



Meals for Independence and Rehabilitation Programme (MIRP)

An intensive meal programme for community
dwelling older people at risk of malnutrition

Kaye Dennison, MOW Project Coordinator
Adult Rehabilitation and Health of Older People Service

COUNTIES MANUKAU DISTRICT
HEALTH BOARD

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The Issue



Background

- Under nutrition is common in older people, associated with ↑ frailty, ↓ health outcomes, ↑ health costs Aust & NZ Soc Geriatric 2007
- Close correlation between Nutrition and Health Related Quality of Life Amarantos 2001
- Audit of AT&R Wards – under nutrition in older people 24% malnourished, 44% at risk. Van Lill 2001
- Audit of 50 MOW recipients and consultation with older Maori and Pacific People. Dennison 2006/7
- Audit of MOW portion sizes against MOW specifications. Dennison 2006/7

MOW Recipients Food Consumption

- Eating all meal (68% main course, 84% pudding)
- Eating AM & PM snacks - 50%
- Eating fruit in addition to MOW (56% have one or less pieces of fruit/day)
- Eating vegetables in addition to MOW (82% rely on MOW vegetables only)
- 38% split MOW between Lunch & Dinner

Audit of 50 MOW recipients and consultation with older Māori and Pacific People. Dennison 2006/7

The difference between nutrients required and provided

50kg older person	Protein grams	Energy kJ	Energy Kcal
Required	0.8 - 1.2 g/kg (40-60 g protein)	7,560-9,240kJ	1,800-2,200 kcal
Provided by MOW* <small>*NZ MOH Service Specs 2002</small>	18 g/day	2,520 kJ / day	600 kcal
Deficit	22- 42 g/day	5,040 – 6,900kJ /day	1,200 – 1,600kcal



Meals for Independence and Rehabilitation Programme (MIRP)

A pilot project conducted in CMDHB urban area in 2007
Approved by Northern Regional Ethics Committee Y

Aim of Study

To establish if an intensive nutrition program for older people at “high risk” of or suffering from malnutrition, is practical to deliver and will improve their:

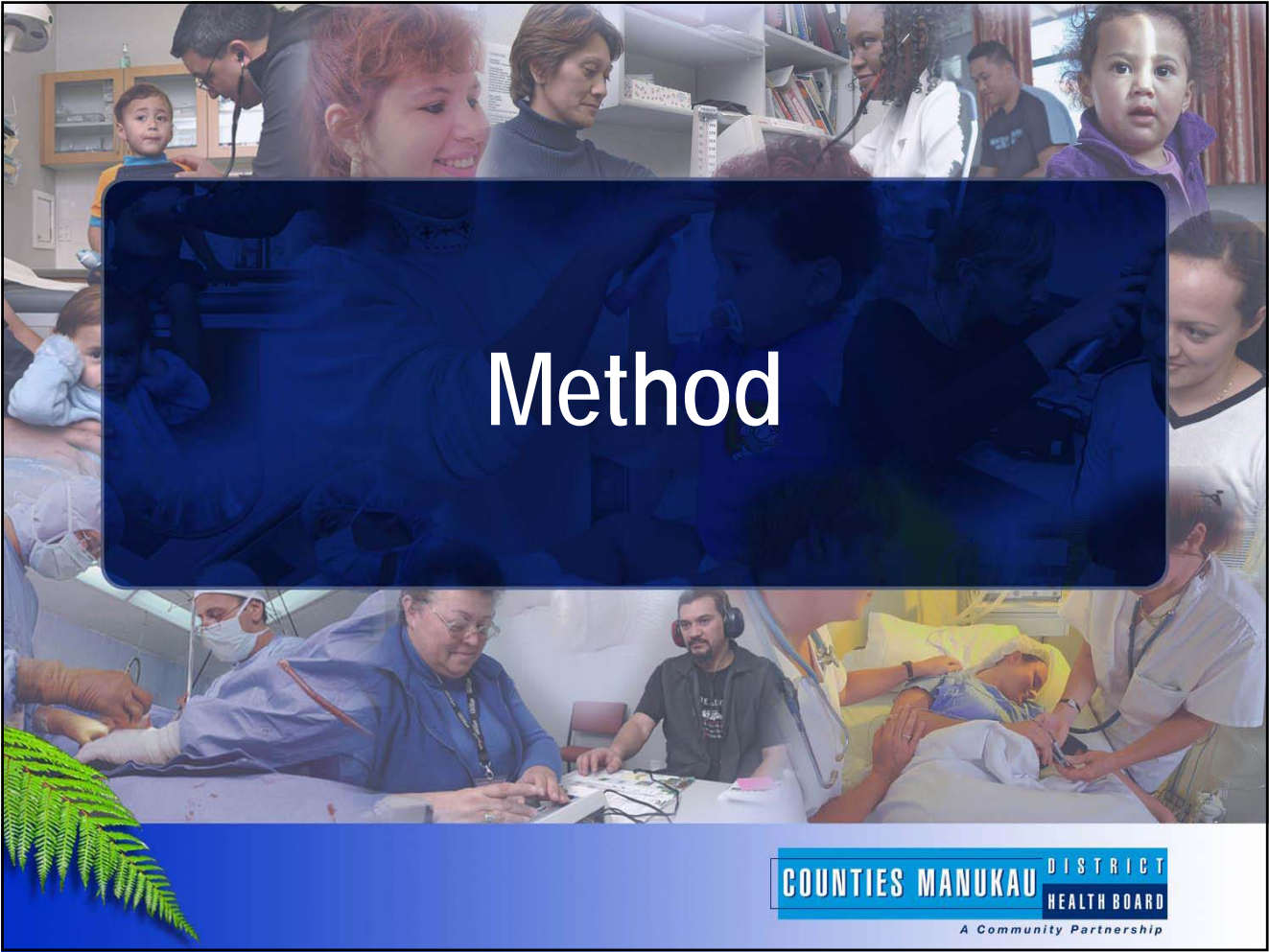
- nutritional status
- functional ability
- quality of life

