

Grand Rounds  
September 20, 2007

Ann Lindsay, MD  
Humboldt County Health Officer

# Rabies in Humboldt County



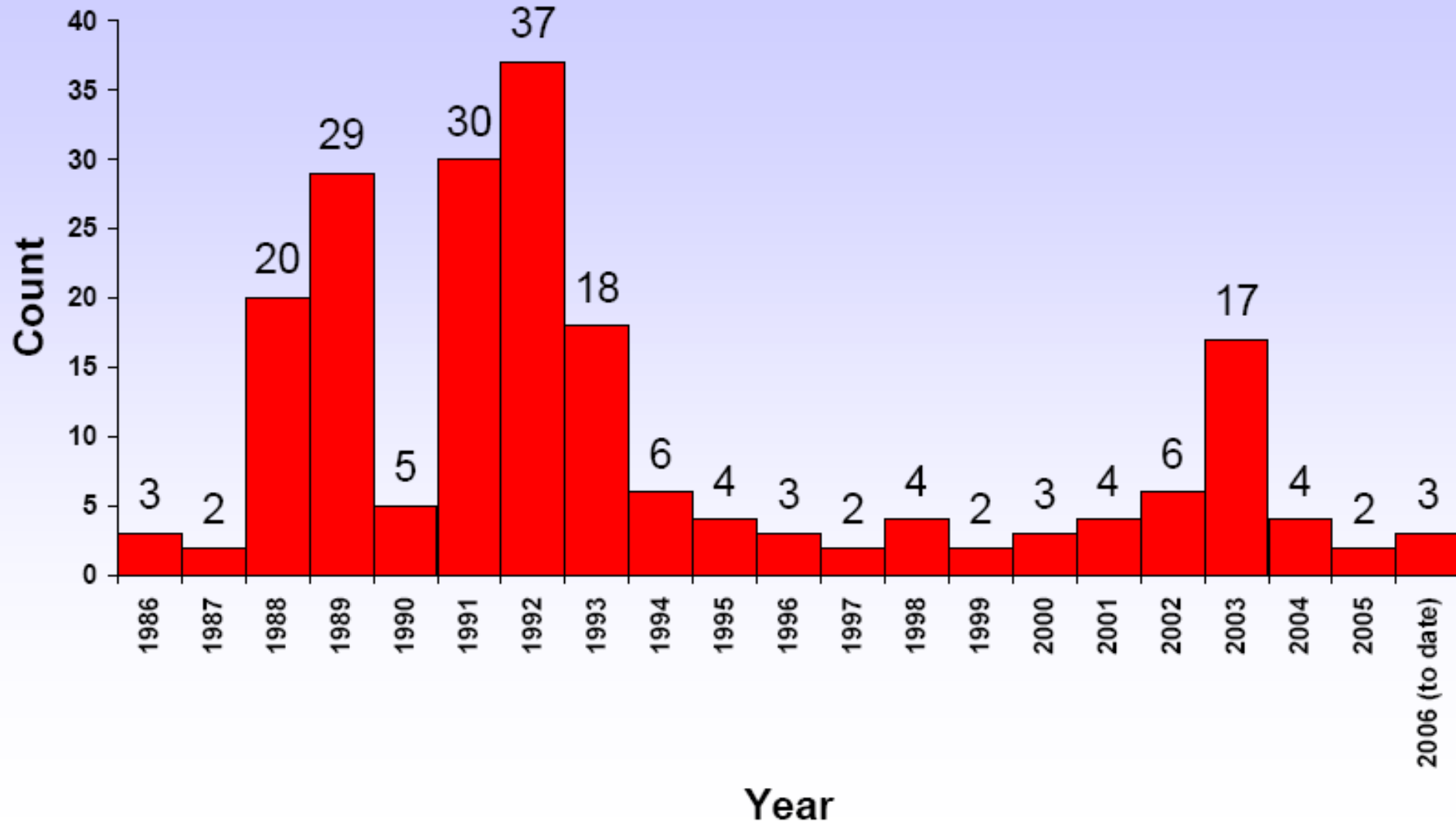
## **Public Health 2005**

Provided consultation on 107 possible exposures

Most Rabid Animal in California?

The bat, with 168 positive tests in 2005.

# Animals Testing Positive for Rabies in Humboldt County, 1986-2006



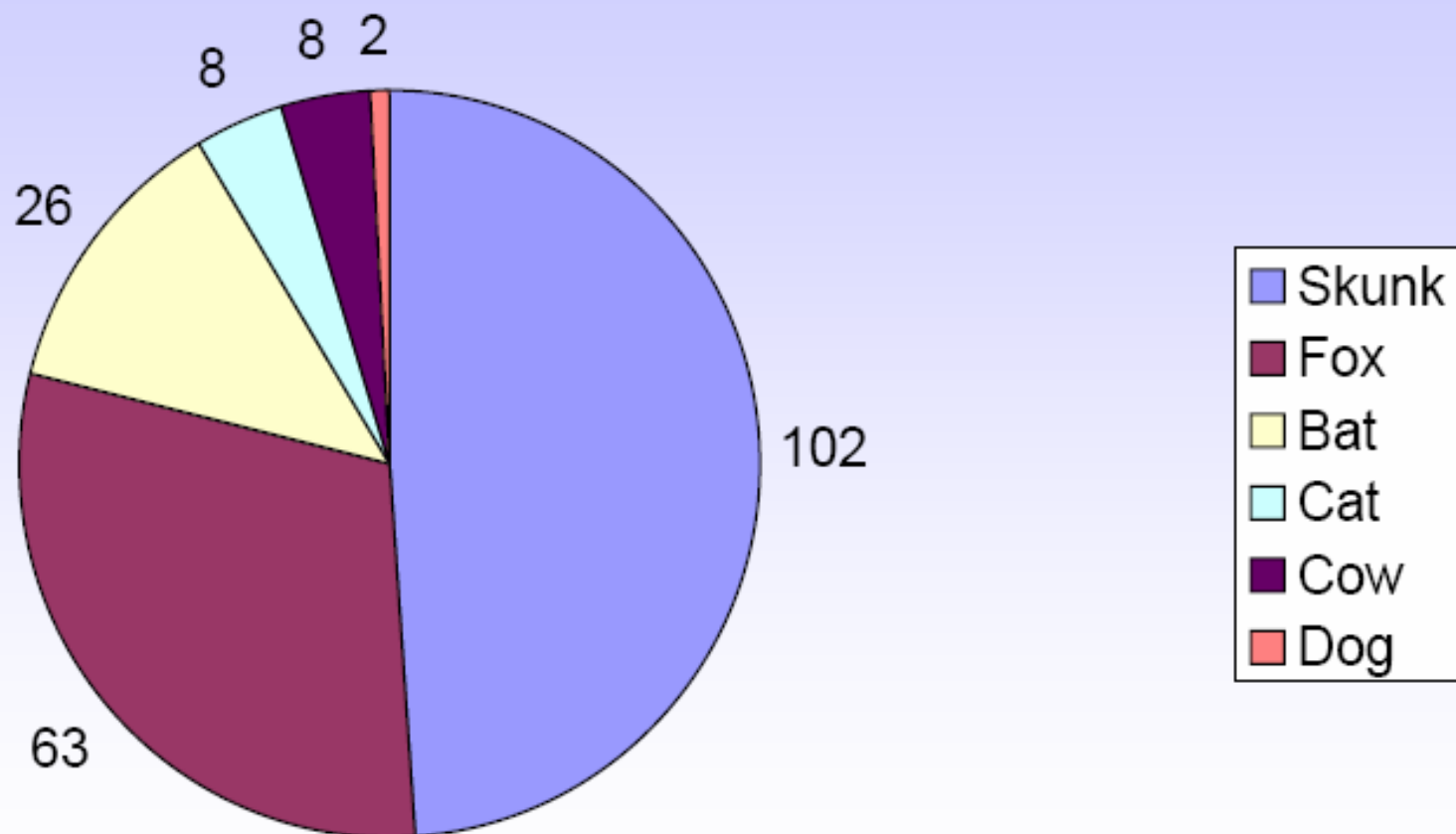
mm2

Can this one be titled

Animals Positive for Rabies, by Year  
Humboldt County 1986 - 2006  
mmckenzie, 10/24/2006

# Animals Testing Positive for Rabies in Humboldt County, by Species 1986-2006 (n=209)

mm1



mm1

Animals Positive for Rabies, by Species  
Humboldt County 1986 - 2006 (n=209)  
mmckenzie, 10/24/2006



# Lyme Disease: Humboldt County

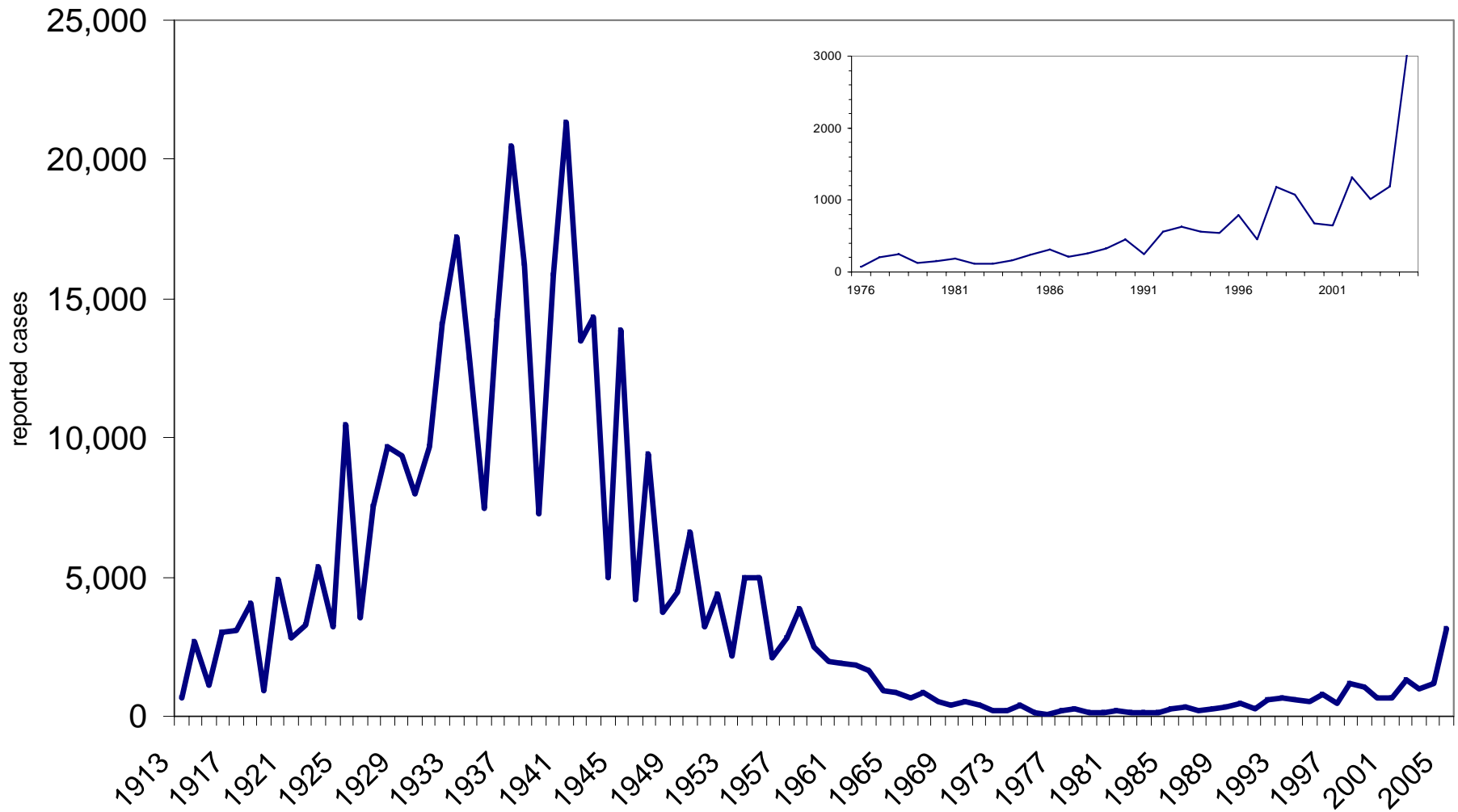
- 2003: 5 confirmed cases
- 2004: 7 confirmed cases
- 2005: 11 confirmed cases
- 2006: 7 confirmed cases
  
- The State does not recognize results from IGenX lab. They report different levels of band intensity. CDC requires 5 of 10 bands for positive. Most labs report “present” or “not present”.
- IgM persists, not indicative of acute disease by itself.



