

The Dietary Guidelines for Americans: Pregnancy and B-24 Highlights

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DGA | Dietary
Guidelines
for Americans
2020 - 2025



Make Every
Bite Count With
the *Dietary
Guidelines*



Presentation Outline

- Overview of dietary intake of infants, children, adolescents and pregnant women
- Discussion of nutrients of public health concern of special consideration for maternal and child populations
- Brief discussion of food plan for children 12-23 months old
- Highlights of new recommendations, focusing on B-24 population



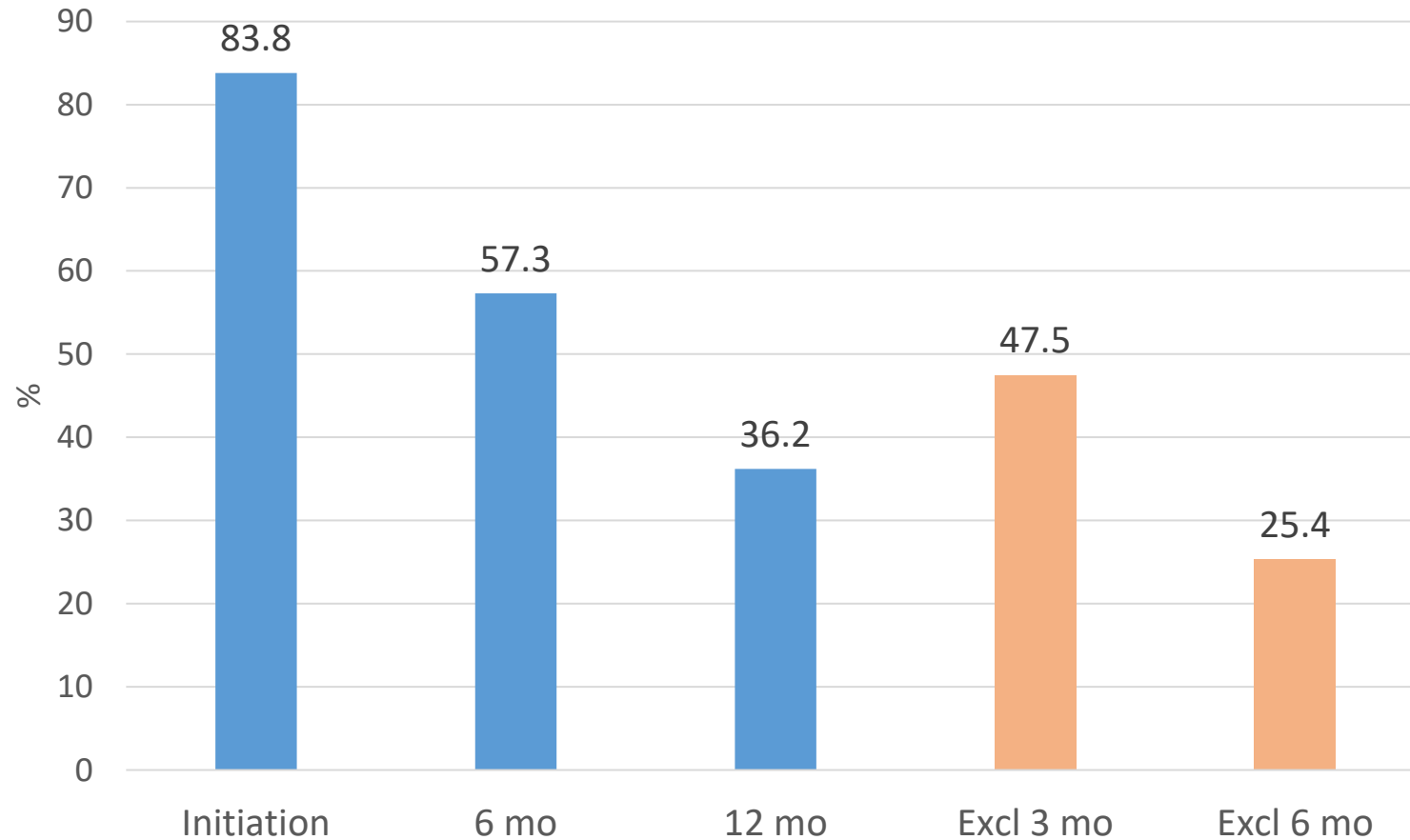


Breastfeeding Initiation and Duration



Analytic Results

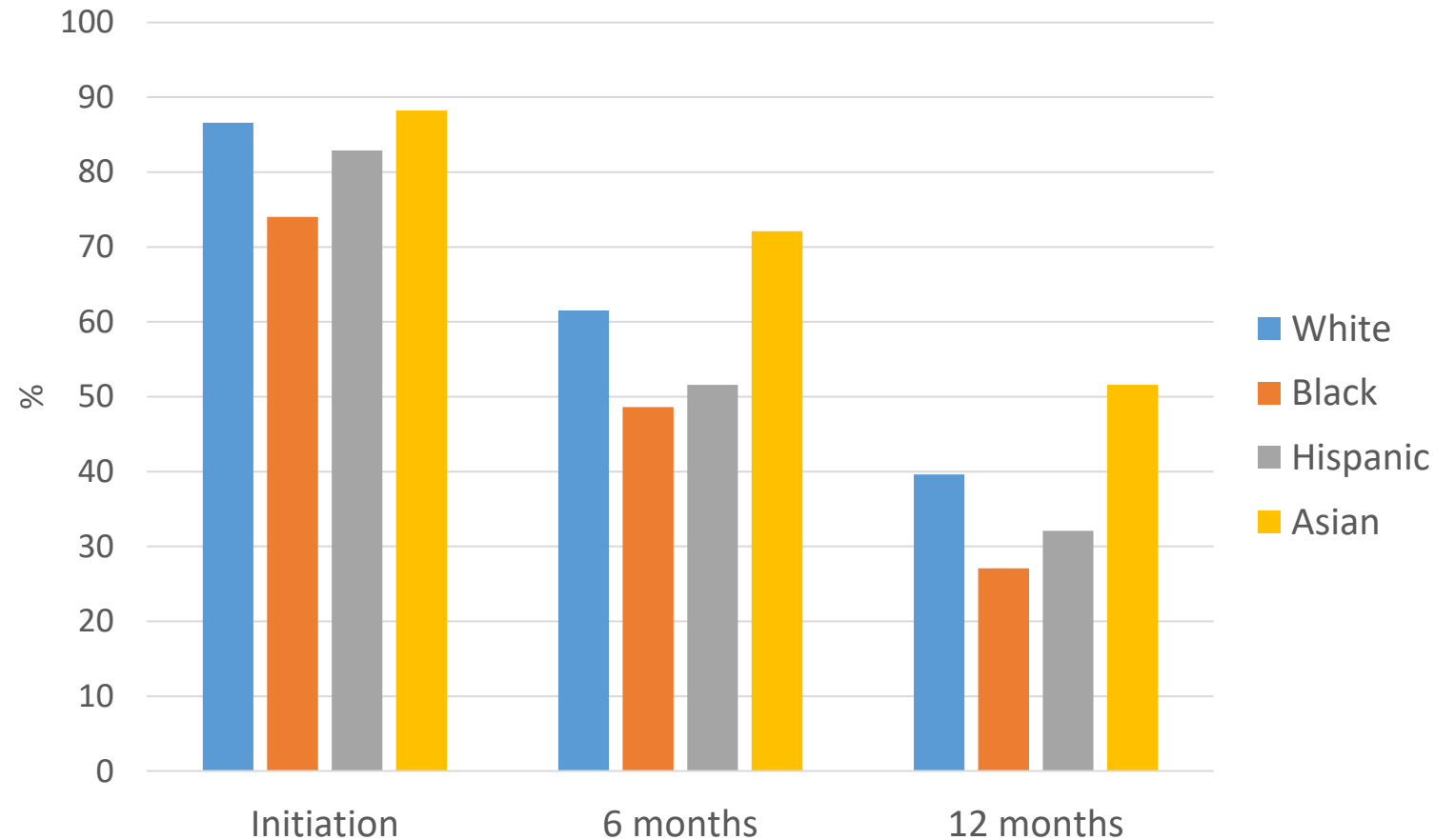
Breastfeeding initiation, duration, and exclusivity



National Immunization Survey 2017-2018, among infants born in 2015

Analytic Results

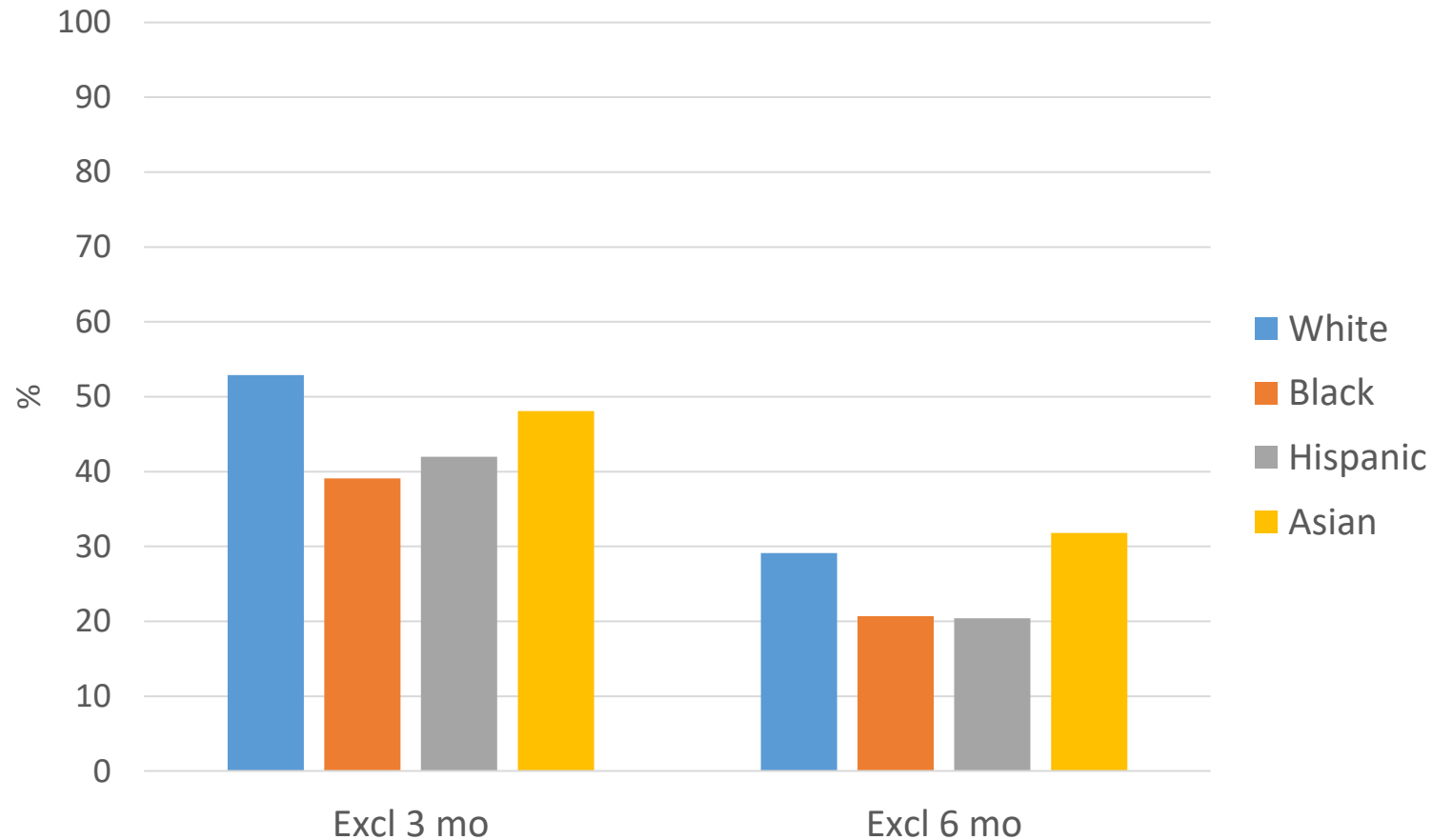
Breastfeeding initiation and duration by race/ethnicity



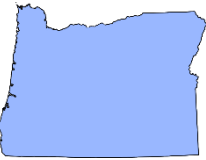
National Immunization Survey 2017-2018, among infants born in 2015

Analytic Results

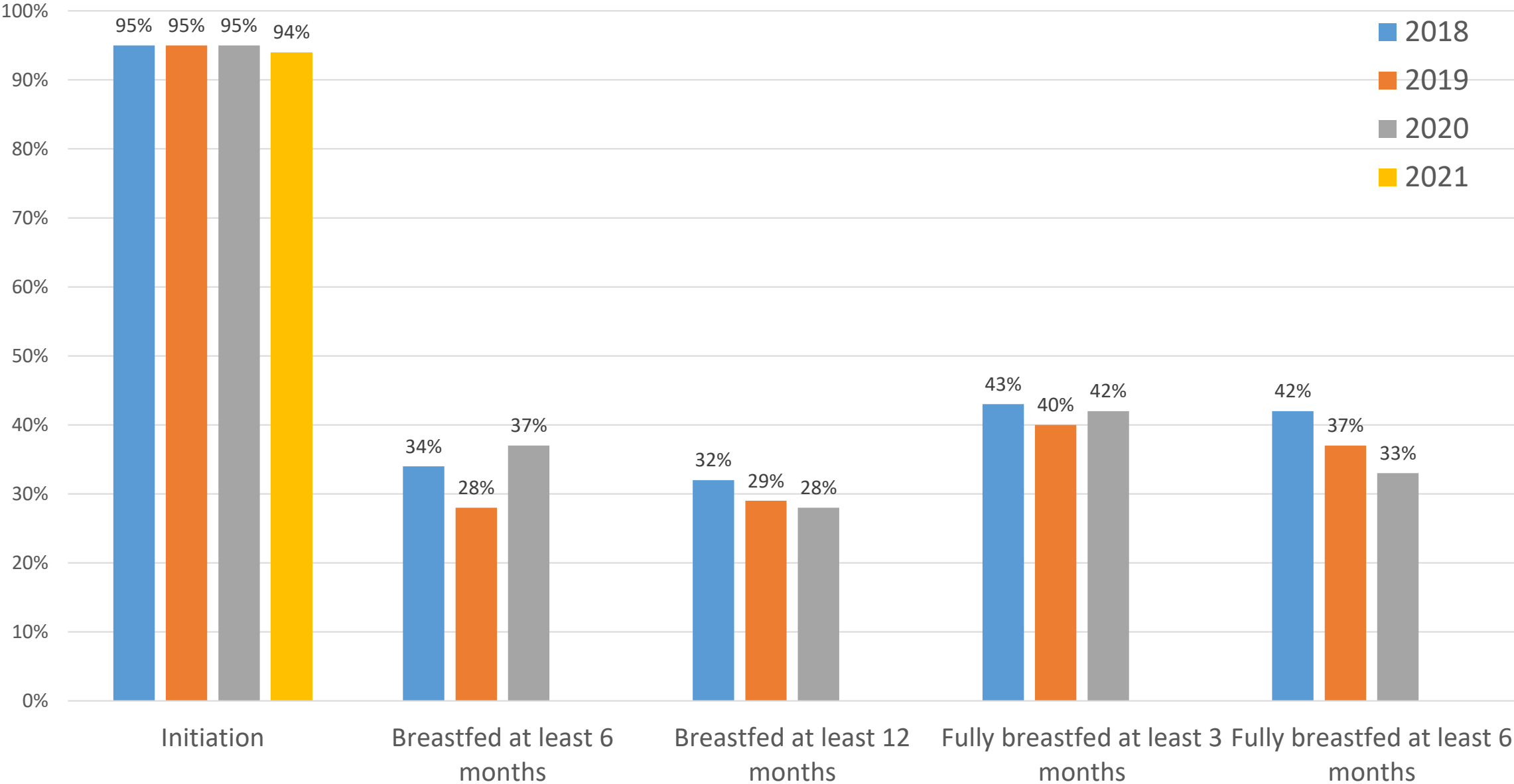
Breastfeeding exclusivity by race/ethnicity



