Subcommittee 1: Food and Nutrient Intakes and Health: Current Status and Trends

Marian Neuhouser
Steve Abrams
Cheryl Anderson
Mary Story
Barbara Millen

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Scope

Current status and trends in:

- Food group, food, and nutrient intake
- Eating behaviors
- Diet-related chronic diseases, weight, and physical activity
- Dietary patterns

Invited Experts and Consultants

Invited Experts

Individuals invited by the SC, usually on a one time basis, to provide their expertise to inform the SC's work. Invited experts do not participate in decisions at the SC level.

Consultant SC Members

Individuals sought by the SC to participate in SC discussions and decisions on an ongoing basis but are not members of the full DGAC. Like DGAC members, consultants complete training and have been reviewed and cleared through a formal process within the Federal government.

Experts & Consultants

Invited Experts (March to July 2014)

None

Consultant SC Members

None

Topics Addressed Today

1. Nutrients of Public Health Concern
   Marian Neuhouser/Steve Abrams
2. Food Group Intakes
   Marian Neuhouser
3. Food Category Intakes
   Cheryl Anderson
4. Eating Behaviors—Status and Trends
   Mary Story
5. Health Conditions—Prevalence and Trends
   Cheryl Anderson/Barbara Millen

Nutrients of Public Health Concern Questions Addressed Today

1. What are current consumption patterns of nutrients from foods and beverages in the U.S. population?
2. Of the nutrients that are underconsumed or overconsumed, which present a substantial public health concern?
3. Is there evidence of overconsumption of any micronutrients from consumption of fortified foods and supplements?
4. What is the level of caffeine intake derived from foods and beverages by age/sex categories in the U.S. population?
5. How well do updated USDA Food Patterns meet IOM Dietary Reference Intakes and 2010 Dietary Guidelines recommendations? How do the recommended amounts of food groups compare to current distributions of usual intakes for the U.S. population?

Nutrients of Public Health Concern (NOC)

NOC Q1:

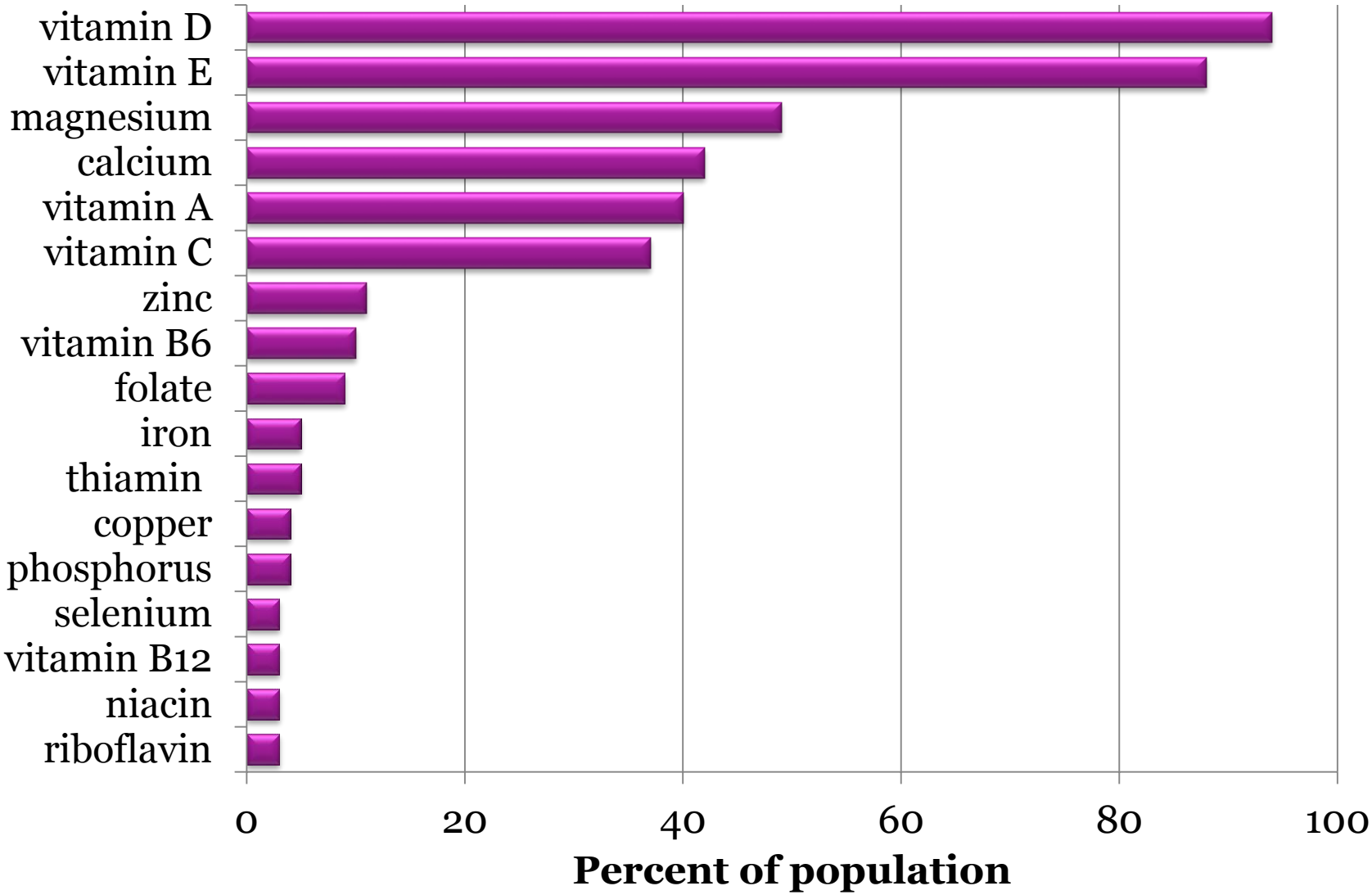
What are current consumption patterns of nutrients from foods and beverages in the U.S. population?

Data Analysis

Review of the Evidence—NOC Q1

- Analysis of usual intake of nutrients data from What We Eat in America, NHANES dietary survey (2007-2010)

Percent of Population Ages 2+ with Usual Intakes below EAR



What We Eat in America, NHANES 2007-10

Draft Conclusion Statement—NOC Q1

- Vitamin A, vitamin D, vitamin E, folate, vitamin C, calcium, and magnesium are under-consumed relative to the EAR. Iron is under-consumed by adolescent and premenopausal females.
- Potassium and fiber are under-consumed relative to the AI.
- Sodium and saturated fat are over-consumed relative to the UL or other maximum standard.

Nutrients of Public Health Concern

NOC Q2:

Of the nutrients that are under-consumed or over-consumed, which present a substantial public health concern, including over the UL?

Data Analysis

Review of the Evidence—NOC Q2

- What We Eat in America, NHANES dietary survey (2007-2010)
- Second National Report on Biochemical Indices of Diet and Nutrition in the U.S. Population, Centers for Disease Control and Prevention, 2012
- Prevalence of health conditions, from the CDC

Key Findings—NOC Q2

Nutrient	Indicator/health concern
Vitamin D	Bone health
Calcium	Bone health
Potassium	Blood pressure
Fiber	Gastrointestinal health
Sodium (↑)	Blood pressure
Saturated fat (↑)	CVD
Iron (children, premenopausal females, pregnancy)	Iron deficiency

Draft Conclusion Statement—NOC Q2

- Nutrient intake data, together with nutritional biomarker and health outcome data, indicate that vitamin D, calcium, potassium, and fiber are under-consumed and may pose a public health concern.
- Nutrient intake data, together with nutritional biomarker and health outcome data, indicate that sodium and saturated fat are over-consumed and may pose a public health concern.

Nutrients of Public Health Concern

NOC Q3:

Is there evidence of overconsumption of any micronutrients from consumption of fortified foods and supplements?

Data Analysis

Review of the Evidence—NOC Q3

Analysis of usual intake data for selected nutrients from foods and supplements from What We Eat in America, NHANES dietary survey (2007-2010)

Key Findings—NOC Q3

Nutrient	% of supplement users with total intake >UL	Health concern of over-consumption
Folic Acid	13%	Masking B12 Deficiency
Calcium	9%	Hypercalcemia
Vitamin D	<3%	Hypercalcemia, kidney stones
Iron	8%	Iron overload

Draft Conclusion Statement—NOC Q3

- Dietary patterns in the U.S. population, including typical use of fortified foods, rarely lead to over-consumption of folate, calcium, iron, and vitamin D.
- However, each of these, as well as other nutrients, may be over-consumed in some supplement users, especially those taking high-dose supplements.

Nutrients of Public Health Concern

NOC Q4:

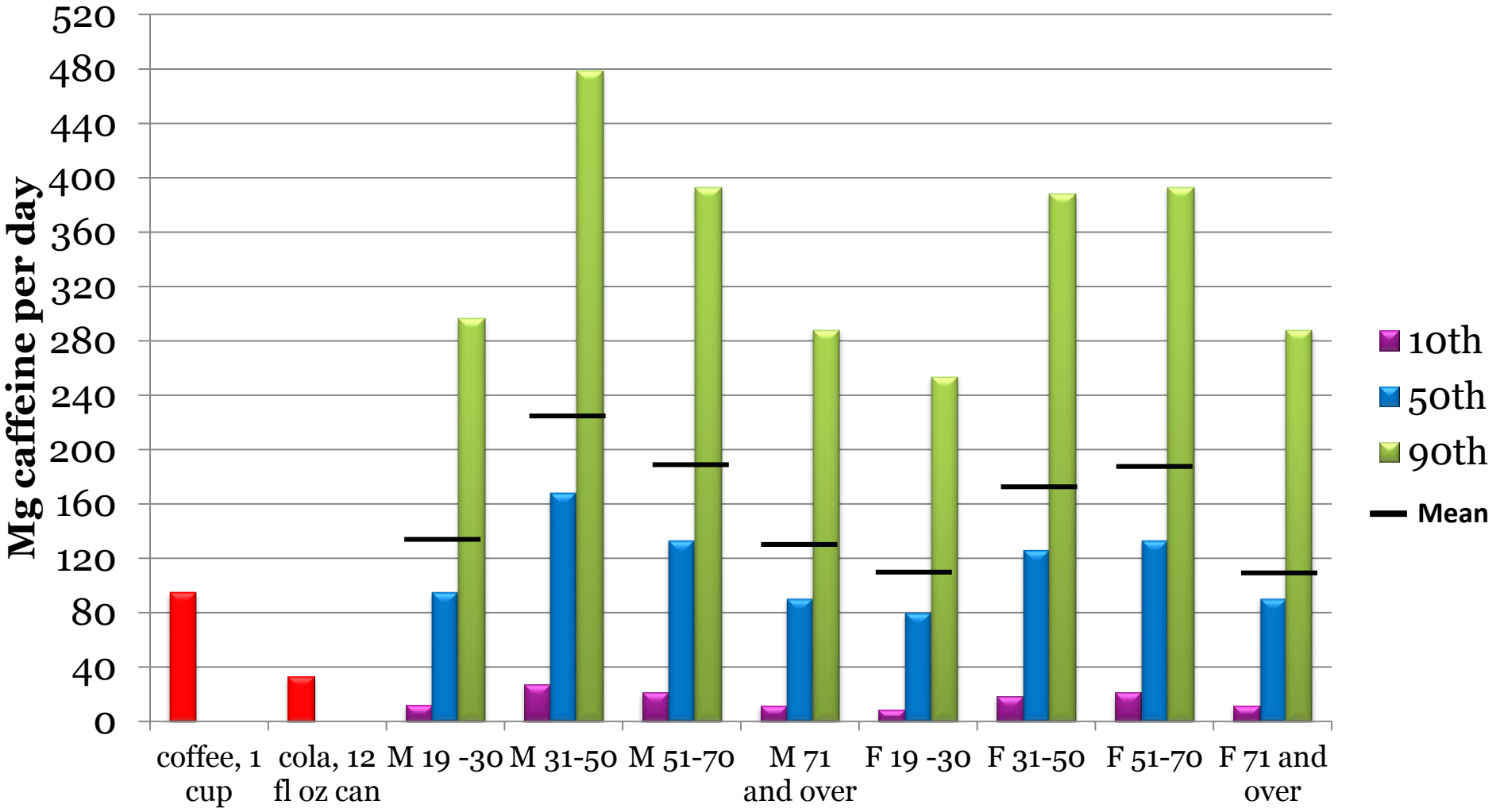
What is the level of caffeine intake derived from foods and beverages on the basis of age and gender groups in the U.S. population?

Data Analysis

Review of the Evidence—NOC Q4

Analysis of usual intake data from What We Eat in America, NHANES dietary survey, (2007-2010)

Mean and percentiles of usual caffeine intake by adult age/gender groups



What We Eat in America, NHANES 2007-10

Draft Conclusion Statement—NOC Q4

- In general, intakes of caffeine do not exceed what are likely safe levels in any age group. Some young adults may have moderately high intakes.
- There is less certainty about the safe level of intake in children and adolescents. However, routine consumption patterns do not suggest that excessive intakes are common in these groups.

Nutrients of Public Health Concern

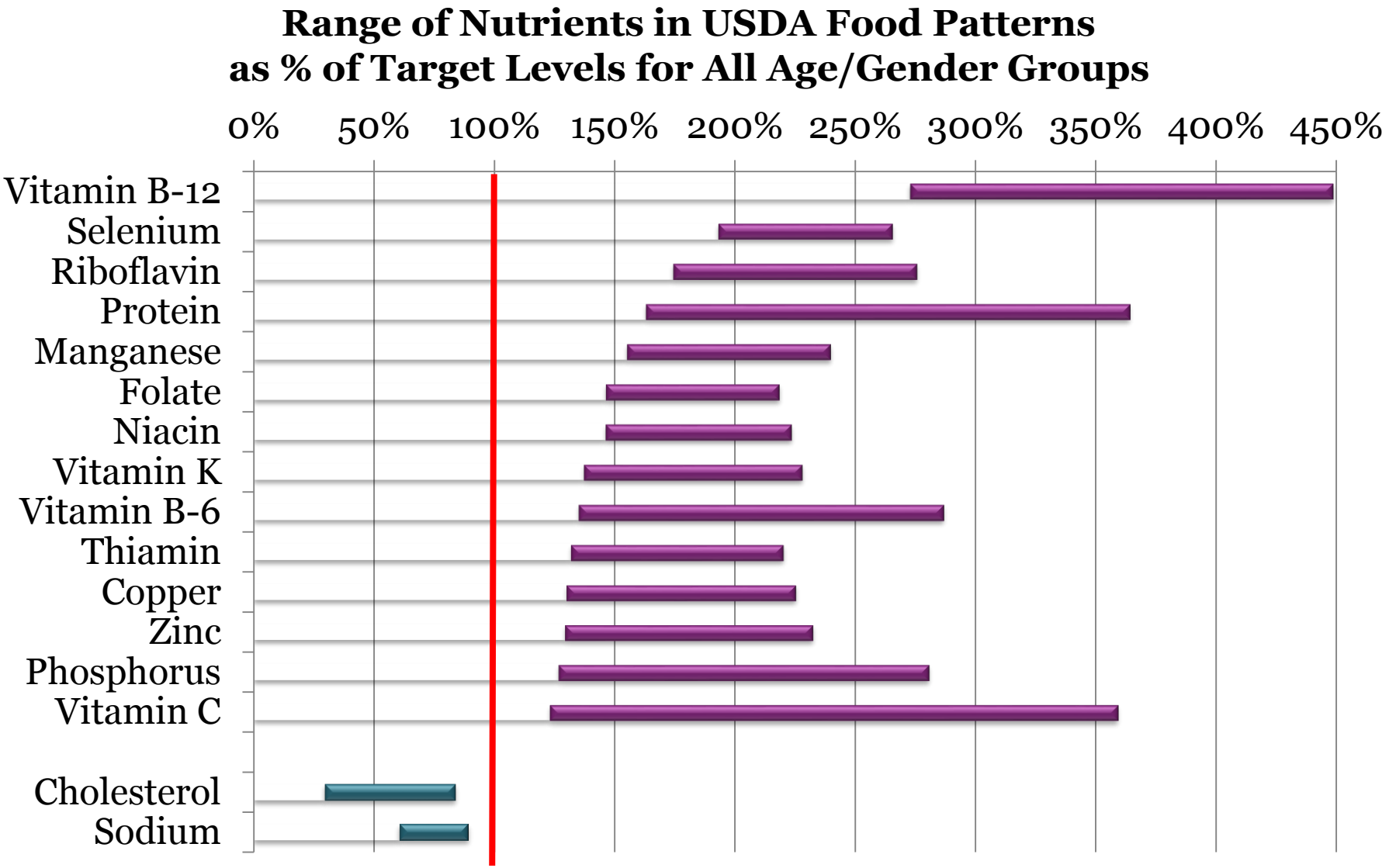
NOC Q5:

- How well do updated USDA Food Patterns meet IOM Dietary Reference Intakes and 2010 Dietary Guidelines recommendations? How do the recommended amounts of food groups compare to current distributions of usual intakes for the U.S. population?

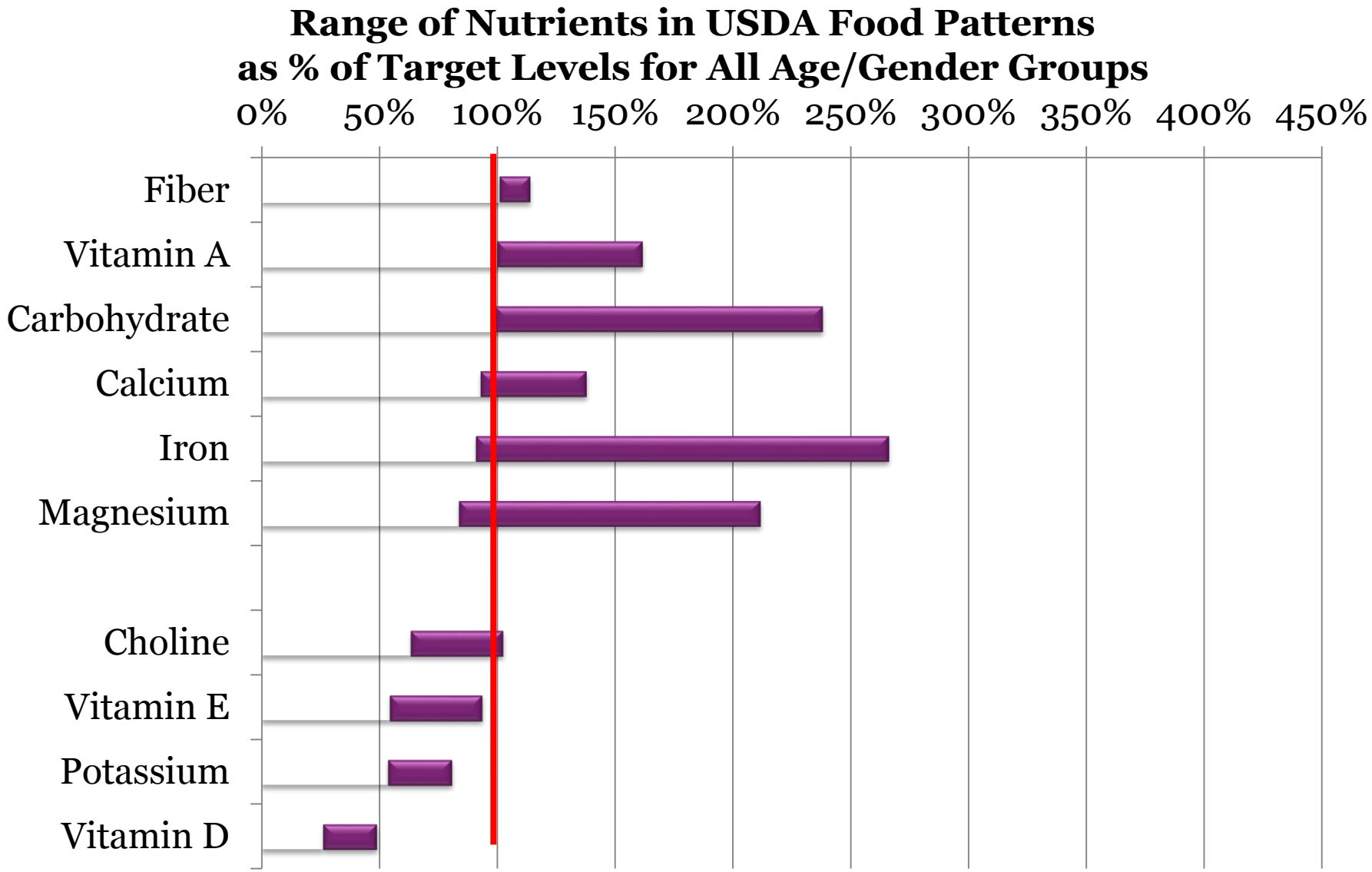
Food Pattern Modeling

Review of the Evidence—NOC Q5

- Results of the Food Pattern Modeling Report on Adequacy of the USDA Food Patterns.
  - USDA Food Patterns identify amounts to consume, in nutrient-dense forms, from 5 major food groups and their subgroups, at 12 calorie levels. Recommended amounts differ across the calorie levels, each specific to one or more age/gender groups.
  - To assess adequacy, nutrients in each pattern are compared to nutrient standards for the age/gender group assigned to that pattern.



Nutrients for which all age/gender groups meet target



Nutrients for which some or all age/gender groups are marginal or below target

Draft Conclusion Statement—NOC Q5

- USDA Food Patterns across a broad range of ages and energy intakes meet most goals for nutrient adequacy. Specific nutrients of public health concern for which the patterns do not meet recommendations are potassium and vitamin D.
- Recommended amounts for food groups and their components fall within the broad range of food group intake distributions for the U.S. population.

Nutrients of Public Health Concern Questions Addressed Today

1. What are current consumption patterns of nutrients from foods and beverages in the U.S. population?
2. Of the nutrients that are underconsumed or overconsumed, which present a substantial public health concern?
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Discussion

Food Group Intakes Questions Addressed Today

1. What is current consumption of USDA Food Pattern food groups by the U.S. population?
2. What are the trends in USDA Food Pattern food group consumption by the U.S. population?

Food Group Intakes (FG)

FG Q1:

- What is current consumption of USDA Food Pattern food groups by the U.S. population?

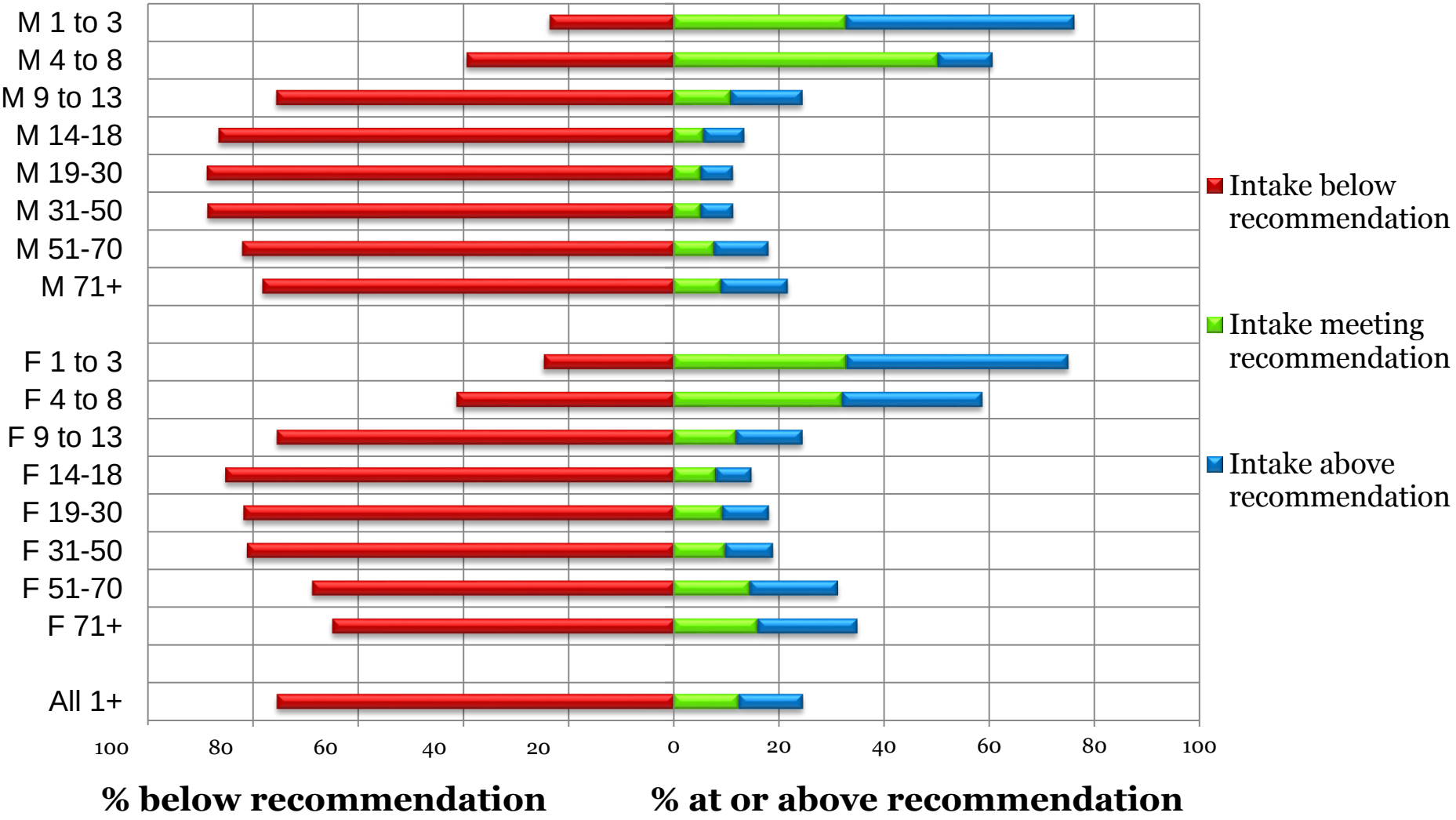
Data Analysis

Review of the Evidence—FG Q1

- Analysis of What We Eat in America, NHANES dietary survey (2007-2010)
- Analysis by National Cancer Institute (NCI) of usual intake distributions and percent of population meeting USDA Food Pattern recommendations for their age and sex.

