

# Obesity

## An Emerging Crisis in Pakistan

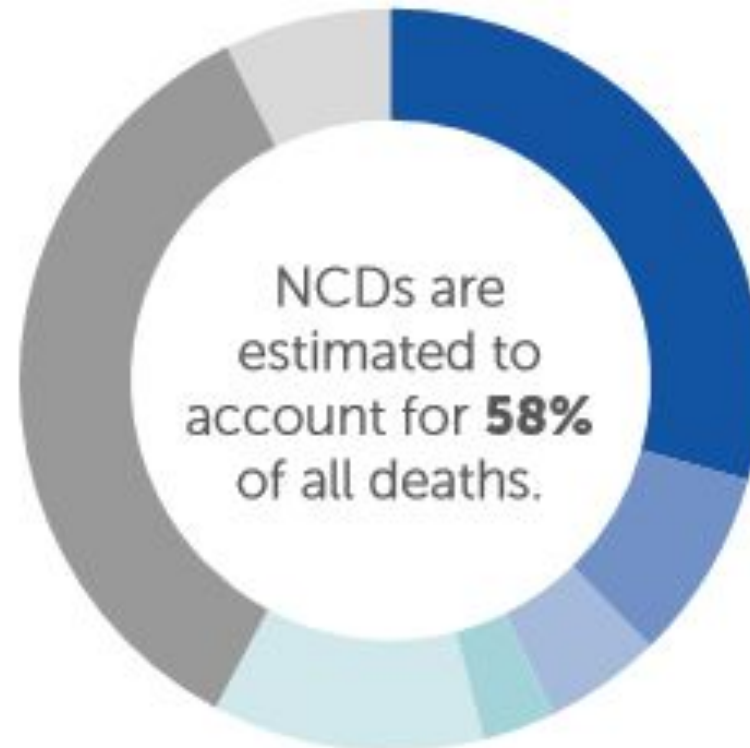
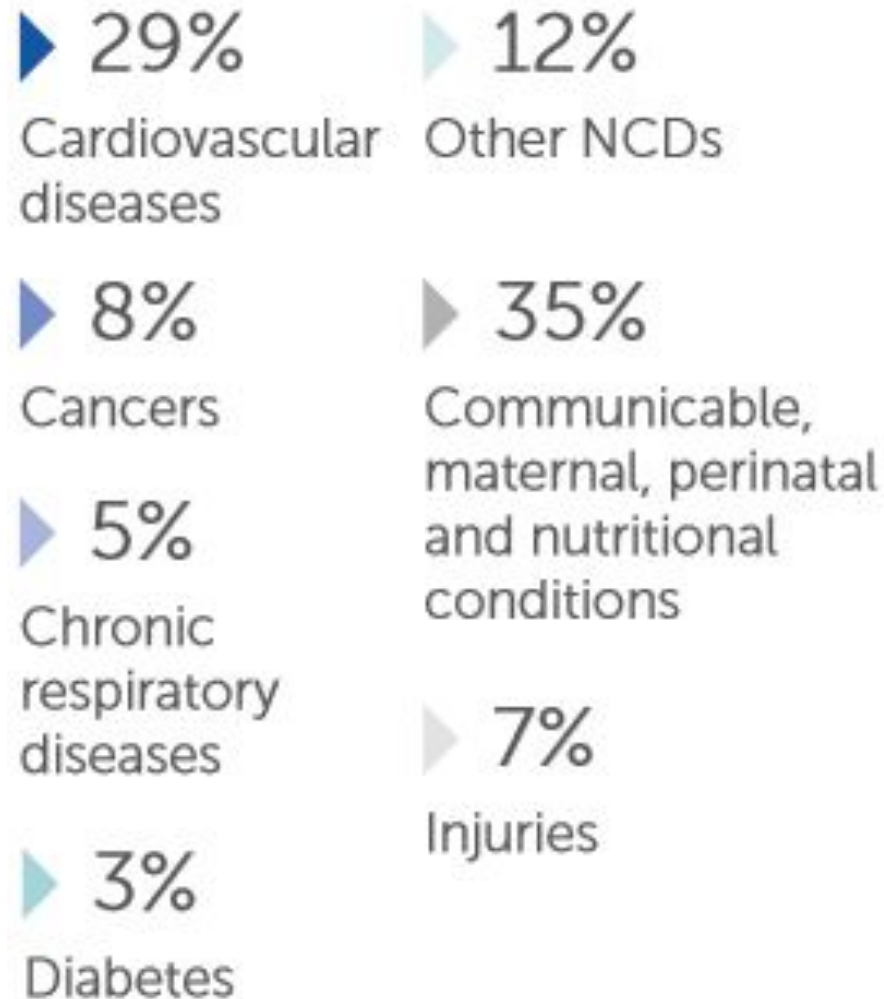


