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Request: Documents in relation to the FoodTrack database

Document(s): 17-23

For more information, please refer to CSIRO's FOI disclosure log at www.csiro.au/FOILog

'BRAND' platform: Technology assisted supermarket nutrition data collection system

XENIA CLEANTHOUS^{1*}, JILL FREYNE^{2*}, MANNY NOAKES³. ¹Healthy Hearts – Food Supply, National Heart Foundation of Australia, VIC, Australia. ²Digital Productivity Flagship, CSIRO, NSW Australia. ³Food and Nutrition Flagship, CSIRO, SA, Australia.

Tracking changes in the nutritional composition of the food supply is important to guide public health nutrition strategies. To do this, nutrition data collection is often out-sourced and follows a paper-based model – a costly, time-consuming exercise resulting in poor data quality. To address these issues CSIRO and the Heart Foundation have developed a productivity tool, 'BRAND'. The tool provides a high level of control throughout data collection, significantly lowers data acquisition costs, and ensures greater market coverage. The 'BRAND' platform consists of an intelligent smartphone application ('app') a web portal and database: the app systematically captures product data (eg. brand information, nutrition information panel(s), ingredients, front-of-pack) via intelligent forms that highlight questionable data to reduce entry errors. It also contains barcode recognition software which retrieves existing product data; improving efficiency and reducing duplication. The website allows in-house staff to audit, edit and export the data, facilitated by images captured by the app. Data collection and auditing time has reduced from ~14 minutes per product observed in paper-based collection to ~6 minutes with the 'BRAND' platform. Using the 'BRAND' platform we collected data for 9,000+ packaged food products in major supermarkets in 2014. Data will be updated annually to allow tracking of changes to food composition as a result of initiatives such as the introduction of the Health Star Rating system.

Title: FoodTrack™ – development of a systematic Australian food composition database**Abstract** *(250 word max)*

Current, accurate and comprehensive information on the composition of the Australian food supply is required to be able to monitor changes over time - an important initiative to guide strategies and interventions for public health nutrition. Some of the challenges of collecting such data is that it changes frequently, is time consuming, costly, and can result in poor data quality.

To address these issues, the Heart Foundation, together with CSIRO have developed FoodTrack™ – a tool for technology-based collection of information relating to products available in the Australian (retail) food supply. This tool was developed in 2014, and consists of an intelligent smartphone application (app), a cloud-based database, and a web-portal. The app is used to collect product data (e.g. brand, nutrition information panel(s), ingredients, front-of-pack, images, product information), from fresh and packaged foods in major Australia supermarkets.

The tool also provides a high level of control throughout data collection, significantly lowers data acquisition costs, and ensures greater market coverage; data collection and auditing time has reduced from approx. 14 minutes per product (using paper-based collection) to approx. 6 minutes with FoodTrack.

FoodTrack was first implemented in 2014; using this model we collected nutrition and product data for 13,000+ food products, across all major categories, in Australian supermarkets. The first round of collection was completed in early 2015, and we are currently in the second round of collection, which will be updated annually, allowing tracking of changes to food composition over time.

FoodTrack Abstract NNDC 2016

FOODTRACK™ – DEVELOPMENT OF NOVEL AUSTRALIAN FOOD AND NUTRIENT DATABASE. Xenia Cleanthous, MND BSc (Biomed)¹; Jill Freyne, PhD²; Simon Gibson, BCompSci (Hons)³; Karen Harrap, BIT³; Manny Noakes, BSc Dip Nut&Diet PhD⁴; ¹Health Outcomes Division, National Heart Foundation of Australia, VIC, Australia; ²Digital Productivity Flagship, CSIRO, NSW, Australia; ³Health and Biosecurity, CSIRO, QLD, Australia; ⁴Food and Nutrition Flagship, CSIRO, SA, Australia.

Background: Tracking changes in the nutritional composition of the food supply is necessary to guide public health nutrition strategies. Previously, data collection was out-sourced and was paper-based - a costly and time-consuming model, resulting in poor data quality.

Objective: To address these issues, CSIRO together with the Heart Foundation developed FoodTrack™ – a technology-based tool for collection of nutrition and product data for foods sold in Australian supermarkets.

