

# Implementation of the DRIs and DGA Guidelines– Regional Training

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# Objectives

- Overview
- Menu Development
- Menu Options
- Menu Planning Principles
- Implementation

# Overview

- Goals
- Requirements of OAA
- DRIs
- Dietary Guidelines for Americans

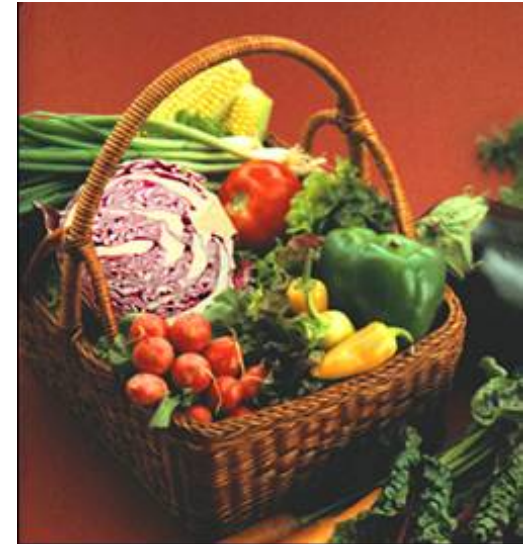
# Goals of Community Based Nutrition Programs

- ▶ Improve health and nutritional status
- ▶ Prevent of hunger and food insecurity
- ▶ Continuation of the ability to live independently for older adults
- ▶ Provide nutritious, tasty, appropriate, and safe meals