National Immunization Survey 2017-2018, among infants born in 2015



Breastfeeding Rates in Oregon WIC



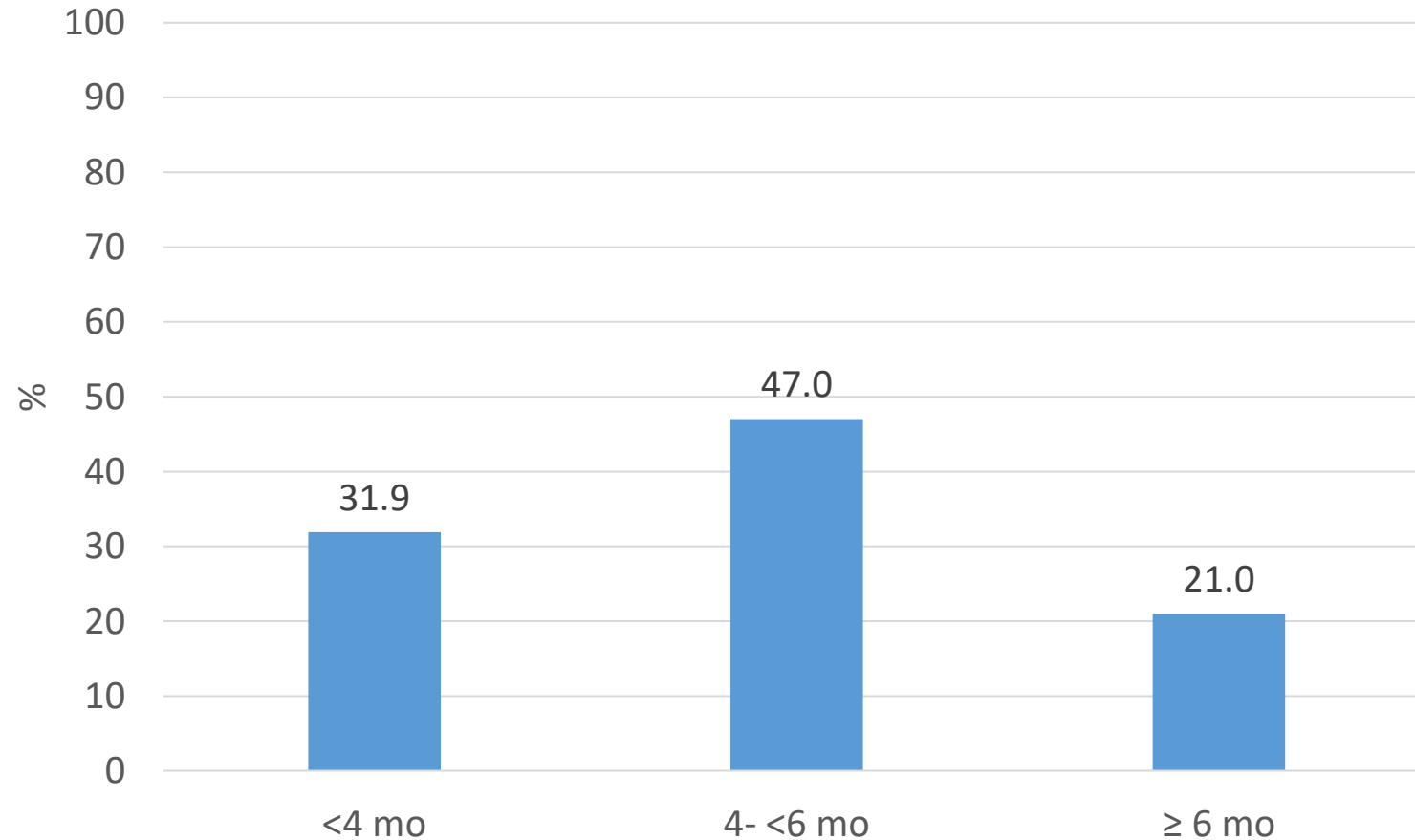


Dietary Intakes Birth to 24 months



Analytic Results

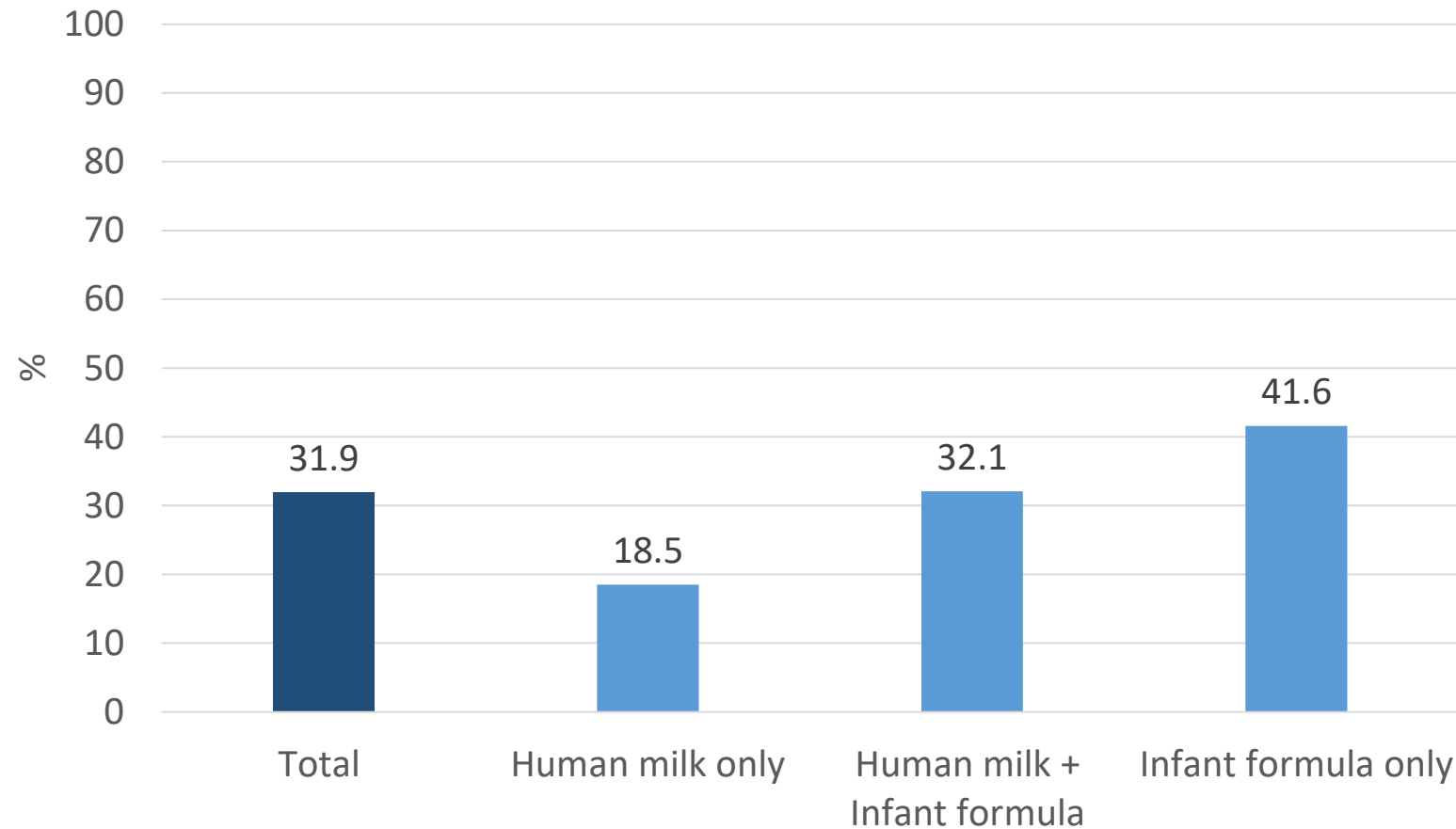
Timing of introduction of complementary foods and beverages



National Survey of Children's Health, 2016-2018

Analytic Results

Introduction to complementary foods and beverages <4mo, by milk source at 4 mo



National Survey of Children's Health, 2016-2018

Analytic Results

Mean reported intakes of food groups, by age

	6 to 11 months ¹	12-23 months ¹	2 – 5 years males ²	2-5 years females ²
Fruit, cup-eq	0.62	1.25	1.23	1.19
Vegetables, cup-eq	0.40	0.56	0.70	0.66
Protein foods, oz-eq	0.48	1.94	3.13	2.91
Grains, oz-eq	1.07	3.07	5.34	4.53
Dairy, cup-eq	0.26	2.56	1.98	1.90
Oil, grams	1.7	8.4	17.63	15.86
Solid fat, grams	3.3	24.7	27.47	25.06
Added sugars, tsp-eq	1.0	6.2	11.34	9.81

1. WWEIA, NHANES 2007-2016, individuals ages 6<12 months and 12<24 months, day 1 dietary intake data, weighted.

2. WWEIA, NHANES 2015-2016, individuals ages 2-5 years, day 1 dietary intake data, weighted.

Notes:

† indicates an estimate that may be less precise than others due to small sample size and/or large relative standard error.

indicates a non-zero value too small to present. Sample based on age at Mobile Examination Center.

Complementary foods include all foods and beverages except human milk and infant formula.

Milk reporting status determined by the report of human milk on either day 1 or day 2.

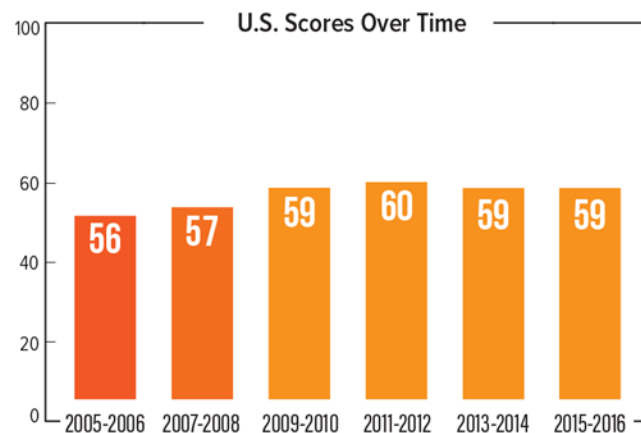


Dietary Intakes



Analytic Results: Dietary Patterns Over Time and By Age

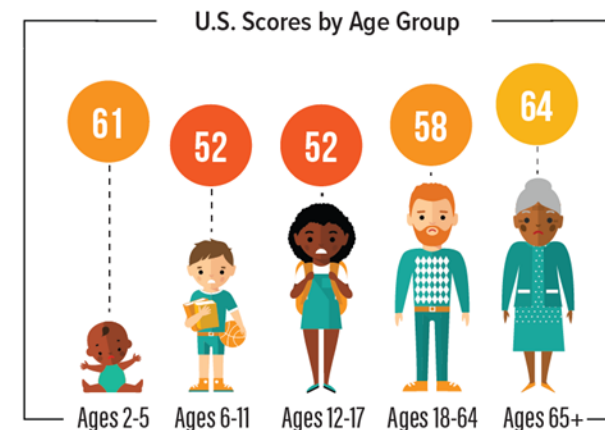
How Healthy Is the American Diet?



59

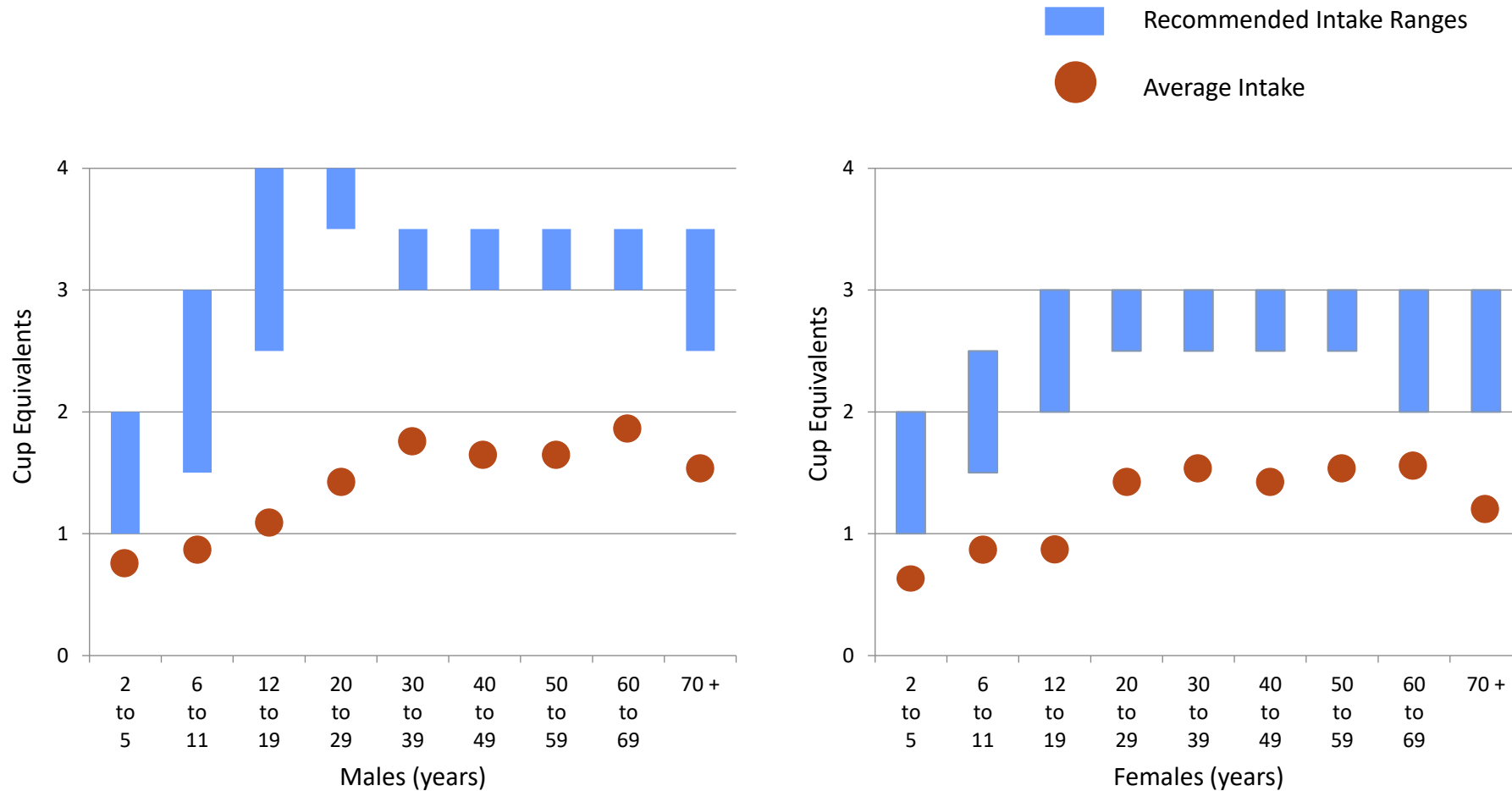
The Healthy Eating Index Score

shows that Americans do not align their eating choices with the Dietary Guidelines.
(on a scale from 0-100)



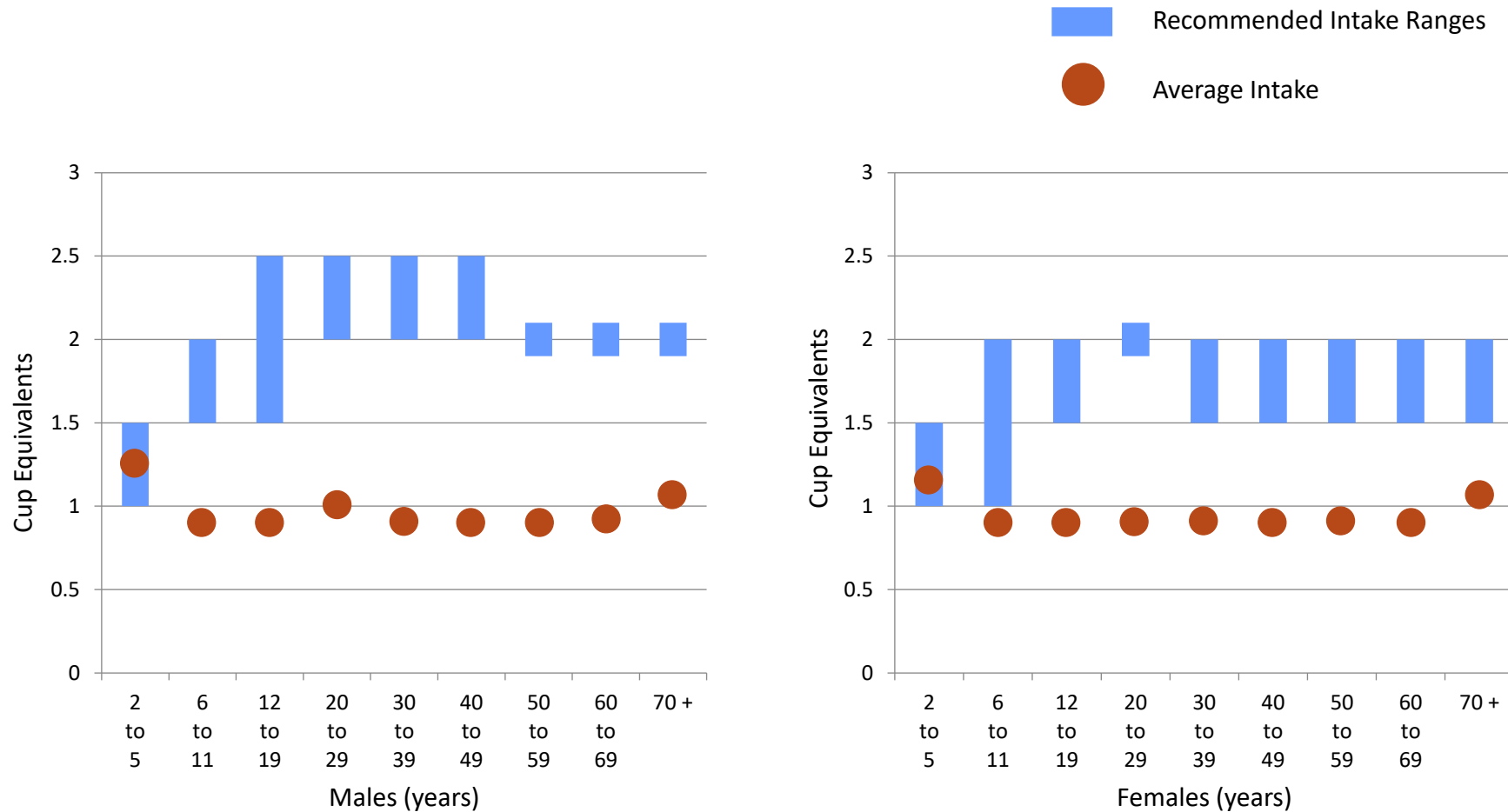
Data source for Healthy Eating Index scores: What We Eat in American, National Health and Nutrition Examination Survey. (Undated data are from 2015-2016).

