

# Pecans – Health and Nutrition

**Belinda Neville**

Program Manager, Nuts for Life

August 2019



# Overview



## Health benefits of nuts

- Established evidence
- Emerging evidence
- New research

## Health benefits of pecans

- Research and nutrition
- Health claims
- Health Star Rating
- Resources



## Nuts for Life program

- Who we are and what we do
- What are our successes and achievements

# Health Benefits – Established evidence



## **A 30g handful of nuts most days of the week is associated with:**

29% reduced risk of coronary heart disease <sup>1</sup>

21% reduced risk of cardiovascular disease <sup>1</sup>

15% reduced risk of total cancer <sup>1</sup>

13 - 27% reduced risk of type 2 diabetes <sup>2</sup>

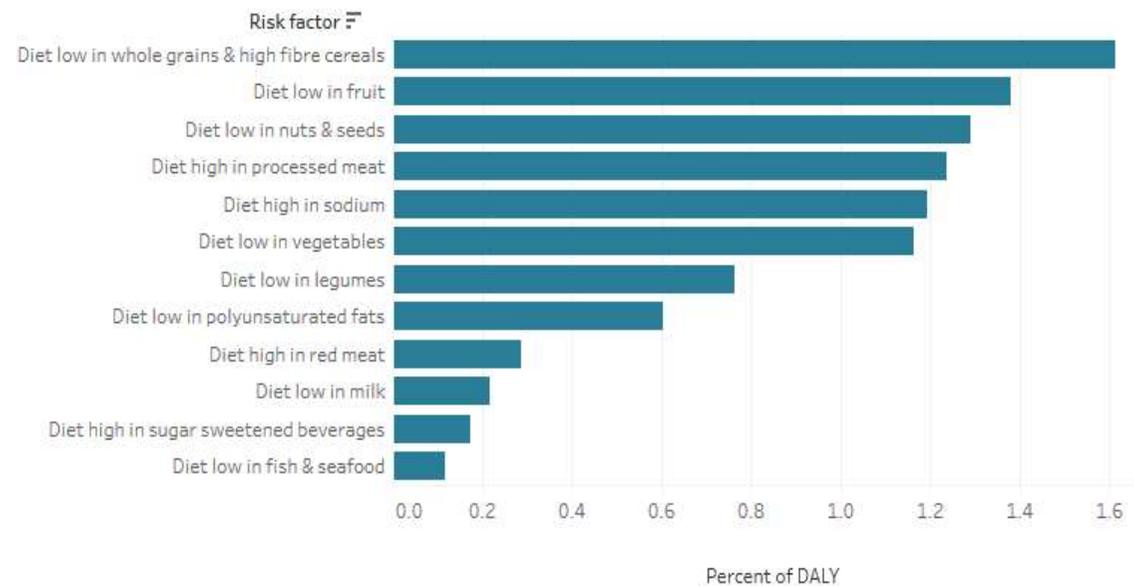
Reduced all-cause mortality <sup>1</sup>

