



**Avigdor Zask
Tooty Fruity Veggie Evaluation
North Coast AHS**



A Healthy Start to Life



What Was the Problem?

A Healthy Start to Life

Between 1985 and 1997 the proportion of

- overweight children **DOUBLED**
- obese children **TRIPLED**
- Rates are currently increasing at about 1.5%
- 1 in 4 children are overweight or obese

Consequences of Obesity



- Immediate consequences include:

- low self esteem
- depression
- heat intolerance
- breathlessness
- tiredness

- Longer term consequences include:

- type 2 diabetes
- high blood pressure
- coronary heart disease
- cancer
- osteoarthritis etc

Why Preschools ?

15%

4-5 year olds are overweight or obese

25%

school aged children are overweight or obese

60%

our adult population are overweight or obese

Why Preschools ?



- The consequences of this problem are so pervasive it is vital to start prevention at this age
- Even at this young age (3-5years) physical activity and eating behaviours are being formed

Nature of the Problem



- Overweight is caused by an imbalance in energy intake and energy output
- Effective prevention requires two components
 - **HEALTHY EATING COMPONENT**
 - **PHYSICAL ACTIVITY COMPONENT**



Actions Taken

Strategies for Healthy Eating



- Supporting the preschool to develop a healthy nutrition policy which ensures the children have healthy foods in their lunchbox



Strategies for Healthy Eating



- Improving the knowledge & skills of parents by running parent information sessions about healthy eating and how to cope with ‘pester power’
- Parent newsletters over the course of the year

Strategies for Healthy Eating



- Giving children positive and practical education sessions that include growing, cooking and eating fruit and vegetables
- Promoting fruit and vegies in other aspects of preschool including craft and music

Strategies for Physical Activity



- Implement a fundamental movement skills program twice a week
- Provide professional development for teachers in physical activity

Strategies for Physical Activity

- **Improve knowledge & skills of parents**
 - **to help children be physically active**
 - **to reduce sedentary behaviours such as small screen time**



