

Bureau of Nutrition and Physical Activity

- Mission:
 - Reduce hunger, increase breastfeeding, and decrease obesity through healthy eating and active living to improve health and well-being for people and communities in Arizona.
- Vision:
 - Healthy Eating and Active Living for All Arizonans

Contents

- Breastfeeding
- Childhood Obesity
- Hunger
- Physical Activity

Breastfeeding

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Breastfeeding Benefits to Babies

- Health, cognitive, and psychological advantages
- Protection against disease and reduction in risk of death
- May protect against infections, such as gastroenterites and diarrheal disease, respiratory illness, and otitis media.

Benefits Extend Beyond Infancy

- May prevent
 - celiac disease
 - multiple sclerosis
 - sudden infant death syndrome
 - Obesity
 - Diabetes
 - and childhood cancer.

Increased Initiation and Duration of Breastfeeding

- Low-cost, readily available strategy to help prevent childhood and adolescent illness, including obesity.
- Improves maternal health.
- Economically and ecologically sound.

Baby-Friendly Hospital Initiative

- Launched by World Health Organization and the United Nations International Children's Emergency Fund.
- Identified 10 steps that every facility providing maternity services and care for newborn infants should support.
- Greater initiation and increased duration of breastfeeding found in hospitals that adopt these practices.

Healthy People 2020 Goals

- Increase the proportion of infants who are breastfed . . .
 - Ever to 81.9% (baseline 74%)
 - At 6 months to 60.6% (baseline 43.5%)
 - At 1 year to 34.1% (baseline 22.7%)
 - Exclusively through 3 months to 46.2% (baseline 33.5%)
 - Exclusively through 6 months to 25.5% (baseline 14.1%)

*Baseline for infants born in 2006, from 2007-2009 National Immunization Survey

Healthy People 2020 Goals

- Increase the proportion of employers that have worksite lactation support programs to 38% (base=25% in 2009, source: Employee Benefits Survey, Society for Human Resources Management (SHRM))
- Reduce the proportion of breastfed newborns who receive formula supplementation within the first 2 days of life to 14.2% (from 24.2%, source: 2007-09 National Immunization Survey)
- Increase the proportion of live births that occur in facilities that provide recommended care for lactating mothers and their babies to 8.1% (from 2.9% of 2007 births, source: Breastfeeding Report Card, CDC, NCCDPHP).

Maternity Practices in Infant Nutrition and Care (mPINC)

- October 2003, CDC convened expert panel of researchers who recommended an ongoing, national system to monitor and evaluate hospital practices related to breastfeeding.
- 2007, the first national mPINC survey was administered to every facility that routinely provides maternity care services.
- Conducted every two years.

mPINC Survey

- 34 survey items
- Scored into seven maternity care practice domains
- Summarized level of maternity care practices and policies in an overall score from 0 (lowest) to 100 (highest).

Breastfeeding Status in Arizona



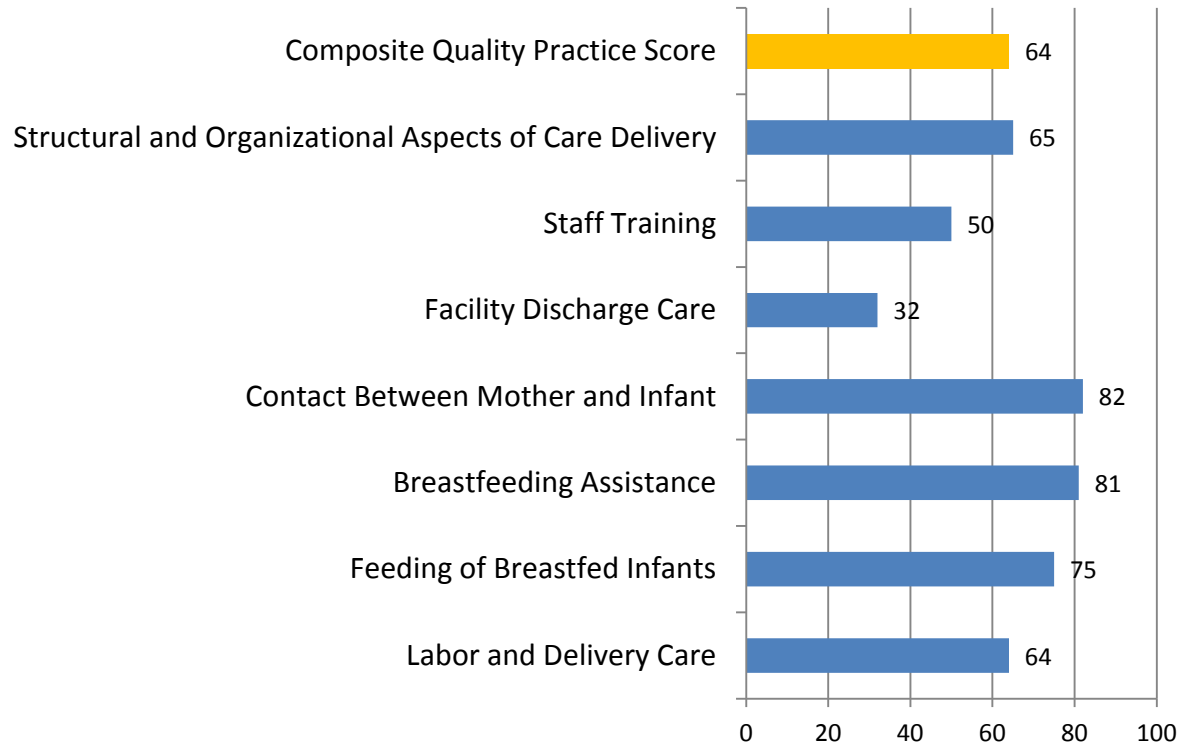
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Arizona Ranked #24 on mPINC Survey in 2009

Domain Results



2012 CDC Breastfeeding Report Card (2009 Births)	Arizona	US
Average mPINC Score	73	70
Percent of live births occurring at facilities designated as Baby Friendly	0	6.22
Percent of breastfed infants receiving formula before 2 days of age	27.7	24.6
Number of LaLeche League Leaders per 1,000 live births	0.85	0.95
Number of International Board Certified Lactation Consultants (IBCLCs) per 1,000 live births	2.85	3.24
State child care center regulation supports onsite breastfeeding	Yes	6

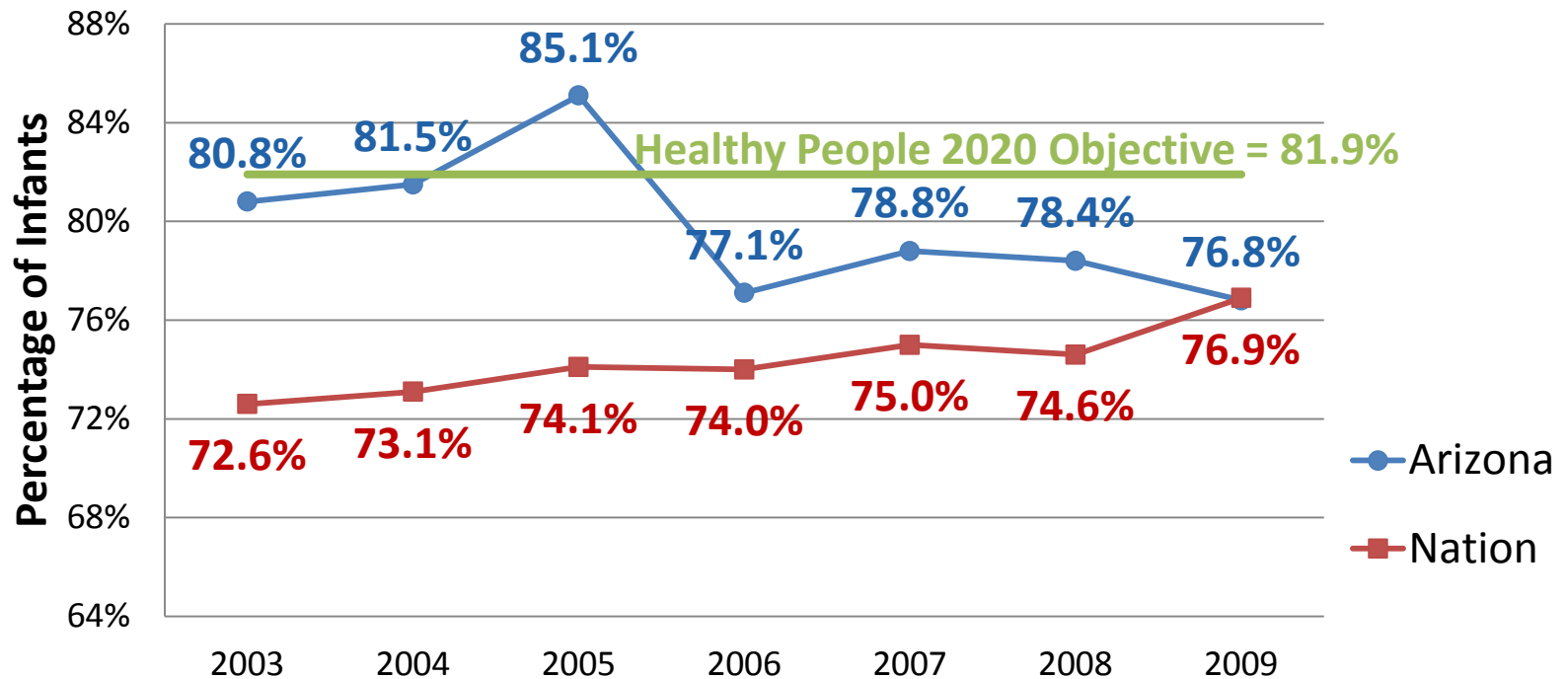


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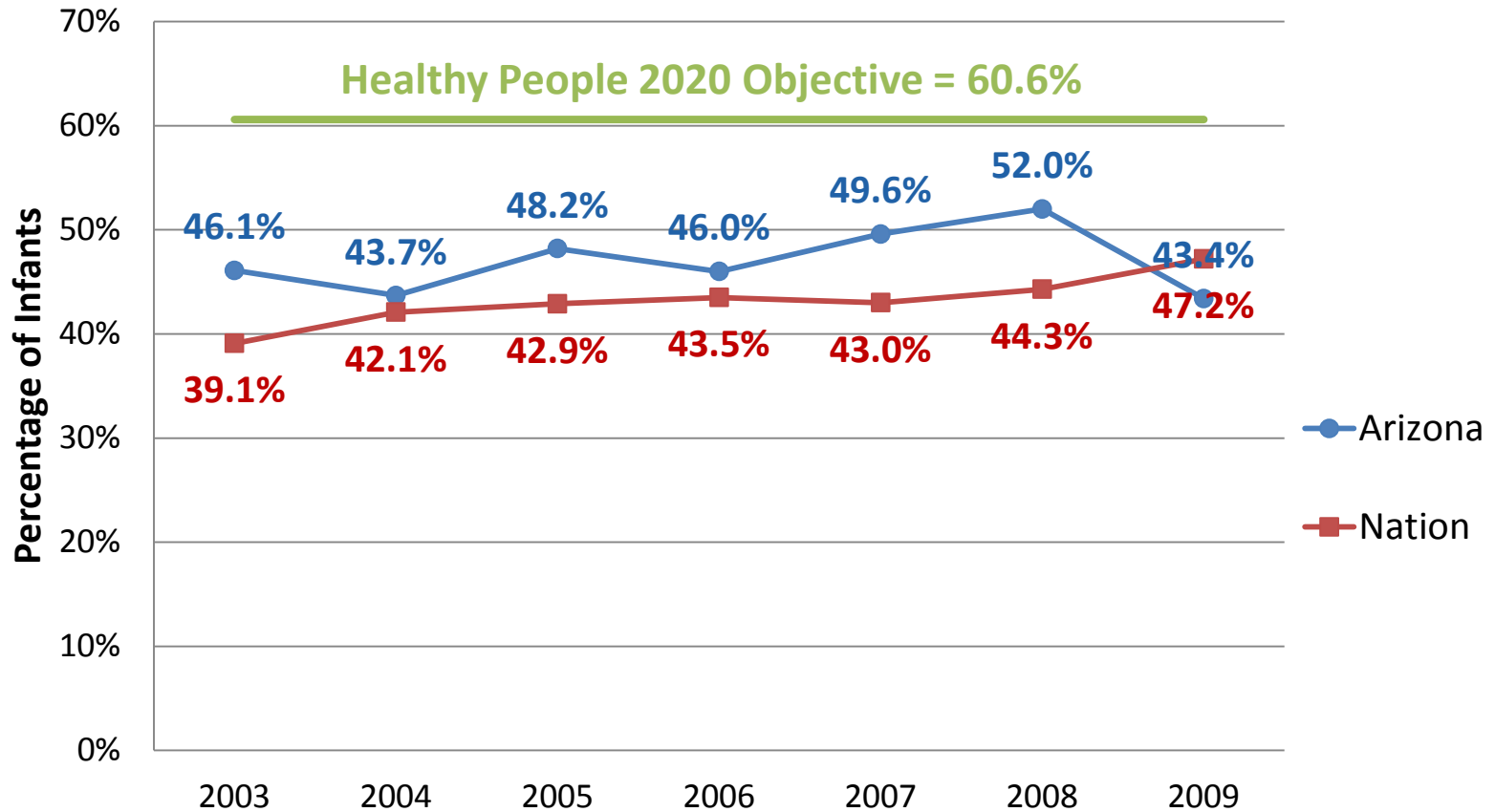
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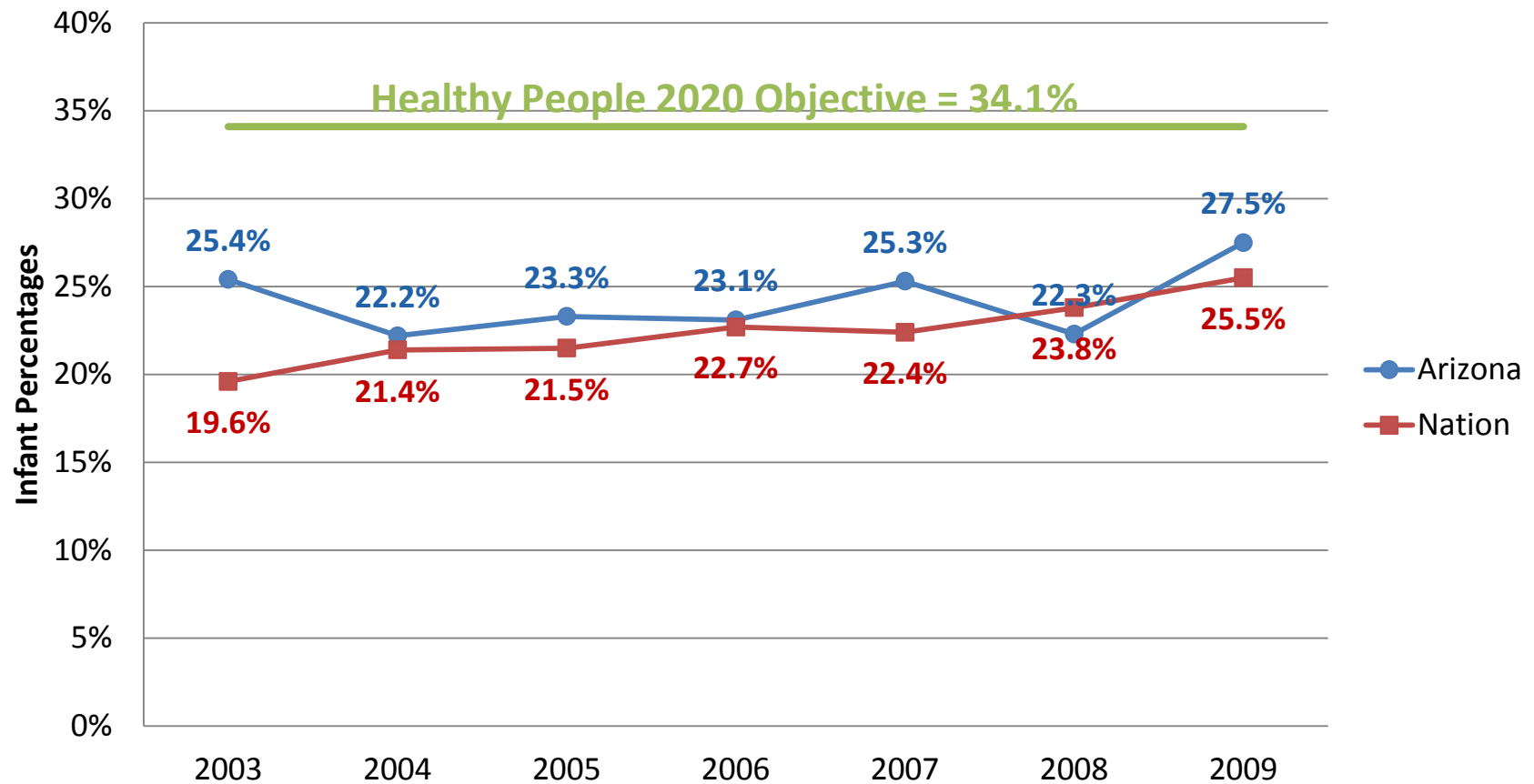
Breastfeeding Initiation All Infants (by birth year)