# Overweight and Obesity

- Abnormal or excessive fat accumulation that may impair health
- Body mass index (BMI) is a simple and commonly used method to identify overweight and obesity in adults
  - Overweight: BMI  $\geq 25$  and  $\leq 29.9$
  - Obesity: BMI  $\geq 30$
- In children under 5, compared with WHO growth standards
  - Overweight  $> 2$  standard deviations
  - Obesity  $> 3$  standards deviations
- In children 5-19 years
  - Overweight  $> 1$  standard deviations
  - Obesity  $> 2$  standards deviations

**Obesity** is associated with an elevated risk of several major **non-communicable diseases**, including type 2 diabetes, coronary heart disease, stroke, asthma, and several type of cancers.

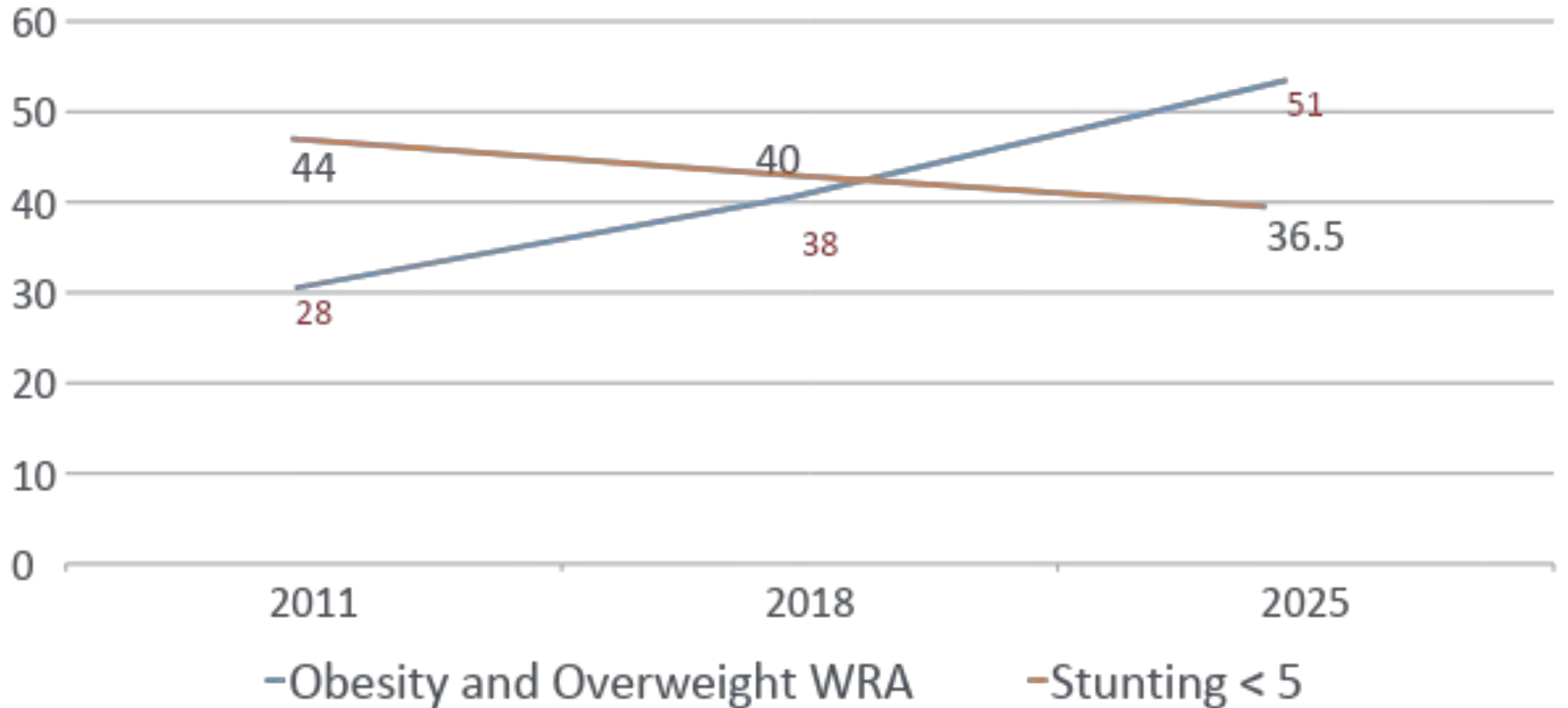
# NCDs Proportional Mortality - Pakistan