Weight management <sup>3,4</sup>

# AIHW – Burden of Disease



## ‘Diet low in nuts and seeds’ – third most significant dietary impact on disease

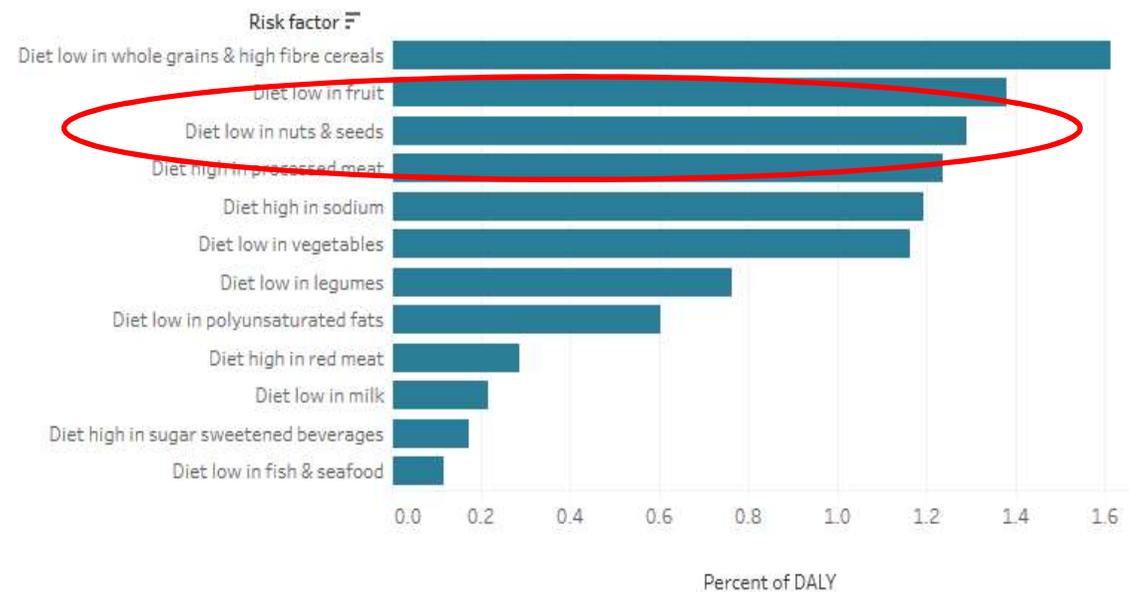


Source: AIHW Australian Burden of Disease Database. <http://www.aihw.gov.au>

# AIHW – Burden of Disease



**‘Diet low in nuts and seeds’ – third most significant dietary impact on disease**



Source: AIHW Australian Burden of Disease Database. <http://www.aihw.gov.au>

# Health Benefits – Emerging evidence



## **Cognition**

- Associated with better cognitive performance and ability
- Improvements in tests measuring cognitive function, attention capacity and working memory
  - > 2,200 mothers and their children
  - children whose mothers ate nuts (average 3x 30g servings/week) in first trimester of pregnancy achieved the best results in tests

## **Depression**

- Nut consumption beneficial to the prevention of depressive symptoms

# Health Benefits – Emerging evidence



## **Sperm Quality**

Spanish FERTINUTS study

- 60g nuts/day increased sperm count by 16%
- Modest improvements in proportions of living sperm, shape and swimming prowess

## **Gut Health and Inflammation**

- Nuts (and nut skins in particular) can impact the diversity, function and amount of bacteria in the gut
- Nuts contain bioactive nutrients which can favourably impact inflammation

# New research – Secondary analysis of the Australian Health Survey



## Research aims

- Explore the relationship of nut consumption vs non nut consumption on nutrient intakes and anthropometric measures
  - Apply nut specific database to dietary intake data
  - Quantify nut consumption in Australia
  - Determine contribution of nuts to nutrient intakes
  - Identify associations between nut intake and anthropometric and BP measurements



# New Research - Results



## **Australians aren't eating enough nuts**

- 2% of Australians eating the recommendation of 30g a day
- Mean intake was 4.6g a day
- Mean intake ('nut consumers') was 11.75g a day.

## **Nut consumption is lowest among children**

- Among 'nut consumers', children had lowest mean intake at 7.7g a day
- Similar proportion of males and females reported eating nuts

## **Most nuts are consumed as part of core foods**

- Most nuts are consumed as whole nuts or part of core foods, with only 11.75% from discretionary products

# New Research - Results



## **Eating nuts is associated with significantly higher intakes of key nutrients**

- Greater nut consumption associated with significantly higher intakes of fibre, Vitamin E, iron, magnesium and phosphorous
- In 'nut consumers' whole nuts alone contributed more than 10% of the amount of selenium, linoleic acid, PUFA and MUFA consumed

## **Eating nuts was not associated with higher body weight**

- Nut consumption was not associated with higher weight, BMI or waist circumference.