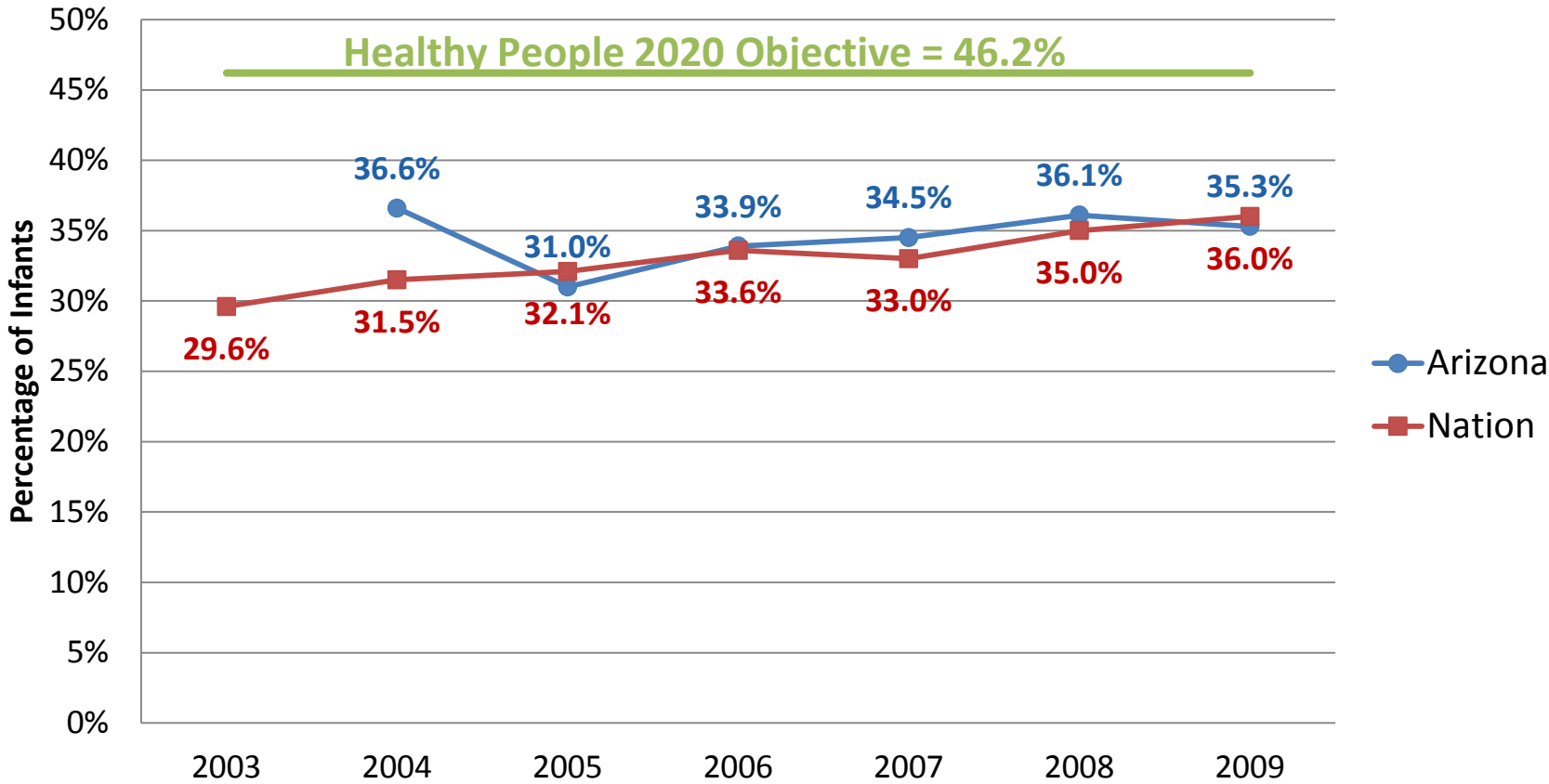
Breastfeeding Duration: 6 Months All Infants (by birth year)



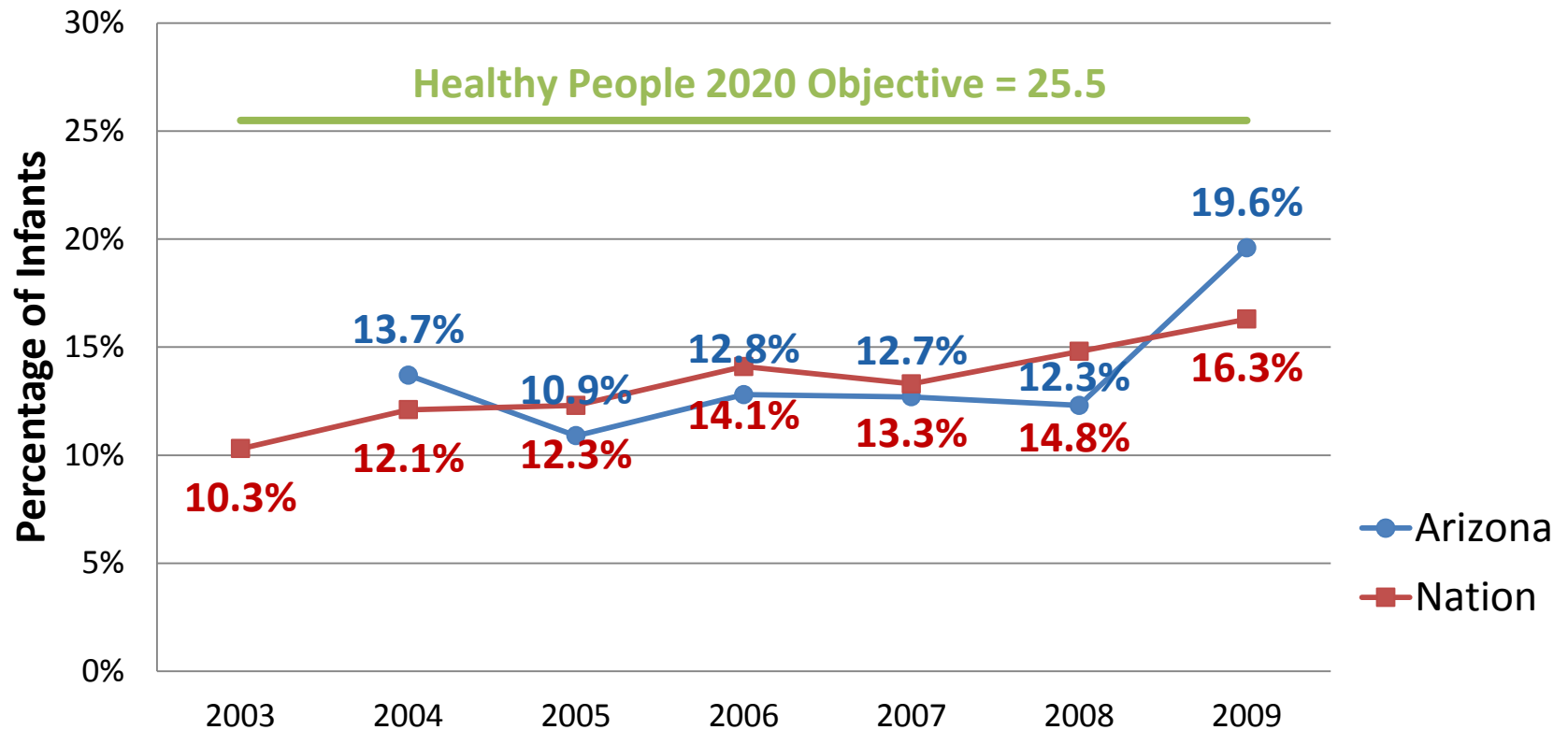
Breastfeeding Duration: 12 Months All Infants (by birth year)



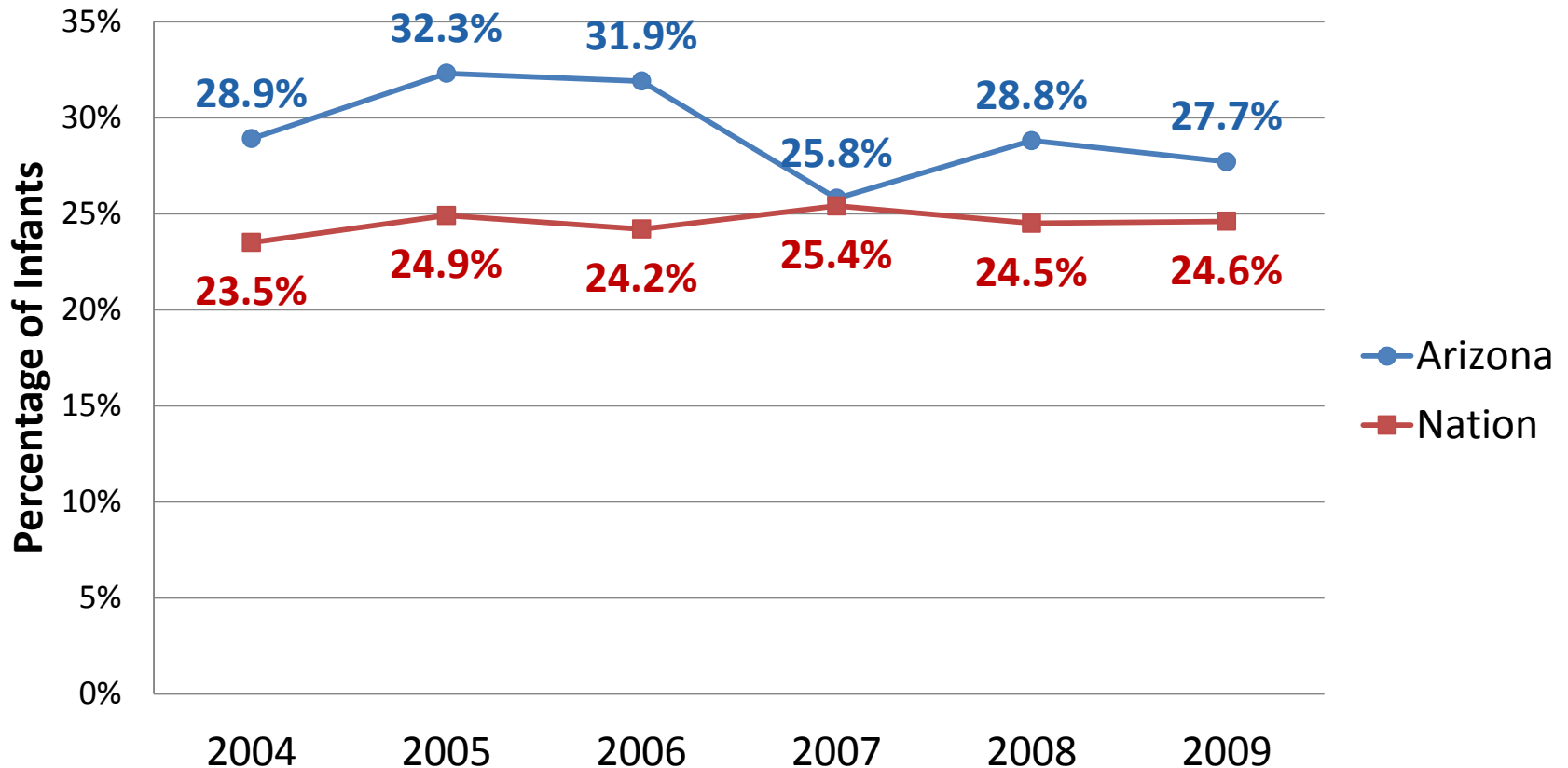
Breastfeeding Exclusivity: 3 months All Infants (by birth year)



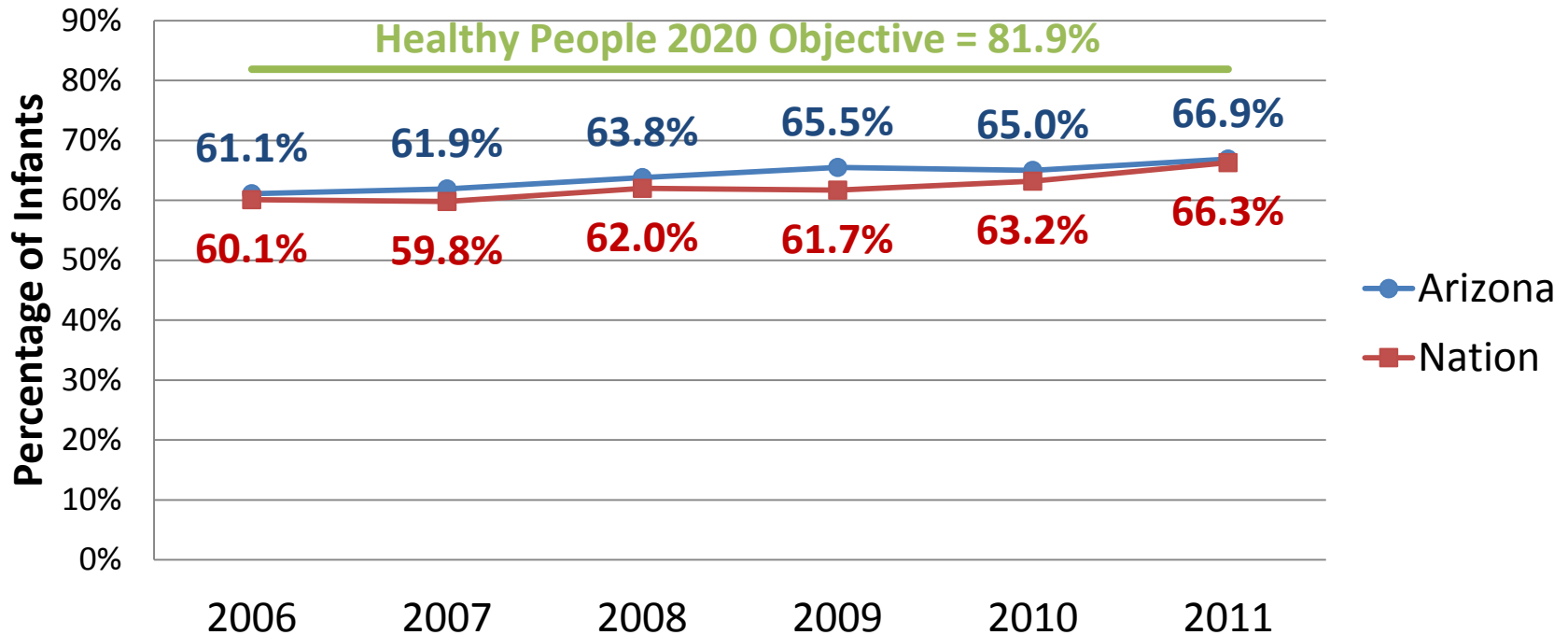
Breastfeeding Exclusivity: 6 Months All Infants (by birth year)