Description: The FoodTrack platform consists of a smartphone application (App), a cloud-based database, and a web-portal. The App is used to record product data (descriptors, nutrition information panel(s), ingredients, front-of-pack labels etc.) via fields that highlight questionable data; reducing entry errors. It also uses barcode recognition software, which retrieves existing product data; improving efficiency and reducing duplication. The web portal is used by in-house staff to audit, edit and export the data, facilitated by images captured by the App. FoodTrack has led to marked improvements in data quality, significantly lowered data acquisition costs, and greater market coverage. Data processing time has reduced from ~14 minutes/product (paper-based) to ~6 minutes, and error rates have decreased from ~3% to <1%. FoodTrack was implemented in 2014 with data updated on an annual basis, and is nearing completion of the year-two collection; in the first year, nutrition and product data was collected for 13,000+ products, across all major categories in Australian supermarkets.

Conclusion: FoodTrack has been recognised as an innovative and comprehensive food and nutrient database in Australia; since its inception, the Heart Foundation has been awarded two federal government contracts requiring the use of FoodTrack; (1) monitoring and evaluation of the voluntary front-of-pack labelling system – the Health Star Rating system, together with CSIRO, and (2) a government-led food reformulation initiative. Operationally, FoodTrack also underpinned the criteria review process for the previous Heart Foundation Tick Program.



FoodTrack™

A technology-assisted supermarket nutrition data collection system

XENIA CLEANTHOUS^{1}, JILL FREYNE^{2*}, MANNY NOAKES³. ¹Healthy Hearts – Food Supply, National Heart Foundation of Australia, VIC, Australia. ²Digital Productivity Flagship, CSIRO, NSW Australia. ³Food and Nutrition Flagship, CSIRO, SA, Australia.*



Background



- Tracking changes in the nutritional composition of the food supply is important to guide public health nutrition strategies.
- To do so, information must be:
 1. Current
 2. Accurate
 3. Comprehensive
- Key challenges of collecting such data include:
 - cost
 - time
 - data quality
 - frequently changing food supply



Development



FoodTrack™ – a jointly developed productivity tool:

1. an intelligent smartphone application ('app')
2. cloud-based database
3. web portal

Key Improvements

- high level of control throughout data collection → high quality data
- significantly lowered data acquisition costs → cost efficiencies
- greater market coverage → application across the retail environment



The app



- Barcode recognition software
- Intelligent forms that highlight questionable data
- Systematic recording of:
 1. Product information
 2. Nutrition information
 3. Images
- Once recorded, data is uploaded into the remote database

YES OPTUS 4G 3:21 pm 100%

< Item 9300605050747 Nip

Flavour	(leave blank if n/a)
Serving Size	30.0
Description	two slices

PHOTOS

Nutrition Information Panel

Ingredients

NUTRITION INFORMATION PANEL

Amount as	<input type="button" value="Dry/Undiluted"/> <input checked="" type="button" value="Consumed"/>
Amount per	<input type="button" value="Serving"/> <input checked="" type="button" value="100g"/> <input type="button" value="100mL"/>
Energy (kJ)	1510.0
Protein (g)	7.3
Total Fat (g)	1.9
Sat. Fat (g)	0.4
Trans Fat (g)	N/A
Polyunsaturated Fat (g)	N/A
Monounsatur. Fat (g)	N/A
Total Carbohydrate (g)	74.1
Sugars (g)	23.5
Fibre (g)	7.1
Sodium (mg)	46.0
Calcium (mg)	N/A



Database and web portal



Database

XXXX

Web portal

- Allows in-house staff to view and audit data
- Ability to edit content
- Data can also be exported



Data coverage and market collection



- Major metropolitan Victorian supermarkets (Coles & Woolworths)
 - Historical collection shows capture of > 90% market coverage, nationally
- Rolling annual collection
- Data updated on an annual basis
- Data collection:
 - in-store with trained field officers
 - smartphone technology
 - content uploaded into custom-built database
- First year of FoodTrack collection has over 13,000 products



