



SULWAY & HARRIS  
CENTRE  
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EDUCATION

## Collaborative Weight Management Program for Patients with Coronary Heart Disease and Type 2 Diabetes

A Kirkness\*, N Costello\*, T Bennett,  
R Gallagher, E Zelestis, B Marney, G Tofler,

## Background

- 70% Cardiac Rehabilitation (CR) clients are overweight or obese and 68% remain so at completion
- Obesity is a risk factor for both heart disease & Type 2 diabetes (T2 DM)
- Both CR and T2 DM patients need weight management. AusDiab, MJA, 178, 2003
- Both patient groups benefit from aggressive lifestyle management COURAGE, NEJM 356(15) 2007, DPP, NEJM 345:393-403, 2002
- Opportunity for CR and Diabetes Education Centre (DEC) to share existing resources & create a more structured approach to weight management.

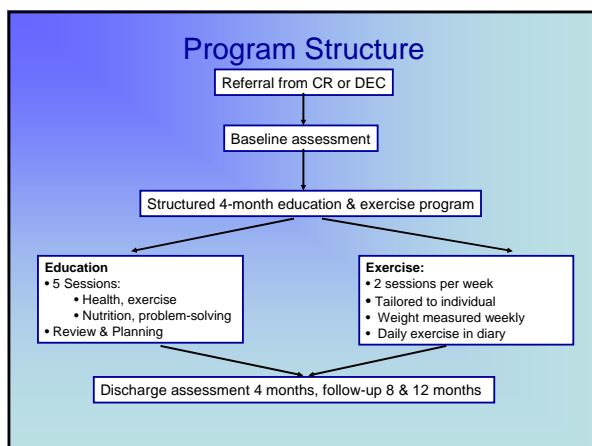
Collaborative Pilot Weight Management Program (WMP)  
Group 1 commenced September 2006  
Group 2 commenced March 2007

## Weight Management Program Aims:

1. Achieve weight loss: 5 -10% over 12 months
2. Increase physical activity
3. Establish everyday healthy eating & food choices focusing on weight management
4. Develop skills, motivation & strategies to achieve & sustain realistic goals
5. Improve general health and well-being

## Eligibility for WMP

- Aged under 80 years
- Referred from CR and DEC  
(coronary heart disease, risk factors, DM or pre-diabetes)
- Overweight or obese: - BMI 27-38kg/m<sup>2</sup>
- Able to participate in regular (ie daily) physical activity (assessed by 6-minute walk test)
- Willing to participate (assessed at initial interview)



### Processes at Baseline, 4, 8 and 12 months

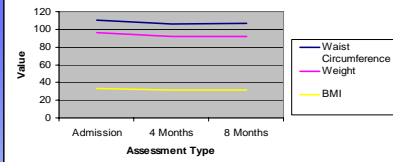
<p><b>Assessments:</b></p> <ul style="list-style-type: none"> <li>• Demographics</li> <li>• Medical history</li> <li>• Exercise &amp; weight loss history</li> <li>• 6MWT</li> <li>• HR, BP, BMI, WC</li> <li>• Anxiety and depression (HADS)</li> <li>• Self efficacy - self management</li> <li>• Glucose and lipid profile</li> </ul>	<p><b>Evaluation: 4,8 &amp; 12 months</b></p> <ul style="list-style-type: none"> <li>• Review of client's progress</li> <li>• Plan for ongoing weight management             <ul style="list-style-type: none"> <li>– Referral to community services</li> <li>– Continue exercise program (CR)</li> </ul> </li> <li>• Continuing client contact plan</li> <li>• Client evaluation of WMP</li> </ul>
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Case-based multi-disciplinary contact maintained eg: GP, Cardiologist, Endocrinologist, OPD Clinics

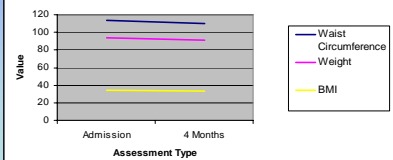
## Client Characteristics

	Group 1	Group 2	Combined
Number who attended Baseline Assessment	13	11	24
Males	5	5	10
Females	8	6	14
Average Age (years)	62.8 (54-74)	63.5 (48-79)	63.2 (48-79)

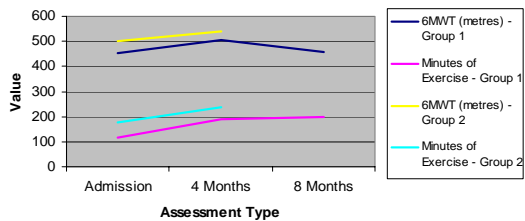
Weight, BMI, Waist Circumference - Group 1



Weight, BMI, Waist Circumference - Group 2



6MWT (metres) and Minutes of Exercise per Week



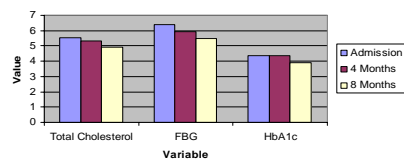
National Physical Activity Guidelines = >150 minutes per week

Admission = 50%

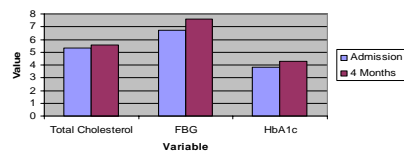
4 Months = 72%

8 Months = 56% (Group 1)

Cholesterol, FBG, HbA1c - Group 1



Cholesterol, FBG, HbA1c - Group 2



## Assessment Attendance

	Group 1	Group 2	Combined
Attended Baseline Assessment	13	11	24
Completed 4 Month Assessment	9 (69%)	9 (82%)	18 (75%)
Completed 8 Month Assessment	9	Not Completed	

## Exercise Attendance

	Group 1	Group 2	Combined
Completed minimum of 20 exercise classes in 4 months	66%	22%	44%
Total Number of classes attended in 4 months	153	178	331
Average number of classes attended in 4 months	17 (10-30)	20 (8-30)	18 (8-30)

## Weight Loss Results

	Group 1	Group 2	Combined
Weight loss at 4 months	4kg (4.3%) (-0.4 - 9.1)	3 kg (2.8%) (-2.3 - 3.3)	3.4kg (3.7%) (-2.3 - 9.1)
Achieved $\geq$ 5% weight loss at 4 months	44%	22%	33%
Achieved $\geq$ 5% weight loss at 8 months	11%	Not Completed	

## Lessons Learnt!

- Benefits of collaboration – clients & staff
- Pre-Diabetes found in some CR clients
- Self efficacy introduced
- Financial contribution may improve attendance
- Those who attended regular exercise classes were more likely to achieve a greater weight loss

## Lessons Learnt!

- Motivation & weight loss maintenance dropped when frequency of contact decreased (4 months)
  - Request for more regular ongoing contact & group sessions for longer term success
- Encourage greater attendance at CR exercise classes (beyond 4 months)
  - Regular contact, support & encouragement from staff
  - Opportunity for staff to monitor progress
  - Clients able to establish a good exercise routine
  - Group camaraderie & support

## Conclusion

- 33% achieved  $\geq$ 5% (mean: 3.4kg ) weight loss at 4 months
- Increase reported weekly physical activity (>150mins per week )
  - 72% (4 months), 56% (8 months - group 1)
- Positive Client feedback:
  - increased knowledge and awareness eg: food choices, exercise etc
  - more confident for healthy behaviours
  - reported increase in general health & well-being
  - overall satisfaction with program

## Conclusion

Our collaborative pilot WMP provides a promising & feasible model to improve the management of overweight patients with T2 DM & CHD.

# Thankyou!