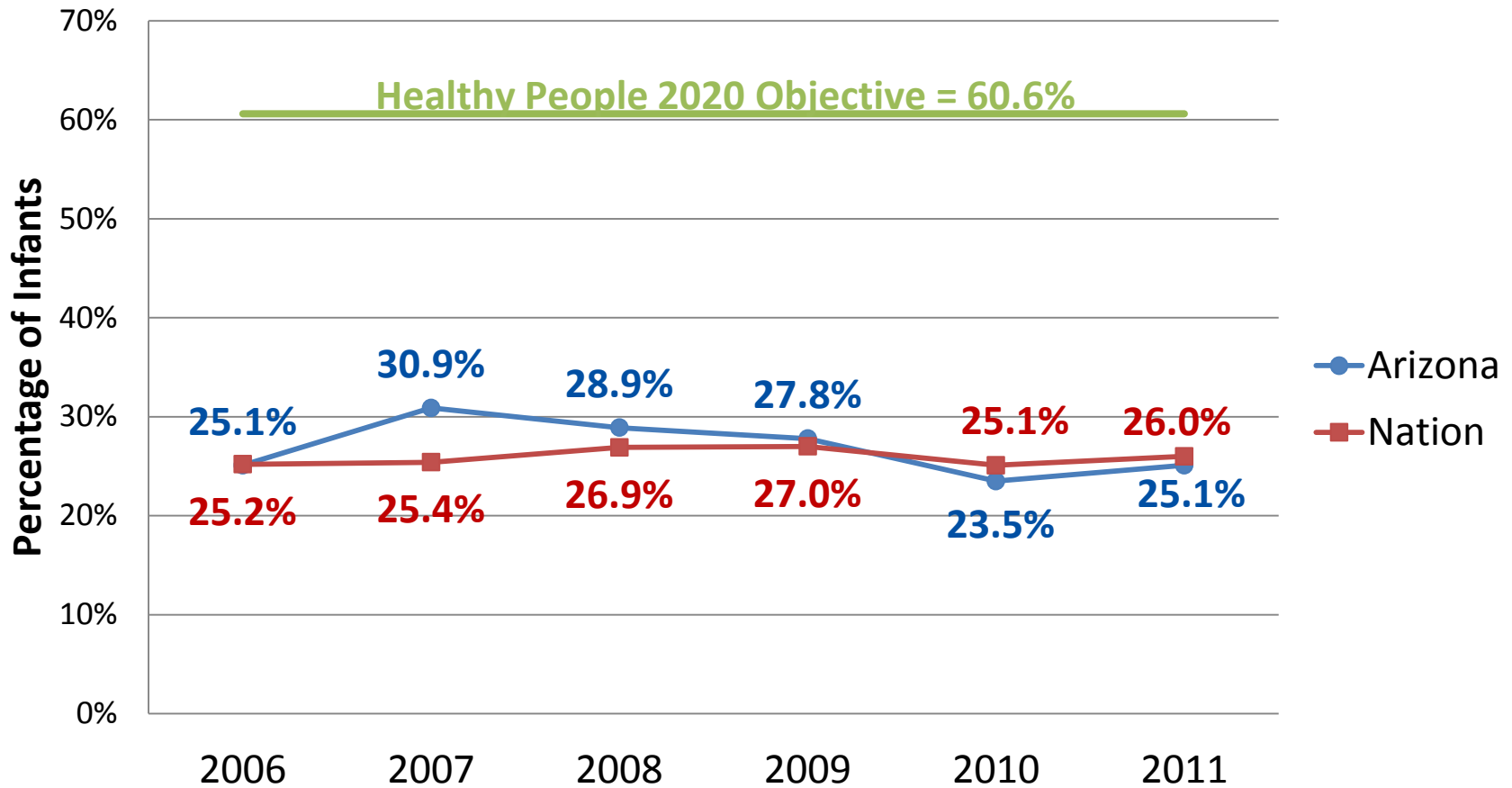
Formula Supplementation Before 2 days (by birth year)



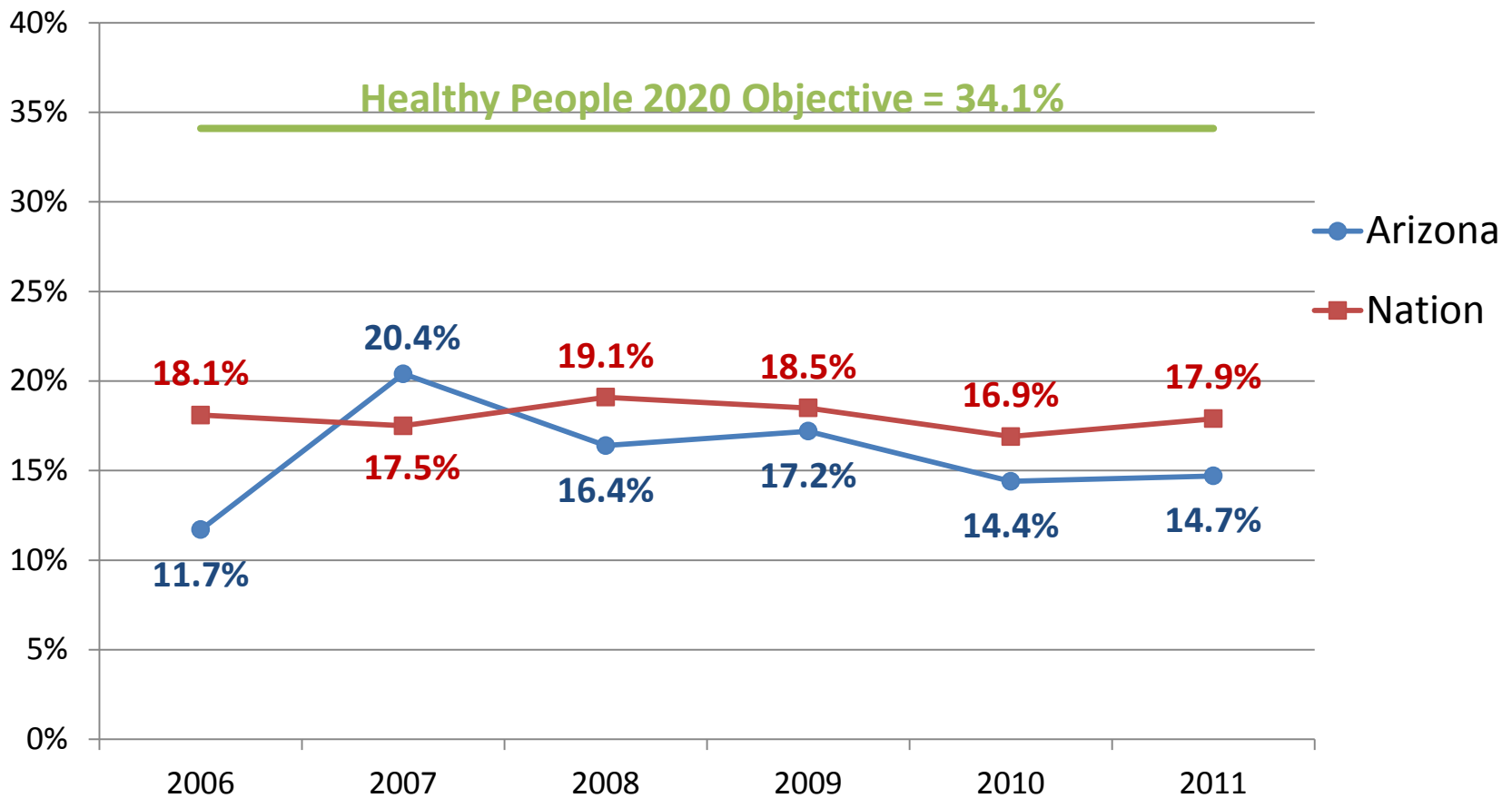
Breastfeeding Initiation Among Low-Income Infants



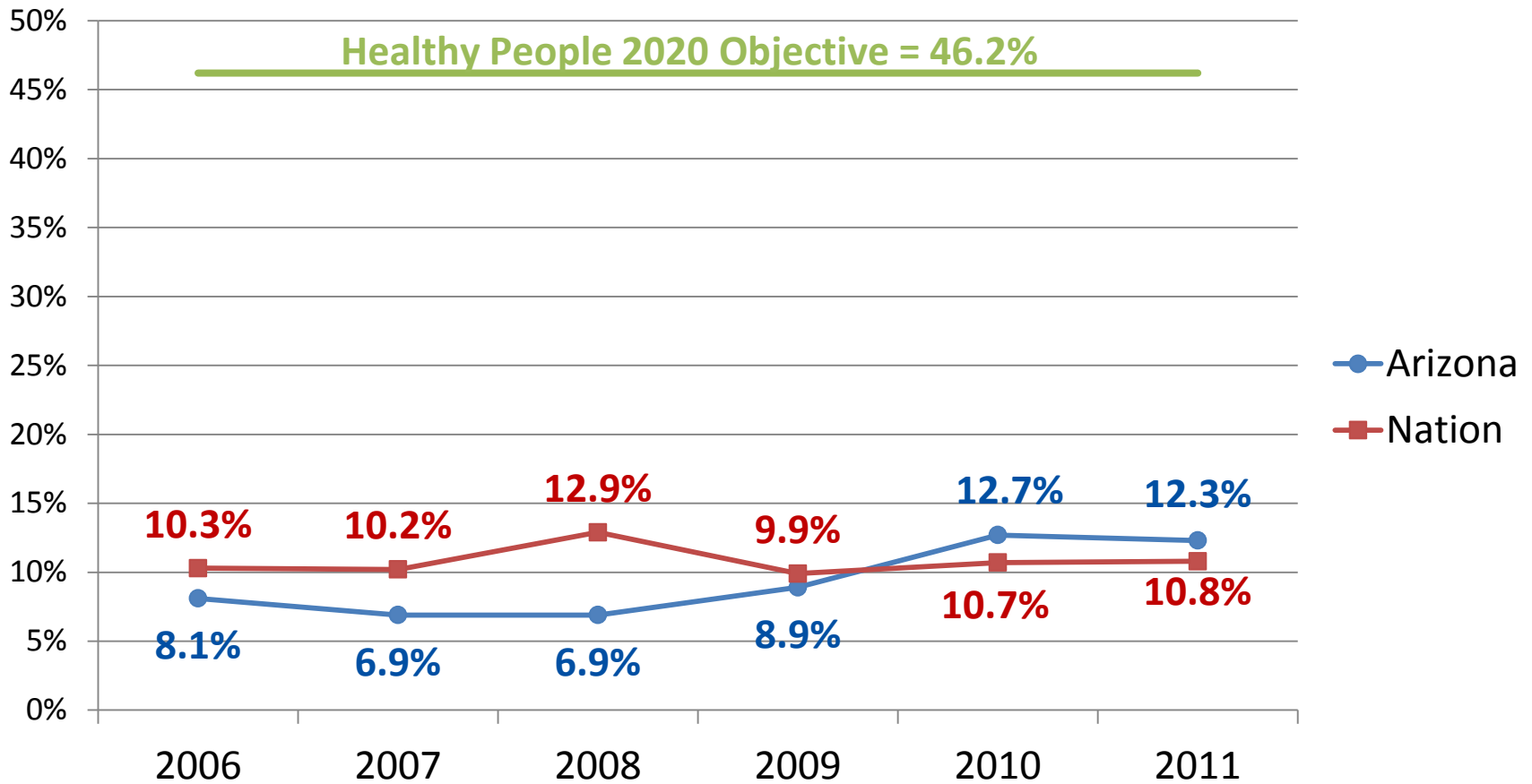
Breastfeeding Duration: 6 Months Among Low-Income Infants



Breastfeeding Duration: 12 Months Among Low-Income Infants



Breastfeeding Exclusivity: 3 Months Among Low-Income Infants



Bureau of Nutrition and Physical Activity Programs Supporting Breastfeeding



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Special Supplemental Nutrition Program for Women, Infants and Children (WIC)

- Promotes breastfeeding among low-income women
- WIC staff complete an Introduction to Breastfeeding course that provides a foundation of breastfeeding knowledge followed by continuing breastfeeding education
- Arizona WIC staff include 50 International Board Certified Lactation Consultants
- Provides individual client centered breastfeeding education and support
- Enhanced food package for breastfeeding mothers
- Peer Counseling breastfeeding support
- Provides breast pumps to mothers returning to work if they have been breastfeeding for baby's first month of life

Baby Steps to Breastfeeding Success

- Works with hospital administrators to support policy change around breastfeeding
- Develop custom plans for change and staff development to increase the baby friendliness of hospitals
- Incorporate five of the ten Baby Friendly Hospital requirements that were chosen based on magnitude of impact and ease of implementation
- Steps are proven to help keep babies breastfeeding longer
- There are currently 22 Arizona hospitals participating

Baby Steps: 5-steps

- Initiate breastfeeding within the first hour after birth
- Avoid giving infants fluids or solids other than breast milk unless medically necessary
- Promote 24 hour rooming-in. Encouraging the family to recognize and respond to infant's cues
- Avoid use of a pacifier or artificial nipple with infants during hospital stay
- Give mothers a telephone number to call for help with breastfeeding

Breastfeeding Hotline

- Provides access to skilled lactation help 24 hours a day, seven days a week
- Approximately 350 mothers per month reached out during evening, weekend and holiday hours to the Hotline for answers
- Question topics include positioning, latch, medications, managing work and school and infant behavior
- The after hours aspect of the hotline is especially useful for mothers unable to reach their health care providers

LATCH-AZ

- ADHS offers professional education in breastfeeding open to the public at no charge
- Opportunity for WIC staff to network with community partners interested in lactation
- Topics include:
 - Baby-Led Breastfeeding
 - Slow Weight Gain
 - Pumps and Galactogogues
 - How Mothers Think and Why it Matters
 - Medications and Mothers' Milk

Childhood Obesity

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Health Risks of Childhood Obesity*

- High blood pressure and high cholesterol, both risk factors for heart disease
- Impaired glucose tolerance, insulin resistance and type 2 diabetes
- Sleep apnea, asthma and other breathing problems
- Joint problems
- Fatty liver disease, gallstones, and heartburn
- Greater risk of social and psychological problems, such as discrimination and poor self-esteem

Source: CDC Basics about Childhood Obesity
<http://www.cdc.gov/obesity/childhood/basics.html>



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Risks in Adulthood*

- Obese children are more likely to become obese adults
- Adult obesity is associated with a number of serious health conditions including heart disease, diabetes, and some cancers

Source: CDC Basics about Childhood Obesity
<http://www.cdc.gov/obesity/childhood/basics.html>



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Causes of Childhood Obesity

- Lack of physical activity*
 - Limited access to safe places to be active and play
 - Excessive 'screen time' (TV, computer, video games, cell phones)
- Eating too many calories*
 - Unhealthy, calorie dense foods are easily available and well advertised
 - Limited access to healthy affordable foods
 - Lack of breastfeeding support for mothers (breastfeeding protects against childhood obesity)
 - Increasing portion sizes

