

# Discretionary Food and Drink Purchasing

## Background

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

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

## Implementation

Insights may be used to inform program messaging and communications to educate and influence healthy eating behaviours in the NSW population

## The 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

***“The results offer an interesting comparison to NSW Population Health Survey estimates of food and drink consumption.***

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

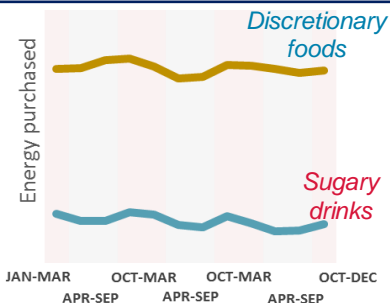
- Meredith Claremont, NSW Ministry of Health

## 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



***“Information about food intake is notoriously difficult to obtain. It is expensive, time-consuming and labour intensive to measure and the result is inaccurate.***

***A readily accessible, objective data source which can support reported nutrient intake would be a valuable tool in public health monitoring and policy planning.”***

- Dr. Celia Walker, NSW DAC

## Next Steps

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 be shared with all agencies in NSW Government