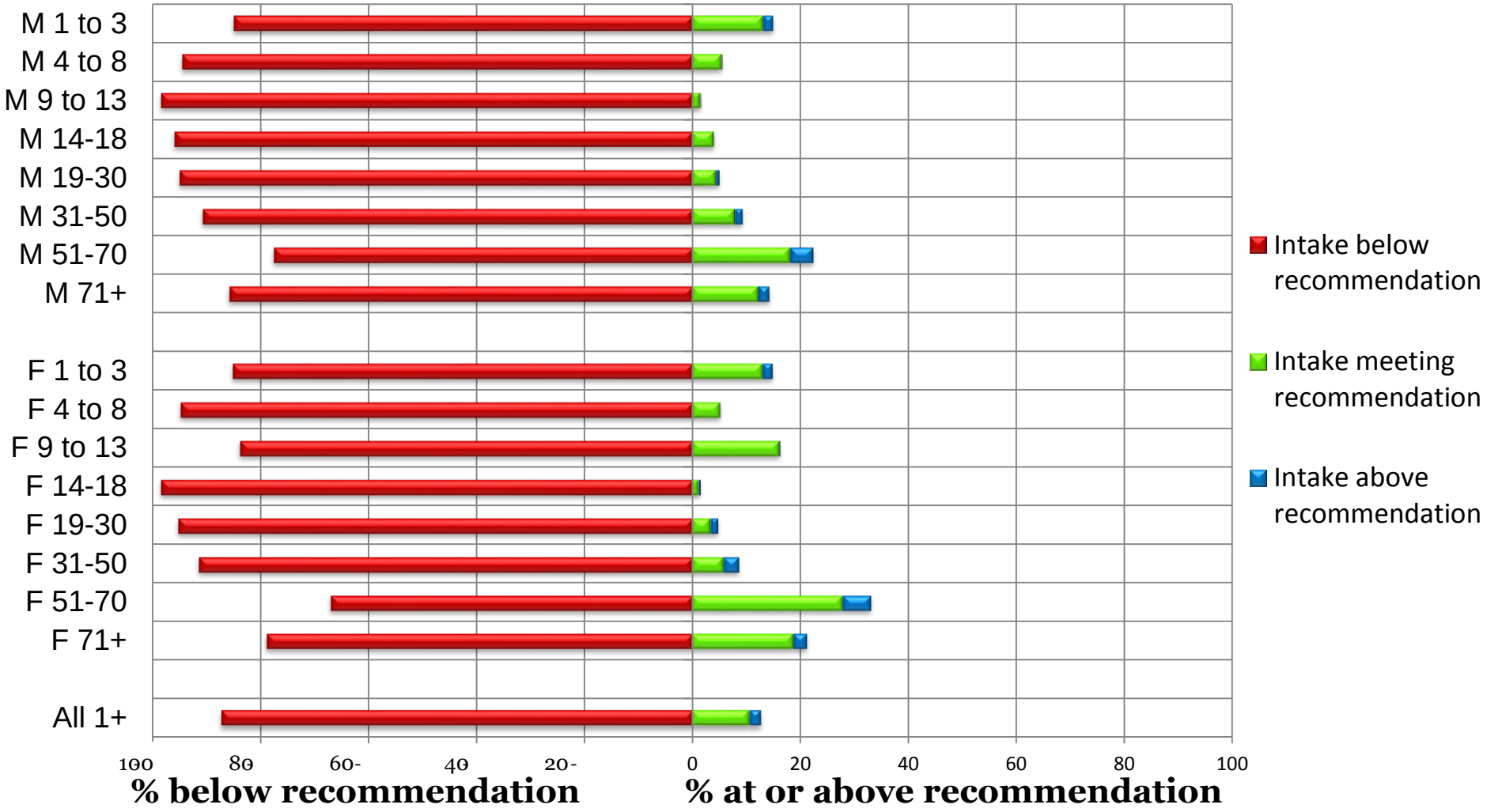
Total Fruits

Estimated percentage of persons below, at, or above recommendation



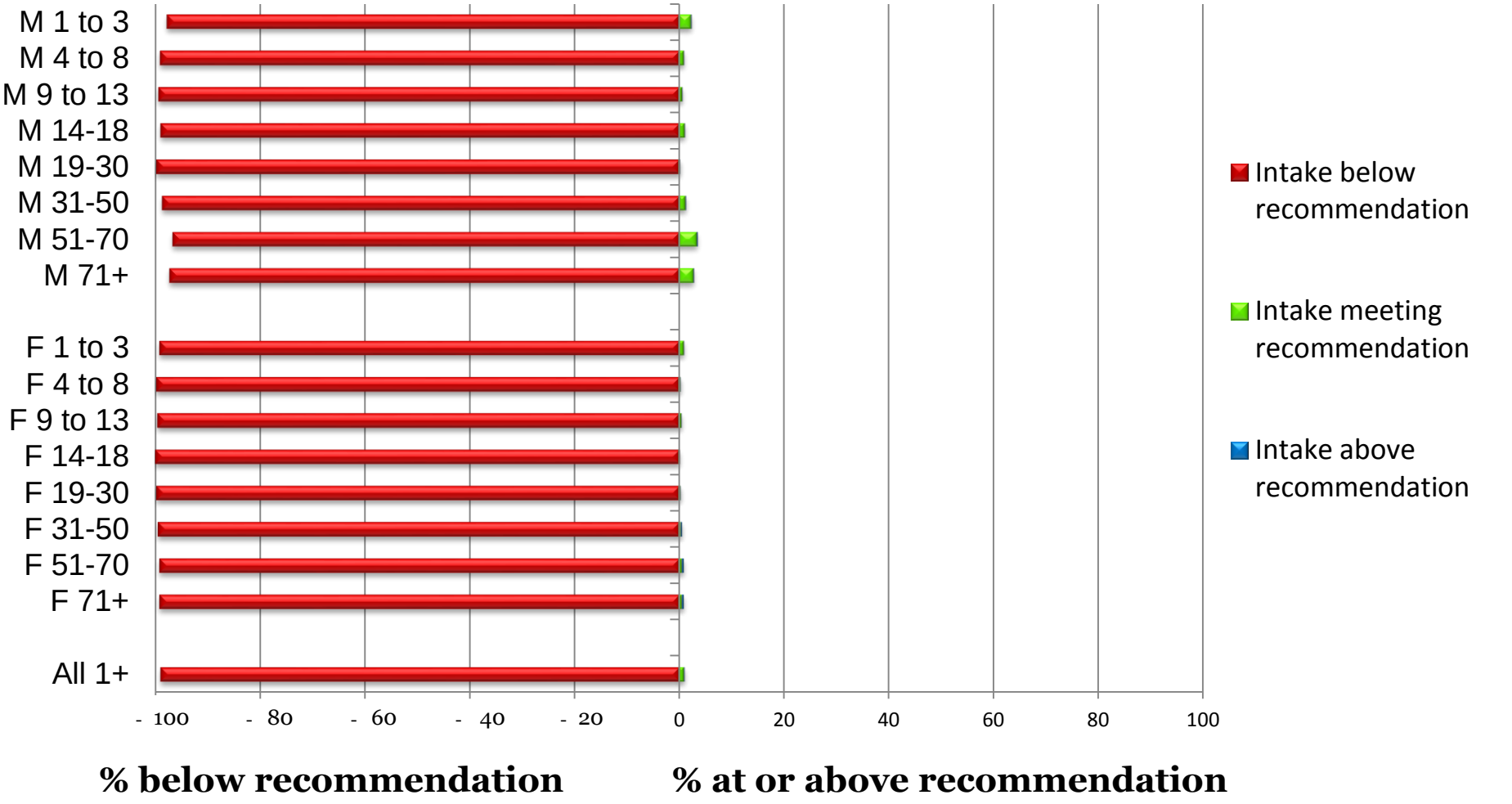
Total Vegetables

Estimated percentage of persons below, at, or above recommendation



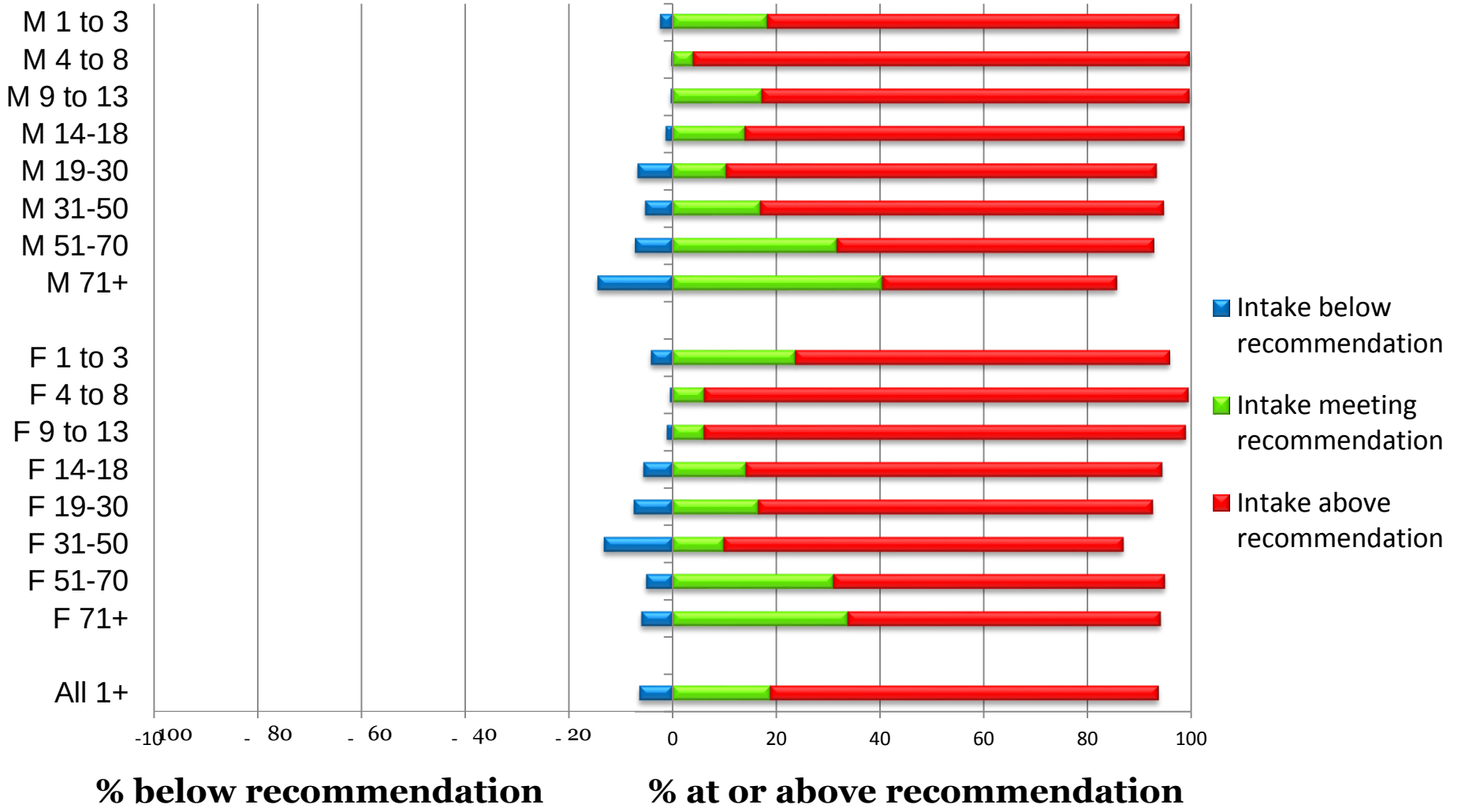
Whole Grains

Estimated percentage of persons below, at, or above recommendation



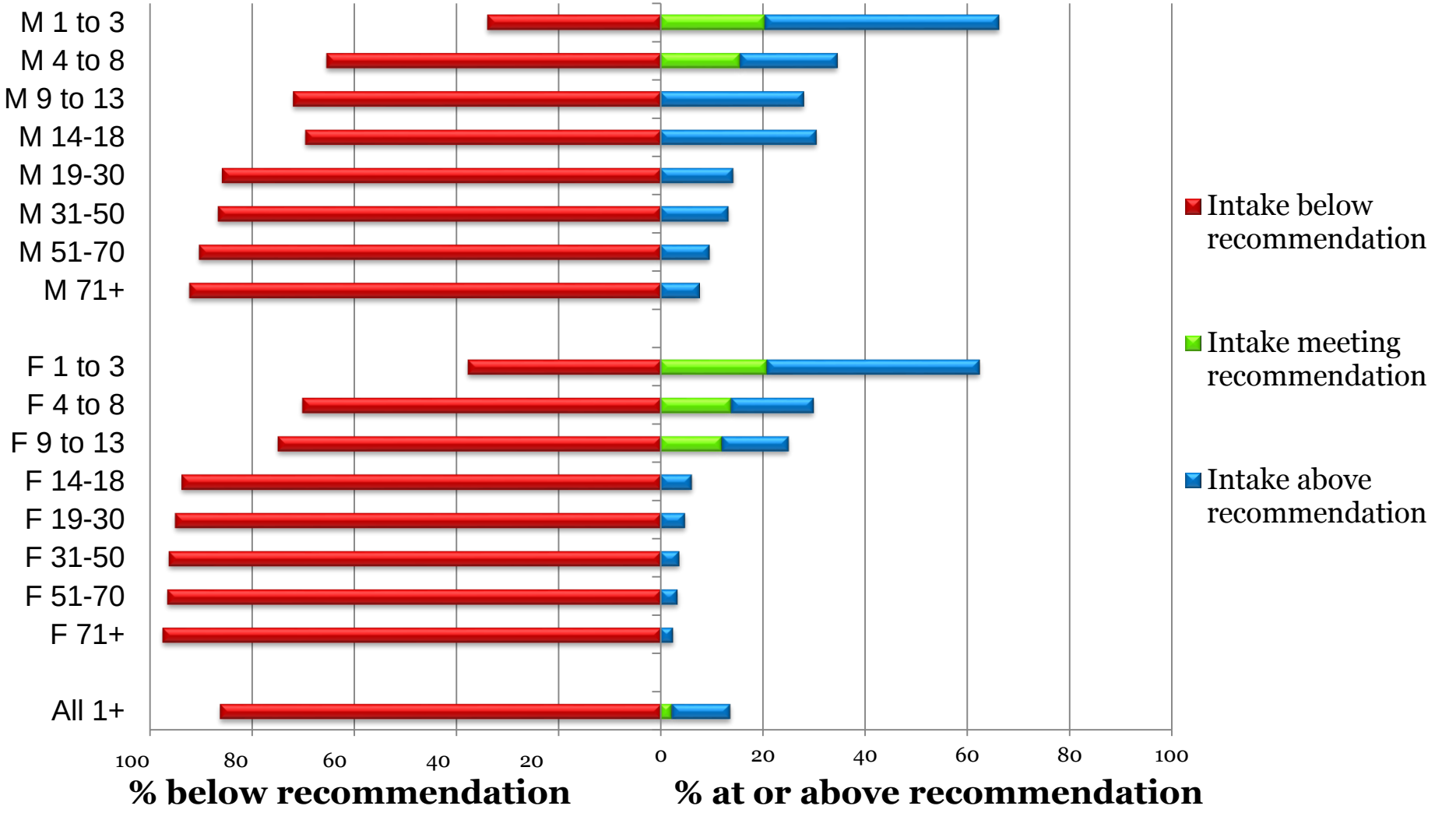
Refined Grains

Estimated percentage of persons below, at, or above recommendation



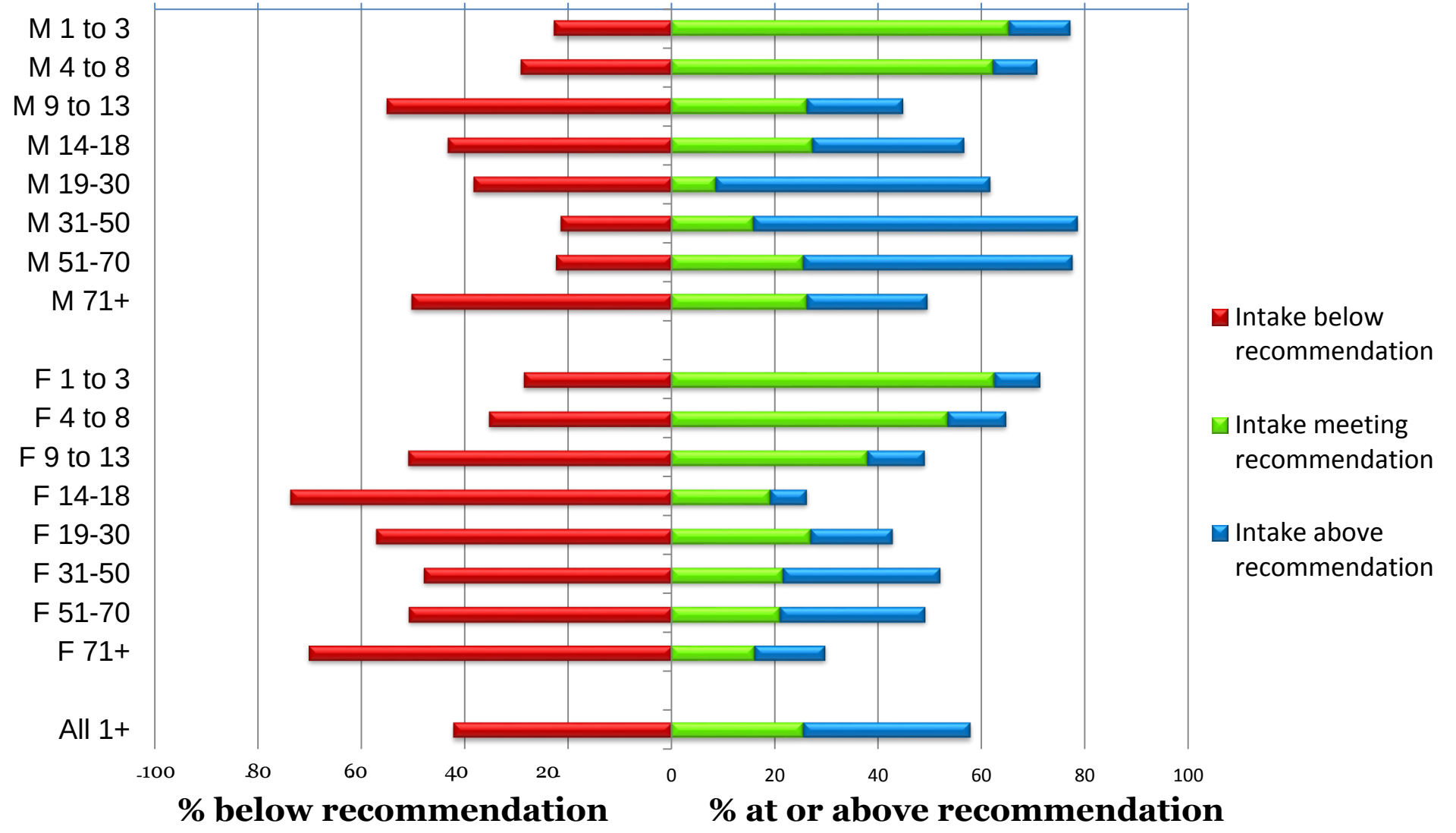
Total Dairy

Estimated percentage of persons below, at, or above recommendation



Total Protein Foods

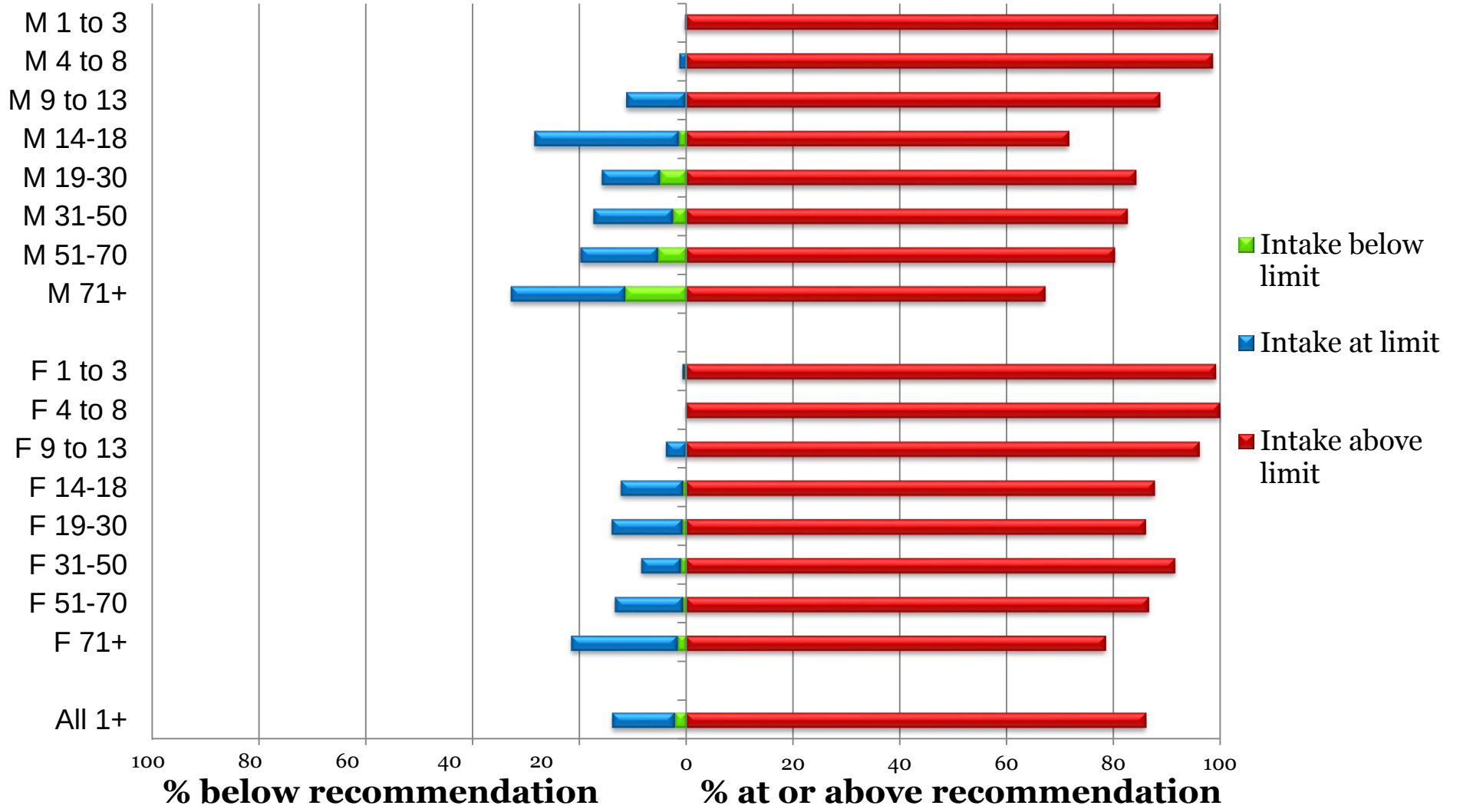
Estimated percentage of persons below, at, or above recommendation



What We Eat in America NHANES 2007-10

Calories from Solid Fats and Added Sugars

Estimated percentage of persons below, at, or above limits



What We Eat in America NHANES 2007-10

Draft Conclusion Statement—FG Q1

- Across all age and gender groups, the vast majority of the U.S. population does not meet recommended intakes for fruit, vegetables, whole grains, and dairy food groups.
- Across all age and gender groups, the vast majority of the U.S. population exceeds recommended intakes for refined grains, solid fats, and added sugars.

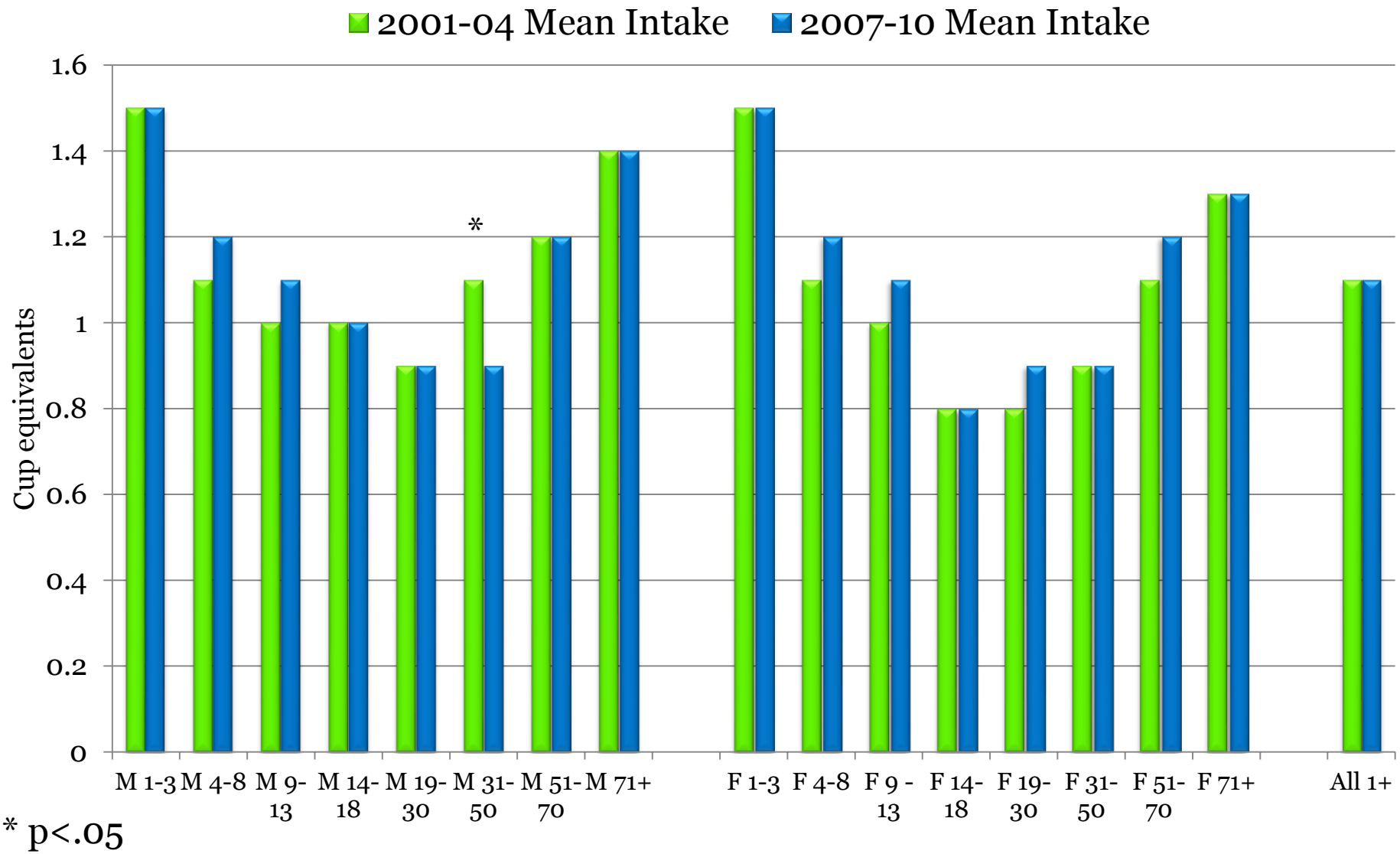
Food Groups (FG)

FG Q2:

- What are the trends in USDA Food Pattern food group consumption by the U.S. population?