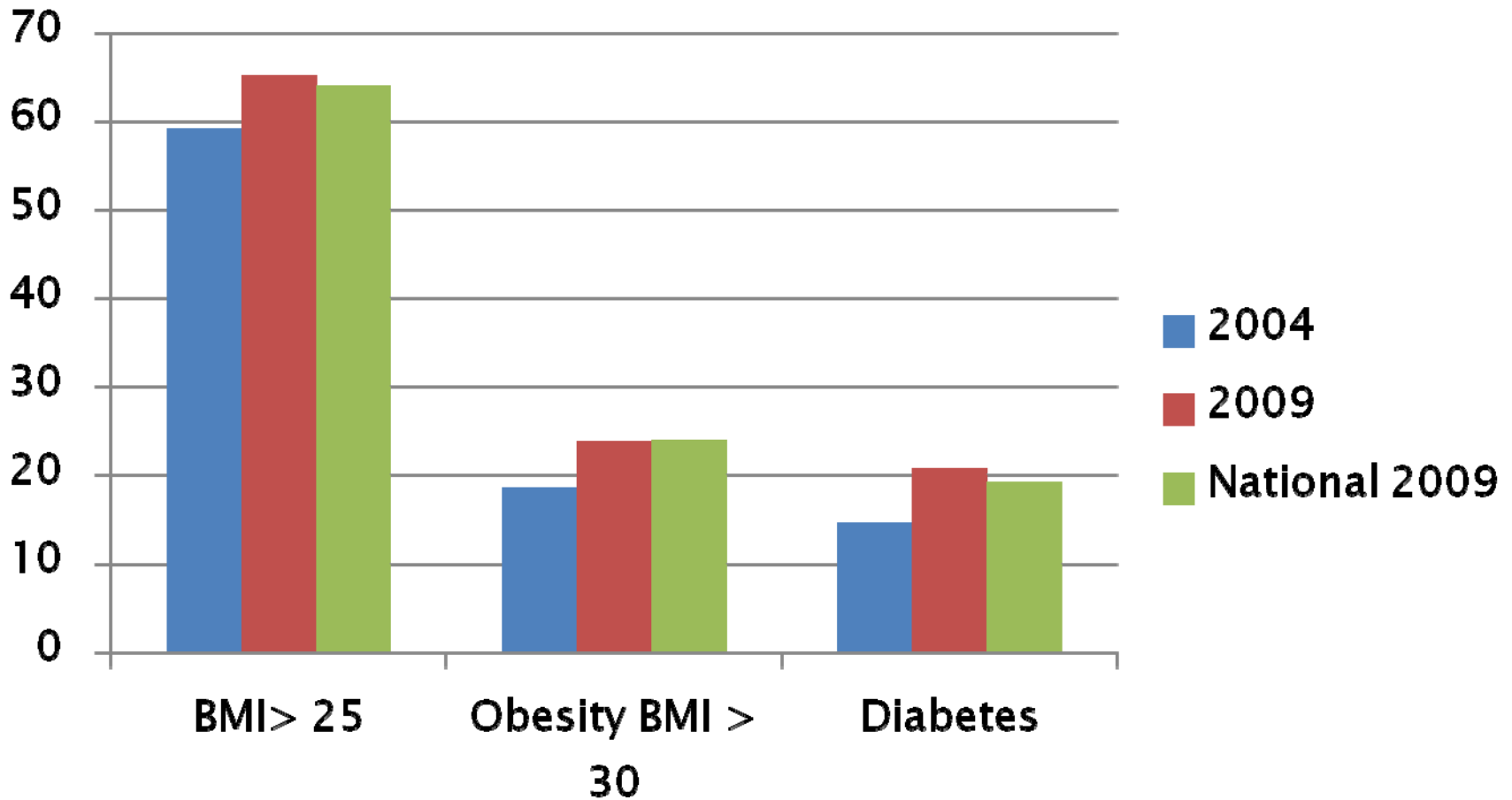


# Healthy Eating & Physical Activity

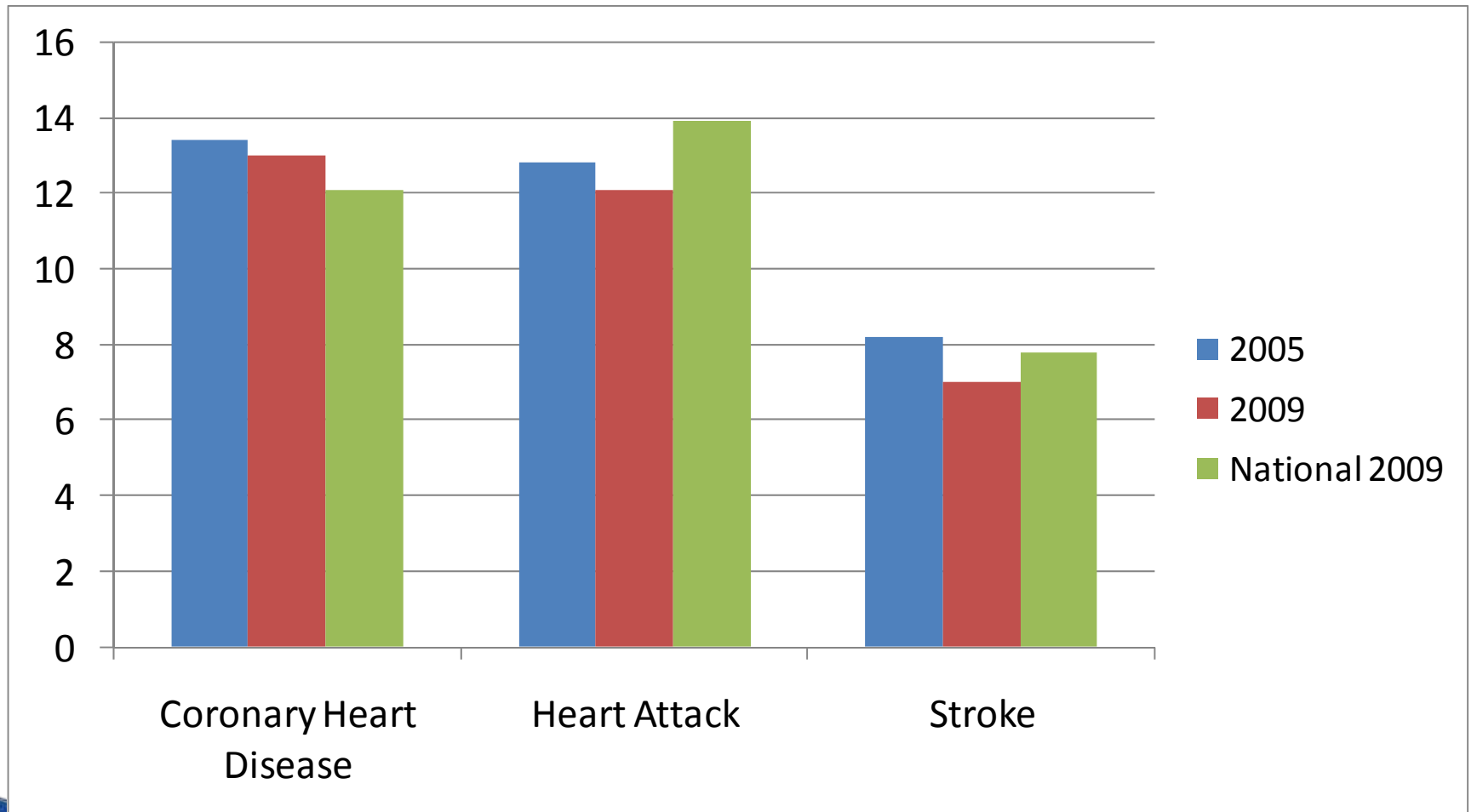
- ▶ Increase longevity
  - Even with cancer, heart disease
- ▶ Diabetes prevention
- ▶ Manage hypertension
- ▶ Best evidence for
  - Fruits, vegetables
  - Whole grains
  - Less salt
  - Less saturated fat (animal fat)
  - Vitamin D, calcium supplements



# Health Profile of Older Texans



# Health Profile of Older Texans



Behavioral Risk Factor Surveillance System  
65+ Age Group



# Consumers Value Program Participation

	<b>Home Delivered</b>	<b>Congregate</b>
<b>Eat more balanced meals</b>	<b>86%</b>	<b>79%</b>
<b>Better able to avoid sodium &amp; fat</b>	<b>81%</b>	<b>76%</b>



# Services Are Targeted to Vulnerable Populations

Indicators	Home-delivered	Congregate	National
Age 75+	70%	57%	32%
Live Alone	56%	48%	27%
Below Poverty	24%	14%	7%
3+ ADLs	31%	8%	6%

Issue Brief, July 2010, Mathematica Policy Research, Inc.

# Services Allow Seniors to Remain in Their Homes

Home-delivered	Congregate
91%	59%

Issue Brief, July 2010, Mathematica  
Policy Research, Inc.

# Requirements of the Older Americans Act

## ▶ Section 339 Nutrition Program

- “A State that establishes and operates a nutrition project under this chapter shall...”
- State must solicit advice of a dietitian or individual of comparable expertise in planning nutritional services and ensuring....

# Requirements of the Older Americans Act

## ▶ Meals

- 1 / 3 DRI; Dietary Guidelines for Americans, 2005;
- Design meals to meet special dietary needs (cultural/ethnic preferences, health, religious needs)
- Design “appealing” meals, i.e. food/menu choice, include participant input

# What are the Dietary Reference Intakes (DRIs)?

- ▶ Introduced in 1997
- ▶ Reference values of nutrients, primarily used by nutrition & health professionals
- ▶ Basis for
  - assessing & planning diets
  - federal nutrition & food programs



Dietary  
**DRI** Reference  
Intakes The Essential  
Guide to  
Nutrition



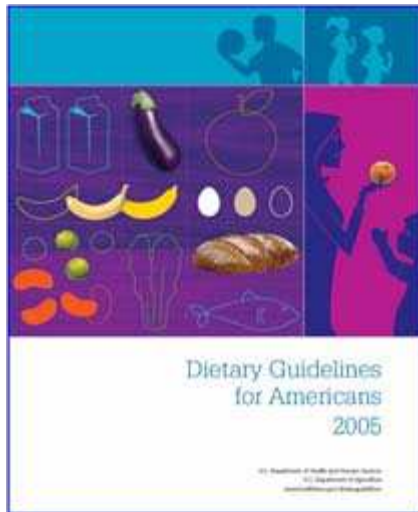
By American Dietetic Association and American Nutrition Association  
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AMERICAN DIETETIC ASSOCIATION

