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## **Understanding the determinants of diet quality among rural agricultural farm households in Fiji**

Anna Finizio, Sharmina Ahmed, Wendy Umberger

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# **Understanding the determinants of diet quality among rural agricultural farm households in Fiji**

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AARES Annual Conference 2016

# Motivation

- Nutrition Transition:
  - Shift in composition of diet
  - Paralleled with changes in health outcomes and demographic and socio-economic changes
- Developing Countries:
  - Rapid change to “westernised” diet
  - Rise in non-communicable diseases
- Transformation of global food systems
  - Transport, marketing, urbanisation, supermarket revolution



# Motivation

- Pacific Island Countries:
  - Nutrition transition: *Trade in food* (Evans et al, 2001; Hughes and Lawrence, 2005; Thow and Snowden, 2010)
  - Obesity and diabetes epidemic
- Fiji:
  - Nutrition transition: *Shift from local to imported* (Hone, 2003; Hughes, 2003; Thow and Snowden, 2010; Snowden et al, 2010)
  - Significant increase in the amount of deaths due to Non-Communicable Diseases
  - Diabetes the main cause of death in 2014 (Fiji Ministry of Health, 2015)



# Data

- PARDI Retail Transformation Study 2013-2014
  - Farmers in evolving horticultural value chains in Fiji
- Partnered with Ministry of Agriculture Fiji, University of South Pacific and UN Women Fiji.
- 600 Rural Agricultural Households
- Both male and female of the household interviewed
  - Female survey
- 79 different food categories across a mix of 10 types of retail formats.



**Australian Government**

**Australian Centre for  
International Agricultural Research**



# Research Question

- What is the influence of household level socio-economic characteristics on food choice behaviour and dietary intake among rural agricultural Fijian households.

# Empirical Estimation

*The relationship between socio-economic factors and food purchasing behaviour:*

- $y_i = g(x_i, b)$



# Conceptual Model

Volpe, Okrent and Leibtag, (2013), *AJAE*

- **Healthy Eating Index:**
  - Items classified according to USDA 2010 Guidelines.
  - 15 Point Scale
- **Food Expenditure Share:**
  - Total expenditure share on healthy foods
  - Share of expenditure on five healthy food groups
  - Share of expenditure of five unhealthy food groups

# Independent Variables



$y_i = f(\text{own consumption, distance to market, sum land, total expend, total expend}^2,$





















$\text{women empowerment, under5 children, age, age}^2, \text{edu, edu}^2, \text{ethnicity, location})$

- Own consumption (Hersforth, 2010; Jones et al, 2014; Kumar et al, 2015; Malapit et al, 2015)
- Women's empowerment/control over resources (Malapit et al, 2013; Jones et al 2014)
- Distance to modern market (Asfaw, 2008; Kelly et al 2014; Kimenju et al, 2015)



# Key Findings

 = Increased consumption  
 = Decreased consumption

Variable	Model			
	Healthy Eating Index	Expenditure on healthy foods	Expenditure on healthy food groups	Expenditure on unhealthy food groups
Own consumption				
Women's empowerment				
Distance to modern market			Dairy and Meat  Vegetables 	
Ethnicity ( <i>Indigenous Fijians</i> )				
Location ( <i>Central Division</i> )				
Total Expenditure			Dairy and Meat  Vegetables 	

# Discussion

- ❖ Household level production of food items and women's role in household decision making are more influential than education and age.





# Future Research

- Next steps:
  - **Production diversity and diet diversity**
  - Rural health outcomes
  - Urban diet quality



Thank you!

<http://www.adelaide.edu.au/global-food>

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