Centre for Nutritional Studies
School of Public Health, Faculty of Medicine
The Chinese University of Hong Kong

Annual Report
(2005-2007)
Foreword

The Centre for Nutritional Studies celebrates its 10th anniversary in 2007. It represents a successful inter-faculty and inter-departmental collaborative group studying various aspects of nutrition in children, adults and the elderly, in the community as well as hospitals and long term residential care. The stimulus to the formation of the Centre was the award of the US Bristol-Myers Squibb Mead Johnson Unrestricted Grant in Nutrition for 5 years in 1997.

Apart from members obtaining competitive grants to carry out research, the Centre has successfully developed a social enterprise model to become self-sustainable in translating an effective lifestyle modification programme developed and evaluated as a research project, into a public service. This allowed continuous support of various research staff and projects on a regular basis to complement specific projects supported by competitive grants.

I would like to acknowledge the immense contribution from all staff of the Centre, as well as all academic staff from many Departments in the Chinese University and other Hong Kong universities, as well as overseas partners.

The Centre was placed under the umbrella of the newly formed School of Public Health in 2001, as a corner stone for nutritional research, education and health promotion.

Jean Woo
Director
November 2007

Mission
• To conduct research in nutrition, particularly in areas of concern in this region, covering the role of nutrition in the prevention of diseases, and nutritional aspects of acute and chronic diseases
• To promote awareness of the importance of nutrition among health care workers and the public
• To interact with similar organizations in other countries, particularly the Asian Pacific

Vision
1997 - 2007
Centre for Nutritional Studies
School of Public Health
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Highlights of Researches

• Nutritional status of CAPD patient
• Nutritional status of NPC patients before, during and after treatment
• Longitudinal study of nutritional status of patients with Alzheimer's disease and factors affecting energy balance and body composition
• Effect of age and disease on taste perception
• Effect of Orlistat and lifestyle modification

• A double-blind randomized controlled study on the effects of soy isoflavones with and without calcium fortification on bone mass and serum lipids in early postmenopausal women
• A population-based study of phytoestrogens intake and bone loss in Chinese peri-menopausal women
• Nutrition & physical activity as possible factors affecting bone mineral status in adolescent idiopathic scoliosis – cross-sectional & case-control studies
• Effects of phytoestrogens on calcium metabolism in Chinese postmenopausal women
• RCT of isoflavones and cognitive function
• Habitual physical activity, health fitness and behaviour among middle-aged population in HK

Publications
More than 300 research papers are published in International peer reviewed journals.

Highlights of Academic activities
• Annual Nutrition Symposiums
• General meeting of International Atomic Energy Agency
• Congress of Parental and Enteral Nutrition Society of Asia
• Symposium on Public Health in the 21st Century
• Symposium on Calcium, Chinese Herbal Medicine and Women’s Health
• Asia-Pacific Conference on Health Promotion-Healthy lifestyle-Healthy Community
• Motivation Interviewing Workshop
Highlights on Media interactions

Highlights on Services

- Nutrition advice on drug trials
- Lifestyle Modification Programme
- Exercise classes for children
- Nutrition advice for nursing homes
- Nutrition advice for Apprentice Jockeys
- Design school lunch box
- Judges on cooking competitions
Projects completed or in progress

1. Nutritional status of CAPD patients: follow up study completed; data being analyzed and various manuscripts have been published or are in preparation
2. RCT of isoflavones and cognitive function completed. Manuscript in press.
4. Population survey of lipid profile and glucose tolerance commissioned by the Department of Health, completed.
5. Territory-wide survey on diet composition and food consumption pattern of HK people commissioned by the Food and Environmental Hygiene Department (G Guldan)
7. Validation of the Epic physical activity questionnaire by using basal metabolic rate measurement, in progress
8. The efficacy of dietary intervention in preventing Alzheimer’s disease, in progress.
10. Food composition analysis of Hong Kong local foods, in progress.
11. RCT of the effect of 2 year milk supplement on bone mineral density in HK and Beijing Chinese women aged 20-35 years completed. Manuscript under review.
12. Examination of the relationship between nutrition and atherosclerosis (measured by ankle brachial index), and between Nutrition and psychological health in the Os cohort of 2000 men and 2000 women completed, and data published.
13. Examination of the effect of dietary pattern on the development of overweight and obesity over a 5-8 year period in HK Chinese adults, manuscript under review
14. Examination of the effect of body fat on functional limitation in the Os cohorts: manuscript under review.
15. A Phase IIa randomized, placebo-controlled clinical trial to study the efficacy and safety of MK-0773 in patients with sarcopenia.
16. Study proposal under draft: The investigation of parental attitude / belief, knowledge and practice on infant and young child feeding
17. Lifestyle and bone health in young adult Chinese women living in Hong Kong and Beijing
18. Estimated net endogenous acid production and intake of bone health-related nutrients in Hong Kong Chinese adolescents
19. Bone mineral status and its relation with net acid excretion and dietary calcium intake in Hong Kong Chinese adolescents
20. Estimates of dietary exposure and sources of artificial food colourings in Hong Kong children
21. Comparison of food colouring levels in snack foods
22. Food additives & behaviour in HK children (DBPCT)
23. The effect of exercise in weight management program
24. Glycaemic index and glycaemic load values of different foods and on weight management meals available in Hong Kong

**Research grants and donations**

2007-10  RGC Earmarked Grant
**HKD932,500**
Why does dietary oxidized cholesterol elevate blood cholesterol level more effectively than non-oxidized cholesterol?