# What is the purpose of the DRIs?

- ▶ Maintain nutritional adequacy
- ▶ Promote health
- ▶ Reduce risk of disease
- ▶ Provide a measure of excess

# What are the Dietary Guidelines for Americans?



- ▶ Brief science-based statements & text published by federal government
- ▶ Promotes health & prevent disease
- ▶ Updated every 5 years. Due Fall 2010



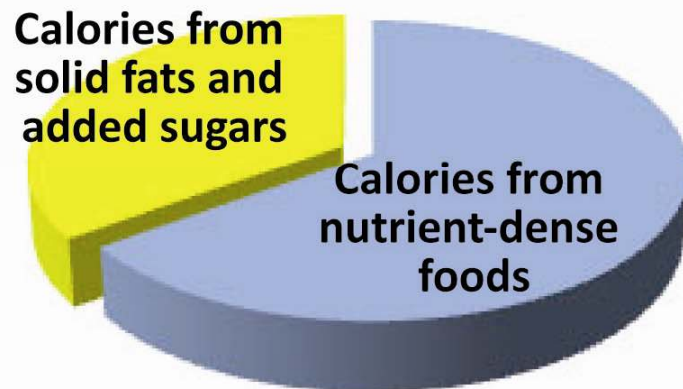
# Highlights of the Dietary Guidelines for Americans 2010

- ▶ Addresses majority of Americans are overweight or obese
- ▶ Research supported
- ▶ Total diet = Energy balanced + nutrient dense