Average Daily Vegetable Intake Compared to Recommended Intake



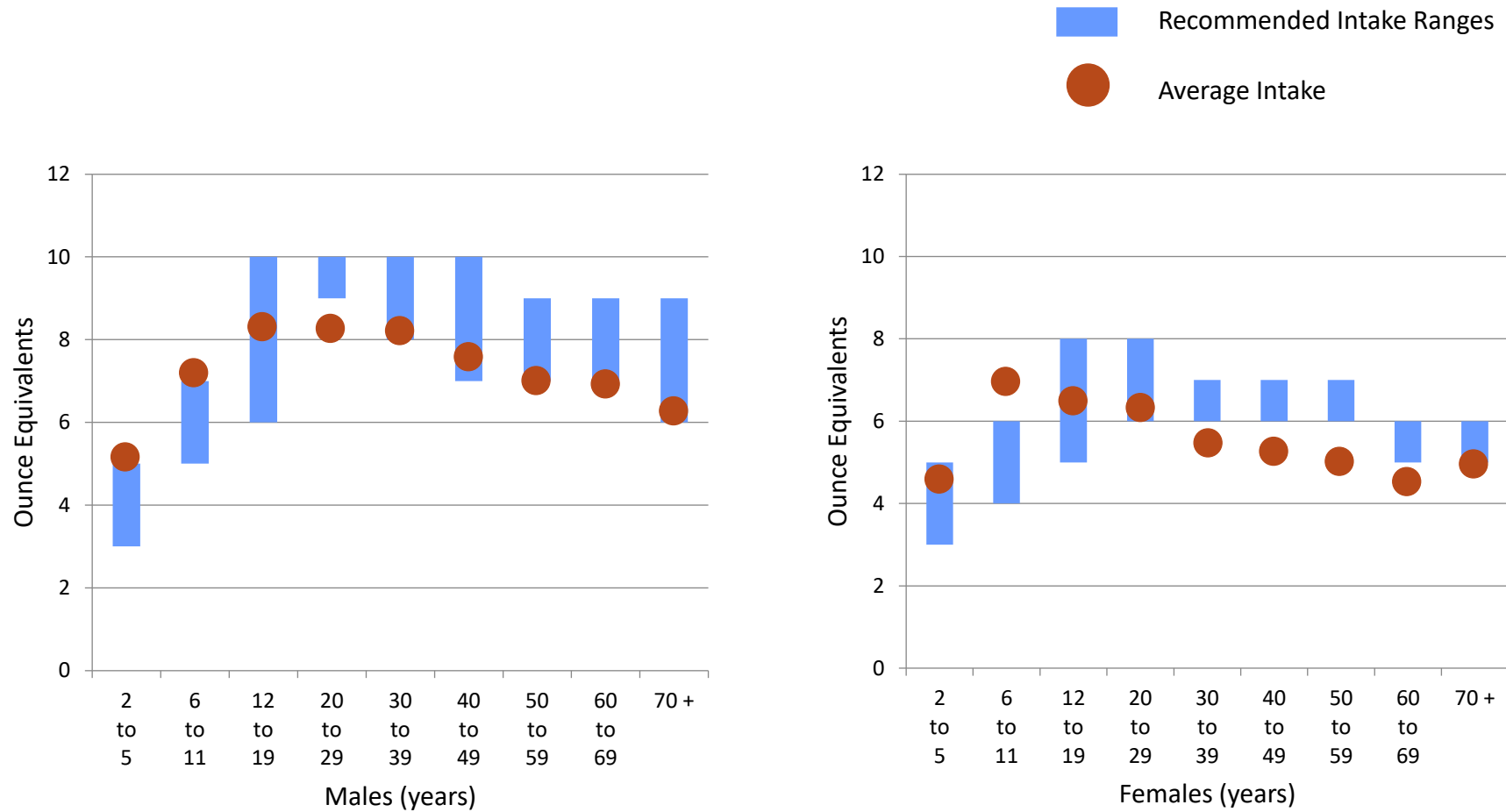
Data sources: What We Eat in America, NHANES 2015-2016 for average intakes by age-sex group. USDA Healthy U.S.-Style Eating Style recommended intake ranges, which vary based on age, sex, and activity level for recommended intakes. 2015-2020 Dietary Guidelines for Americans.

Average Daily Fruit Intake Compared to Recommended Intake



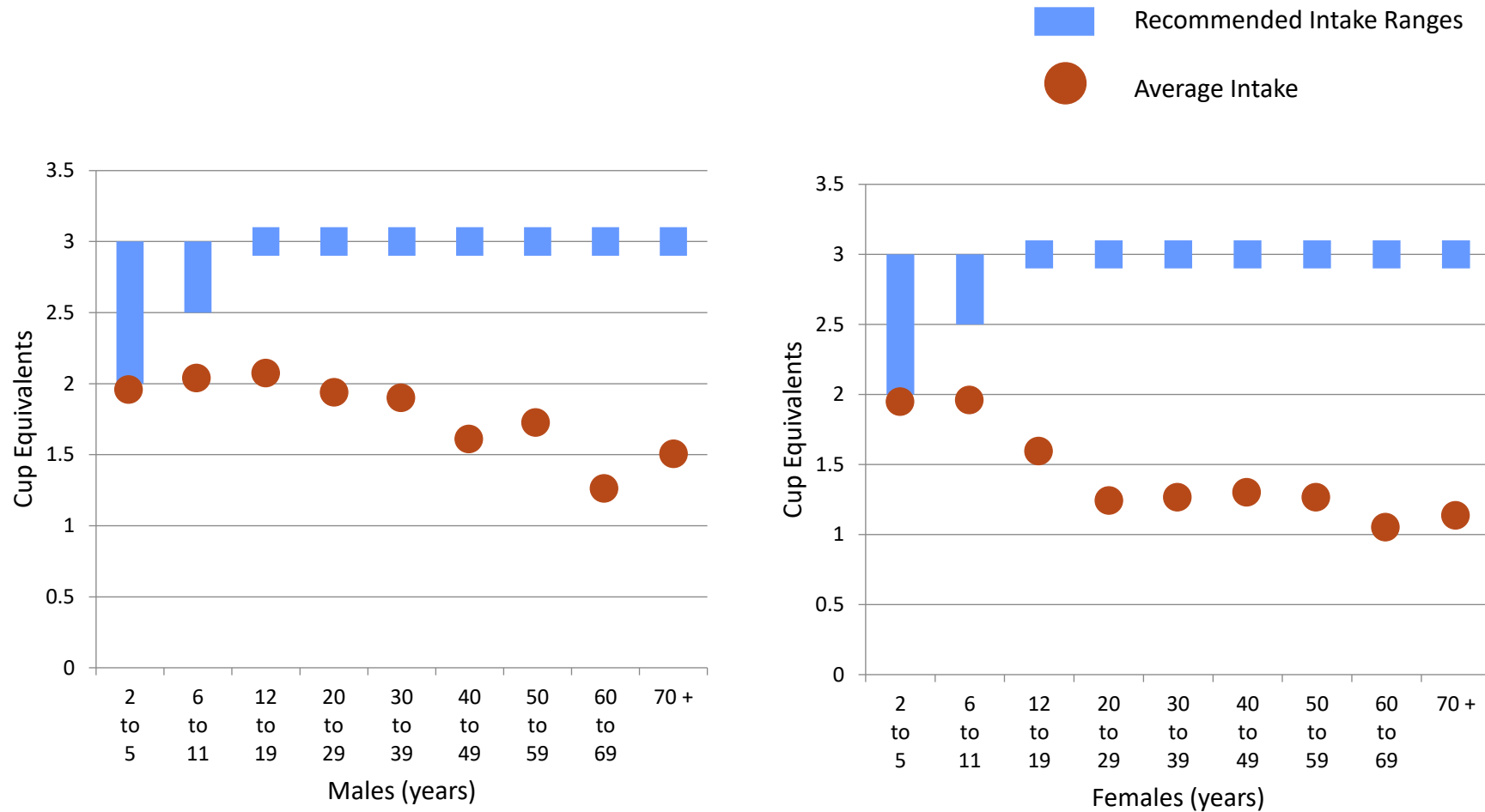
Data sources: What We Eat in America, NHANES 2015-2016 for average intakes by age-sex group. USDA Healthy U.S.-Style Eating Style recommended intake ranges, which vary based on age, sex, and activity level for recommended intakes. 2015-2020 Dietary Guidelines for Americans.

Average Daily Total Grains Intake Compared to Recommended Intake



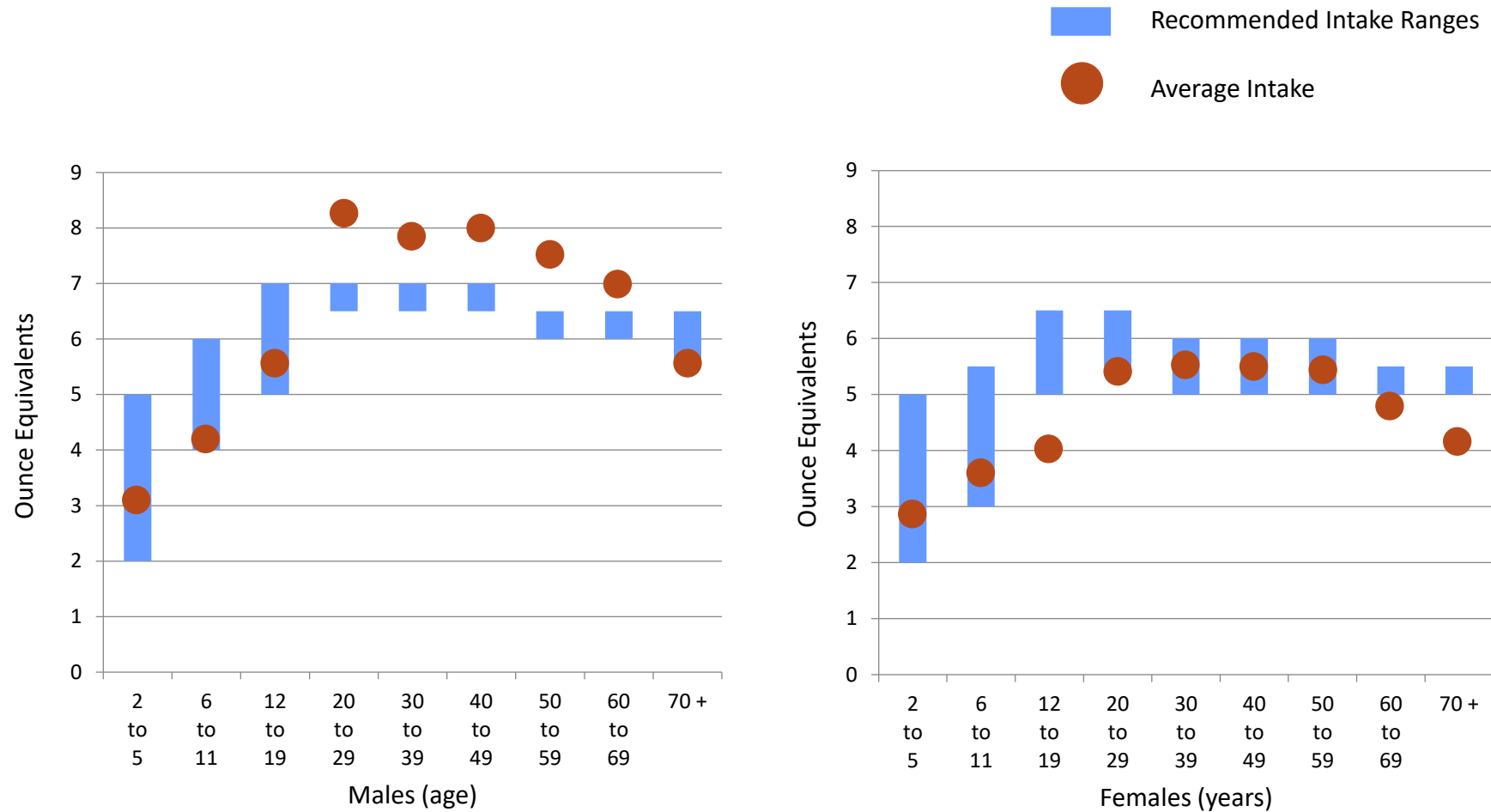
Data sources: What We Eat in America, NHANES 2015-2016 for average intakes by age-sex group. USDA Healthy U.S.-Style Eating Style recommended intake ranges, which vary based on age, sex, and activity level for recommended intakes. 2015-2020 Dietary Guidelines for Americans.

Average Daily Dairy Intake Compared to Recommended Intake



Data sources: What We Eat in America, NHANES 2015-2016 for average intakes by age-sex group. USDA Healthy U.S.-Style Eating Style recommended intake ranges, which vary based on age, sex, and activity level for recommended intakes. 2015-2020 Dietary Guidelines for Americans.

Average Daily Protein Foods Intake Compared to Recommended Intake



Data sources: What We Eat in America, NHANES 2015-2016 for average intakes by age-sex group. USDA Healthy U.S.-Style Eating Style recommended intake ranges, which vary based on age, sex, and activity level for recommended intakes. 2015-2020 Dietary Guidelines for Americans.

Figure 2-2

Current Intakes: Ages 12 Through 23 Months

Average Daily Food Group Intakes Compared to Recommended Intake Ranges

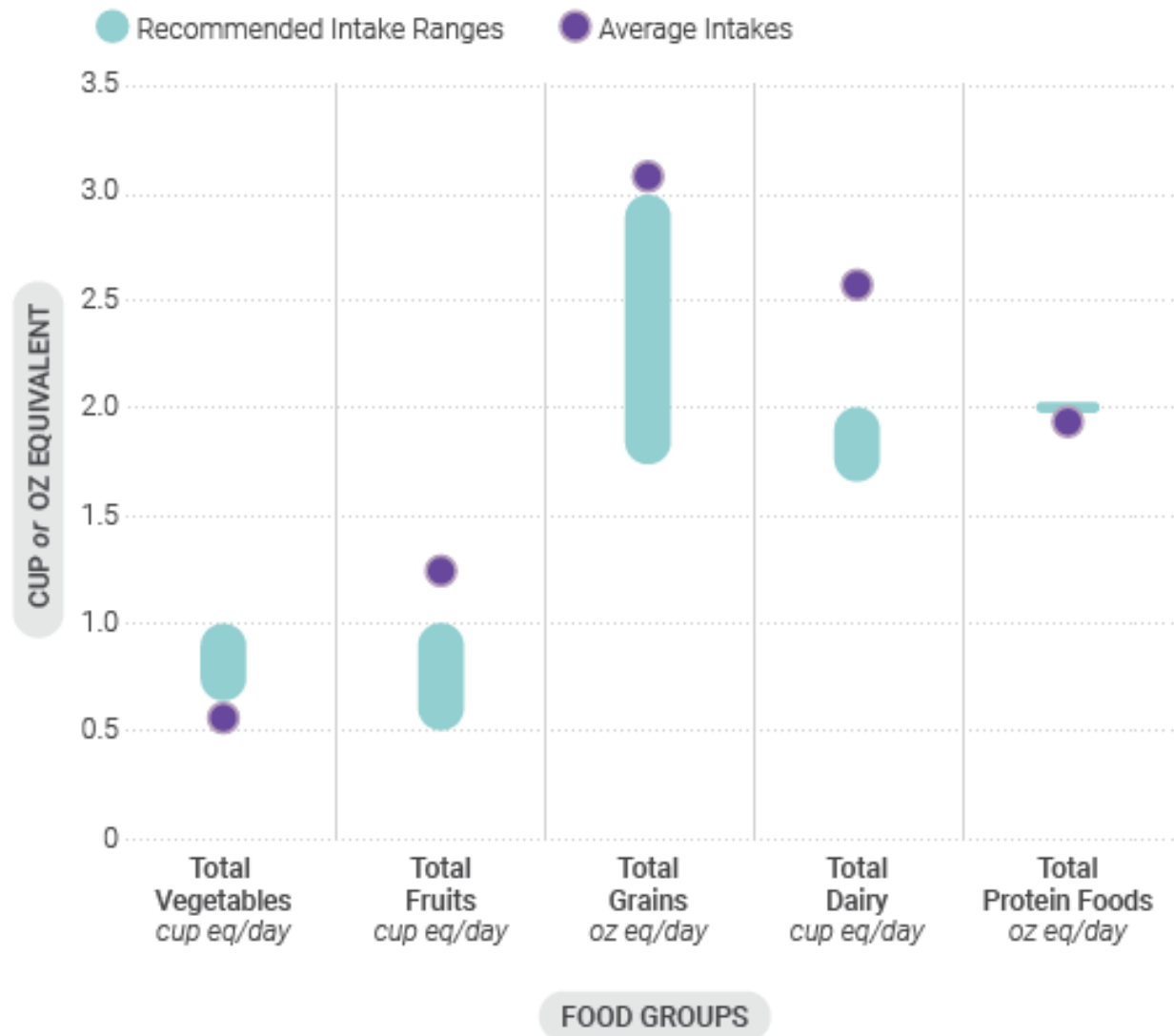


Figure 2-3

Average Intakes of Subgroups Compared to Recommended Intake Ranges: Ages 12 Through 23 Months