Source: CDC Overweight and Obesity: A Growing Problem
<http://www.cdc.gov/obesity/childhood/problem.html>



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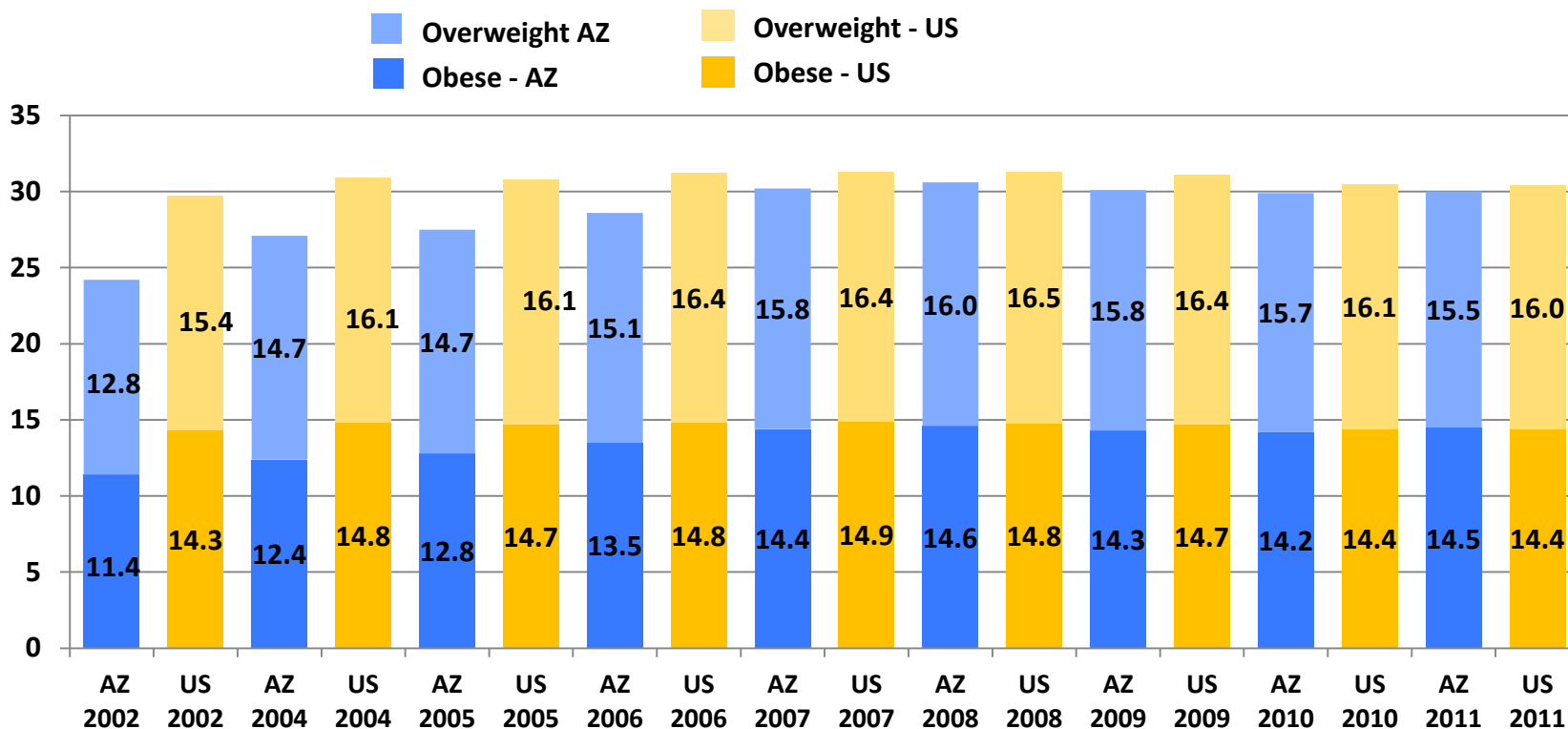
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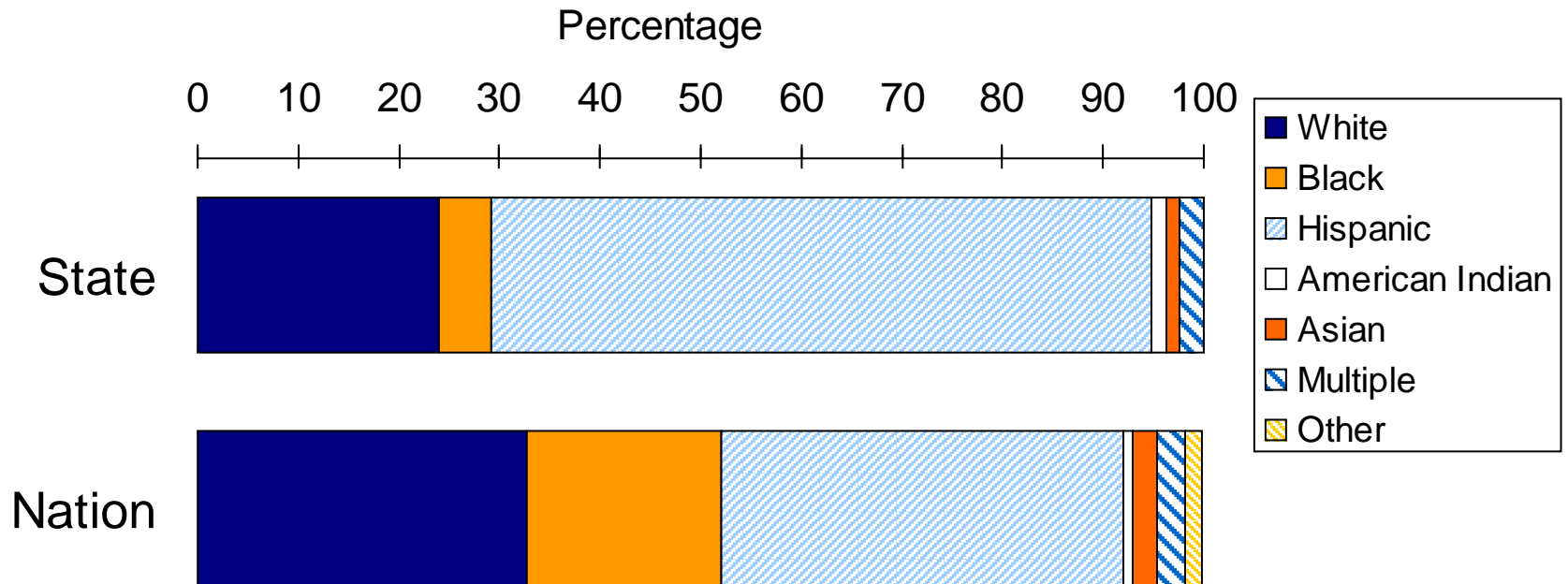
Childhood Obesity Data

- Pediatric Nutrition Surveillance System (PedNSS)
 - Contains nutrition data on low-income pregnant women and children up to 5 years on most states
 - AZ Data Source: 100% WIC, some states include data from other programs such as EPSDT, Title V MCH programs, and Head Start.
- CDC produced annual reports for health and nutrition indicators up to 2011
 - Data at national, state, local agency levels

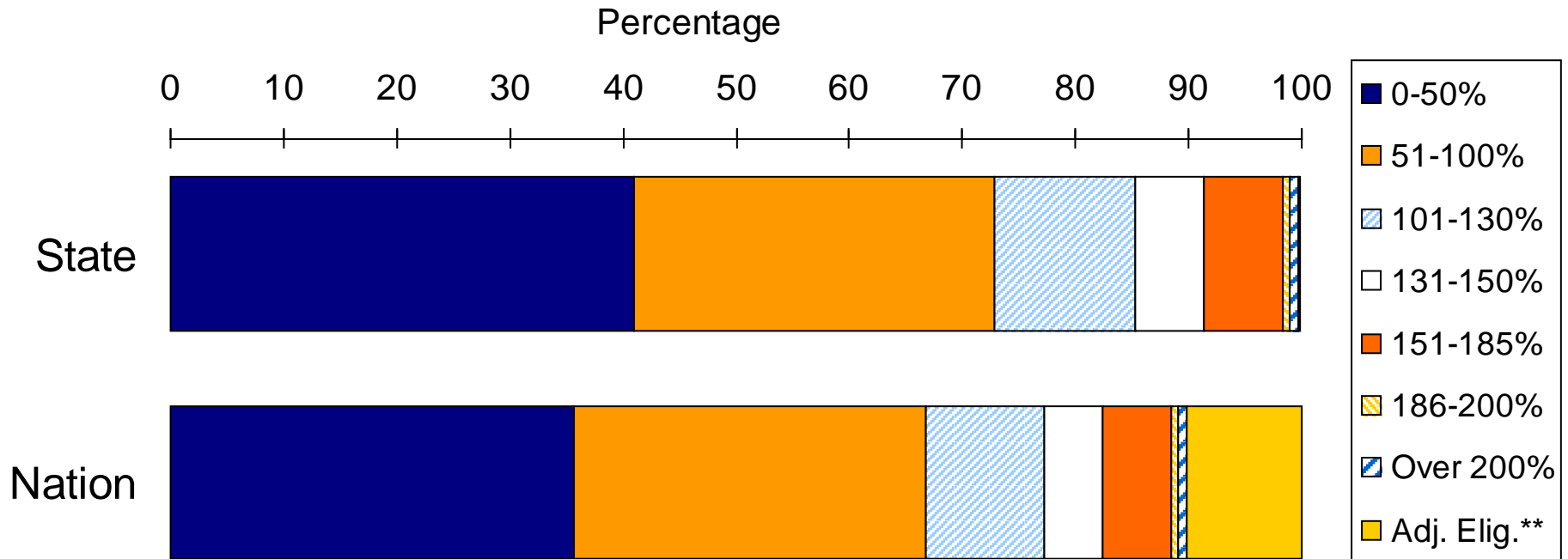
Overweight and Obesity Rates (PedNSS) Among Low Income Children Ages 2 to 5



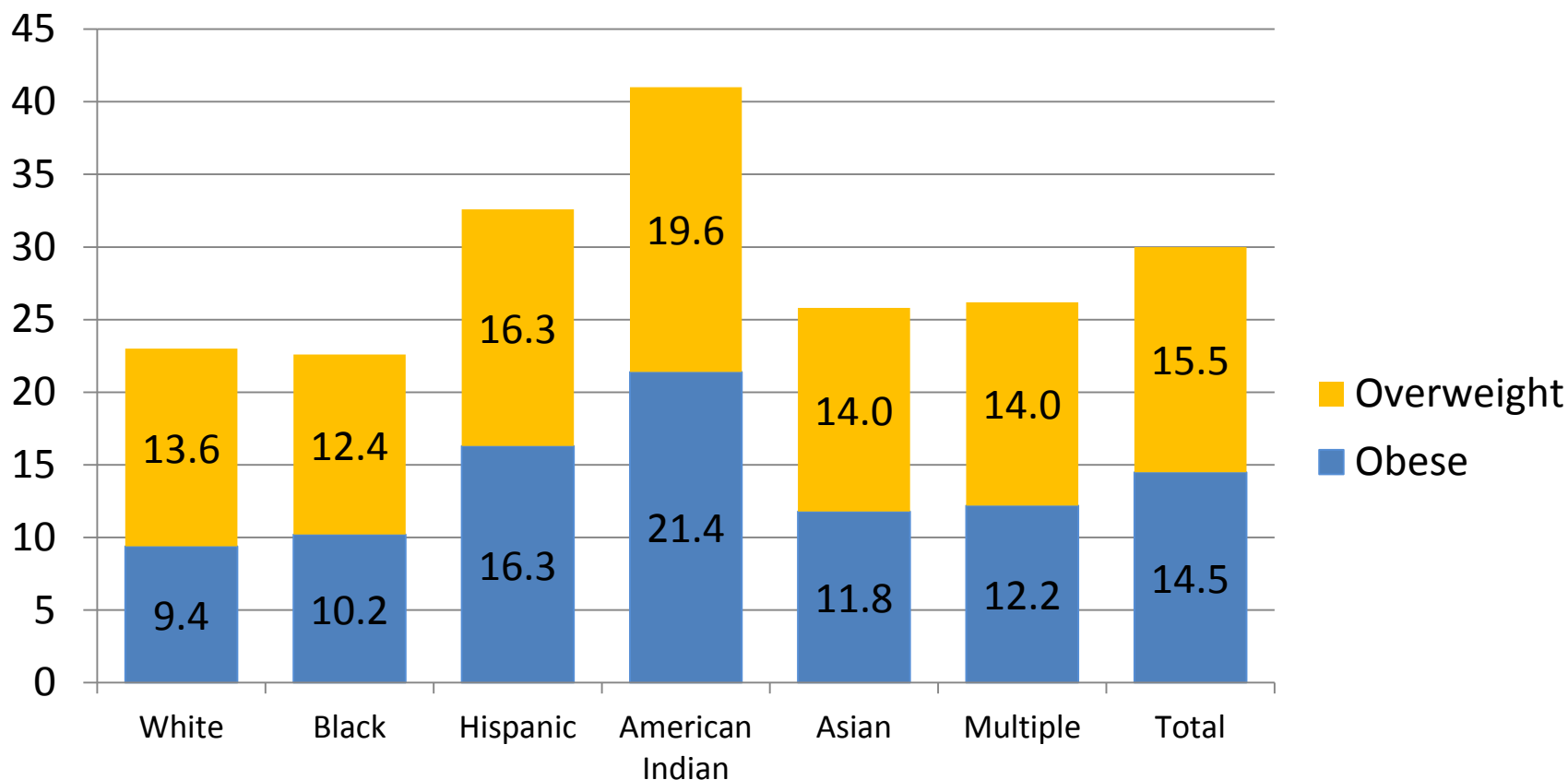
Race/Ethnicity of PedNSS Children 2011



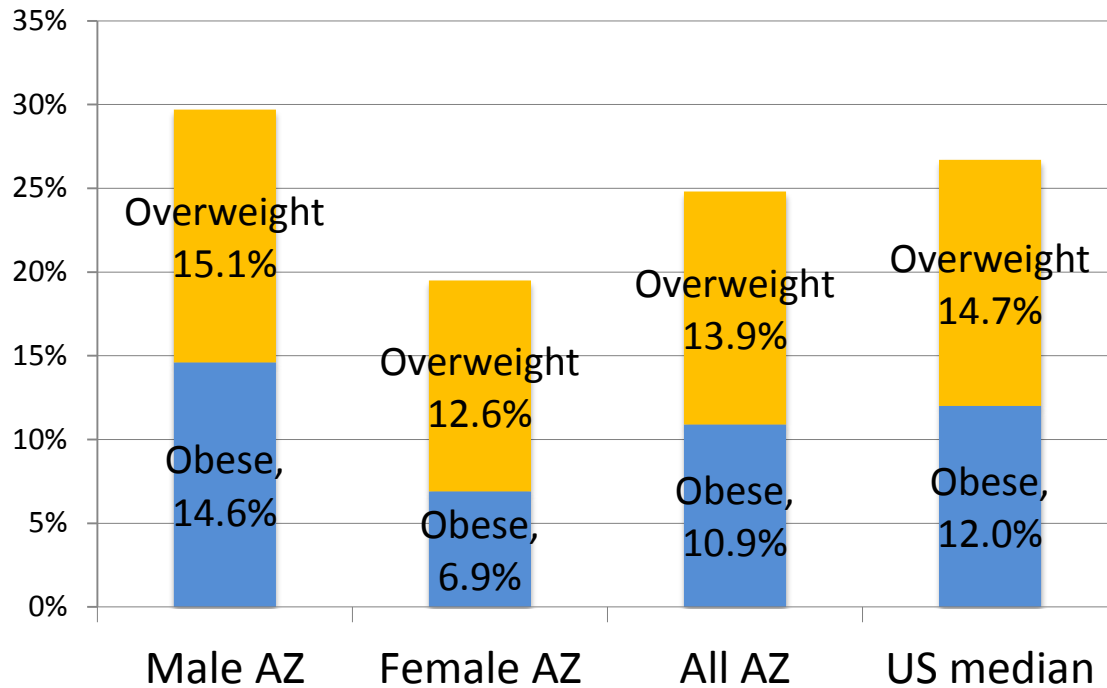
Income of PedNSS Families 2011



Overweight and Obesity in Low Income Children 2–5 Years Percent by Race/Ethnicity, 2011 - PedNSS