Data Analysis

Total Fruit Intakes over Time



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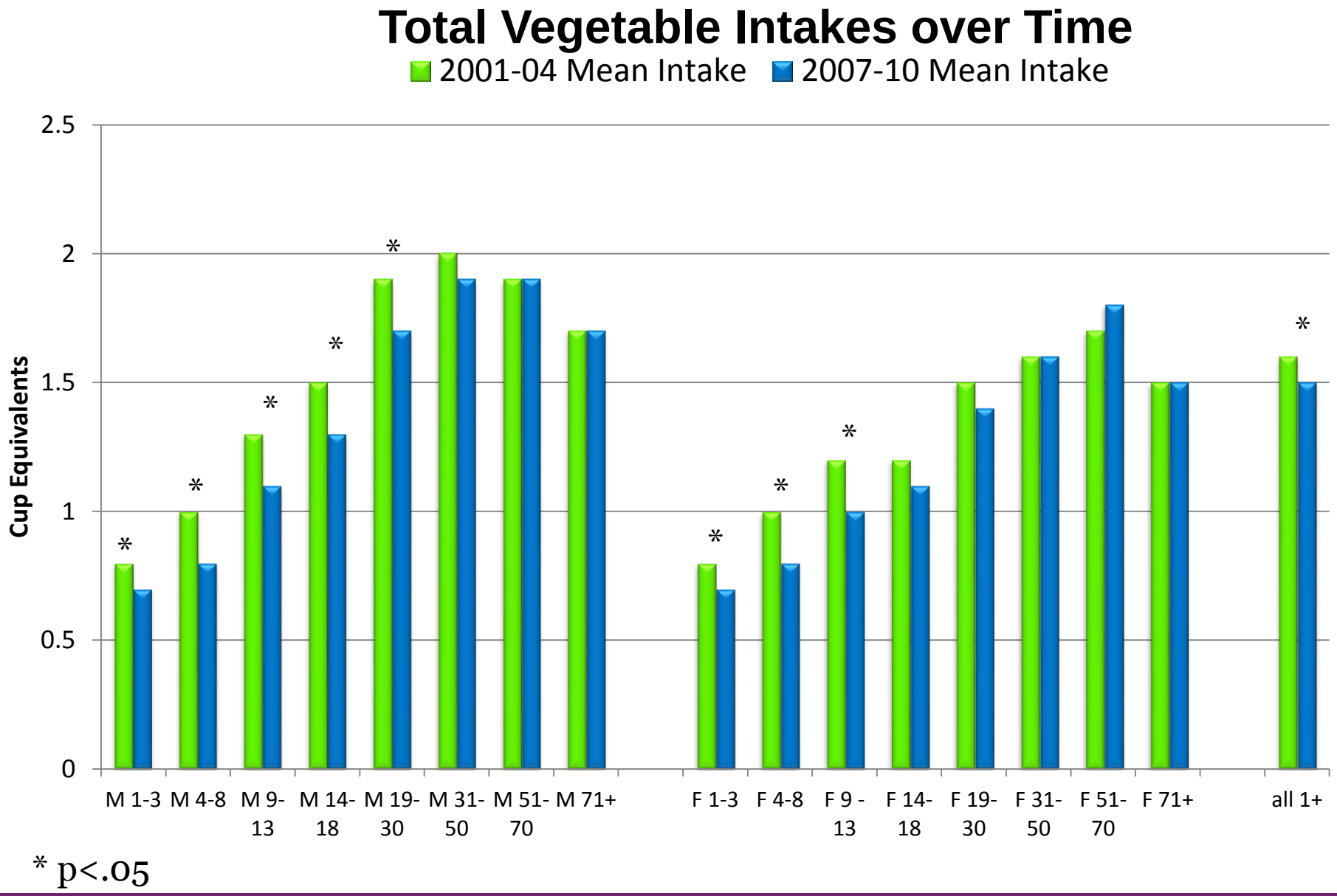
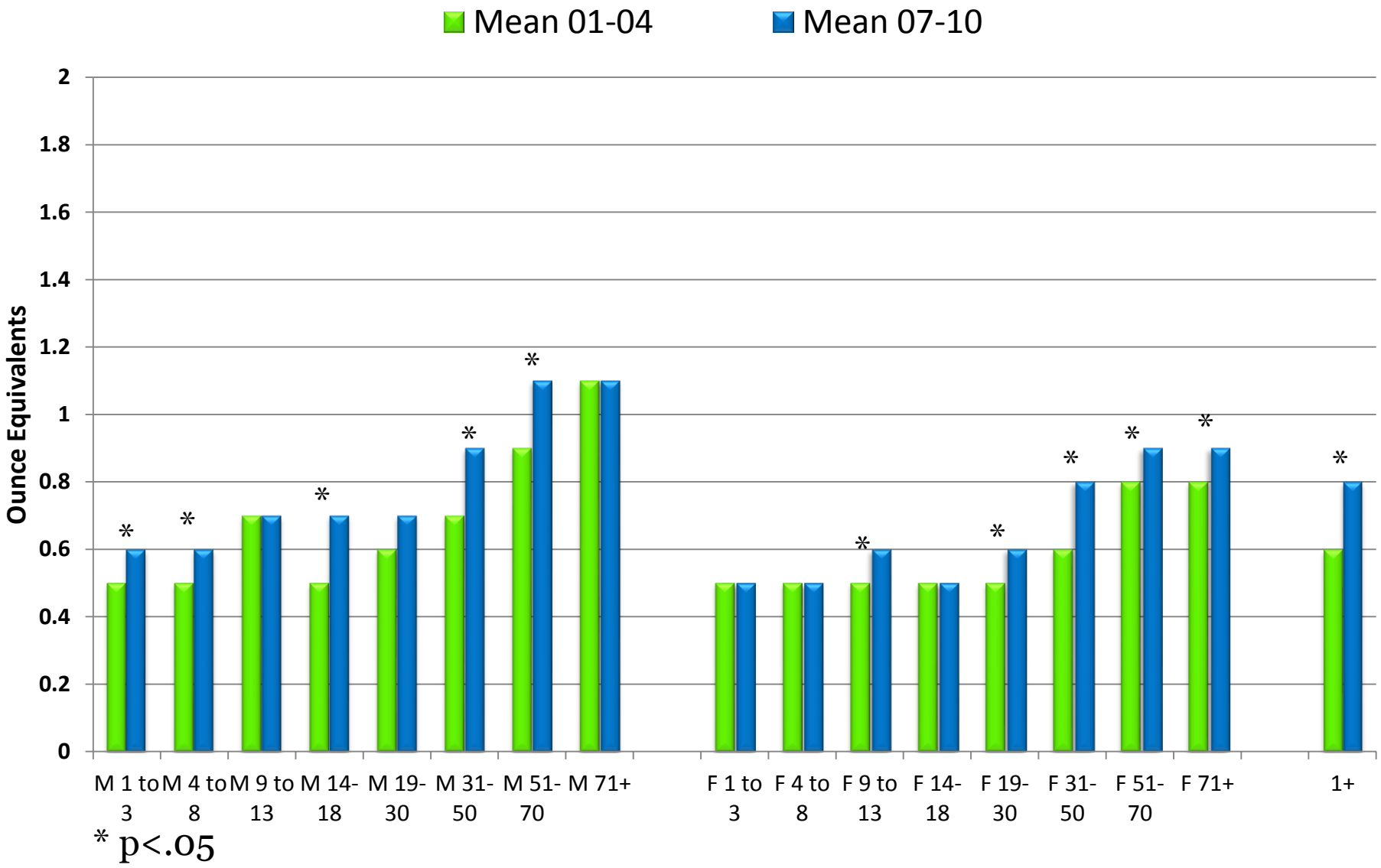
What We Eat in America NHANES 2001-04 and 2007-10

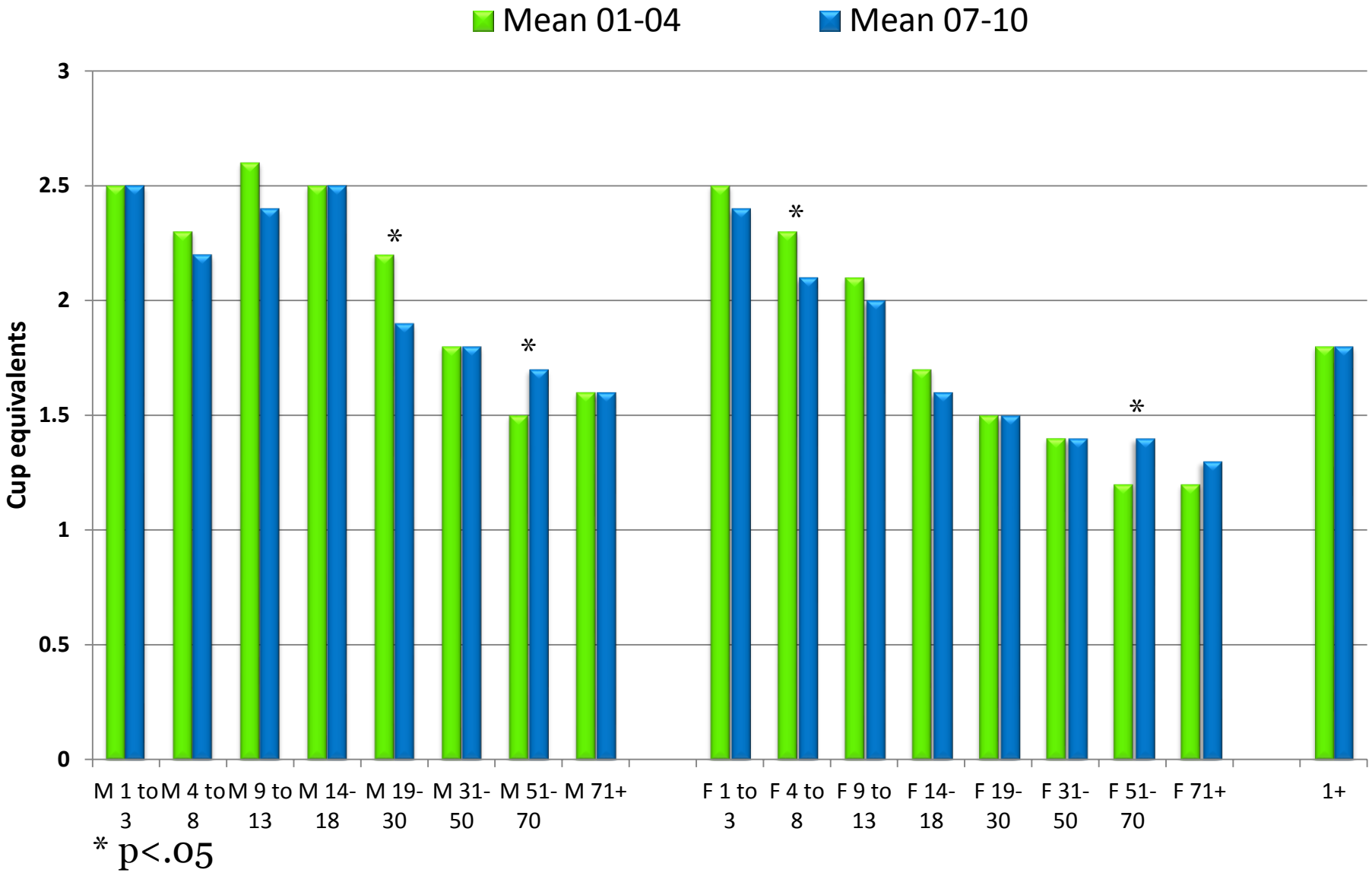


What We Eat in America NHANES 2001-04 and 2007-10

Whole Grain Intakes over Time



Dairy Intakes over Time



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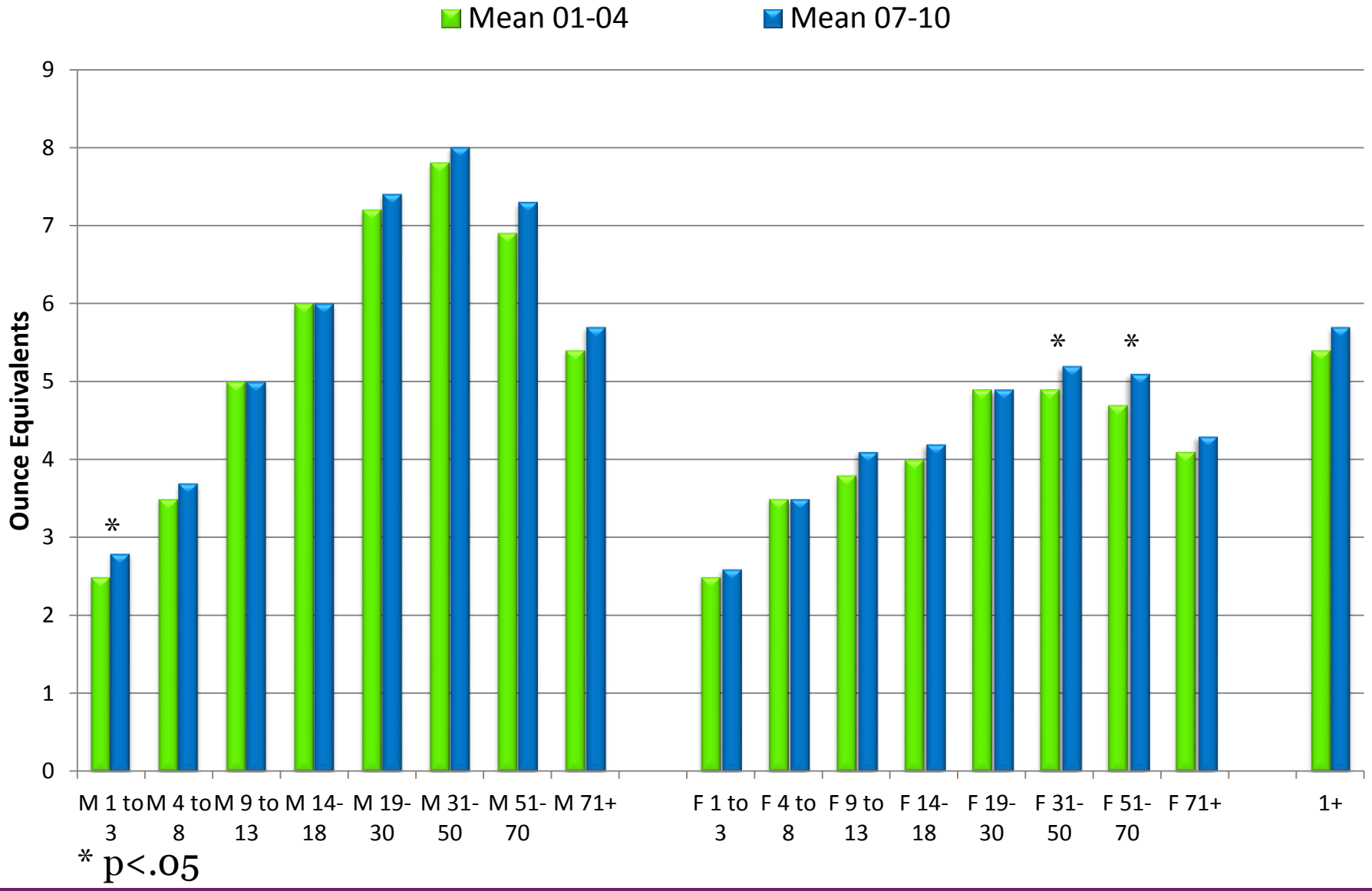
What We Eat in America NHANES 2001-04 and 2007-10

Protein Foods Intakes over Time



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What We Eat in America NHANES 2001-04 and 2007-10

Draft Conclusion Statement—FG Q2

- The U.S. population has made few dietary changes over time (2001-04 to 2007-10).
  - Fruit intake has remained low but stable.
  - Vegetable intake has declined, particularly among children of all ages, adolescents, and young adult males.
  - Whole grain intake has slightly increased between 2001-04 and 2007-10, particularly among middle aged and older adults.
  - Dairy intake has been relatively constant over time, but has decreased for girls 4 to 8 years and young adult males, and has increased for adults 51 to 70 years.

Food Group Intakes

1. What is current consumption of USDA Food Pattern food groups by the U.S. population?
2. What are the trends in USDA Food Pattern food group consumption by the U.S. population?

Discussion

Food Categories
Questions Addressed Today

1. What are the top foods contributing to energy intake in the U.S. population?
2. What are the top foods contributing to sodium and saturated fat intake in the U.S. population?
3. What are current consumption patterns by food categories (foods as consumed) in the U.S. population?
4. What is the contribution of beverage types to energy intake by the U.S. population?

Food Categories—all questions Review of the Evidence

- Analysis of What We Eat in America (WWEIA), NHANES dietary survey (2009-2010)
- Used WWEIA Food Categories for NHANES 2009-10 (n=150), for as-consumed foods, with adaptations requested for DGAC analyses.
- Condensed into 9 major and 32 sub-categories
- Analyzed % of total intake for energy, nutrients, and food groups from each major and sub-category.

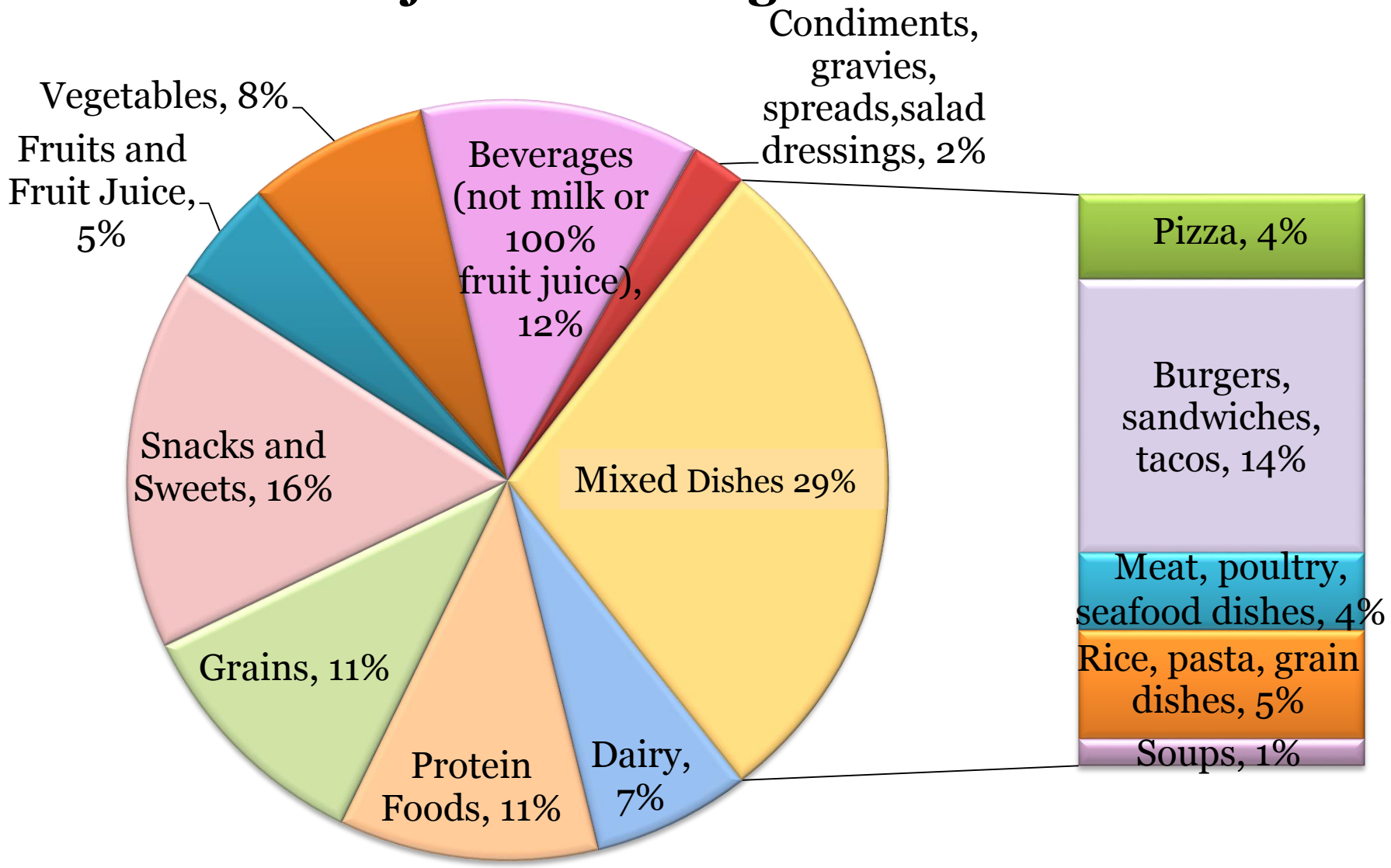
Food Categories (FC)

FC Q1:

What are the top foods contributing to energy intake in the U.S. population?

Data Analysis

Percent of Energy Intake from Major Food Categories



What We Eat in America, NHANES 2009-10

Draft Conclusion Statement—FC Q1

- Ninety percent of total energy intake in the U.S. population comes from 16 of the 32 food sub-categories, with mixed dishes, snacks and sweets, and beverages together contributing more than half (56%) of energy intake in the U.S. population.

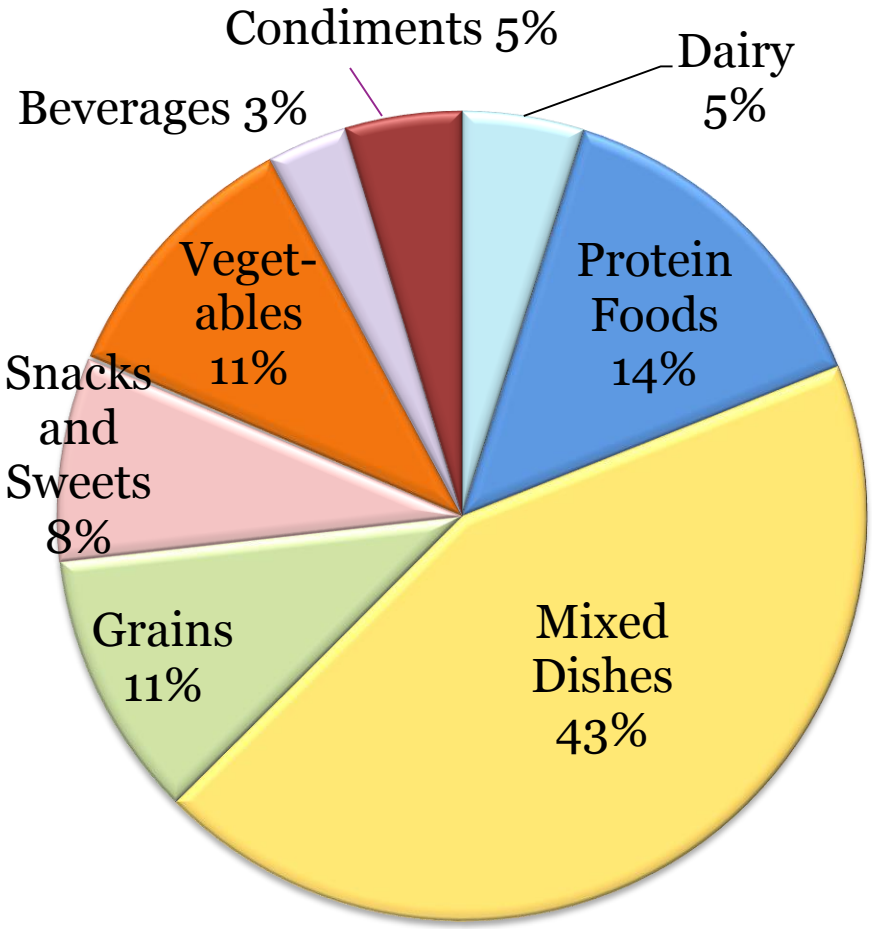
Food Categories (FC)

FC Q2:

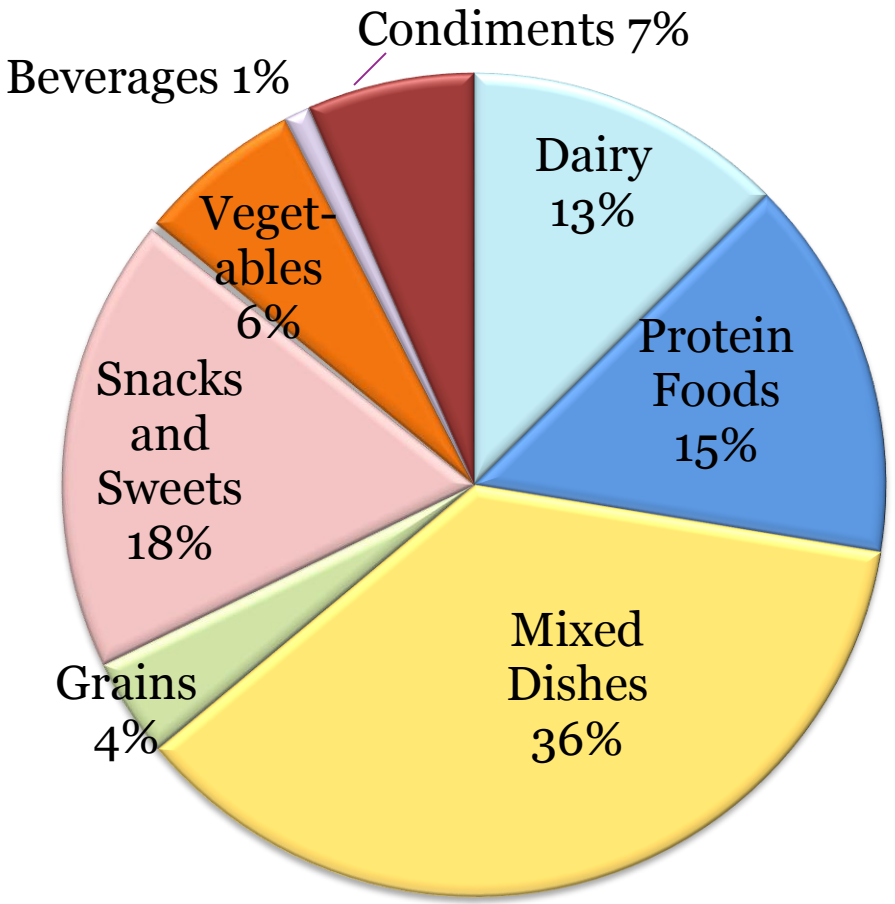
What are the top foods contributing to sodium and saturated fat intake in the U.S. population?

Data Analysis

Sources of Sodium



Sources of Saturated Fat



What We Eat in America, NHANES 2009-10

Draft Conclusion Statement—FC Q2

- The largest contributor to intake of the two nutrients of concern for overconsumption, sodium and saturated fat, are mixed dishes (44% and 33% of total intake, respectively), with the sub-category of burgers and sandwiches being the largest contributor within mixed dishes for both.
- Snacks and sweets also are a major contributor to saturated fat intake (18% of intake).
- Sodium is ubiquitous in the food supply and many food categories contribute to intake.