# New Research - Summary



- Most Australians are missing out of the health benefits associated with eating 30g of tree nuts a day
- Overall, Australians need to consume more than six times as many nuts as they currently eat to meet population health recommendations.





# Pecans - Research



Research Area	Outcome
Heart health	Highly consistent favourable effects for total cholesterol, LDL cholesterol, HDL cholesterol and triglycerides (1)
Diabetes	Clinically significant reductions in insulin resistance and fast insulin in overweight or obese adults with a 45g serve daily for 4 weeks (2).
Weight	No weight gain when consuming 70g over 4-8 weeks when substituted for other foods (3, 4). Increased fat excreted from body in stools (5)
Antioxidants	Inclusion of pecans increases antioxidant levels, which reduced oxidation of LDL (6) High antioxidant capacity of pecan kernels (7)

1. Neale, E., et al., 2018. Nuts for Life, unpublished. 2. McKay, D.L., et al., *Nutrients*, 2018. **10**(3). 3. Morgan WA et al. *JADA* 2000; 100(3): 312-318. 4. Rajaram S et al. *J Nutr* 2001; 131(9): 2275-2279. 5. Haddad E, Sabate J. *FASEB J.* 2000;14:A294. 6. Hudthagosol C et al. *J Nutr* 2011. Jan;141(1): 56-62. 7. Jia X et al. *Molecules* 2018 Feb 16;23(2).

# Pecans - Nutrition



- One of the few plant sources of omega-3 (along with walnuts, hazelnuts and macadamias). Plant omega-3 (ALA) plays an important role in heart health
- High in manganese – important mineral for activating enzymes
- Rich in polyphenols - a diverse group of compounds that act as powerful antioxidants, protecting the body's tissues from damage caused by oxidation
- Contain both mono- and poly-unsaturated fats, with a slightly higher proportion of monounsaturated fat – important for heart health
- Source of monounsaturated fat and fibre
- Naturally low in sugar and sodium
- Source of magnesium, zinc, thiamin and vitamin E.

# Pecans – Nutrient content claims



Nutrient	Claim (per 30g)
Fat	Low proportion of saturated fat of the total fat Source of monounsaturated fat
Dietary fibre	Source of fibre
Sugar	Low in sugar
Sodium	Low in sodium
Potassium	Contains potassium
Vitamins	Source of thiamin (B1) Source of vitamin E
Minerals	Source of magnesium Source of zinc Good source of/high in manganese
Other	Contains plant sterols Contains antioxidants

# Pecans – General Level Health Claims



GLHC refers to a nutrient or substance in a food and its affect on a health function, but does not refer to a serious disease

## Pre-approved claims

- Currently more than 200 pre-approved claims (FSC Schedule 4)
  - e.g. Pecans are high in manganese. Manganese...
    - contributes to normal bone formation
    - contributes to normal energy metabolism
    - contributes to cell protection from free radical damage
    - contributes to normal connective tissue structure

## Self-substantiated claims

- The food health relationship must be established by a process of systematic literature review (described in Schedule 6) e.g.

*A regular 30g handful of nuts, such as pecans, support heart health\**

*\*A regular 30g handful of nuts, such as pecans, when eaten as part of a healthy varied diet contributes to heart health.*

# Pecans – High Level Health Claims



HLHC refer to a nutrient or substance in a food and its relationship to a serious disease or to a biomarker of a serious disease

## **Pre-approved claims**

- Currently 13 pre-approved claims (FSC Schedule 4)
  - Diets high in fruit and vegetables may reduce the risk of coronary heart disease (disease)
  - Diets low in sodium may reduce blood pressure (biomarker of disease)  
*e.g. A healthy low sodium diet, with a variety of foods, such as pecans, can help reduce blood pressure. Pecans contain less than 2mg of sodium.*