Categories



Bakery fats	Dips	Meal Kits	Sandwiches
Baking goods	Edible oil spreads	Meat- plain	Savoury Pies, Pastries and Pizzas
Biscuits- savoury	Eggs	Meat- processed	Savoury snack combinations
Biscuits- sweet	Finishing sauces	Milk and milk alternatives	Seafood- plain
Bread	Flour	Nut and seed bars	Seasonings, herbs and spices
Breakfast cereals	Frozen desserts (dairy and soy)	Nuts and Seeds	Smallgoods
Breakfast spreads	Frozen desserts (fruit)	Pasta and noodles- plain	Soups
Butter	Frozen potato products	Pasta and noodles- processed	Spreads- nuts and seeds
Cakes, muffins and other baked products	Fruit - dried	Pastry	Stocks
Canned seafood	Fruit - shelf stable	Plain grains (breakfast cereals)	Sugar and sugar alternatives
Cereal-based bars	Fruit bars	Poultry- canned	Sugar-sweetened beverages
Cheese (aged and processed)	Fruit juices	Poultry- plain	Tea and Coffee
Cheese (unripened)	Fruit pies, tarts and crumbles	Processed Poultry	Tomato and other table sauces
Combination of Nut/Seeds and Dried Fruit	Fruit- plain	Processed seafood	Vegetable juices
Confectionary	Grains- plain (excl. oats)	Ready meals- canned meat meals	Vegetable oils
Cooking sauces	Grains- processed	Ready meals- other	Vegetables- plain
Cream alternatives	Health foods	Recipe concentrates	Vegetables- processed
Crisps and similar snacks	Jelly	Relishes, chutneys and pastes	Vegetarian- processed
Dessert toppings and other baking syrups	Legumes- canned/shelf stable	Salad dressings and mayonnaise	Yoghurt and dairy desserts



Product Information



Product Information

Barcode

Food category

Manufacturer

Brand

Product description

Pack size

Servings per pack

Serving size

HSR

Price

Flavour (if applicable)

Additional descriptions

Images

Notes

Logged in as:

Reynolds, Rachael

[Previous](#)

[Return to Search Results](#)

[Next](#)

Arnott's Vita Wheat Five Super Seeds 250g

Item ID 128794	Recorded At 14/07/2015
User phamt	Store Coles
Location KEYSBOROUGH	Postcode 3173
Manufacturer Arnott's Biscuits	Barcode 9310072028545
Brand Arnott's	
Category Biscuits - savoury	Serving Per Pack 10.70
Size 250.0	Price (\$) 3.80
Private Label No	Collection Year 2015
Tick No	Health Star 4.5
Notes	

[Item Front Photo](#)



[Smaller](#)

[Rotate Clockwise - 90 Deg](#)

[Larger](#)

[Item Recipe Photo](#)



[Smaller](#)

[Rotate Clockwise - 90 Deg](#)

[Larger](#)

Nutrition Information

Nutrition Information

Dry/undiluted, consumed

Per 100g, 100ml, serve

Energy

Protein

Total fat

Saturated fat

Trans fat

Polyunsaturated fat

Monounsaturated fat

Total carbohydrate

Sugars

Fibre

Sodium

Calcium

Description Flavour	
Dry or as Consumed	Consumed
Per 100 or by Serve	100g
Serve Description	4 biscuits
Serve Size(g)	23.2
Energy (kJ)	1750.0
Protein (g)	12.3
Total Fat (g)	11.1
Saturated Fat (g)	1.6
Polyunsaturated Fat (g)	4.3
Monounsaturated Fat (g)	5.1
Trans Fat (g)	0.1
Total Carbohydrates (g)	60.5
Sugar (g)	1.7
Fibre (g)	12.2
Sodium (mg)	459.0
Calcium (mg)	N/A

Save

NIP Photo



Smaller

Rotate Clockwise - 90 Deg

Larger

NIP Ingredients Photo



Smaller

Rotate Clockwise - 90 Deg

Larger



Quality Control



Problem	Solutions
Collection out-sourced	<p>In-house collection</p> <ul style="list-style-type: none">• Greater control of process and content• Significantly lower error rates• Better market coverage, data quality
Paper-based collection → increased no. entry errors, time-consuming	<p>Smartphone technology</p> <ul style="list-style-type: none">• Single entry improves collection efficiency (14 mins → 6 mins)• Ability to prepopulate content• Barcode recognition software
Data entry and data handling errors	<ul style="list-style-type: none">• Use of Standard Operating Procedures (SOPs) to follow instruction• Limited to 4 staff → reduces risk of error between officers (<1%)• Inbuilt limits to ensure users populate each field correctly• Barcode recognition software → product content pre-populated<ul style="list-style-type: none">• Minimises entry errors, cross-referenced with on-pack data• Database access limited to 2 Heart Foundation staff and 2 CSIRO staff<ul style="list-style-type: none">• Reduces risk of errors in data handling between staff• Version control, secure
No Project auditing: collection efficiency, error rates	<p>Database audited on completion of each category collection</p> <ul style="list-style-type: none">• Standard Operating Procedures (SOPs) for auditing implemented• Data can be corrected in database• UID allows for auditing of error rates, users



Provision of services using FoodTrack



- Monitoring and evaluation of the Health-Star Rating (HSR) system
 - Label implementation, consistency with the HSR system style guide (AOE1)
 - Nutrient status of products carrying a HSR system label (AOE3)
- Data analysis to complement the Australia Health Survey data
- Profiling the Australian food supply:
 - reformulation and formulation of food products
 - category or food profiling
 - nutrient monitoring
- Other ??