2007-09  RGC Earmarked Grant
**HKD789,437**
A 5 year follow up study of progression of common carotid atherosclerosis and the associated risk factors in a population-based cohort of postmenopausal Chinese women.

2007-08  MSD
**HKD 113,974.5**
A Phase IIa randomized, placebo-controlled clinical trial to study the efficacy and safety of MK-0773 in patients with sarcopenia

2006-09  RGC Earmarked Grant
**HK$932,500**
Why does dietary oxidized Cholesterol elevate blood cholesterol level more effectively than non-oxidized cholesterol?

2006-08  Research Grants Council 2006
**HKD 854,780**
Effects of soy protein or isoflavones on glysmeic control, insulin resistance, and cardiovascular risks- A six month randomized, double-blind, placebo-controlled trial in pre- and post menopausal women.

2006-08  CUHK Direct Grant
**HKD35,022**
Regional Distribution of DHA and AA in brain of omega-3 deficient rats.

2006-08  Jockey Club Charities-CE Community Project List 2006
**HKD17,700,000**
To set up food Composition database for nutrition labelling. The Hong Kong.
2006-08  CUHK Direct Grant
HK$35,022
Regional Distribution of DHA and AA in brain of omega-3 deficient rats.

2006-08  Research Fund for the Control of Infectious Diseases
HK$754,288
A 3-year follow-up study of the Hong Kong Population Health Survey Cohort on overweight and obesity and its related behavioural factors.

2006-07  Oriental Daily News Charitable Fund
HKD 250,000
Hong Kong Food Exchange Book

2006-07  Miss Liu Choi Yee
HKD 150,000
Nutritional research and activities

2005-08  RGC Earmarked Grant
HKD568,957
Effect of linoleic acid (LA), conjugated linoleic acid (CLA), alpha-linolenic acid (LN) and conjugated linolenic acid (CLN) on blood cholesterol: A mechanism study.

2005-07  RGC Earmarked Grant
HK$787,775.00
A single-centre double blind randomized control trial comparing the efficacy and safety of isoflavone (soylife) versus placebo in patients with watchful waiting benign prostate hyperplasia.

2004-06  CUHK Direct Grant
HKD100,000
Effect of egg consumption on blood cholesterol levels in SD rats and hamster

2004-06  Research Grant Committee Earmarked Grant
HK$1,200,000
Effects of phytoestrogens on calcium metabolism in Chinese postmenopausal women

2004-06  Food and Environmental Hygiene Department
HK$3,200,000
Population-based food consumption survey of the people of Hong Kong

2004-06  CUHK Direct Grant
HK$100,000
Effect of egg consumption on blood cholesterol levels in SD rats and hamster
2003-08  World Cancer Research Fund International
**£149,772**
Adolescent and adult soy intake and breast cancer risk in Chinese premenopausal women

2003-06  Research Grant Committee Earmarked Grant
**HK$624,000**
Effect of soy isoflavones supplementation on cognitive function in Chinese postmenopausal women: a double-blind randomized controlled trail

**Awards**

Dr Angela Wang was awarded to Distinguished Research Paper Award for Young Investigators 2005 by the Royal College of Physicians, for the paper “Resting Energy Expenditure and Subsequent Mortality Risk in Peritoneal dialysis patients. J Am Soc Nephrol 2004; 15:3134-43. The project was supported by the Center for Nutritional Studies.

**Publications**


36. Holroyd E, W Wong, Ho SC. Mainstreaming Gender in Hong Kong: Improving gender equity in Hong Kong’s reproductive health services. The Chinese University Press.


53. Yu RHY, Ho SSC, Ho SSY, Woo JLF, Ahuja AT. Association of general and abdominal obesities and metabolic syndrome with subclinical atherosclerosis in asymptomatic Chinese postmenopausal women. Menopause (In press).
54. Zhang XH, Woo J, Heller RF. The increasing diet fish intake is associated with decreasing mortality from coronary heart disease among older population in Hong Kong. Public Health Nutr (In press).


59. Li YM, Chan HYE, Huang U and Chen ZY. Broccoli improves the survival and up-regulates endogenous antioxidant enzymes in Drosophila melanogaster challenged with reactive oxygen species. Journal of the Science of Food and Agriculture (accepted).