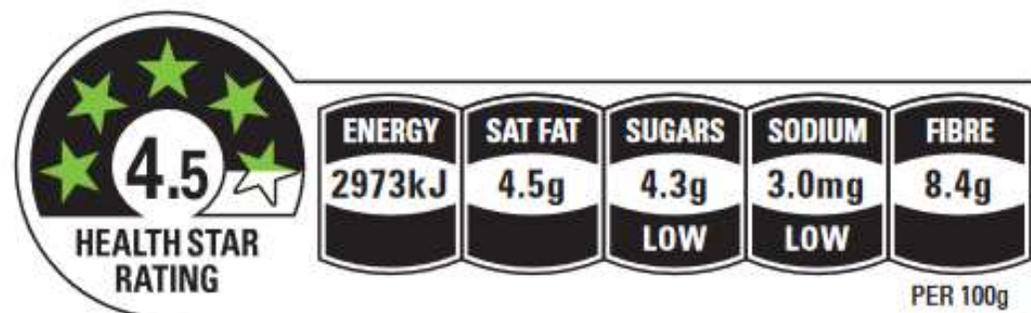
## **Self-substantiated claims**

- NOT permissible

# Pecans – Health Star Ratings



- The Health Star Rating is currently a voluntary front-of-pack labelling system that rates the overall nutritional profile of packaged food and assigns it a rating from ½ to 5 stars



# PECAN

CONTAINS PLANT STEROLS

15 KERNELS IN A SERVE

CONTAINS ZINC

A RICH SOURCE OF HEALTHY FATS

CONTAINS PLANT PROTEIN

A SOURCE OF DIETARY FIBRE



Home Recipes Resource library News About Contact



17 July 2019

## Pecans

Like all tree nuts, pecans are packed with vitamins, minerals, antioxidants and phytochemicals beneficial to health. Regularly eating nuts has been shown to contribute to heart health, reduce overall mortality and the risk of developing type 2 diabetes, assist with weight management, reduce the risk of cancer, improve sperm quality, reduce depression and overall promote good health.

A 30g serve is around 15 pecans.



Nutrient	Per 100g	Per 30g
Energy (kJ)	2973	892



**More composition articles**

READ MORE

**Latest news**

READ MORE

### Resource Library tags

FACT SHEET COMPOSITION GENERAL HEALTH



# PECANS

15 PECANS MAKE UP A HEALTHY HANDFUL 30g

ONE OF THE RICHEST PLANT SOURCES OF ANTIOXIDANTS - 17940 ORAC\*

**PECANS PROVIDE**

VITAMINE E ZINC ANTIOXIDANTS  
MANGANESE POTASSIUM HEALTHY FATS  
MAGNESIUM FIBRE COPPER/IRON

EATING PECANS AS PART OF A MEAL INCREASES BLOOD ANTIOXIDANT LEVELS

\*TOTAL ORAC, umol TE/100g

**PECANS**

A SOURCE OF PLANT OMEGA-3 (ALA)

IS IMPORTANT FOR HEART HEALTH

300mg ALA IN 30g HANDFUL

KEEP REFRIGERATED IN AN AIRTIGHT CONTAINER FOR UP TO 4 MONTHS

OR IN THE FREEZER FOR 6 MONTHS

TWO HANDFULS OF PECANS A DAY CAN LOWER TOTAL AND LDL 'BAD' CHOLESTEROL AND INCREASE 'GOOD' HDL CHOLESTEROL

**IMPROVES DIGESTIVE HEALTH**

THE BROWN SKIN OR TESTA OF A PECAN BOOSTS ITS FIBRE CONTENT. A 30g HANDFUL OF PECANS PROVIDES 2.5g OF FIBRE

**A DAILY HANDFUL + A HEALTHY DIET**

LOWERS BLOOD SUGAR BY 20%

ALL TREE NUTS

HELPS WEIGHT MANAGEMENT

ALL TREE NUTS

**LOWER RISK OF HEART DISEASE AND TYPE 2 DIABETES**

2054

FOR REFERENCES WWW.NUTSFORLIFE.COM.AU/RESOURCES/FACT-SHEETS



www.nutsforlife.com.au



## Pecans

### A REAL SUPERFOOD

ONE OF THE RICHEST PLANT SOURCES OF TOTAL POLYPHENOL ANTIOXIDANTS



### NUTRIENT RICH

healthy fats, fibre, minerals potassium, magnesium, manganese, copper, zinc, vitamins B1, B6, plant omega 3s and plant sterols