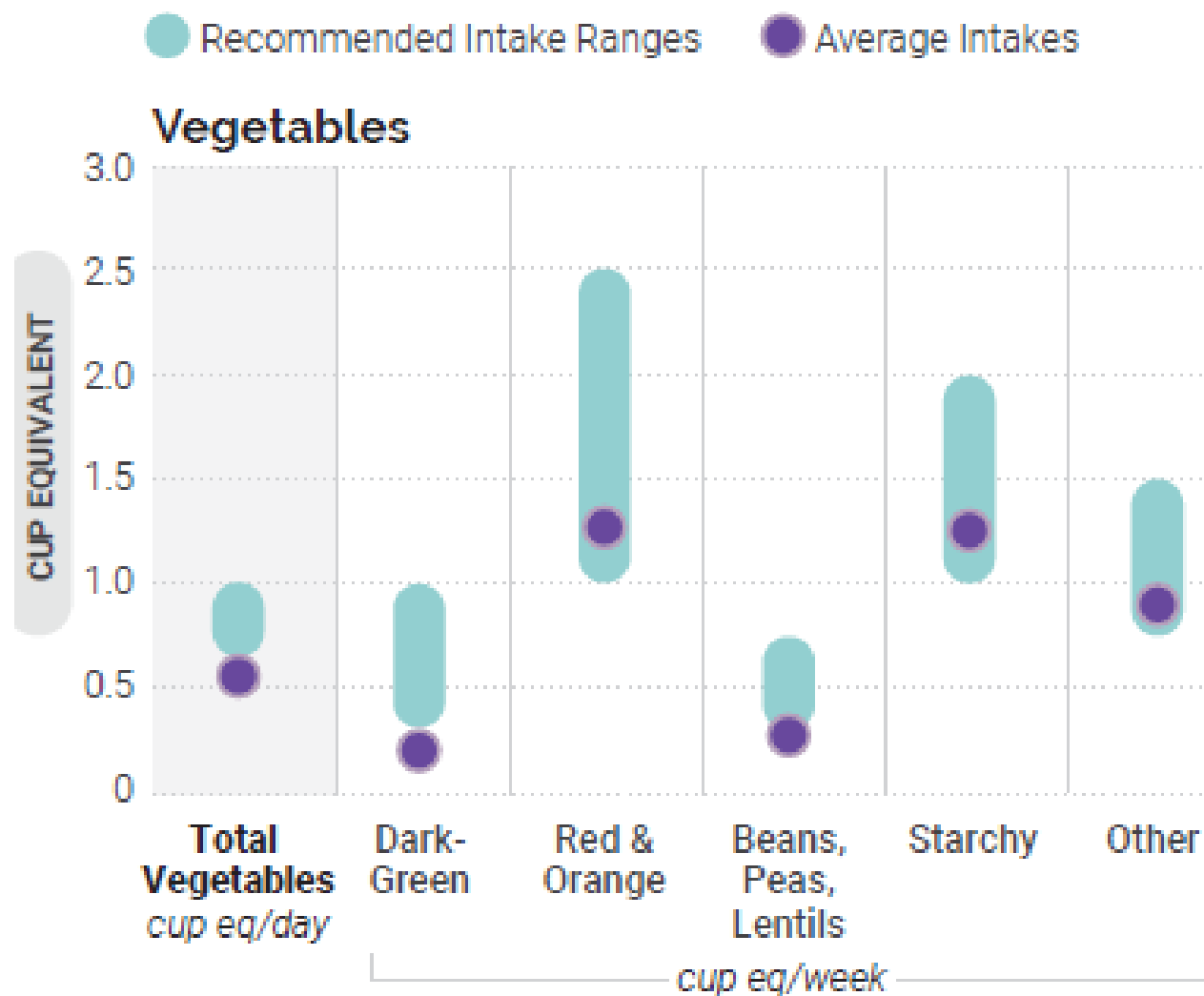


Figure 3-2

Current Intakes: Ages 2 Through 4

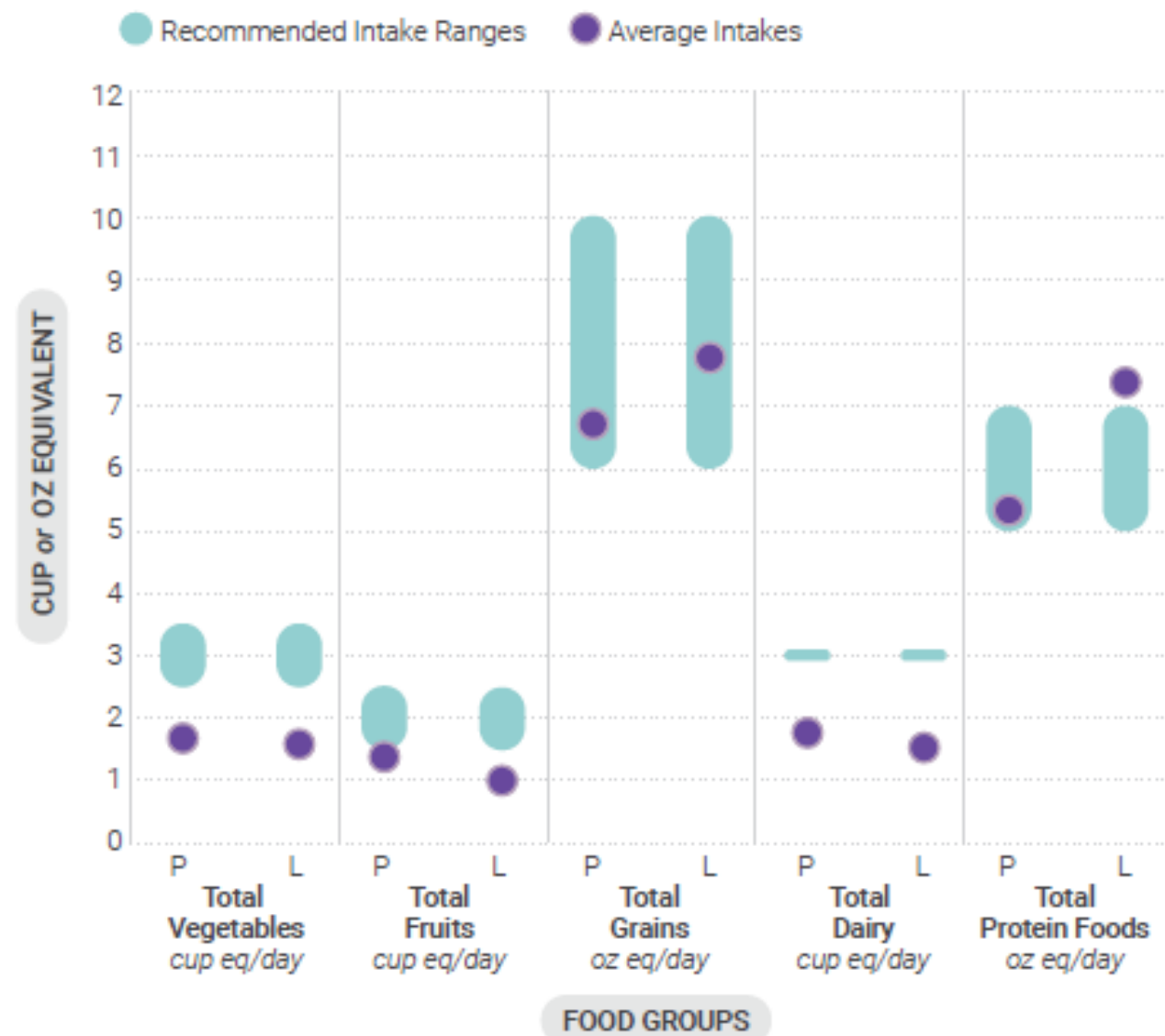
Average Daily Food Group Intakes Compared to Recommended Intake Ranges



Figure 5-1

Current Intakes: Women Who Are Pregnant or Lactating

Average Daily Food Group Intakes Compared to Recommended Intake Ranges



Healthy Eating Index Score (on a scale of 0-100)

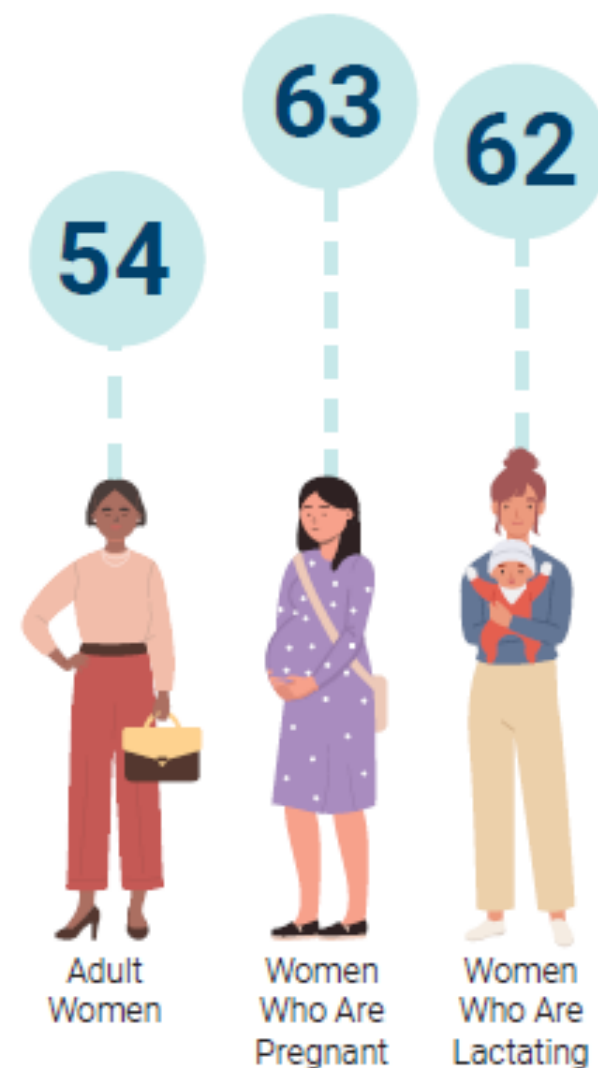
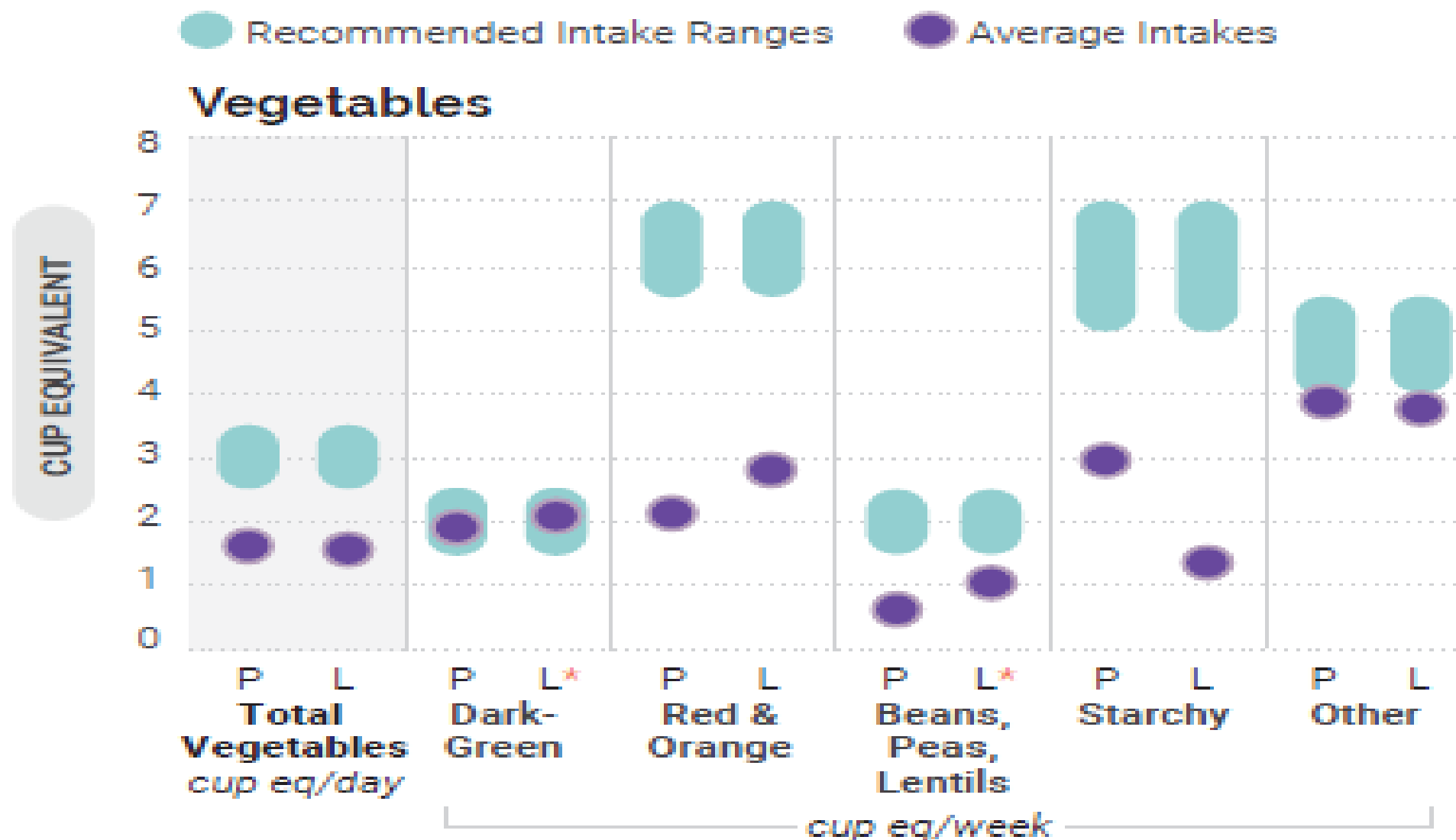


Figure 5-2

Average Intakes of Subgroups Compared to Recommended Intake Ranges: Women Who Are Pregnant or Lactating





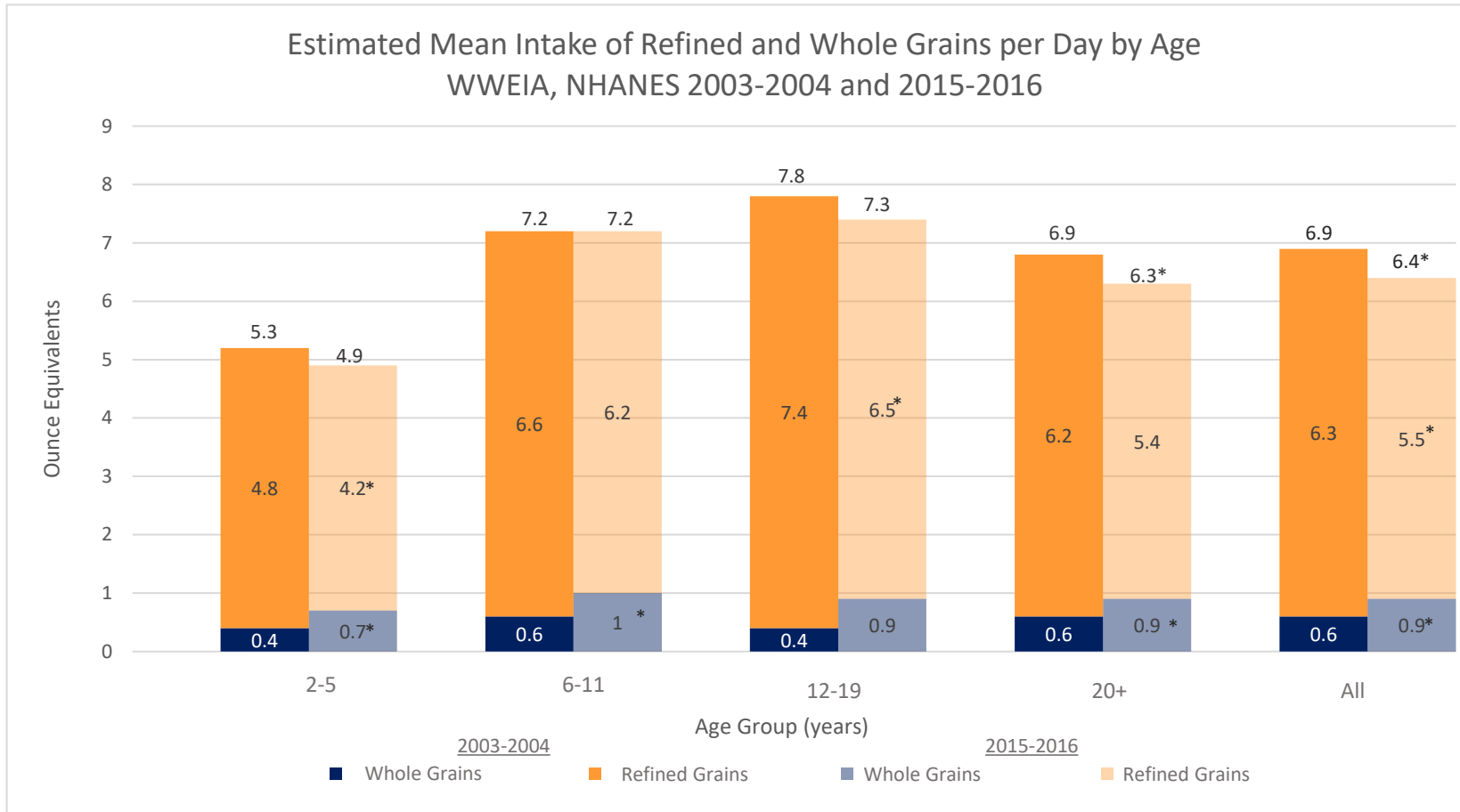
Average Food Group Intakes Changes Over Time

2003-2004 to 2015-2016



Bowman SA, Clemens JC, Friday JE, Schroeder N, Shimizu M, LaCombrP, and Moshfegh AJ.
Food Patterns Equivalents Intakes by Americans: What We Eat in America, NHANES 2003-2004 and 2015-2016.
Food Surveys Research Group. Dietary Data Brief No. 20, November 2018.

Whole Grain Intakes Increased & Refined Grain Intakes Decreased between 2003-2004 and 2015-2016



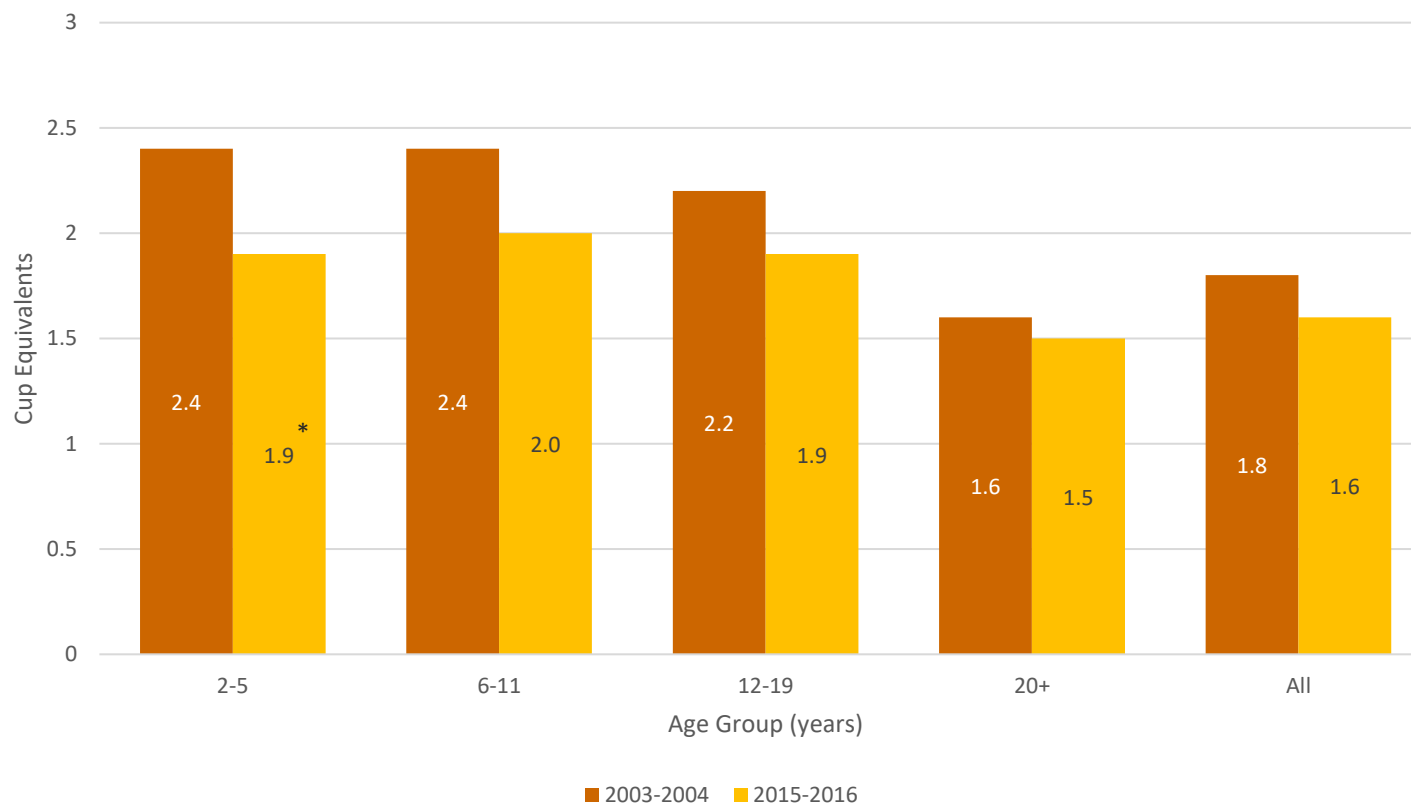
Dietary Guidelines for Americans

*Significantly different from 2003-2004 (p<0.01)

DATA SOURCE: What We Eat in America, NHANES 2003-2004 and 2015-2016, day 1, individuals 2+ years
Bowman SA, et al. Food Surveys Research Group. Dietary Data Brief No. 20, November 2018.

