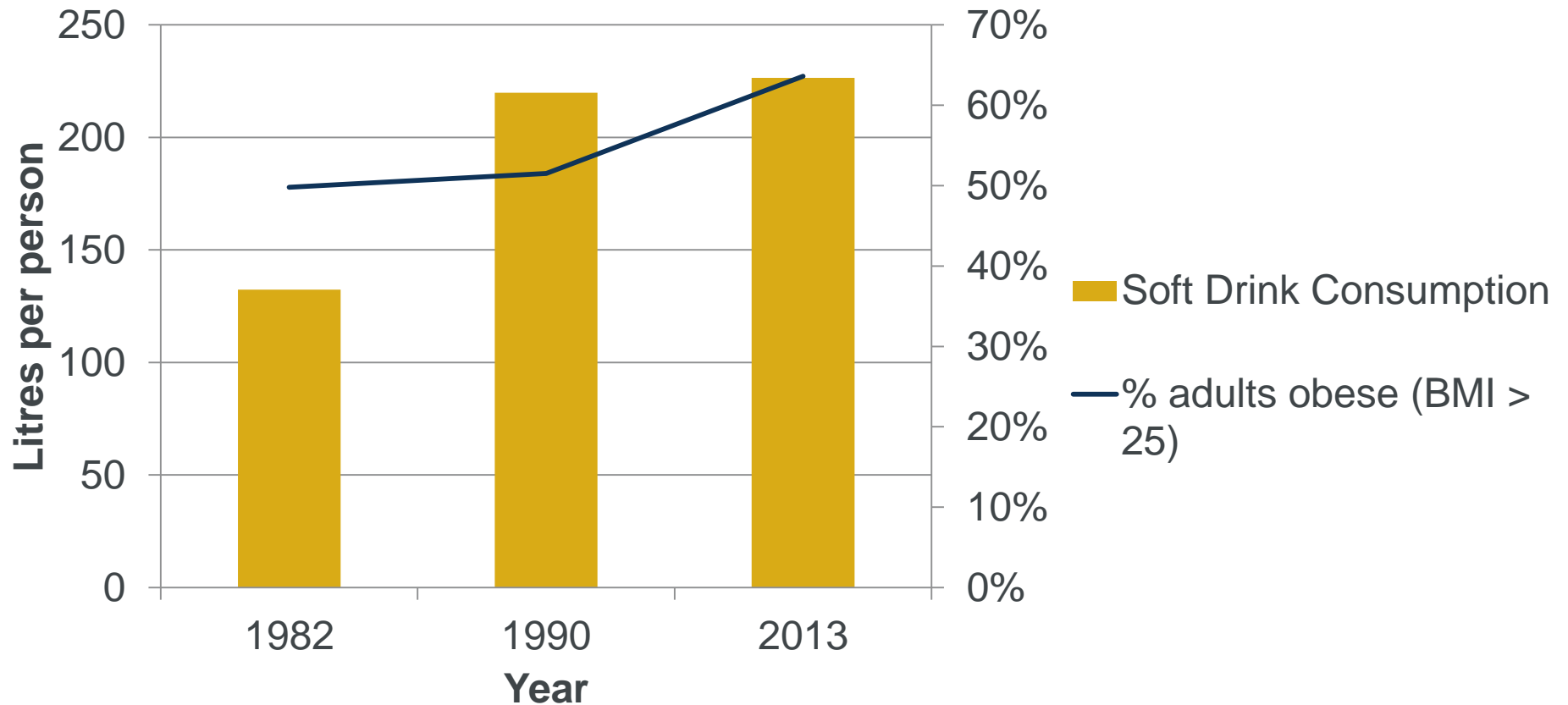


# Impact on health

- It can lead to tooth decay
- Stresses the liver => Non-Alcoholic Fatty Liver Disease
- Can lead to insulin resistance, a driver for metabolic syndrome, cardiovascular disease, obesity, Type 2 diabetes
- Increased risk of cancer, owing to elevated levels of insulin and increased inflammation
- Leads to increased cholesterol, raised insulin and blood sugar, and abdominal obesity => major risk factors for heart disease.

# Impact on health

## UK soft drinks consumption vs obesity levels



# Considerations for life / health insurance

- Sugar consumption as a rating factor?
- Current rating factors measure risks which have already occurred
- What if we could predict someone's health risk by measuring sugar consumption?
- Sugar consumption not too distant a possibility:
  - Continuous Glucose Monitor, developed 4-5 years ago
  - Journal of Nutrition, June 2013: Scientists have identified a biomarker for dietary sugar
  - Non-invasive blood glucose measures, e.g. Gluco-Wise developed in 2014



# Considerations for life / health insurance





# Questions



# Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.