

Defining 'unhealthy'

A systematic analysis of alignment between the Australian Dietary Guidelines and the Health Star Rating system

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Diet-Related Disease

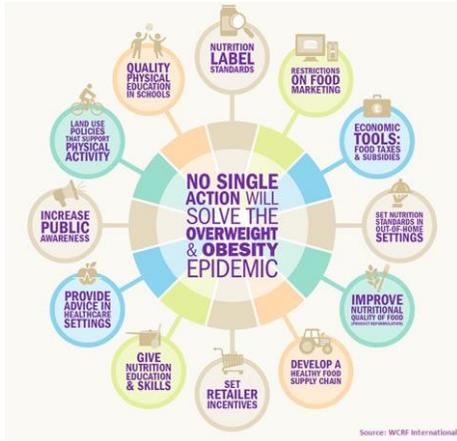
- 27% adults obese, >60% overweight
- 25% children overweight or obese
- Poor diets linked to heart disease, hypertension, stroke, diabetes, some cancers, dementia, osteoporosis, dental caries
- Obesity costs Australia \$8.6 billion a year (PwC 2016)

How did we get here?

- Increasing accessibility, availability and affordability of energy-dense foods
- Ubiquitous marketing of unhealthy products
- Decreasing physical activity

Global challenge: no national success stories

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Policies for tackling obesity and creating healthier food environments

| Government | Policy areas rated highest (with reference to international best practice) | Priority policy recommendations |
|------------|--|---|
| Federal | <ul style="list-style-type: none"> Monitoring: Regular monitoring of population body weight at a national level Food prices: No GST on fresh fruit and vegetables Food labelling: Development of the Health Star Rating scheme, and regulations on health and nutrition claims Dietary guidelines: Food-based dietary guidelines implemented, based on rigorous evidence Governance: Procedures for transparency and broad consultation as part of policy development within the Food Regulation System | <ol style="list-style-type: none"> 1 Establish obesity prevention as a national priority, with a national taskforce, sustained funding, and regular monitoring 2 Develop a National Nutrition Policy, building on the work that has already been undertaken to inform its development 3 Implement a health levy on sugar-sweetened drinks, and invest revenue raised into public health interventions 4 Implement mandatory time-based (up to 9:00pm) restrictions of unhealthy food advertising on broadcast media 5 Fast-track changes to the Health Star Rating scheme to address anomalies / design issues, and make the scheme mandatory for all packaged food by July 2019 6 Commit sustained funding and ongoing support for a comprehensive diet and nutrition survey conducted every 5-10 years 7 Establish targets for national population dietary intake and for reductions in key nutrients in major food categories |

Source: Sacks, G for the Food-EPI Australia team, Policies for Tackling Obesity and Creating Healthier Food Environments: Scoping and Priority Recommendations for Australian Government (2017)



Methods

- Cross-sectional examination of packaged foods and beverages
- Nutrition info available in George Institute FoodSwitch Database
- Generate a HSR
- Assign as 'core' (FFG) or 'discretionary' for ADG:
 - Australian Bureau of Statistics 'Discretionary Foods List' developed for analyzing the Australian Health Survey (2014)
- Identify 'apparent outliers'
 - Core foods with HSR ≤2.0
 - Discretionary foods with HSR ≥3.5
- Determine 'genuine outliers'
 - Apply additional nutrient cut-off criteria to determine whether product 'high in' (UK traffic light criteria)
 - Remove or retain on basis of qualifying for red traffic lights

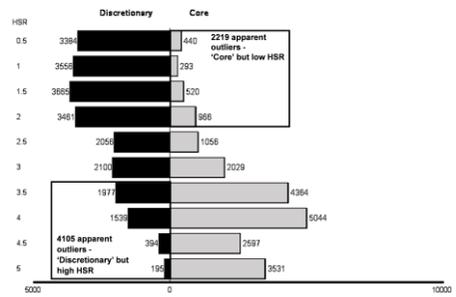
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Results

- 47,116 products (49.8% core; 50.2% discretionary)
- Median HSR
 - Higher for core products (HSR 4.0) than discretionary (HSR 2.0)
- 3524 (7.5%) displaying HSR on pack
 - 2131 (60.5%) core; 1393 (39.5%) discretionary
 - Median HSR 4.0

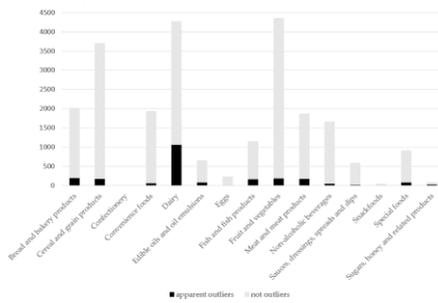
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Apparent outliers



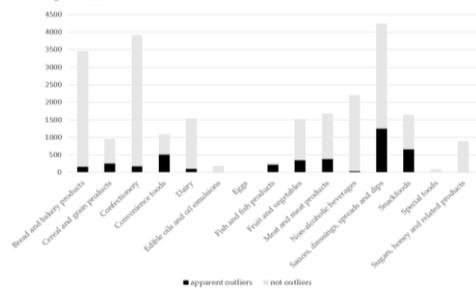
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Proportion of apparent core outliers (assigned 'core' but low HSR)