Young Children Significantly Reduced Total Dairy Intakes Between 2003-2004 and 2015-2016

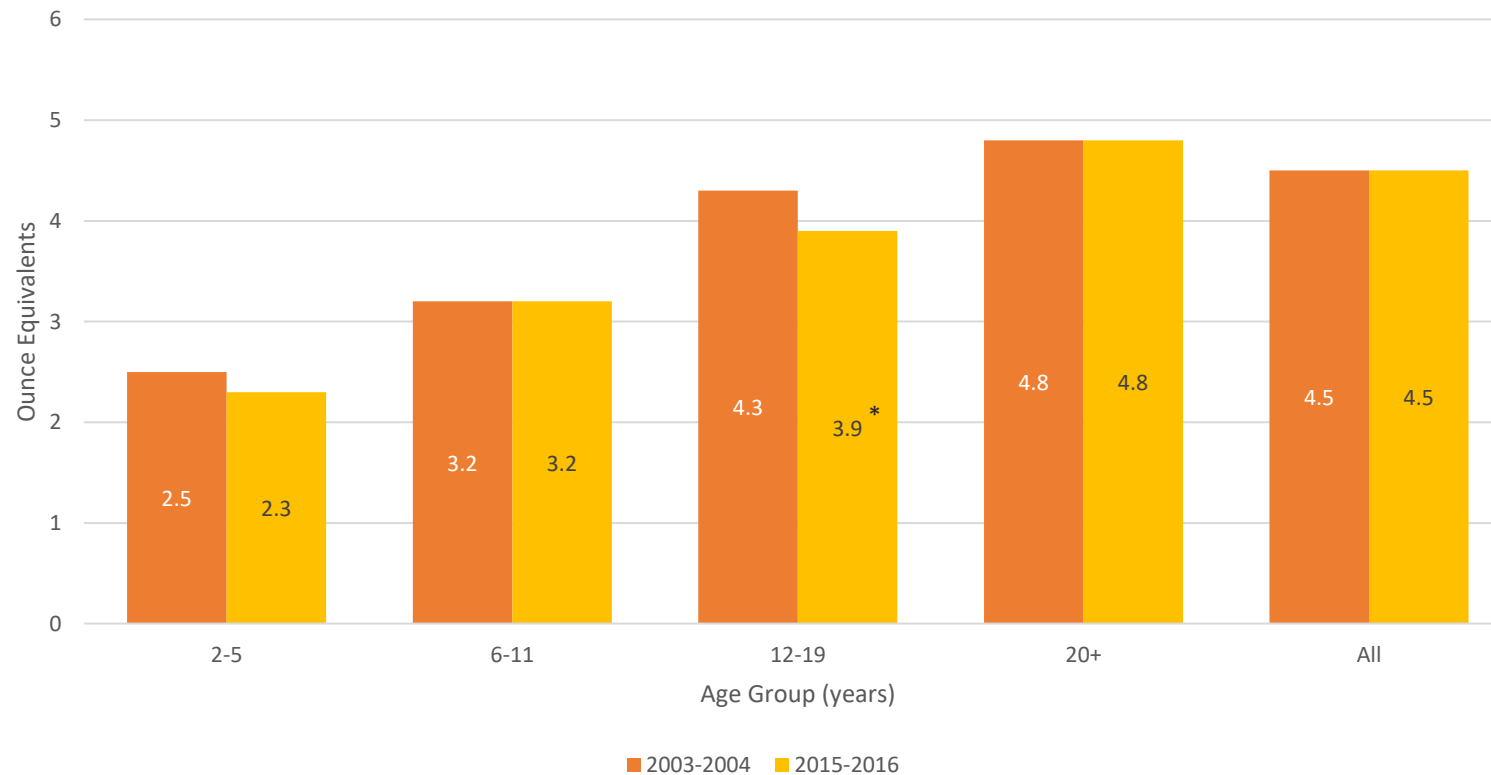
Estimated Mean Intakes of Total Dairy per Day by Age
WWEIA, NHANES 2003-2004 and 2015-2016



*Significantly different from 2003-2004 ($p < 0.01$)

Adolescents Significantly Reduced Total Protein Intakes Between 2003-2004 and 2015-2016

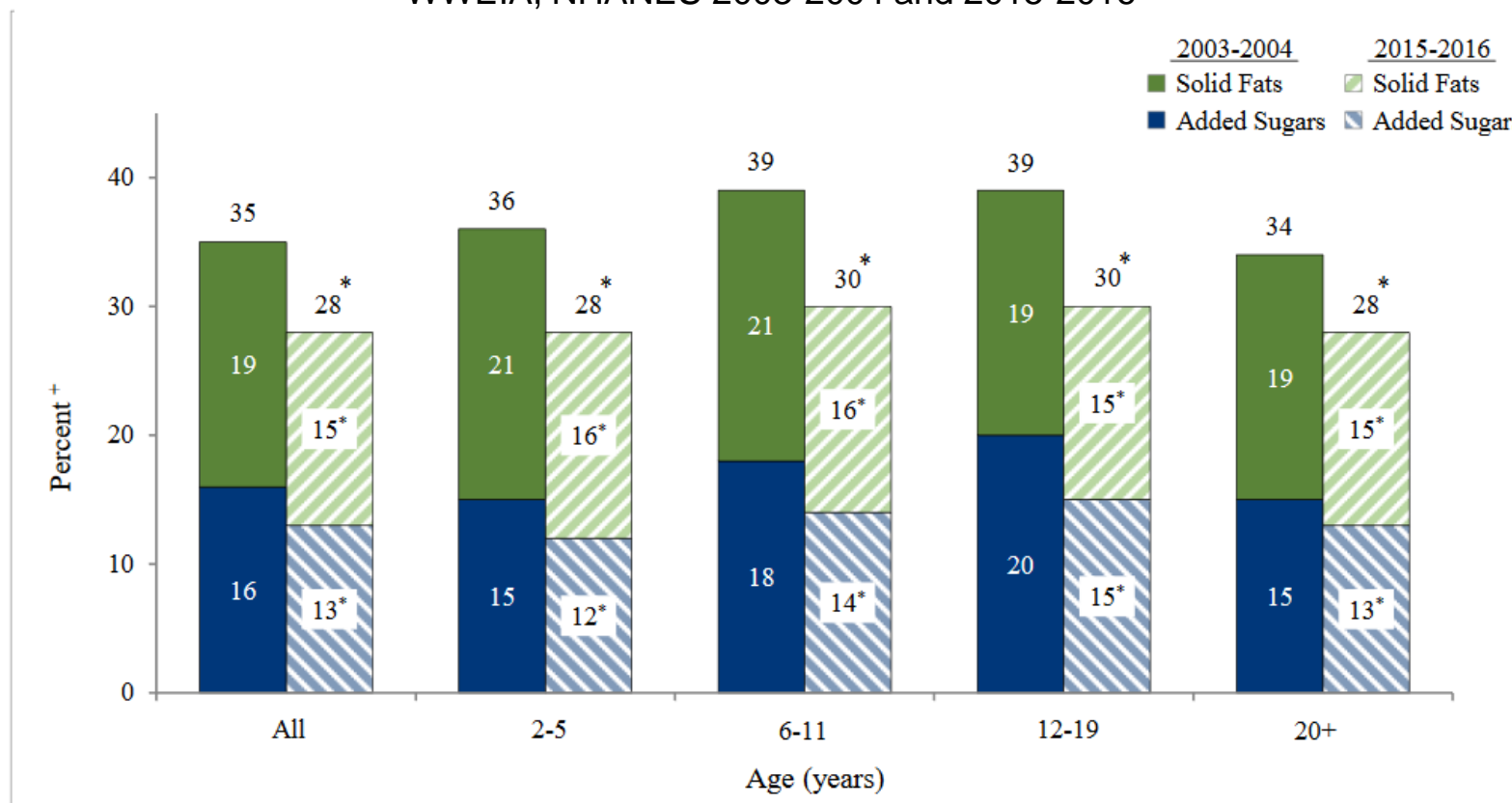
Estimated Mean Intakes of Total Protein per Day by Age
WWEIA, NHANES 2003-2004 and 2015-2016



*Significantly different from 2003-2004 (p<0.01)

Percent of Calories from Solid Fats and Added Sugars Decreased Between 2003-2004 and 2015-2016

Estimated mean intakes of calories from solid fats and added sugars as percent of total calories per day, by age
 WWEIA, NHANES 2003-2004 and 2015-2016



*Significantly different from 2003-2004 (p<0.01)

† Percentages rounded to integers. Total percentages of calories from solid fats and added sugars are shown above the respective bar charts.

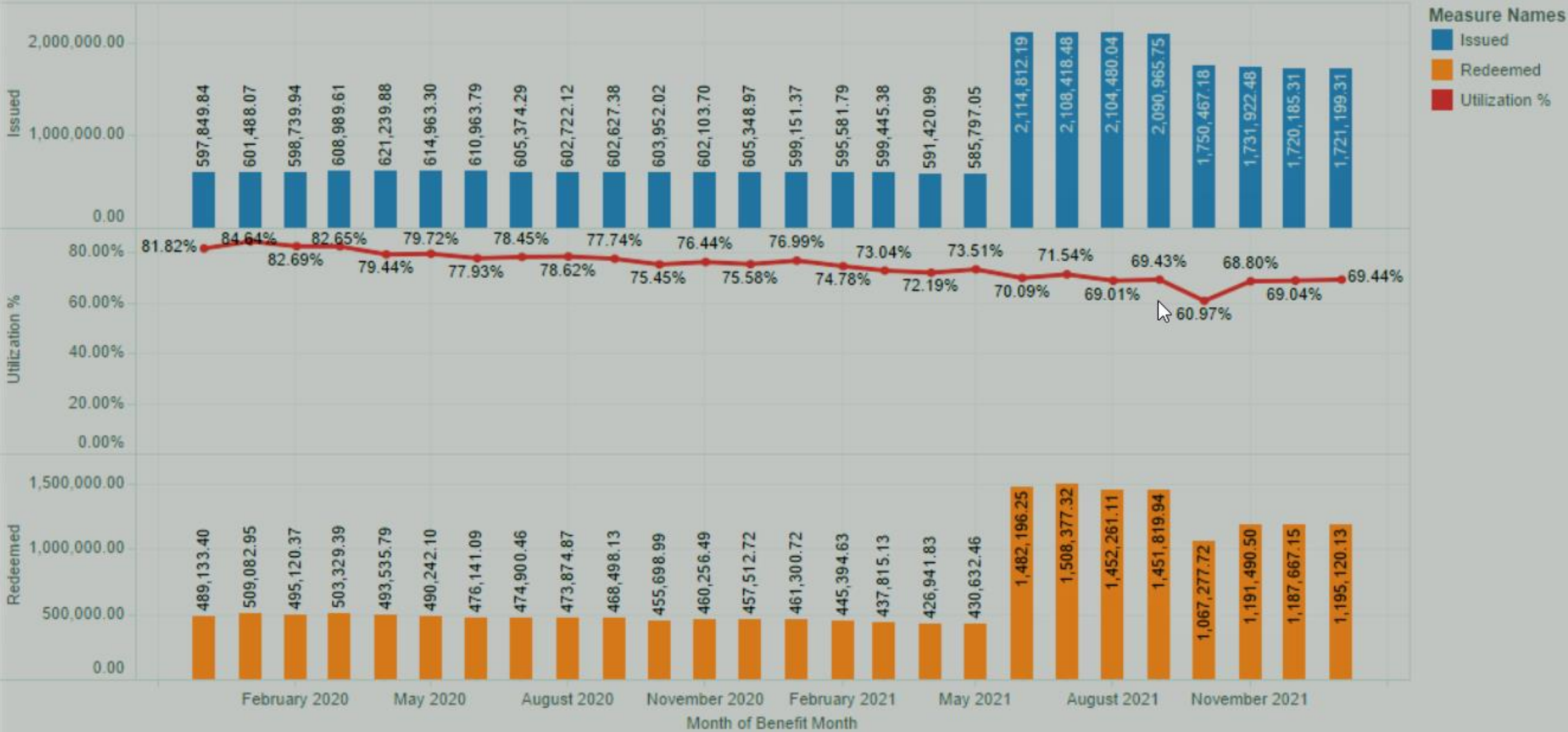
DATA SOURCE: What We Eat in America, NHANES 2003-2004 and 2015-2016, day 1, individuals 2+ years

Bowman SA, et al. Food Surveys Research Group. Dietary Data Brief No. 20, November 2018.

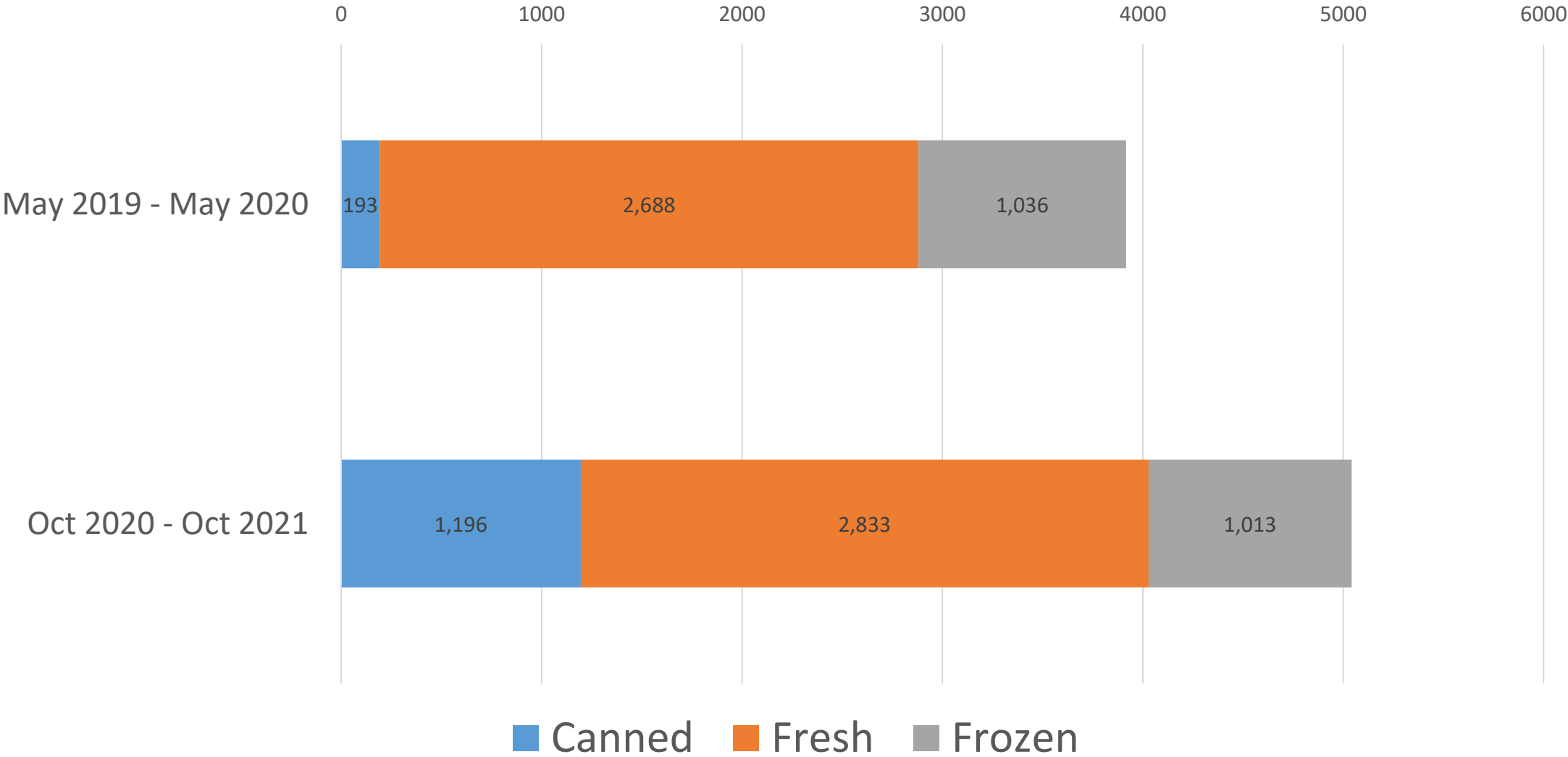
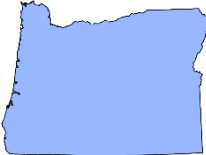
Oregon WIC Fruit and Vegetable Redemption



Fruits & Vegetables



Oregon WIC Fruit and Vegetable Redemption



Discussion

- From the data that was shared, what surprised you?
- What types of counseling topics or messages came to mind when you saw the information on food group intake? Is there a need to change any of the messages that are currently provided to clients?
- What do you think are some reasons we are seeing the changes in CVB redemption?

