

# Medical Nutrition Therapy (MNT)

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Outcome data analysis: Catherine Ko, MS, RD

# Definition

- The use of specific nutrition services to treat an illness, injury, or condition (1)
  - assessment
  - treatment
- Provided by Registered Dietitian (RD)

# MNT and Diabetes

- American Diabetic Association Position (2)
- Recommends evidence-based nutrition principles for the treatment and prevention of diabetes and related complications
- Recommends individuals with diabetes to actively develop an individualized eating plan

# MNT and Diabetes

- Address individual nutrition needs based on personal and cultural preferences (2)
  - Personal medical history
  - Language/cultural barrier
  - Health literacy
- Provide practical tools for day-to-day meal planning

# Clinical Effect of MNT

- Nutrition therapy alone had the largest impact on weight loss and metabolic control (3)
- HbA<sub>1c</sub> reduced from 1% ~ 2%
- Improved lipid profile

(3) Pastors J, Warshaw H, Daly A, Franz M, Kulkarni K: The evidence for the effectiveness of medical nutrition therapy in diabetes management. *Diabetes Care* 25:608-613, 2002

# Economic Benefit of MNT

- Individualized Counseling prevents or delays incidence of diabetes in high-risk population who receive MNT (4)
- Saves cost in a long run (5)
  - Reduced hospitalization
  - Reduced physician services
  - With MNT, cost-effectiveness went from \$5.32 to \$4.20 per change in fasting plasma glucose (1mg/dl) (6)

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(4) Tuomilehto J, Lindstrom J, Eriksson JG, Valle TT, Hamalainen H, Ilanne-Parikka P, Keinanen-Kiukaanniemi S, Laakso M, Louheranta A, Rastas M, Salminen V, Uusitupa M: Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. *N Engl J Med* 344:1343-1350, 2001

(5) Sheils JF, Rubin R, Stapleton DC: The estimated costs and savings of medical nutrition therapy: The Medicare population. *J Am Diet Assoc* 99:428-425, 1999

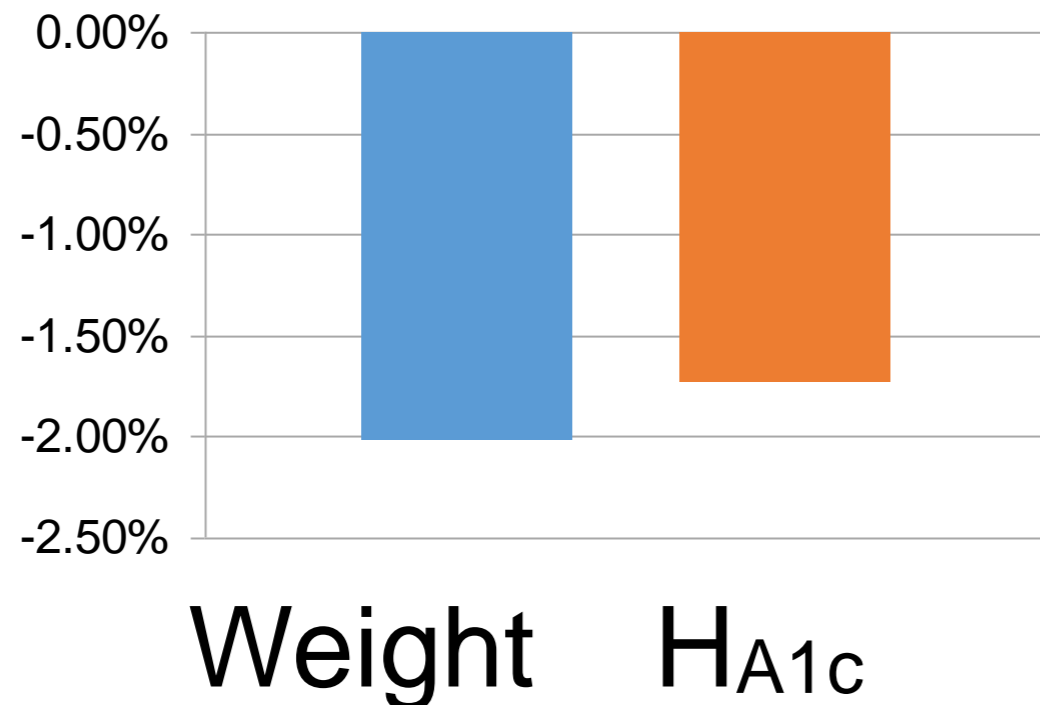
(6) Franz MJ, Splett PL, Monk A, Barry B, McClain K, Weaver T, Upham P, Bergenstal R, Mazze RS: Cost-effectiveness of medical nutrition therapy provided by dietitians for persons with non-insulin dependent diabetes mellitus. *J Am Diet Assoc* 95:1019-1024, 1995