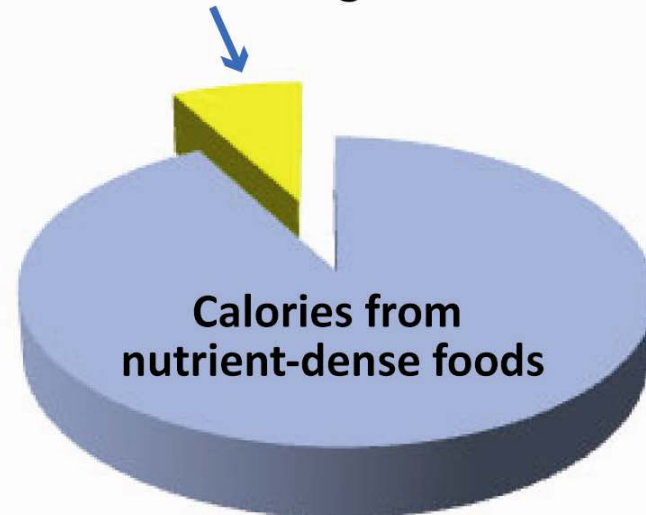
# Dietary Guidelines for Americans 2010

## What We Eat



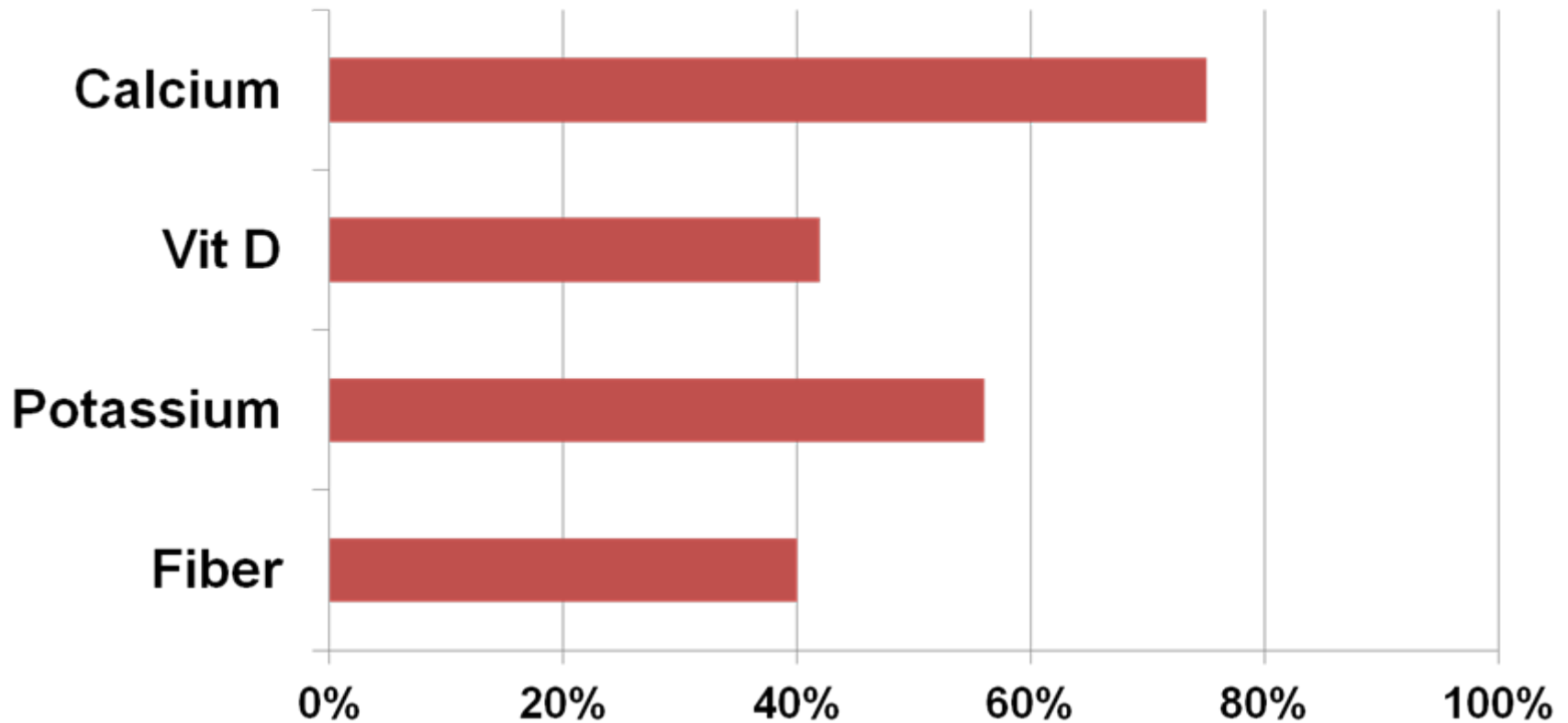
## Recommended Limits

Calories from solid fats  
and added sugars



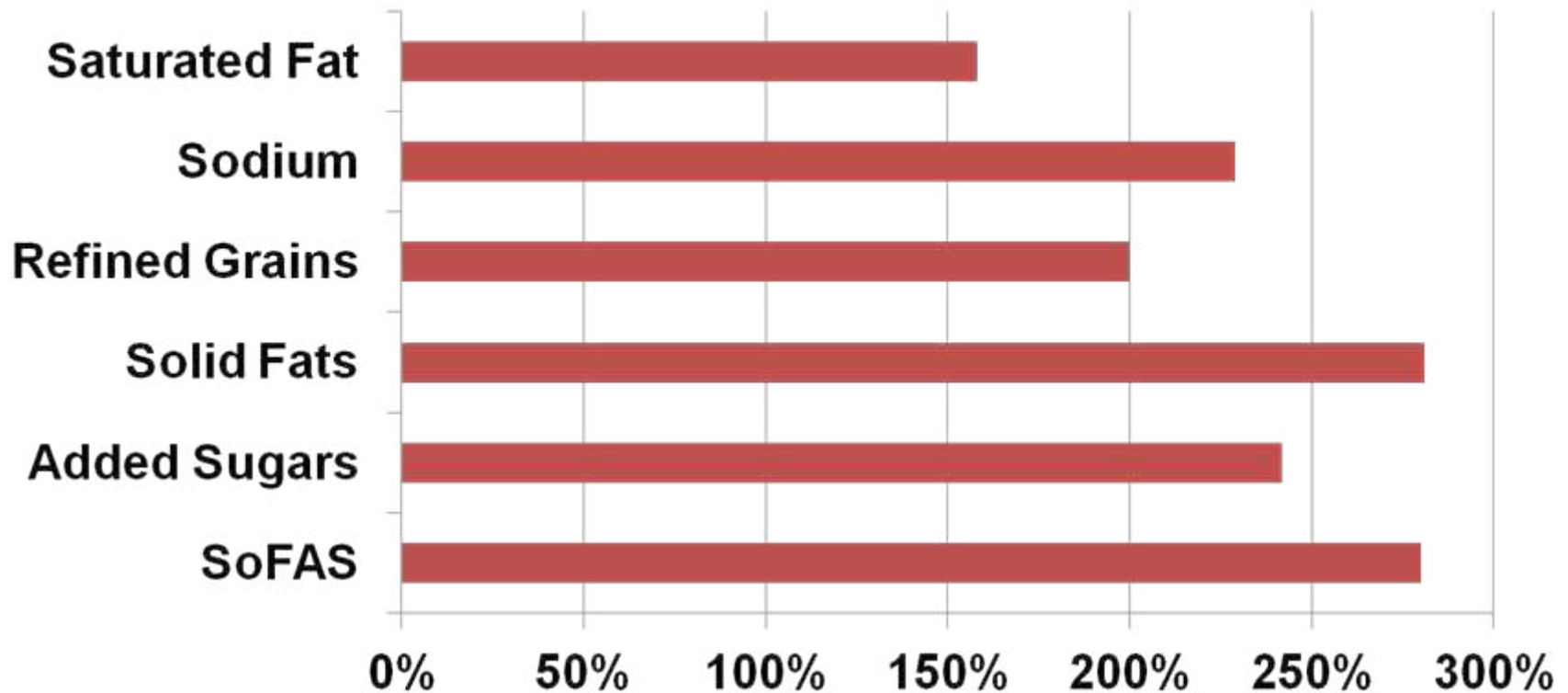
# Dietary Intakes Compared to Recommended Levels

## Eat More



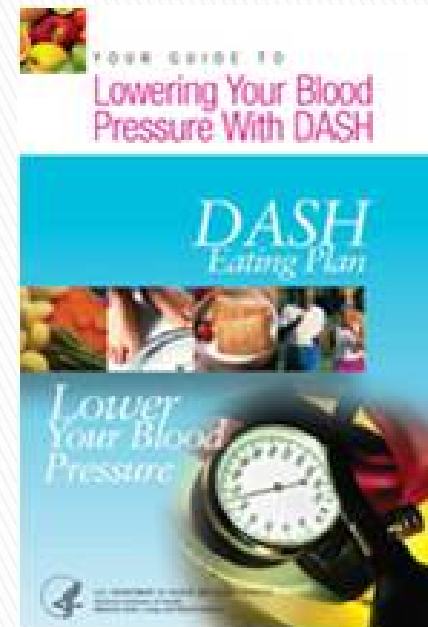
# Dietary Intakes Compared to Recommended Levels

## Eat Less



# Dietary Guidelines for Americans

## Meal Patterns



USDA Food Guide

DASH Eating Plan



# Dietary Guidelines for Americans

## Meal Patterns

- ▶ Lean Meats & Beans
  - ▶ Grains
  - ▶ Fruits
  - ▶ Vegetables
    - Dk Green, Orange
    - Legumes, starchy, other
  - ▶ Milk
  - ▶ Oils
  - ▶ Sweets discretionary calorie allowance
- ▶ Meat, poultry, fish
  - ▶ Nuts, seed, legumes
  - ▶ Grains
  - ▶ Fruits
  - ▶ Vegetables
  - ▶ Low-fat or fat free dairy foods
  - ▶ Fats and oils
  - ▶ Sweets and added sugars

USDA Food Guide

DASH Eating Plan

# Key Recommendations for Older Adults:

- ▶ **Calories**
  - 1800 – 2050 calories/day  
(Age/Activity)
- ▶ **Fat**
  - 25–35% of Total Calories
- ▶ **Protein**
  - 46–56 gm (10–35% of Calories)