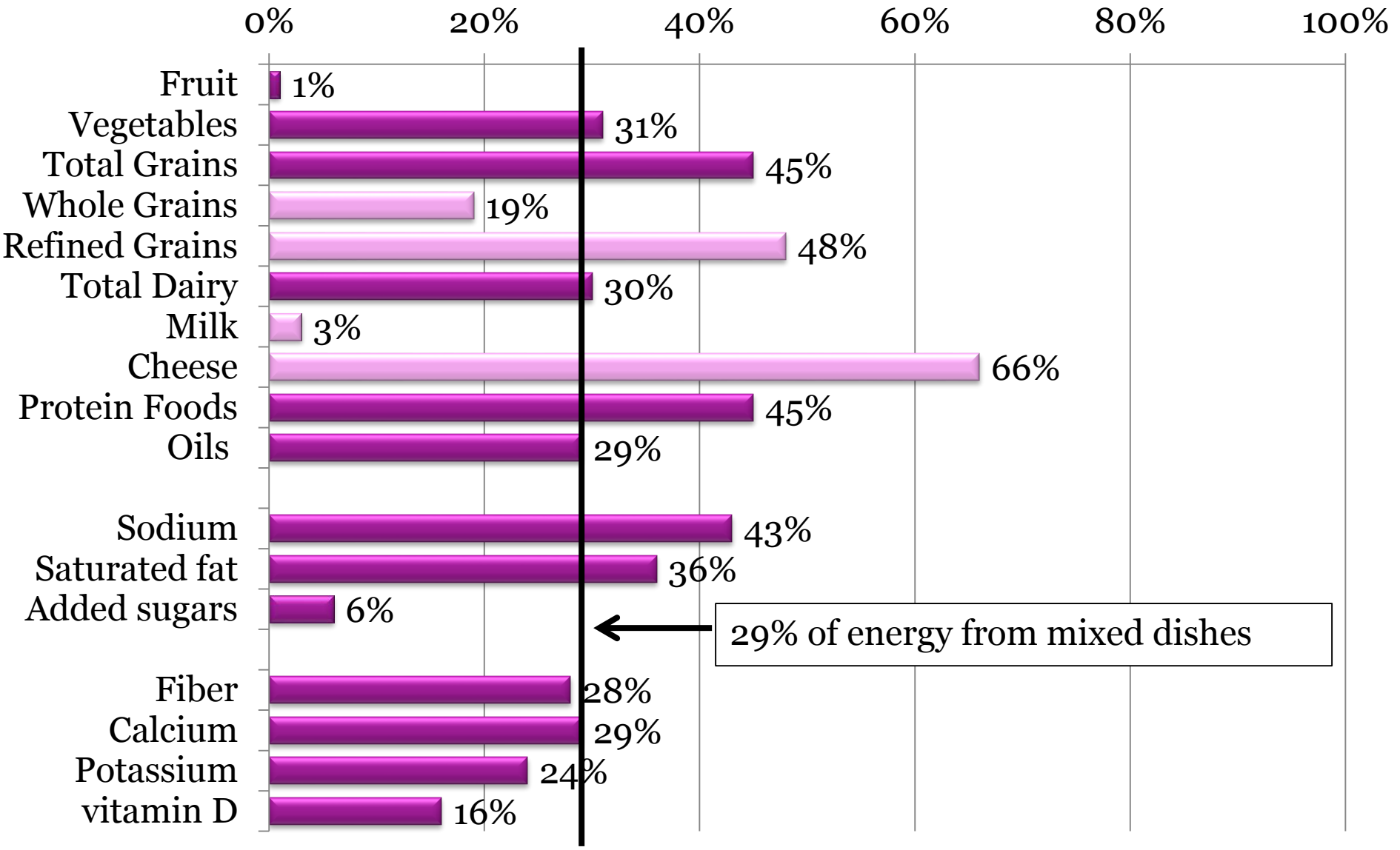
Food Categories (FC)

FC Q3:

What are current consumption patterns by food categories (foods as consumed) in the U.S. population?

Data Analysis

Percent of Total Intake from Mixed Dishes



What We Eat in America, NHANES 2009-10

Key Findings—FC Q3

- Mixed dishes contribute to dairy intake--but mainly to cheese intake (65% of cheese) not fluid milk (3% of milk).
- Mixed dishes do not contribute to fruit intake; 89% of fruit intake is from fruit eaten alone and only 1% is from mixed dishes.
- Mixed dishes contribute to grain intake, but the grains in these dishes are mainly refined and whole grains are more likely eaten alone.

Draft Conclusion Statement—FC Q3

- The mixed dishes food category is the major contributor to some USDA Food Pattern food groups—grains, vegetables, and protein foods.
- Fruit and fluid milk intake are seldom part of mixed dishes.
- Mixed dishes contribute substantially to intakes of energy, saturated fat, and sodium, but also make important contributions to intake of vegetables, fiber, grains, and dairy.

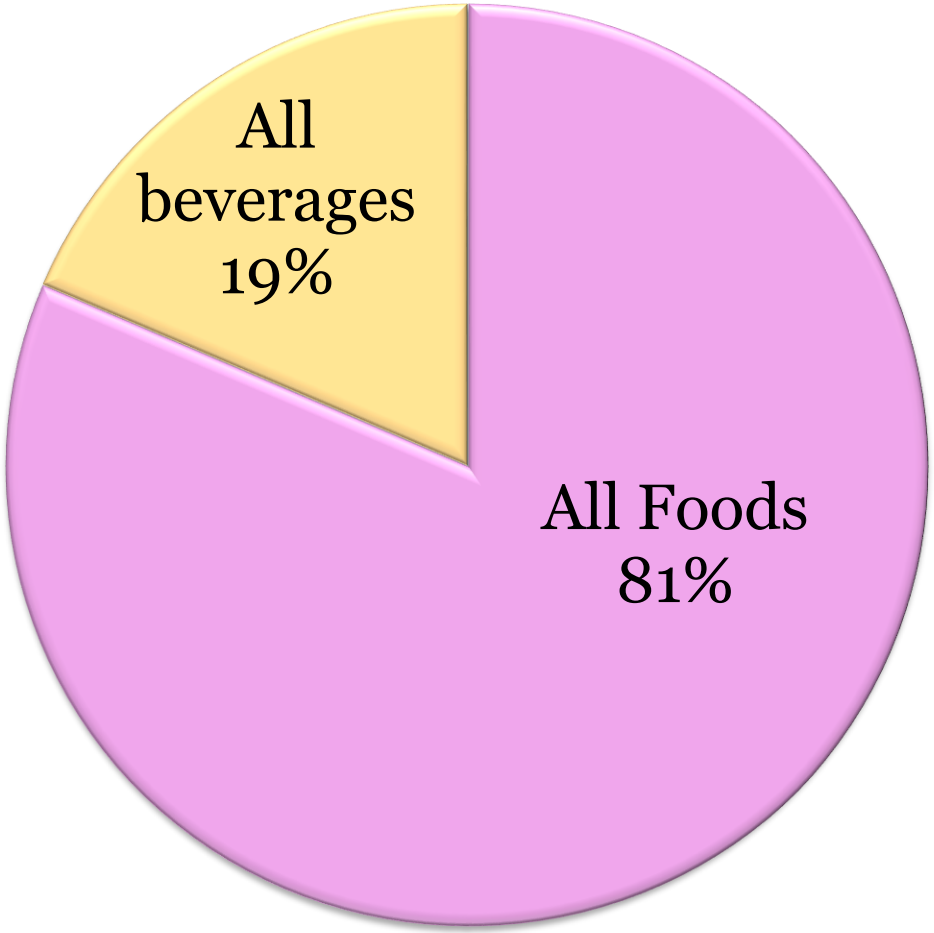
Food Categories (FC)

FC Q4:

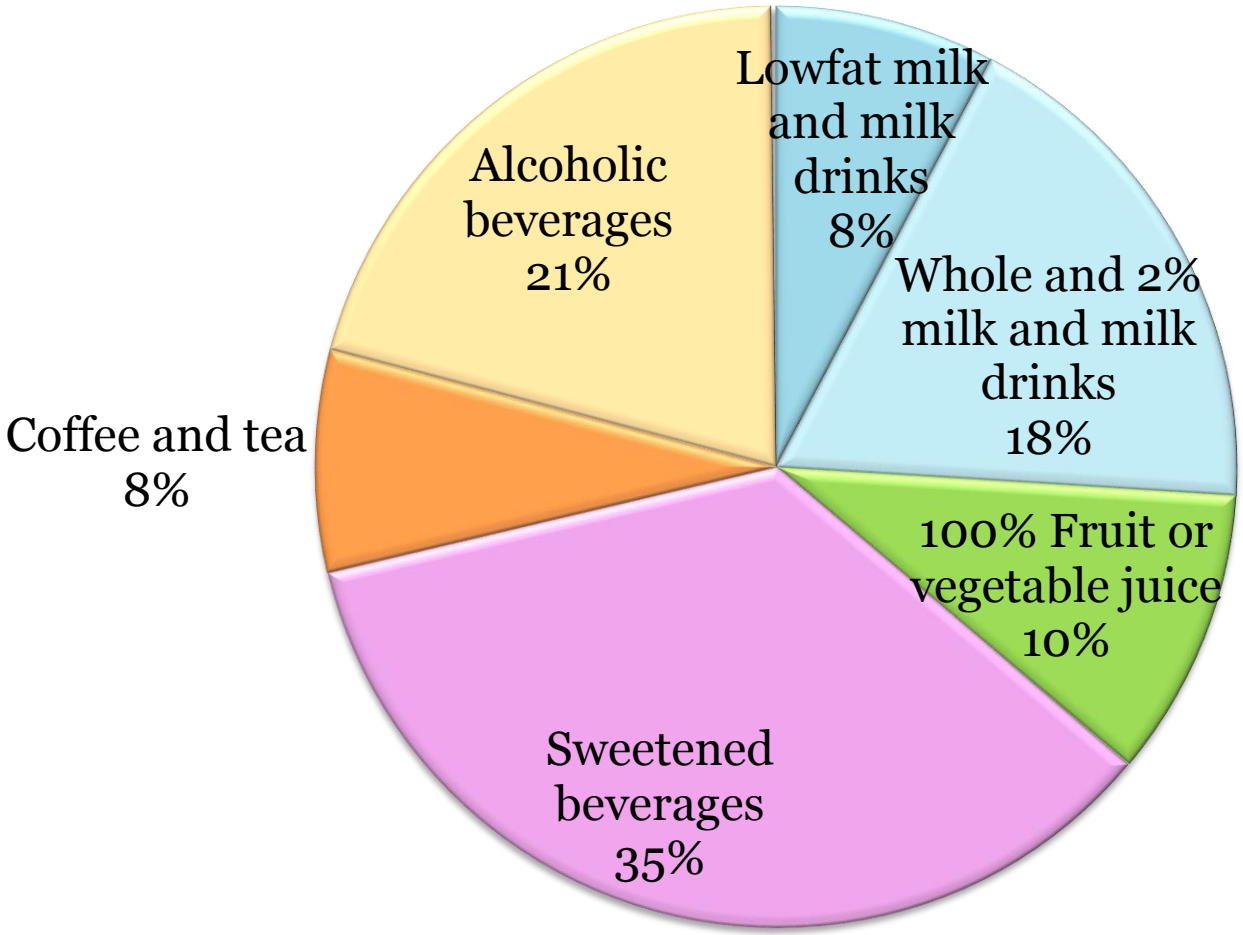
- What is the contribution of beverage types to energy intake by the U.S. population?

Data Analysis

Percent of Energy Intake from Foods and Beverages, All Persons Ages 2+



Percent of Beverage Energy Intake from Various Beverages, All Persons Ages 2+



Draft Conclusion Statement—FC Q4

- Nineteen percent of total energy comes from beverages, including milk and 100% fruit juice.
- Of this 19% of energy, major sources are:
  - Sugar-sweetened beverages (35%)
  - Milk and milk drinks supply (26%)
  - 100% fruit juices (10%).
- Beverages supply 47% of added sugars intake.

Food Categories

1. What are the top foods contributing to energy intake in the U.S. population?
2. What are the top foods contributing to sodium and saturated fat intake in the U.S. population?
3. What are current consumption patterns by food categories (foods as consumed) in the U.S. population?
4. What is the contribution of beverage types to energy intake by the U.S. population?

Discussion

Eating Behaviors Questions Addressed Today

1. What are the current status and trends in the number of daily eating occasions and frequency of meal skipping?
2. How do diet quality and energy content vary based on eating occasion?
3. What are the current status and trends in the location of meal and snack consumption and sources of food and beverages consumed at home and away from home?
4. What is the diet quality and energy content based on the food and beverage source?

Eating Behaviors (EB)

EB Q1:

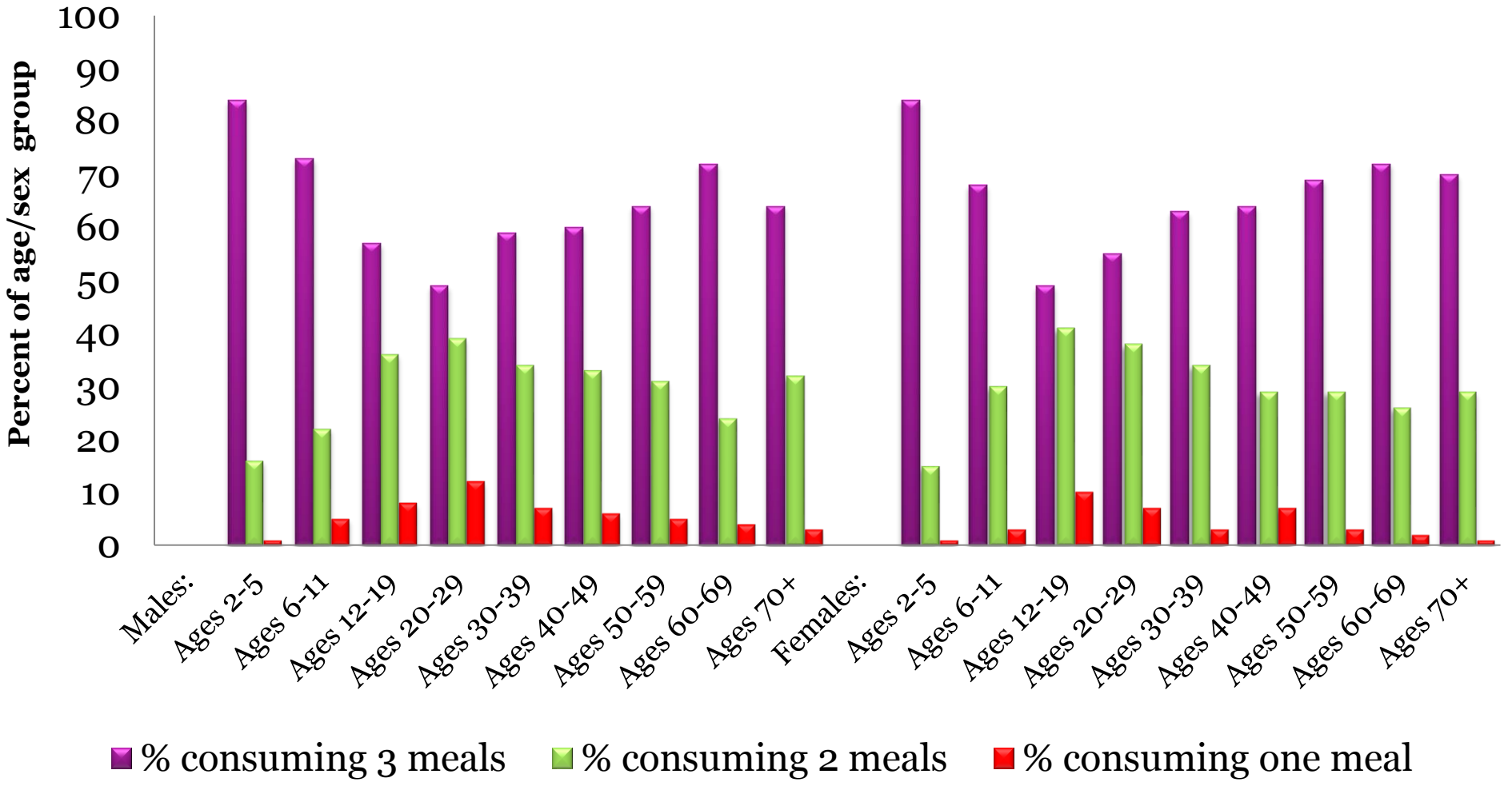
What are the current status and trends in the number of daily eating occasions and frequency of meal skipping?

Data Analysis

Review of the Evidence—EB Q1

- Summary of existing WWEIA, NHANES data tables, from:
  - WWEIA, NHANES 2009-10 for current status
  - WWEIA, NHANES 2003-04, 2005-06 and 2007-08 for trends

Number of Meals Reported per Day by Age/Sex Groups



What We Eat in America, NHANES 2009-10

Key Findings—EB Q1

Differences by race/ethnicity and income level:

- Non-Hispanic whites most likely to report consuming 3 meals a day. Only about half of non-Hispanic blacks (48%) and Hispanics (52%) consumed all three meals.
- Percent of individuals consuming 3 meals/day increased with higher income levels. Differences by income level are more evident for older children and adults, with similar percents of children ages 2-5 consuming 3 meals per day.

Draft Conclusion Statement—EB Q1

- The majority of the U.S. population consumes three meals a day plus at least one snack.
- Among all age groups, children 2 to 5 years are most likely to consume all three meals.
- Adolescent girls, young adult males, Blacks, Hispanics, and individuals with lower incomes are least likely to consume three meals a day. Trend data show little change since 2005-06.

Eating Behaviors

EB Q2:

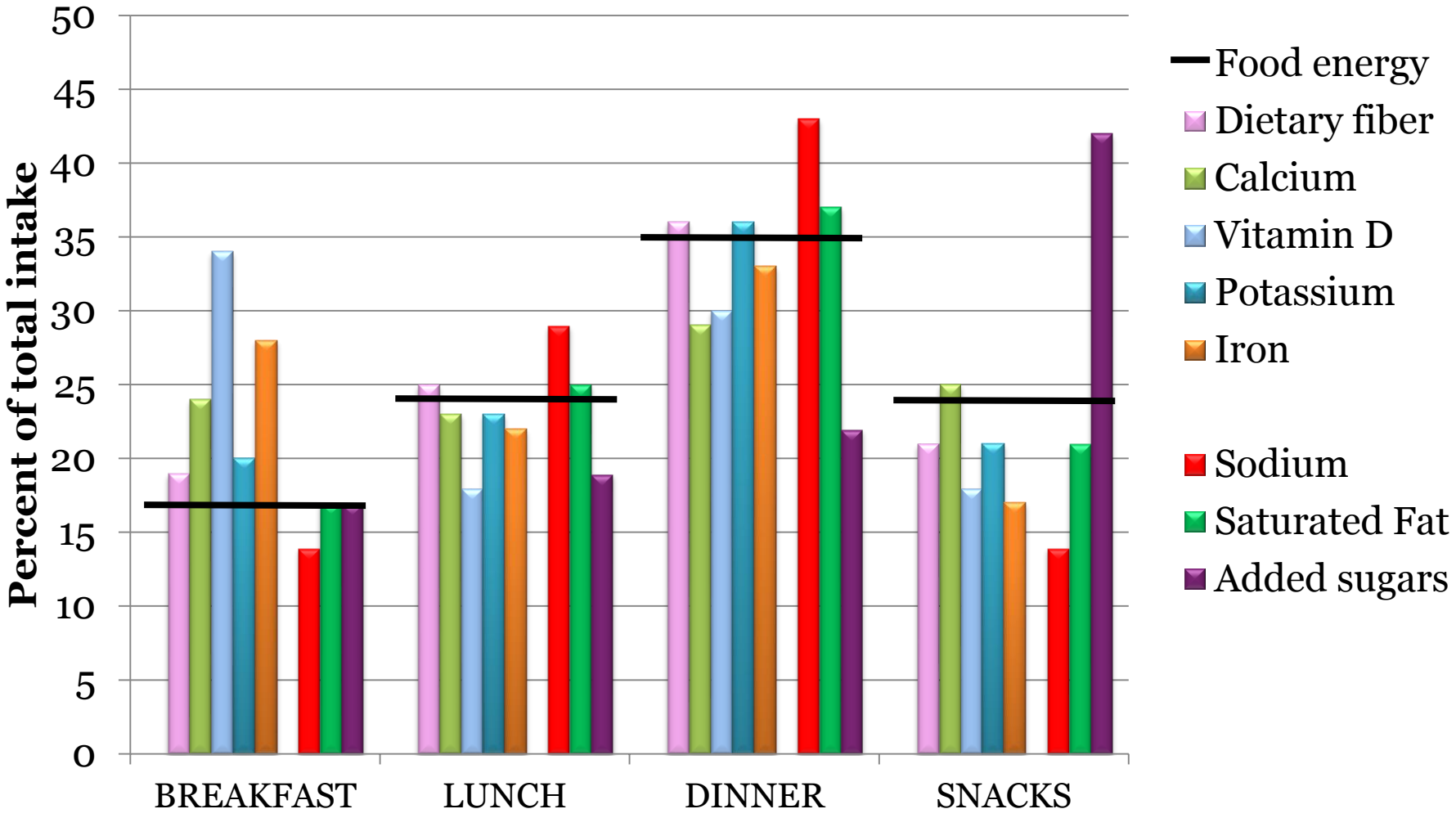
How do diet quality and energy content vary based on eating occasion?

Data Analysis

Review of the Evidence—EB Q2

- Summary of existing WWEIA NHANES data tables, from NHANES 2009-10

Percent of Total Daily Intake from each Eating Occasion Males and Females Ages 2+



What We Eat in America NHANES 2009-10, day 1 dietary intake data

Draft Conclusion Statement—EB Q2

- Breakfast tends to have a higher overall dietary quality because of its higher nutrient density compared to other meals and snacks.
- Snacks contribute about one-fourth of daily energy intake and are lower in key nutrients relative to energy intake.

Eating Behaviors

EB Q3:

What are the current status and trends in the location of meal and snack consumption and sources of food and beverages consumed at home and away from home?

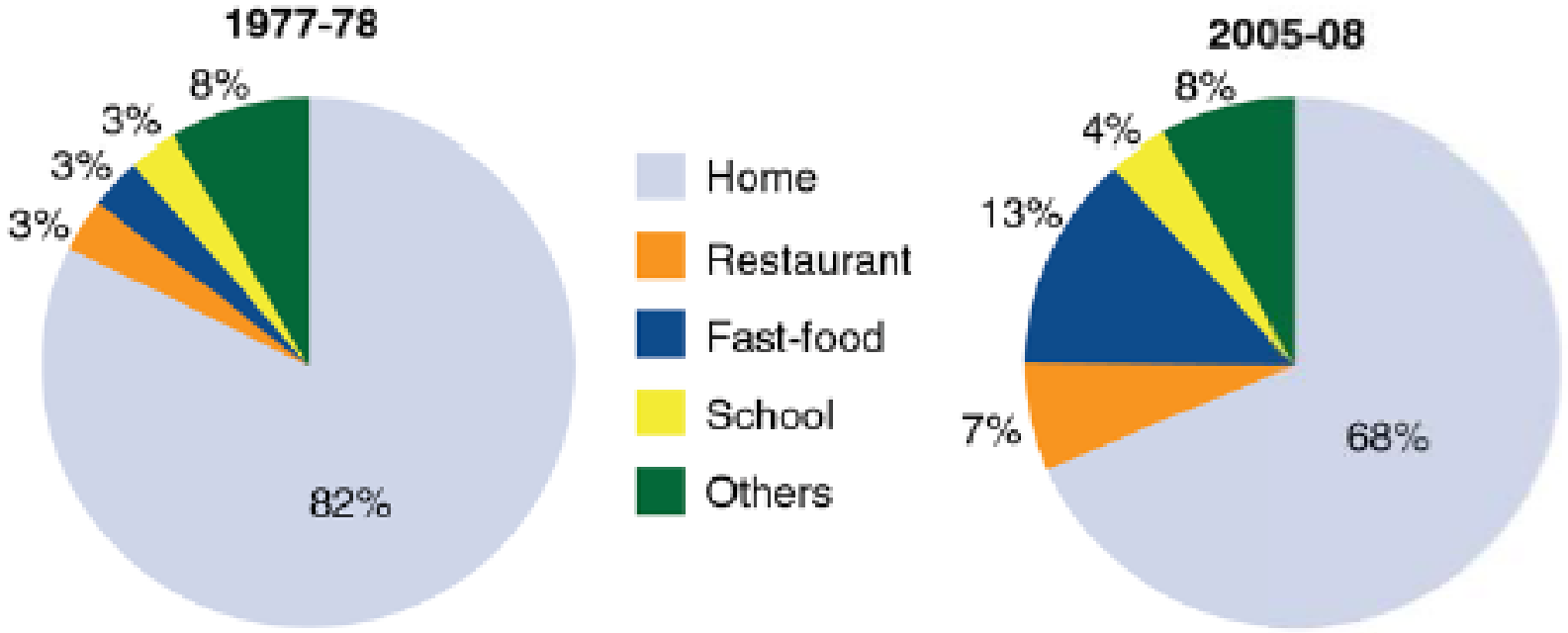
Data Analysis

Review of the Evidence—EB Q3

- Analysis of WWEIA, NHANES food intake data, from:
  - WWEIA NHANES 2009-10 for current status
  - WWEIA NHANES 2003-04, 2005-06 and 2007-08 for trends
- USDA ERS report, *Nutritional Quality of Food Prepared at Home and Away from Home, 1977-2008*.