Weight Status Among All High School Youth (Youth Risk Behavior Survey 2011)



EMPOWER Childcare

- A voluntary nutrition, physical activity and tobacco prevention program for licensed childcare providers in Arizona
- It 'Empowers' childcare providers, children and families to enjoy healthy eating and active living
- Childcare providers can become an EMPOWER provider by agreeing to follow 10 best practices in exchange for a 50% reduction in licensure fee

EMPOWER 10 Best Practices

1. Provide at least 60 minutes of structured activity and at least 60 minutes and up to several hours of unstructured physical activity
2. Limit screen time to under one hour a day
3. Avoid more than 60 minutes of sedentary activity at a time, except while the child is sleeping
4. Serve meals family style by letting the child decide how much to eat and avoid using food to reward behavior or for a clean plate
5. Provide families education and referrals regarding tobacco prevention, cessation and second hand smoke
6. Serve one percent low fat or fat free milk for all children over two years
7. Offer water at least four times during the day (water is not served during lunch)
8. Limit juice to 100% fruit juice (with no added sugars) and to no more than four to six ounces per day
9. Enforce 24 hour smoke-free campuses (no smoking 20 feet from any entrance)
10. If eligible, participate in the USDA Child and Adult Care Food Program

School Wellness Program

- Partners with the Arizona Department of Education's Coordinated School Health Program
- Helps schools create environments that support healthy eating and physical activity
- Focus on capacity building within schools
- Encouraging schools to create School Health Advisory Councils and complete a School Health Index
- Dedicated to health and wellbeing of students to help make the healthy choice the easy choice

Active School Neighborhood Checklist

- In 1969, approximately half of all school children walked or biked to school each day, now fewer than 15% of children and adolescents use active forms of transportation to and from school
- Partnered with the Arizona Department of Transportation Safe Route to School Program to develop the Active School Neighborhood Checklist
- Generates a score that represents the walkability, bikeability and safety of the school location
- Helps schools and communities identify barriers that prevent students from walking or biking to school and create solutions

Community Design

- Builds partnerships with key decision makers in community design to educate them on the health impact of planning, transportation and land use decisions
- Promotes the use of the Health Impact Assessment framework to objectively evaluate the impact a potential project has on the health of a population

Arizona Nutrition Network

- Promotes healthy behaviors and a healthy diet in the SNAP-eligible population
- Emphasis on promoting fruits and vegetables, low-fat milk, healthy proteins, whole grains, and an active lifestyle
- SNAP is designed to promote the general welfare, and to safeguard the health and well being of the nation's population by raising the levels of nutrition among low-income households*

*Source: Code of Federal Regulations, Title 7: Agriculture, Part 271. 2011.



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Hunger in Arizona

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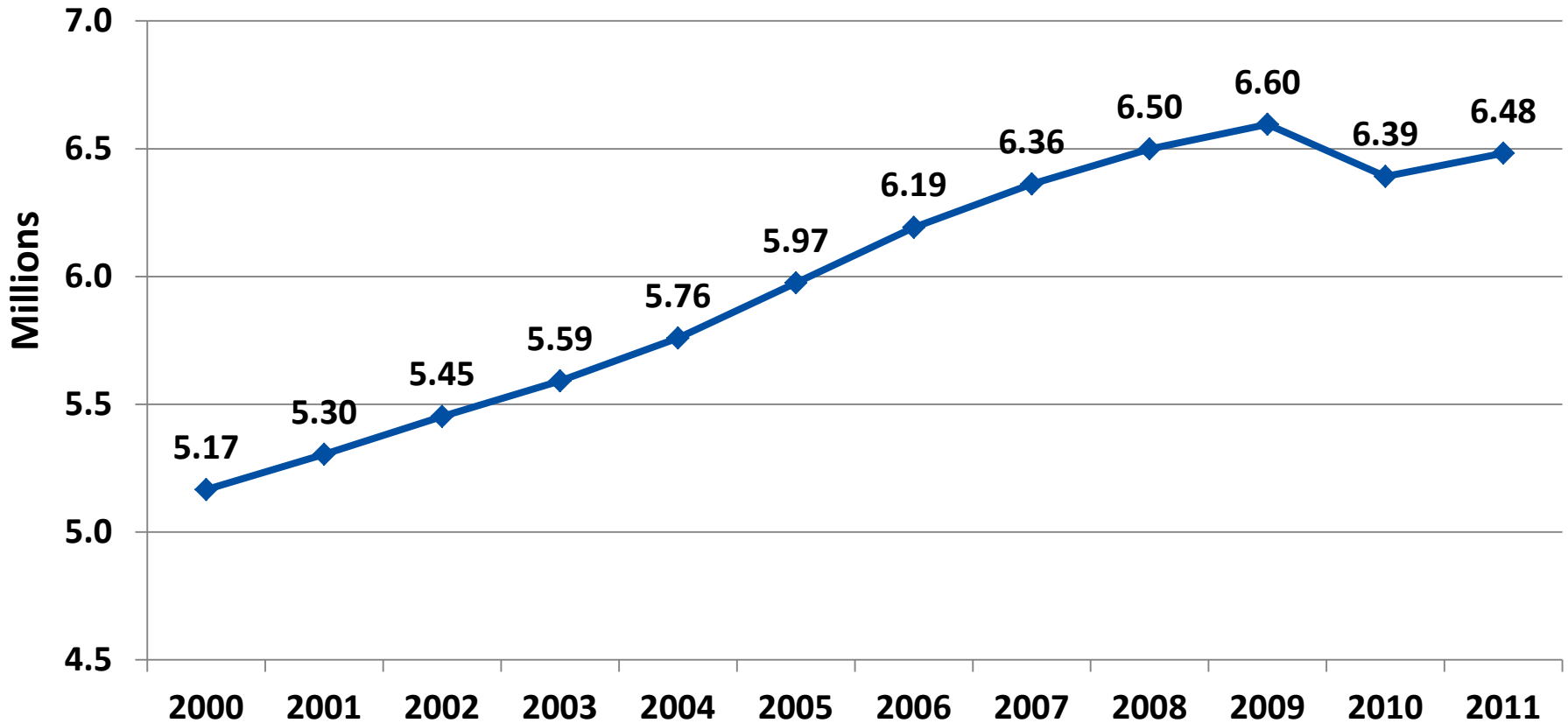
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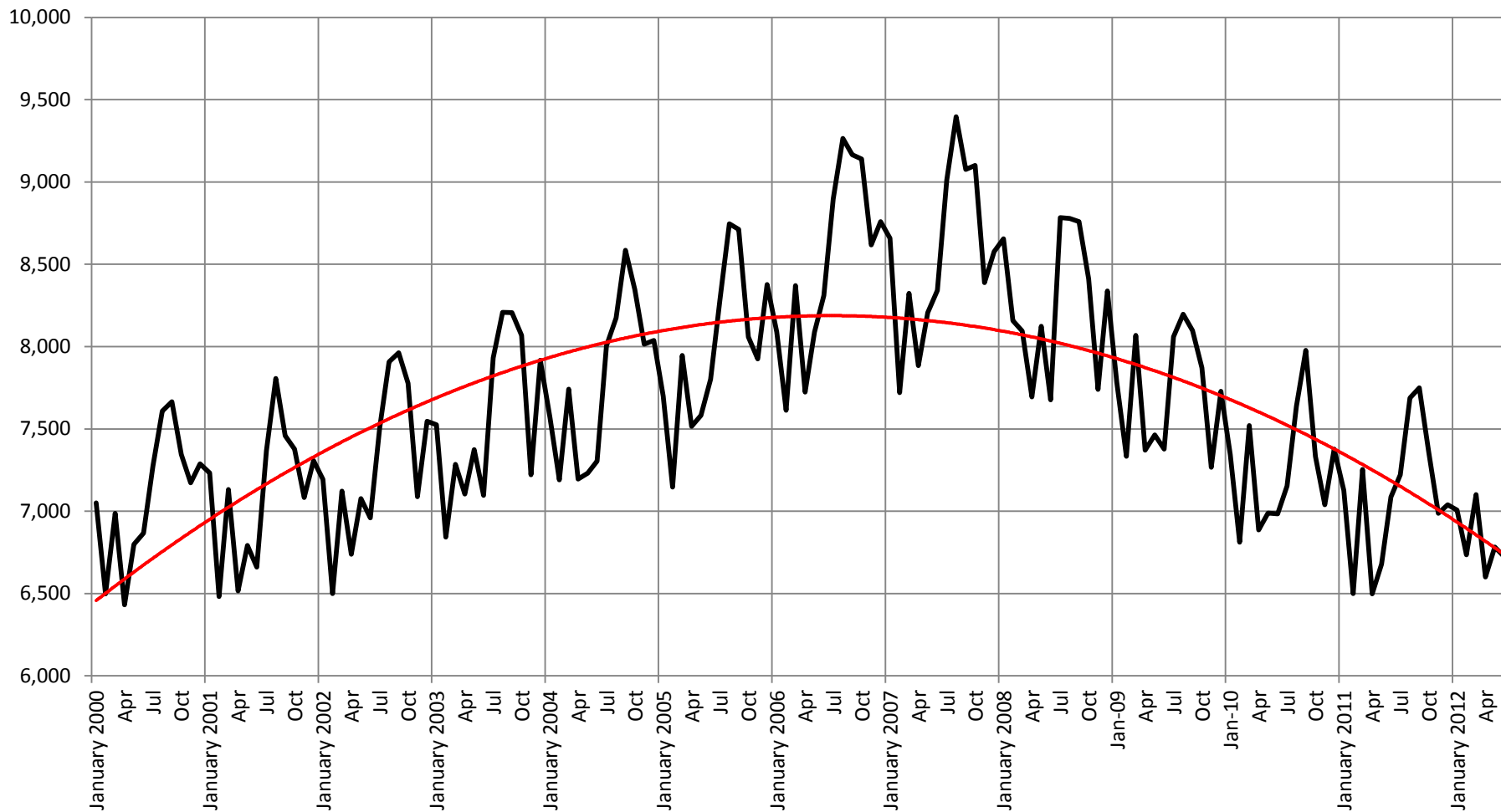
Outline

- Population, Poverty and Unemployment in Arizona
- The Cost of Hunger
- Food Security
- Programs to Combat Hunger in Arizona

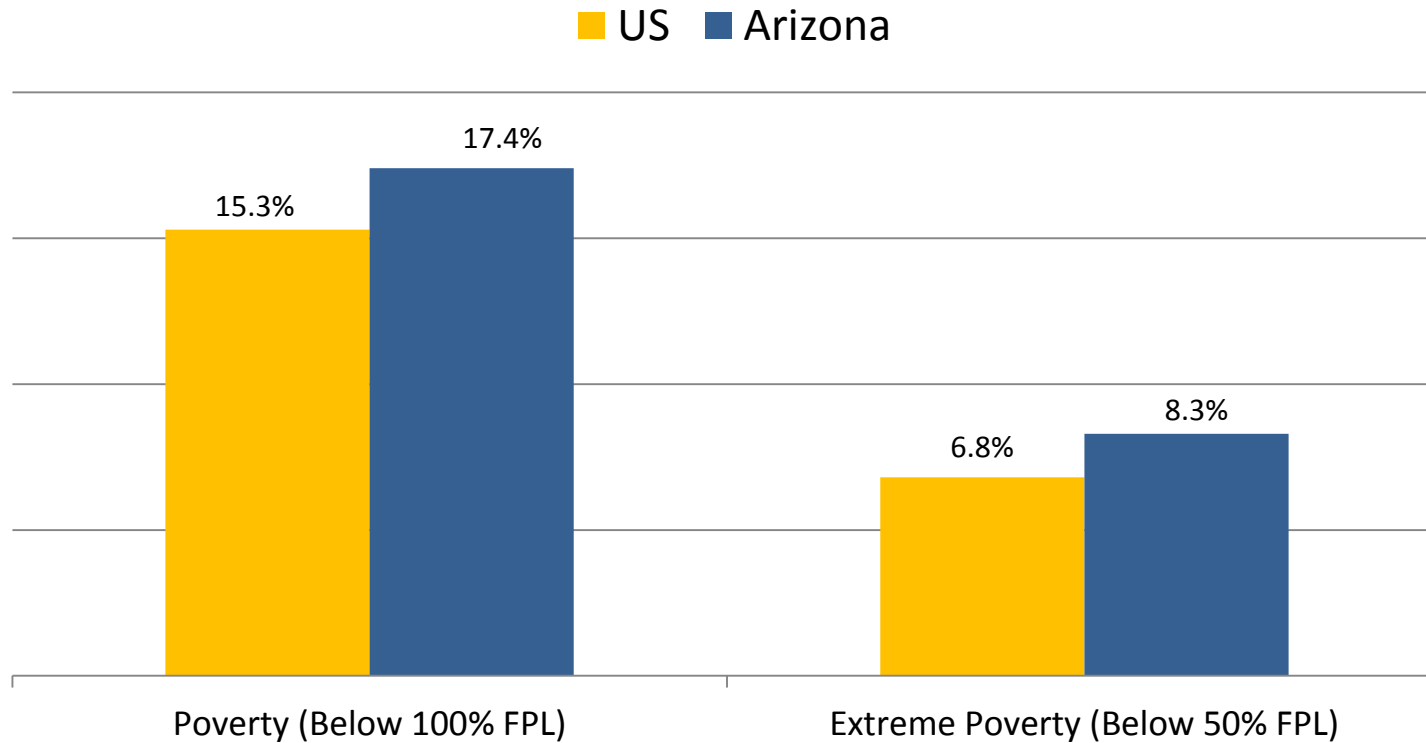
Arizona Population, 2000-2011 In Millions



