

Background

- Most common deaths in the United States are preventable and related to nutrition
- *Healthy People 2010* & *USPS* recommend that physicians provide patient nutrition assessment and counseling
- Physicians recognize deficiencies in nutrition knowledge & confidence in providing effective dietary counseling
- Medical school students should receive at least 25 hours of nutrition education (NRC, 1985; AMA 1996)
- 92% of 4-y students reported ≤ 20 hrs of nutrition education & $< 17\%$ felt well prepared to counsel patients in nutrition (Ainsworth, T & Grochow R, BUSM 2005)

Objectives

- To include nutrition at each year of training from pre-clerkship to clerkship years focusing on knowledge, attitude, and skills
- To enhance nutrition-related clinical skills through interactions with faculty and medical students knowledgeable in nutrition and/or committed to nutrition
- To pursue these efforts in post-graduate training

Nutrition VIG staff

- Nutrition group meeting including faculty and students
 - A core group of faculty and medical students met quarterly to discuss priorities and needs in addition to reviewing and set the tasks to be accomplished on the nutrition VIG work plan
- List of faculty, students, and residents for this academic year 2009-2010:
 - Chair & Associate Dean: Dr. Levine
 - Lead Expert: Dr. Lenders
 - Core faculty & medical students: Drs. Harvey (ICM1), Stanfield (ICM2), Marino (Psychologist), Ms. Oliver and Gorman (RD), Milch and Decker (medical students)
 - Advisory faculty: Drs. Apovian, Fried, Lamorte, Siegel, Rao (resident), Ms. Phoebe (Behavior Medicine)

Plan and accomplishment**Progress Report Presentations**

- Medical Education Committee, BUSM
- Pre-clinical & Clinical Committees, BUSM

Preclinical Committee Recommendations (May, 2009)

1. Dr. Carr suggested creating an Interest Group in Nutrition chaired by 1st & 2nd year medical students
2. Dr. Levine suggested designing a 1st year elective
3. Dr. Head suggested identifying nutrition topics in course materials to help students locate them and Dr. Oberhaus stated that Topic Integration Groups were formed in the past for that purpose & could serve as models
4. Nutrition VIG Short and long term plan

1. Interest Group in Nutrition**Student Nutrition Awareness and Action Council (SNAAC):**

- **Mission:** to enhance medical student education in the field of nutrition (2009)
- **Founding Chair** Hannah Milch (MS II) and **co-founding Chair** Ashley Decker (MS II)
- **Primary mentor:** Carine Lenders, MD, MS, ScD
- **Leadership for 2010:** Flint Wang, Laura Bressler, Jen Robins, Atisa Beihaghi, Neetu Mulchandani
- **Group Components:** Advocacy; Clinical Practice; Community Outreach; Education; International
- **Current funding support:** Nutrition and Fitness for Life (NFL) education grants (New Balance Foundation; Loomis & Sayles Charitable fund) & the Student Committee of Medical Affairs (SCOMSA)

SNAAC Achievements

- Community outreach:
 - Community event in partnership with the Mass Medical Society & support from NFL clinicians
 - Collaboration with NFL community initiatives led by V. Morris
 - Collaboration with the Social Entrepreneurship in Health (led by Marcel Tam, MS III), BMC cafeteria and dietetic staff (Lynn Larsen) to label healthy foods as “SNAAC approved”
- Clinical Practice
 - Development of a psycho-social tool with NFL staff to screen patients at the NFL clinic
 - Participation in multidisciplinary weight management activities of the NFL clinic
 - Rotations and internships opportunities: NFL (BMC)
- Advocacy:
 - Networking with the Medical-Legal Partnership at BMC and a national obesity advocacy group
 - Meeting at local initiatives such as the Subcommittee of Nutrition Education, Division of Nutrition, HMS
 - Meeting at regional initiatives such as the MMS Nutrition and Physical Activity Committee
- Education
 - Organized featured speaker presentations on popular diets and dietary supplements
 - Presentations: John MacCahan Education Day, BONRC, and Admission day
 - Update and development of material with the Nutrition VIG (handouts, modules, ...)
 - Collaboration with dietician MS candidates from Sargent College at BU
 - Research/Education national internship opportunities (ASN)
- International
 - Internship in a Vietnamese Nutrition Education project (AFINS, BUSM)
 - Opportunity of on-site work at Hanoi for an outstanding BU student involved with AFINS

