Kitchen Creations Faculty Newsletter #22 September 2008

New Faces

A great thing about Kitchen Creations is the team of people who work together to make our program successful. We have two new faces on the Kitchen Creations team. Carol Turner is the new Food and Nutrition Specialist for NMSU Extension Service. This position was formerly held by Martha Archuleta, who is now Head of the Family and Consumer Science Department and Extension Home Economics. Tempa Tate is a new contract monitor with the Diabetes Prevention and Control Program. Carol Marr formerly had this position. Carol Marr retired in April. Carol and Tempa each provided information about themselves.

Carol Turner PhD, RD, LD was hired as the State Food & Nutrition Specialist for the New Mexico Extension Service on July 1, 2008. Prior to this she worked as the Program Coordinator for the Expanded Food and Nutrition Education Program (EFNEP), renal dietitian, dietitian for nursing home, dietitian for the developmentally disabled population, and academic nutrition faculty in Department of Family and Consumer Sciences at New Mexico State University.

Her interest in nutrition began as she noticed the overwhelming amount of nutrition information available which seemed to increase anxiety in those individuals she was working with. This interest has lead to developing very practical hands-on methods of enjoying the foods we eat. We make choices in eating every day, many times a day. Learning simple strategies to improve these choices can be empowering.

Carol has been a Registered Dietitian for the past 24 years. Her academic background includes a Bachelor of Science in Home Economics and Business (1977), a Master's of Science in Nutrition and Food Science (1982), and a PhD in Curriculum and Instruction (2005) from New Mexico State University. She has also been blessed with four wonderful daughters – Natalie 26, Tiffany 24, and twins Holly and Ivy 23. All four live in Las Cruces and still find it cool to hang out with mom.

Prior to her coming to the Diabetes Prevention & Control Program, **Tempa Tate** worked approximately two years with the Physical Activity & Nutrition Program for Healthier Weight. During her tenure with the New Mexico Department of Health, Chronic Disease Prevention and Control Bureau, she gained experience in leveraging resources and creating statewide partnerships that support nutrition policies, food access and environmental changes that impact obesity and other chronic diseases. She led the Loving Support Breastfeeding initiative and was the contract monitor for the New Mexico Medical Society, Clinical Prevention Initiative Healthier Weight Workgroup. Ms. Tate's six years of experience with the New Mexico Women, Infant and Children program provided her with direct public health experience in nutritional and breastfeeding counseling, and quality assurance.

Ms. Tate continues her position as the State Coordinator for the *Fruits & Veggies – More Matters* initiative. She has been a member and supporter of the Healthier Weight Council since its conception and has a genuine interest in the application of community health principles to nutrition and physical activity programs for diverse groups and individuals. Ms Tate has a Master's of Science in Nutrition and is a Registered Dietitian. She enjoys Jazzercise and bike riding. She has a son and daughter ages 26 and 23 who are presently in the U.S. Coast Guard.

Tempa is the contract monitor for the Kitchen Creations contract. The Diabetes Prevention and Control Program funds Kitchen Creations. Lourdes Olivas and I send her contractor monitor reports on a monthly basis. Both Tempa and Carol serve as advisors to the Kitchen Creations program. They help keep us on track. I find it very beneficial to get an opinion or advice from someone not involved in the day to day operation of Kitchen Creations.

Welcome, Carol and Tempa!

Average Mean Blood Glucose

A mathematical relationship between the average glucose level over the three preceding months and levels of the A1C test was proven in an article in the August issue of *Diabetes Care*. This study yields a translation of the A1C to estimated average glucose (eAG).

A total of 507 adult subjects, including 268 subjects with type 1 diabetes, 159 with type 2 diabetes and 80 subjects without diabetes were studied. They were from 10 international centers. They wore a continuous glucose monitoring device for 2 days at baseline and then for 2 days every 4 weeks during the next 12 weeks. The subjects also checked their blood glucose with a glucose monitor 8 times each 2 day period that they wore continuous glucose monitoring device. They also checked their blood glucose 7 times a day at least 3 days a week when they weren't wearing the continuous glucose monitoring device. A1C tests were measured at baseline and monthly for 3 months.

Results of statistical analysis show a close relationship between A1C levels and average glucose for both type 1 and type 2 diabetes. The large study population demonstrated that the relationship between A1C and average glucose was consistent across the subgroups. Since children and pregnant women were excluded from the study, additional data is needed to confirm the relationship between A1C and average glucose in these groups.

The A1C has been used for more than 25 years as the major measure of glucose control. While eAG will not replace A1C, physicians will be able to get reports in both A1C units of glycated hemoglobin and eAG units of milligrams per deciliter. They can choose which to use in clinical situations.

The co-chairs of the study discussed the implications of using eAG. They think it will be helpful for patients to have all test results from the lab and those the patient performs in the same units.

Then when health care professionals set goals based on eAG units, the patients will know how close they are to reaching their goals every day when they check their blood glucose at home.