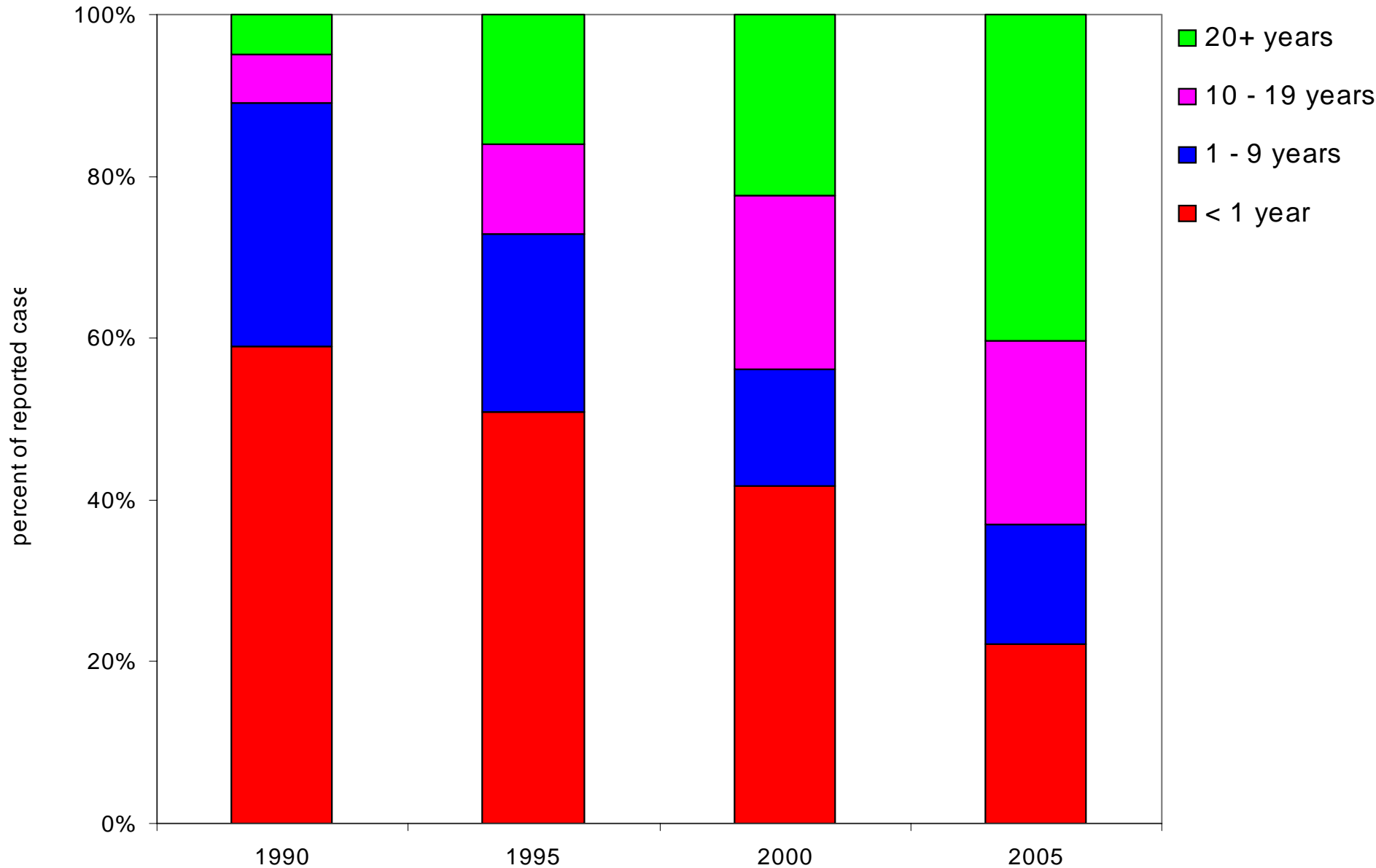
# Pertussis in Humboldt County

- 2002 10 cases confirmed
- 2003 1 case confirmed
- 2004 7 cases confirmed
- 2005 66 cases confirmed
- 2006 16 cases confirmed
- 2007 YTD (August) 2 cases

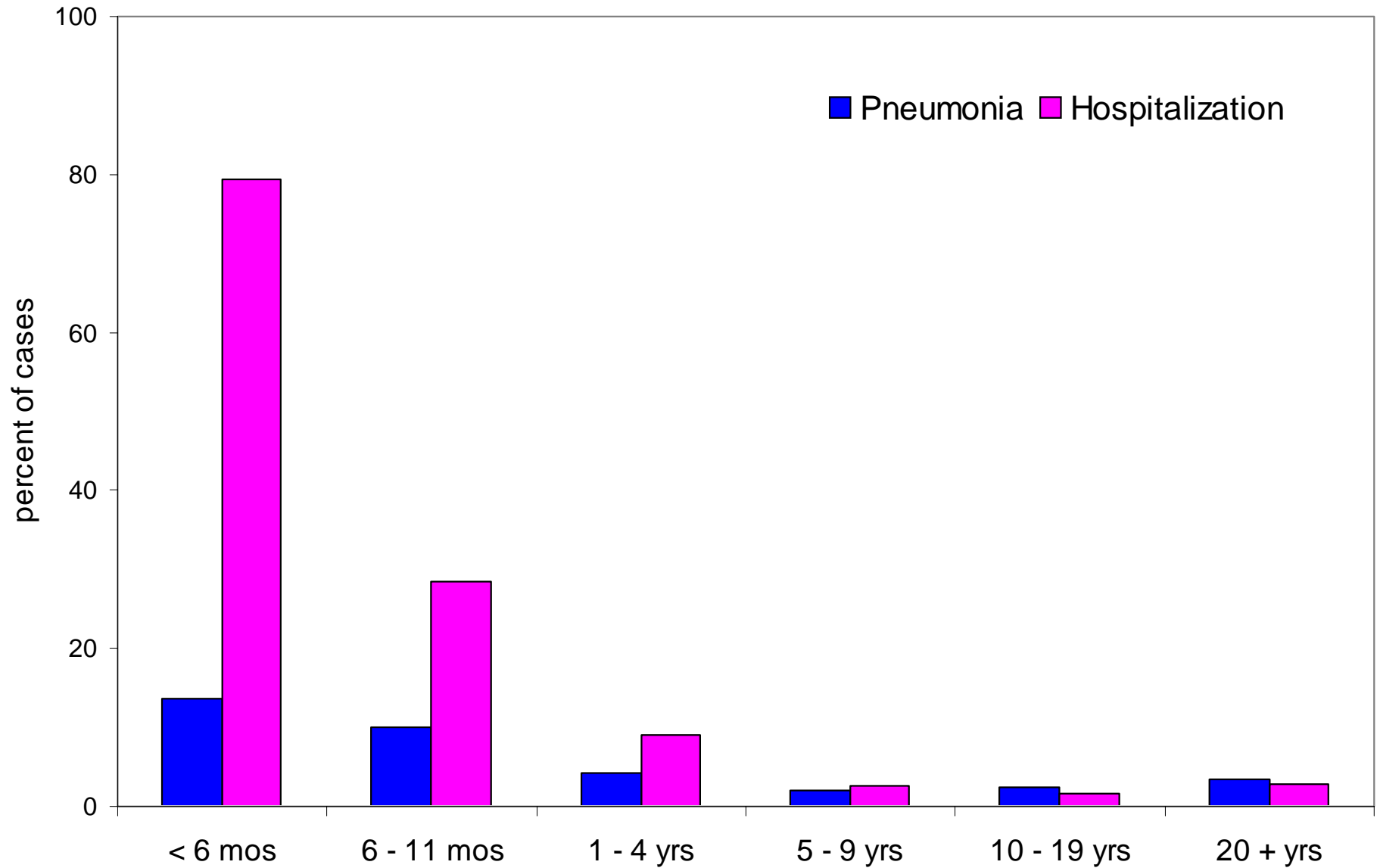
# Reported Pertussis Cases, California 1913 – 2005



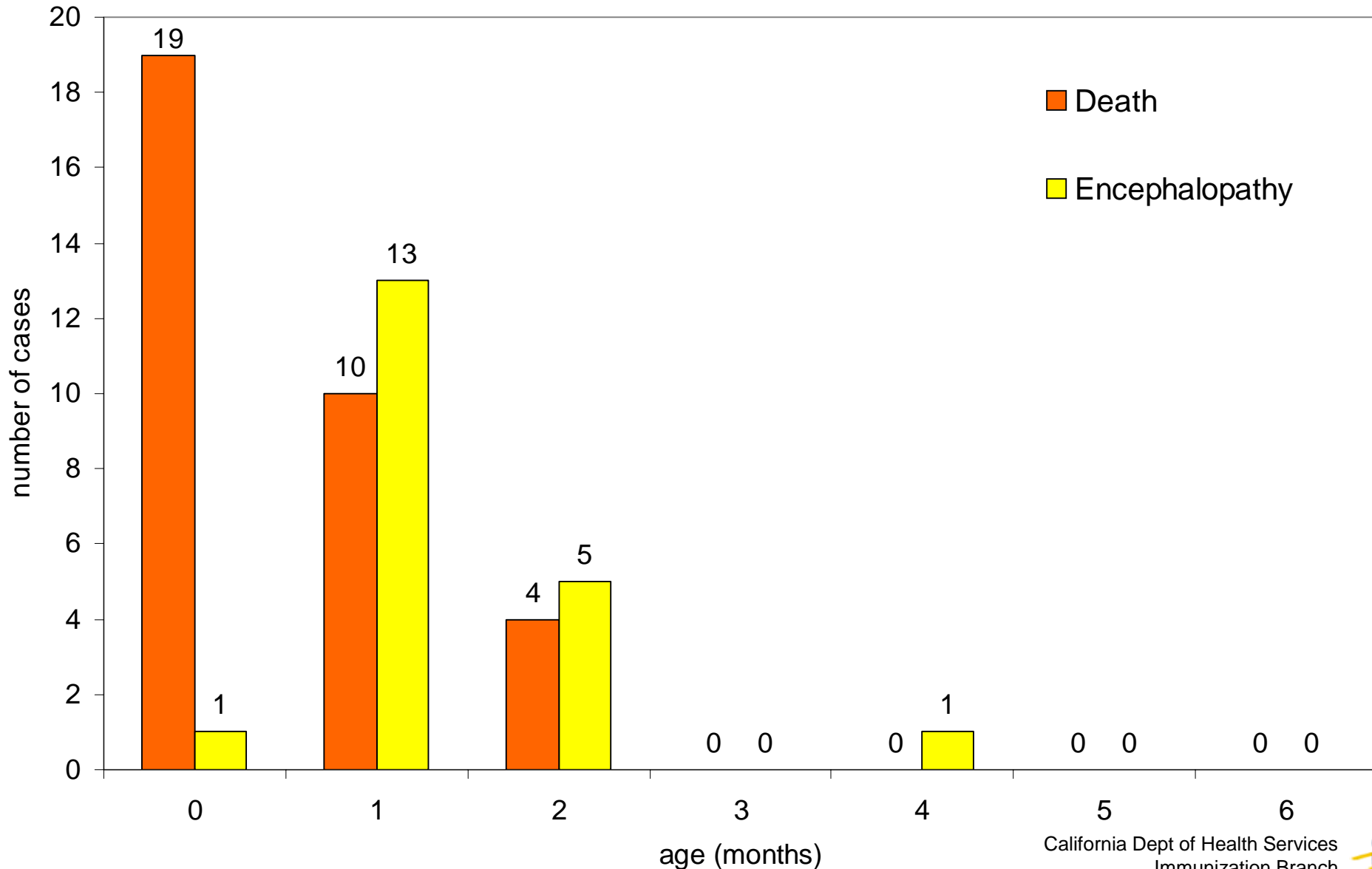
# Percent of Reported Cases > 9 Years of Age is Increasing, California 1990 -2005



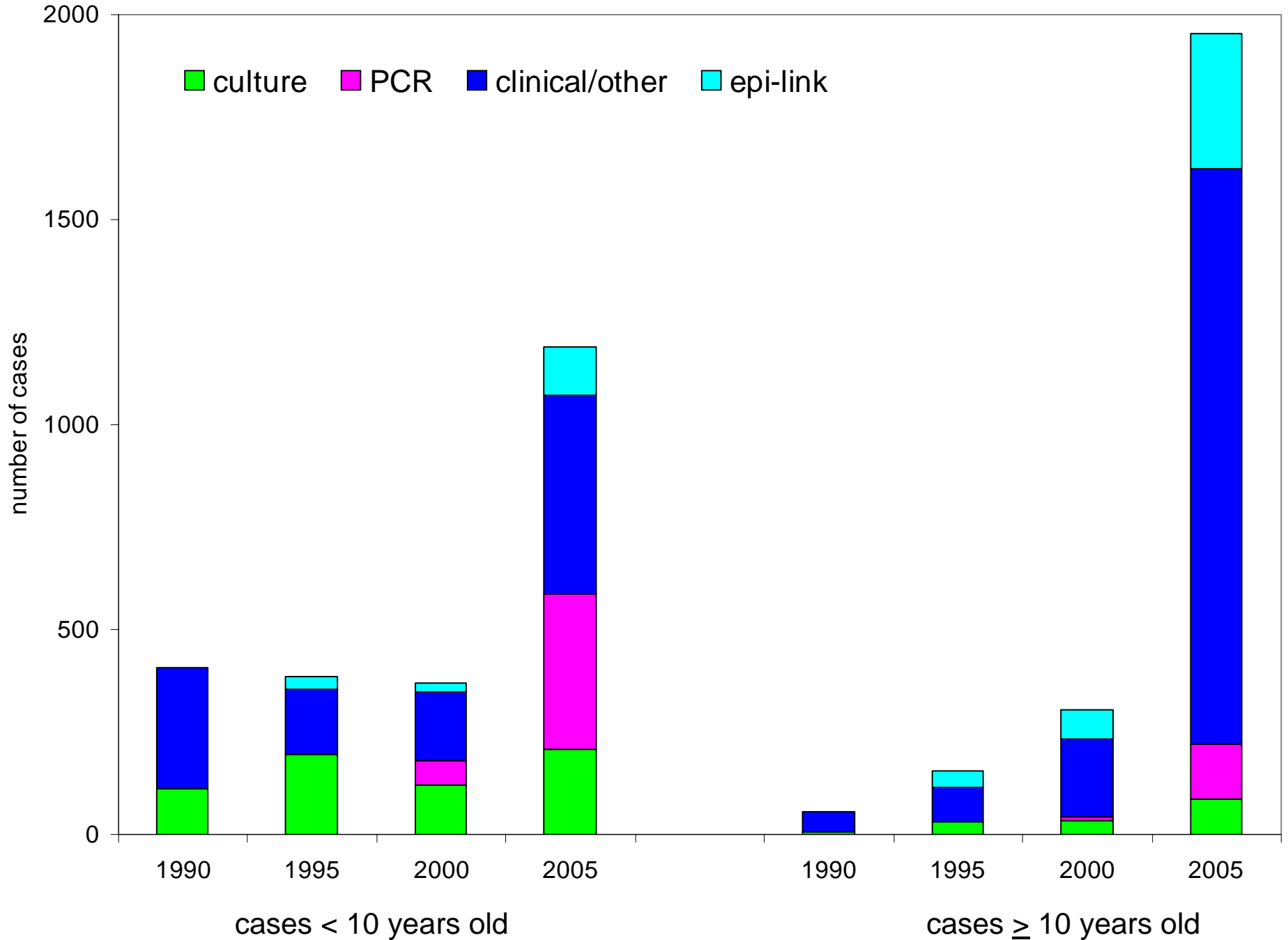
# Pertussis Complications by Age, California 2000-2005



