

## Evaluation of the Port Lincoln Healthy Weight Challenge

### *Losers are Winners*

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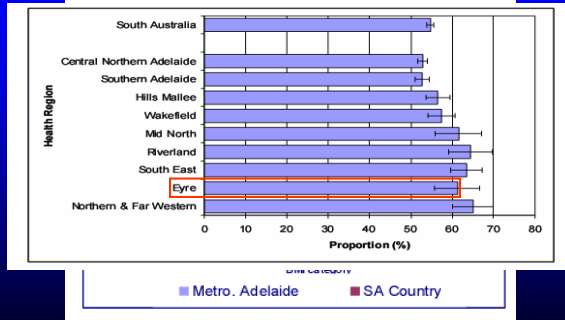


## The program

- > Funded by Country Health SA under ABHI-CHSA Innovation and Service Development Funds Program in 2008
- > Conducted in Port Lincoln SA
  - June – Dec 2008
- > Evaluation conducted by CRHaCD



## South Australia



Source: SA Monitoring & Surveillance System (SAMSS)

## aim

- > to reduce overweight and obesity in a select group of Port Lincoln adults –
  - assisted, team based, lifestyle modification program that emphasized -
    - good eating
    - increased physical activity
  - education provided by multi disciplinary relevant health professionals



## program

- > two stages –
  - intensive 13 week education program
  - 4 weekly follow-up to 24 weeks
- > education topics covered (cooking, keeping motivated, self esteem, healthy food, exercise choices)
- > participants required to maintain individual logbooks
- > points system used to reward goal attainment
- > most points = winning team



## eligibility criteria

- > > 18 years
- > BMI > 28
- > not pregnant
- > not taking weight loss medication
- > no other weight loss program
- > GP approval
  - blood pressure, serum lipids, blood glucose levels
  - overall good health
- > Aboriginal people encouraged to participate





## end points

- > Height, BMI, BP, serum lipids, blood glucose recorded at baseline and at the end of the program.
- > Weight, waist circumference, percent body fat were measured at baseline and at week 5, 9, 13, 17, 21 and 24 (program end).
- > Log Books of weekly exercise & nutrition
- > Exit survey
- > Focus groups at program conclusion



## evaluation

- > mixed method approach
- > triangulation of data sources
- > quantitative data from –
  - records of attendance
  - weight, BMI, girth, exercise targets
  - Exit survey
  - descriptive statistics and mixed modelling
- > qualitative data from –
  - focus groups
  - open-ended questions in Exit survey
  - thematic analysis

## questions

- > program expectations
- > lifestyle changes achieved
- > diet changes
- > community activities
- > team issues
- > Impact on family and friends
- > barriers to session attendance
- > what they liked and disliked about the program
- > program format
- > changes for future programs



## baseline results

- > 80 adults enrolled
  - 15 m (18.8%); 65 f (81.2%)
  - average age of 42.8 ± 13.4 years (46.4 m; 41.8 f)
  - 6 participants (3 m; 13 f) Aboriginal
- > significant level of obesity evident across sample
  - BMI 37.4; 34.6 m, 38 f
  - girth 116.6 cm (117.1 m; 116.5 f);
  - body fat % 39.1% (43.4% m; 38.1% f)
- > clinical markers (lipids, glucose, BP) consistent with MetS
- > little variation between men and women

## program results

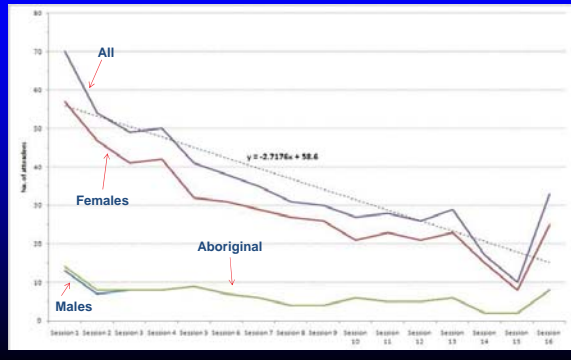
- > average session attendance 44% (42% males/ 45% female)
  - median – 9 sessions,
  - mode – 2 sessions
- > high attrition of individuals and teams –
  - ~3% dropout per week
  - 61.4% of participants attended 8 or less sessions
  - 3.8% of participants attended all 16 sessions
  - Males and Aboriginal participants most likely not to complete the program