2. First year elective

Small Groups and Clinical Placement: Introduction to Clinical Medicine (ICM 1, Dr. Harvey)

- Placement of first year student in a Pediatric Nutrition clinical rotation
 - Acquire pediatric clinical skills in a pediatric subspecialty program
 - Exposure to a multidisciplinary team approach with MDs, RDs, & Mental Health providers
 - Ward rounds with the NICU and the Nutrition Support Staff, BMC
 - Community Nutrition exposure with RDs
 - Quarterly ward rounds at Children’s Hospital of Boston (TCH) with BMC and TCH staff
- First student enrolled with positive student and faculty reviews

3. Identify Nutrition Topics in course material

Blackboard 8

- Dr. Harvey suggested that we use the blackboard 8 software
- Identified access through a new blackboard site or the 4th year advanced nutrition elective site
- Identified blackboard users from the graduate course of Nutrition Sciences (BUSM), Dr. Hue, and Ryan to guide faculty and students developing the site on the use of this software
- Identified medical students Hannah Milch (Lead), Neetu Muchandani, and Ryan Heinrick who are Working with faculty to develop the virtual nutrition course content including web links
- Course content development ongoing – tentative deadline to “Go Live” end of December 2010

4. Nutrition VIG Short and Long Term Plan

Identify priorities:

- Update the nutrition section in the 4-y medical student handbook
- New module (nutrition self assessment)
- Clinical Placement of first year student
- Add test questions to the pediatric obesity module
- Review other centers modules

- Objectives/competencies review
- Blackboard 8 to catalogue nutrition

Review modules from the web to include in the third and fourth years

- Lauren Oliver (RD) and Carine Lenders (MD) obtained permission to use password links to the University of North Carolina module for possible use at the medical school
- Neetu Muchandini (MS II), Ryan Heinrich (MS IV), and Kathy Gorman (RD) have reviewed modules from the University of North Carolina for integration in Blackboard 8

Identify and list objectives and competencies for the four years.

- Jen Robins (MS II) , Kathy Gorman (RD), and Dr. Lenders (MD) have reviewed and former competencies and listed major objectives for the four years of medical school
- Objectives and competencies have been reviewed by the nutrition VIG core group and advisors as well as SNAAC leadership and will be submitted to Dr. Levine and BUSM faculty of pre- and clinical committee

Review the grid for the integration of nutrition into the curriculum

- The format for integration of nutrition is no longer going to be based on the previous grid that was previously developed but on the objectives and competencies recently reviewed and completed for the blackboard 8

Complete an interactive module on nutrition assessment

- The module is completed and will be reviewed for update by Ms. Kathy Gorman (RD) and the Nutrition VIG core group before uploading to the BUSM sites as the American Dietary Guidelines were just released

Review material available on the web

- Neetu Muchandini (MS II) and Kathy Gorman (RD) are reviewing the clerkship modules from the Abbott Institute of Nutrition for integration in Blackboard 8
- Neetu Muchandini (MS II), Kathy Gorman (RD), and Carine Lenders (MD) have met with a representative of the Abbott Institute of Nutrition Education to review process and request select downloads from the site

Long terms plans include:

- Writing a curriculum for medical students and comparing it with the residents' nutrition curriculum
 - We are using the material developed by the Nutrition Academic Award (NAA) program, NHLBI and the Recommended Curriculum Guidelines for Family Medicine Residents from the American Academy of Family Physician
 - We plan to review and possibly include some of the material developed by the SUNY-Downstate Medical Center in Brooklyn, NY and the nutrition case book from the University of Pennsylvania to complement select areas of the curriculum
- Create a tutorial for IP: weight management counseling
 - We have contacted Dr. Wiecha who suggested to meet with the IP course chair
- Complete a web page on physician education at BUSM
 - An external web page will be develop when the virtual nutrition course will "go live" on Blackboard 8
- Request the creation of a physical education core at Boston Obesity Nutrition Research Center
 - Dr. Corkey was interested in the possibility of creating a new physician education core at the BONRC and Susan Fried was interested in the integration of nutrition at BUSM
 - Further discussions will resume when the blackboard 8 is operational in 2011

Individual's accomplishments in nutrition education 2009-2010

1. Awards won by mentees
2. Accomplishments by mentees
3. Accomplishments by BUSM Physician Nutrition Specialists

1. Awards won by mentees

- *Clinical Internship Award* to Hannah Milch for best national application to enhance medical students clinical and academic exposure to nutrition, American Society for Nutrition, 2010