# The Majority of Severe Pertussis Disease Complications Occur Among Infants 0 – 2 Months of Age, California 1995 - 2005

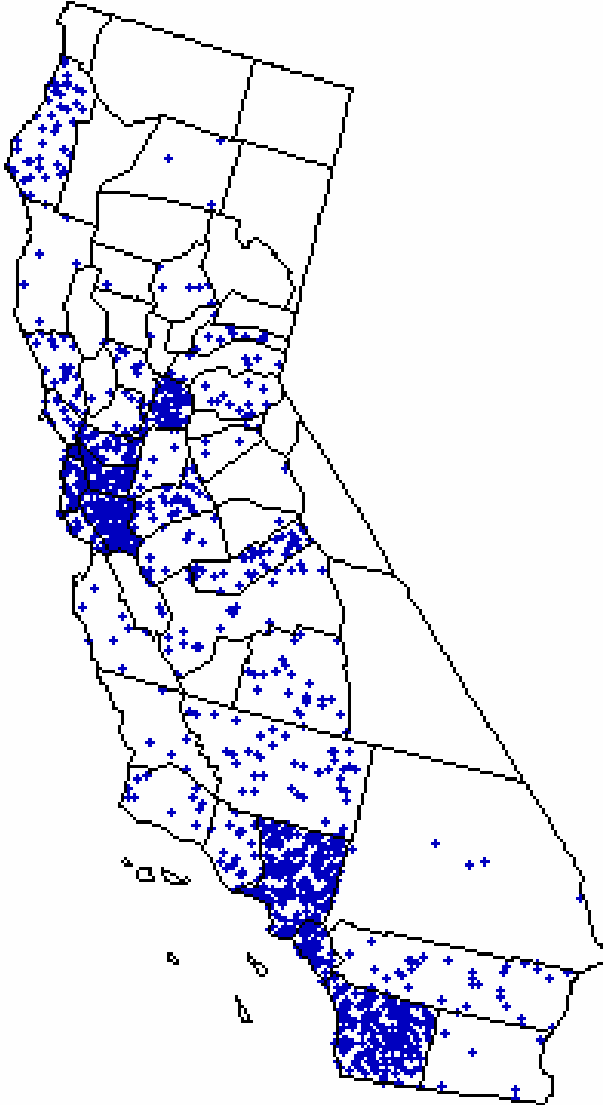


# Number of Pertussis Cases by Diagnostic Criteria and by Age, 1990 - 2005

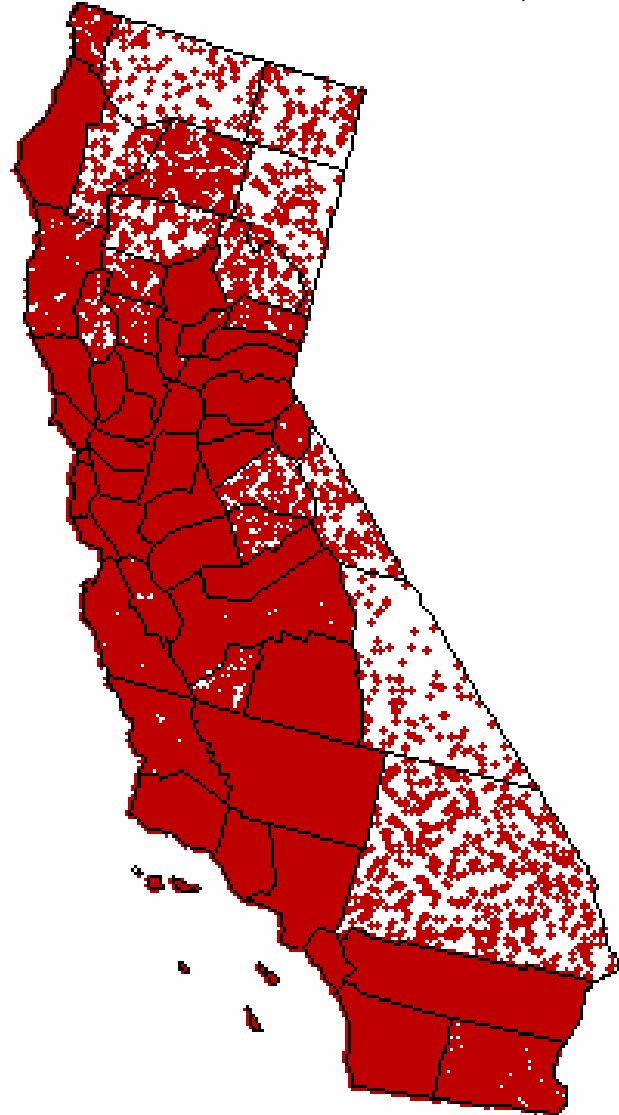


# Pertussis Disease Control: Can We Reduce Pertussis Transmission in California?

Reported cases, 2005\*



Estimated cases, 2005\*



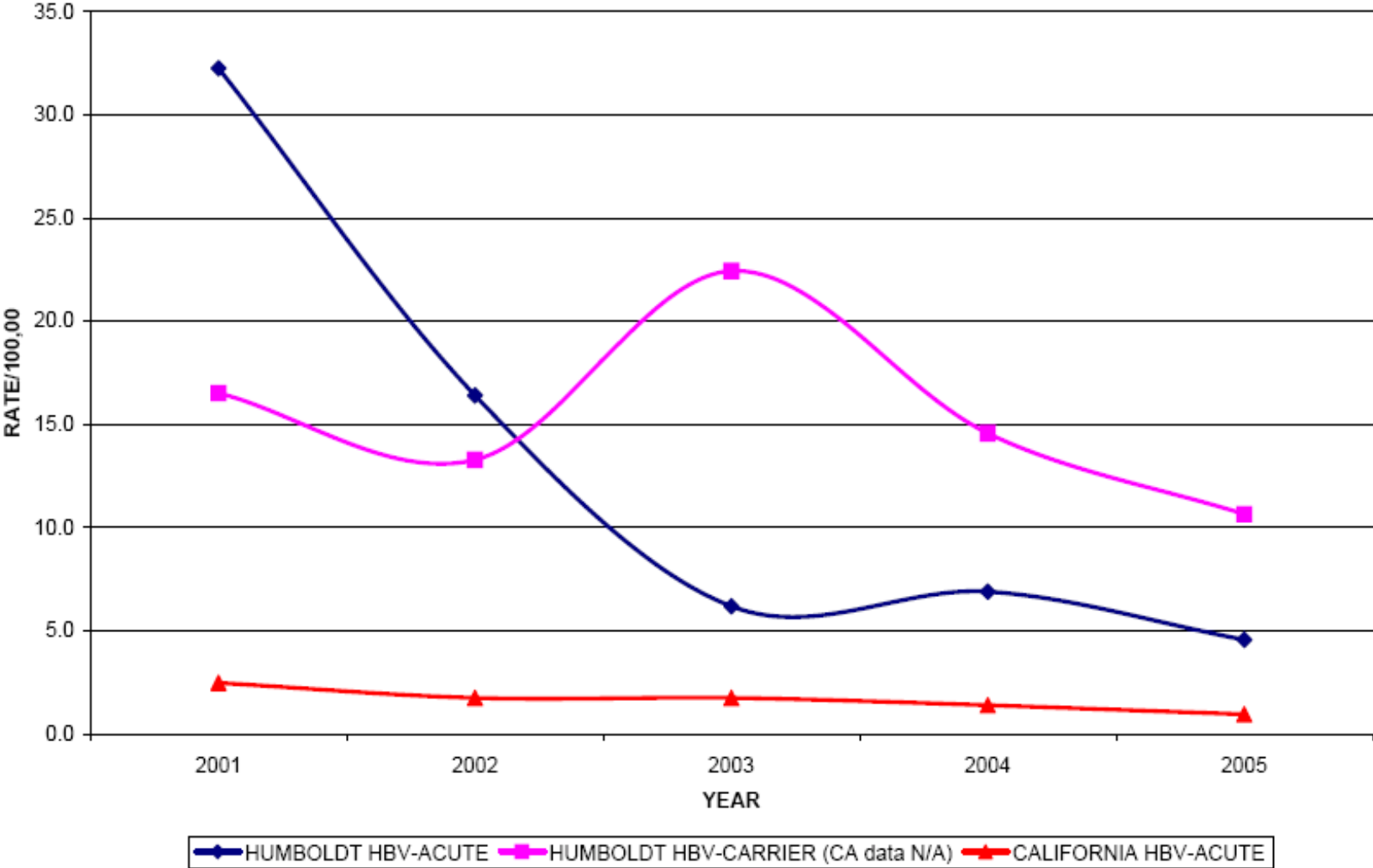
**IMMUNIZE!**



# 105,288 Needles Exchanged 2005

- Eureka Community Health Center
- Redwood Rural Health Center
- Mobile Medical
- Willow Creek Family Health Center
- Open Door Clinic
- United Indian Health Service

Rate HBV (Acute & Carrier), Humboldt County vs. California, 2001-2005

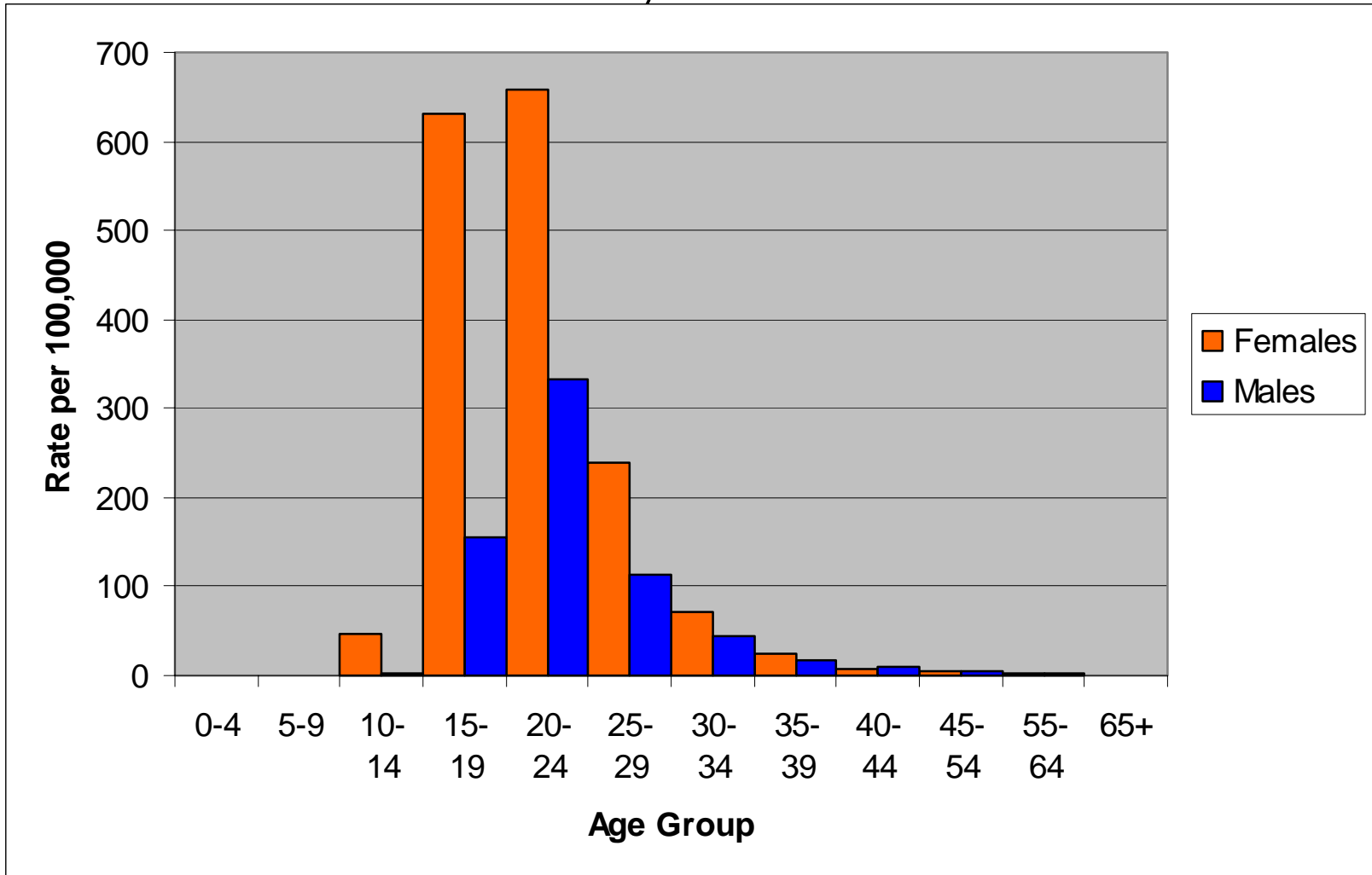


Case data are from Humboldt County Vital Statistics Confidential Morbidity Reports

# REPORTED INCIDENCE OF CHLAMYDIA 2002-2004

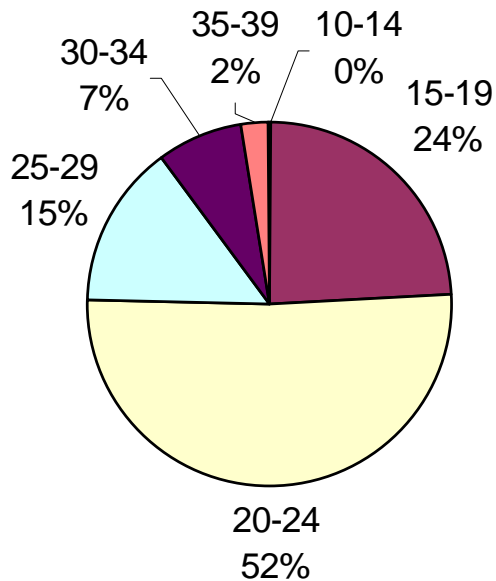
- Humboldt County case rate = 256
- 95% confidence limits 228, 284
- Statewide case rate = 324
- Humboldt ranks 37 of 58