Project Purpose

- Educate
- Empower
- Demonstrate
- Reduce MOW dependence

Who was eligible?

- Individuals 65 years and over
- Living independently
- Malnourished or “at risk” of malnutrition
- Ability to set goals
- Normal diet



Method

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ASSESSMENT TOOLS

- Mini Nutritional Assessment Screen (MNA®)
- EuroQuol – Quality of Life
- Nottingham Extended ADLs
- Weight
- Researcher administered questionnaire

6 Week Intensive Meal Program

Week	Breakfast	Weekday Lunch	Weekday Evening	Weekend
1		MOW Main Course and Dessert	Chilled snack meal	Frozen meals for lunch and dinner
2		MOW Main Course and Dessert	Chilled snack meal	Frozen meals for lunch and dinner
3		MOW Main Course and Dessert	Chilled snack meal	
4		MOW Main Course and Dessert	Chilled snack meal	
5		MOW Main Course and Dessert		
6		MOW Main Course and Dessert		

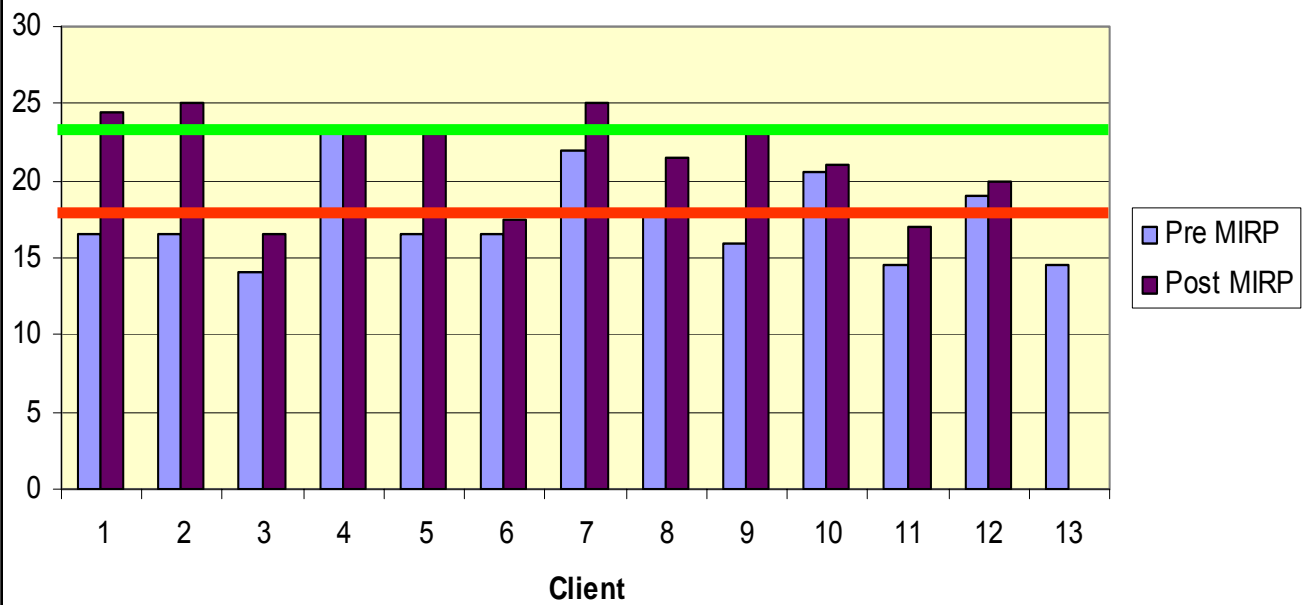
Dietetic Input

- Completed assessments
- Prescribed nutritional supplements if required
- Weekly or fortnightly visits as required for
 - education
 - motivation
 - weight monitoring
 - review of goals
 - transition off program

Demographics

- N=13 (1 lost to follow-up)
- Mean age 79.21 (67-98 yrs)
- Sex – 4 males 9 females
- Ethnicity (10 European, 2 NZ Māori, 1 Cook Island Māori)
- Living situation - 10 Living alone
- COPD (45%) Stroke (24%) FTT (15%)

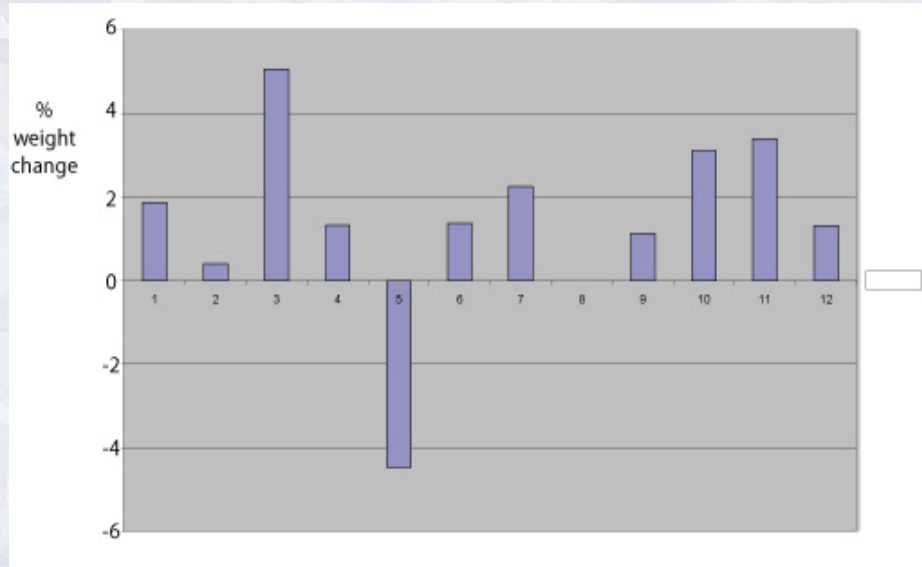
Nutritional Status MNA Scores pre and post MIRP



Function and QOL assessments

Assessments	Pre (Mean)	Post (Mean)	Optimum Score