Trends in Location of Meal and Snack Consumption

Between 1977-78 and 2005-08, food away from home (particularly fast-food) increased its share of calories

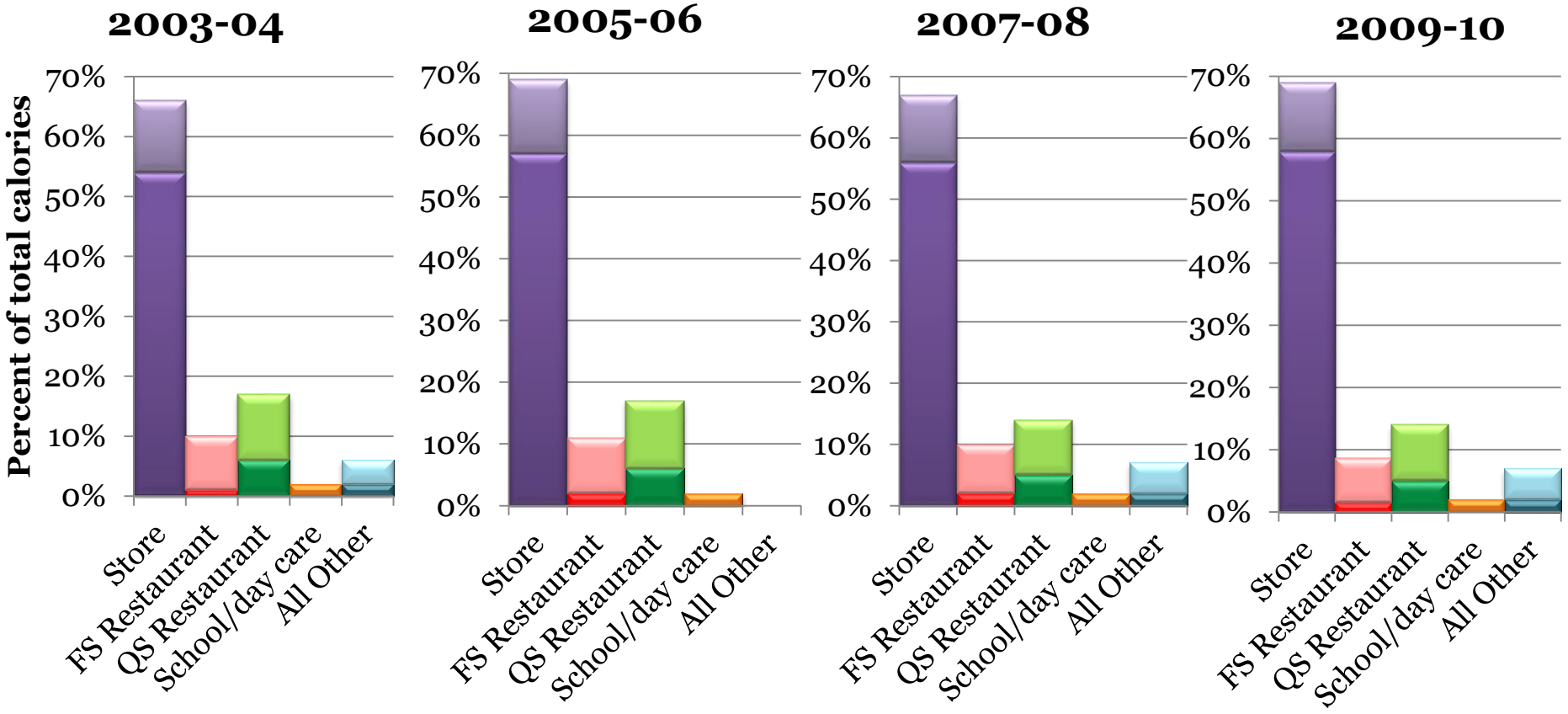


Source: USDA, Economic Research Service analysis using 1977-78 Nationwide Food Consumption Survey data and 2005-08 National Health and Nutrition Examination Survey data.

ERS: Nutritional Quality of Food Prepared at Home and Away from Home, 1977-2008.

Percent of Calories by Where Food was Obtained and Consumed

Darker shading indicates food eaten at home, lighter shading indicates food eaten away from home.



FS = Full Service (sit-down service); QS = Quick Service (fast food, food trucks, etc.)

What We Eat in America NHANES 2003-04, 2005-06, 2007-08, 2009-10

Draft Conclusion Statement—EB Q3

- Most of the calories consumed by the U.S. population are purchased at a store (69%) and consumed in the home. The percent of calories eaten away from home (34%) has remained about the same since 2003-04.

Eating Behaviors

EB Q4:

How do diet quality and energy content vary based on the food and beverage source?

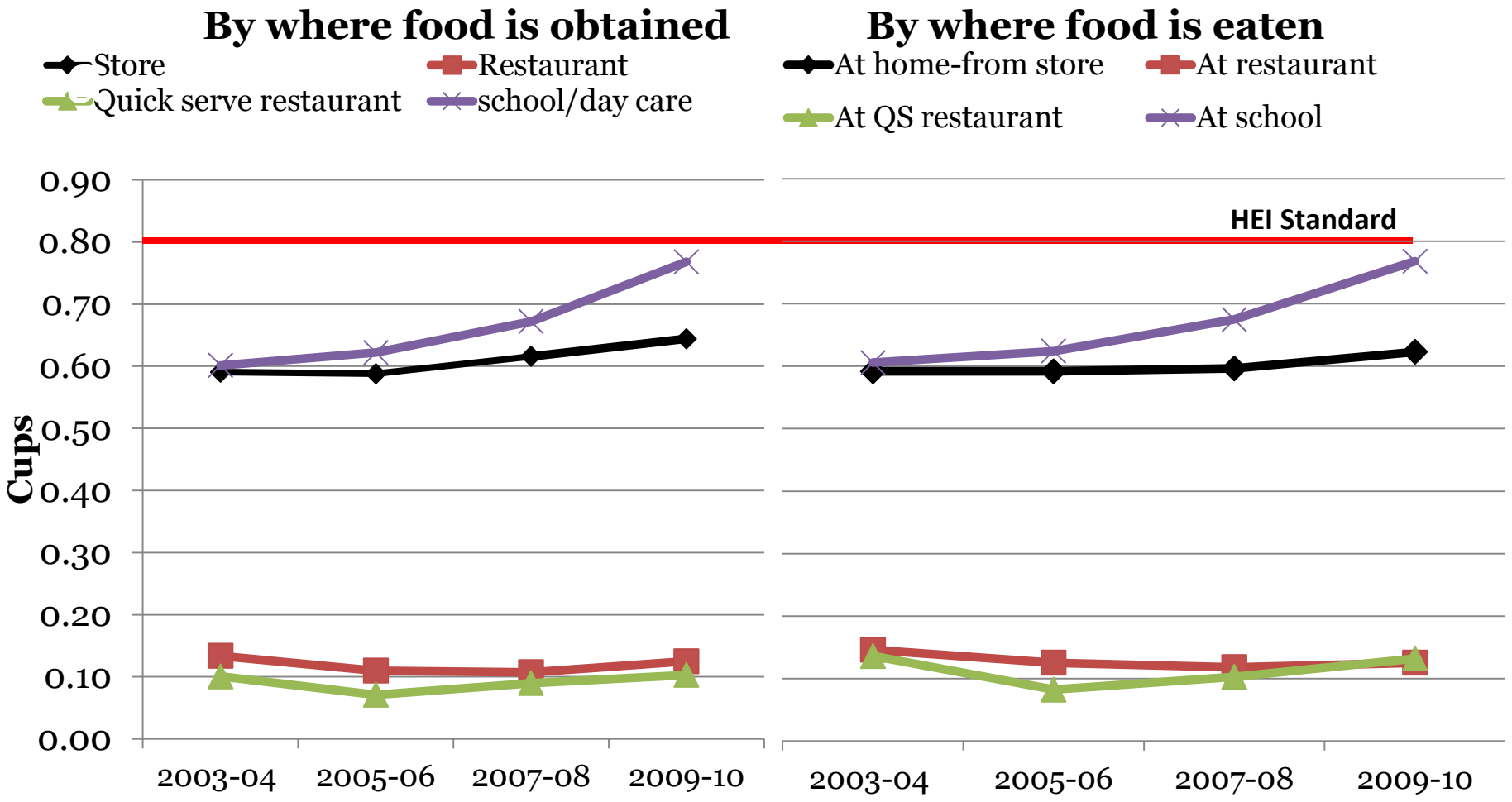
Data Analysis

Review of the Evidence—EB Q4

- Analysis of WWEIA NHANES food intake data, from:
  - WWEIA NHANES 2009-10 for current status
  - WWEIA NHANES 2003-04, 2005-06 and 2007-08 for trends
- Healthy Eating Index (HEI) standards for food group and subgroup intake per 1000 kcal
- 2010 Dietary Guidelines limit for saturated fat intake

Fruit Group Density

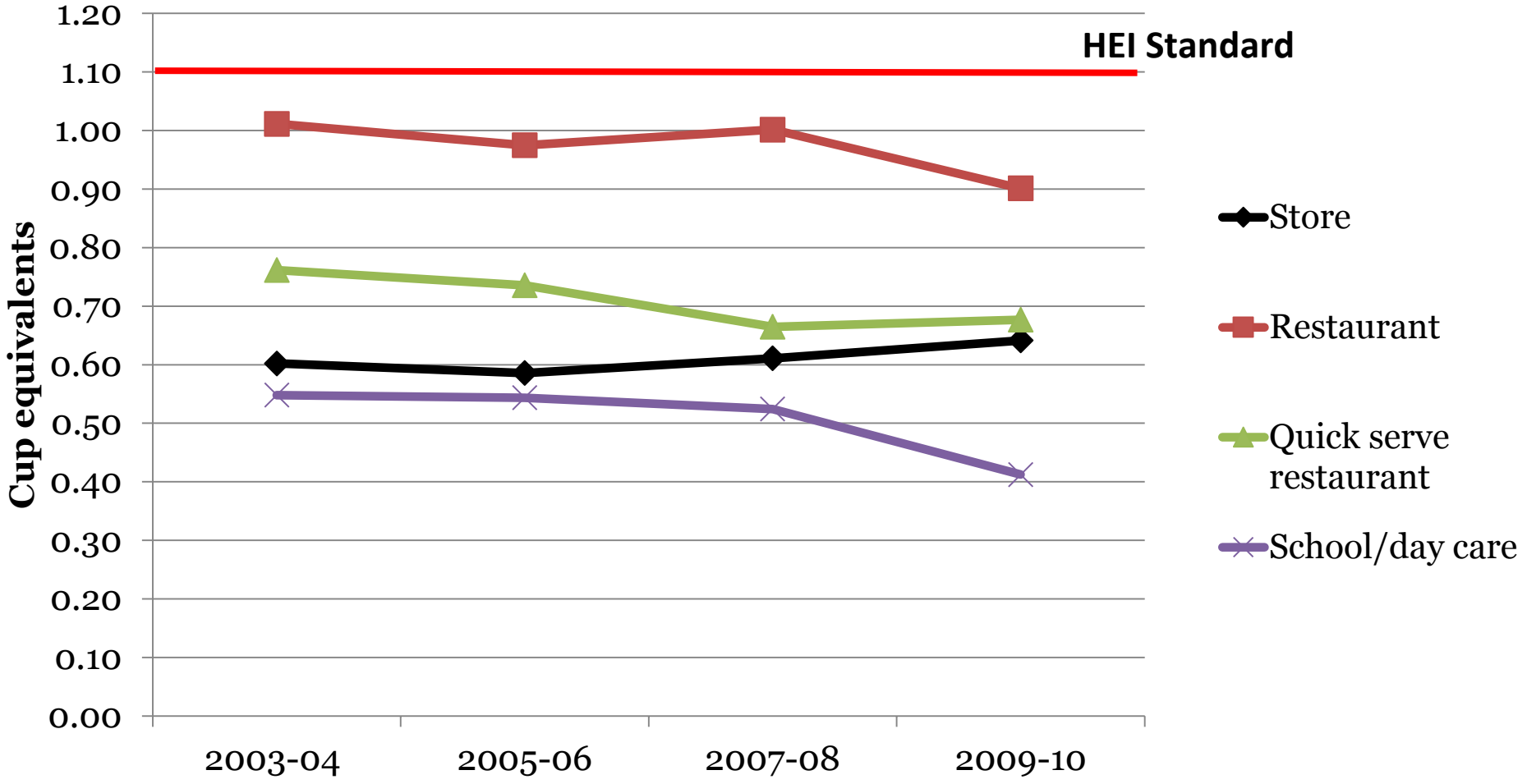
Cups per 1000 kcal by where obtained and eating location



What We Eat in America, NHANES 2003-04, 2005-06, 2007-08, 2009-10

Vegetable Group Density

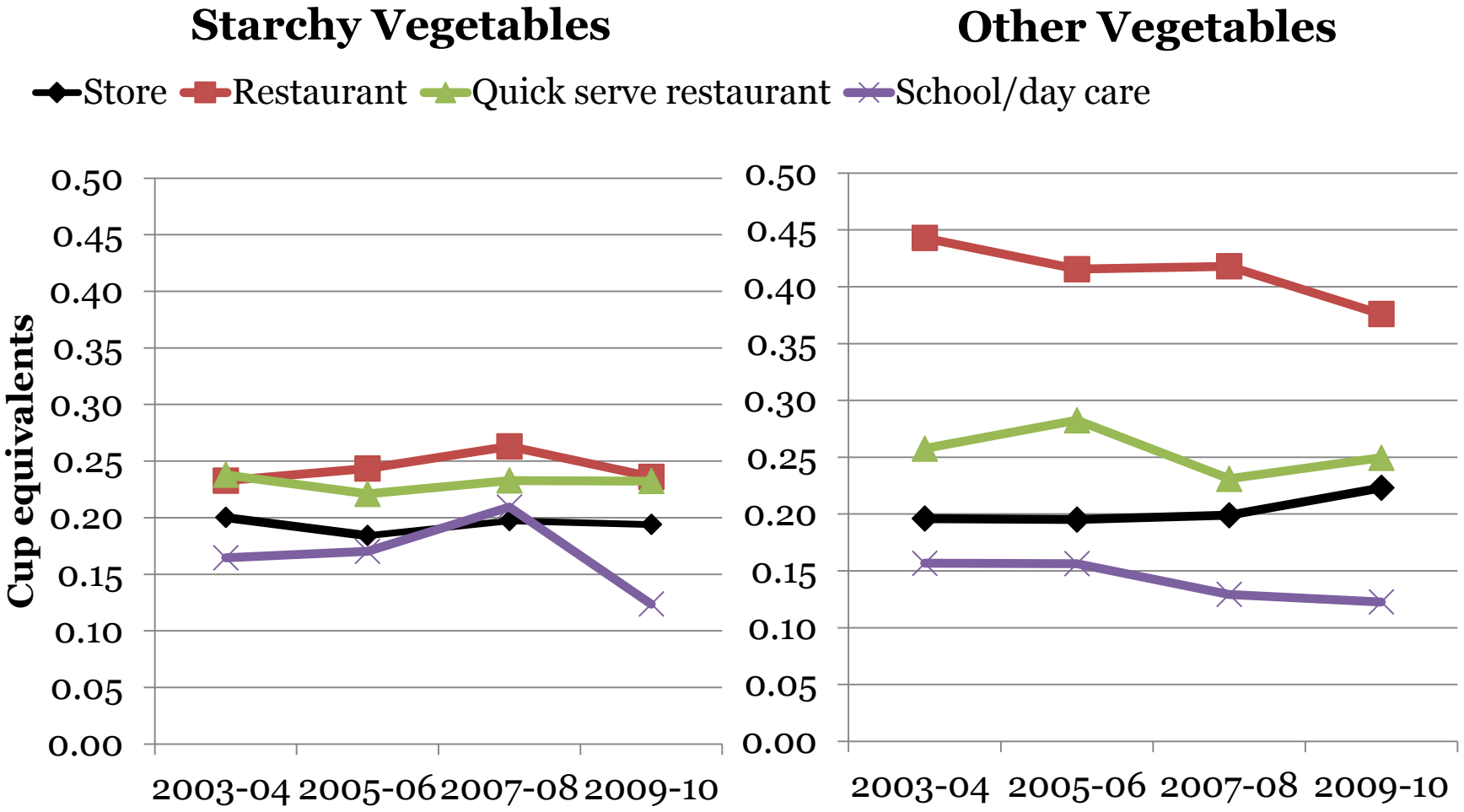
Cups per 1000 kcal by where obtained



What We Eat in America, NHANES 2003-04, 2005-06, 2007-08, 2009-10

Vegetable Subgroup Density

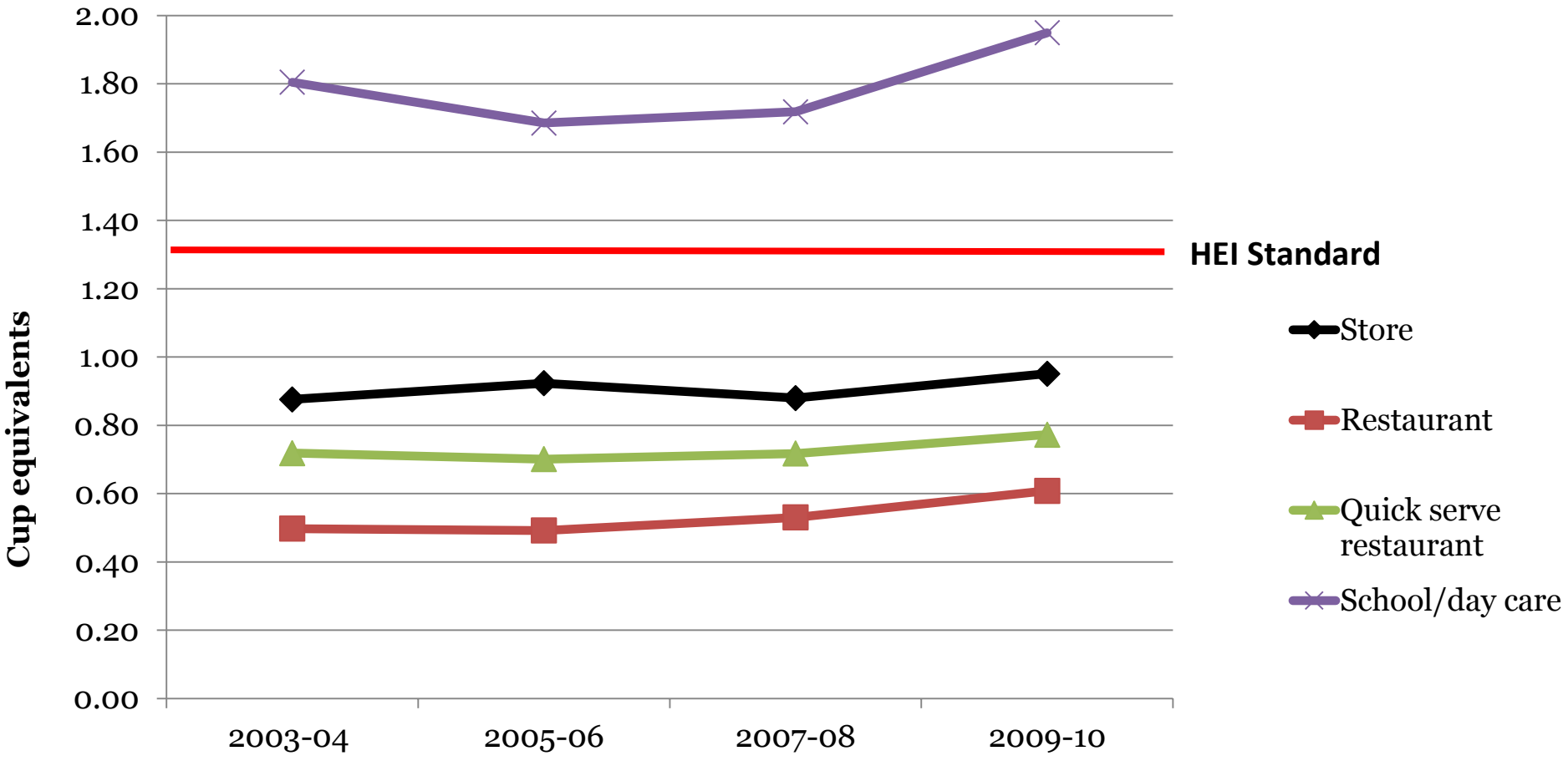
Cups per 1000 kcal by where obtained



What We Eat in America, NHANES 2003-04, 2005-06, 2007-08, 2009-10

Dairy Group Density

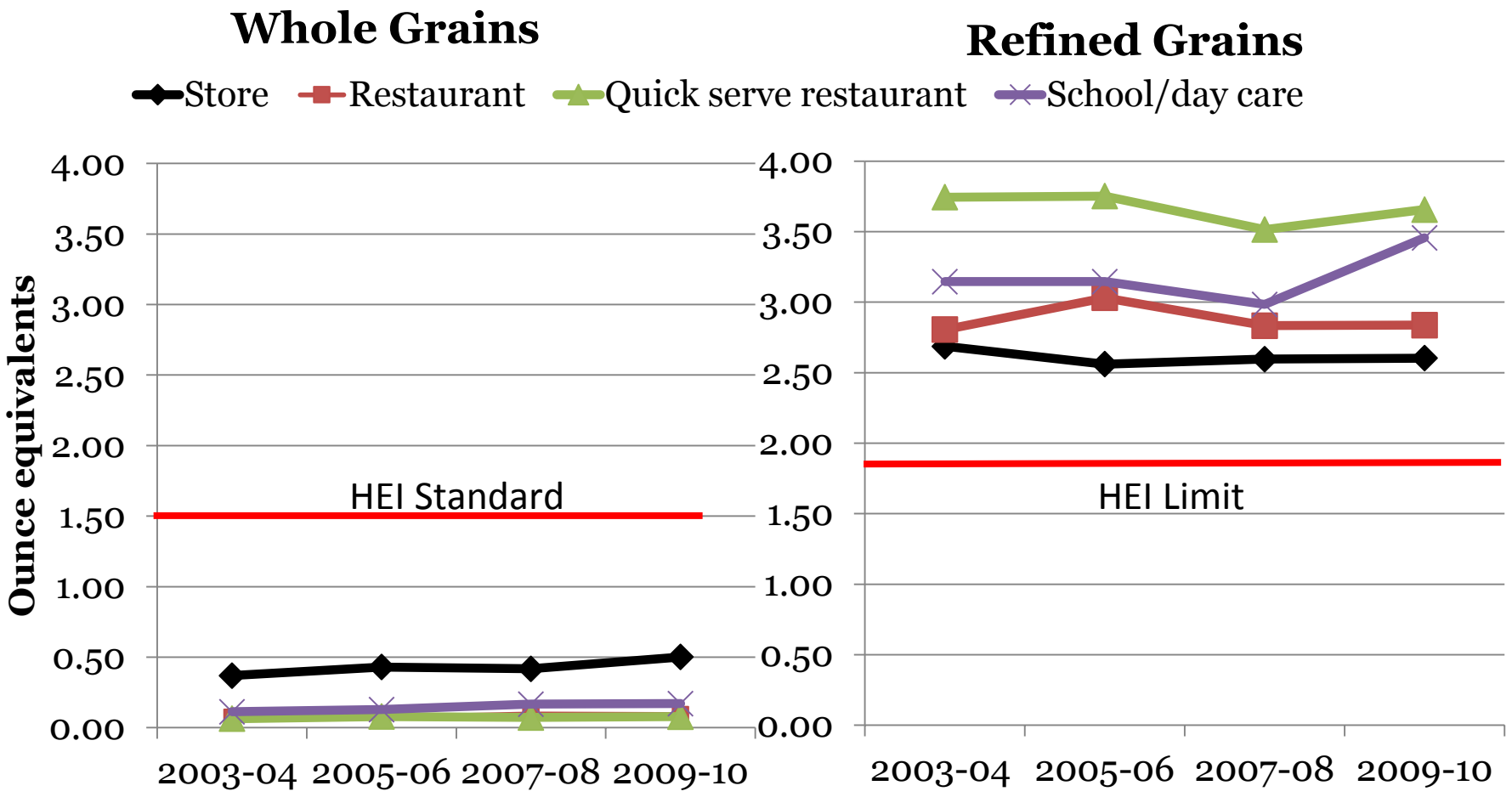
Cups per 1000 kcal by where obtained



What We Eat in America, NHANES 2003-04, 2005-06, 2007-08, 2009-10

Grain Group Density

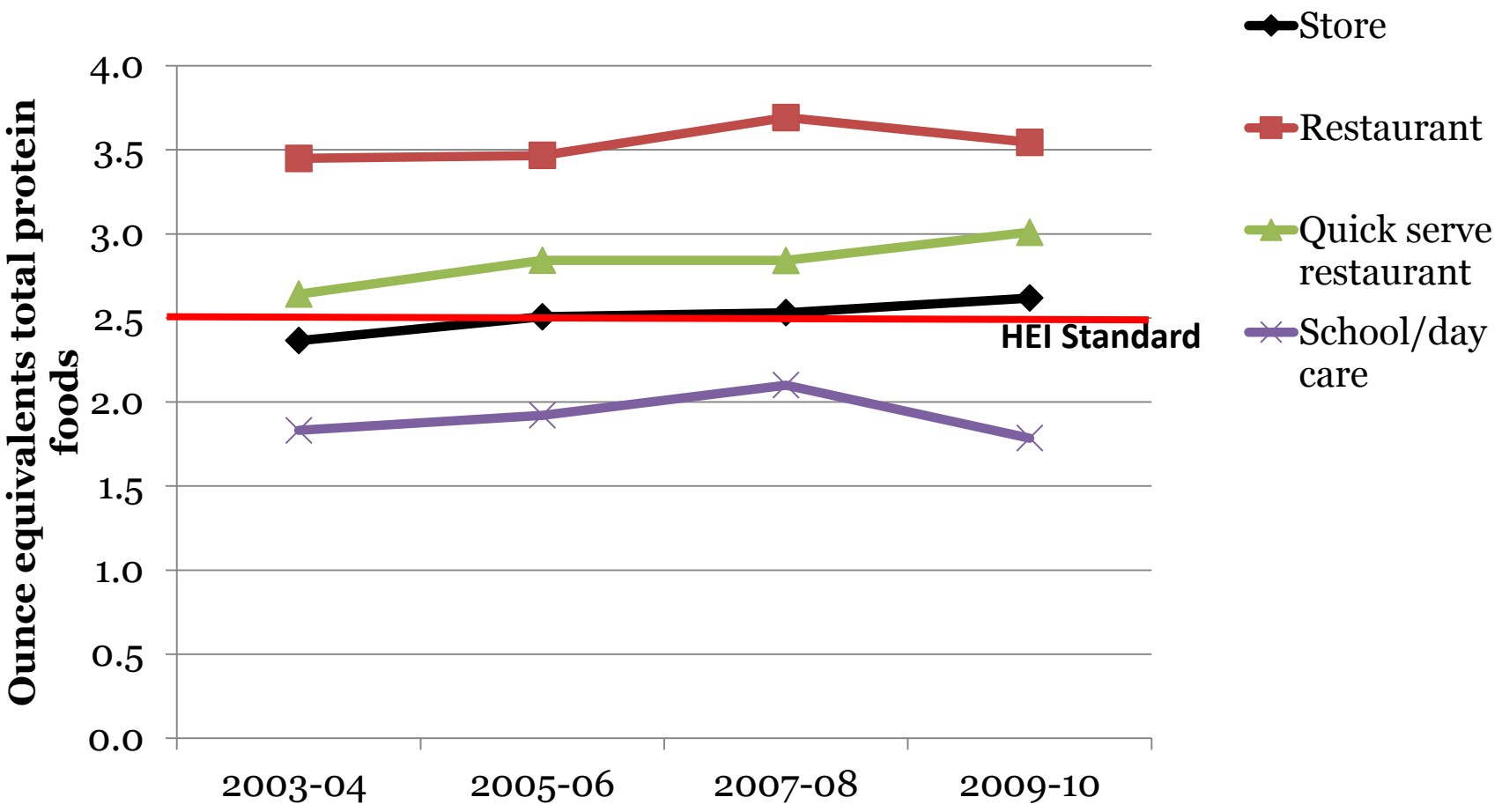
Ounce eqs. per 1000 kcal by where obtained