# Average Annual Age Adjusted Chlamydia Rates

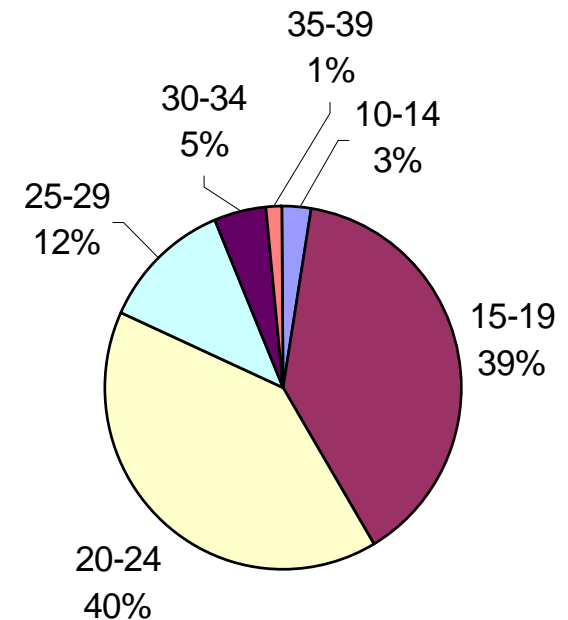


# Chlamydia prevalence, by gender & age

Male Chlamydia, by Age Group



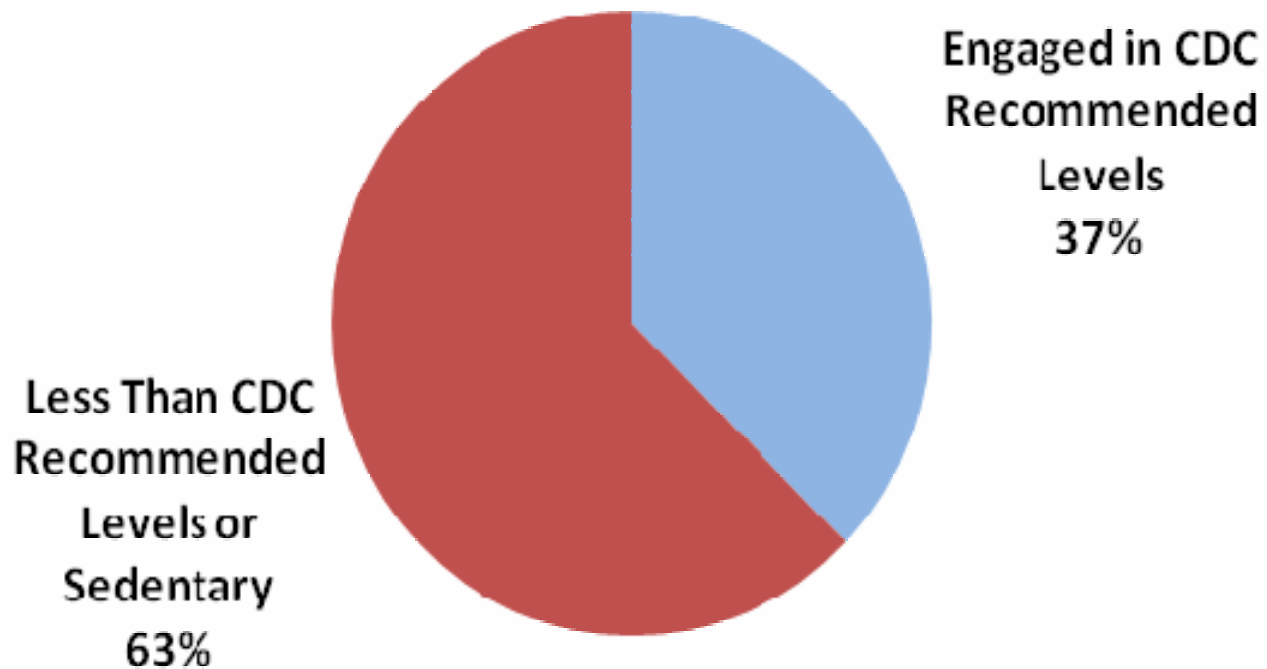
Female Chlamydia, by Age Group



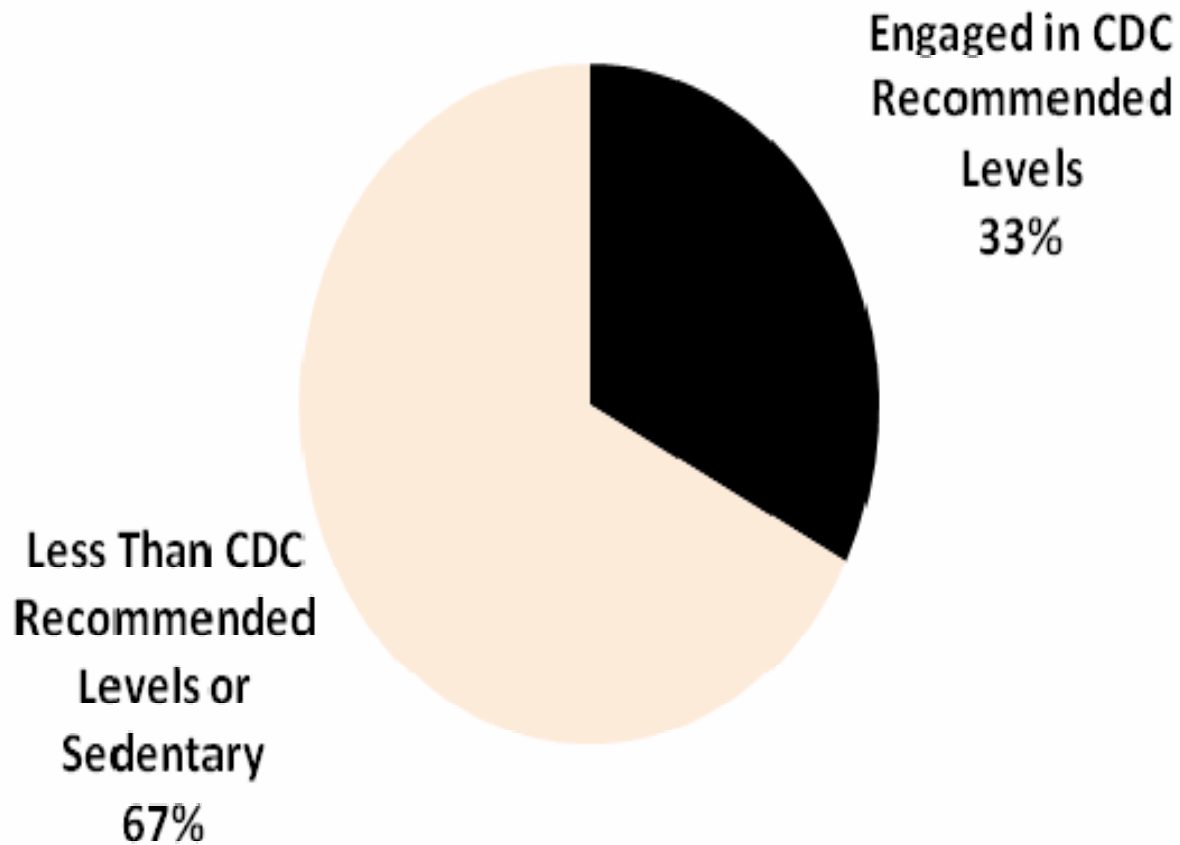
42% of female cases are under age 19

52% of male cases are between 20 and 24

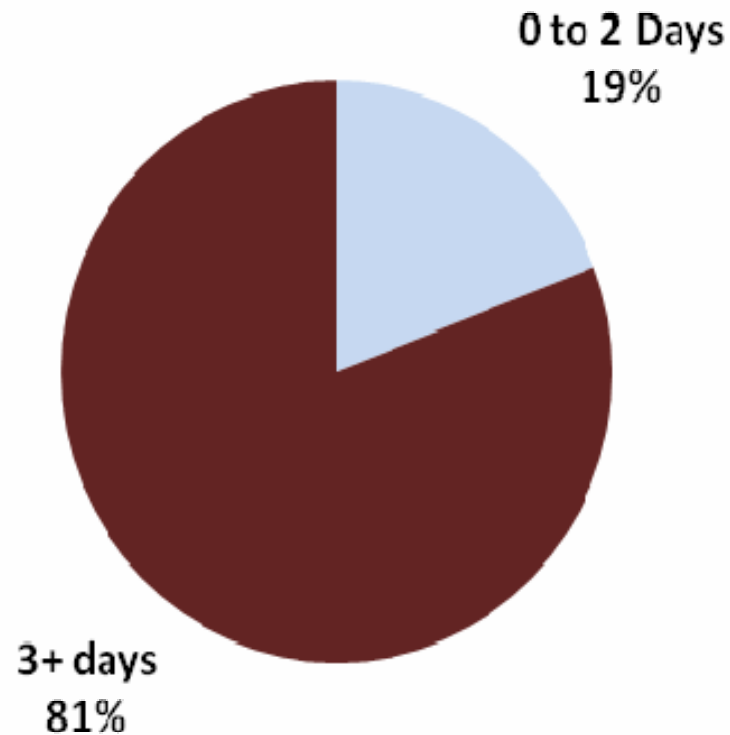
**Physical Activity--Recommended Vs. Less Than  
Recommended Levels  
Humboldt County Adults, 2005 CHIS**



**Physical Activity--Recommended Vs. Less Than  
Recommended Levels  
California Adults, 2005 CHIS**

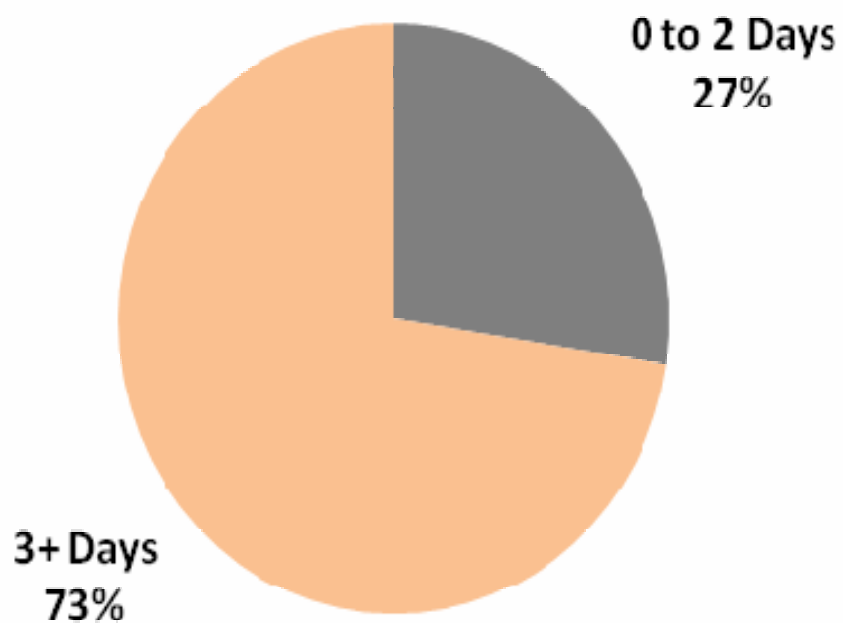


**Humboldt County Adolescents (Age 12-17) Physically  
Active by Typical Number of Days/Week  
2005 CHIS**

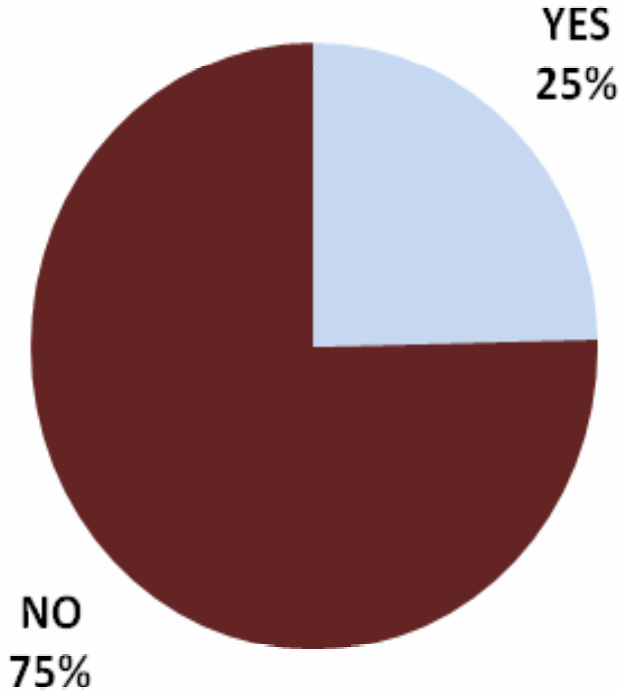




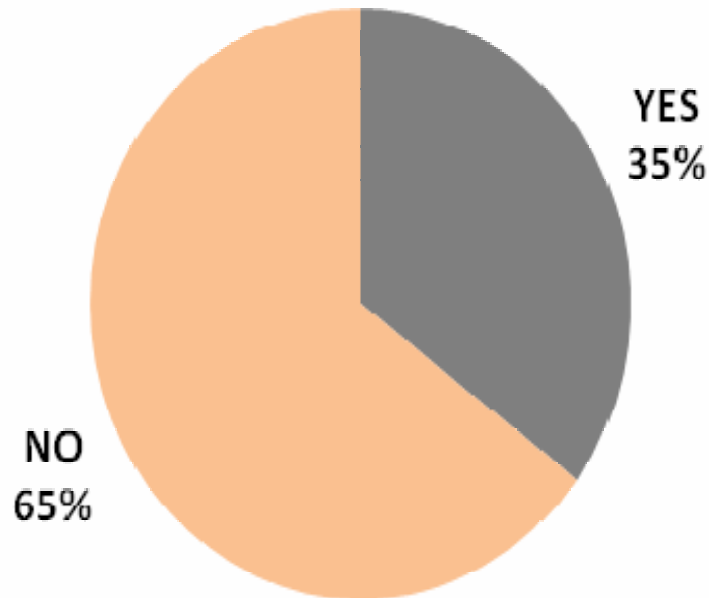
**California Adolescents (age 12-17) Physically  
Active by Typical Number of Days/Week  
2005 CHIS**