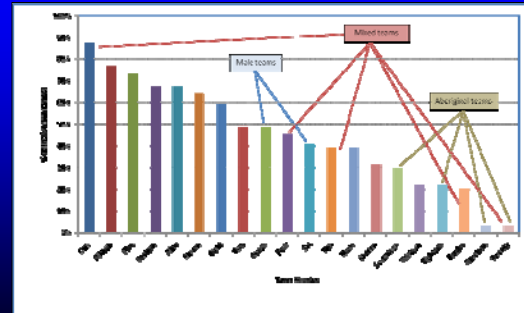
## program results

- > final analysis was for individuals as many teams dissolved during program
- > unable to stratify analysis by gender or ethnicity because of missing data for the majority of males and Aboriginal participants
- > insufficient data –
  - for glucose, lipids, BP overall
  - for any parameters for males or Aboriginal participants
- > sufficient data for non-Aboriginal women only

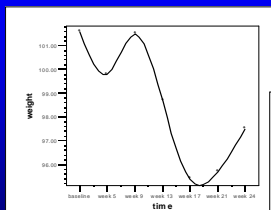
## attendance



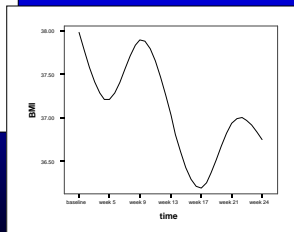
## team resilience



## weight / BMI (all)

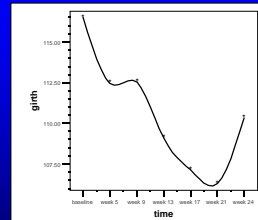


- weight reduction – 4.2%, 4.3 kg
- BMI – 4%, 1.5 kg/m<sup>2</sup>
- weight correlated with BMI
- $p=0.000$

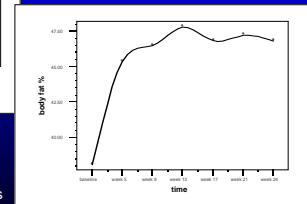


- Changes from baseline significant to week 13
- After week 13, changes not different from 24 weeks

## girth / % body fat (all)



- Girth – ↓ 4.8%, 5.6 cm
- Body fat – ↑ 5%
- $p=0.000$

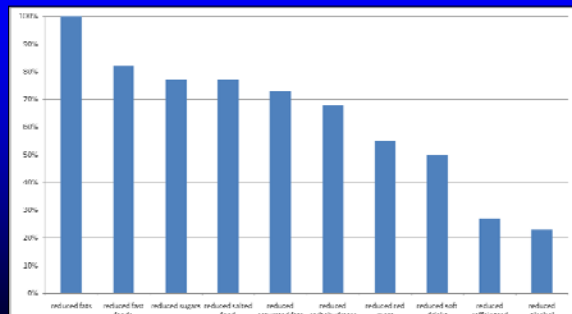


- Girth changes significant to week 9
- Body fat (increase) changes significant to week 5
- Changes not different from 24 weeks thereafter

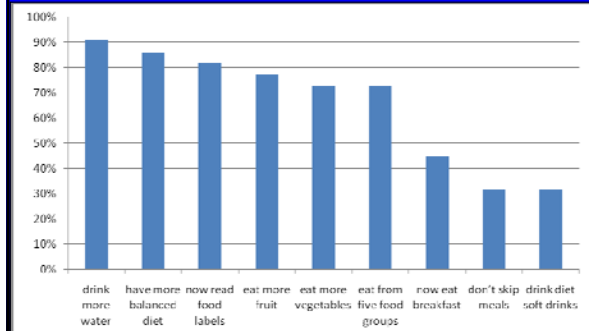
## qualitative findings

- 23 participants attended last session
- 22 completed exit survey
- 15 people attended focus groups
- Program generally met expectations –
  - Weight loss
- Key changes –
  - diet, physical activity, exercise, shopping habits
- Education enlightening, practical, helpful
- Issues –
  - duration of program, frequency of meetings
  - team composition, team activities, family involvement, follow-up

## changes in dietary habits



## changes in diet



## summary



- > statistically significant reductions in – weight, waist circumference and BMI
  - evident for women
  - not for men or for Aboriginal participants.
- self-report of changes in –
  - diet and exercise habits
  - carryover benefits for partners, friends and family

## conclusions



- > program successful for motivated participants
- > rethink –
  - program duration
  - session frequency
  - follow-up support
  - team composition and team support strategies
  - Strategies for men and Aboriginal people
- study results applicable to women only
- Don't generalise to men and Aboriginal participants

## acknowledgments

### Michelle Schilling –

Senior Dietician & Community Health Nurse Program Manager, Port Lincoln Health Services

### Helen Hookings –

Community Health Nursing Program Manager, Port Lincoln Health Services