



Meals for Independence and Rehabilitation Programme

COUNTIES MANUKAU DISTRICT
HEALTH BOARD

A Community Partnership

Middlemore Hospital



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Meals for Independence and Rehabilitation Programme (MIRP)

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

Kaye Dennison, MOW Project Coordinator

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Counties Manukau District Health Board,

Auckland, New Zealand



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Summary

- Background
- Study Aim and Purpose
- Method
- Results
- Conclusion/Recommendations
- Implementation of Recommendations

Background

- Close correlation between Nutrition and Health Related Quality of Life *Amarantos 2001*
- Audit of AT&R Wards – under nutrition in older people. *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*

The Issue



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* *NZ MOH Service Specs 2002 | 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**



Results

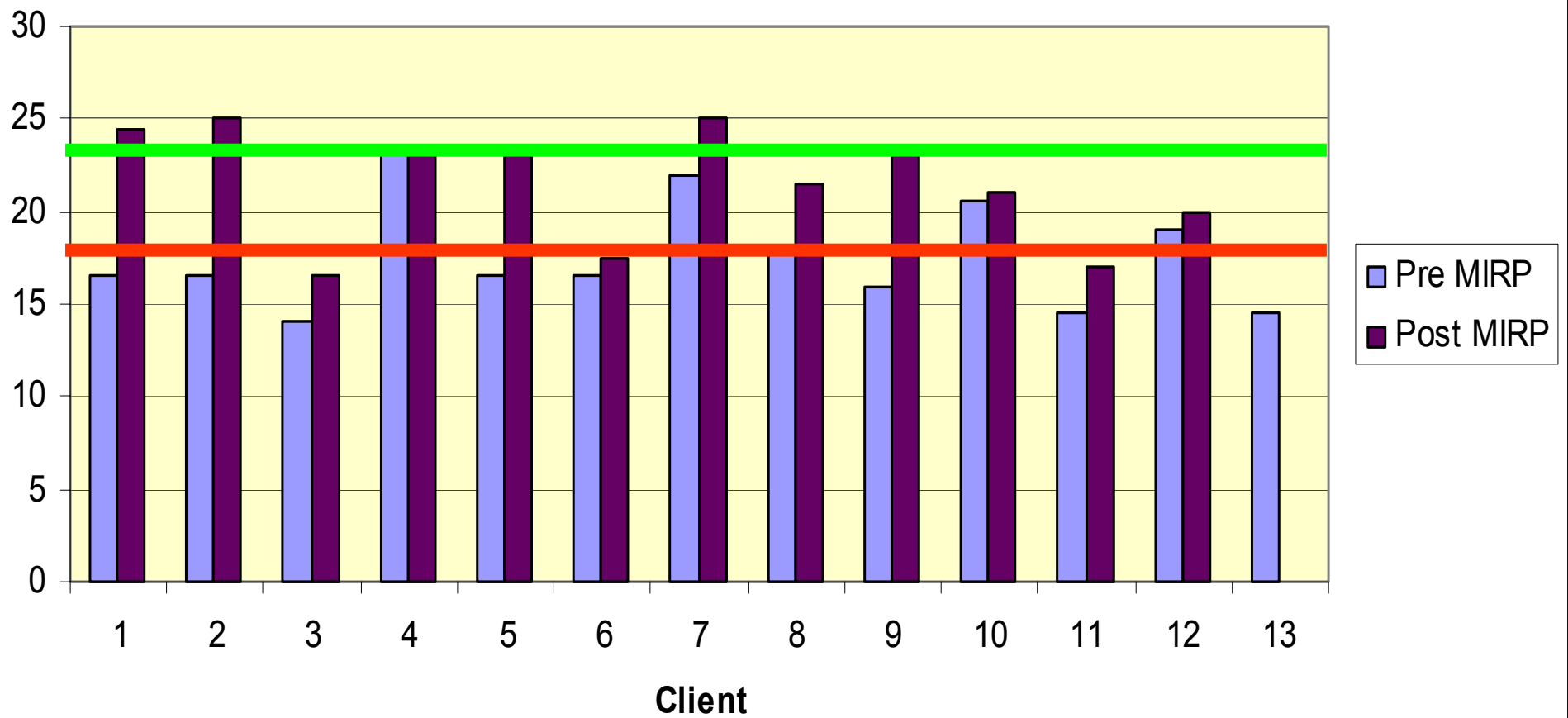
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Demographics