- *Student Award* to Ashley Decker for best student abstract presentation at The John McCahan Education day, Boston University School of Medicine, 2010

2. Accomplishments by mentees (BU students are highlighted)

- *Appendix V: Nutritional History and Counseling. Introduction to Clinical Medicine Handbook.* By **Hannah Milch** (MS II) and Lauren Oliver (MS, RD, LDN) with **Ashley Decker** (MS II) and Carine Lenders (MS, MD, ScD), 2009
- *How You Can Do a Dietary Self-Assessment (Module).* **Suja Sadasuvin** (MS IV), Lauren Oliver, (MS, RD, LDN), **Gita Rao** (MD, MPH), **Hannah Milch** (MS II), **Ashley Decker** (MS II), Carine Lenders (MD, MS, ScD), Wayne LaMorte (MD, PhD, MPH), Nan Harvey (MD), Lorraine Stanfield (MD), 2009-10
- *Pediatric Obesity.* **Sylvina Pugliese** (MS IV), Carine Lenders (MD). Invited Speaker. Obesity Medicine Inter-Hospital Rounds. Presentation to health professionals in weight management and weight loss surgery programs from six teaching hospitals in Massachusetts. Boston, MA, 2010.
- "Environment and Pediatric Obesity Session". Attendance by **Hannah Milch** (MS III). The 24th International Conference on Practical Approaches to the Treatment of Obesity, Cambridge, MA, 2010.
- *Member of Subcommittee on Nutrition Education,* **Hannah Milch** and **Ashley Decker**, Division of Nutrition, Harvard Medical School, Boston, MA, 2010
- Lenders C*, Oliver L*, Lakhani S, Logan C, Marino M, Meyers A, **Milch H**, Morris V (* first co-authors). Pediatric Obesity Medicine. In: Augustyn M, Zuckerman B, and Caronna E, eds. Zuckerman and Parker's Handbook of Developmental and Behavioral Pediatrics, 3rd edition. Lippincott Williams & Wilkins, a division of Wolters Kluwer Health, Inc. In press, 2010.
- *Summer internship in Medical Education,* **Neetu Muchadani** (MS II), NFL 2010
- *Medical Student Delegate, Massachusetts Medical Society's Nutrition and Physical Activity Special Committee.* **Flint Wang** (MS I), 2010
- *Fall pediatric nutrition research rotation,* **Ryan Heinrich** (MS IV), 2010
- *Summer pediatric nutrition research rotation,* Richard Alongi (MPH 2011 U. Illinois-Chicago), 2010
- *International internship, Abbott Fund Institute of Nutrition Science Project in Vietnam.* **Castro RD** 2010
- *Summer pediatric research rotation,* **Michelle Debiasse** (Clinical Assistant Professor Sargent College & PhD student in nutrition sciences, 2010
- *Rapid weight gain in infancy and childhood as a risk factor for adult obesity.* **Elissa Ortolani**, BA. Master of Medical Sciences Thesis. Graduate Prog Master of Sciences, BU, 2010.
- *Student Nutrition Awareness and Action Council (SNAAC).* **Decker A, Milch H**, Oliver L, Lenders C. Oral presentation (winning student abstract), John MacCahan Education Day, BUSM, June 11th 2010
- *Virtual Nutrition Course at BUSM.* **Milch H, Robbins J, Wang F, Bressler L, Decker A**, Lenders C. Poster presentation, John MacCahan Education Day, BUSM, Boston, June 11th 2010.
- *Student Nutrition Awareness and Action Council (SNAAC).* **Decker A, Milch H**, Oliver L, Lenders C. Poster presentation, Boston Nutrition Obesity Research Center, Boston, June 14th 2010.
- *Virtual Nutrition Course at BUSM* **Milch H, Robbins J, Wang F, Bressler L, Decker A**, Lenders C. Poster presentation, Boston Nutrition Obesity Research Center, Boston, June 14th.