Thankyou

Contact: Xenia Cleanthous, Manager Nutrition Data & Analysis, Health Outcomes

Email: [REDACTED] s47F

Phone: [REDACTED] s47F



Document 21

FoodTrackTM

Development of a novel Australian food and nutrient database

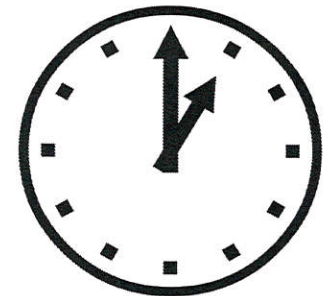
*XENIA CLEANTHOUS^{*1}, JILL FREYNE², SIMON GIBSON³, KAREN HARRAP⁴, MANNY NOAKES⁵*

1. Ms. Xenia Cleanthous (MND, BSc (Biomed)). Health Outcomes Division, National Heart Foundation of Australia, VIC, Australia.
2. Dr. Jill Freyne (PhD). Digital Productivity Flagship, CSIRO, NSW, Australia.
3. Mr Simon Gibson. BCompSci (Hons), Health and Biosecurity, CSIRO, QLD, Australia.
4. Ms Karen Harrap. BIT, Health and Biosecurity, CSIRO, QLD, Australia.
5. Professor Manny Noakes (BSc, Dip Nut&Diet, PhD) Food and Nutrition Flagship, CSIRO, SA, Australia.

Development of FoodTrack



- Tracking changes in the nutritional composition of the food supply is important to guide public health nutrition strategies.
- To do so, information must be:
 - Current, Accurate & Comprehensive
- Key challenges of data collection include:
 - Cost, time, data quality, frequently changing
- Combined expertise from CSIRO and Heart Foundation to innovate and enhance our understanding of the Australian food supply