Conference Presentations


4. Chen ZY. At Workshop on Plant antioxidants and Health, Beijing, China. Title: Research on Antioxidant from Foods to Traditional Chinese Medicine, What Can We Conclude? November 4, 2005.

5. Chen ZY. At 6th International Conference of Food Science and Technology, Guangzhou, China. Title: Cholesterol lowering functional foods: A review. November 7-9, 2005.


17. Lee TKW, Cheung SK, Qin L, Guo X, Ho SC, Lau TFJ, Cheng CYJ. Calcium Intake and Physical Activity are Associated with Systemic Osteopenia in Adolescent Idiopathic Scoliosis (AIS). Second Asian Regional IOF Conference on Osteoporosis ed. by International Osteoporosis Foundation. p.44. Hong Kong.


24. Woo J. The importance of vitamin D and osteoporosis. CME meeting for physicians. St. Teresa’s Hospital, Hong Kong. 14 November 2006.


31. Ho SC. A study of soy intake and breast density in premenopausal Chinese women in Hong Kong. Invited seminar speaker for the Division of Epidemiology, Statistics & Behaviour Ontario Cancer Institute, Toronto, Canada, 6 June 2007.
Media Interaction

2. Cardiorespiratory fitness normal reference range press conference reported in the south China Morning Post p.1 and in the other 17 newspapers. Feb 25, 2005
6. “Health consequences caused by yo-yo dieting”. 11 local newspapers (including The standard) and online news. April 26, 2005.
27. “Nutrition need for pregnancy”. RTHK. December 26, 2005
34. “Nutrition values of traditional Chinese New Year foods”. Cable TV. Feb 1, 2006.
38. “School lunch box and Hong Kong Childhood obesity”. TVB Pearl (Sunday file). Feb 26, 2006.
42. “Calcium and hypertension”. TVB. March 8, 2006.
44. “Dieters warned to have check-ups”. South China Morning Post. March 16, 2006
61. “Health consequences of increasing late night snacks and beer during watching World Cup Competition; tips to minimize the adverse effects”. RTHK. June, 2006.
139. “大豆蛋白紓更年期不適”. “香港健康報” 五月號
Service to the community and education

1. Centre for Nutritional Studies accredited by the HK College of Family Physicians for attachment of trainees.
2. Provision of Nutritional services to the Tung Wah Enhanced Home and Community Care Services, Shatin.
3. Talk on health effects of DASH diet and physical activity by Dr. PH Lin, Duke University Medical Centre. Mar 8 2005.
4. Symposium on Calcium, Chinese Herbal Medicine, and Women’s Health.
5. Talks on healthy eating for primary and secondary schools
7. Talk on Men’s Health at annual meeting of Bank of China.
8. Talks on healthy eating for Info World of Hospital Authority
9. Survey on eating habit of Hong Kong father (co-organized with RTHK and ELCHK).
10. Healthy eating campaign “healthy and fit daddy” (co-organized with RTHK and ELCHK) (160 participants).
11. Symposium on Health Promotion: Healthy lifestyle, healthy community. (Co-organized with WHO collaborating Centre for Sports Medicine and Health Promotion) (450 participants).
12. Workshop on Motivational Interviewing (80 participants).
13. Healthy lifestyle promotion (health check and free nutrition and exercise consultation on health) for a health expo organized by Metro Finance (120 participants).
14. Anti-hypertension Campaign (co-organized with Tung Wah Group), including 14 talks, judge for cooking competition, providing recipes, and assisting in publishing booklets, etc (exceed 14000 participants).
15. Courses on Nutrition and Health for public (63 participants).
16. Talk on Nutrition and Beauty for Chung Chi Assembly (around 1000 participants).
17. Membership campaign for LMP.
18. Talks on nutrition and sports for Silver Power (80 participants).
19. Talks on nutrition and health for private company and Apprentice Jockeys (150 participants).
20. Talks on nutrition for Hospital Authority-Health Info-World (100 participants).
21. Judge for cooking competition held by Catholic Group.
22. Sport classes for obese children (20 participants).
23. Talks on nutrition and sports for CUHK Medicine Association in Health Exhibition 2006 (160 participants).
24. Regular nutrition and sport articles on Oriental Daily (every Tuesday).
25. Opening for Central Office for LMP (as a branch office).
27. Nutrition consultations on Apprentice Jockeys.
28. Internship scheme for undergraduates of Food and Nutritional Science Programme.
30. Supermarket tours for educating of food labeling (30 participants).
31. Healthy eating guidelines for elderly with Cadenza (supermarket tour, cooking class and healthy eating out).
32. Design and give consultations on school lunch-box.
33. By September 2007, there are 5,038 participants joined our LMP.
34. Member of World Action on Salt (WASH).