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Proportion of apparent discretionary outliers (assigned 'discretionary' but high HSR)



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Determining genuine outliers: cheese

ADG text

- 'Include cheese, mostly reduced fat' and 'Full fat cheeses should be limited to 2-3 serves per week, and varieties which are lower in salt are preferable'

ABS table

- Eight cheese categories, all flagged core

Cheese with HSR 2.0 or less (n=510)

- 283 hard/semi hard, 177 soft, 30 processed and 20 other cheeses

Applying UK cut-offs

- Hard/semi hard – 95% RED traffic lights for sat fat AND salt
- Soft cheeses – 80% RED traffic light for sat fat; 54% RED for salt
- Processed cheese 100% RED traffic light for sat fat and salt

Determination: ADG (ABS table) failure; algorithm performing well



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Determining genuine outliers: pasta sauce

ADG relevant text

'Tuck into vegetables or fruit' and 'Limit intake of foods containing saturated fat, added salt and added sugars'

ABS table

Savory sauces, all except tomato-based *homemade*, discretionary

Pasta sauces with HSR ≥3.5 (n=441)

- 389 tomato based
- 27 cream based
- 15 meat based

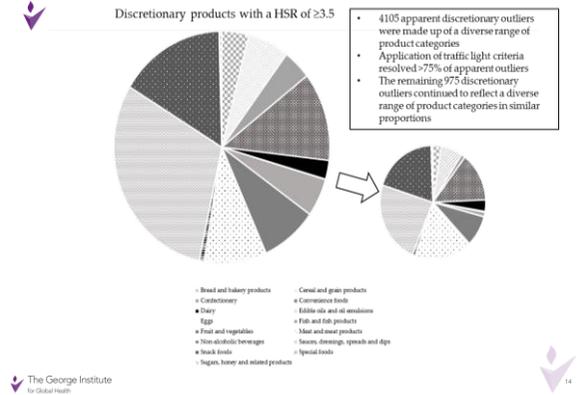
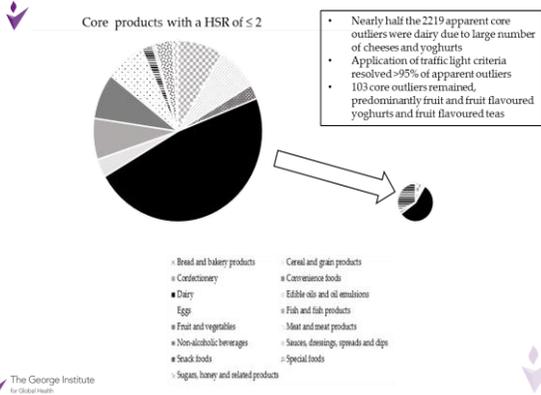
Compared to traffic light cut points

- 1% RED for sat fat
- <1% RED for sugar
- 5% RED for salt

Determination: ADG (ABS table) failure; algorithm performing well



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| | Apparent Outliers | ADG Failure | HSR Failure |
|-----------|-------------------|-------------|-------------|
| HSR ≤ 2.0 | 2219 | 2116 | 103 |
| HSR ≥ 3.5 | 4105 | 3130 | 795 |

'ADG failures' predominantly issues with ABS table categorization. Time to review what is listed as a 'discretionary' food?

Discussion

Despite attention on 'anomalies', scope of genuine misalignment very small

Median HSR of core much higher than discretionary

Results c.f. recent work examining HSR appearing on packs of new products (Lawrence et al)

Strengths: large, representative sample, systematic approach

Limitations: required some use of proxy data, will not capture some issues e.g. breakfast cereals, juices, breakfast bevs (all core in ABS, and score highly), could not assess added sugars, packaged products only

Improving public health impact

HSR algorithm

- Review weighting given to salt
- Review eligibility of fried, pickled veg, dried fruit for FVNL points
- Review weighting given to sugar and/or incorporate *added sugar*

ADG/ABS review

- Review ADG definition of discretionary, guidance on 'high in' criteria
- Review ABS classifications

Core status of cheese regardless of fat and salt; yoghurt and flavoured milk regardless of sugar and fat content
Discretionary status of vegetable and legume based dips, 'potato products', crumbed fish for home baking
Appropriate treatment of new categories like breakfast beverages, coconut products

Once HSR algorithm reviewed, make mandatory to deliver full benefit

Ultimately...

Defining 'healthy' and 'unhealthy' complex

Front-of-pack labelling is a tool to quantify selected components of food, not a complete source of dietary advice

With better uptake, HSR a helpful tool to use in conjunction with other interventions aimed at improving overall diets

Undue focus on perfect alignment or superiority of either policy unhelpful

Understanding relative contribution (+ inherent limitations) of each suggests areas where both policies could do better

 **Thank you**

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