**Humboldt County Adolescents Enrolled in Physical  
Activity Classes in Past 12 Months  
2005 CHIS**

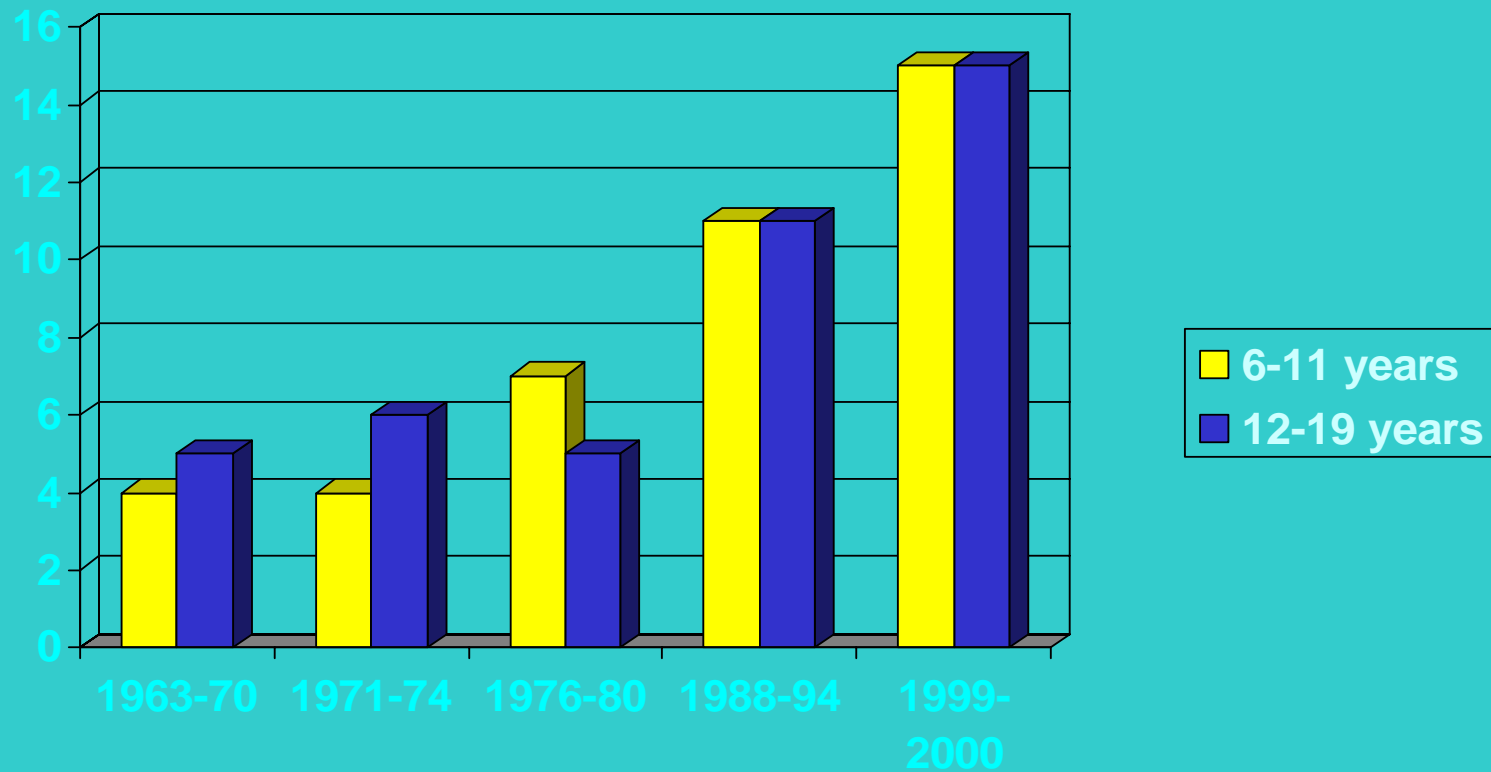


**California Adolescents Enrolled in Physical  
Education Classes in Past 12 Months  
2005 CHIS**

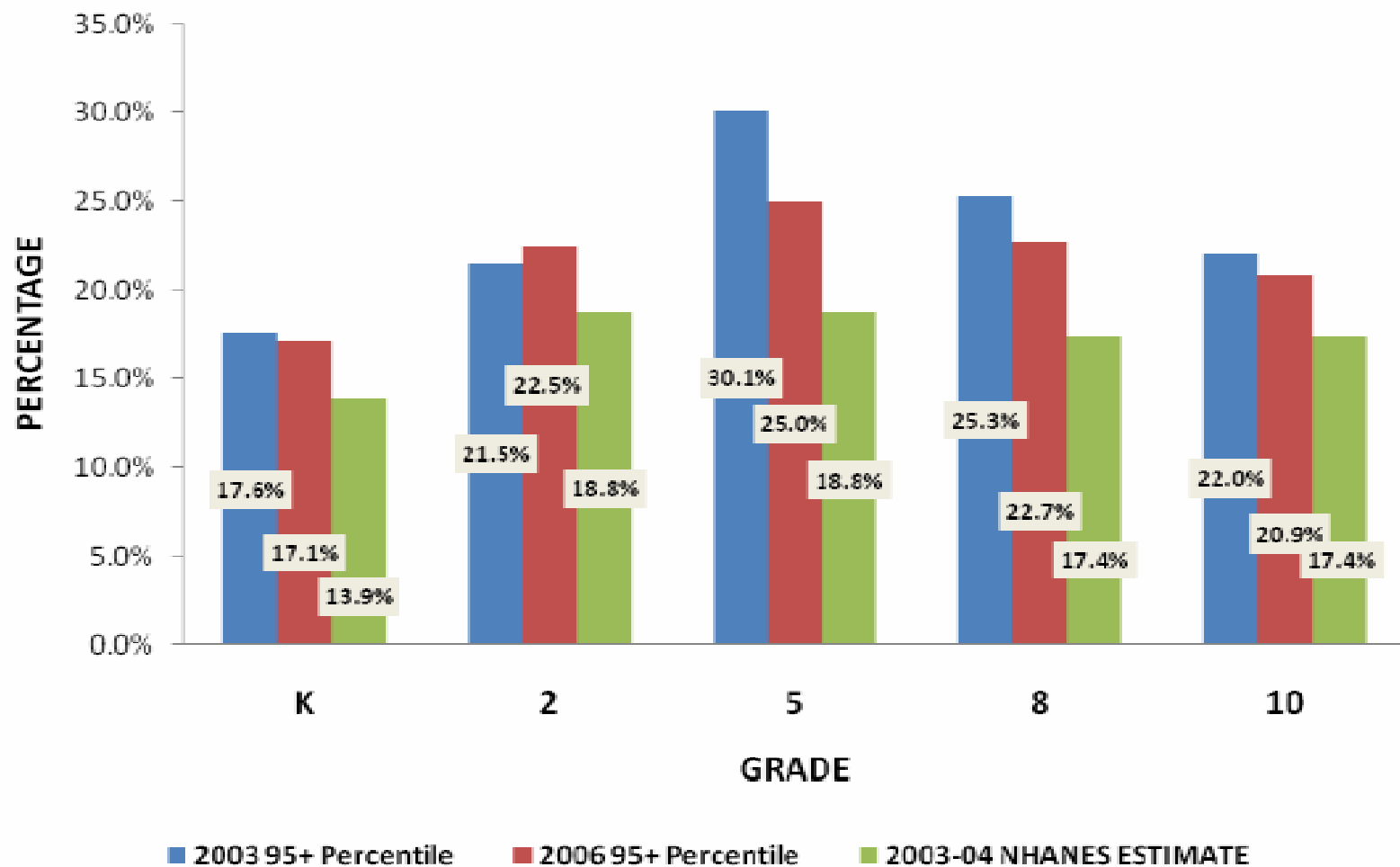


# Prevalence (%) of overweight among children and adolescents

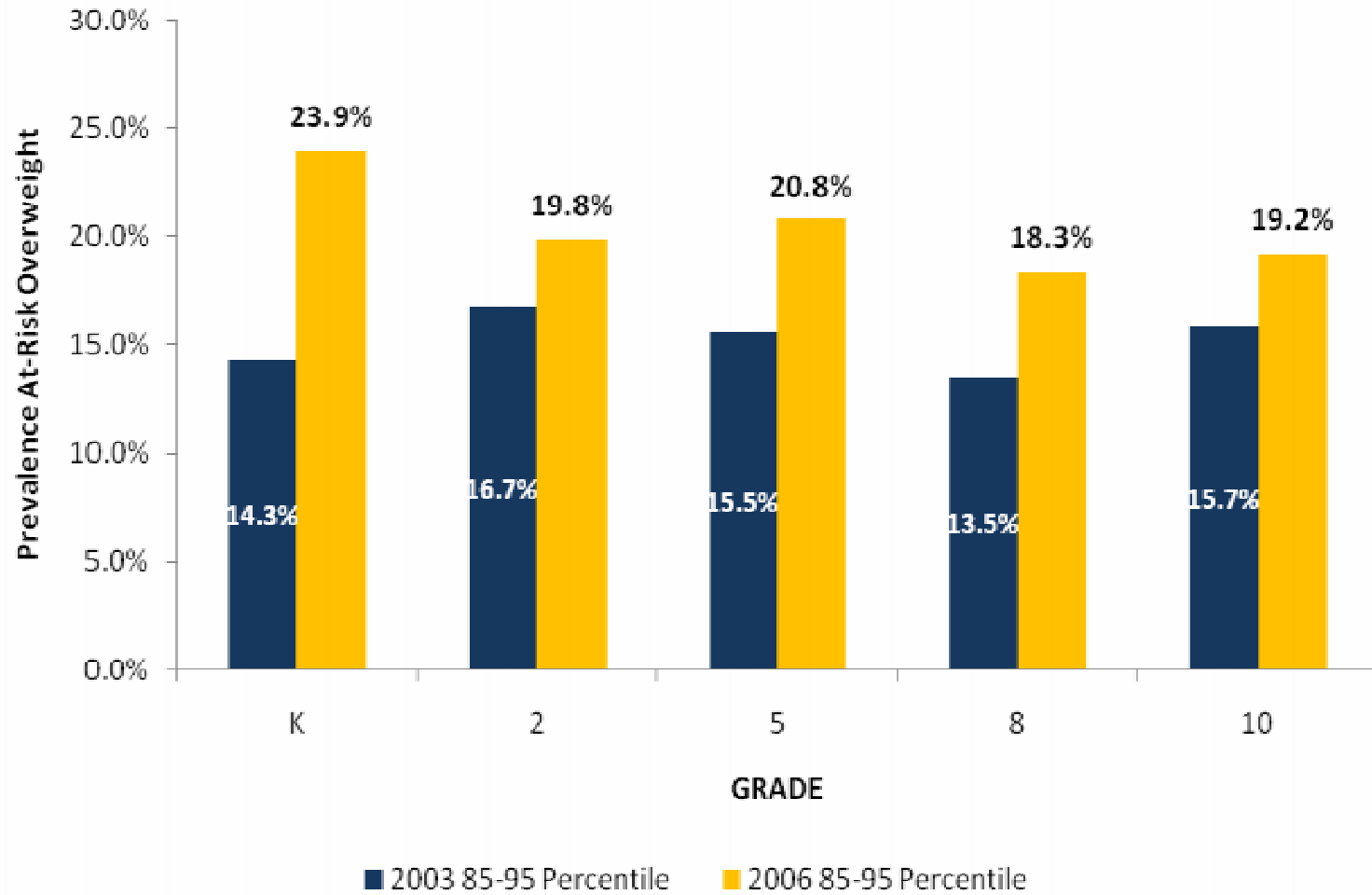
Average 11 year old boy today is 11 pounds heavier than in 1973