- 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%)

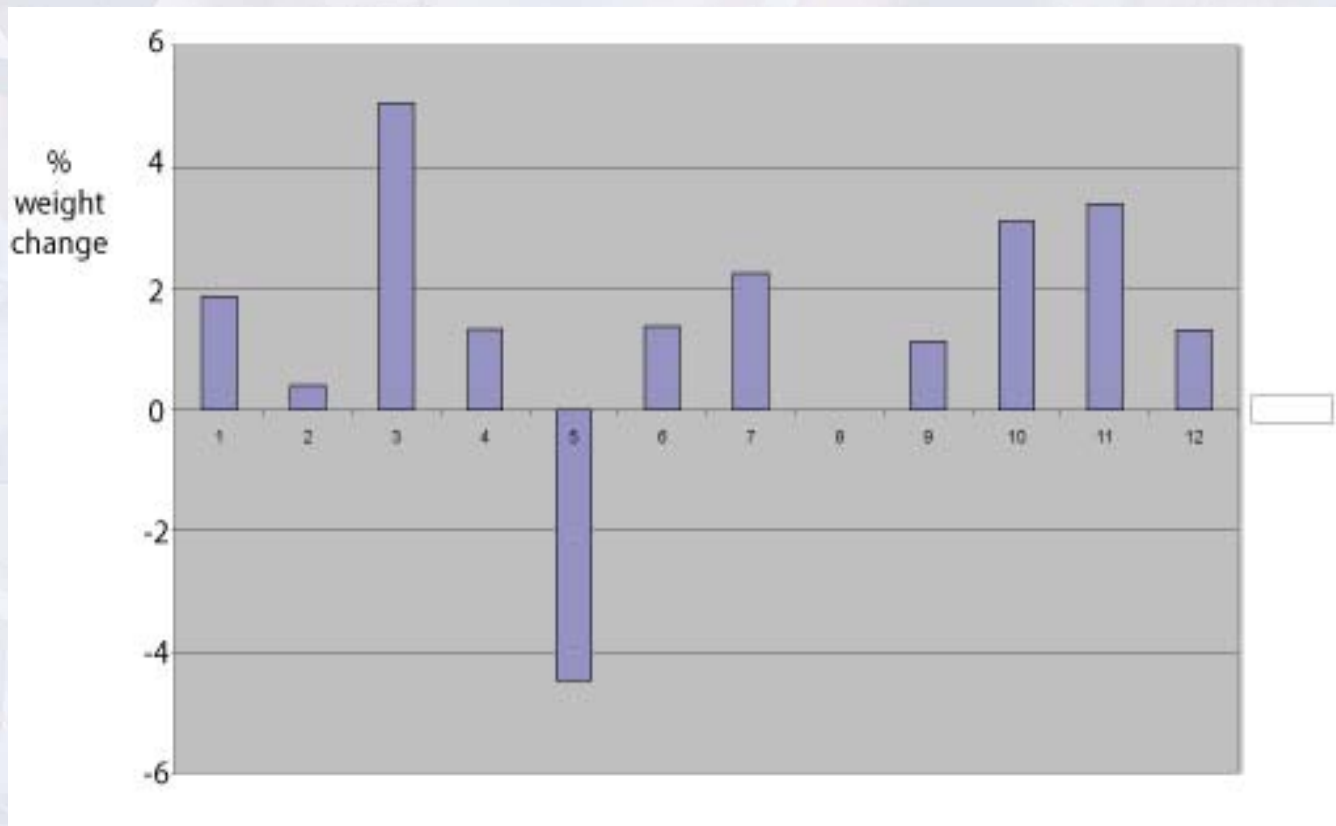
Nutritional Status MNA Scores pre and post MIRP



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

Conclusions

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

Limitations

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

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 an Multidisciplinary approach develop Māori and Pacific MOW menu

Programme Implementation

- Programme implemented in regional MDT Home Healthcare team
- PT and OT referred clients for balance/ falls, kitchen assessments
- Dietetic Therapy Assistant –trained and providing weekly education and monitoring

Where to from here?

Further research

Random Control Trial

Acknowledgements

- Jenni Coles, GM, Adult Rehabilitation and Health of Older People
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- **Older people in CMDHB who gave MIRP a chance.**



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