Bulgarr Ngaru Fruit and Vegetable Program

HEALTH INTERVENTION OR HAND-OUT?

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Outline

- Background- Healthy food subsidy programs
- Bulgarr Ngaru Fruit and Vegetable progam and its evaluation
- Rationale for and costs of food subsidies for Aboriginal and Torres Strait Islander people

Impact of "healthy" food subsidy programs

- USA- Special Supplemental Nutrition Program for Women, Infants and Children (WIC)
  - National program US$6.5 billion in 2009
  - Participant's nutritional status and health outcomes improved
  - Health care savings exceed program costs (in first 60 days after birth)
- Other international programs/research
  - Healthy Start- UK healthy food subsidy program commenced in 2006
  - Supermarket Healthy Options Project - RCT in NZ healthy food subsidies and/or nutrition education on food purchases

Impact of nutrition promotion

- Tooty Fruity Vegie Project- Nth NSW (Adams 2004)
  - School-based program- nutrition promotion in classes, practical activities- cooking, gardens, F&V breaks, parental resources
  - Increase Fruit 0.2 serves/day, Vegetables 0.1 serves/day
- Systematic review of school nutrition promotion programs in US (8156 students) (Howerton 2007)
  - Increase of 0.45 serve F&V/day

Bulgarr Ngaru Fruit and Vegetable program

- Subsidised fruit and vegetable program for disadvantaged Aboriginal families with 0-14 yo children
- Families pay $5 per week to receive $40 box of fruit and vegetables.
- Funding for 50 families in the Clarence Valley
- Regional initiative
  - Galambila Aboriginal Medical Service, Coffs Harbour,
  - Giingan Darrunday Marlaanggu Health Clinic Bowraville, Nambucca Valley
- Evaluation follow-up finishing August 2010

Fruit and Vegetable program

- Engage families in preventive health care
  - MBS Health Assessments- annually
  - Dental and hearing checks
- Nutrition education- 2 Dietitians
  - Practical cooking sessions
  - Simple seasonal recipes in F&V boxes
- Market Garden- Community school garden

Program Evaluation- Design considerations

- Time required to build relationships
  - local community, health service
- Pre-existing program with subsequent evaluation
  - Funding available ⟶ Sample size
  - Ethics approval
    - Should all new participants participate in evaluation?
- Randomised Controlled Trial- an equitable solution?
  - Limited local workforce capacity
- Design utilised ⟶ Pre- and Post- Evaluation

Evaluation

Eligibility for program:
- Aboriginal families with children 0-14 years or pregnant women
- Centrelink benefits as main income
- Regular Bulgarr Ngaru clients
- Agree to annual health assessment
- Children have identified nutritional risk

Consent Y/N →

Initial assessments:
- 24 Hour Dietary recall
- Pathology test- Carotenoids, Folate, Vitamins A, C, E, Iron
- Anthropometric measurements

Process evaluation
- Interviews- key stakeholders
- Focus groups- participants
- Uptake assessed using greengrocer receipts

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The Program
- Receive weekly box of fruit and vegetables with seasonal recipes
- Nutrition promotion
- Cooking classes

← **Follow-up assessment at 12 months:**
- 24 Hour Dietary recall
- Pathology test- Carotenoids, Folate, Vitamins A, C, E, Iron
- Anthropometric measurements

→ **Health record audit** (12 months prior to and during program)
- Antibiotic prescriptions
- Episodes of otitis media
- Episodes of pyoderma

Baseline fruit and vegetable intake of children 0-14 years (n=148)

	24 hr Recall				Short Questions	
	Fruit	Vegetables	Potato	Vegetables (inc Potato)	Fruit	Vege-tables
Mean Serves/day (SD)	1.0(1.4)	0.6(0.9)	0.2(0.5)	0.8 (1.2)	2.3 (1.0)	2.5 (1.4)

Good investment?

- Healthy food subsidy programs
  - Demonstrated nutrition and health benefits
  - Bulgarr Ngaru evaluation awaited
- Subsidised fruit and vegetables to eligible Aboriginal families in Australia
  - ~$150 million/year (in 2006)
- Food insecurity
  - not adequately addressed by food subsidies alone

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