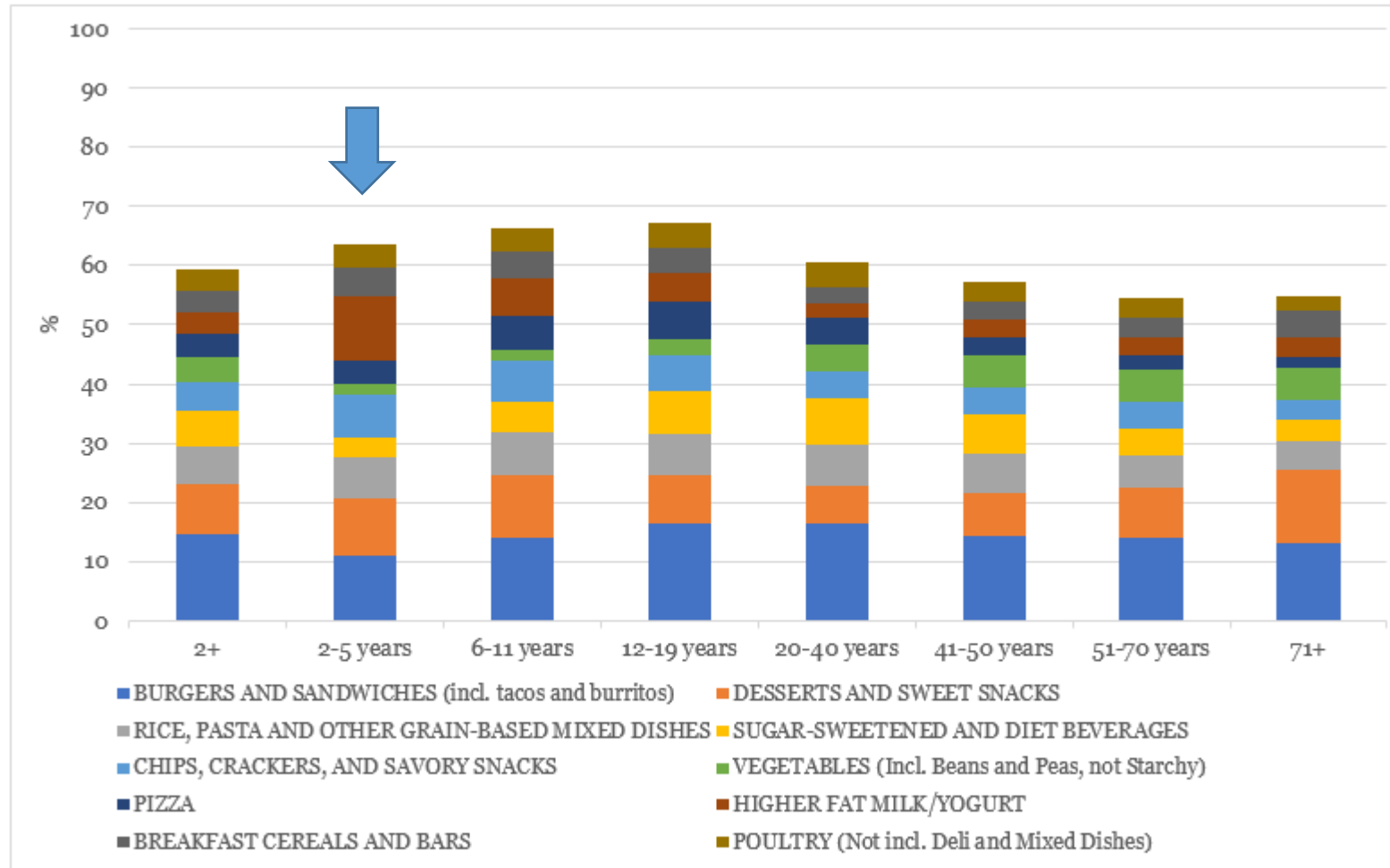


Food Category Sources of Energy and Food Groups



Analytic Results: Food Category Sources of Energy

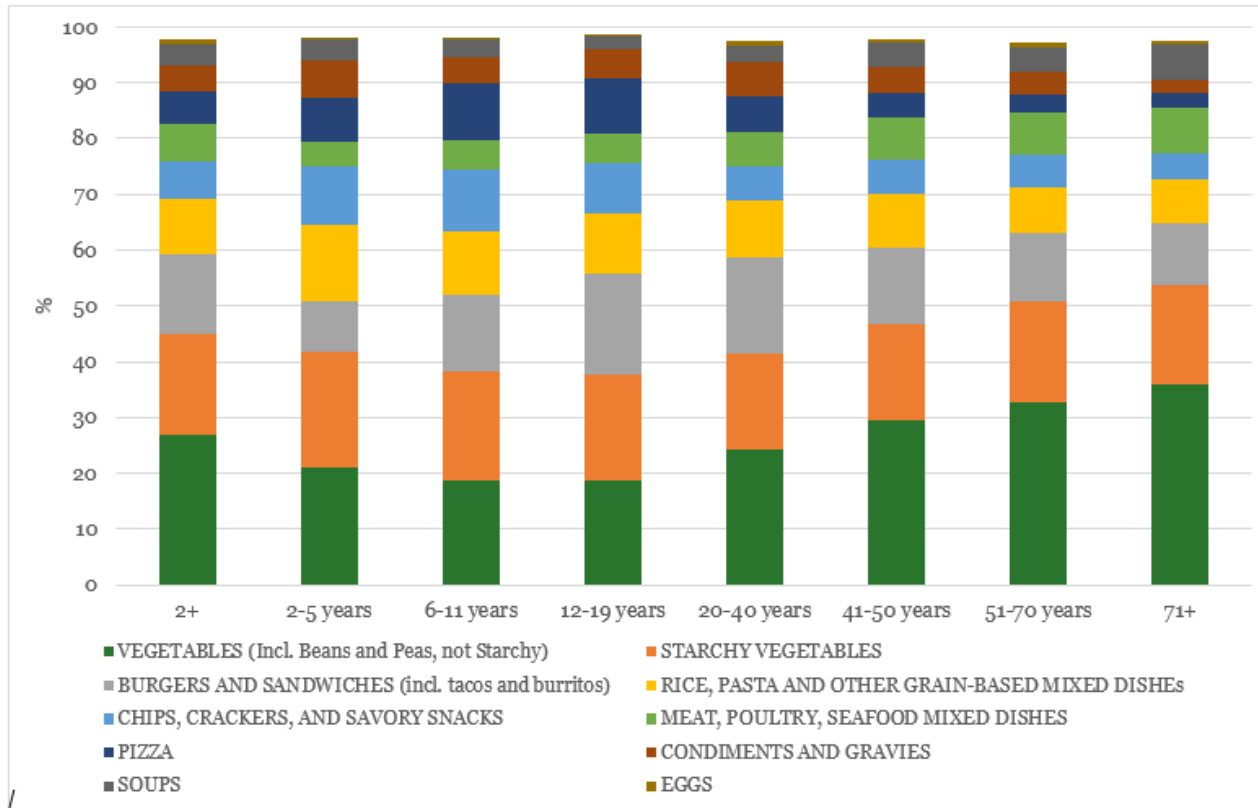
Figure 2: Males and Females - Distribution of energy intake (percentages) across top 10 sub-categories



Analytic Results Summary: Food Group Intakes Across Life Stages - vegetables



Figure 2. 2: Males and Females – Distribution of total vegetables intake (percentages) across top 10 sub-categories



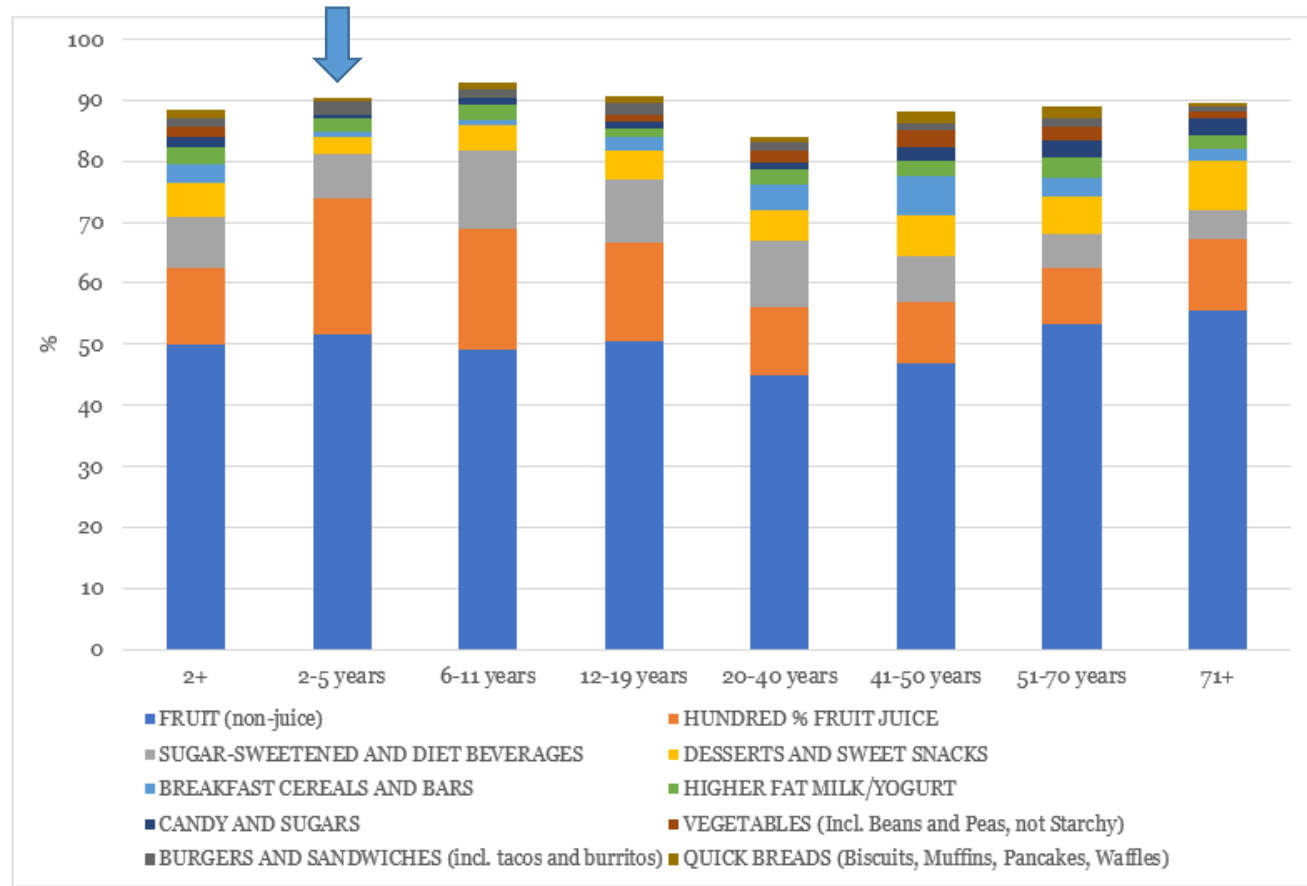
Mean vegetable intakes increase with age.

Less than 50% of vegetables are consumed as vegetables alone.

Chips, crackers and savory snacks as well as pizza are a larger source of vegetables for children than for adults or older adults.

Analytic Results Summary: Food Group Intakes Across Life Stages - fruits

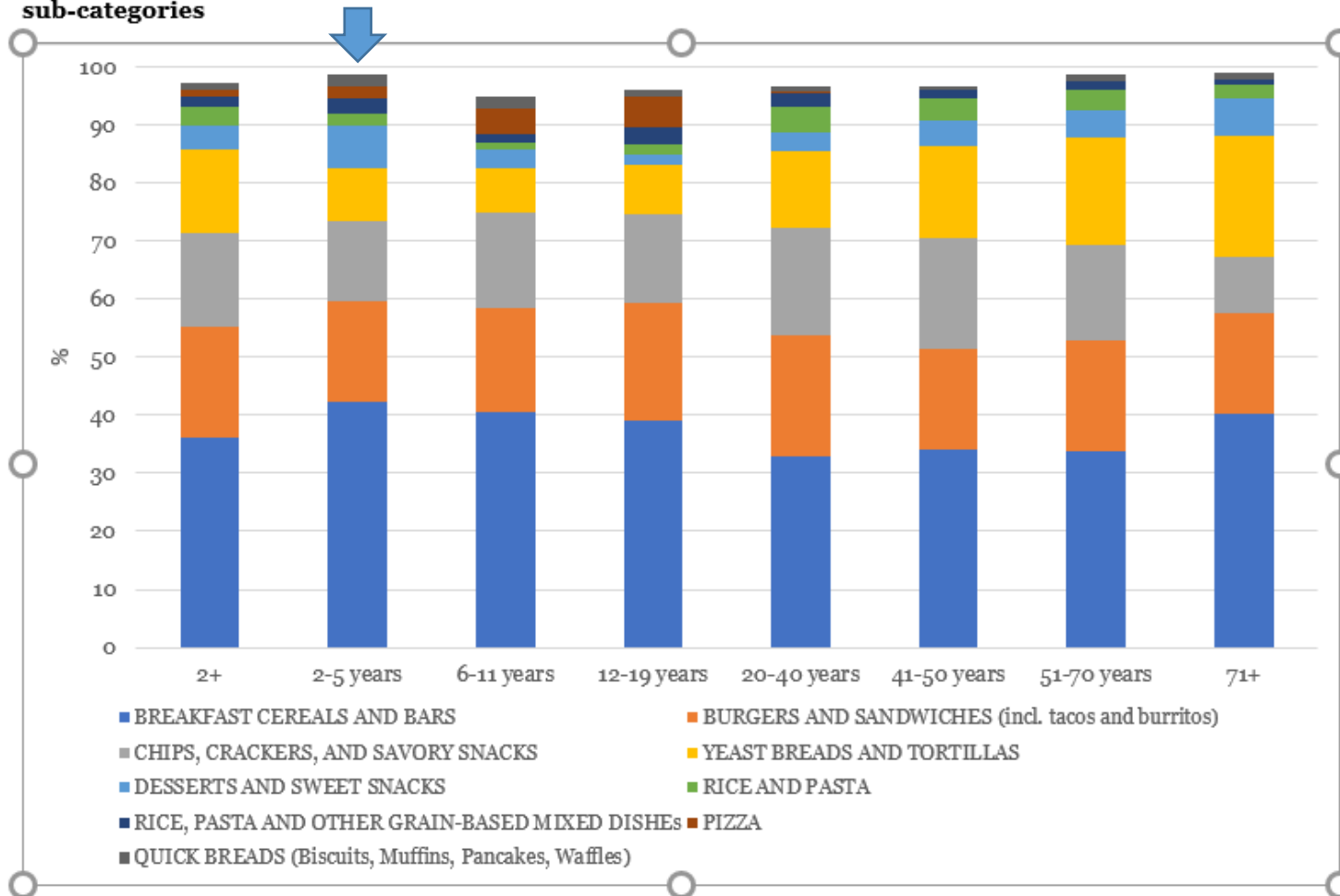
Figure 1. 2: Males and Females - Distribution of total fruits intake (percentages) across top 10 sub-categories



- Mean fruit intake decreased after age 5 and stays similar across age groups.
- 100% fruit juice intakes decrease after adolescence.

Analytic Results Summary: Food Group Intakes Across Life Stages – whole grains

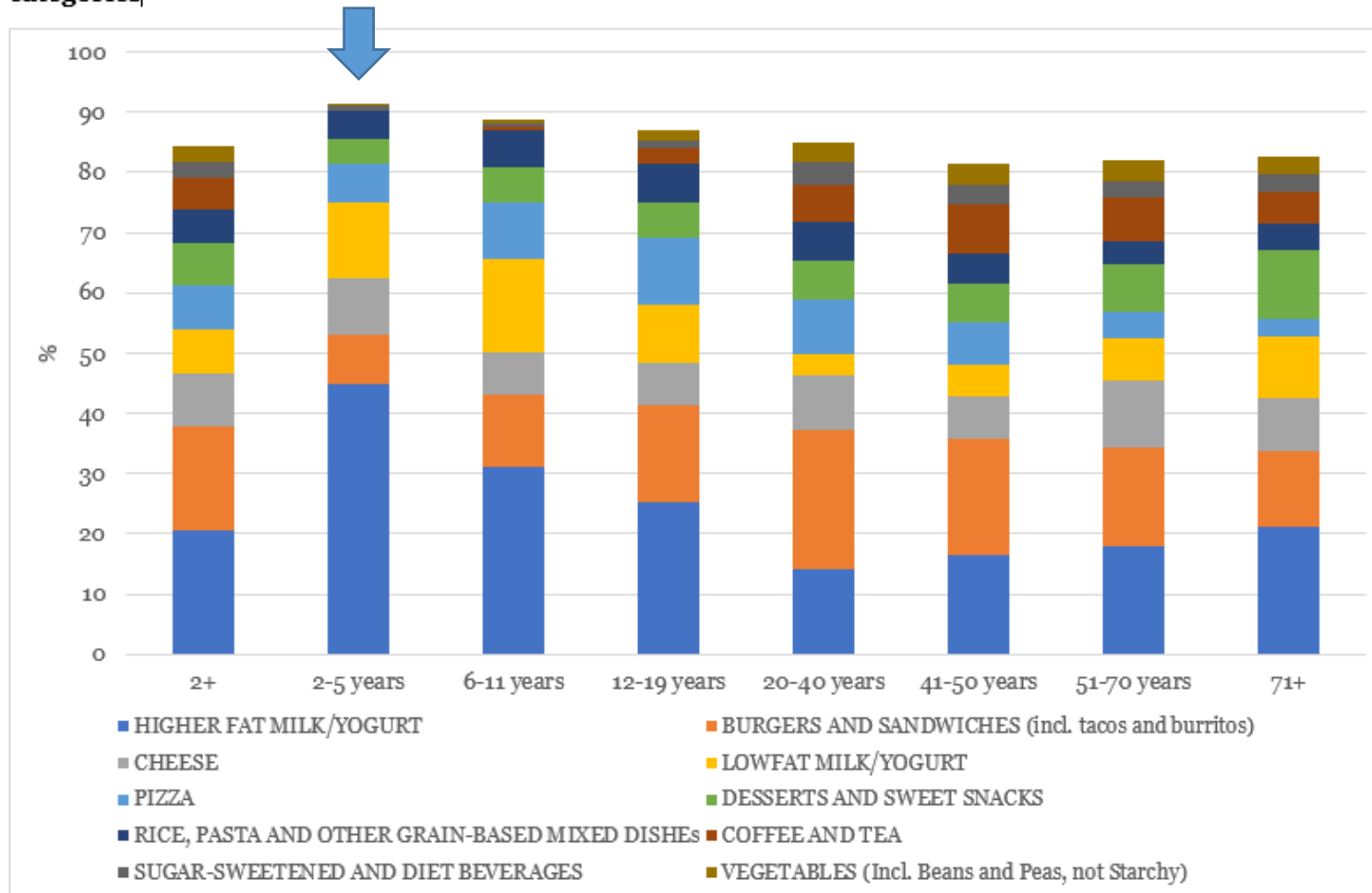
Figure 4. 2: Males and Females - Distribution of total whole grains intake (percentages) across top 10 sub-categories



- Intakes of whole grains is ~1oz eq across life stages and fall well below recommended intakes.
- Breakfast bars and cereals are main sources, followed by sandwiches/burgers and chips, crackers, and savory snacks