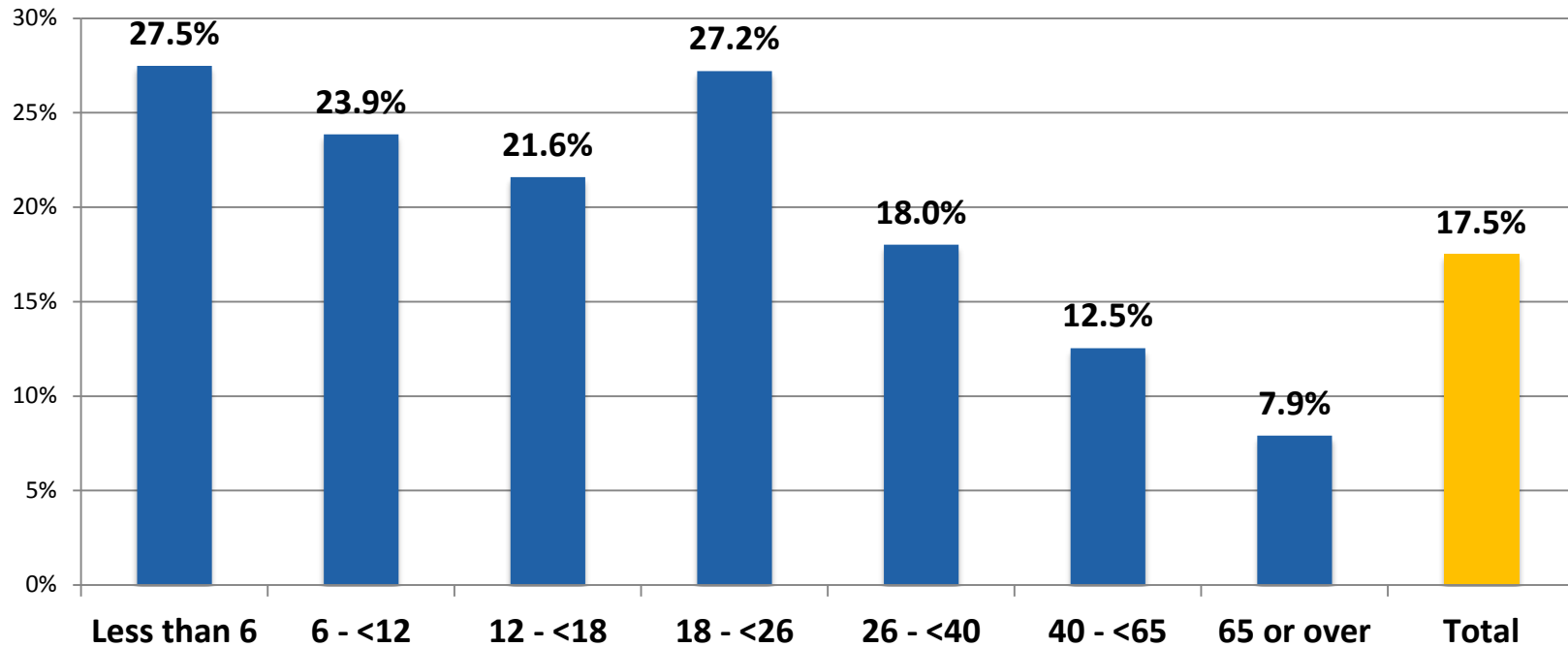
Arizona Resident Births January 2000 through June 2012



Poverty Rates 2010



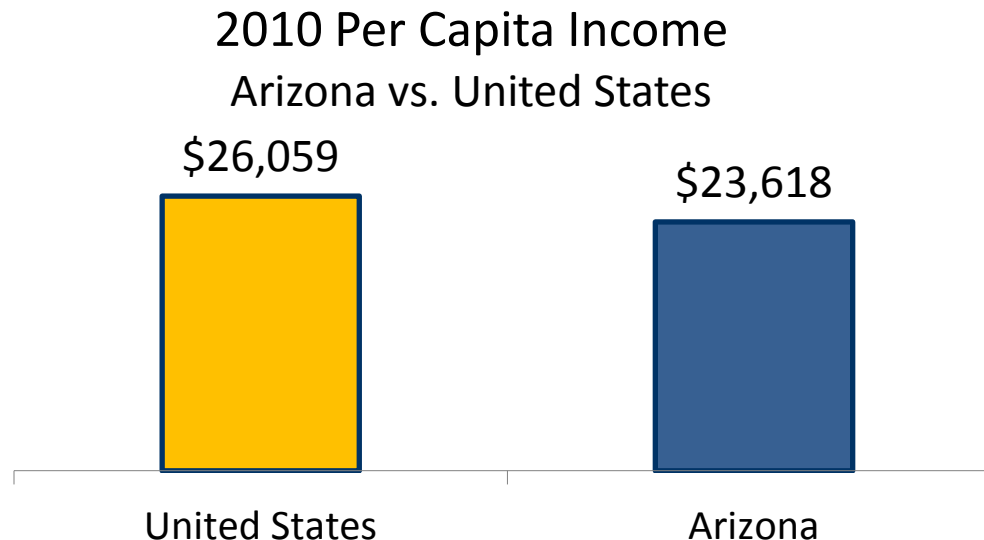
Arizona Poverty Rates 2010 by Age Group



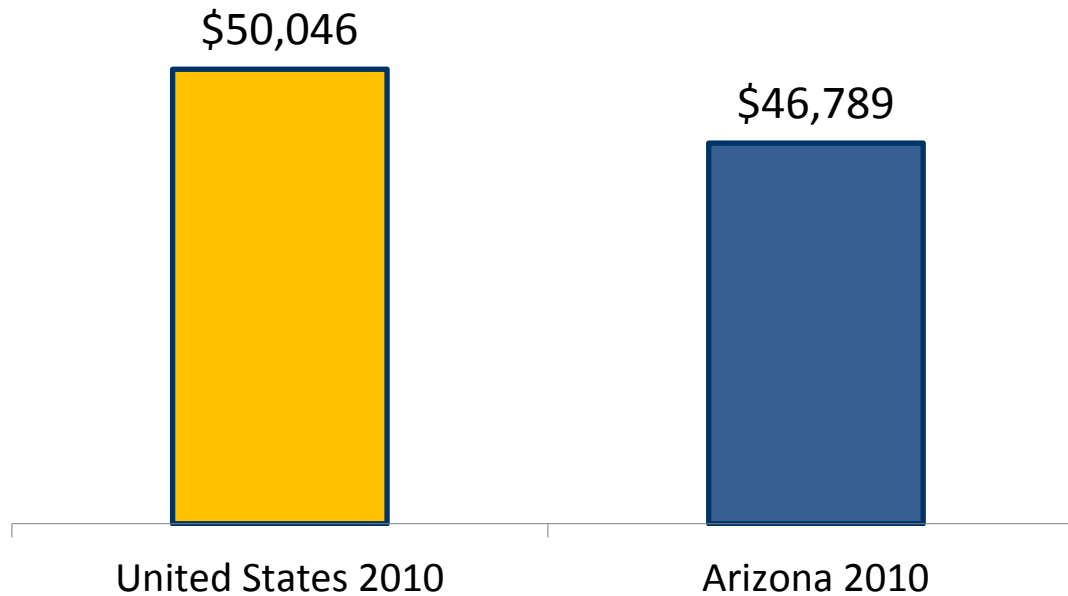
- 24.4% of children under the age of 18 in poverty

Arizona Per Capita Income

- Tends to be lower than U.S. averages.
- 91% of national average in 2010



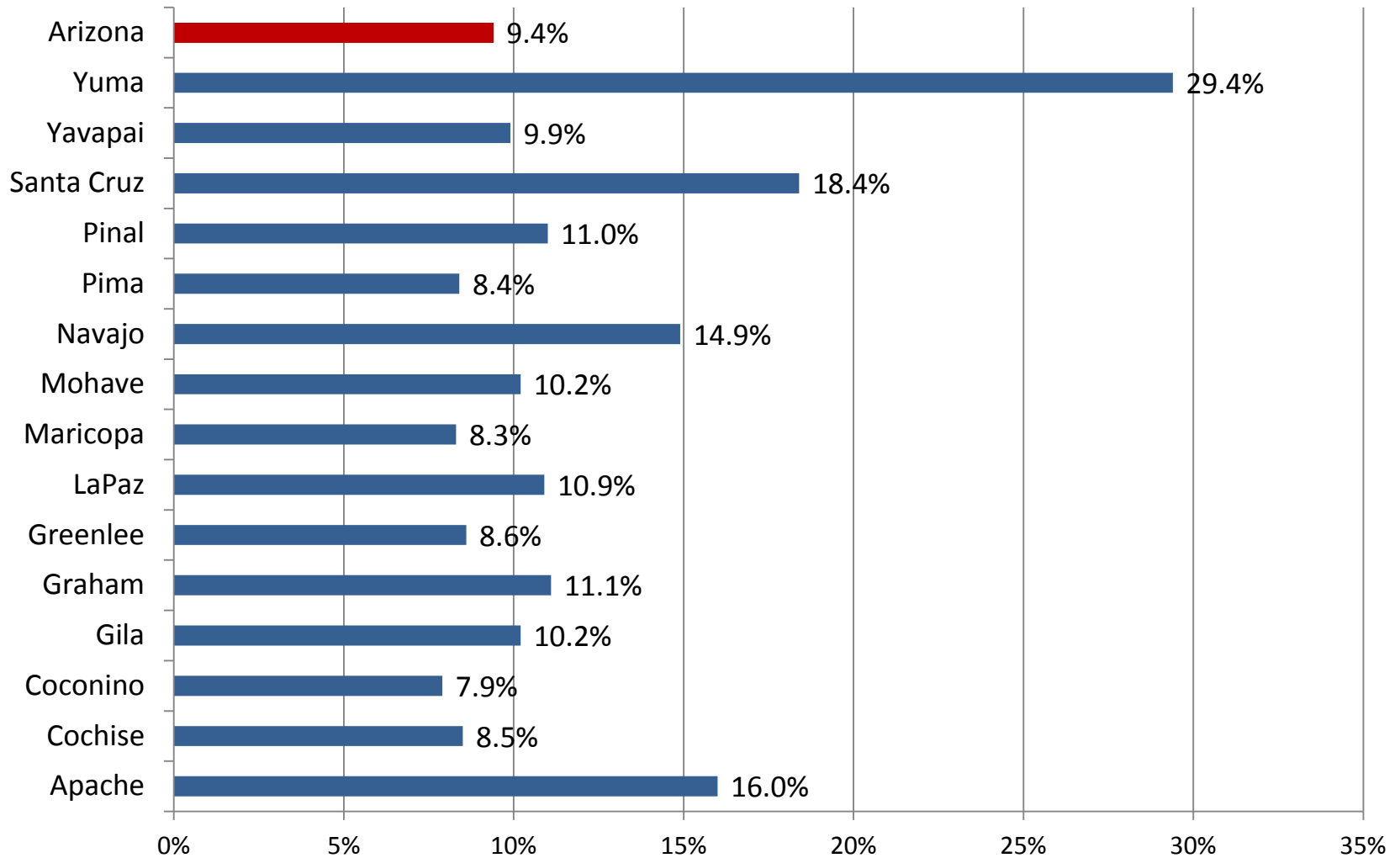
Median Household Income



Unemployment

- Historic low in 2007 of 3.6% in Arizona.
- Climbed to over 10% by end of 2010.
- 36% decrease in construction jobs over last decade
 - 173,600 in 2001
 - 111,600 in 2010

Unemployment Rates 2010



Cost of Hunger

- Cost of Hunger in Arizona is \$3.96 billion (Rank 12), up 31.5% since 2007*
 - Includes related healthcare, education, lost productivity, charitable expenses etc.
 - Does not include the cost of Federal Nutrition Programs

*Source: Center for American Progress, Hunger in America 2011

Food Research and Action Center Reports

- One in five Arizona households (20.8%) reported not having enough money to buy food that they needed during prior 12 months (rank=15)*
- 29% of households with children did not have enough money to buy food (rank=7)*

*Source: FRAC Food Hardship in America 2010



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Food Security

- USDA Definition*:
 - **access by all people at all times to enough nutritious food for an active, healthy life**
- Can be limited by a lack of money and resources
- Very Low Food Security definition:
 - Food intake of household members was reduced and their normal eating patterns disrupted because the household lacked money and other resources for food
- People who have low food security are more vulnerable to obesity due to risk factors associated with poverty**
 - Limited resources, less access to healthy foods, less opportunity for physical activity, cycles of food deprivation and overeating, high stress levels, less access to medical care, more exposure to marketing of obesity-promoting products

*Source: USDA Household Food security in the United States in 2010

**Source: FRAC: Food Insecurity and Obesity: Understanding the Connections

http://frac.org/pdf/frac_brief_understanding_the_connections.pdf



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Food Research and Action Center Reports

- Households that are Food Insecure in Arizona: 15.3% (Rank 15)*
 - Compared to 14.5% Nationally
- Households that are Very Low Food Secure in Arizona: 5.9% (Rank 15)*
 - Compared to 5.4% Nationally

* Source: FRAC, State of the States 2011 (2008 to 2010 3 year averages)

Programs in Arizona

- School Breakfast
- National School Lunch Program
- Supplemental Nutrition Assistance Program (SNAP)
- The Emergency Food Assistance Program (TEFAP)
- Temporary Assistance to Needy Families (TANF)
- Child and Adult Care Food Program (CACFP)

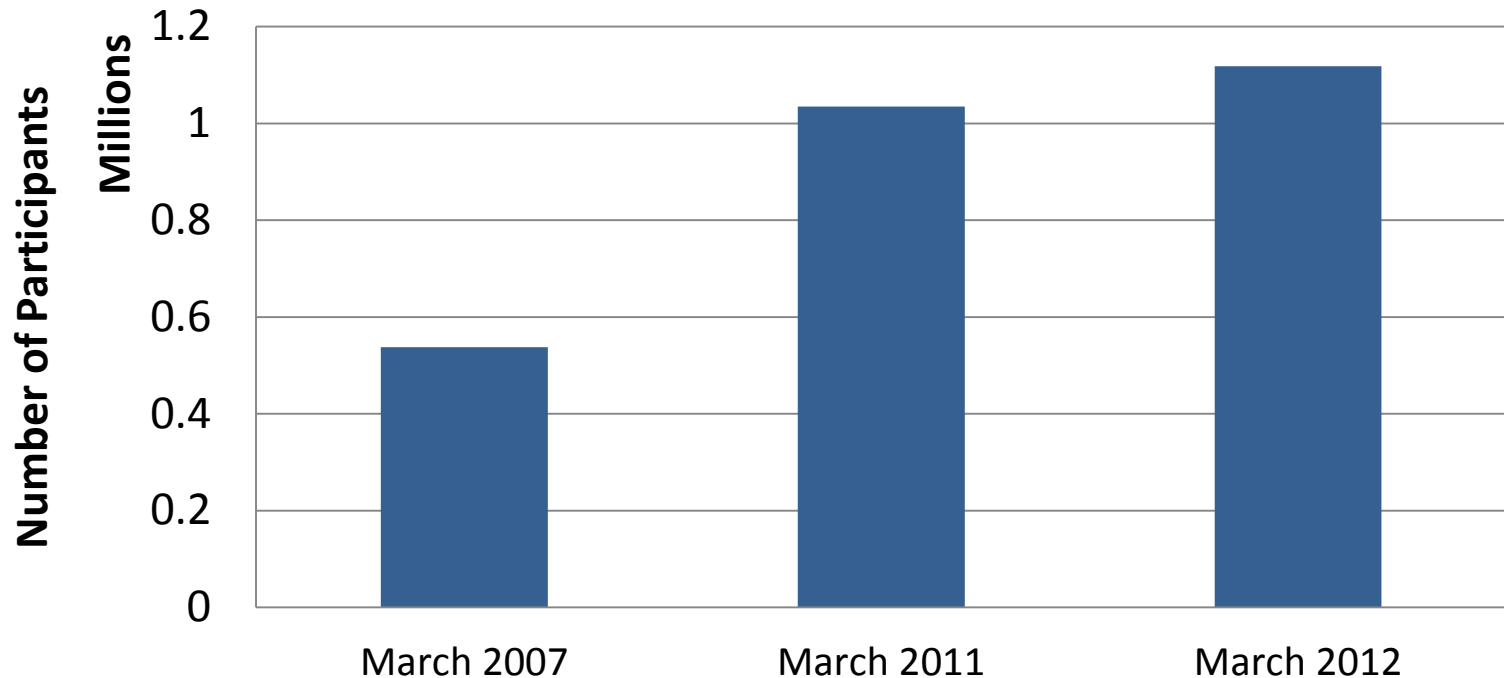
Expanded SNAP*

- American Recovery and Reinvestment Act increased SNAP benefits from 2009 to 2018.
- Subsequent laws and bills amended end date to:
 - First to March 31, 2014 (PL 111-226)
 - Then to October 31, 2013 (S 3307)
- HR 6083, if passed, would repeal bonuses and categorical eligibility as soon as September 30th of this year, when current Farm Bill expires, as well as affect school lunch program.