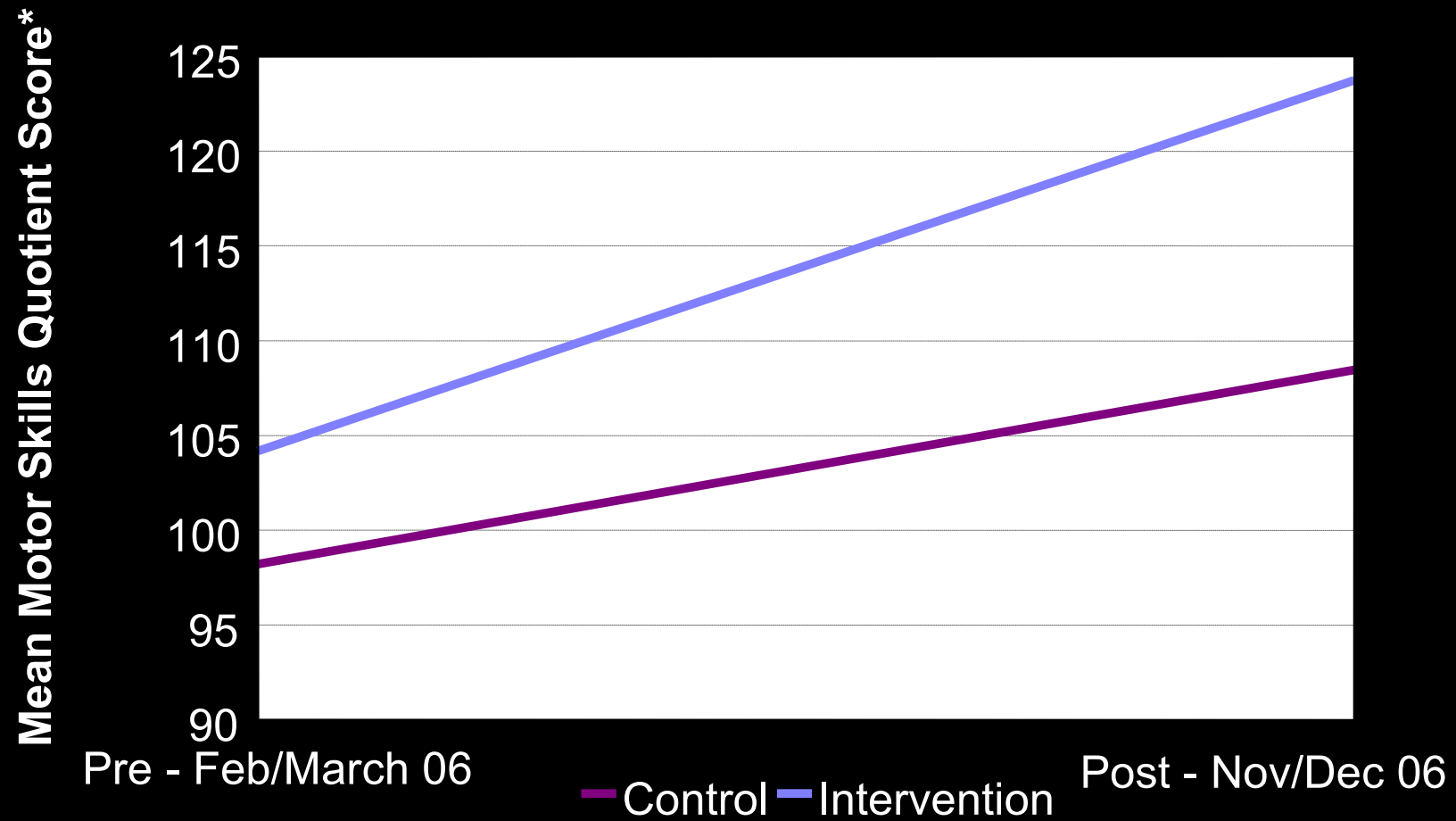
Outcomes Achieved

Outcomes

Evaluation:

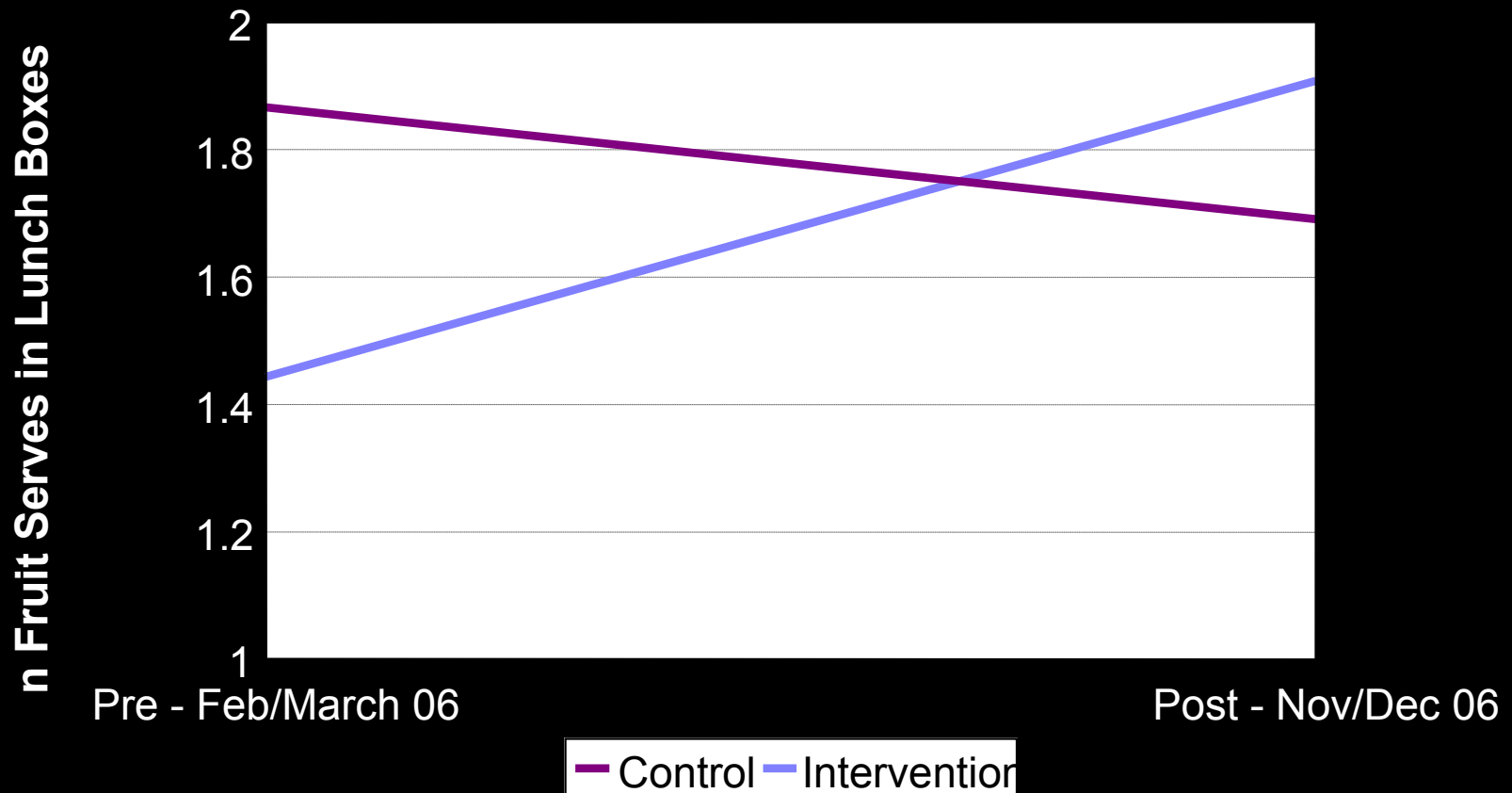
- Experimental design – pre and post intervention data collection on control & intervention preschools
- Seven preschools in 2006 pilot (only one control), 12 intervention and 12 controls in 2007
- A mixture of instruments:
 - Parent's survey, anthropometric measurements (BMI, waist circumference), fundamental movement skills testing, lunchbox audits and director interviews