# Obesity and Overweight - Pakistan

- NNS confirmed that obesity and overweight increased in WRA from 28% to 38% from 2011 to 2018.
- In urban areas, 43.7% of WRAs are overweight or obese.
- Approximately 17% of adolescent girls, and 18% boys are obese or overweight.
- **The prevalence of overweight among children under five has almost doubled from 2011 to 2018.**

# Where Are We Heading?



# Major Causes of Obesity and Overweight

- Fundamental cause - an energy imbalance between calories consumed and calories expended.
- Increased intake of energy-dense, ultra-processed foods and beverages that are high in fat and sugars
- Decrease in physical activity
- COVID-19 further fueled the problem:
  - Restricted movements and physical activity
  - Limited access to healthy foods
  - Increased consumption of junk (ultra-processed) foods

# Unhealthy Food Leading to Obesity

- Increased sugar intake – sugary drinks
- Increased oil and fat intake
- Processed foods
- Shift from homemade to processed foods
- Fast food
- Water replaced by sugary drinks



# Processed Foods

- Processed and ultra-processed foods often include unhealthy levels of added sugar, sodium and fat.
- These ingredients make the food we eat taste better and these often lead to serious health issues like obesity, heart disease, high blood pressure and diabetes.

# Sugary Drinks

- Intake is significantly associated with weight gain, obesity and heart disease.
- **Drinking one sugary beverage daily doubles the risk of developing diabetes.**
- A child's risk of becoming obese increases by 60% with each additional sugary beverage consumed daily.
- Children who drink carbonated sugary beverages have almost double the risk of dental cavities.
- Drinking just one 20-ounce bottle of a sugary beverage per day can result in gaining 25 extra pounds per year.
- Fatty liver disease and metabolic kidney disease are consequences of sugary beverage intake.



# Prevention is Better Than Finding a Cure ....

- Say NO to sugary drinks
- Say NO to junk foods
- Increase physical activity
  - 60 minutes a day for children
  - 150 minutes spread through week for adults