*source: FRAC

SNAP Participation Changes

Over five years, from March 2007 to March 2012, SNAP participation more than doubled in Arizona



More Recent SNAP Participation (Arizona, June 2012)

- 481,901 households
- 1,116,483 people

Bureau of Nutrition and Physical Activity Programs



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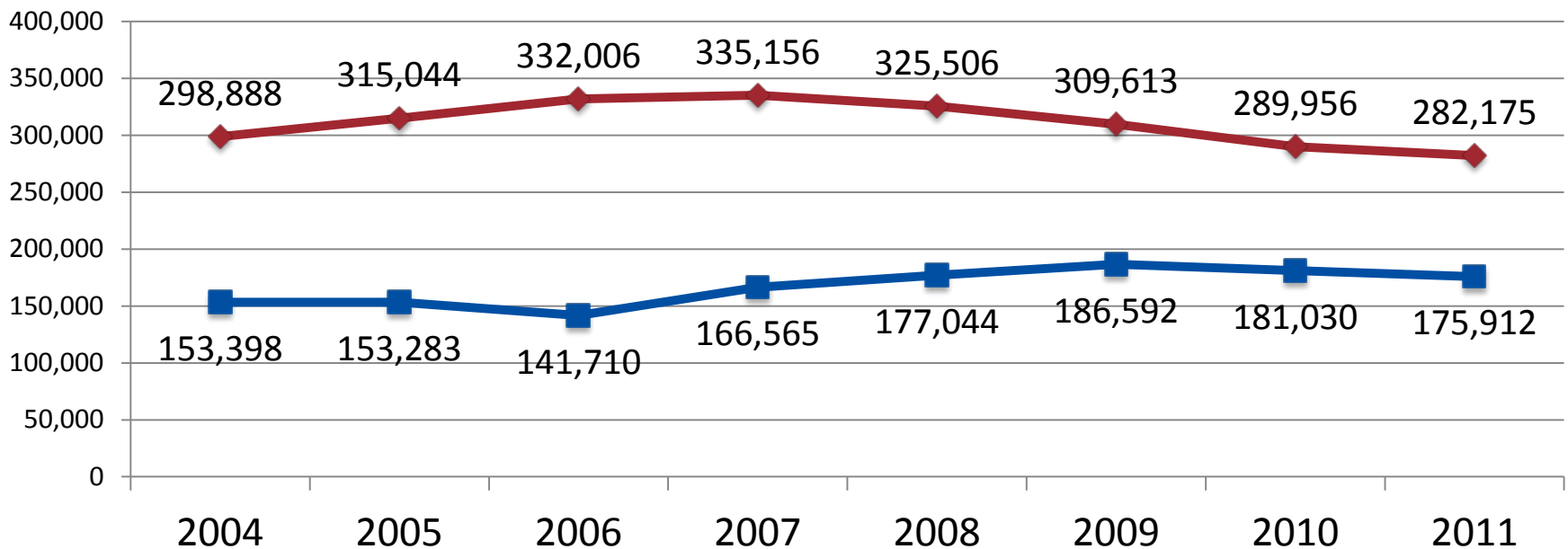


Special Supplemental Nutrition Program for Women Infants and Children (WIC)

- Improves health and nutrition status of pregnant, breastfeeding, and postpartum women and infants and children up to age 5
 - Serves approximately 330,000 people per year
- Provides supplemental foods, nutrition education and referral services

Penetration of WIC Services into Eligible Population

◆ Eligible Population ■ Average Caseload



Rate	51.3	48.7	42.7	49.7	54.4	60.3	62.4	62.3
	+ ITCA and Navajo Nation						+8%	+8%



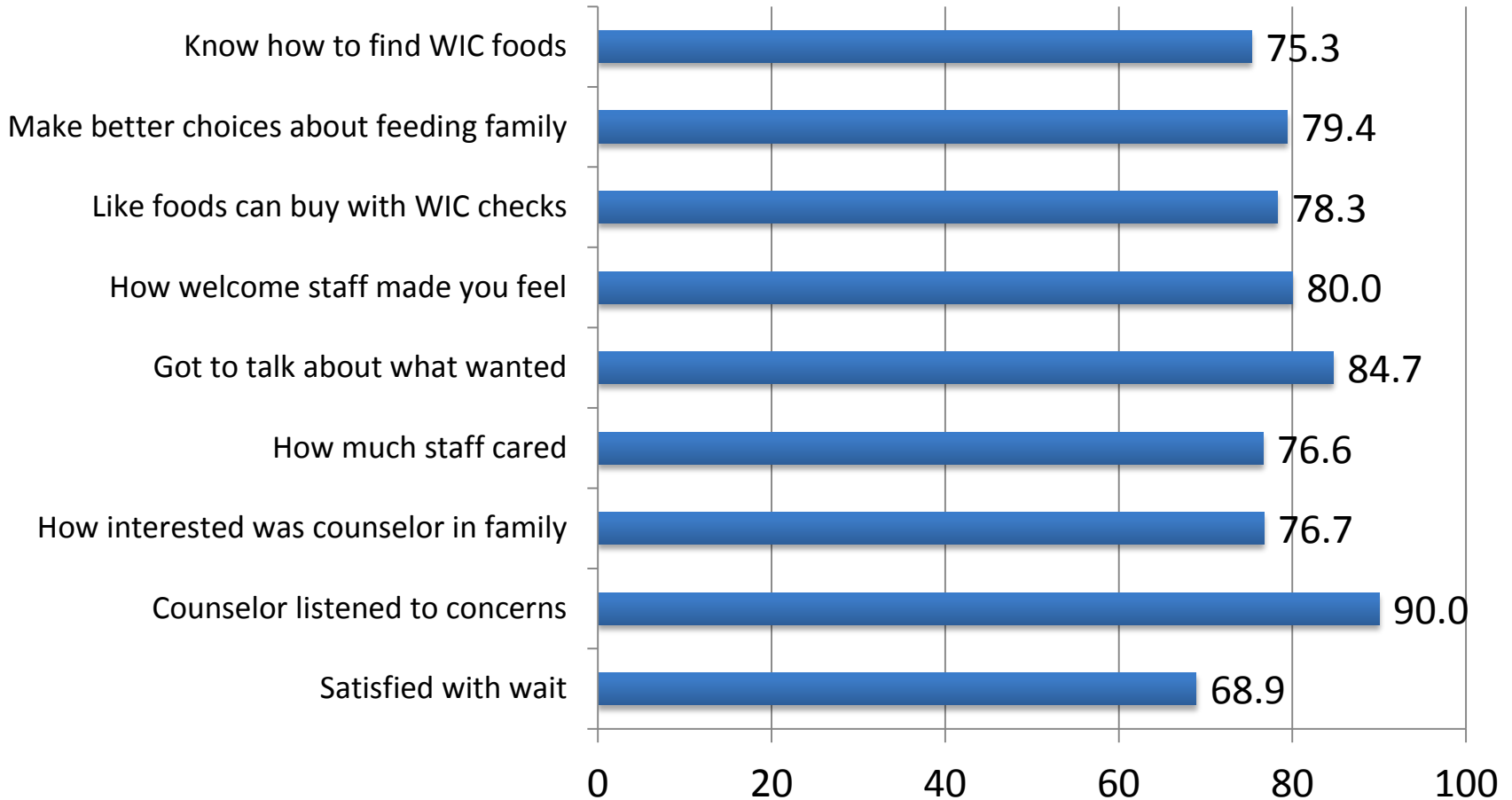
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2012 WIC Satisfaction

Percent responding with most favorable response (very much)



Commodity Supplemental Food Program (CSFP)

- Distribution of supplemental foods to pregnant, breastfeeding, and postpartum women, infants, children up to age 6, and the elderly
 - In FY2012, average monthly participation was 8,484
 - \$2.4 million distributed
- Provides funding for three food banks, county health departments and community health centers

Arizona Nutrition Network

- Promotes healthy behaviors and a healthy diet in the SNAP-eligible population
- Emphasis on promoting fruits and vegetables, low-fat milk, healthy proteins, whole grains, and an active lifestyle
- SNAP is designed to promote the general welfare, and to safeguard the health and well being of the nation's population by raising the levels of nutrition among low-income households*

*Source: Code of Federal Regulations, Title 7: Agriculture, Part 271. 2011. (Accessed at <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=eedc0e91b43fc31e6c5227db320bc695&rqn=div5&view=text&node=7:4.1.1.3.19&idno=7.>)



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Physical Activity

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Benefits of Physical Activity

- Regular physical activity can have long term health benefits such as a lower risk of:
 - Premature death
 - heart disease
 - type 2 diabetes
 - Stroke
 - Some types of cancer
 - Osteoporosis
 - Depression
- Health benefits are seen in all age groups and all racial and ethnic groups

Source: CDC 2008 Physical Activity Guidelines for Americans

Physical Activity Guidelines for Americans

- Children
 - 60 minutes of physical activity a day
- Adults
 - 150 minutes a week of aerobic moderate physical activity or 75 minutes a week of vigorous physical activity
 - ALL adults should avoid inactivity, some physical activity is better than none
 - Muscle strengthening activities on 2 or more days per week
- Older Adults
 - 150 minutes a week of moderate physical activity or as physically active as their abilities allow

Source: CDC 2008 Physical Activity Guidelines for Americans



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Behavior Risk Factor Surveillance Survey

- Has been monitoring physical activity levels for several years; however,
- Results from previous years are not comparable to 2011, due to two changes:
 - Sampling and weighting methodology
 - Changes to the physical activity questions.

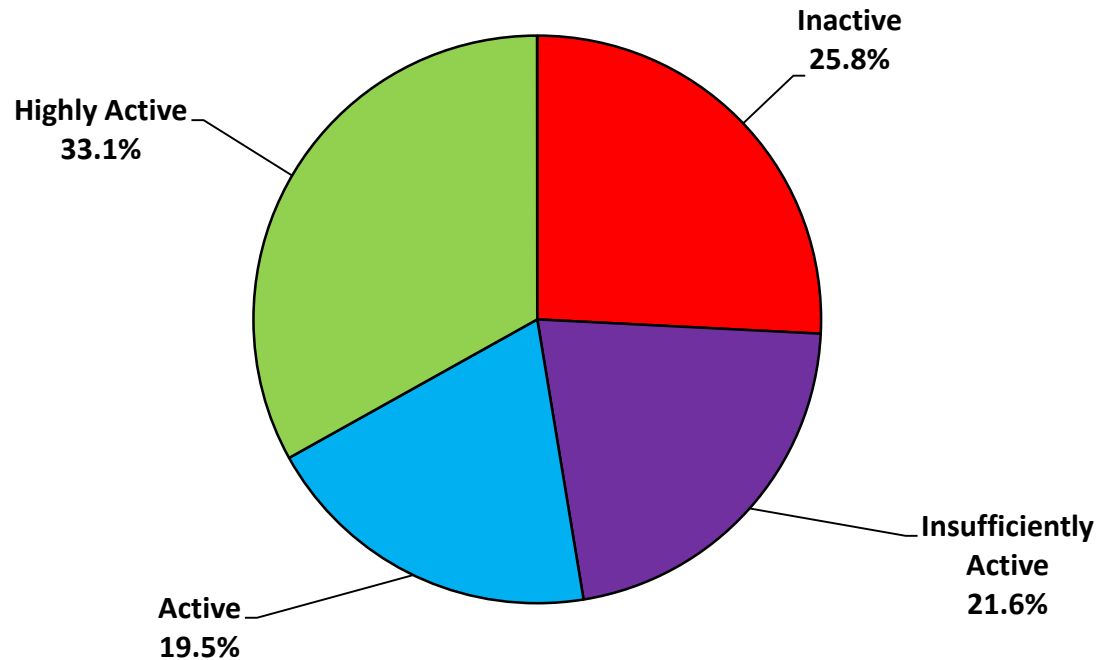
Aerobic Physical Activity

- Includes walking, running, bicycling, vacuuming, gardening, aerobics, ballroom dancing etc*
- 33.1% of adults in Arizona are highly active**
 - getting 300 minutes per week of moderate aerobic activity or 150 minutes per week of vigorous aerobic activity
- 52.6% met the aerobic physical activity recommendation

*Source: CDC 2008 Physical Activity Guidelines for Americans

**Source: Behavior Risk Factor Surveillance System, 2011.

Physical Activity Categories for Adults in Arizona



Source: Behavior Risk Factor Surveillance System, 2011.

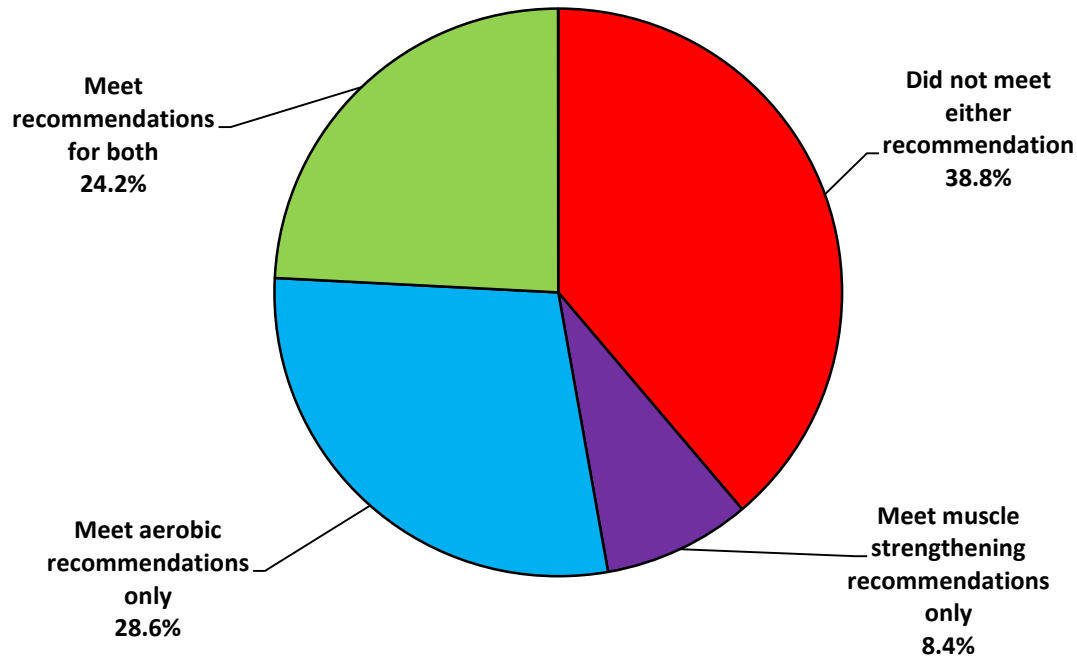
Muscle Strengthening Physical Activity

- Includes weight lifting, yoga, sit-ups etc*
- 32.5% of adults in Arizona met the muscle strengthening recommendation**
- 24.2% of adults in Arizona met both the aerobic and muscle strengthening recommendations**

*Source: CDC 2008 Physical Activity Guidelines for Americans

**Source: Behavior Risk Factor Surveillance System, 2011.

Adults in Arizona Meeting Recommendations for Either Aerobic or Strengthening Physical Activity

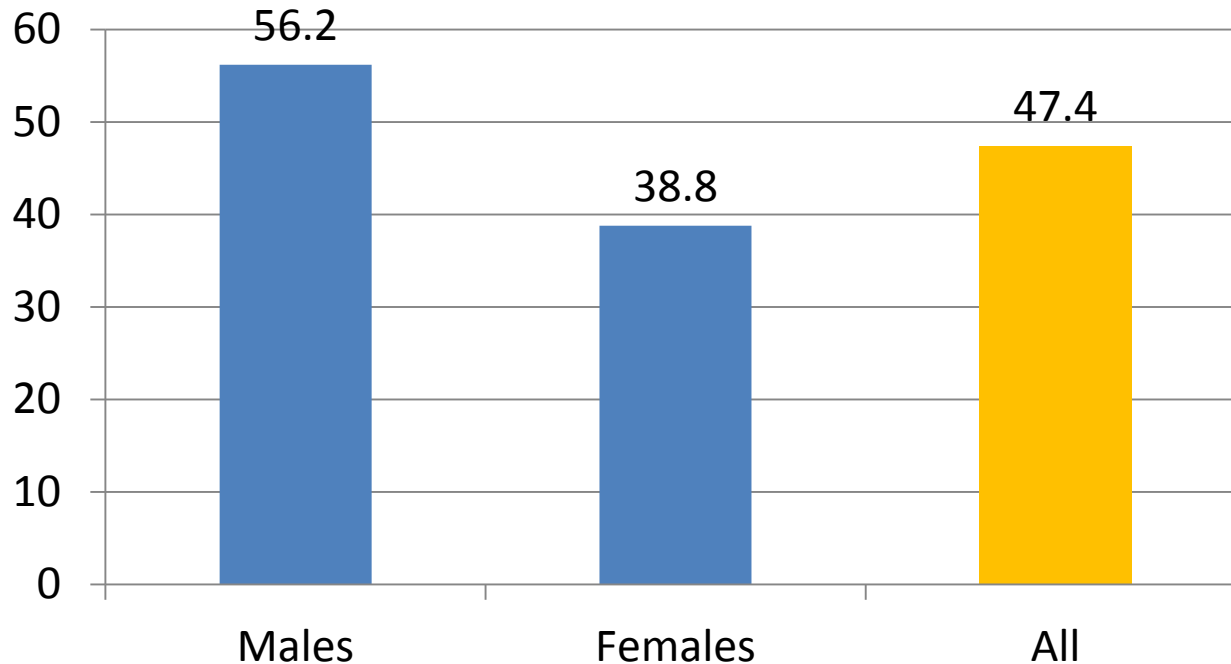


Source: Behavior Risk Factor Surveillance System, 2011.