Analytic Results Summary: Food Group Intakes Across Life Stages – dairy

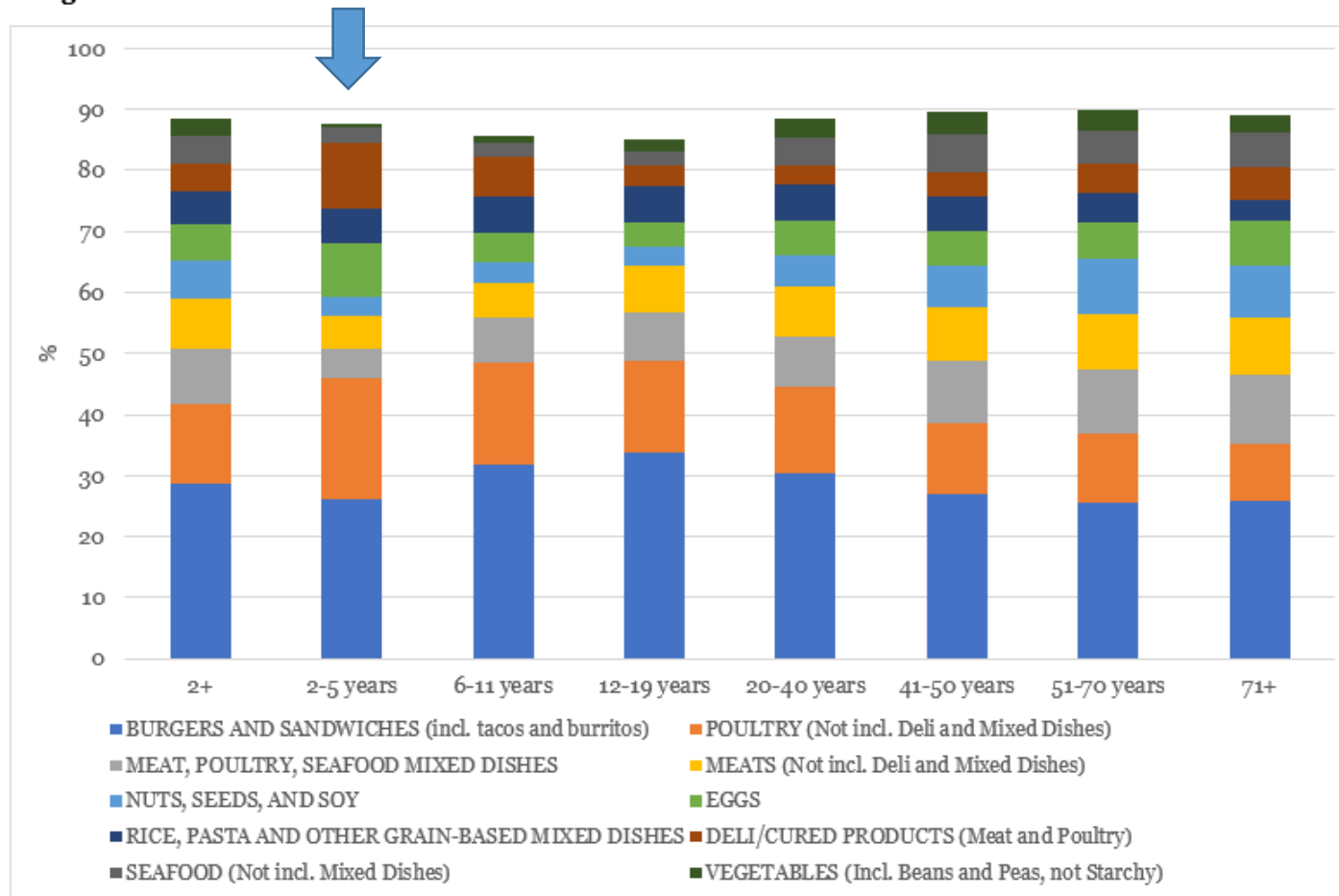
Figure 9. 2: Males and Females - Distribution of total dairy intake (percentages) across top 10 sub-categories



- Dairy intakes decrease across life stages.
- Food category sources shift from higher fat milk/yogurt among young children to burgers and sandwiches among young to middle aged adults.

Analytic Results Summary: Food Group Intakes Across Life Stages – protein foods

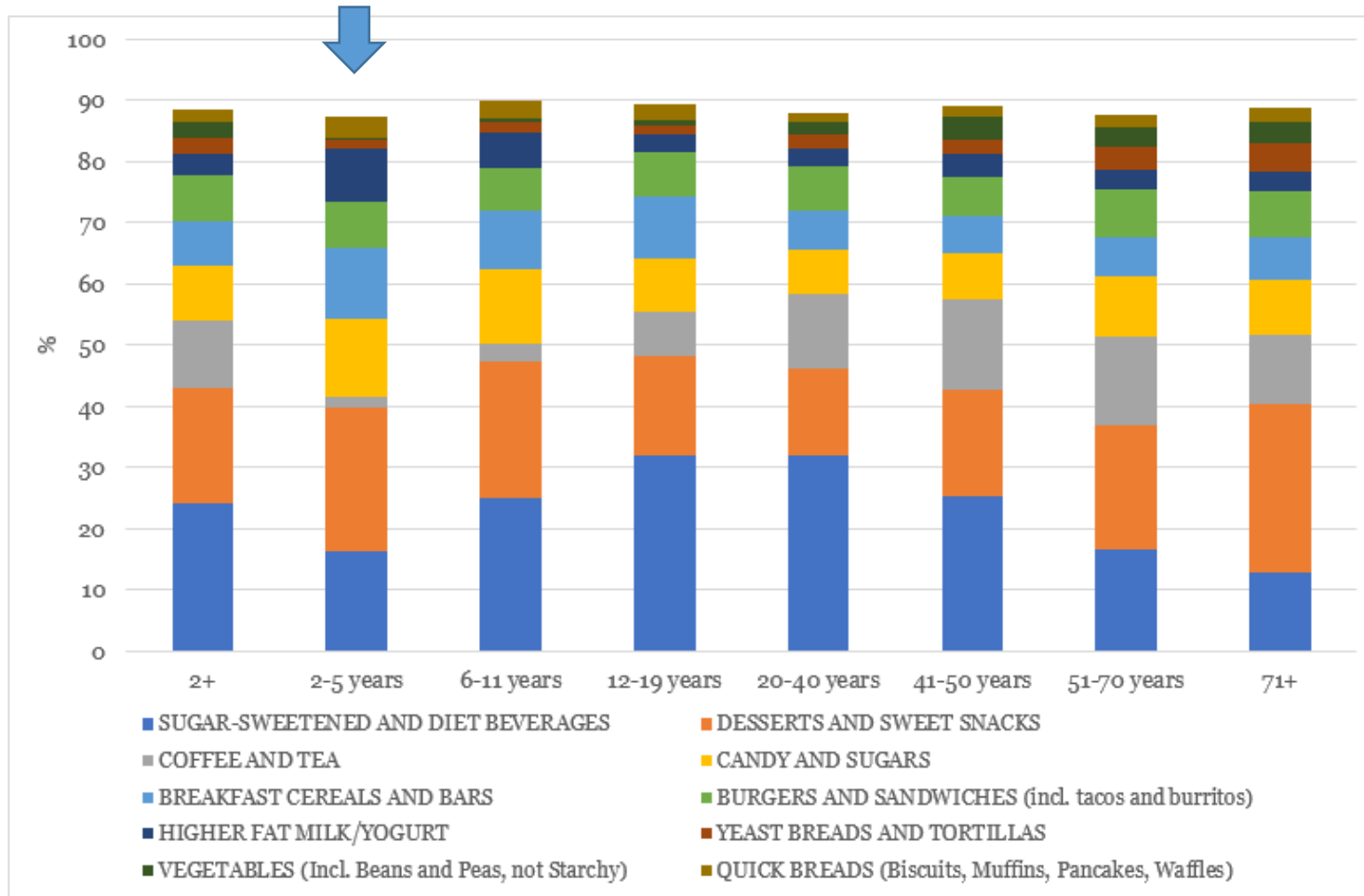
Figure 6. 2: Males and Females - Distribution of total protein intake (percentages) across top 10 sub-categories



- Mean total protein foods intakes is generally within recommended ranges, though intakes among older adults fall below recommended amounts.
- For older children and younger adults, burgers and sandwiches is a main food category source.

Analytic Results Summary: Food Group Intakes Across Life Stages – added sugars

Figure 14. 2: Males and Females - Distribution of added sugars intake (percentages) across top 10 sub-categories



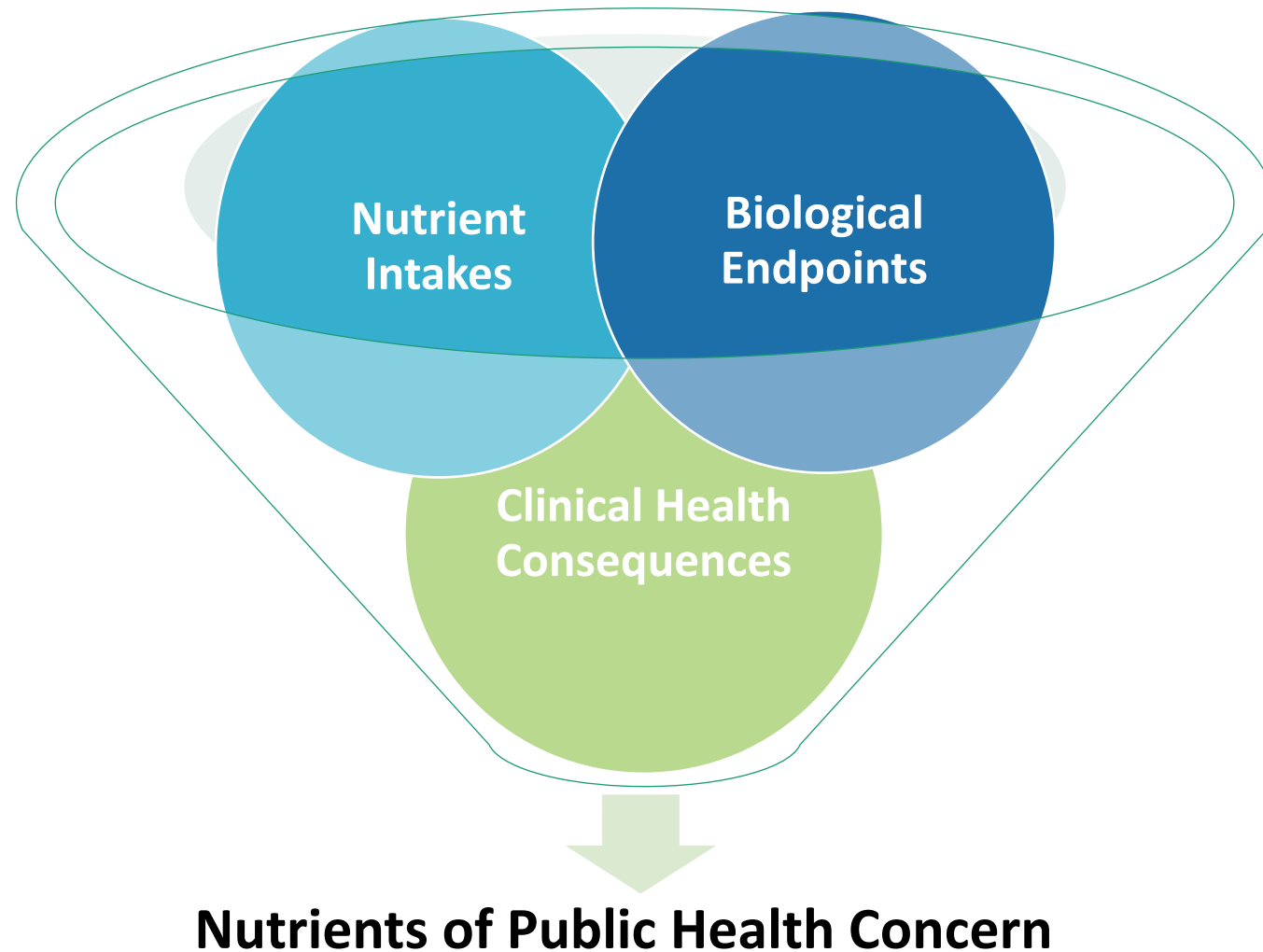
- Mean intakes of added sugars are highest in adolescents and early adulthood.
- Food category sources change across life stages.
- Desserts and sweet snacks are a larger contributor for young children and older adults.
- Sweetened beverages is highest among those ages 6-50 yrs.

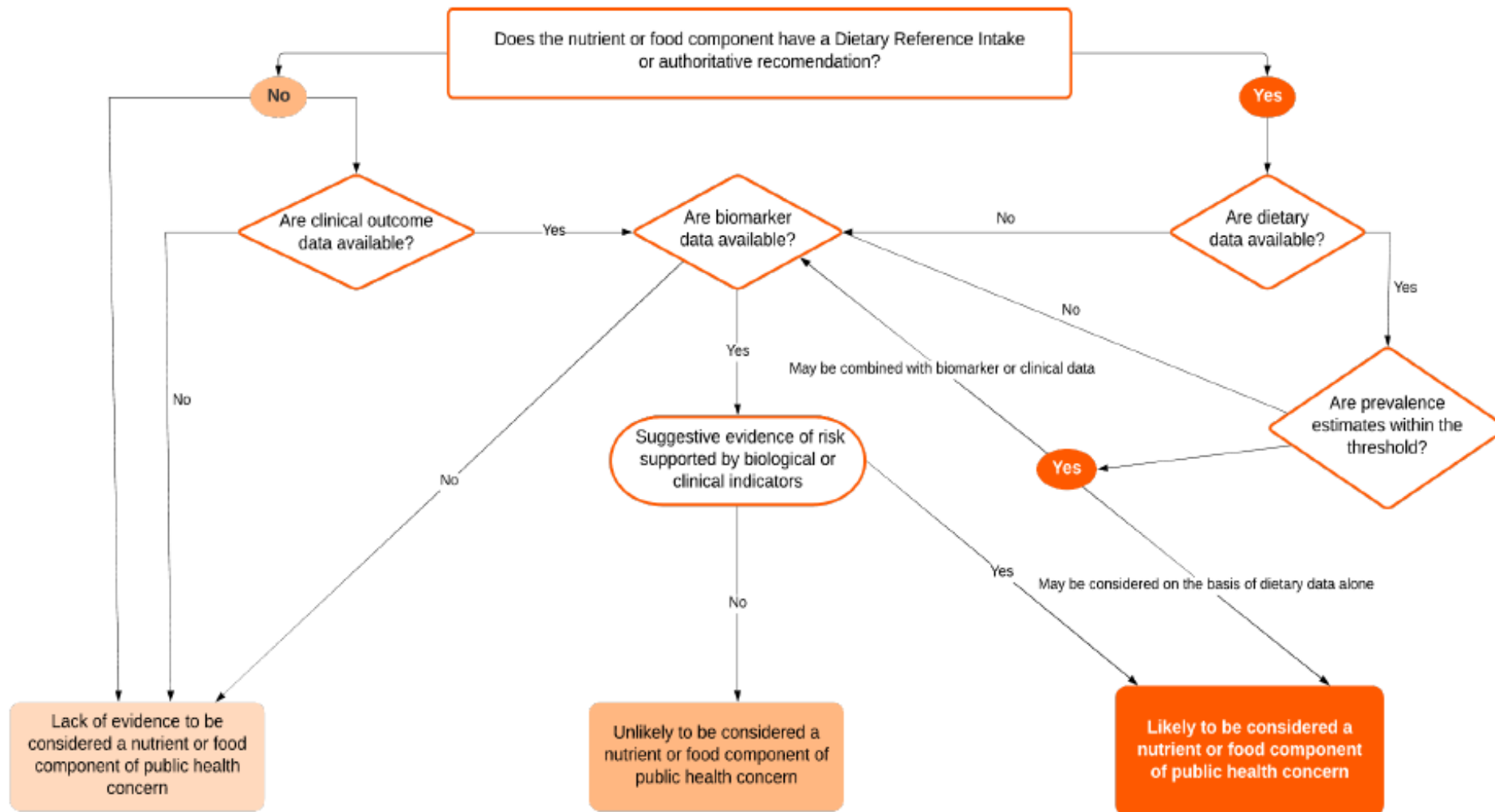


Nutrients of Public Health Concern in Maternal and Child Populations



Analytic Framework: Three Pronged Approach





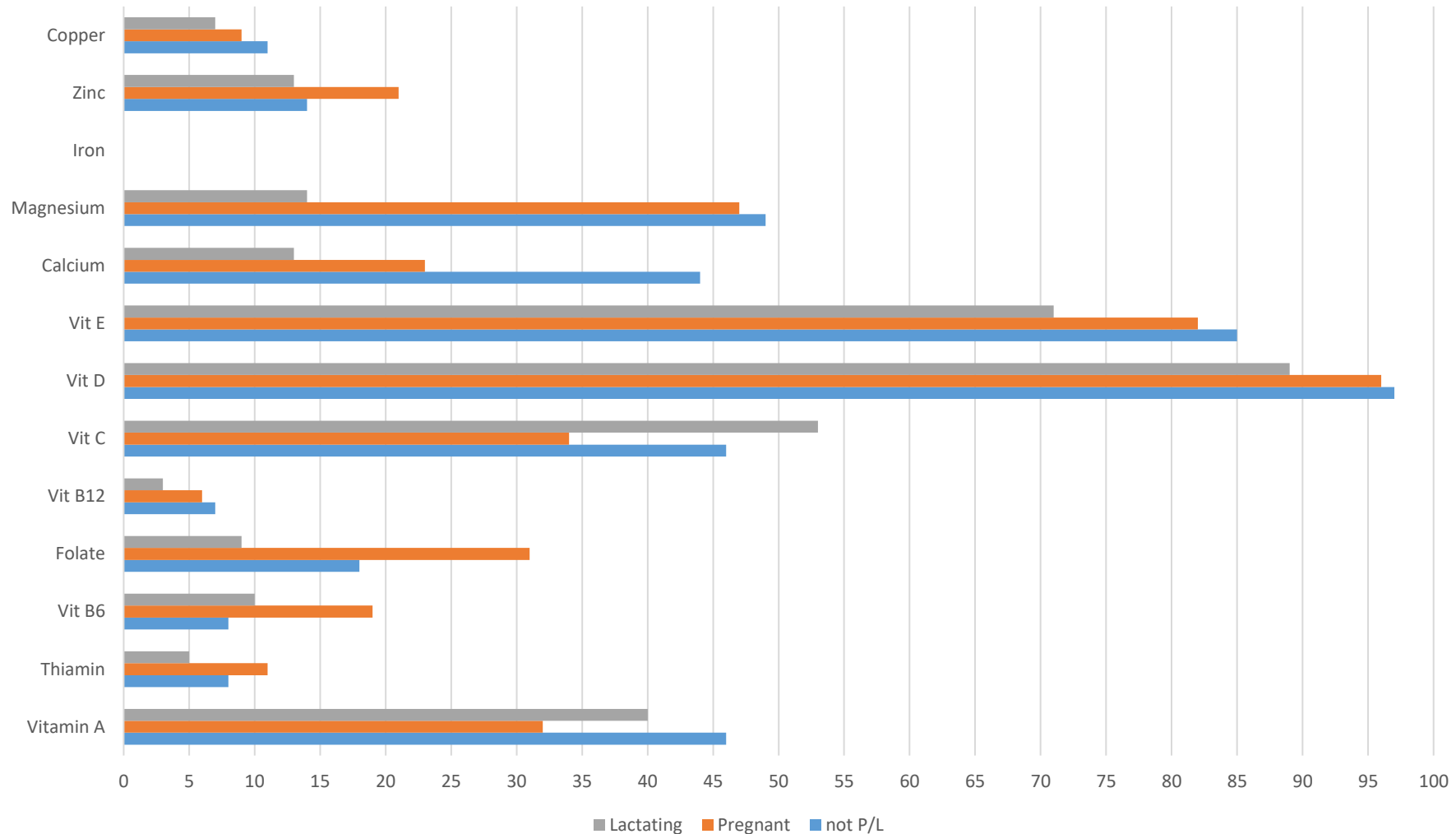
Nutrients of Public Health Concern
2020 Dietary Guidelines Advisory Committee: Meeting 5

