

# Discretionary Food and Drink Purchasing



## BACKGROUND

NSW Health aims to promote and support healthy eating and active living in NSW and to reduce the impact of lifestyle-related chronic disease. Obesity, particularly childhood obesity, is an important metric of health in NSW.

Discretionary foods and drinks are associated with obesity, and unhealthy eating behaviours can help inform future trends in population obesity prevalence.

## QUESTION

It is difficult to accurately capture food intake in the population, especially at a granular level for certain demographics and particular geographies.

The DAC explored whether convenience store sales data could be used in a novel methodology to inform NSW Health on discretionary food and drink purchasing behaviour in families with children.

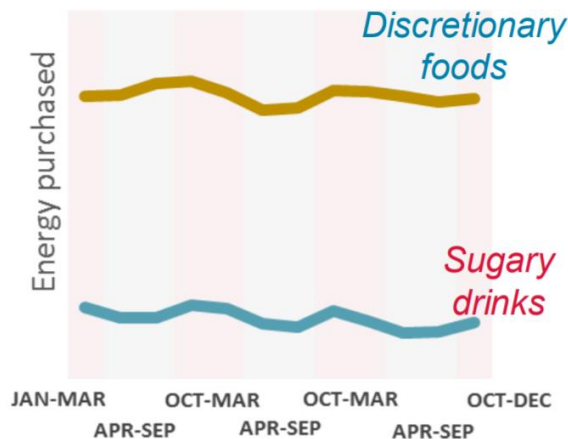
## OUR SOLUTION

Data exploration revealed insufficient retail coverage to monitor trends in family purchasing or explore regional differences

Data science methods extracted relevant information from product descriptions of around 0.5 billion items sold

Results allowed quantification of amounts of types of unhealthy food and drink purchased

Method revealed highly seasonal patterns in types of discretionary foods purchased



## IMPACT

Analysis provided insight into somewhat high levels of unhealthy foods and drinks purchased, and the product types favoured by consumers. Transactional data is a largely unexplored data source for understanding population level trends in nutrition. There is interest from many public health research and policy bodies into its potential usage

Transactional data can be very powerful, but its caveats and limitations need to be fully understood. Insights may be used to inform program messaging and communications to educate and influence healthy eating behaviours in the NSW population

**“The project demonstrated the benefits of commercial data as context information about community behaviours to inform obesity prevention strategies”**

Meredith Claremont, NSW Ministry of Health

## WHAT NEXT?

Reliable commercial linked datasets (e.g. linked credit card data) may allow better understanding of segmented community behaviours (who), spending settings (where/when), product/activity purchasing relationships (what/where).

We gained a thorough understanding of the strengths and limitations of this novel source of data. These insights can now be shared with all agencies in NSW Government.