# Outcome Data Analysis

- PIPA patients from 2013-14 referred to dietitian for MNT
- Patients received MNT for 3-12 months
- BMI, HbA<sub>1c</sub>, total cholesterol, and LDL are examined

# Outcome Data analysis Results

## % Changes after MNT



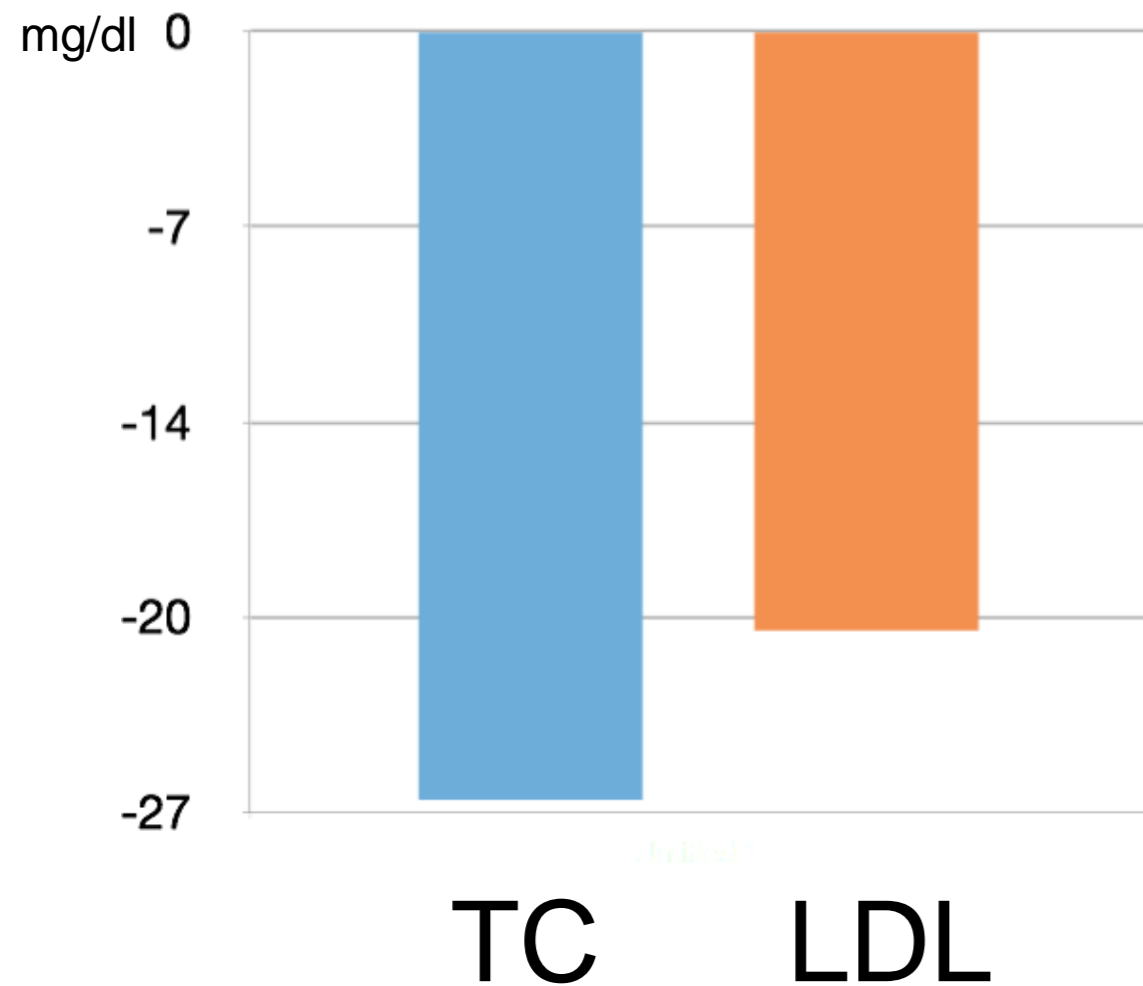
- Weight ↓ 2.01% among the obese patients (BMI>30)