WE THEM FOR BAKING, WITH VEG SIDES, PESTO AND DIPS



ENJOY A HANDFUL OF NUTS A DAY

15 PECANS make up a healthy handful (30g)

ENJOY A 30g HEALTHY HANDFUL TODAY



www.nutsforlife.com.au

# Nuts for Life



- Established in 2003
- Independent authority on the health benefits of regular tree nut consumption
- Work closely with health professionals, government and other bodies to improve the nutrition reputation of nuts
- Strategic direction and governance supported by an industry Management Committee
- Australian Nut Industry Council (ANIC) provides the legal structure

# The Nuts for Life Team



**Belinda Neville, Program Manager – 4 days/week**

Manager of the Nuts for Life program and responsible for managing and implementing the Nutrition Program



**Claudia Higgins, Marketing Manager – 2 days/week**

Responsible for managing and implementing the Marketing Program

# Nuts for Life - Four key areas of focus



## Food Regulation and Public Health Advocacy

Australian Dietary Guidelines

Health star ratings

FSANZ Submissions  
e.g. Allergen labelling

## Educating Health Professionals

Factsheets and reports

Conferences and webinars

Newsletters

Website

## Tree nut industry (contributors)

Newsletters

Labelling support and claims e.g. General Level Health Claim

Website

## Educating consumers

Social media channels – Instagram and Facebook

Website

# Achievements

- Improved perception of nuts amongst health professionals and consumers
- Australian Dietary Guidelines
- Health Star Rating
- General level health claim
  - Nuts support heart health
- Healthy handful logo
- Consumer campaigns e.g. 3030