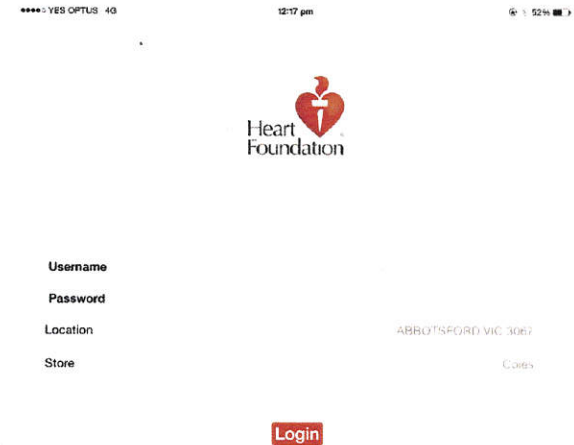


Innovative technology



FoodTrack: a digital productivity tool

1. smartphone application ('app')
2. cloud-based database
3. web portal



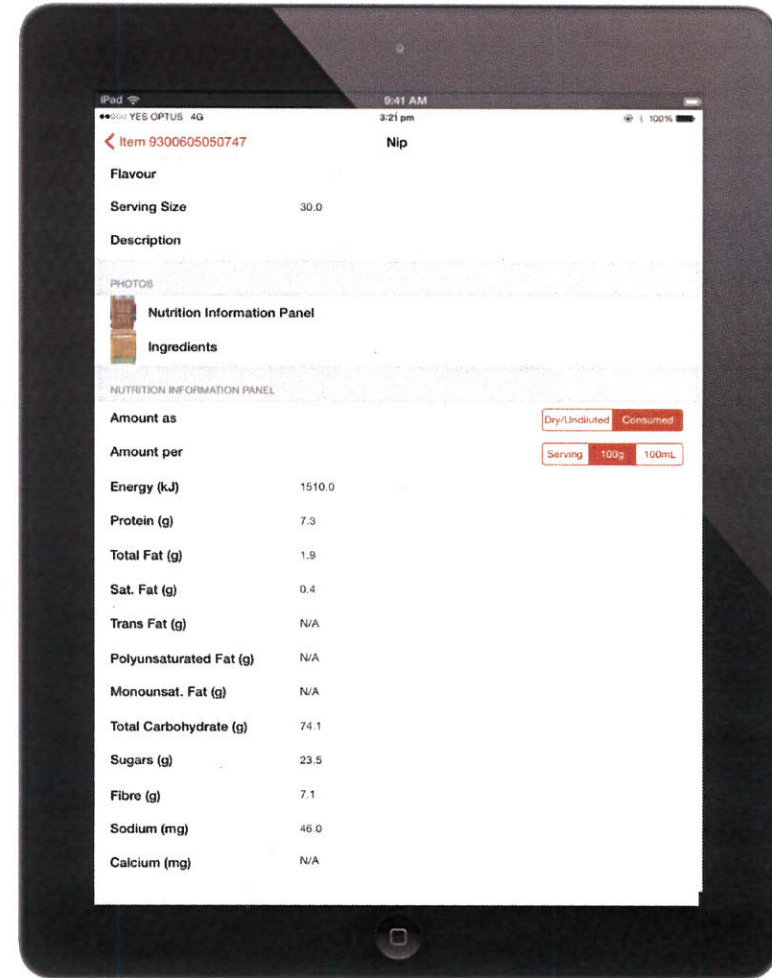
Key Improvements

- ↑ control → high quality data
- ↓ data acquisition costs → ↑ efficiencies
- ↑ market coverage → ↑ application across the retail environment

FoodTrack iPad app



- Barcode recognition software
- Intelligent forms that highlight questionable data
- Systematic recording of:
 1. Product information
 2. Nutrition information
 3. Images
- Once recorded, data is uploaded into the remote database



Database and web portal



Database & web portal

- Cloud-based, SQL database
- Allows in-house staff to view and audit data
- Ability to edit content
- Conflict resolution
- Data can also be exported

[Search](#) [Export](#) [User Administration](#) [Conflict Items \(9\)](#)

Logged in as: Cleanthous, Xenia

Start

03/08/2015

[Tick Product](#)

None selected ▼

[Collection Year](#)

None selected ▼

[Health Star Rating](#)

None selected ▼

Finish

10/08/2015

[Location](#)

None selected ▼

[Store](#)

None selected ▼

[Private Label](#)

None selected ▼

Barcode

[Manufacturer](#)

None selected ▼

[Brand](#)

None selected ▼

Product Name

[Category](#)

None selected ▼

[User](#)

None selected ▼

[Display](#)

[Select Item Fields](#)

14 selected ▼

[Select NIP Fields](#)

17 selected ▼

[Select Photo Fields](#)

None selected ▼

[Reset](#) [Row Count](#) [Go To Export](#) [Search](#)

Data coverage and market collection



- Major metropolitan supermarkets in Australia
 - Historical collection; > 90% market coverage, nationally via Victoria
- Rolling annual collection
- Data updated on an annual basis
- Data collection:
 - in-store with trained field officers
 - smartphone technology
 - content uploaded into custom-built database
- First year of FoodTrack collection - 13,000+ products

FoodTrack Categories



Bakery fats	Dips	Meal Kits	Sandwiches
Baking goods	Edible oil spreads	Meat- plain	Savoury Pies, Pastries and Pizzas
Biscuits- savoury	Eggs	Meat- processed	Savoury snack combinations
Biscuits- sweet	Finishing sauces	Milk and milk alternatives	Seafood- plain
Bread	Flour	Nut and seed bars	Seasonings, herbs and spices
Breakfast cereals	Frozen desserts (dairy and soy)	Nuts and Seeds	Smallgoods
Breakfast spreads	Frozen desserts (fruit)	Pasta and noodles- plain	Soups
Butter	Frozen potato products	Pasta and noodles- processed	Spreads- nuts and seeds
Cakes, muffins and other baked products	Fruit - dried	Pastry	Stocks
Canned seafood	Fruit - shelf stable	Plain grains (breakfast cereals)	Sugar and sugar alternatives
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Product Information



Product Information

Barcode

Food category

Manufacturer

Brand

Product description

Pack size

Servings per pack

Serving size

HSR

Price

Flavour (if applicable)

Additional descriptions

Images

Notes

Logged in as:

Reynolds, Rachael

[Previous](#)

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Arnott's Vita Wheat Five Super Seeds 250g

<u>Item ID</u>	<u>Recorded At</u>
128794	14/07/2015
<u>User</u>	<u>Store</u>
phamt	Coles
<u>Location</u>	<u>Postcode</u>
KEYSBOROUGH	3173
<u>Manufacturer</u>	<u>Barcode</u>
Arnott's Biscuits	9310072028545
<u>Brand</u>	
Arnott's	
<u>Category</u>	<u>Serving Per Pack</u>
Biscuits - savoury	10.70
<u>Size</u>	<u>Price (\$)</u>
250.0	3.60
<u>Private Label</u>	<u>Collection Year</u>
No	2015
<u>Tick</u>	<u>Health Star</u>
No	4.5
<u>Notes</u>	