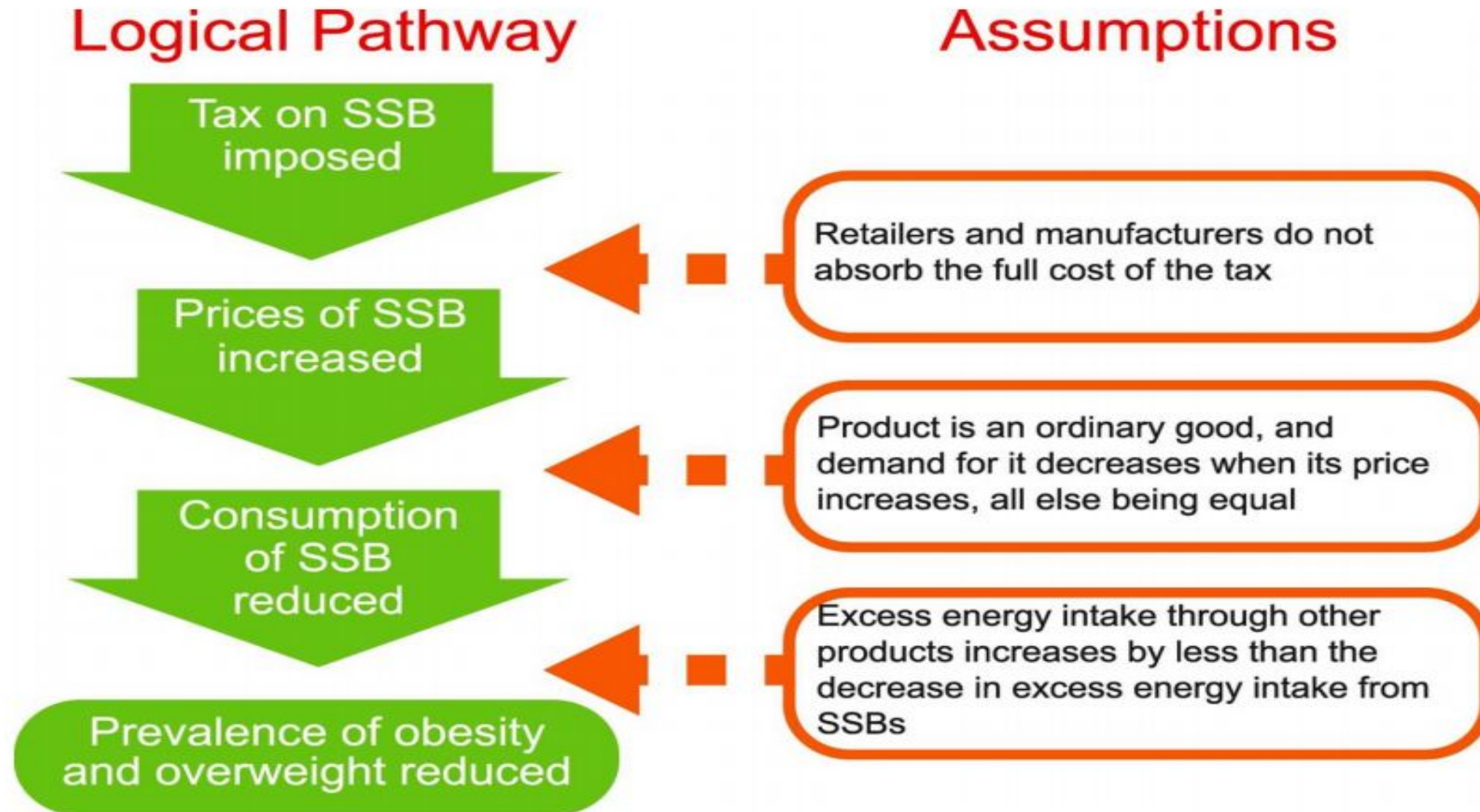


# What Can Policy Makers Do?

- Develop national strategy to combat obesity
- Make it easier for consumers to buy healthy foods
- **Increase taxes and make it less affordable to buy unhealthy products like sugary drinks**
- Incentivize businesses to supply healthy foods at affordable prices
- Regulate and keep strong checks on promotion of unhealthy foods and beverages
- Promote physical activity