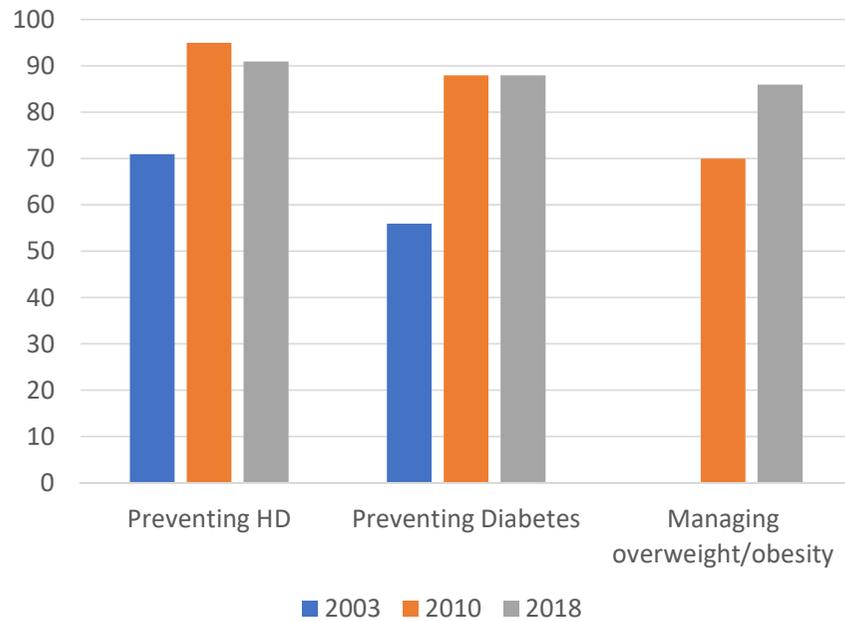


# Improved perceptions of nuts

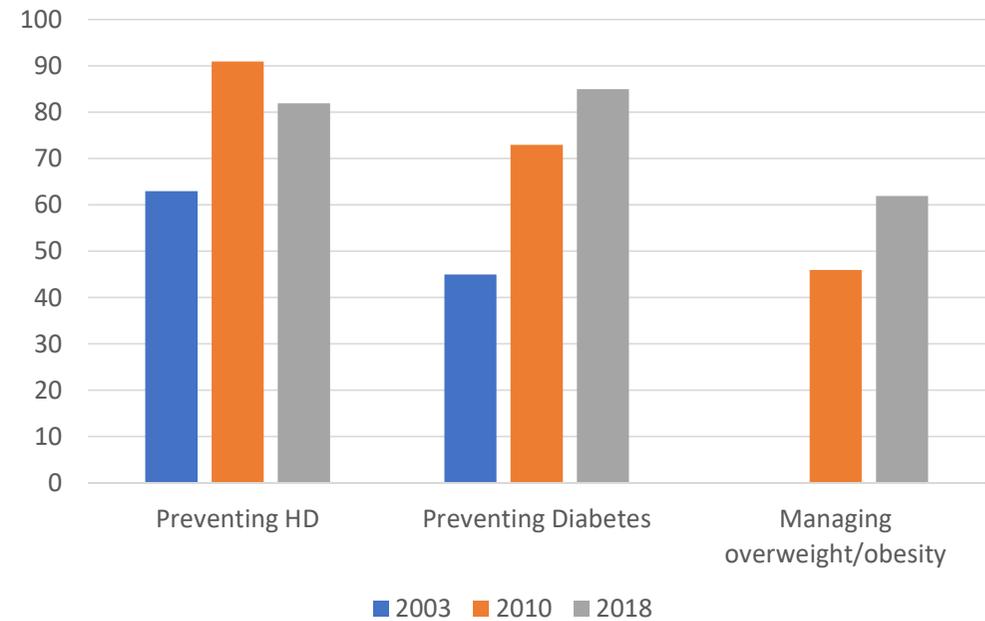
Health Professional Tracking research



Perception of Nutritionists

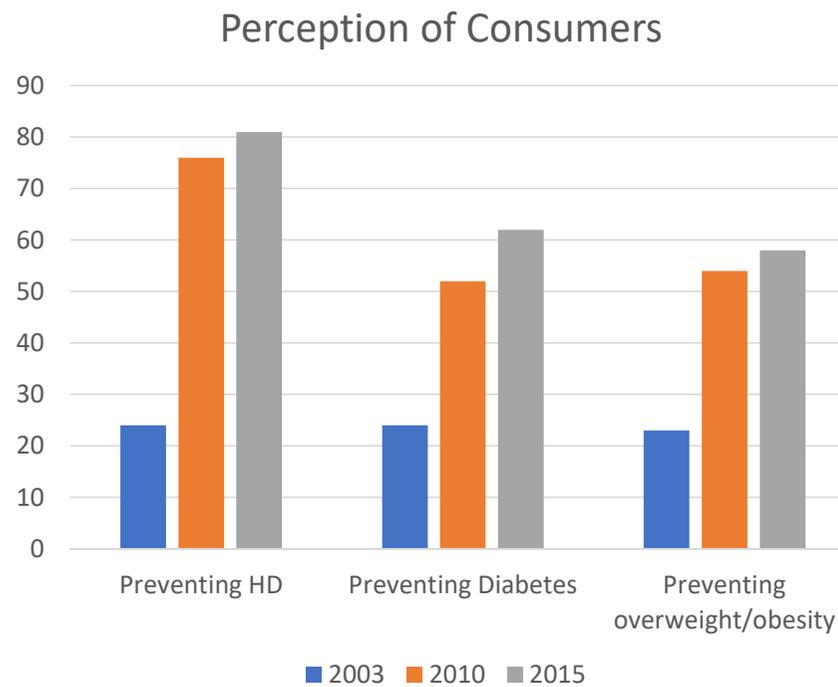