[Item Front Photo](#)



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[Rotate Clockwise - 90 Deg](#)

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[Item Recipe Photo](#)



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[Rotate Clockwise - 90 Deg](#)

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Nutrition Information



Nutrition Information

Dry/undiluted,
consumed

Per 100g, 100ml, serve

Energy

Protein

Total fat

Saturated fat

Trans fat

Polyunsaturated fat

Monounsaturated fat

Total carbohydrate

Sugars

Fibre

Sodium

Calcium

Description Flavour	
Dry or as Consumed	Consumed
Per 100 or by Serve	100g
Serve Description	4 biscuits
Serve Size(g)	23.2
Energy (kJ)	1750.0
Protein (g)	12.3
Total Fat (g)	11.1
Saturated Fat (g)	1.6
Polyunsaturated Fat (g)	4.3
Monounsaturated Fat (g)	5.1
Trans Fat (g)	0.1
Total Carbohydrates (g)	60.5
Sugar (g)	1.7
Fibre (g)	12.2
Sodium (mg)	459.0
Calcium (mg)	N/A

Save

NIP Photo

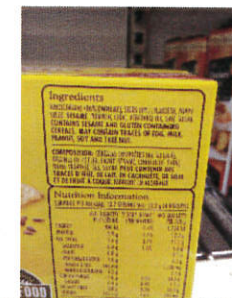


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NIP Ingredients Photo



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Quality Control



PROBLEM

Collection out-sourced

Paper-based collection

Data entry and data handling errors

No Project auditing

SOLUTION(S)

In-house collection

Smartphone technology

- SOPs
- Limit staff
- Intelligent fields
- Barcode recognition
- Database access limited
- Version control, secure

Regular auditing

Understanding the Australian food supply



- Data analysis to complement the Australia Health Survey data
- Profiling the Australian food supply:
 - reformulation and formulation of food products
 - category or food profiling
 - nutrient monitoring
 - food supply, and public health, impact



Service provision

- Long history of understanding and monitoring the Australian food supply, and the eating habits of Australians
 - Combined expertise: research dietitians and nutritionists, behavioural scientists, computer scientists
 - Extensive track record in food and nutrition research
 - Nutrition data collection, population health monitoring
 - Analysis and interpretation → policy, advocacy, interventions
 - Comprehensive understanding of the Australian food supply

Achievements to date



INFOODS Award 2015

HSR Contract

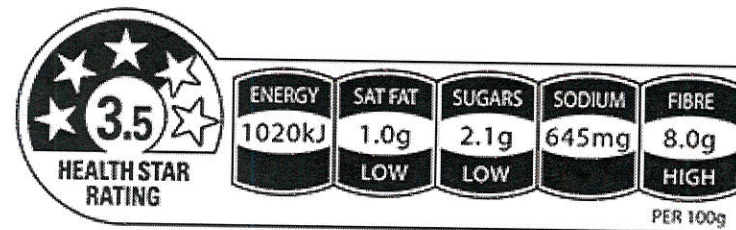
HFP Contract

- **PROGRAM & OPERATIONAL**
- **COMMERCIAL**
- **Tick**
- Support Tick Program work, eg criteria review process, account management, new business, food supply impact
- **HSR monitoring and evaluation:**
- Label implementation and consistency with the HSR system style guide (AOE1)
- Nutrient status of products carrying a HSR system label (AOE3)
- **Policy and Advocacy**
- Media releases
- Position papers
- Internal KPIs
- **Food and Health Dialogue**
- Pending

The Health Star Rating system



- Monitoring and evaluation of the Australian Government's Health-Star Rating (HSR) system
 - Label implementation, consistency with the HSR system Style Guide
 - Calculation of the Health Star Rating
 - Nutrient status of products carrying a HSR system label over time



Future Plans for FoodTrack?