3. Accomplishment by BUSM Physician Nutrition Specialists

Caroline Apovian, MD, FACP, FACN:

- Committee assignments
 - Member, *Committee on Admissions*, BUSM
 - Co-director, *Hospital Nutrition Committee*, BMC
 - Associate Director, *Graduate Program in Medical Nutrition Sciences*, BUSM
 - Co-Chair, *AFINS Strategic Planning*, Global Health Primary Care Initiative, Department of Family Medicine, Boston Medical Center, Boston, MA
 - Course co-director, 24th International Conference, Practical Approaches to the Treatment of Obesity, MA
 - Member, *Executive Committee*, Boston Obesity Nutrition Research Center
 - Chair, *Obesity Research Interest Section (RIS)*, American Society for Nutrition
 - Planning Committee, *TOS Annual Meeting Clinical Program*, The Obesity Society
 - Past President and advisor, *Advisory Board*, American Board of Physician Nutrition Specialists
 - Secretary/Treasurer, *TOS - The Obesity Society*
 - Member steering committee, *Certified Obesity Medicine Physician (COMP)*, *The Obesity Society*

- Regional/National/International Invited presentation
 - Invited Speaker: *Workshop on Increasing Physician Nutrition Experts. Board Certification and Credentialing in Nutrition*, American Society of Parenteral and Enteral Nutrition, Silver Spring, MD
 - Chair & Speaker. *The Science of Exercise for Obesity*, Experimental Biology Symposium, Anaheim, CA
 - Visiting Faculty, Curriculum Development Project supported by the Lincy Foundation grant. Skeletal Health, Yerevan State Medical University, Yerevan, Armenia
 - Invited Speaker, Malnutrition in the Hospitalized Patient, AFINS national launch conference, Hanoi, Vietnam

Carine Lenders, MD, MS, ScD

- Committee assignments
 - Co-director, *Hospital Nutrition Committee*, BMC
 - Senior Advisor, *Global Health Primary Care Initiative*, Department of Family Medicine, BMC
 - Faculty, *Graduate program in Medical Nutrition Sciences*, BUSM, Boston, MA
 - Associate, *Subcommittee on Nutrition Education*, Division of Nutrition, Harvard Medical School, Boston, MA
 - Investigator, *Nutrition Research Center at Harvard - NIH-funded Pilot Feasibility Projects*, Harvard School of Medicine
 - Lead Expert, *American Society of Parenteral and Enteral Nutrition Clinical (APEN) Guidelines - Hospitalized Pediatric Patient with Obesity*, ASPEN, USA
 - Vice-Chair, *Sub-Committee of Professional Nutrition Education (CPNE)*, ASN
 - Co-Chair, *CPNE Program Development*, Experimental Biology Symposia on Nutrition Education 2011
 - Chair, *CPNE Collaboration*, proposal development for integration of nutrition in US medical schools
 - Project Director, *The Abbott Fund Institute of Nutrition Sciences (AFINS)*, Hanoi, Vietnam
- Regional/National/International Invited presentation
 - Invited Speaker, *Pediatric Obesity*, The Healthy Weight Initiative, a CAVU collaborative of seven community health centers, Boston, MA
 - New Pediatric Tract Lead, Moderator, & Speaker. *Environment and Pediatric Obesity Session*. The 24th International Conference, Practical Approaches to the Treatment of Obesity, Boston, MA
 - Symposium Moderator, *Novel Diets for Childhood Obesity*, TOS- The Obesity Society, 27th Annual Scientific Meetings, Washington DC
 - Invited Speaker, *Pediatric Obesity: Case Presentation and Treatment Options*, School of Public Health, Faculty of Medicine, University of Liege, Sart Tilman, Belgium
 - Invited Speech, *Partnership between the National Institute of Nutrition (NIN) and BUSM*, the National launch of a new center targeting chronic diseases related to nutrition, NIN, Hanoi, Vietnam

Select highlights in nutrition related topics at BUSM

- Course lectures
 - Physiology: new section on appetite regulation
 - Behavior medicine: new section on obesity
 - Endocrine: new lectures and tests in nutrition an obesity
- Pre-Clerkship
 - Clinical placement of year 1 medical students (ICM 1) in adult nutrition
 - Clinical placement of year 2 medical students (ICM 2) in adult nutrition
 - Clinical placement of year 1 medical students (ICM 1) in pediatric nutrition
- Clerkship
 - Third year pediatric core conference – no current pediatric obesity class given conflict with clinic
 - Third and Fourth year electives in adult nutrition
 - Fourth year elective in pediatric nutrition
 - Fellowship in adult nutrition
- Residency
 - Multiple grand rounds and lectures (Medicine, Pediatrics, Behavior Medicine)
- MS/PhD in Nutrition Sciences
 - New course director and course design
 - New seminars
 - Update on nutrition related lectures and conference in the greater Boston