What We Eat in America, NHANES 2003-04, 2005-06, 2007-08, 2009-10

Protein Foods Group Density

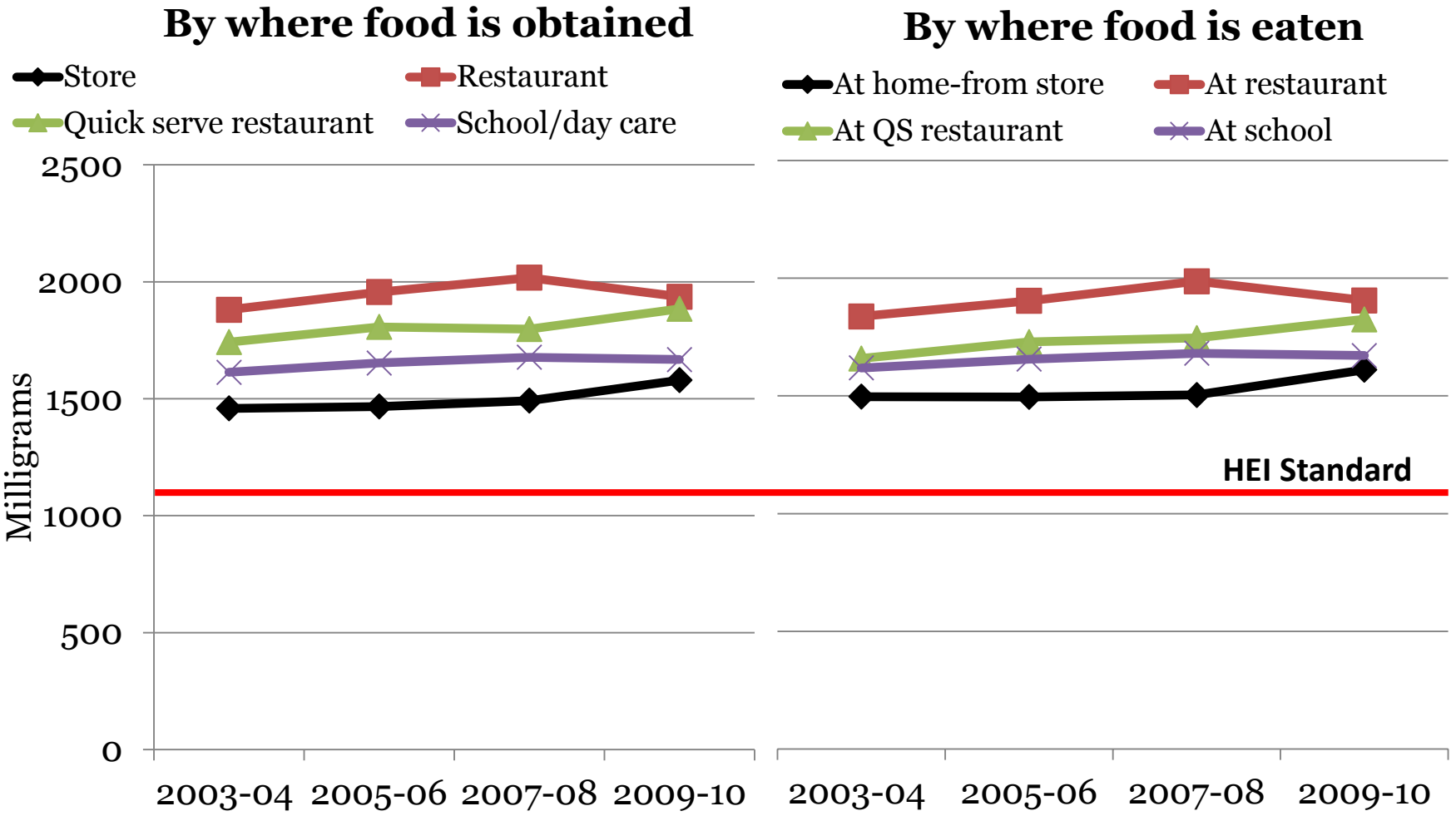
Ounce eqs. per 1000 kcal by where obtained



What We Eat in America, NHANES 2003-04, 2005-06, 2007-08, 2009-10

Sodium Density

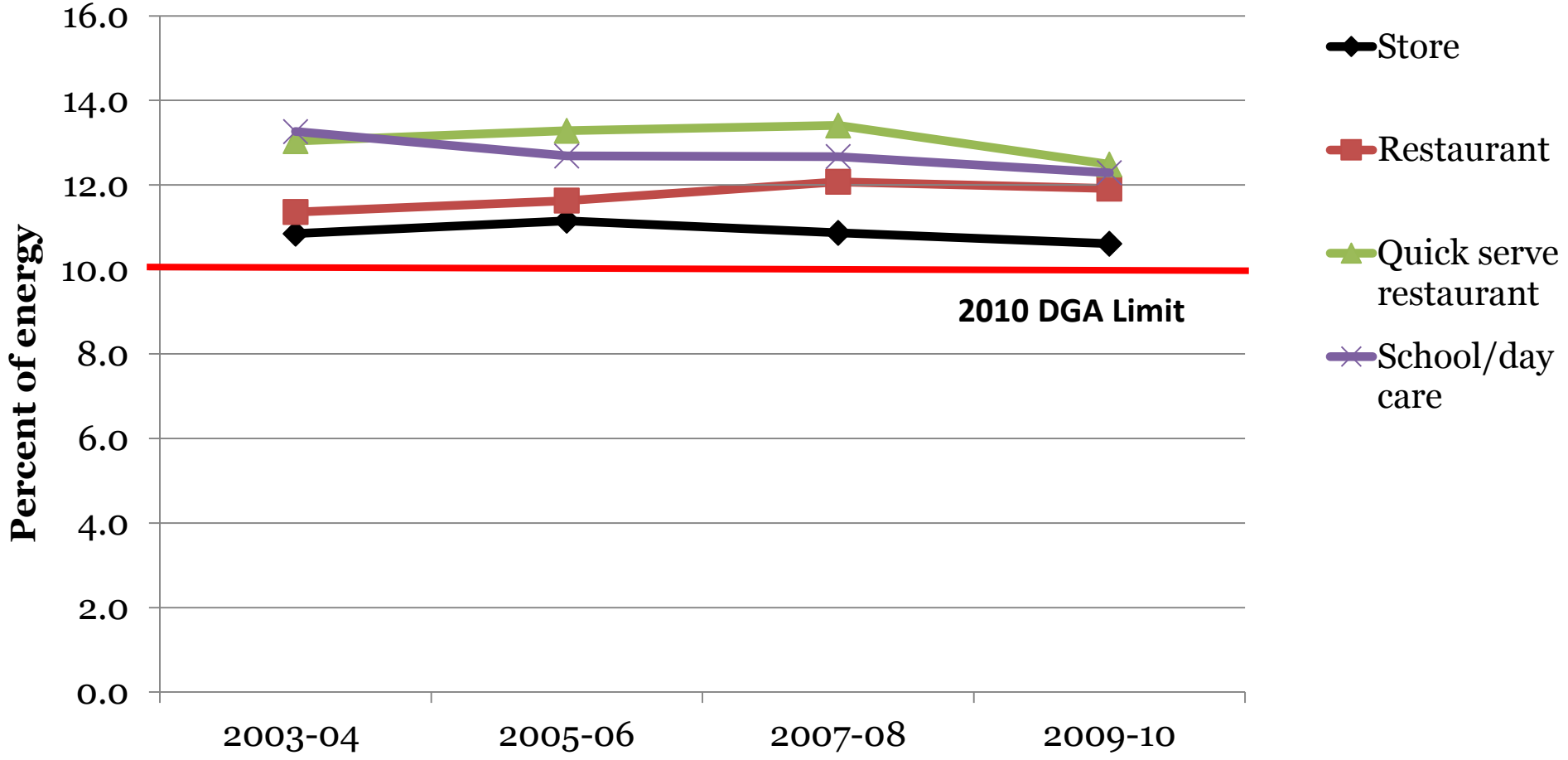
Milligrams per 1000 kcal by where obtained and eaten



What We Eat in America, NHANES 2003-04, 2005-06, 2007-08, 2009-10

Saturated Fat Density

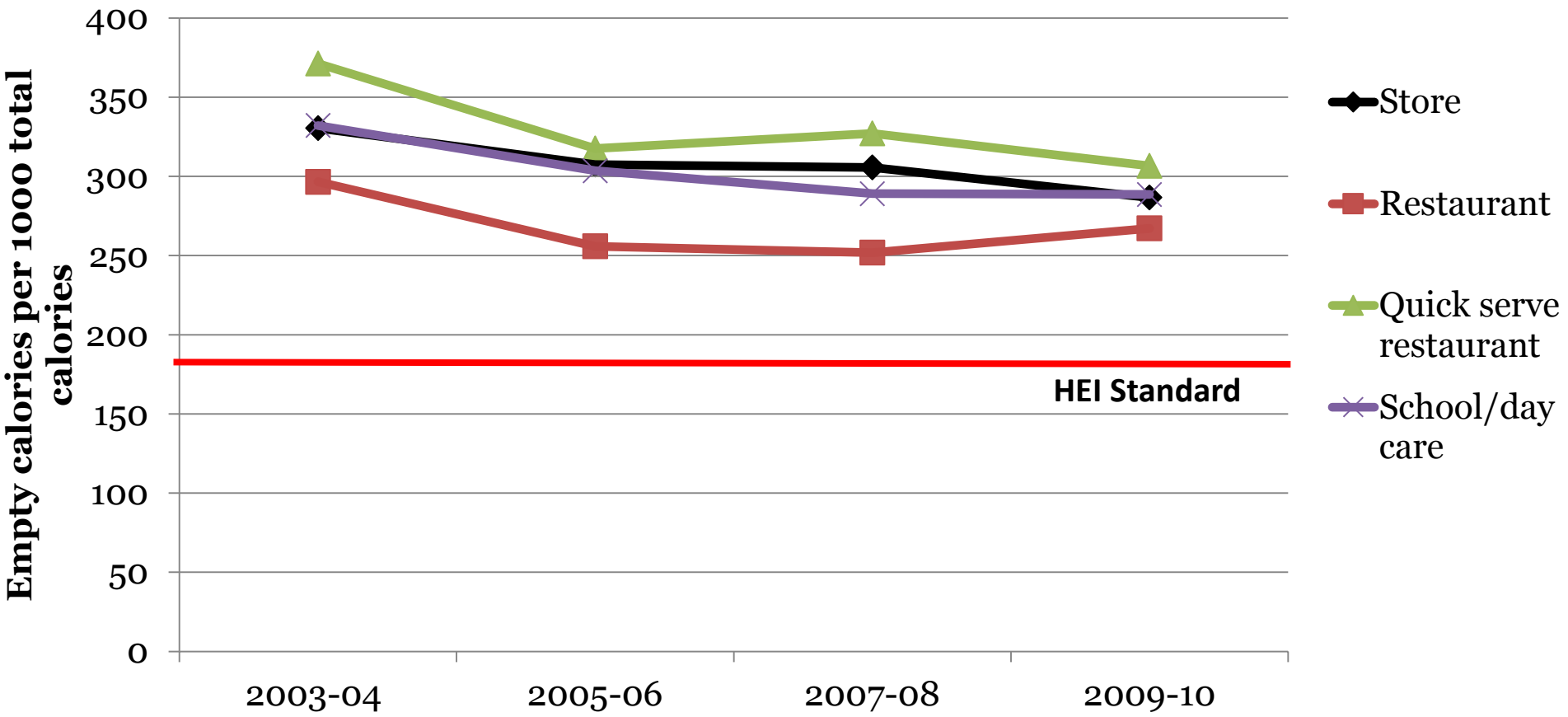
Percent of total energy by where obtained



What We Eat in America, NHANES 2003-04, 2005-06, 2007-08, 2009-10

Empty Calorie* Density

Calories per 1000 kcal by where obtained



*Empty calories are calories from solid fats and added sugars

What We Eat in America, NHANES 2003-04, 2005-06, 2007-08, 2009-10

Draft Conclusion Statement—EB Q4

- Food group and nutrient quality as measured by the Healthy Eating Index vary by where food is obtained.
- Overall, no matter where the food is obtained, diet quality of the U.S. populations does not meet recommendations for fruit, vegetables, dairy, whole grains, and exceeds recommendations for sodium, saturated fats, refined grains, solid fats, and added sugars.

Eating Behaviors
Questions Addressed Today

1. What are the current status and trends in the number of daily eating occasions and frequency of meal skipping?
2. How do diet quality and energy content vary based on eating occasion?
3. What are the current status and trends in the location of meal and snack consumption and sources of food and beverages consumed at home and away from home?
4. How do diet quality and energy content vary based on the food and beverage source?

Discussion

Health Conditions-Status and Trends Questions Addressed Today

1. What is the current prevalence of overweight/obesity and distribution of body weight, BMI, and waist circumference in the U.S. population and age, gender, racial/ethnic, and income groups? What are the trends in prevalence?
2. What are the current rates of nutrition-related health outcomes (i.e., incidence of and mortality from cancer [breast, lung, colorectal, prostate] and prevalence of high blood pressure, CVD, and type 2 diabetes) in the overall U.S. population?

Health Conditions-Status and Trends (HC)

HC Q1:

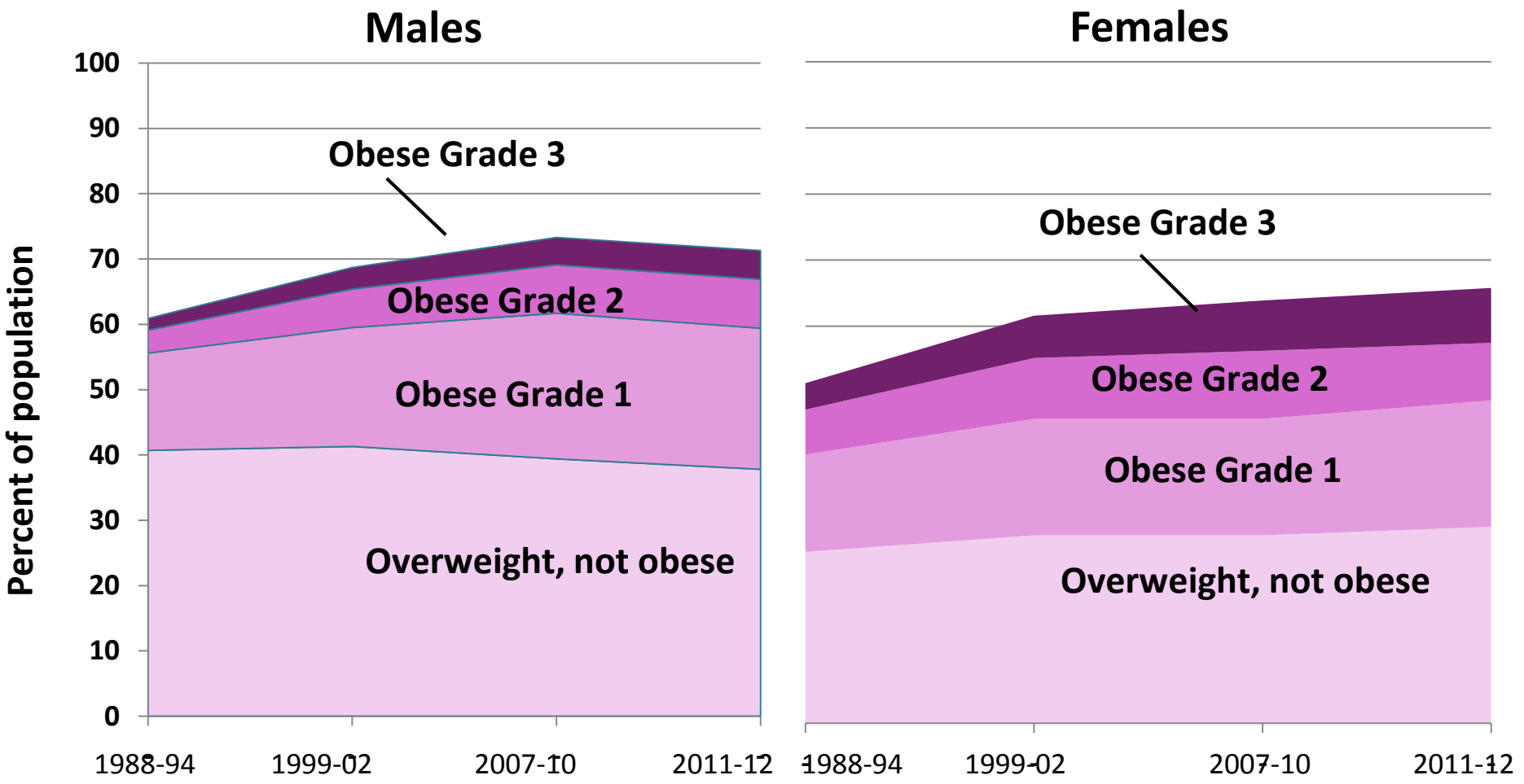
What is the current prevalence of overweight/obesity and distribution of body weight, BMI, and waist circumference in the U.S. population and age, gender, racial/ethnic, and income groups? What are the trends in prevalence?

Data Analysis

Review of the Evidence—HC Q1

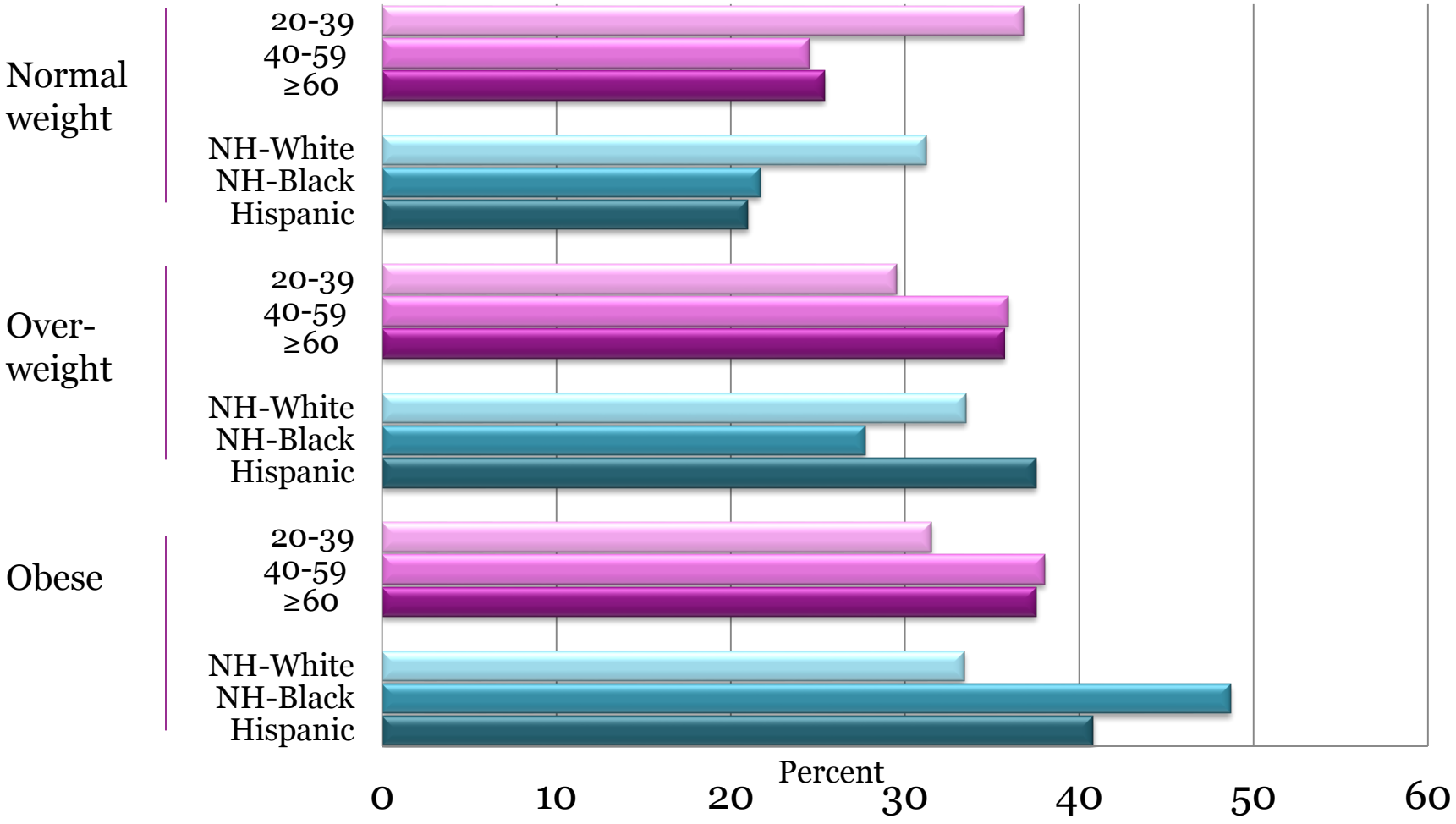
- NHANES 2009 -2012 (analysis by CDC/NCHS for DGAC)
- Summary of NHANES data tables from CDC website and published peer-reviewed articles by CDC authors:
  - Various survey years for trends including1988-94 to 2011-12

Trends in Overweight and Obesity
Males and Females Aged 20+



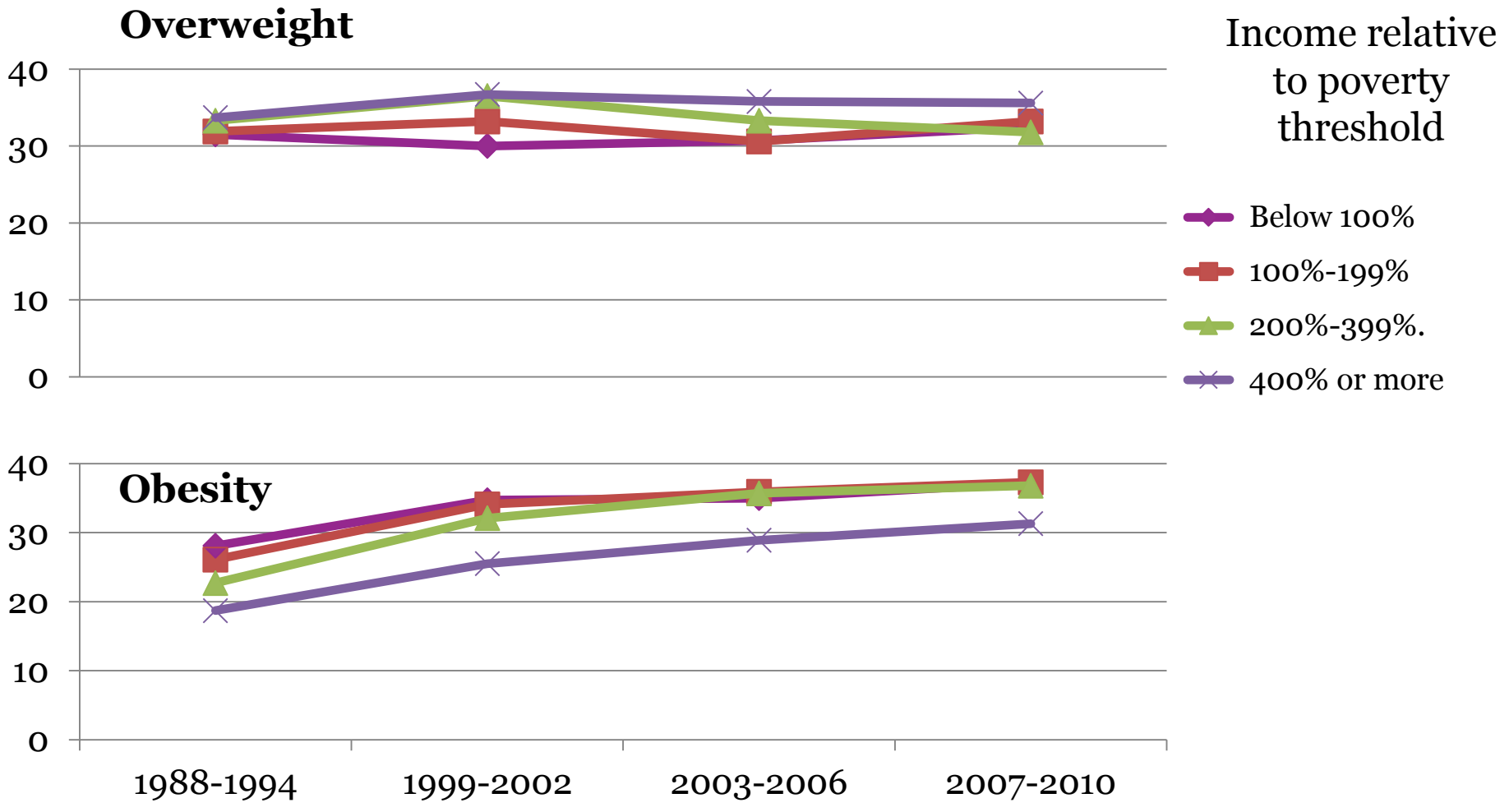
NHANES 1988-04, 1999-02, 2007-10, 2011-12

Prevalence of Weight Status by Age Category and Race/Ethnicity Among Adults Aged 20+