Definitions

- **Underconsumed nutrient/food component:**
 - A food component that is underconsumed by 5% or more of the population or in specific groups relative to the EAR, AI, or other quantitative authoritative recommendations from the diet alone
- **Overconsumed nutrient/food component:**
 - A food component that is consumed in potential excess of the UL, CDRR, or other quantitative authoritative recommendations by 5% or more of the population or in specific groups from the diet alone
- **Nutrient/food component of public health concern:**
 - Underconsumed and overconsumed nutrients or food components with supporting evidence through biochemical indices or functional status indicators, if available, plus evidence that the inadequacy or excess is directly related to a specific health condition, indicating public health significance
- **Nutrient/food component that poses special challenges:**
 - Nutrients or food components that pose special challenges in identifying at risk groups or for which dietary guidance to meet recommended intake levels was challenging to develop

Analytic Results: Nutrient Intakes Food and Beverages

Percent of Women With Nutrient Intakes From Food and Beverage Below the EAR



Analytic Results

Under and over consumed dietary components

Usual nutrient intakes: 2013-2016 † (foods alone; foods and supplements)

Pregnancy	Lactation	% > Tolerable Upper Intake Level
<p><EAR</p> <ul style="list-style-type: none"> • Calcium (25%; 17%) • Copper (9%; 11%)* • Folate (31%; 22%) • Magnesium (47%; 51%) • Iron (84%; 36%)+ • Riboflavin (6%; 6%)* • Thiamin (11%; 11%)* • Vitamin A (32%^; 16%+) • Vitamin B6 (19%; 15%) • Vitamin C (34%; 19%) • Vitamin D (96%; 38%) • Vitamin E (82%^; 43%+) • Zinc (21%; 17%) <p>>AI</p> <ul style="list-style-type: none"> • Choline (~5%) • Potassium (<3%; 23%) • Vitamin K (63%; 64%) 	<p><EAR</p> <ul style="list-style-type: none"> • Calcium (13%, 8%)* • Copper (7%; 11%)* • Folate (9%; 7%)* • Magnesium (14%; 13%)* • Vitamin B6 (10%; 9%)* • Vitamin C (53%; 34%) • Vitamin D (89%; 38%) • Zinc (13%; 12%)* • Vitamin A (40%^) <p>>AI</p> <ul style="list-style-type: none"> • Choline (~8%)*+ • Potassium (<3%; 46%) • Vitamin K (83%; 84%)* • Vitamin E (71%^) 	<p>Pregnant</p> <ul style="list-style-type: none"> • Folic Acid (<3%; 27%) • Iron (<3%; 14%)* <ul style="list-style-type: none"> • DS Users 28%+ <p>Lactating</p> <ul style="list-style-type: none"> • Folic Acid (<3%; 24%) • Iron (<3%; 29%) • Vitamin D (<3%; 7%)* • Zinc (<3%; 11%)* <p>% > Chronic Disease Risk Reduction</p> <p>Pregnant</p> <ul style="list-style-type: none"> • Sodium (88%; 87%)* <p>Lactating</p> <ul style="list-style-type: none"> • Sodium (97%; 97%)*

* Indicates an unstable estimate due to small sample size † From Bailey et al. JAMA Open Network (2019; NHANES 2001-2014) ^ Food only, NHANES 2013-2016

Nutrients of Public Health Concern: Pregnancy and Lactation

Pregnancy/and Lactation

- Iron (P)
- Folate/folic acid (P)
- Iodine
- Choline
- Magnesium (P?)

All Women

- Vitamin D
- Calcium
- Fiber
- Potassium
- Sodium
- Saturated fat
- Added sugars

Analytic Results Summary: 6<12 mo

Percent of infants with nutrient intakes <EAR or > UL

*Dietary intakes include human milk and/or infant formula and CFB;
excludes dietary supplements*

Nutrient	HM	FMF	All Infants
		% below EAR	
Protein	27%	<3%	7%
Iron	77%	7%	19%
Zinc	54%	<3%	10%
		% above UL	
Iron	<3%	<3%	<3%
Zinc	3%	77%	64%

Nutrients of Public Health Concern or Which Pose a Special Challenge

Proposed nutrient or food component of public health concern

- potassium
- fiber
- vitamin D
- sodium
- added sugars

Proposed nutrient or food component that pose special challenges

- choline
- linoleic acid
- Many 1 y olds exceed recommendations for zinc and retinol from foods alone.



Make Every Bite Count With the *Dietary Guidelines*



What's New in the 2020 DGAs?

Focus on Pediatric Recommendations

Guideline 1. Follow a healthy dietary pattern at every life stage

At every life stage—infancy, toddlerhood, childhood, adolescence, adulthood, pregnancy, lactation, and older adulthood—it is never too early or too late to eat healthfully.

- **For about the first 6 months of life**

- Exclusively feed infants human milk (fortified infant formula when human milk unavailable)
- Provide infants with supplemental vitamin D beginning soon after birth.

- **At about 6 months**

- Introduce nutrient-dense complementary foods.
- Introduce potentially allergenic foods along with other complementary foods.
- Include foods rich in iron and zinc, particularly for infants fed human milk.

- **From 12 months through older adulthood**

- Follow a healthy dietary pattern across the lifespan to meet nutrient needs, help achieve a healthy body weight, and reduce the risk of chronic disease.

Guideline 2. Customize and enjoy nutrient-dense food and beverage choices to reflect personal preferences, cultural traditions, and budgetary considerations.

- A healthy dietary pattern can benefit all individuals regardless of age, race, or ethnicity, or current health status.
- The *Dietary Guidelines* provides a framework intended to be customized to individual needs and preferences
 - Including the foodways of the diverse cultures in the US
 - Adaptation is intended because guidelines have to be for full population and not specific sub-populations
 - Flexibility in terms of specific foods that can be chosen within each category for population groups
 - Adaptation by culture, religious dietary restrictions, food availability
 - Flexibility to adapt to specific dietary needs for individuals
 - Food allergies/intolerances, chronic health conditions, health goals, etc



Food Patterns for Birth to 24 Months



METHODOLOGY

Steps in Food Pattern Modeling 6-24 Months

1. Establish Energy Levels

- DRI formulas for Estimated Energy Requirements (EER)
 - Account for energy deposition for the growing child
- Determined appropriate energy levels for each age-sex group
 - Based on age in months, reference body lengths, median body weights, and sex
- Five energy levels from 600 to 1,000 kcal, at 100 kcal “step” intervals, were chosen to cover the energy needs for the majority of the population ages 6 to 24 months

METHODOLOGY (continued)

Steps in Food Pattern Modeling 6-24 Months

2. Establish Nutritional Goals

- Specific nutritional goals selected based on the age-sex group(s)
- DRI goals (RDA or AI)
 - Energy
 - 3 macronutrients
 - 3 fatty acids
 - 12 vitamins
 - 9 minerals

METHODOLOGY (continued)

Steps in Food Pattern Modeling 6-24 Months

3. Establish Food Groupings and Food Group Amounts

- Informed by existing food groups and subgroups in the USDA Food Patterns for ages 2 years and older published in the *2015-2020 Dietary Guidelines for Americans*.
 - Options with different proportions of energy from human milk or infant formula created, and remaining energy for CFB calculated.
- Energy from human milk was modeled at 3 levels (low, average, and high) and applied to each of 3 age intervals (6 to 9 months, 9 to 12 months, and 12 to 24 months).
- Energy from infant formula also modeled at 3 levels, but only applied to 2 age intervals (6-9 and 9-12 months).

METHODOLOGY (continued)

Steps in Food Pattern Modeling 6-24 Months

3. Establish Food Groupings and Food Group Amounts

- Started with food group amounts for the 1,000-kcal level pattern established in the Healthy U.S.-Style Food Patterns in the 2015-2020 Dietary Guidelines for Americans.
- When total energy < 1,000 kcal, amounts of each food group were decreased such that the food group density in the pattern remained similar to the food group density of the 1,000 kcal Pattern.
- Modified combinations of CFB to reach all or most of the specified nutrient goals.

METHODOLOGY (continued)

Steps in Food Pattern Modeling 6-24 Months

4. Determine the Amounts of Nutrients that Would be Obtained by Consuming Various Foods Within Each Group

- Nutrient profiles for each food group or subgroup created, based on intake data for ages 6-24 months from WWEIA, NHANES 2015-2016
- Nutrient profiles calculated using weighted average of nutrient-dense forms of foods representing each food item cluster
 - Representative foods in the dairy group differed from those used for ages 2+ because of the importance of adequate fat intake at 6-24 months.

METHODOLOGY (continued)

Steps in Food Pattern Modeling 6-24 Months

5. Evaluate Nutrient Level in Each Modeling Exercise Against Nutritional Goals

- Using the updated nutrient profiles for ages 6 to 24 months, the nutrients provided in each modeling exercise were compared to the goals, e.g., $\geq 90\%$ of the RDA or AI

6. Adjust and Re-Evaluate to Align with Goals

- If nutrient goals not met, step-wise iterative approach used to make additional adjustments

RESULTS OF FOOD PATTERN MODELING EXERCISES: 6 – 23 Months of Age

Ages 6 to 12 Months

- The **Committee was not able to establish a recommended food pattern for infants ages 6 to 12 months** because of uncertainty about nutrient requirements for this age range and challenges in meeting the Recommended Dietary Allowance for iron through complementary foods and beverages.
- Examples of potential combinations of complementary foods and beverages that come close to meeting most nutrient recommendations described for scenarios differing in the proportion of energy from human milk or infant formula and complementary foods and beverages at ages 6 to 9 months and 9 to 12 months.
- Example combinations of complementary foods and beverages described by the Committee support consumption of fortified infant foods to meet nutrient adequacy for infants whose milk source is human milk (i.e., no infant formula).

Table 2-1

Healthy U.S.-Style Dietary Pattern for Toddlers Ages 12 Through 23 Months Who Are No Longer Receiving Human Milk or Infant Formula, With Daily or Weekly Amounts From Food Groups, Subgroups, and Components

CALORIE LEVEL OF PATTERN^a	700	800	900	1,000
FOOD GROUP OR SUBGROUP^{b,c}	Daily Amount of Food From Each Group^d (Vegetable and protein foods subgroup amounts are per week.)			
Vegetables (cup eq/day)	$\frac{3}{4}$	$\frac{3}{4}$	1	1
	Vegetable Subgroups in Weekly Amounts			
Dark-Green Vegetables (cup eq/wk)	1	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Red and Orange Vegetables (cup eq/wk)	1	$1\frac{3}{4}$	$2\frac{1}{2}$	$2\frac{1}{2}$
Beans, Peas, Lentils (cup eq/wk)	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Starchy Vegetables (cup eq/wk)	1	$1\frac{1}{2}$	2	2
Other Vegetables (cup eq/wk)	$\frac{3}{4}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{1}{2}$
Fruits (cup eq/day)	$\frac{1}{2}$	$\frac{3}{4}$	1	1
Grains (ounce eq/day)	$1\frac{3}{4}$	$2\frac{1}{4}$	$2\frac{1}{2}$	3
Whole Grains (ounce eq/day)	$1\frac{1}{2}$	2	2	2
Refined Grains (ounce eq/day)	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	1
Dairy (cup eq/day)	$1\frac{2}{3}$	$1\frac{3}{4}$	2	2
Protein Foods (ounce eq/day)	2	2	2	2
	Protein Foods Subgroups in Weekly Amounts			
Meats, Poultry (ounce eq/wk)	$8\frac{3}{4}$	7	7	$7\frac{3}{4}$
Eggs (ounce eq/wk)	2	$2\frac{3}{4}$	$2\frac{1}{2}$	$2\frac{1}{2}$
Seafood (ounce eq/wk) ^e	2-3	2-3	2-3	2-3
Nuts, Seeds, Soy Products (ounce eq/wk)	1	1	$1\frac{1}{4}$	$1\frac{1}{4}$
Oils (grams/day)	9	9	8	13

Table D7.8. Summary of Energy, Macronutrient Distributions, and Select Nutrient Amounts and Percent of RDA or AI for the Healthy U.S.-Style Pattern Intended for Infants Ages 12 To 24 Months Without Any Human Milk or Infant Formula

Table D7.8. Summary of energy, macronutrient distributions, and select nutrient amounts and percent of RDA or AI for the Healthy U.S.-Style Pattern intended for infants ages 12 to 24 months without any human milk or infant formula

		Energy Level			
		1,000	900	800	700
Energy	kcal	1,001	907	804	704
Protein	% of kcal	17%	18%	19%	21%
Fat	% of kcal	33%	31%	34%	36%
Carbohydrate	% of kcal	50%	51%	48%	44%
Calcium	mg	782	772	675	612
	% RDA ¹	112%	110%	96%	87%
Iron	mg	8.4	7.9	7.2	6.2
	% RDA	120%	113%	102%	88%
Potassium	mg	1,797	1,772	1,488	1,299
	% AI ¹	90%	89%	74%	65%
Zinc	mg	7	7	7	6
	% RDA	243%	236%	220%	198%
Vitamin E	mg AT ¹	4.9	4.1	3.8	3.6
	% RDA	81%	69%	63%	60%
Vitamin D	IU ¹	260	258	235	214
	% RDA	43%	43%	39%	36%
Choline	mg	199	195	188	169
	% AI	100%	98%	94%	84%
Omega-3	g	1.2	0.9	0.9	0.9
	% AI	178%	135%	133%	130%
Omega-6	g	8.6	6.4	6.5	6.1
	% AI	123%	91%	93%	87%



1: RDA=Recommended Dietary Allowance; AI=Adequate Intake; AT=alpha tocopherol; IU=international units

RESULTS OF FOOD PATTERN MODELING EXERCISES – Ages 12 to 24 months

Toddlers Fed a Lacto-Ovo Vegetarian Diet, and Fed Neither Human Milk Nor Infant Formula

- Started with the Healthy Vegetarian Style Pattern at the 1,000 kcal level.
 - Nutrient shortfalls included choline, potassium, vitamin E, vitamin D, and omega-3 and omega-6 fatty acids.
- Adjusted to include 3 eggs per week to achieve choline.
- Grains shifted to emphasize whole grains.

Table D7.10. Amount from Each Food Group or Subgroup in the Healthy Vegetarian Style Pattern Developed for Ages 12 to 24 Months Without Any Human Milk or Formula

Table D7.10. Amount from each food group or subgroup in the Healthy Vegetarian Style Pattern developed for ages 12 to 24 months without any human milk or infant formula

Energy level (kcal)	1,000	900	800	700
FRUITS (cup eq ¹ /d ¹)	1	1	0.75	0.5
VEGETABLES				
Total Vegetables (cup eq/d)	1	1	1	1
<i>subgroup amounts in cup eq per week</i>				
Dark green (cup eq/wk ¹)	0.5	0.5	0.5	0.5
Red Orange (cup eq/wk)	2.5	2.5	2.5	2.5
Legumes (cup eq/wk)	0.75	0.75	0.75	0.75
Starchy (cup eq/wk)	2	2	2	2
Other (cup eq/wk)	1.5	1.5	1.5	1.5
GRAINS				
Total Grains (oz ¹ eq/d)	3	2.75	2.25	1.75
Whole grains (oz eq/d)	2	2	1.75	1.25
Refined grains (oz eq/d)	1	0.75	0.5	0.5
PROTEIN FOODS				
Total Protein Foods (oz eq/d)	1	1	1	1
<i>subgroup amounts in oz eq per week</i>				
Eggs (oz eq/wk)	3.5	3.5	3.5	3.5
Nuts, Seeds, and Soy (oz eq/wk)	4	4	4	4
DAIRY (cup eq/d)				
	2	1.75	1.75	1.5
OILS (g ¹ /d)				
	15	10	8.5	9

1: eq=equivalents; d=day; wk=week; oz=ounce; g=gram

RESULTS OF FOOD PATTERN MODELING

Additional Considerations for Ages 6 to 24 Months Regarding Added Sugars

- The combinations of foods needed to achieve recommended intakes of key nutrients for ages 6 to 24 months leave virtually no remaining dietary energy for added sugars, apart from the very small amounts (less than 3 grams per day) already inherent in the foods used in modeling.

Discussion

- What information presented was new to you?
- What are the key changes in the recommendations for feeding infants and young children that may affect WIC counseling messages?
- What resources would be useful to share this information with your staff? Are there any you are already using that others might find useful?

2020 Dietary Guidelines for Americans



https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf

<https://www.dietaryguidelines.gov/2020-advisory-committee-report>

Online only material not included in the report available online



Thank you!



Questions for Dr. Stang:

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Next steps for Oregon WIC

- ◆ A link to a survey is in the chat and will be sent out via email
- ◆ Today's presentation will be formatted as a quarterly in-service informed by your feedback
- ◆ In-service will be posted by early April 2022