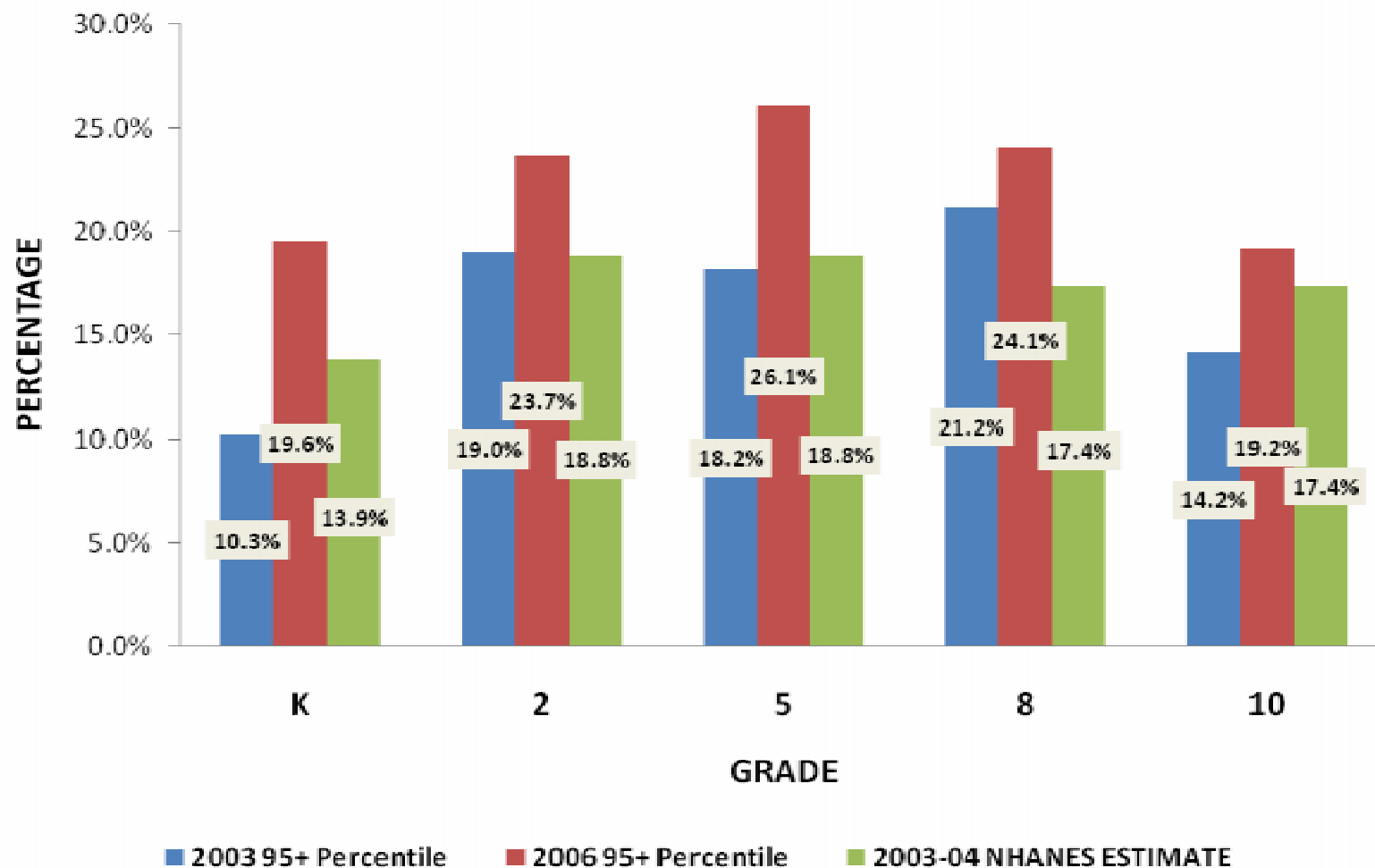
**2003-2004 and 2006-2007 % Overweight MALE STUDENTS (with national estimates for comparison)**



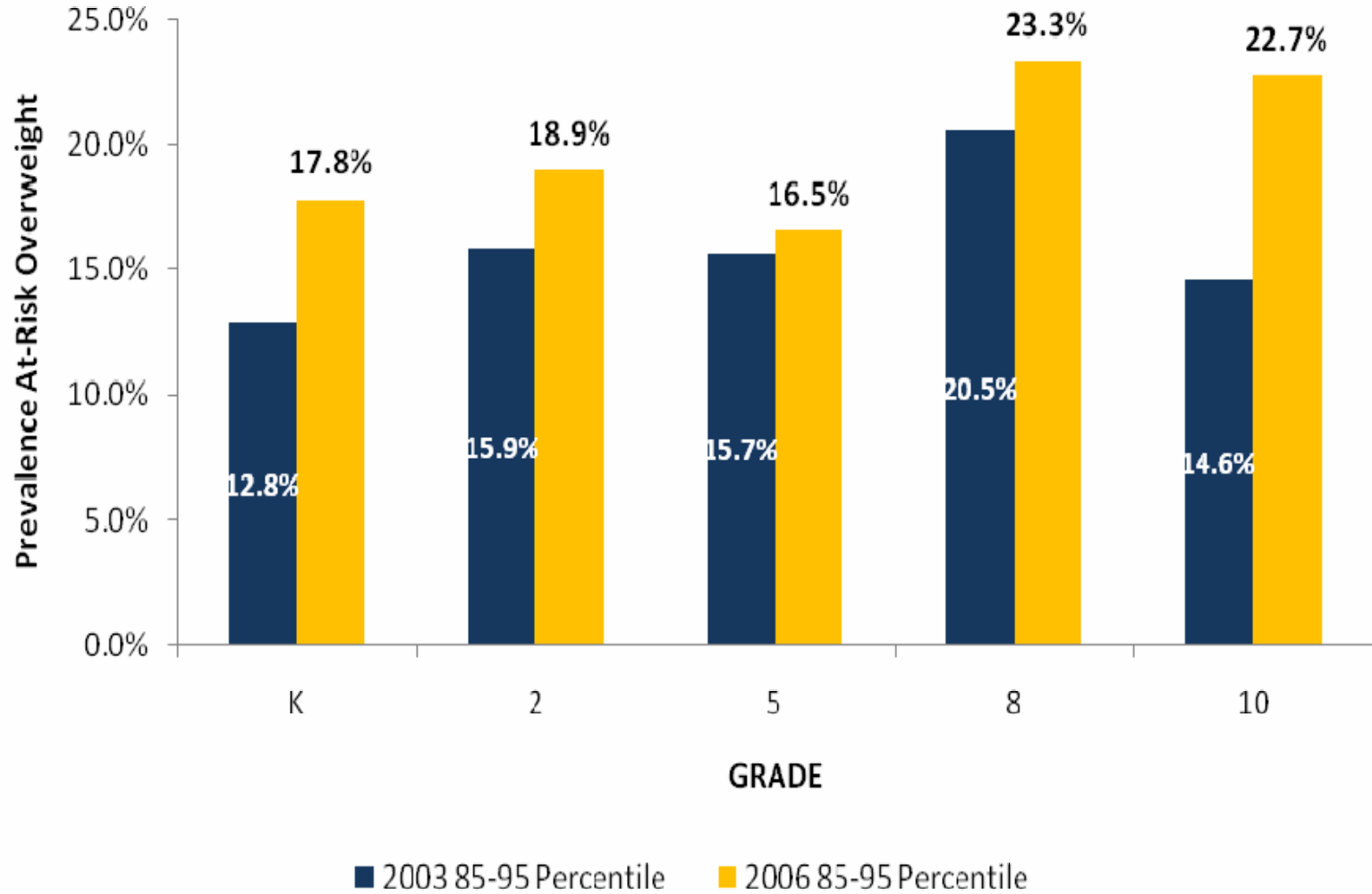
### 2003-04 & 2006-07 Prevalence AT-RISK for Overweight MALES



**2003-2004 and 2006-2007 % Overweight FEMALE STUDENTS (with national estimates for comparison)**

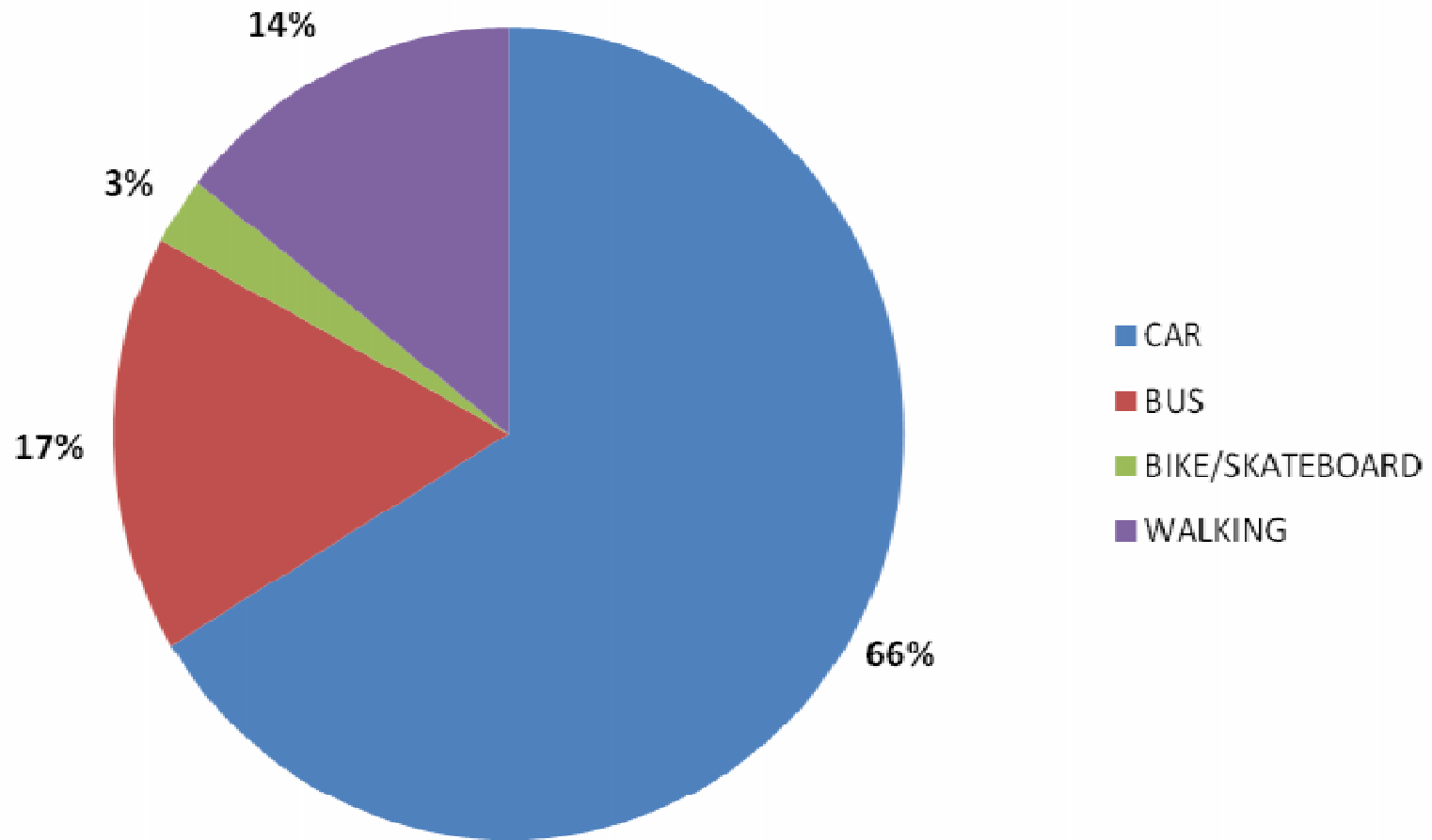


### 2003-04 & 2006-07 Prevalence AT-RISK for Overweight FEMALES

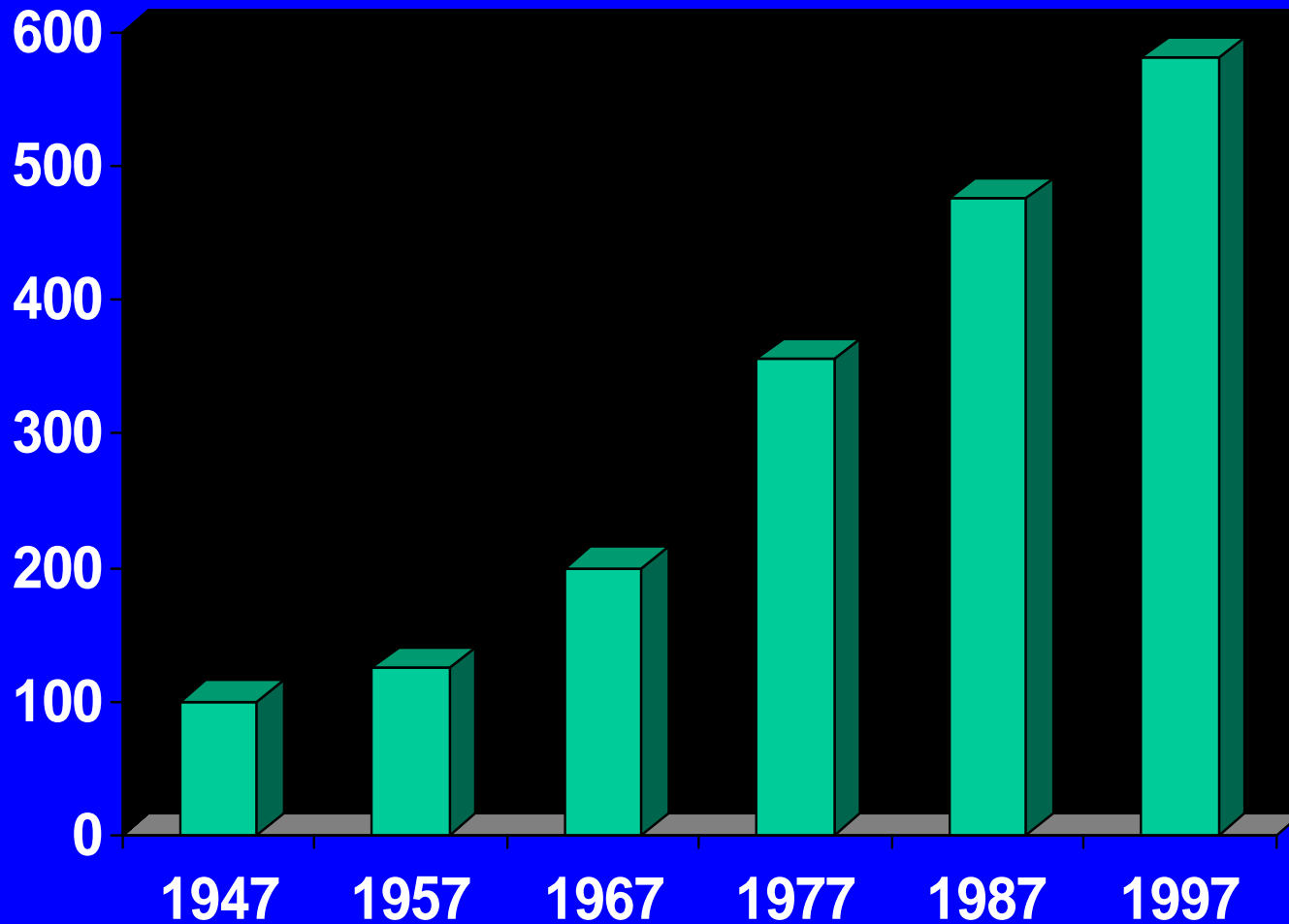




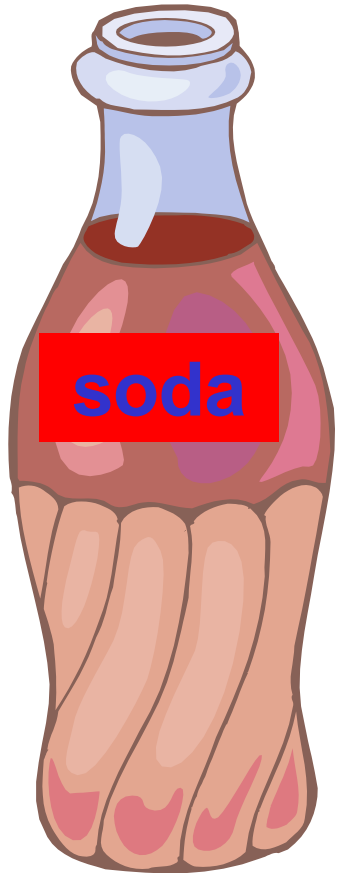
**TRANSPORTATION TO SCHOOL FROM THE HUMBOLDT COUNTY 2006-  
2007 STUDENT BMI SURVEY**