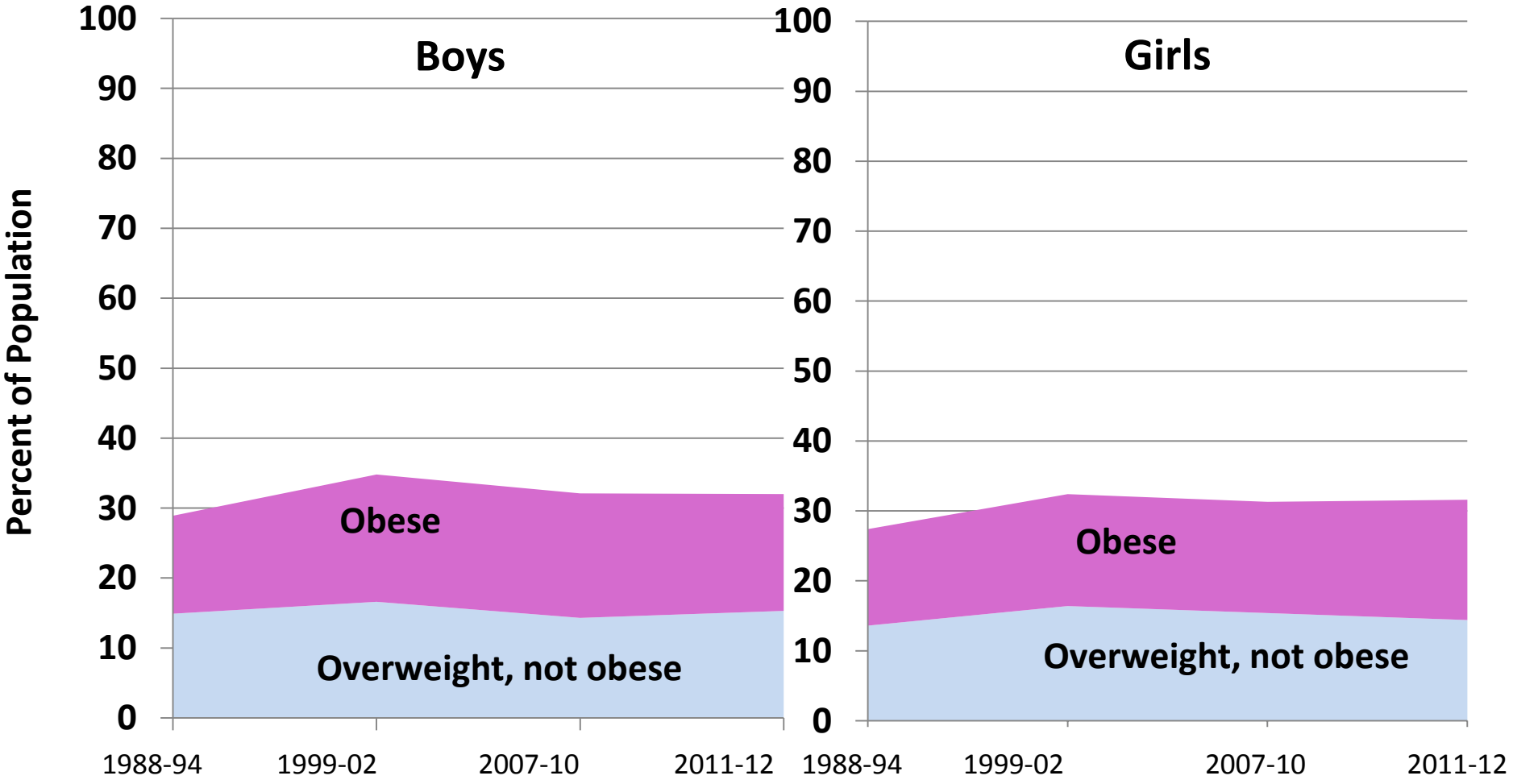
NHANES 2009 -2012

Trends in Prevalence of Adults with Overweight and Obesity by Poverty Status



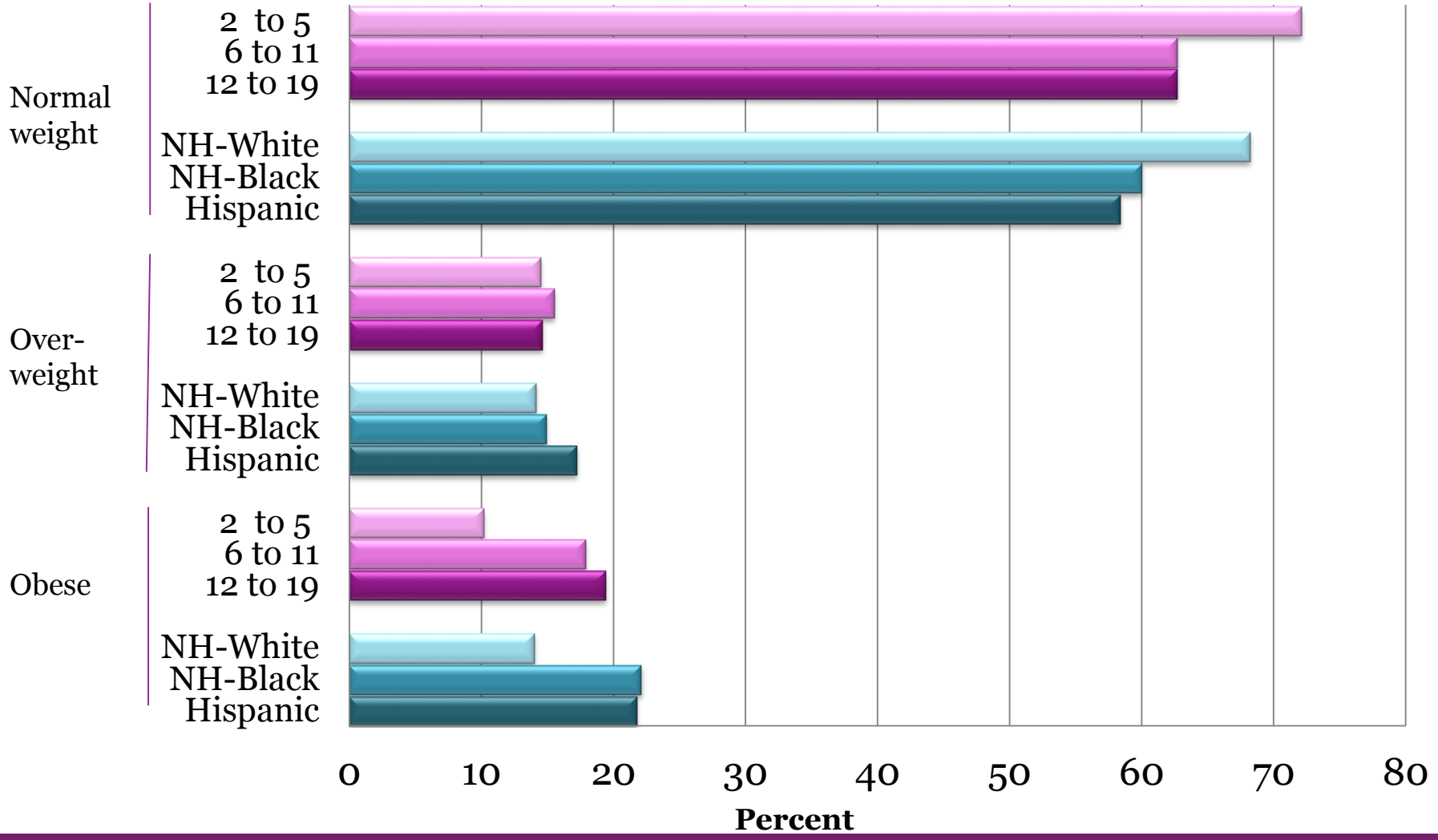
NHANES 1988-04, 1999-02, 2007-10, 2011-12

Trends in Overweight and Obesity – Boys and Girls Ages 2-19



NHANES 1988-04, 1999-02, 2007-10, 2011-12

Prevalence of Weight Status by Age Category and Race/Ethnicity Among 2 -19 Year Olds



NHANES 2009 -2012

Draft Conclusion Statement—HC Q1

- Among children, adolescents, and adults, rates of overweight and obesity are extremely high.
- These high rates have persisted for more than 25 years. Nearly one in three youth 2 to 19 years is now overweight or obese. Overall, 65% of adult females and 70% of adult males are overweight or obese, and rates are highest in middle-aged and older adults.
- Overweight and obesity disproportionately affect adults with lower income, and children, adolescents, and adults who are Hispanic or African-American.

Health Conditions-Status and Trends

HC Q2:

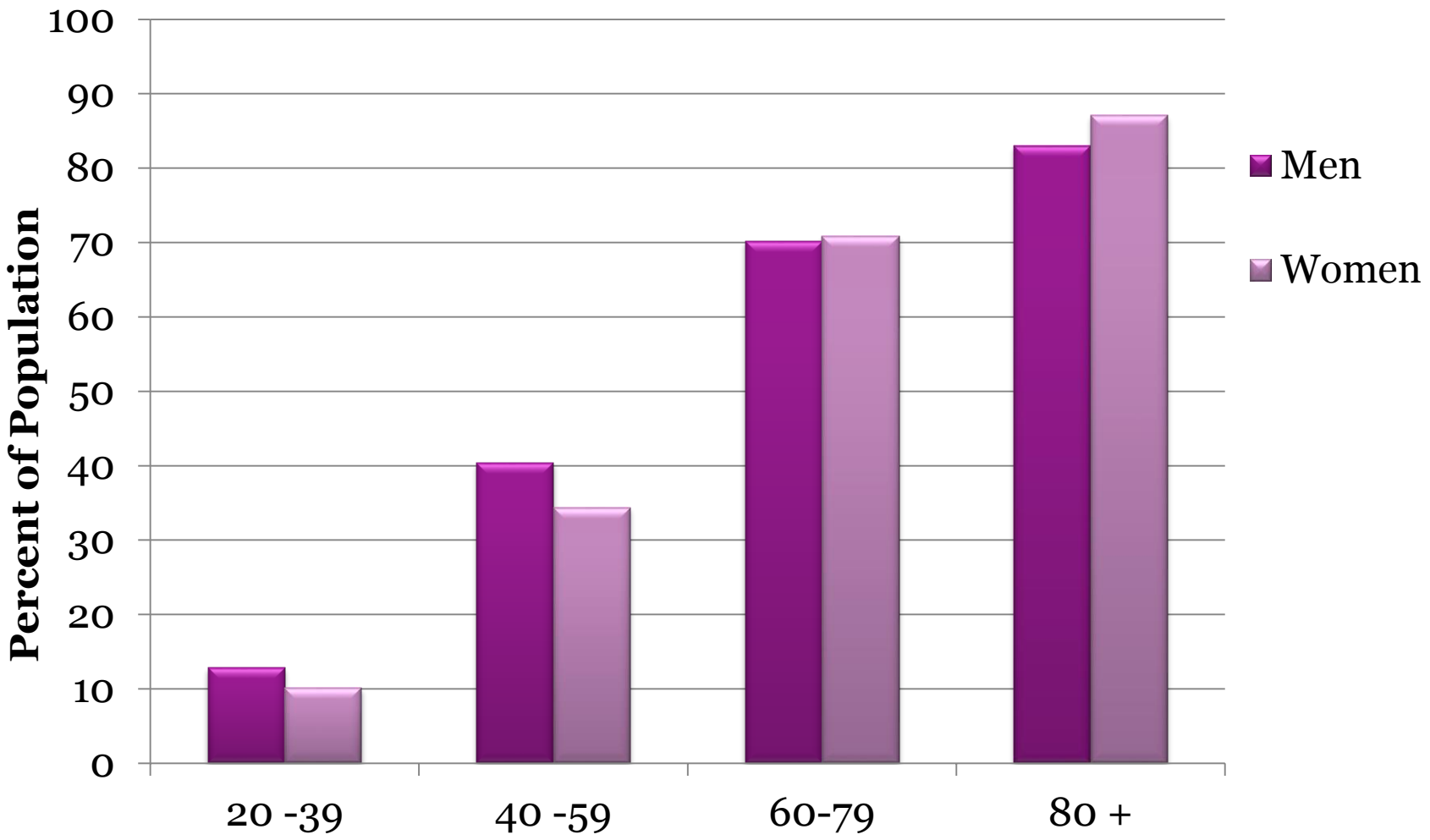
- What are the current rates of nutrition-related health outcomes (i.e., incidence of and mortality from cancer [breast, lung, colorectal, prostate] and prevalence of high blood pressure, CVD, and type 2 diabetes) in the overall U.S. population?

Data Analysis

Review of the Evidence—HC Q2

- NHANES 2009 -2012 (analysis by CDC/NCHS for DGAC)
- National Health Interview Survey (NHIS), 2012
- SEARCH for Diabetes in Youth Study (Dabelea et al., JAMA 2014)
- American Heart Association, 2014 report
- Surveillance, Epidemiology, and End Results (SEER) Program—National Cancer Institute

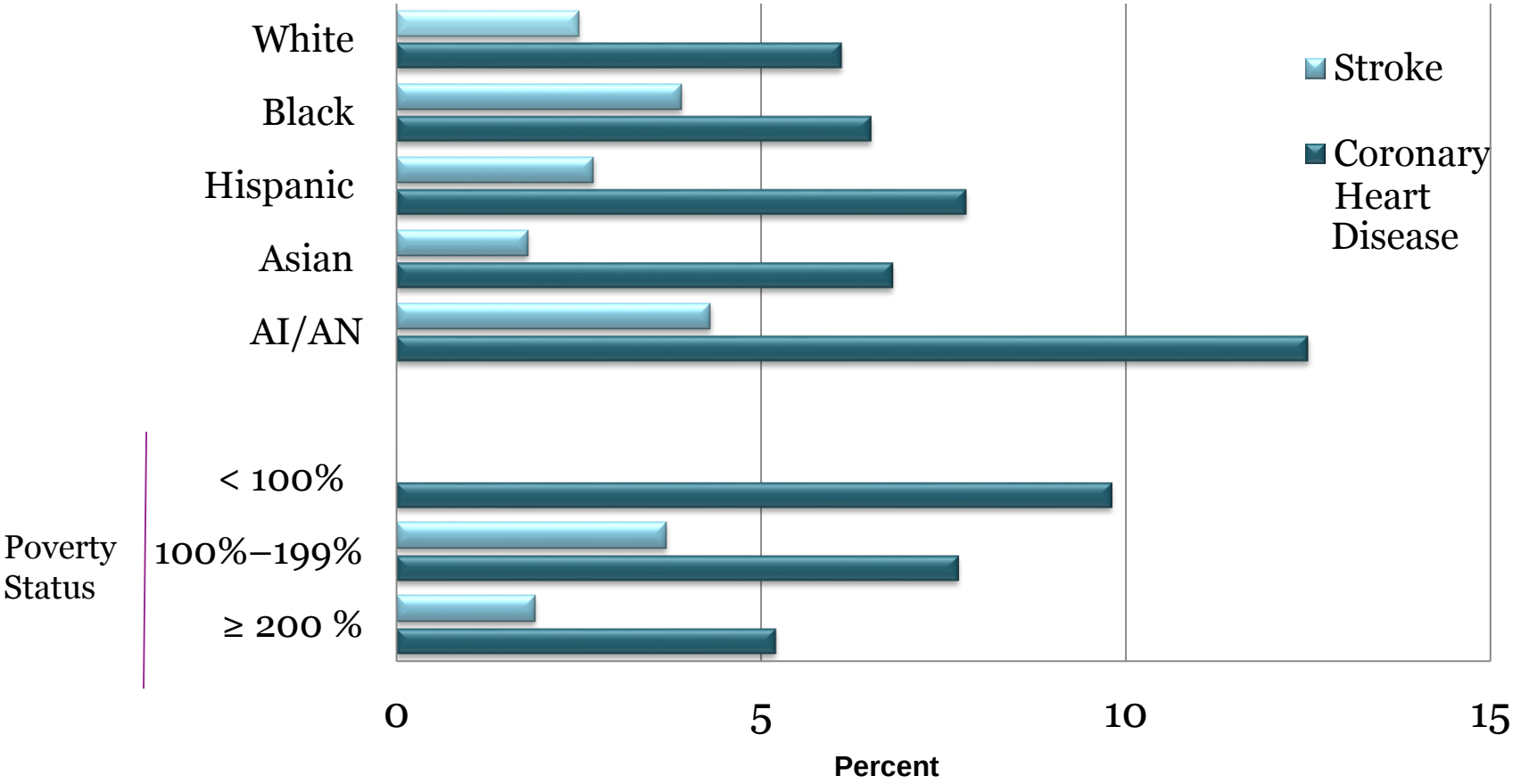
Prevalence of CVD*, Adults 20+ Years, by Age and Sex



*CVD = coronary heart disease, heart failure, stroke and hypertension

AHA report, Circulation, 2014 NHANES 2007 -2010

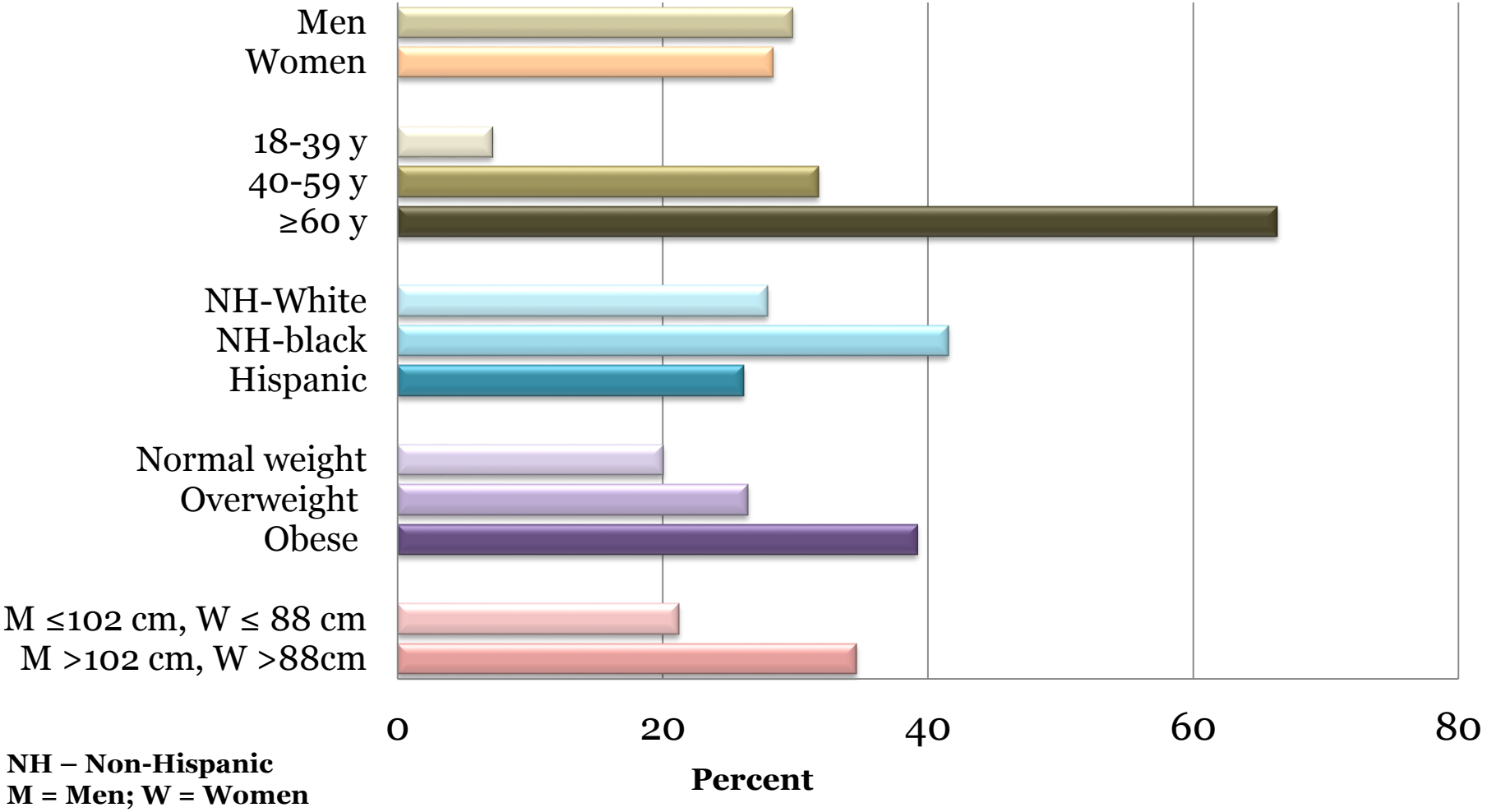
Percent Reporting Coronary Heart Disease and Stroke, Adults Ages 18+ Years by Race/Ethnicity and Poverty Status



AI/AN= American Indian/Alaska Native
Coronary = coronary heart disease, angina and heart attack

NHIS, 2012

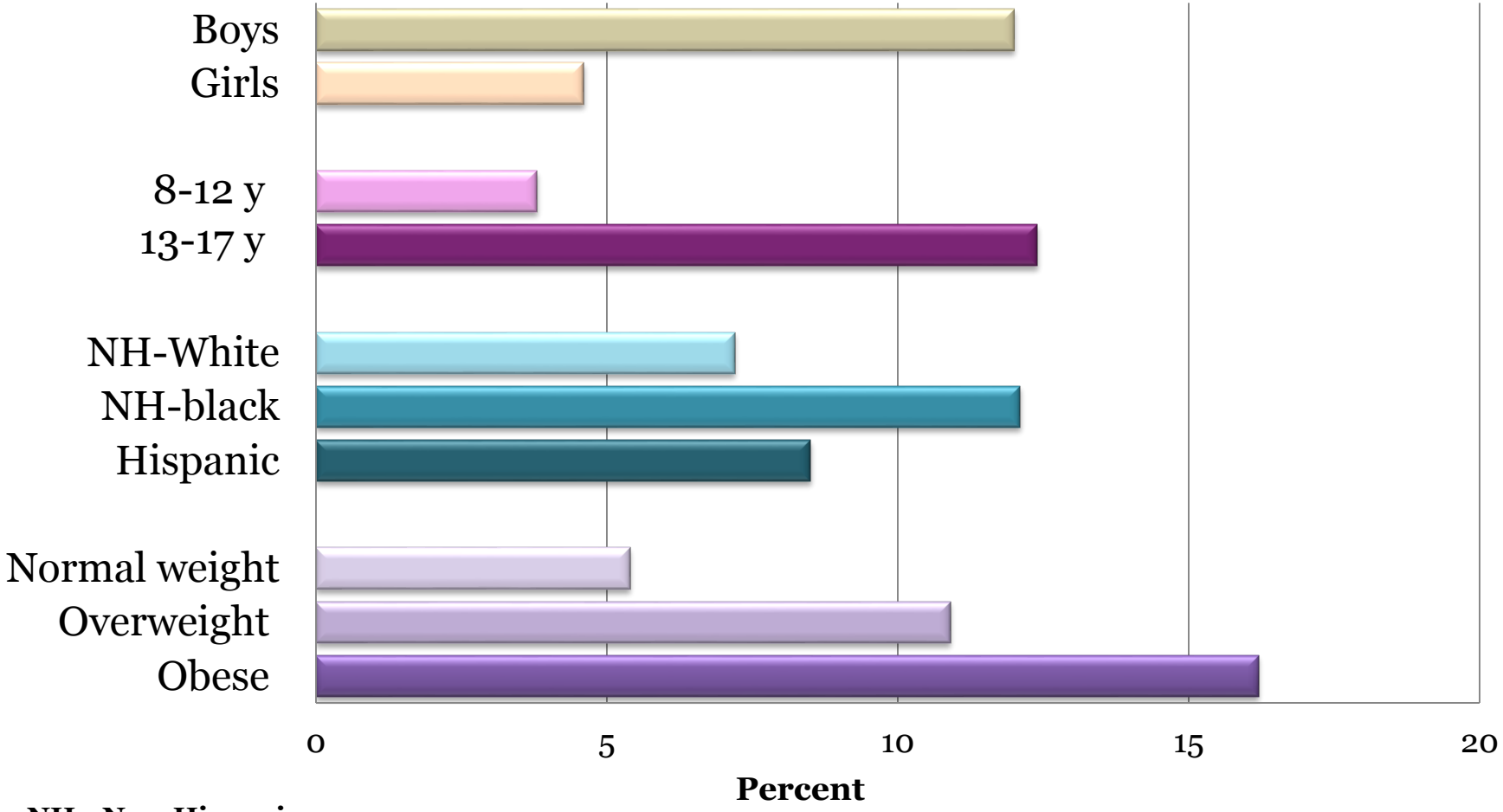
High Blood Pressure in Adults 18+ Years
By Sex, Age, Race/ethnicity, BMI, and Waist Circumference



NH – Non-Hispanic
M = Men; W = Women

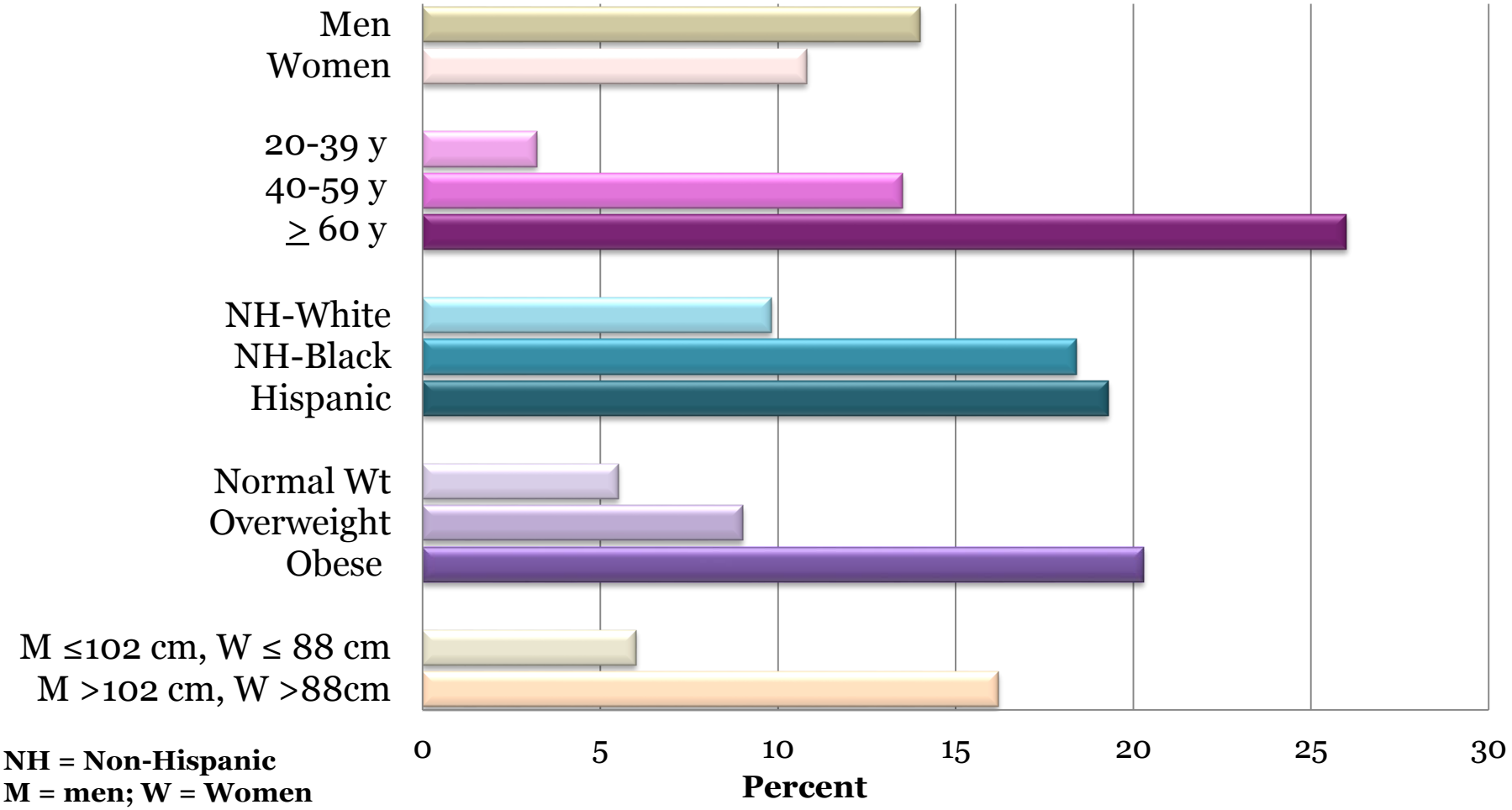
NHANES 2009 -2012

Rates of Borderline High Blood Pressure in Children 8 to 17 Years by Sex, Age, and Race/Ethnicity