Groups of Adults in Arizona who are More Likely to Meet the Physical Activity Recommendations

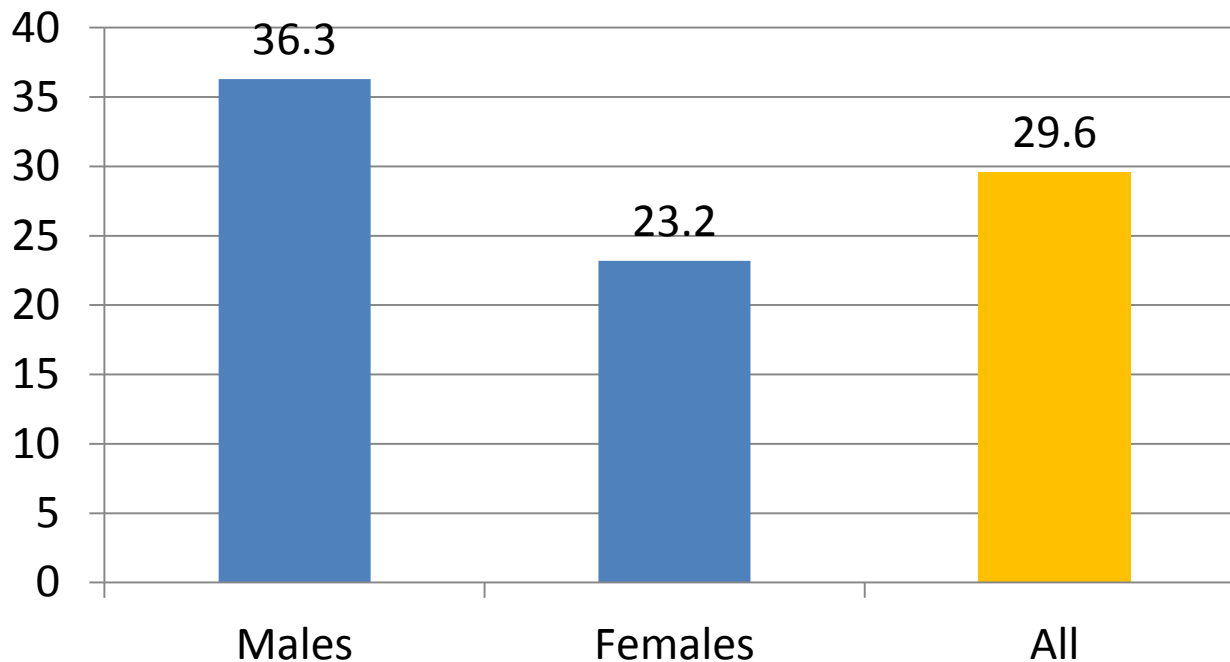
- Above 185% of the Federal Poverty Level
- Higher level of education
- Younger (18 – 34) or Older (65+)
- Non-Hispanic
- English speaking

Youth in Arizona (2011) Physically active at least 60 minutes/day on 5 or more days (US median = 46.9%)



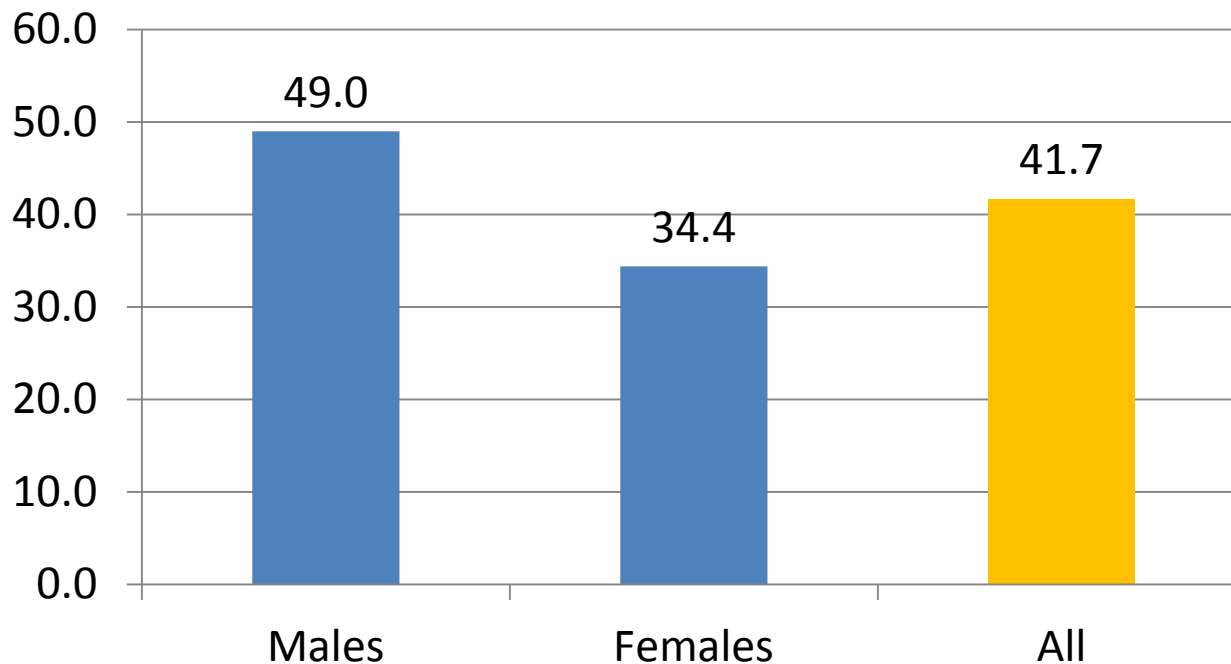
Source: Youth Risk Behavior Survey Arizona 2011 High School Students (9th through 12th Grade)

Youth in Arizona (2011) with daily physical education classes (US median = 24.2%)



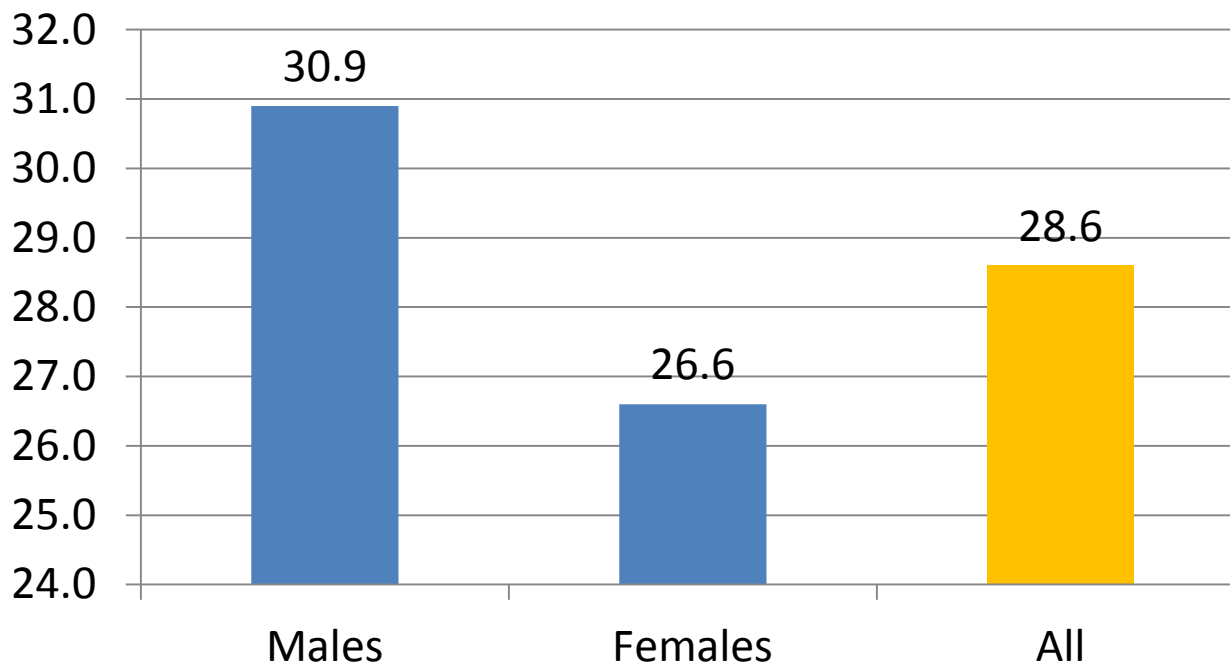
Source: Youth Risk Behavior Survey Arizona 2011 High School Students (9th through 12th Grade)

Youth in Arizona (2011) with physical education class in an average week (US median = 46.2%)



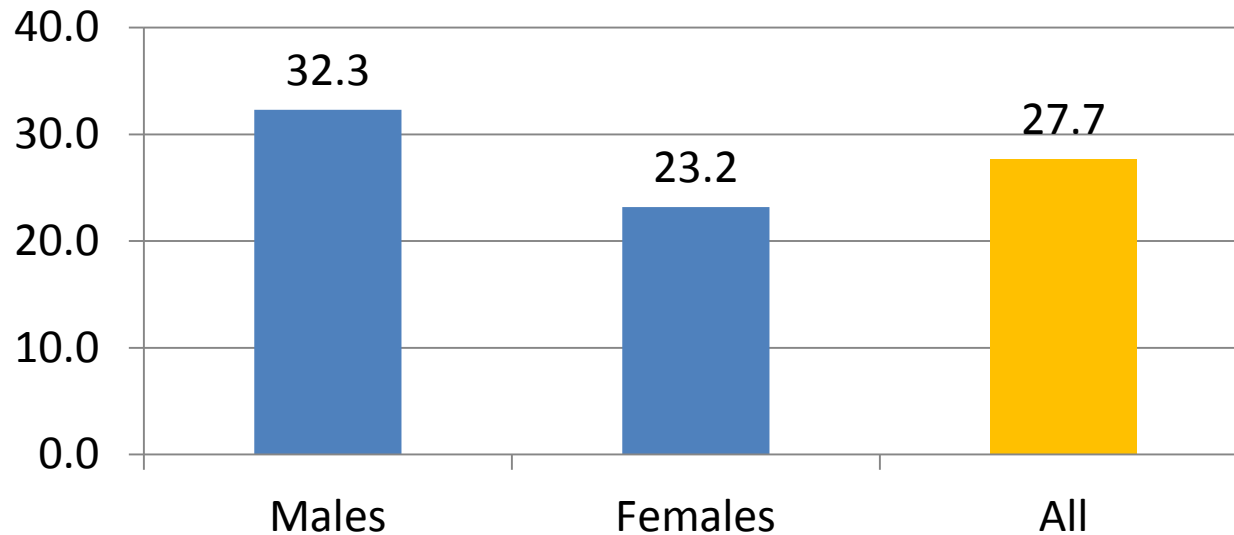
Source: Youth Risk Behavior Survey Arizona 2011 High School Students (9th through 12th Grade)

Youth in Arizona (2011) watching TV for 3 or more hours/day on an average school day (US median = 29.5%)



Source: Youth Risk Behavior Survey Arizona 2011 High School Students (9th through 12th Grade)

Youth in Arizona (2011) playing video games or using computers* for 3 or more hours/day on an average school day (US median = 28.8%)



*for purpose other than doing school work

Source: Youth Risk Behavior Survey Arizona 2011 High School Students (9th through 12th Grade)

EMPOWER Childcare

- A voluntary nutrition, physical activity and tobacco prevention program for licensed childcare providers in Arizona
- It 'Empowers' childcare providers, children and families to enjoy healthy eating and active living
- Childcare providers can become an EMPOWER provider by agreeing to follow 10 best practices in exchange for a 50% reduction in licensure fee

EMPOWER 10 Best Practices

1. Provide at least 60 minutes of structured activity and at least 60 minutes and up to several hours of unstructured physical activity
2. Limit screen time to under one hour a day
3. Avoid more than 60 minutes of sedentary activity at a time, except while the child is sleeping
4. Serve meals family style by letting the child decide how much to eat and avoid using food to reward behavior or for a clean plate
5. Provide families education and referrals regarding tobacco prevention, cessation and second hand smoke
6. Serve one percent low fat or fat free milk for all children over two years
7. Offer water at least four times during the day (water is not served during lunch)
8. Limit juice to 100% fruit juice (with no added sugars) and to no more than four to six ounces per day
9. Enforce 24 hour smoke-free campuses (no smoking 20 feet from any entrance)
10. If eligible, participate in the USDA Child and Adult Care Food Program

School Wellness Program

- Partners with the Arizona Department of Education's Coordinated School Health Program
- Helps schools create environments that support healthy eating and physical activity
- Focus on capacity building within schools
- Encouraging schools to create School Health Advisory Councils and complete a School Health Index
- Dedicated to health and wellbeing of students to help make the healthy choice the easy choice

Active School Neighborhood Checklist

- In 1969, approximately half of all school children walked or biked to school each day, now fewer than 15% of children and adolescents use active forms of transportation to and from school
- Partnered with the Arizona Department of Transportation Safe Route to School Program to develop the Active School Neighborhood Checklist
- Generates a score that represents the walkability, bikeability and safety of the school location
- Helps schools and communities identify barriers that prevent students from walking or biking to school and create solutions

Community Design

- Builds partnerships with key decision makers in community design to educate them on the health impact of planning, transportation and land use decisions
- Promotes the use of the Health Impact Assessment framework to objectively evaluate the impact a potential project has on the health of a population

Arizona Nutrition Network

- Promotes healthy behaviors and a healthy diet in the SNAP-eligible population
- Emphasis on promoting fruits and vegetables, low-fat milk, healthy proteins, whole grains, and an active lifestyle
- SNAP is designed to promote the general welfare, and to safeguard the health and well being of the nation's population by raising the levels of nutrition among low-income households*

*Source: Code of Federal Regulations, Title 7: Agriculture, Part 271. 2011.



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Thank you!

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