# Key Recommendations for Older Adults:

- ▶ Sodium – Limit to 1,500 mg/day
- ▶ Sources: Naturally occurring in foods; Table salt; processed, brine, smoked, or salty foods



# Key Recommendations for Older Adults:

- ▶ Potassium – Meet 4,700 mg/day with food
- ▶ Sources: Found in meat, milk, fruits and vegetables;



# Key Recommendations for Older Adults:

## Keep Sodium and Potassium in Balance



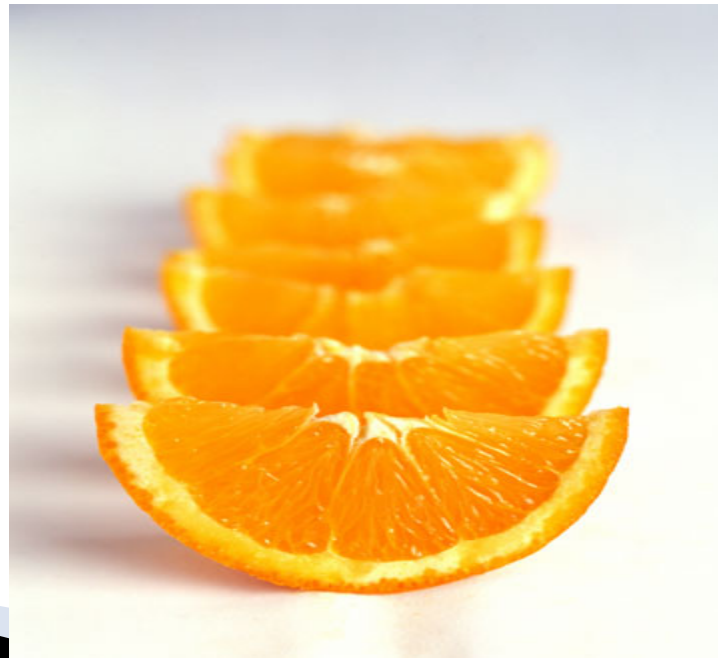
# Key Recommendations for Older Adults:

- ▶ Fiber– 21 to 30 gm/day
- ▶ Source: Whole grains, Legumes, Nuts, Vegetables, Fruits



# Key Recommendations for Older Adults:

- ▶ Vitamin C – 70 to 90 mg per day
- ▶ Sources: Citrus fruits, broccoli, strawberries, lemons, mustard and turnip greens, Brussels sprouts, cabbage, spinach



# Key Recommendations for Older Adults:

- ▶ Vitamin A– 700 to 900 microgram/day
- ▶ Sources: Plant sources preferred–Dark green and orange vegetables





## Menu Development

- Menu Planning
- Documentation
- Review and Approval



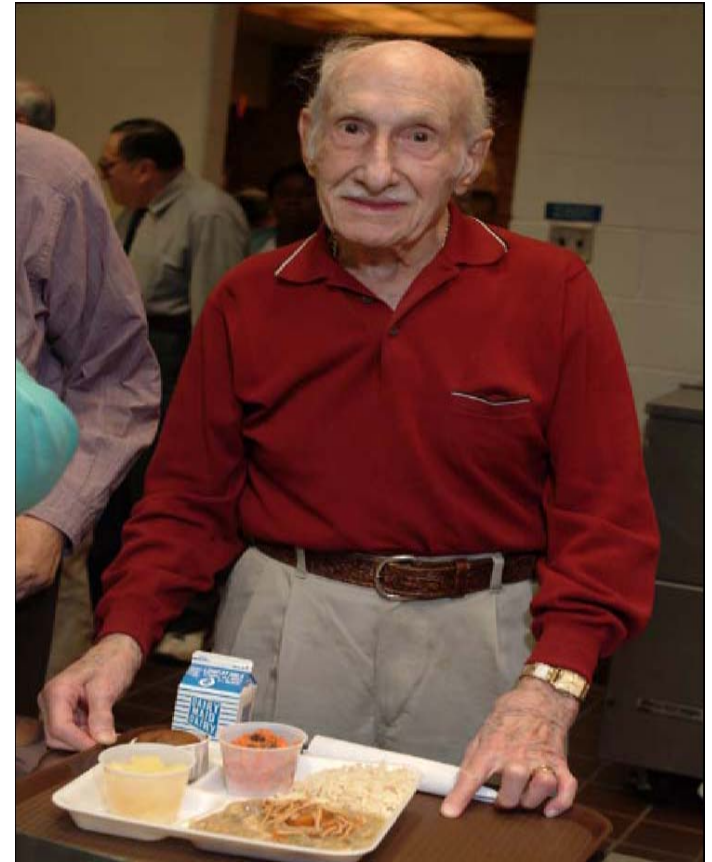
# Menu Planning

- ▶ Planned with the advice and expertise of:
  - A dietitian or person with comparable expertise
  - Other knowledgeable persons
  - Customer input

# Menu Planning

## Customer Input

- ▶ Menu committees
- ▶ Product sampling
- ▶ Food preference surveys
- ▶ Satisfaction focus groups
- ▶ “Secret” diner
- ▶ Comment cards
- ▶ Satisfaction surveys



# Menu Planning

- Enhance taste
- Strive for balance
- Emphasize variety
- Add contrast: texture & temperature
- Think about color
- Consider eye appeal
- Regional, traditional
- Time of year



# Menu Planning

## Older Adult Top Food Trends

- ▶ Scratch cooking
- ▶ Home-made
- ▶ Restaurant quality
- ▶ Comfort foods
- ▶ International flavors, ethnic
- ▶ Tasty, eye appeal
- ▶ Customer driven
- ▶ Choice
- ▶ Smaller portions
- ▶ Lighter fare
- ▶ Nutrient dense
- ▶ Healthy
- ▶ Variety

Institute of Food Technologists, 2005

# Documentation of Nutritional Adequacy

Use one or both of the following methods:

- ▶ Computer Nutrient Analysis

Or

- ▶ Texas Model for Menu Planning

# Nutrient Analysis Software

- ▶ Variety of Nutrient Analysis Software Available
  - Analysis of foods, recipes, and menus
  - Food production, inventory, and costing capabilities.
- ▶ Nutrient Analysis Software Used
  - \*FoodWorks– Price, low cost updates, good technical support, accurate database
  - Food Processor
  - Nutritionist V, Nutritionist Pro (First Databank)
  - Computrition

# Nutrient Analysis Software

- ▶ Current nutrient data base
  - USDA National Nutrient Database for Standard Reference
- ▶ Standardized recipes
- ▶ Accurate nutrient data from vendors and manufacturers

# Nutrient Analysis

## Daily Averaged / Meal

Nutrient	DRI Target Value	Compliance Range
Calories	600–750 calories	600–1 000 calories
Protein	20 gm or higher	20 gm or higher



# Nutrient Analysis

## Weekly Averaged / Meal

Nutrient	DRI Target Value	Compliance Range
Fat (% of total calories)	25–30% of total calories	30% of total calories or less
Fiber	7 gms or higher	7 gms or higher
Calcium	400 mg	400 mg

# Nutrient Analysis

## Weekly Averaged / Meal

Nutrient	DRI Target Value	Compliance Range
Vitamin A	250– 300 ug	250 ug
Vitamin C	25–30 mg	25 mg
Calcium	400 mg	400 mg

# Nutrient Analysis

## Weekly Averaged / Meal

Nutrient	DRI Target Value	Compliance Range
Sodium	800–1,000 mg	1,200 mg or less
Potassium	1,500 mg or higher	1,200 mg or higher

# Texas Model for Menu Planning

Food Group	Texas Model	USDA	DASH
Meat/Meat Alternates	3 oz meat equiv.	2 oz meat	2 -3 oz
Vegetables/Fruits	2-3 Servings	2-3 Serving	2-3 Servings
Grains	2 Servings	2 Servings	2 Servings
Milk/Milk Alternates	1 Serving	1 Serving	1 Serving
Desserts	Optional		
Oil/Fats	>1 Serving	7 gm	>1 serving
Other Foods	Optional		

# Turkey Menu

Special Emphasis: Fiber, potassium, sodium,

- ▶ Roast turkey (2 oz)
- ▶ Baked sweet potato (1 small)
- ▶ Broccoli (1 / 2 cup)
- ▶ Whole wheat roll (1 2.5" roll)
- ▶ Apple raisin crisp (1 / 2 cup, includes topping of whole wheat flour and fortified flake cereal; almonds and raisins)
- ▶ Fat-free milk (1 cup)

# Turkey Menu

	<b>Compliance Range</b>	<b>Meal Content</b>
<b>Calories</b>	600-1000 kcal	724 kcal
<b>% Fat</b>	30%	25 %
<b>Fiber</b>	7 gm	13 g
<b>Calcium</b>	400 mg	630 mg
<b>Potassium</b>	1,200 mg	1763 mg
<b>Sodium</b>	1,200 mg	423 mg

# Meatloaf Sandwich

Special emphasis: whole grains, fruit, calcium

- ▶ Open-faced Meatloaf Sandwich (2 oz meatloaf w/ 1 sl. 7 grain bread)
- ▶ Gravy (2 Tb)
- ▶ Baked Winter Squash (1 /2 cup)
- ▶ Waldorf Salad on Bed of Greens (1 /2 cup, apples, walnuts, raisins on romaine)
- ▶ Orange Rice Pudding (1 /2 cup)
- ▶ Fat-free Milk (1 cup)

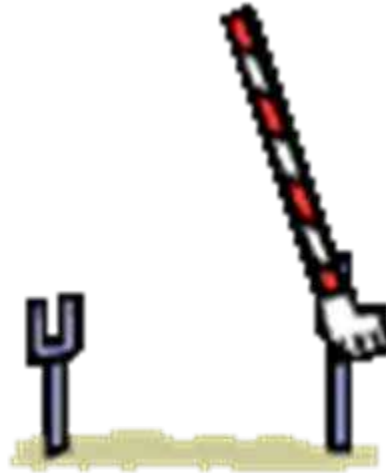


# Meatloaf Meal

	<b>Standard</b>	<b>Meal Content</b>
<b>Calories</b>	600-1000 kcal	834 kcal
<b>% Fat</b>	30%	18%
<b>Fiber</b>	7 gm	9 g
<b>Calcium</b>	400 mg	1129 mg
<b>Potassium</b>	1,200 mg	1666 mg
<b>Sodium</b>	1,200 mg	627 mg

# Menu Review and Approval

## The Gatekeeper



The Dietitian

# Menu Review and Approval

- ▶ Qualifications for the Dietitian
- ▶ 1) Texas licensed dietitian (LD). May also be registered with the Commission on Dietetic Registration, American Dietetic Association. (RD)
- ▶ 2) Experience in:
  - Food service management
  - Geriatric nutrition
  - Menu planning
    - Computerized nutrient analysis
  - Food service cost control

# Dietitian's Role in Menu Review and Approval

- ▶ Certify compliance with Program Instruction guidelines
  - Texas Model for Menu Planning
  - Nutrient Analysis
- ▶ Assure a variety of foods, serving sizes, color, texture, consistency, and use of seasonal foods
- ▶ Approve substitutions comparable to nutrient content of original menu
- ▶ Make recommendations for cost control
- ▶ Make recommendations for meal quality improvement

## Menu Options

- Frozen
- Shelf Stable
- Special Dietary Needs
- Choice

# Frozen

- ▶ Indications
  - Daily delivery is limited
  - Provide more menu choice
  - Offer weekend/holiday meal
  - Expand service–second meal
- ▶ Complies with PI guidelines



# Shelf-Stable

- ▶ Provided on a temporary basis when regular meal is not an option
- ▶ Used during bad weather, or other emergency meal replacements
- ▶ Does not require refrigeration and can be consumed at room temperature if needed
- ▶ May not comply with PI guidelines (sodium, potassium)





# Special Dietary Needs

- ▶ **Culturally or ethnic appropriate meals**
  - Examples: Asian, Halal, Kosher, Vegetarian
  