- Expand market coverage
- Consumer app – supporting behaviour change?
- Commercial opportunities

For more information contact:

- Xenia Cleanthous, Manager Nutrition Data & Analysis; Heart Foundation

s47F

- Jill Freyne, Principle Research Scientist; CSIRO

s47F

Problem	Solutions
Collection out-sourced	<p>In-house collection</p> <ul style="list-style-type: none"> • Greater control of process and content • Significantly lower error rates • Better market coverage, data quality
Paper-based collection → increased no. entry errors, time-consuming	<p>Smartphone technology</p> <ul style="list-style-type: none"> • Single entry improves collection efficiency (14 mins → 6 mins) • Ability to prepopulate content • Barcode recognition software
Data entry and data handling errors	<ul style="list-style-type: none"> • Use of Standard Operating Procedures (SOPs) to follow instruction • Limited to 4 staff → reduces risk of error between officers (<1%) • Inbuilt limits to ensure users populate each field correctly • Barcode recognition software → product content pre-populated <ul style="list-style-type: none"> • Minimises entry errors, cross-referenced with on-pack data • Database access limited to 2 Heart Foundation staff and 2 CSIRO staff <ul style="list-style-type: none"> • Reduces risk of errors in data handling between staff • Version control, secure
No Project auditing: collection efficiency, error rates	<p>Database audited on completion of each category collection</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) for auditing implemented • Data can be corrected in database • UID allows for auditing of error rates, users

FoodTrack™ – a systematic Australian retail food composition database

XENIA CLEANTHOUS^{1*}, JILL FREYNE^{2*}, MANNY NOAKES³. ¹Health Outcomes, National Heart Foundation of Australia, Australia. ²Digital Productivity Flagship, CSIRO, Australia. ³Food and Nutrition Flagship, CSIRO, Australia.

Background

Current, accurate and comprehensive information on the composition of the Australian food supply is required to be able to monitor changes over time - an important initiative to guide strategies and interventions for public health nutrition. This information, in the retail environment (ie: major supermarkets), is not commonly available from a centralised source.

Nutrition data collection is often out-sourced to third parties, using a paper-based manual collection model – a time and resource intensive exercise resulting in poor data quality and restricted coverage. An alternative model has used off-shore data entry from images taken in the supermarket – although cheaper than the previous model, those entering the information are often not trained in nutrition, resulting also in limitations with data quality.



To address these issues, the Heart Foundation, together with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) have developed FoodTrack™ – a technology-based supermarket nutrition data collection model. This tool was developed in 2014, and consists of an intelligent smartphone application (app), a cloud-based database, and a web-portal.

The app is used to collect product data (e.g. brand, nutrition information panel(s), ingredients, front-of-pack, images, product information), from fresh and packaged foods in major Australia supermarkets.

Improve evidence basis

The FoodTrack model facilitates a highly-controlled, sustainable collection model that is accurate, efficient, and ensures significant coverage of the current market:

- Efficiency – barcode recognition software is used to retrieve existing data; the average collection/auditing time has reduced from ~14 to ~6 minutes/product (paper-based collection vs using FoodTrack);

- Accuracy – smart forms in the app highlight questionable data to reduce entry errors, and auditing is streamlined through the web portal which allows direct comparison between images and recorded data. Error rates are currently < 1%, on average, within category;
- Sustainable – moving to the FoodTrack model has resulted in reduced time, and therefore costs, for data collection, making it affordable to employ qualified field officers, ongoing and to facilitate annual data collection.

Programme implementation

FoodTrack was first implemented in 2014; using this model we collected nutrition and product data for 13,000+ food products, across all major categories, in Australian supermarkets. The first round of collection was completed in early 2015, and we are currently in the second round of collection. Data will be updated annually, allowing tracking of changes to the dynamic Australian retail environment.

Success

To our knowledge, FoodTrack is the first example in Australia of a consolidated retail food composition database that contains current, accurate and comprehensive product data. We have seen significant improvements in data collection efficiency, accuracy and sustainability, and product coverage, to date.

This has recently been recognised by key stakeholders, including the Australian Federal Government, who have contracted us to monitor the implementation of the Health Star Rating system using FoodTrack. In addition, FoodTrack provides an evidence base for monitoring food reformulation over time, advocacy activities and strategic research.