- HA1c ↓ 1.73% among diabetic patients



# Outcome Study Results

## Change in Lipid Profil



- Total Cholesterol ↓ 27 mg/dl
- Low Density Lipid ↓ 21 mg/dl

# MNT Setting

- Individual sessions
  - Medicare covers 3 hours each calendar year
- Comprehensive Group sessions
  - Support group
  - Maintenance
  - Activities

# MNT (CPT code 97803 and 97802)

## includes:

- 1) an assessment of the patient's nutrition and diabetes self-management knowledge and skills;
- 2) identification and negotiation of individually designed nutrition goals;
- 3) nutrition intervention involving a careful match of both a meal-planning approach and educational materials to the patient's needs, with flexibility in mind to have the plan be implemented by the patient;
- 4) evaluation of outcomes and ongoing monitoring.

# Allied Pacific: Reasons for RD Referral

- Individualized MNT session according to personal and cultural preference
- BMI cut point for screening Asian American for pre-diabetes and Type 2 diabetes was changed from 25 to 23 kg/m<sup>2</sup> – early intervention for obesity to prevent DM
- Cost-effective intervention

# HRD Consulting Corp

- Registered Dietitians specialized in MNT, Weight Management, DSME (Diabetes Self-Management Education)
- Dietitians speak Cantonese, Mandarin and Spanish to provide cultural sensitive lifestyle intervention
- Dietitians communicating closely with other health care professionals, focusing on overall diabetes management and serving as a case manager with diabetes patients.

# 2015-Standards of Medical care in Diabetes (American Diabetes Association)

- Nutrition therapy is an integral component of diabetes prevention, management, and self-management education.
- All individuals with diabetes should receive individualized MNT, provided by a registered dietitian who is knowledgeable and skilled in providing diabetes MNT
- Comprehensive group diabetes education programs should include nutrition therapy or individualized education sessions have reported A1C decreases of 0.5-2% for type 2 Diabetes.

# 2015-Standards of Medical care in Diabetes (American Diabetes Association)

- Patients with impaired glucose tolerance (IGT), impaired fasting glucose, or an A1C 5.7-6.4% should be referred to an intensive diet and physical activity behavioral counseling program targeting weight loss.
- Follow-up counseling may be important for success.
- Based on the cost-effectiveness of diabetes prevention, such programs should be covered by third-party payers.

# Ms. Hazel Ng, RD, CDE

Graduated from UC Berkeley in Nutrition & Clinical Dietetics

- Registered Dietitian (Nutritionist)
- Certified Diabetes Educator
- Certified Lactation Educator
- Specialized in Medical Nutrition Therapy & Weight Management
- Member of the Academy of Nutrition & Dietetics (AND)
- Worked as Clinical Dietitian and WIC Clinic Supervisor
- Co-Founder of Diet Asia Nutrition Consultation Center in HK
- Author of the “Weight Management Kit” (HK)
- College Dietitian at Cerritos College
- Private Practice in Monterey Park and the Owner of [www.smarteater.net](http://www.smarteater.net)





## Scope of Service

### Weight Management Program

#### Individual Service:

- Dietitian Consultation & Tailor made meal plans
- Intensive Lifestyle Intervention (Behavior Modifications)
- Survival Tips
- Exercise Plan
- Follow-up & Monitoring, Support Group

### Medical Nutrition Therapy

- Diabetes, Chronic Renal Disease, Obesity, Hyperlipidemia, Hypertension, Gout, Underweight / Eating disorder
- Pregnancy, Breastfeeding Nutrition
- Vegetarian Diet
- Cancer Recovering

### Nutrition Education Classes & Activities

- Diabetes Self-Management Education Classes
- Supermarket Tour
- Health Seminars /Workshops e.g. Food Labels, Cooking Demonstration, Healthy Eating for Aging, Weight Loss, Heart Health etc
- Recipes & Menu Nutrition Analysis