- ▶ **Modified Meals**
  - Examples: Pureed, Low sodium
  
- ▶ **Therapeutic**
  - Examples: Renal, Gluten-free

# Choices

- ▶ **Accommodating Consumer Choice**
  - Time
  - Service location or place
  - Restaurant voucher programs
  - Café style service
  - Menu
  - Food
  - More than 1 meal/day
  - Fee for service/private pay options
  - Customer service emphasis



## Menu Planning Principles

- Food Service
- Food Safety
- Cost Control
- Evaluation

# Goals of Menu Planning

Meals are:

- ▶ Nutritious
- ▶ High Quality
- ▶ Safe to Eat
- ▶ Appealing to the client



# Food Service Factors to Consider

- ▶ Type of Food Service Operation
  - Self operated
  - Catered
- ▶ Food Service System
  - On-site food production
  - Central kitchen with satellite service
  - Ready prepared / Cook-chill / Cook-freeze
  - Convenience
  - Restaurant / Restaurant Voucher

# Food Service Factors to Consider

## Size of operation

- ▶ Number of meals/day
- ▶ Type and frequency of meal service
  - 5day/7day
  - One meal/day, two meals/day, three meals/day



# Food Service Factors to Consider

- ▶ Type of delivery system
  - Hot
  - Cold
  - Frozen
  - Shelf-stable



# Food Service Factors to Consider

## Menu Options

- ▶ Non-selective
- ▶ Selective
- ▶ Cultural/Ethnic
- ▶ Therapeutic
- ▶ Modified
- ▶ Emergency



# Food Service Factors to Consider

- ▶ Labor considerations
  - Number of employees
  - Skill of Staff
- ▶ Equipment
  - Production
  - Delivery
- ▶ Packaging/Meal service delivery



# Food Service Factors to Consider



- ▶ Cycle Menus
  - Different every day & repeats after number of weeks
- ▶ Cycle menus:
  - 4 – 6 week cycle
  - 3 – 4 cycles per year
- ▶ Cycle menus should consider:
  - Available storage
  - Purchasing & delivery schedule
  - Production limitations
  - Seasonal, regional, traditional foods

# Food Service Factors to Consider

- ▶ Standardized Recipes
  - Consistent quality
  - Predictable yield
  - Customer satisfaction
  - Consistent nutrient content
  - Food cost control
  - Efficient purchasing
  - Labor control



# Standardized Recipes

- ▶ Food for Fifty (12<sup>th</sup> Edition)
- ▶ Quantity recipes published by USDA
  - Recipes for school and child care
  - National Food Service Management Institute
- ▶ Food manufacturers
- ▶ Recipe standardization of client favorites

# Food Safety In Menu Planning

- Retains temperature
- Retains quality, despite holding times
- Selection of safe foods
- Ease of safe food handling
- Compliance with state and local food code



# Cost Control in Menu Planning

- ▶ Cost Considerations
  - Raw Foods vs. Convenience Foods
  - Food availability
  - Purchasing procedures
  - Labor
  - Packaging/Food containers





# Possible Causes of Meal Costs

- ▶ Poor menu planning
- ▶ Careless purchasing and receiving practices
- ▶ Failure to use standardized recipes
- ▶ Inaccurate forecasting
- ▶ Careless food storage
- ▶ Waste in food preparation
- ▶ Portion control not followed

# Menu Evaluation

- ▶ Analysis of cost/meal
  - Raw food cost per meal
  - Total cost per meal
- ▶ Compliance with program requirements
  - Computer assisted menu analysis
  - State and local health food code
- ▶ Customer satisfaction
- ▶ Plate waste (Congregate setting)

# Catered Food Service

- ▶ Include specifications in the scope of work
- ▶ Provide input into menu development
- ▶ Monitor food quality and costs
- ▶ Monitor service and delivery



## Implementation

- Technical Assistance
- Resources
- Timeline

# Technical Assistance Resources

## ► Website

<http://www.dads.state.tx.us/providers/AAA/dri/index.html>

Area Agencies on Aging State and federal statutes and rules (DADS) - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://147.80.6.169:7302/providers/AAA/dri/index.html>

## Resources for DADS service providers

Search

**Area Agencies on Aging (AAA)**

- AAA directory
- Advisory groups
- Calendar of events
- Communications
- Contact program staff

**Dietary Reference Intake (DRI)**

- Emergency preparedness/disaster planning resources
- Forms
- Procedures
- Publications and websites
- Related links
- State and federal statutes and rules (AAA)
- AAA home

**Resources for DADS service providers home**

### Dietary Reference Intake (DRI)

**Dietary Reference Intake (DRI)** is a system of nutrition recommendations introduced in 1997 that uses reference values of nutrients. DRIs are the basis for assessing and planning diets and federal nutrition and food programs.

In accordance with the Older Americans Act, Section 339, Nutrition, a state that establishes and operates a nutrition project under this chapter shall ensure the project provides to each participating older individual a minimum of 33.3 percent of the dietary reference intakes.

In 2010, the AAA Section contracted with Meals on Wheels Association of America to assist with the implementation of DRI and Dietary Guidelines for Americans (DGAs) in Texas. This website is provided to aid the AAAs, nutrition service providers, and nutritionists in their conversion to the DRI system.