Perception of GPs



# Improved perceptions of nuts

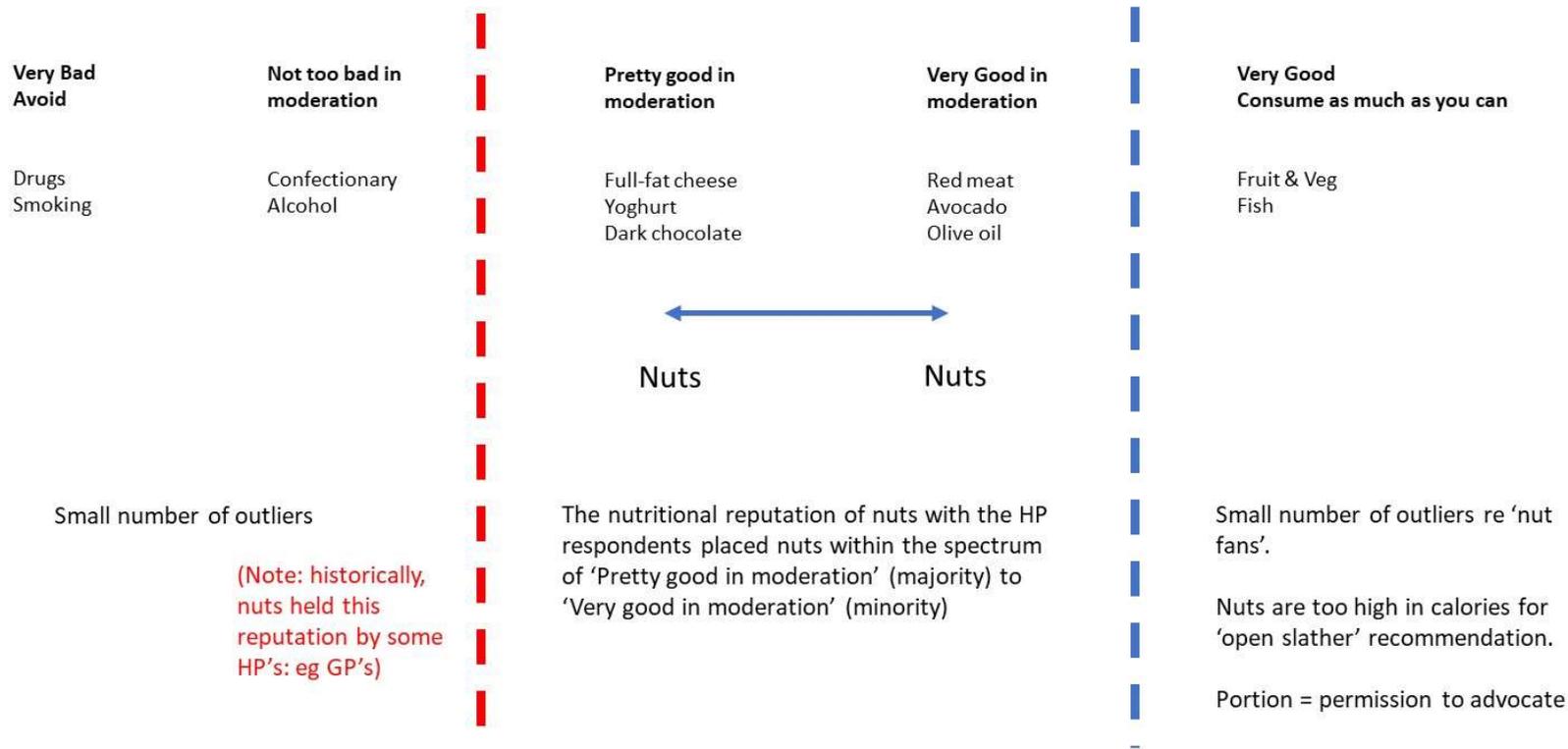
Consumer Tracking research



# Health reputation of foods



The 'health-reputation' of what we consume



# Thank you