Source

- AIFST conference presentation (Sydney, Aug 2015); 'FoodTrack platform: Technology assisted supermarket nutrition data collection system'
- ICDAM workshop (Brisbane, Sept 2015); 'Use of technology in dietary intake and food environment assessment'

Project	FoodTrack promo flyer
File name	PRO-173-FoodTrack promo flyer-v2
Project owner	Xenia Cleanthous, Rachael Reynolds
Editor	Kevin
Designer	Designwrights
Product code	PRO-173
Deadlines	To print mid-March
Notes	<ul style="list-style-type: none"> • Heart Foundation logo, FoodTrack logo • Picture if required • Being inserted into INF-075.1-P • Page size: 200 x 287

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((page 1, Heart Foundation logo, FoodTrack logo))

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FoodTrack™

A comprehensive Australian product and nutrition database

FoodTrack is an innovative, comprehensive food and nutrient database developed by the Heart Foundation in conjunction with the Commonwealth Scientific and Industrial Research Organisation (CSIRO). It is a technology-based program that allows collection and monitoring of nutrition and product data for foods and beverages in Australian supermarkets.

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The FoodTrack program comprises:

- an intelligent smartphone application (app) to collect data
- a cloud-based database to store the data
- a web-portal to ~~administer to the program~~ access and audit the data collected.

The FoodTrack app is a secure tool that allows ~~users in-house field officers~~ to record product data from fresh and packaged foods in major Australian supermarkets. They can input product descriptors, nutrition panel information, ingredient lists, front-of-pack labels, images of the product and other relevant information. This intelligent app can highlight questionable

data for review, helping to reduce data entry errors and ensure data is entered consistently. The FoodTrack app also includes barcode recognition software that allows retrieval of collected product data.

Once the data is entered, it is uploaded to a secure, cloud-based database that is accessible via a web-portal. Access is currently restricted to select staff of the Heart Foundation and CSIRO who audit, edit and export the data as required

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The FoodTrack app at a glance

- Data collection by trained nutritionists and dietitians
 - nutrition information, mandatory nutrients and some optional nutrients, ingredients
 - product information includes category, manufacturer, product description, front of pack information, pack size, multipacks, products with multiple NIPs
- Standard operating procedures for all processes, including collection audits
- Individual documents for each category to guide collection
- Data auditing via web portal by in-house experts in food and nutrition

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FoodTrack benefits

The FoodTrack program facilitates a highly-controlled, sustainable collection model that is accurate, efficient, and ensures significant coverage of the current market. Its benefits include:

- **Efficiency** – barcode recognition software retrieves existing data; data processing time averages around 6 minutes/product, while paper-based collection averages around 14 minutes/product
- **Accuracy** – the apps' smart forms highlight questionable data to reduce entry errors; auditing is streamlined through the web portal, which allows direct comparison between images and recorded data; error rates declined to <1% from 3%, on average
- **Sustainable** – use of the FoodTrack program has resulted in reduced data entry time and costs making it affordable to employ qualified field officers, and maintain annual data collection.

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FoodTrack background

Tracking changes in the nutritional composition of the food supply is necessary to guide public health nutrition strategies. Current, accurate and comprehensive information on the composition of the Australian food supply is required to monitor changes over time – an important initiative to guide strategies and interventions for public health nutrition. This information, in the retail environment (i.e. major supermarkets), is not commonly available from a centralised source.

In 2014, the Heart Foundation, together with the CSIRO, developed FoodTrack, a technology-based solution, to address these issues. Previously, data collection was outsourced and was paper-based, a costly and time-consuming model that resulted in poor quality data and restricted product coverage.

We collected nutrition and product data for more than 13,000 food products, across all major categories, in Australian supermarkets. We began with Coles and Woolworths in Victoria with view to expand into other smaller supermarket chains. We completed the first round of collection in early 2015, and recently completed the second round of collection. We will continue to update data annually, allowing us to track changes in the dynamic Australian retail environment.

Since FoodTrack's inception, the Heart Foundation has been able to use the FoodTrack database for two ~~won two~~ Federal government contracts ~~using FoodTrack data~~. The first project involves monitoring and evaluation ~~ing~~ of the voluntary front-of-pack labelling system, the Health Star Rating system. This project is being completed in conjunction with the CSIRO. The second project relates to a government-led food reformulation initiative.

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FoodTrack fast facts

- Details of 13,000+ products collected annually on a rolling basis with new products captured
- Covers 80+ food and beverage categories in major Australian supermarkets
- A nationally representative sample of >90% of market within each category based on major metropolitan Victorian supermarkets

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Expressions of interest

While FoodTrack data is currently restricted to use by the Heart Foundation and CSIRO staff, we are seeking informal expressions of interest.

We would like to hear your ideas on how FoodTrack could benefit your work and the health and nutrition of Australians. Please contact us and let us know if there are any potential uses or services that you would like to see.

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To find out more about FoodTrack or discuss its potential use, please contact the Heart Foundation on 03 XXX XXXX or email XXXX@heartfoundation.org.au

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