*The following documents are in PDF format.*

**If you use assistive technology and have trouble accessing these documents, contact xxx.**

### DRI Kick-off Webinar June 11, 2010

**Resources**

- DADS State
- [Access and Intake Services Community Options book \(PDF\)](#)
- [Contracting with DADS](#)
- [DADS TALK newsletter](#)
- [HIPAA](#)
- [Interest lists](#)
- [Long-term Care Quality Reporting System](#)
- [Medicare Part D](#)
- [Payment Error Rate Measurement \(PERM\) process](#)
- Demographic

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# Technical Assistance Resources

- ▶ Recipe sharing
- ▶ Menu sharing
- ▶ Dietitian's Support

# Technical Assistance Resources

- ▶ Website

- <http://www.dads.state.tx.us/providers/AAA/dri/index.html>

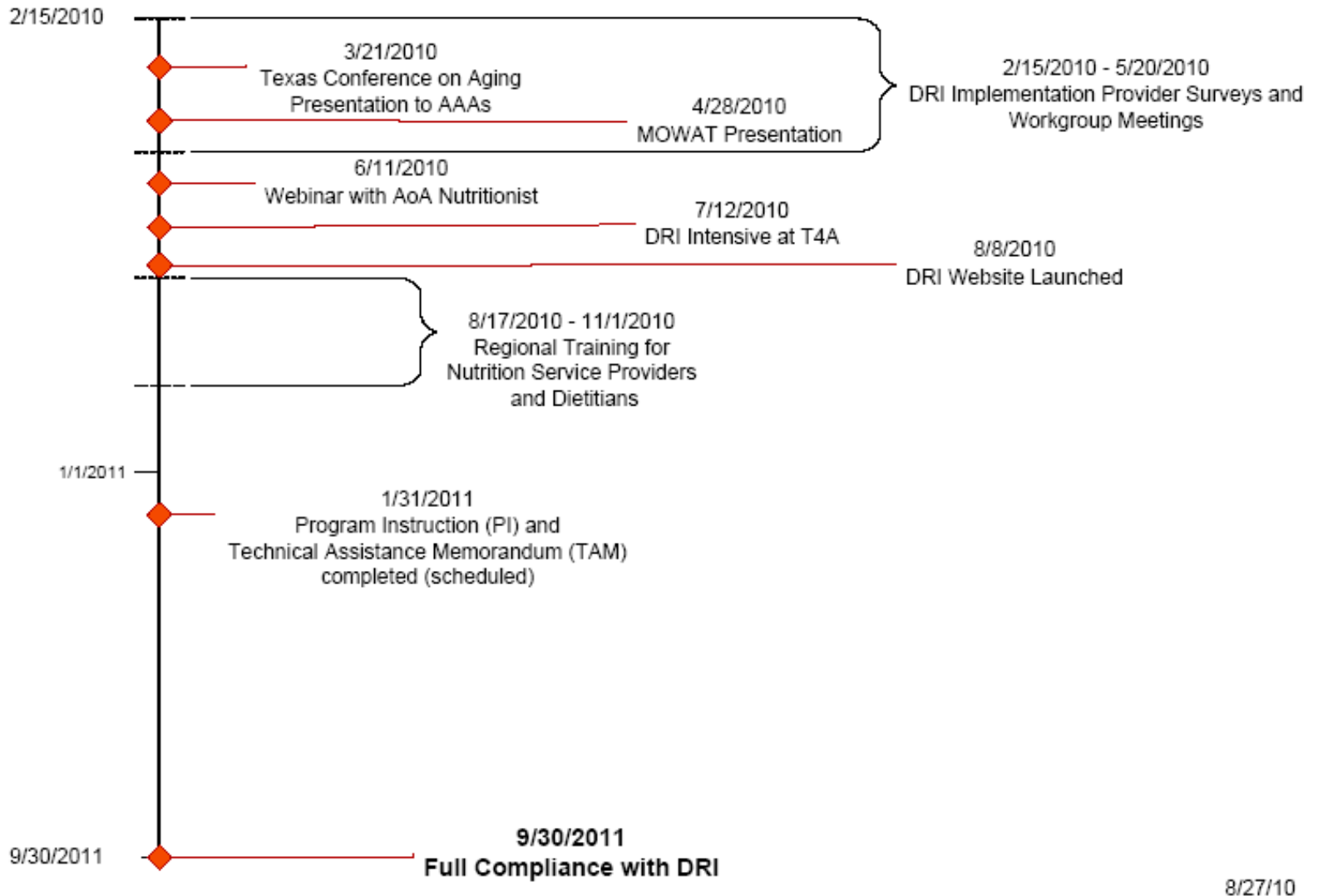
- Best practices
    - Resources

- ▶ Recipe sharing

- ▶ Menu sharing

- ▶ Dietitian's Support

# DRI Implementation Timeline



8/27/10



# Discussion

# Resources

# Resources

- ▶ Administration on Aging <http://www.aoa.gov/>
- ▶ AGing Integrated Database <http://www.agidnet.org/>
- ▶ Behavioral Risk Factor Surveillance Survey  
<http://apps.nccd.cdc.gov/brfss/page.asp?yr=2008&state=US&cat=CV#CV>
- ▶ Dietary Reference Intakes  
[http://fnic.nal.usda.gov/nal\\_display/index.php?info\\_center=4&tax\\_level=1](http://fnic.nal.usda.gov/nal_display/index.php?info_center=4&tax_level=1)

# Resources

- ▶ **Dietary Guidelines for Americans**  
<http://www.health.gov/dietaryguidelines/dga2005/toolkit/default.htm>
- ▶ <http://www.cnpp.usda.gov/DietaryGuidelines.htm>
- ▶ **Older Americans Act Nutrition Service Providers Guide**
  - [http://www.health.gov/dietaryguidelines/dga2005/toolkit/default.htm#older adults](http://www.health.gov/dietaryguidelines/dga2005/toolkit/default.htm#older_adults)
- ▶ **National Institutes of Health**
  - **National Heart Lung Blood Institute Recipes:**  
<http://www.nhlbi.nih.gov/health/>

# Resources

- ▶ **Food and Drug Administration- Food Safety**
  - <http://www.cfsan.fda.gov/list.html>
- ▶ **American Heart Association**
  - <http://www.americanheart.org/>
  - Including cookbooks, recipes
- ▶ **American Diabetes Association**
  - <http://www.diabetes.org/>
  - Including cookbooks, recipes

# Resources

- ▶ **International Food Information Council**
  - <http://www.ific.org/>
- ▶ **National Resource Center on Nutrition, Physical Activity and Aging**
  - <http://nutritionandaging.fiu.edu>
- ▶ **National Food Service Management Institute**
  - <http://www.nfsmi.org/>
  - **Adult Day Care Manual, incl. Information on meal service**