Health professionals wishing to convert A1C to eAG can go to http://professional.diabetes.org/GlucoseCalculator.aspx

Below is a table that shows the conversion of A1C to estimated Average Glucose

A1C (%)	eAG mg/dl
5	97 (76-120)
6	126 (100-152)
7	154 (123-185)
8	183 (147-217)
9	212 (170-249)
10	240 (193-282)
11	269 (217-314)
12	298 (240-347)

Diabetes Care 31:1473-1478, 2008

American Diabetes Association: Clinical Practice Recommendations 2008
Summary of Nutrition Recommendations and Interventions for Diabetes, cont.

Nutrition Recommendations for Controlling Diabetes Complications
(tertiary prevention)

Microvascular complications

- Reduction of protein intake to 0.8-1.0 grams of protein per kg of body weight per day in people with diabetes and the earlier stages of chronic kidney disease (CKD) and to 0.8 grams of protein per kg of body weight per day in later states of CKD may improve kidney function.
- Medical nutrition therapy (MNT) that positively affects cardiovascular risk factors may also have a positive effect on microvascular complications such as retinopathy and nephropathy.

Treatment and management of CVD risk

- Target A1C as close to normal as possible without significant hypoglycemia.
- For people with diabetes at risk for CVD, diets high in fruits, vegetables, whole grains, and nuts may reduce the risk.
- For people with diabetes and symptomatic heart failure, dietary sodium intake of less than 2,000 mg/day may reduce symptoms.
- In people with normal blood pressure and people with high blood pressure a reduced intake of sodium (2,300 mg/day) with a diet high in fruits, vegetables, and low fat dairy products (DASH diet) lowers blood pressure.
- In most people, a modest weight loss improves blood pressure.

Nutrition Interventions for Acute Complications and Special Considerations for Patients with Comorbidities in Acute and Chronic Care Facilities

Hypoglycermia

- Eating 15-20 grams of glucose (glucose tablets or glucose gel) is the preferred treatment for hypoglycemia, although any form of carbohydrate that contains glucose may be used.
- Blood glucose should be checked 10-20 minutes after treatment of hypoglycemia; blood glucose should be tested again in 60 minutes as further treatment may be necessary.

Acute illness

- During acute illnesses (such as flu), insulin and oral agents should be continued.
- During acute illnesses, testing of blood glucose and ketones (urine test), drinking adequate amounts of liquids, and eating or drinking foods that contain carbohydrates are all important.

Patients with diabetes in acute health care facilities (hospitals)

- Having an interdisciplinary team, medical nutrition therapy (MNT), diabetes-specific discharge planning improves the care of patients with diabetes during and after hospitalization.
- Hospitals should consider implementing a diabetes meal planning system that provides consistency in the carbohydrate content of specific meals.

Patients with diabetes in long-term care facilities

- Imposing dietary restrictions on elderly residents with diabetes in long-term care facilities is not warranted. Residents with diabetes should be served a regular menu, with consistency in the amount and timing of carbohydrates.
- An interdisciplinary team approach is needed to integrate medical nutrition therapy (MNT) for residents with diabetes.
- There is no evidence to support prescribing diets such as "no concentrated sweets" or "no sugar added."
- In elderly residents of long-term care facilities, under-nutrition is likely and caution should be exercised when prescribing weight loss diets.

This concludes the summary of American Diabetes Association Clinical Practice Recommendations 2008

Websites

www.RD411.com
Click on "visit the Diabetes Center".
Click on "for your patients". This has information on diet, weight management, blood glucose, exercise and fitness, and health and wellness. The information is available in both English and Spanish.
Click on "for health professionals". This has information on health care facilities, resources for treating patients, reimbursement, research and literature, professional resources. Professional Resources has information on diabetes organizations and meetings for 2008, professional reading list and professional and voluntary organizations.

www.diabetesnm.org
This is the website of the New Mexico Diabetes Prevention and Control Program
On the right side click on "Kitchen Creations upcoming cooking schools" This lists cooking schools that have been scheduled and where they are located.
On the left click on "facts" look for "Prevalence Among Adults in NM", click on "2006 data". This lists diabetes rates by county.

www.diabeteseducator.org
On the right side click on "Find a Diabetes Educator". Click on New Mexico on the map. This will give you a list of the diabetes educators in New Mexico who belong to the American Association of Diabetes Educators (AADE). Not all diabetes educators belong to AADE, so not everyone is listed. Not everyone on the list is a CDE.

www.healthywomen.org
The National Women's Health Resource Center website has the latest research news, tips and resources at more than 100 health topics. It also has special reports, fact sheets, surveys and brochures, all reviewed by leading health professionals. Click on Health Topics A-Z; under "D" click on diabetes. At the end of the information, you can click to get the references. This site would be useful for information on other health topics as well.

Karen Halderson, MPH, RD, LD, CDE
Extension Diabetes Coordinator