# Soft Drink Consumption 1947-1997 (12 oz cans)

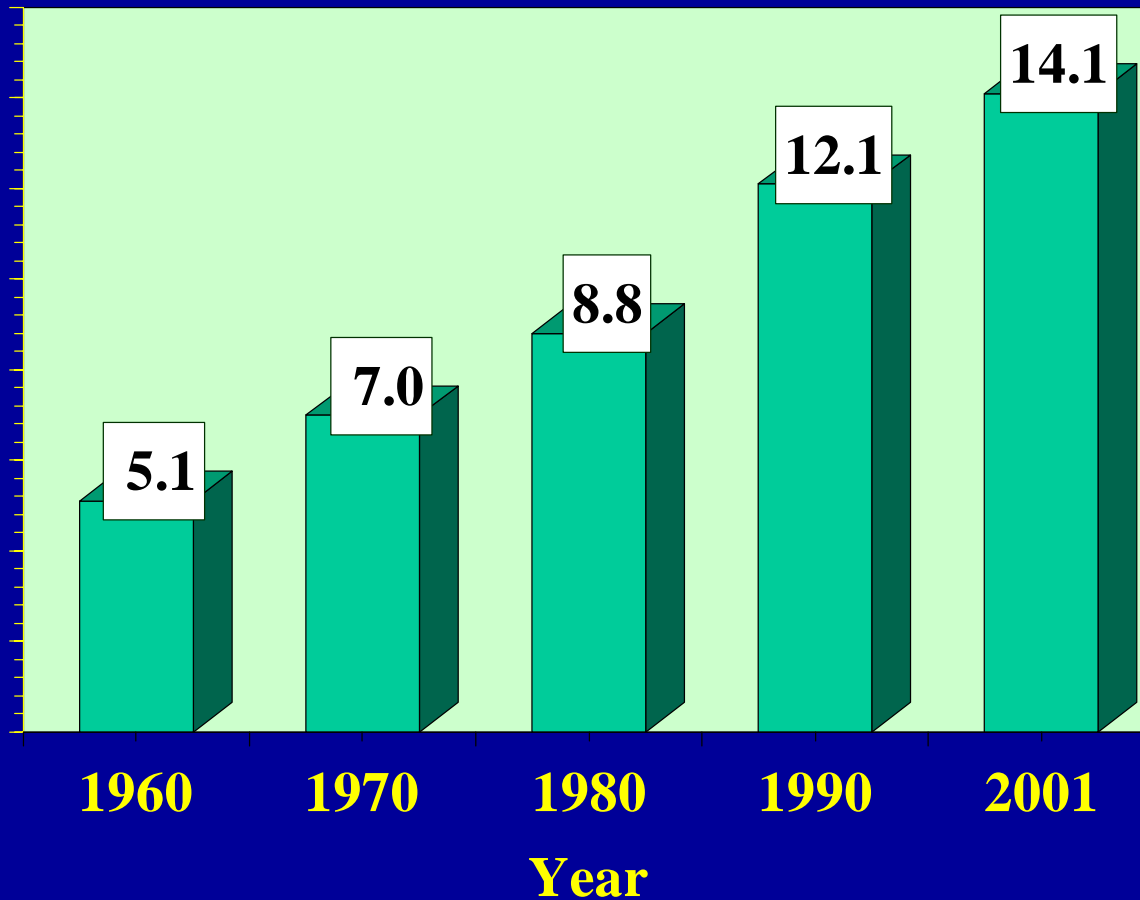


# We Super-size of Soft Drink Consumption



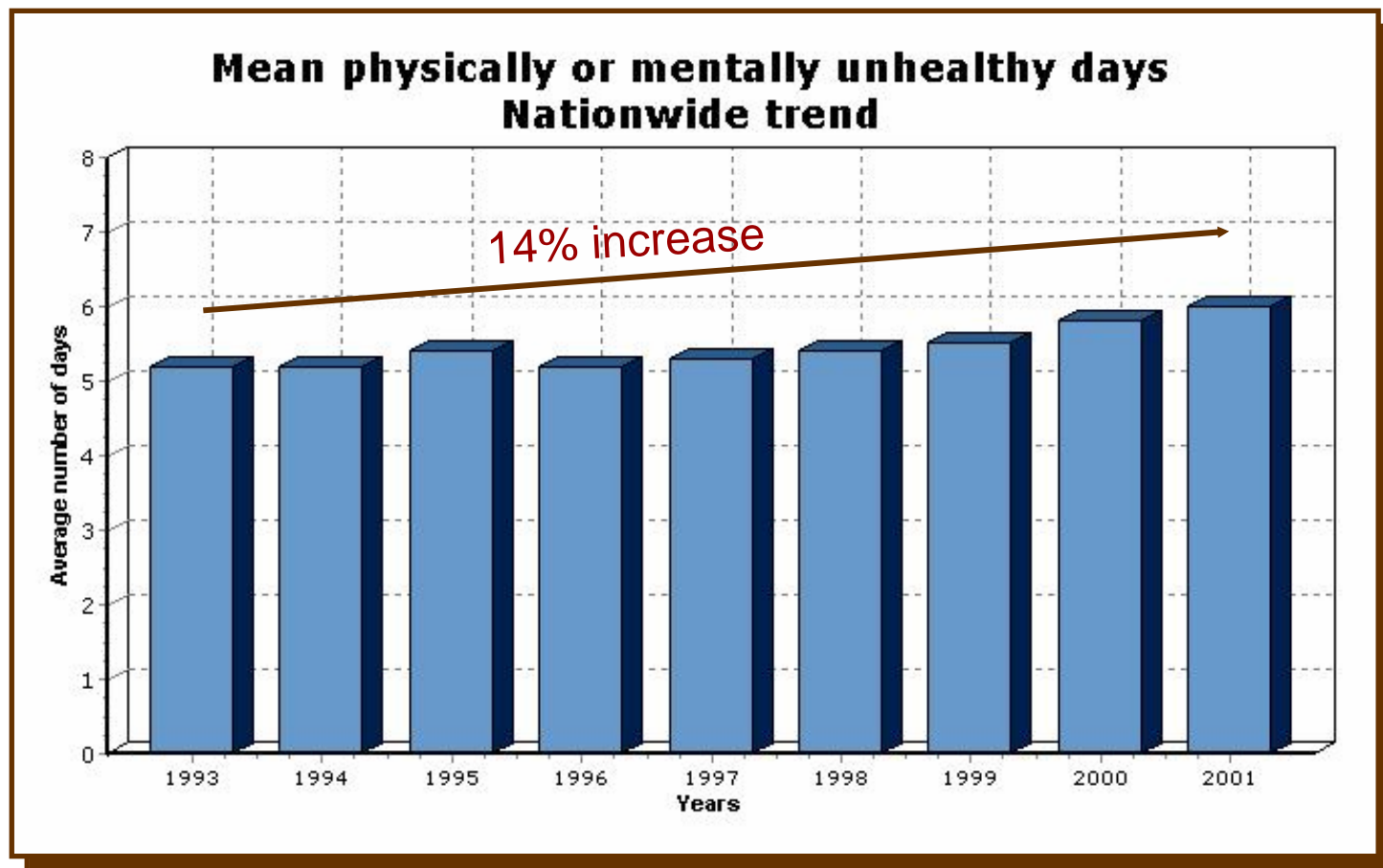
- *17 teaspoons of SUGAR*
- *250 calories*
- *4 hrs bicycling*

# US Health Care Expenditures as Percent of GDP 1960 to Present



# Average number of unhealthy days per month

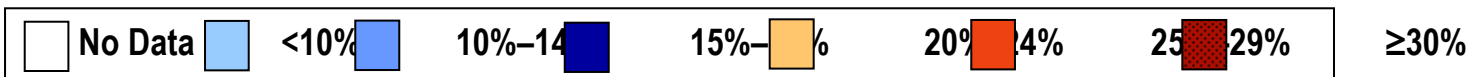
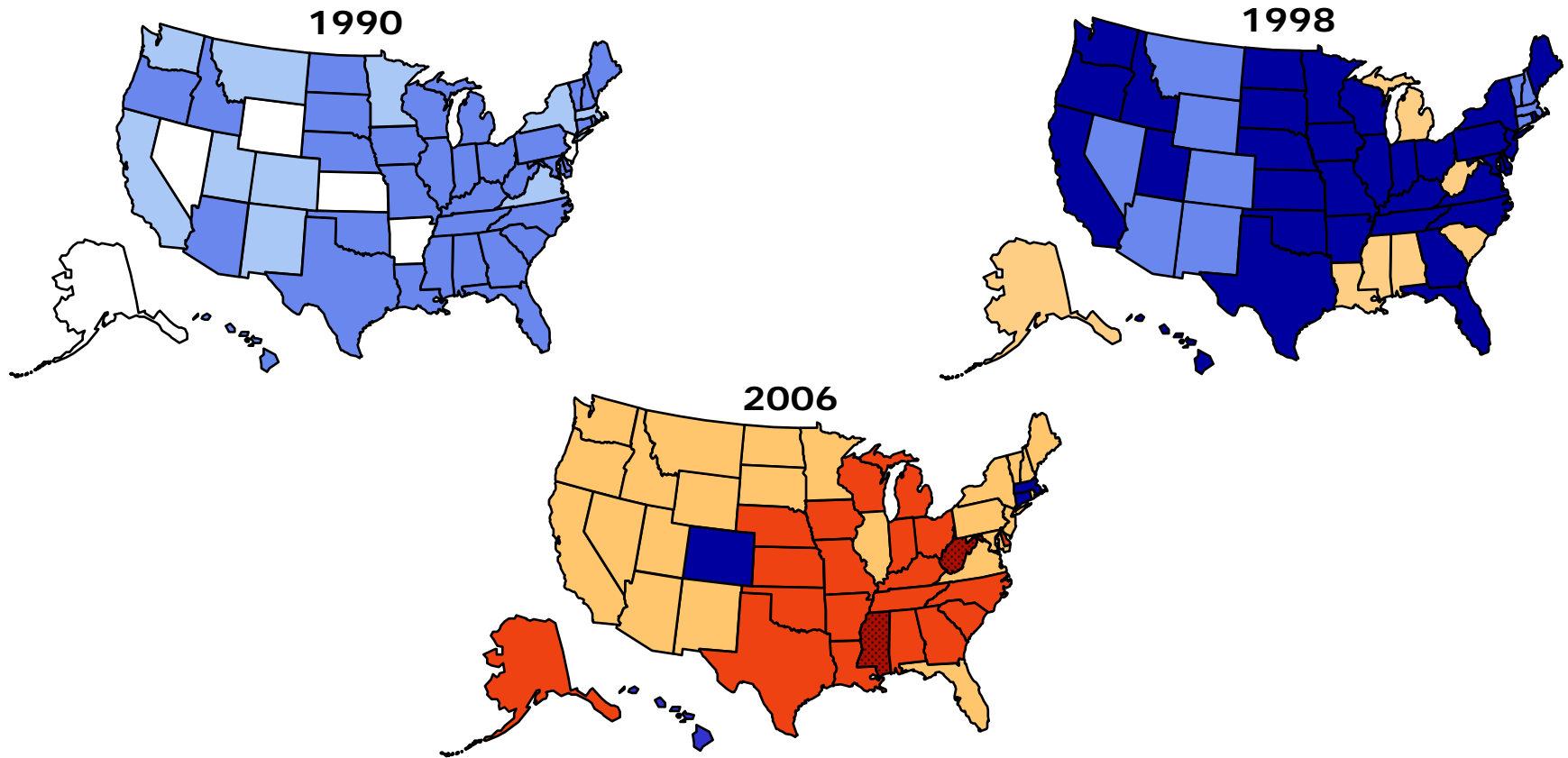
## Quality of Life Prevalence Data



# Obesity Trends\* Among U.S. Adults

## BRFSS, 1990, 1998, 2006

(\*BMI  $\geq 30$ , or about 30 lbs. overweight for 5'4" person)



# **Rural Health Impact Assessment**

- **Improve health outcomes, particularly of seniors and other Transportation- Disadvantaged populations.**
- **Support ongoing collaboration between Humboldt County planning officials and public health staff**
- **Disseminate HIA and general plan language incorporating public health concerns to other California counties and cities.**
- **Reach a broad audience of local stakeholders regarding the HIA and health priorities that should be addressed in the General Plan and land development policies.**
- **Develop capacity at the Humboldt Department of Health and Human Services to perform Health Impact relevant to rural areas.**

BOARD OF SUPERVISORS, COUNTY OF HUMBOLDT, STATE OF CALIFORNIA  
Certified copy of portion of proceedings, Meeting on April 24, 2007

**RESOLUTION NO. 07-32**

**WHEREAS**, 21% of children from the ages of 6 to 19 in Humboldt County are considered overweight (compared to a national average of 15%) and 20% are at risk of becoming overweight and 58% of adults are overweight; and

**WHEREAS**, Type II diabetes, formerly specific to adults, is increasing in children; and

**WHEREAS**, chronic diseases including asthma are on the rise and pose increasing costs to public and private sectors of society; and

**WHEREAS**, access to neighborhood sources of healthy, fresh food have diminished in recent decades; and

**WHEREAS**, transportation and land use planning efforts in Humboldt County and across the nation have emphasized auto travel and community design associated with it; and

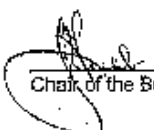
**WHEREAS**, promoting opportunities to use efficient, affordable, healthy modes of transportation such as walking and bicycling may contribute to improved health status in the community; and

**WHEREAS**, the built environment can negatively or positively impact public health; and

**WHEREAS**, the Board of Supervisors supports the Department of Health & Human Services, Public Health Branch and Humboldt Partnership for Active Living's goal of 10% more physically active people in Humboldt County by 2010.