NH= Non-Hispanic

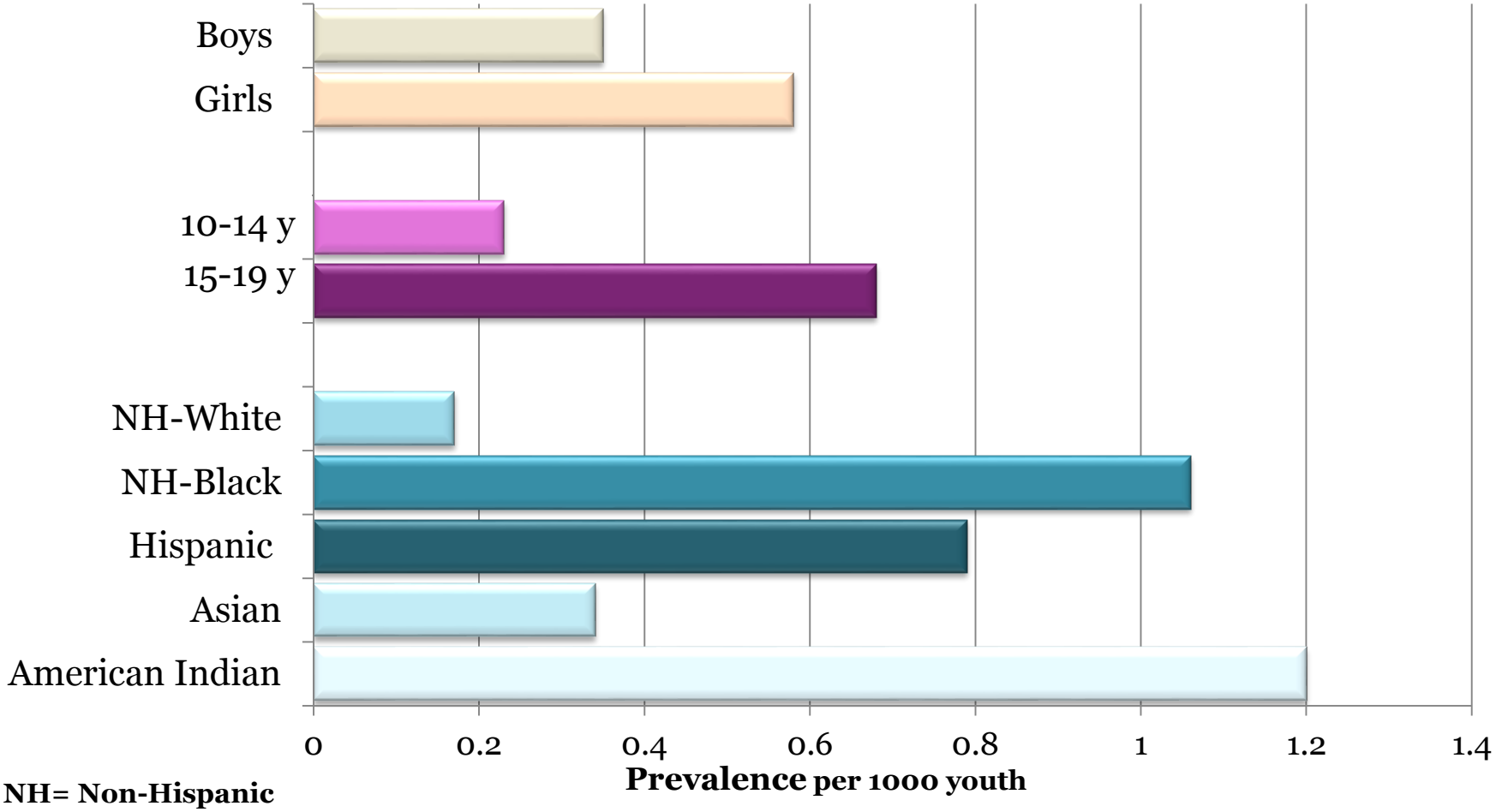
Total Diabetes Prevalence, Adults 20+ Years By Sex, Age, Race/Ethnicity, BMI, and Waist Circumference



NH = Non-Hispanic
M = men; W = Women

NHANES 2009 -2012

Type 2 Diabetes Prevalence, Children 10 -19 Years By Sex, Age, and Race/ethnicity

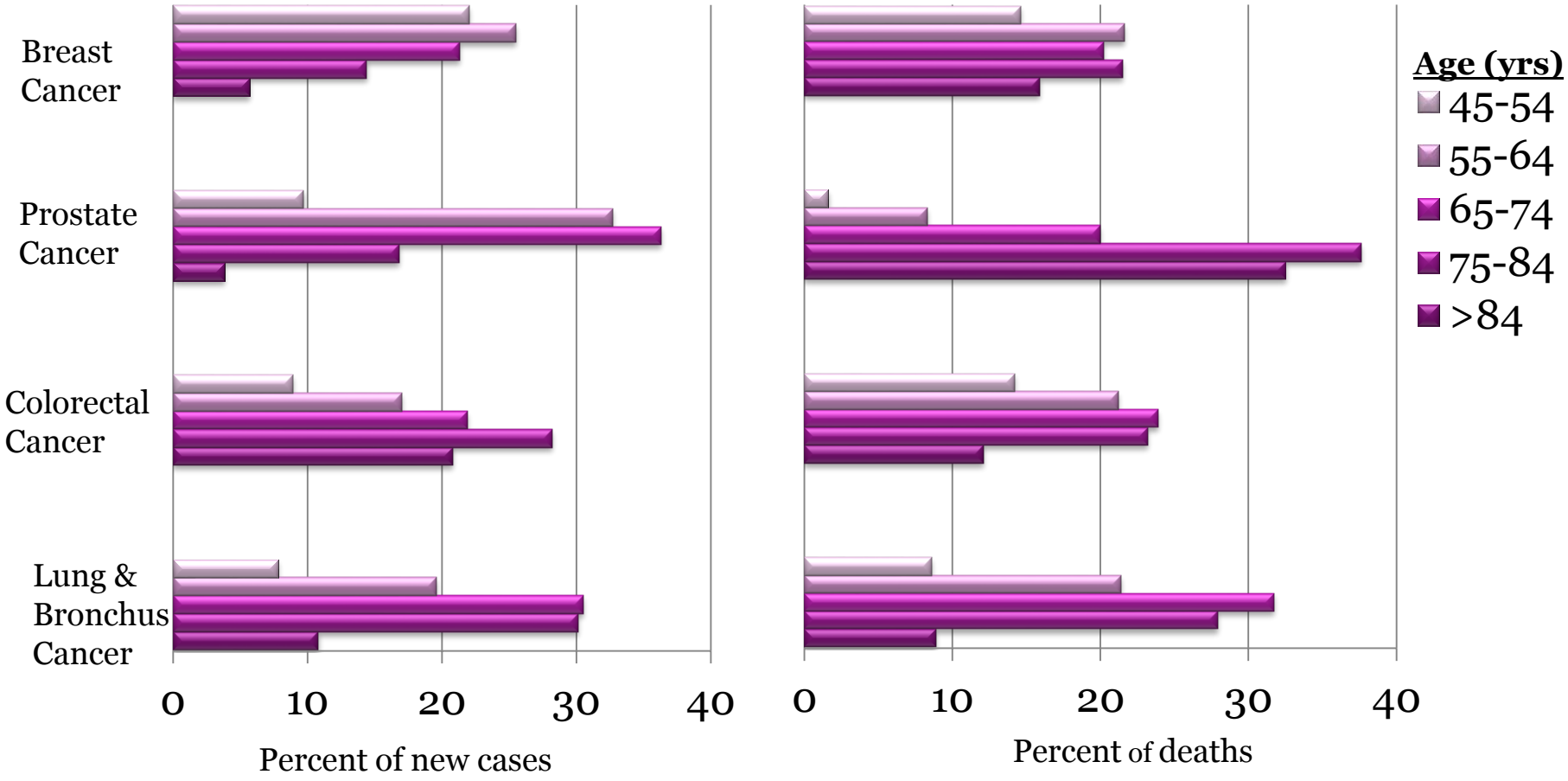


NH= Non-Hispanic

Dabelea et al., JAMA 2014

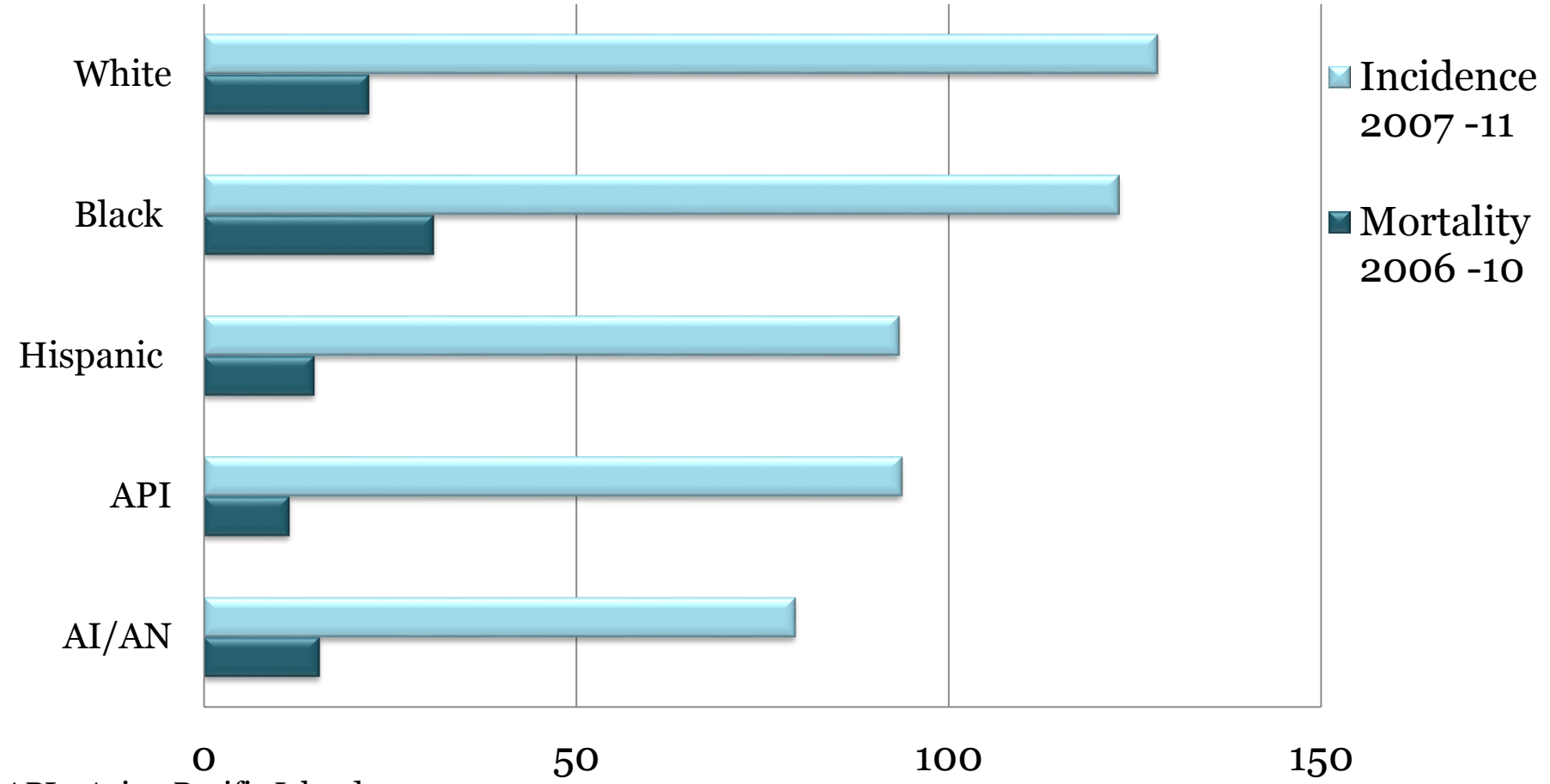
SEARCH for Diabetes in Youth Study, 2009

Percent by Age Group of Overall Incidence and Mortality for Selected Cancers



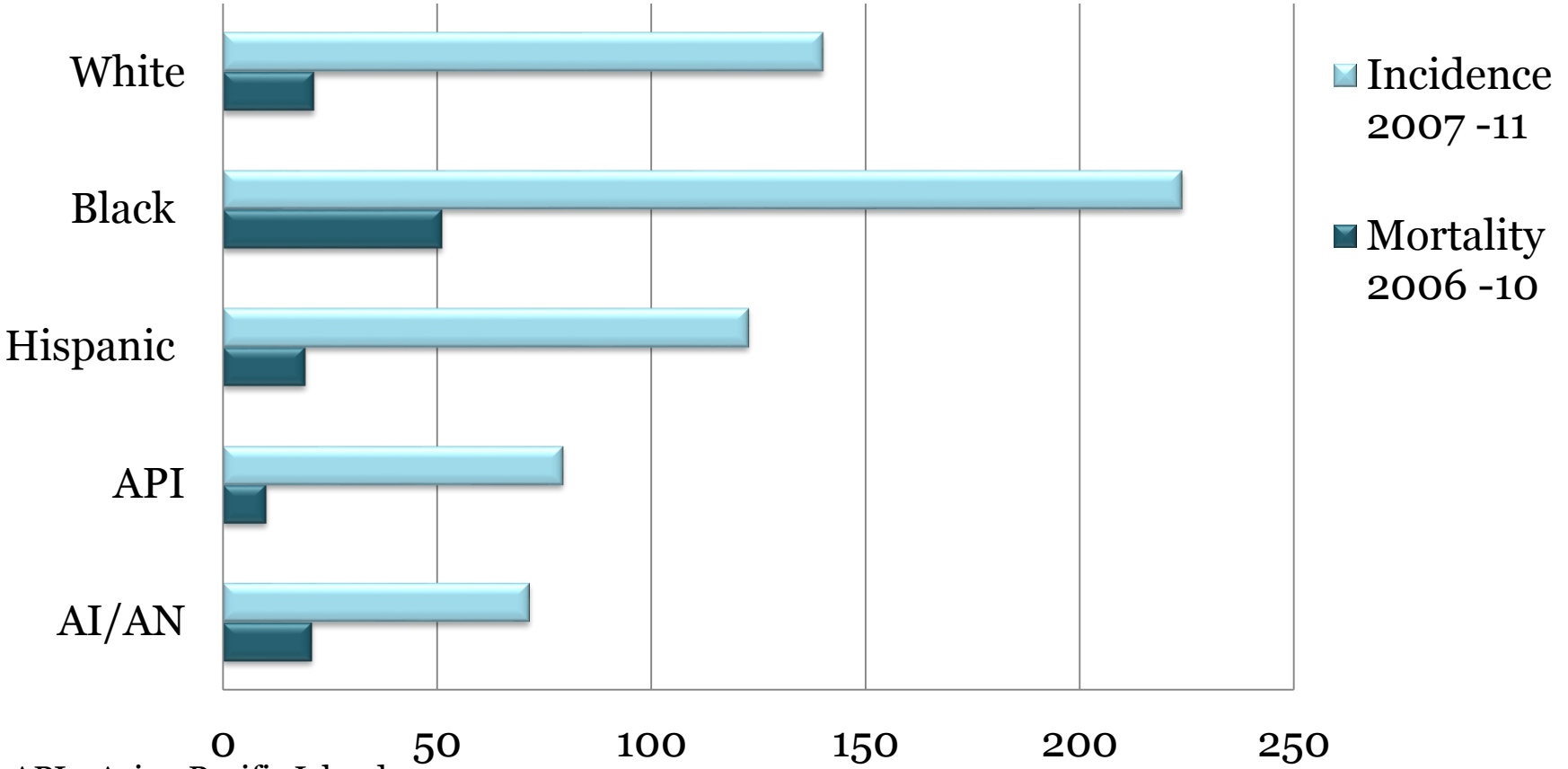
SEER/NCI, incidence 2007 – 2011; mortality 2006 -2010

Female Breast Cancer—Incidence and Mortality Rates by Race/Ethnicity



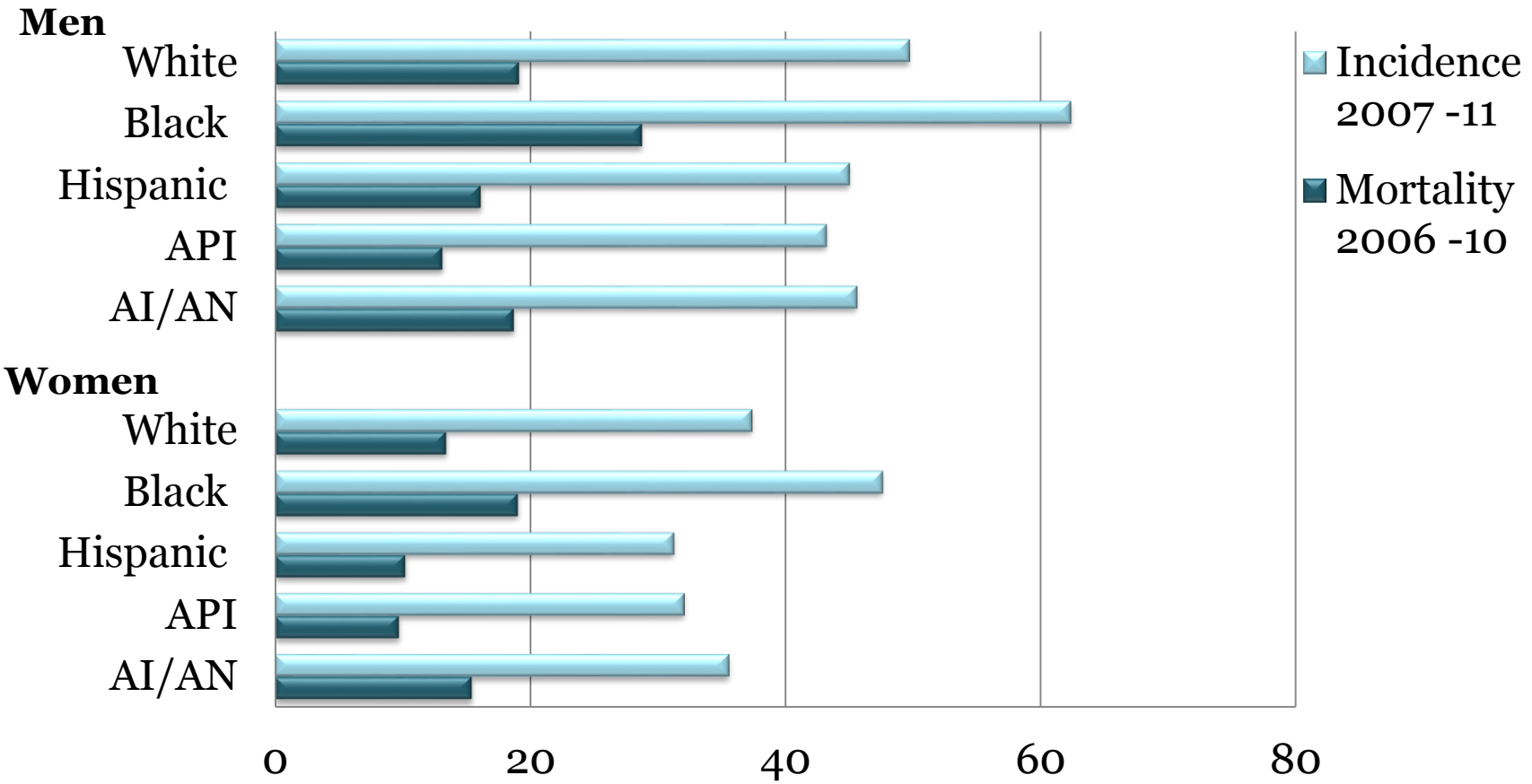
API= Asian Pacific Islander
AI/AN= American Indian/Alaska Native

Prostate Cancer—Incidence and Mortality Rates by Race/Ethnicity



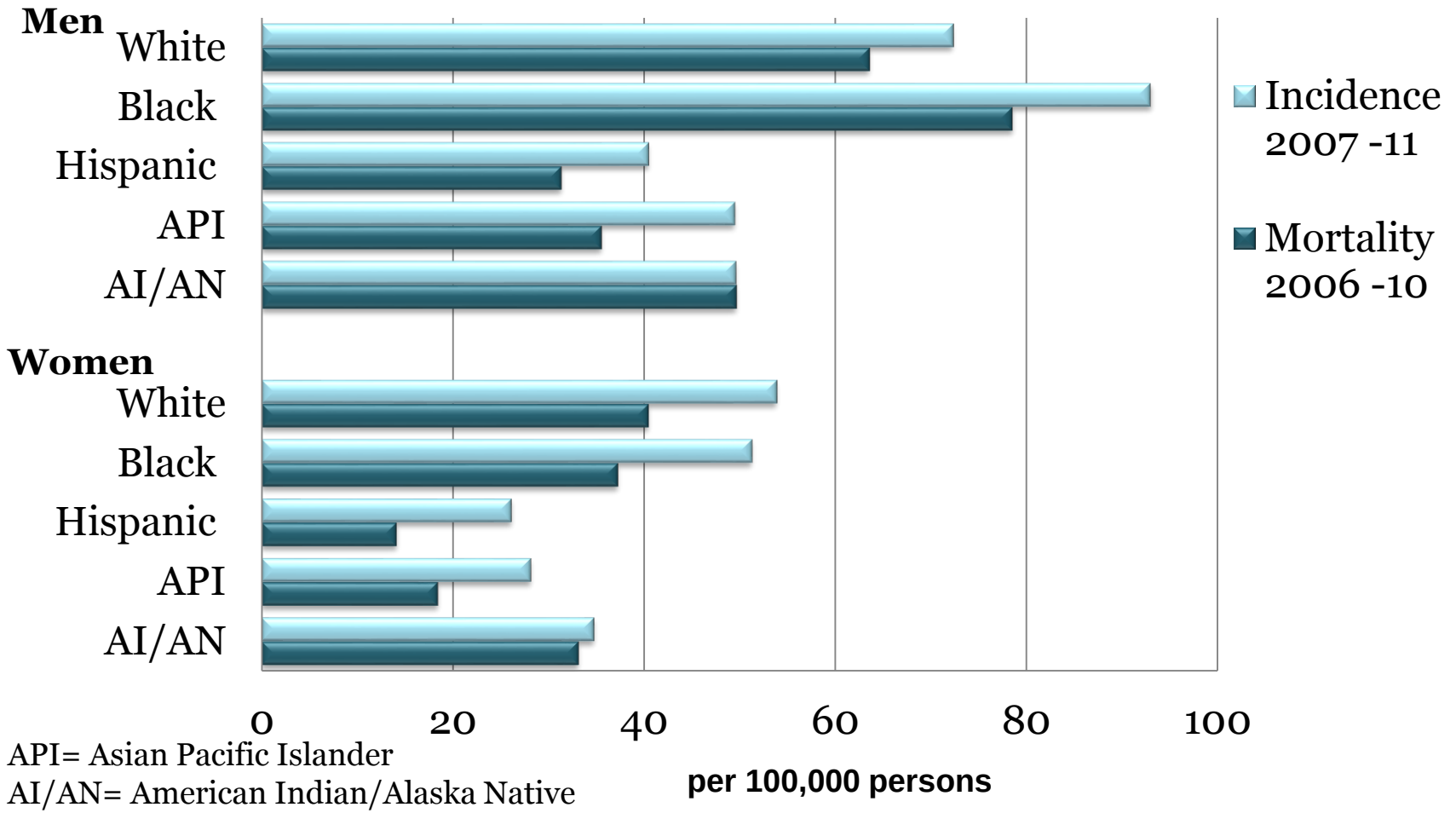
API= Asian Pacific Islander
AI/AN= American Indian/Alaska Native

Colorectal Cancer—Incidence and Mortality Rates by Race/Ethnicity and Sex



API= Asian Pacific Islander
AI/AN= American Indian/Alaska Native

Lung & Bronchus Cancer—Incidence and Mortality Rates by Race/Ethnicity and Sex



API= Asian Pacific Islander
AI/AN= American Indian/Alaska Native

Draft Conclusion Statement—HC Q2

- Adults have high rates of nutrition-related chronic diseases, including high blood pressure, CVD, type 2 diabetes, and various forms of cancer.
- Children and adolescents have nutrition-related chronic diseases, including elevated blood pressure and type 2 diabetes.
- At all ages, rates of chronic disease risk are linked to overweight and obesity. These chronic diseases disproportionately affect various racial and ethnic groups.

Health Conditions-Status and Trends Questions Addressed Today

1. What is the current prevalence of overweight/obesity and distribution of body weight, BMI, and waist circumference in the U.S. population and age, gender, racial/ethnic, and income groups? What are the trends in prevalence?
2. What are the current rates of nutrition-related health outcomes (i.e., incidence of and mortality from cancer [breast, lung, colorectal, prostate] and prevalence of high blood pressure, CVD, and type 2 diabetes) in the overall U.S. population?

Discussion

Dietary Patterns Composition Questions to be Addressed

1. What is the composition of dietary patterns with evidence of positive health outcomes (eg., Med, DASH, HEI, Vegetarian), and of patterns commonly consumed in the U.S.?
2. What are the similarities (and differences) within and amongst the dietary patterns with evidence of positive health outcomes and the commonly consumed dietary patterns?

Dietary Patterns Composition Approach

DP Q1:

- Identify and summarize the quantitative food group composition of dietary patterns found to be associated with positive health outcomes, focusing on major prospective cohort studies and interventions from DGAC SC2 evidence reviews.

DP Q2:

- Compare and contrast the composition of these patterns to each other, to the USDA Food Pattern recommendations, and to commonly consumed dietary patterns in the US.

Next Steps: Questions to Address

1. Examine food intake from food categories and by location of eating by age groups and other demographic characteristics.
2. Complete analysis of Dietary Patterns composition.
3. Address additional questions related to specific food groups.
4. Review additional food pattern modeling analyses.
5. Examine prevalence for additional nutrition-related health conditions.

Subcommittee 1: Food and Nutrient Intakes and Health: Current Status and Trends

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