Nottingham EADL	42.15	44.39	66
Euroquol	11.59	10.56	6

Weight Change Post MIRP (3.6% average wt gain)



Hospital admissions and MOW independence

Hospital Admissions (June - October 2007)	1
Independent of MOW	7 (58%)
MOW long term (3 COPD) (98yr old)	4 (34%)
*Participant anticipated transition off MOW post surgery (Hip replacement)	1

Participant feedback

Did the programme increase your knowledge of your nutritional needs?

75% agreed

Do you have a better understanding of how to meet your future nutrition needs?

100% agreed

Could you continue with meal suggestions?

100% agreed

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Cost per person for 6 week Programme

Meals, education, resources	\$ 246
Time (Dietitian) 4 hrs	\$ 200 (includes travel)
Therapy assistant 7 hrs	\$ 140 (includes travel)
Total	\$ 586*

* Does not include travel costs

Acute Hospital
(Medical ward) \$700 - 800 /day

Conclusions

- MIRP could help prevent hospital admissions
- Simple and cost effective
- Educates, Empowers
- Reduces MOW dependence
- Improves nutritional status, function and QOL

Recommendations

- Promote the MIRP program in other areas of CMDHB
- Incorporate the programme in a Multidisciplinary Team Falls Prevention - OT assessments
- Introduce Dietetic Therapy Assistant –role in education & monitoring
- Produce a MOW Booklet with a multidisciplinary approach
- Develop Māori and Pacific MOW menu

Limitations

- Small sample
- No control group
- Lead investigator completed assessments and provided intervention



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