# Impact of Taxes on Reduction of Obesity



# Impact of Taxes on Reduction of Obesity



| S# | Country             | Study Method | Impact   |
|----|---------------------|--------------|--|
| 1  | India 2014          | Modeling     | 20 % tax leads to 3% reduction in obesity and overweight and 1.6% reduction in type 2 diabetes.                          |
| 2  | South Africa 2014   | Modeling     | 20 % tax leads to 3.8% reduction in obesity prevalence in men and 2.4% reduction in women                                |
| 3  | Australia 2016      | Modeling     | 20 % tax leads to 2.7% reduction of obesity in men and 1.2% in women. Increase in tax revenue of A\$400 million annually |
| 4  | United Kingdom 2013 | Modeling     | 20% tax reduced 2.2% of obesity and overweight in adults<br>Increase in tax revenue of £276 million annually             |
| 5  | Ireland 2013        | Modeling     | 10% tax leads to 1.3 % reduction in obesity and 0.7% overweight  |

# Taxes Comparison- Pakistan vs Other Countries

## India

28% GST  
12% Goods & Services tax

## Bangladesh

40% total tax

## Norway

3.34 NOK per liter sugary drinks  
20.32 NOK per liter on concentrates

## United Kingdom

£0.18/liter on drinks with >5 grams sugar/100ml  
£0.24/liter on drinks >8 grams sugar/liter

## Pakistan

11.5% FED  
1% Sales tax

## Ireland

€0.20/liter on drinks with >5 grams sugar/100ml  
€0.30/liter on drinks >8 grams sugar/liter

## Saudi Arabia

100% excise on energy drinks  
50% on sweetened drinks

## Bahrain

100% excise tax on energy drinks  
50% on aerated drinks

## Qatar

100% excise on energy drinks  
50% on sweetened aerated drinks

# Pakistan's Sugary Drink Market - 2018

- Carbonated drinks: 4426 million liters with value of PKRs 387 billion
- Energy drinks: 224 million liters with value of PKRs 58.7 billion
- Juices: 733 million liters and value of PKRs 79 billion
- Carbonated drinks are forecasted to grow at a Compounded Annual Growth Rate (CAGR) of 7.3%
- Energy drinks are forecasted to grow @CAGR +14.6%
- Juice industry is growing with 20% value and 7% volume
- With current trends and CAGR, the juice industry will become 199 billion value with 1 billion liters of sale in 2023



# Sugary Drinks - Impact of Taxation on Revenue

| Category          | Value in PKR (billion) | Additional FED |              |              |              | Volume (M Litters) | Surcharge/Levy (per liter) in PKR billion |               |               |              |
|-------------------|------------------------|----------------|--------------|--------------|--------------|--------------------|---|---------------|---------------|--------------|
|                   |                        | 3%             | 5%           | 7%           | 10%          |                    | 4   | 6             | 8             | 10           |
| Carbonated Drinks | 387                    | 11.61          | 19.35        | 27.09        | 38.7         | 4426               | 17.704                                    | 26.556        | 35.408        | 44.26        |
| Energy drinks     | 58.7                   | 1.761          | 2.935        | 4.109        | 5.87         | 224                | 0.896                                     | 1.344         | 1.792         | 2.24         |
| Juices            | 79                     | 2.37           | 3.95         | 5.53         | 7.9          | 733                | 2.932                                     | 4.398         | 5.864         | 7.33         |
| <b>Total</b>      | <b>524.7</b>           | <b>15.74</b>   | <b>26.24</b> | <b>36.73</b> | <b>52.47</b> | <b>5383</b>        | <b>21.532</b>                             | <b>32.298</b> | <b>43.064</b> | <b>53.83</b> |

# Summary of Key Messages

- Obesity and overweight is a new health crisis in Pakistan.
- Obesity is a gate way to non communicable diseases.
- Sugary drinks, junk food and lack of physical activity are major causes for obesity.
- Intake of sugary drinks is significantly associated with weight gain, obesity, diabetes, heart diseases and other NCDs.
- **A child's risk of becoming obese increases by 60% with each additional sugary beverage consumed daily.**
- Increased taxation/surcharge on sugary drinks can generate more than PKRs 100 billion revenue annually.
- **Policy makers should raise taxes and surcharge/levy on sugary drinks.**
- Say no to sugary drinks and junk foods.

# Thank you