Intervention Effect – Gross Motor Skills

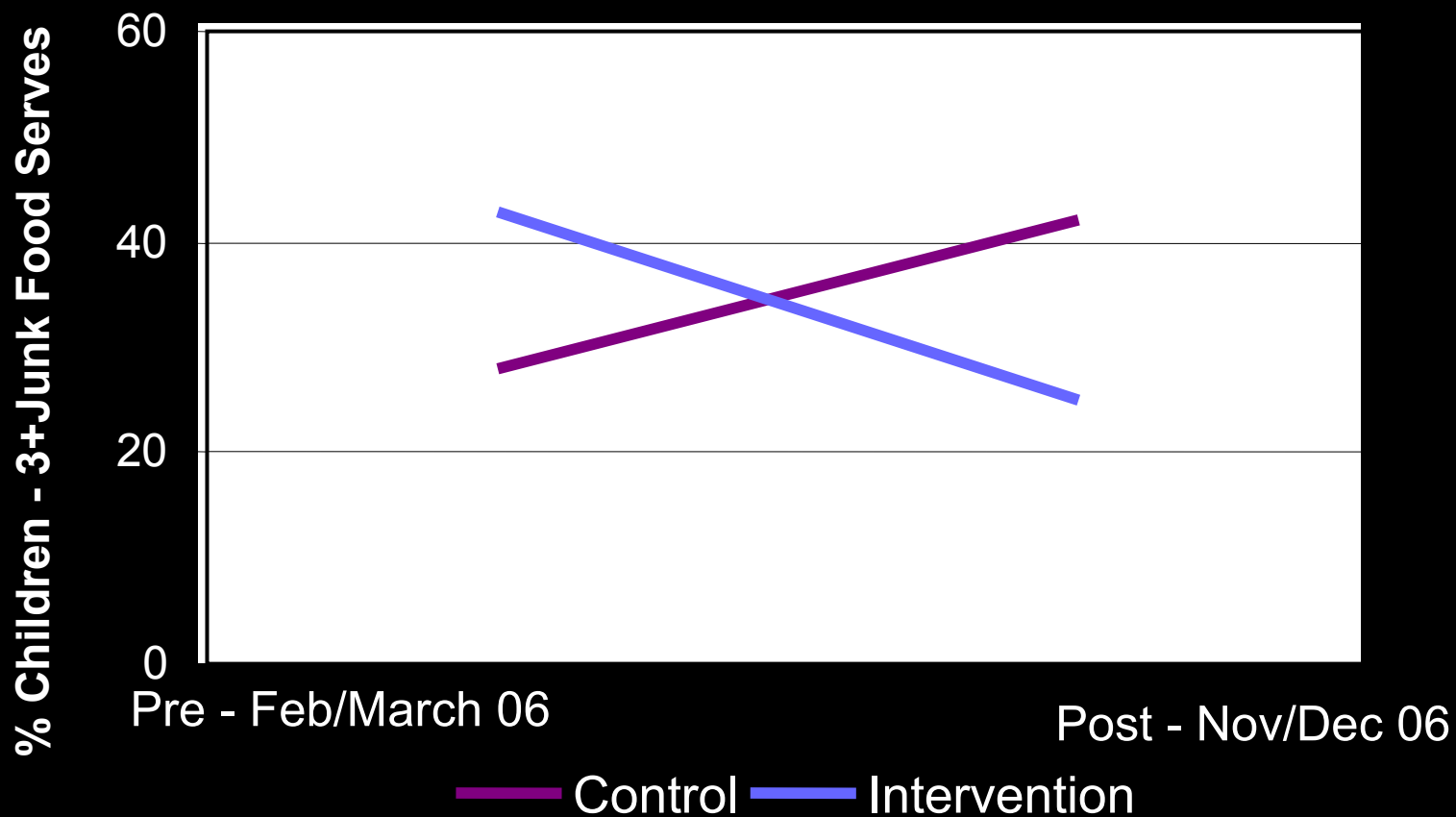


* (Ulrich, 2000)

Intervention Effect - Fruit



Intervention Effect: > 3 Serves of Junk Food in Lunch Box



Association between behaviours and waist circumference

Outcome variable	Predictor variable			
	n dinners while TV on			
	Never	4 per week	Every night	Significance (p)
Probability of being in top quartile for waist circumference	22.9%	30.1%	36.2%	0.041
Probability of being above 90 th percentile for waist circumference	5.5%	10.6%	16.9%	0.005
	n serves of unhealthy foods reportedly eaten yesterday			
	0	1	2	p
Probability of being in top quartile for waist circumference	26.0%	34.6%	44.2%	0.038

Limitations

- Based on pilot stage
- Six intervention, but only one control preschool
- While results are statistically significant, they should be interpreted with caution
- Follow-up data of second stage of project will be collected in November-December

Conclusion



- Preventing childhood overweight and obesity requires:
 - collaboration between preschool staff, parents, policy makers and health service staff
 - programs that address both physical activity and healthy eating
 - early intervention
- A one year health promotion project in preschools might produce significant improvements