**NOW, THEREFORE, BE IT RESOLVED**, that the Board of Supervisors recognizes the need to improve nutrition and physical activity environments, and recognizes that transportation and land use planning efforts can reverse the trends of recent decades and contribute positively toward building healthy communities and improve public health; and

**BE IT FURTHER RESOLVED**, that the Department of Health and Human Services, Public Health Branch is directed to provide information about how the built environment can positively impact public health to the Humboldt County Planning Commission, and to work with the Department of Community Development, Department of Public Works and other local jurisdictions and their planning commissions and community organizations to improve public health through efforts to improve the built environment in Humboldt County.

  
\_\_\_\_\_  
Chair of the Board



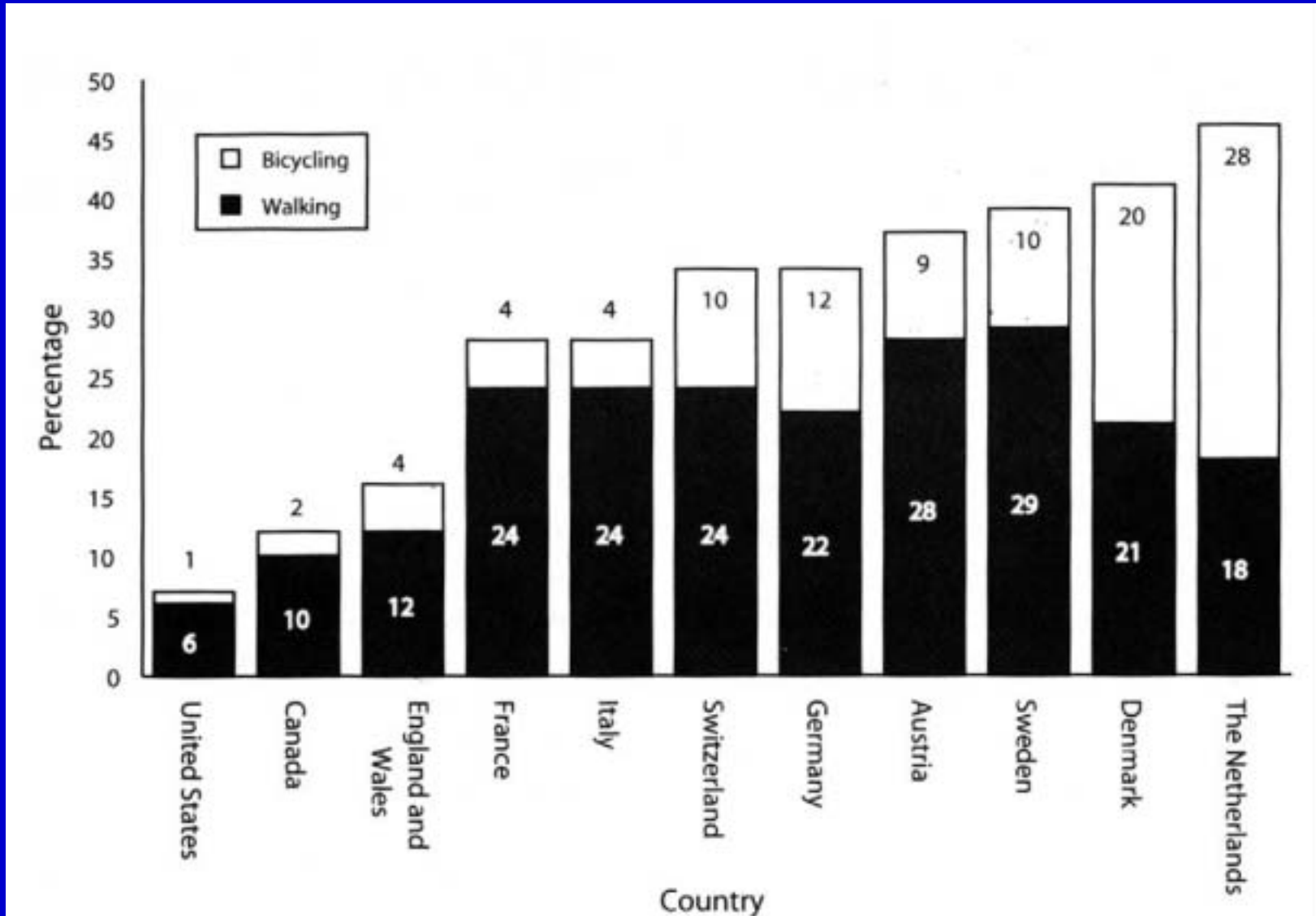
# Humboldt County General Plan Options

- Option A: accommodate housing needs through infill development,
- Option B: provide for up to twice the housing needs mostly through infill development, but also with specific urban expansion plans that are scalable, and
- Option C: provide for up to three times the County's housing needs through infill and expansion of urban areas into adjacent resource lands.

# Population Density / Vehicle Miles Traveled





County	Pop Density/Sq Mi	Daily Vehicle Miles Traveled
SLO	75	9
Butte	124	10
El Dorado	91	12
<b>Humboldt</b>	35	19
Tehama	19	28
Del Norte	27	29

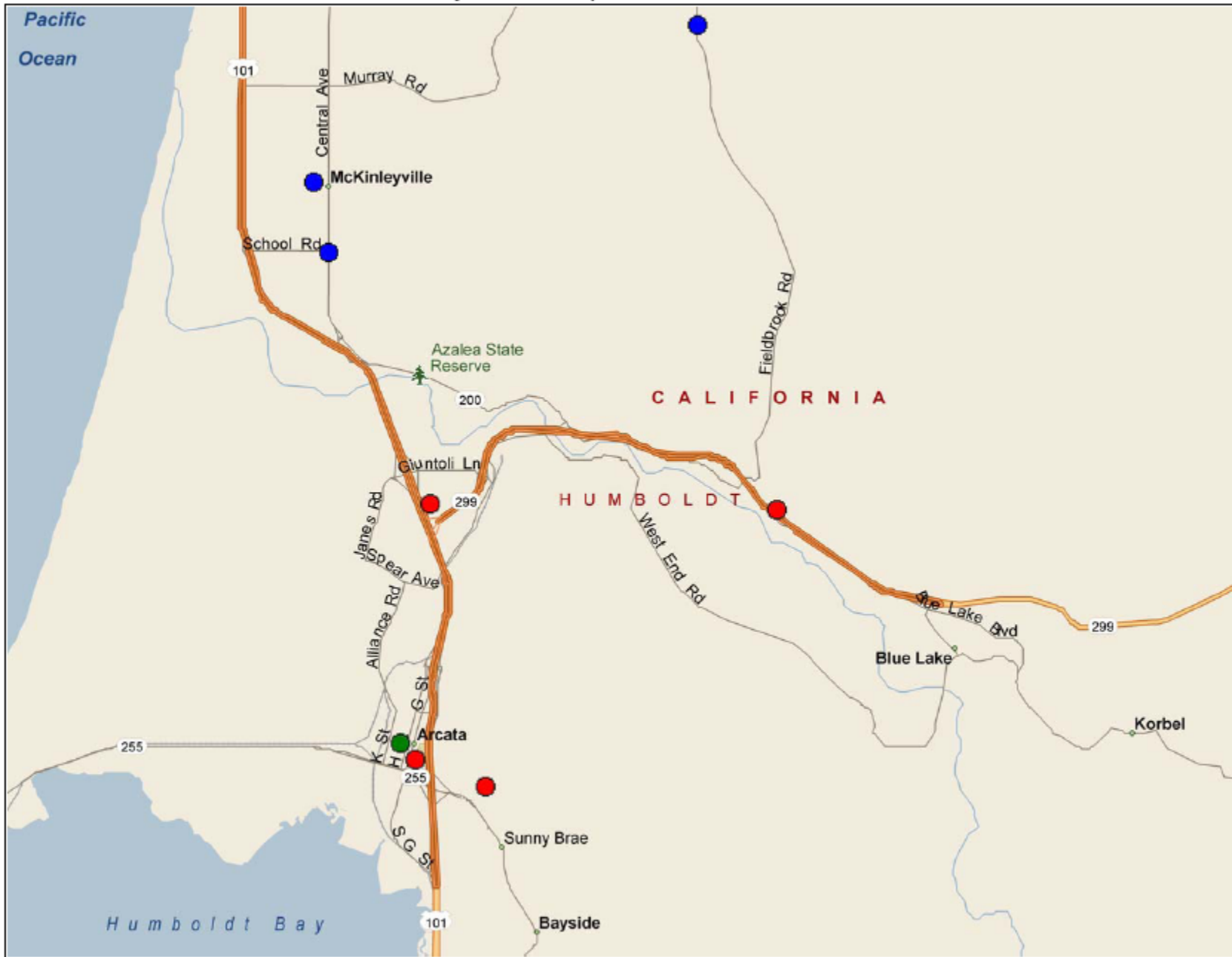
# Percentage of Trips in Urban Areas Made by Walking and Bicycling: North America and Europe 1995



# Arcata-McKinleyville retail produce vendor

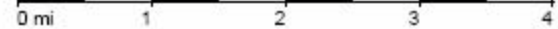
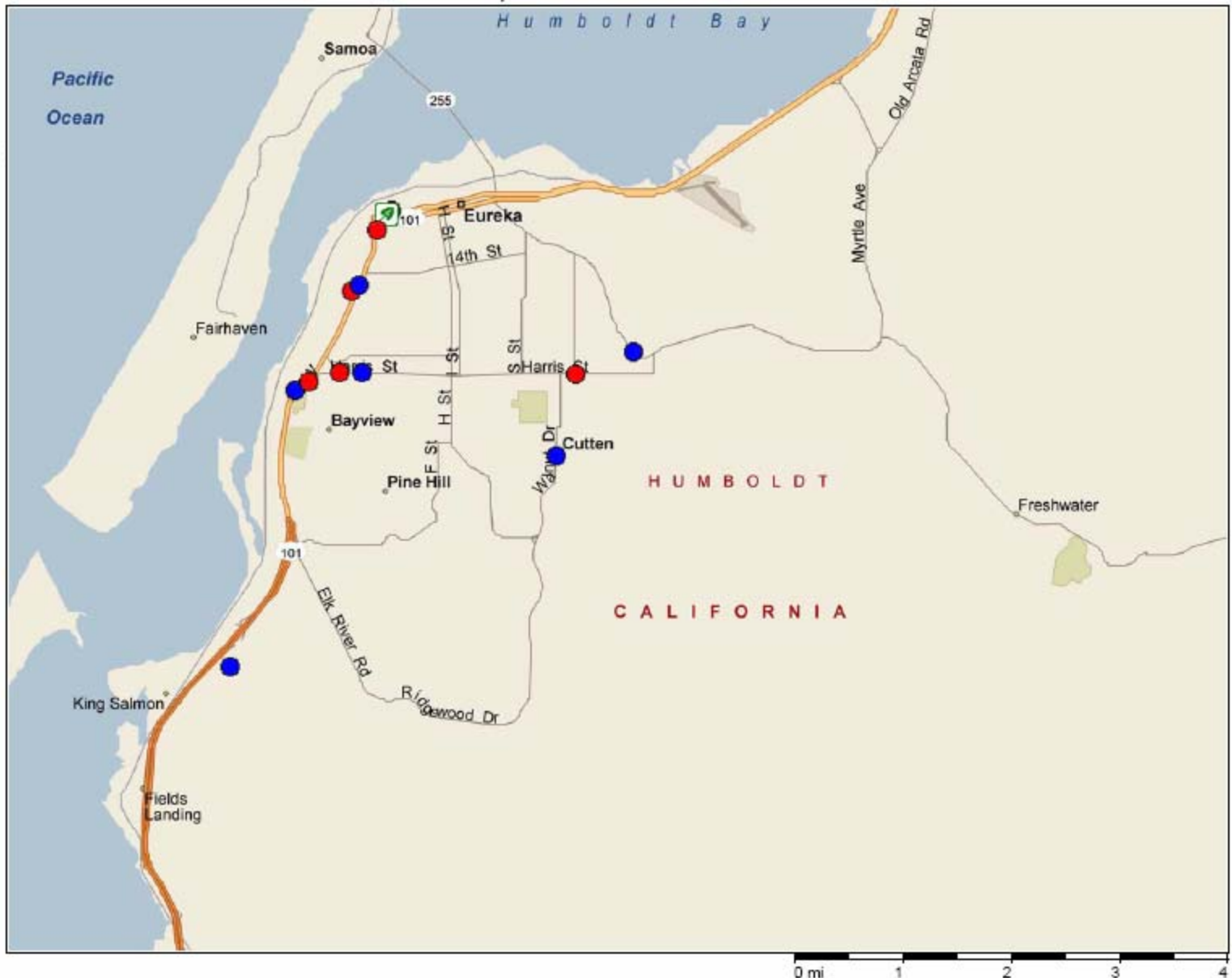
RFEI by Street  
Address

-  produce vendor
-  supermarket
-  supermarket chain
-  supermarket co-op



# Eureka retail produce vendors

- RFEI by Street Address
-  produce vendor
  -  supermarket
  -  supermarket chain
  -  supermarket co-op

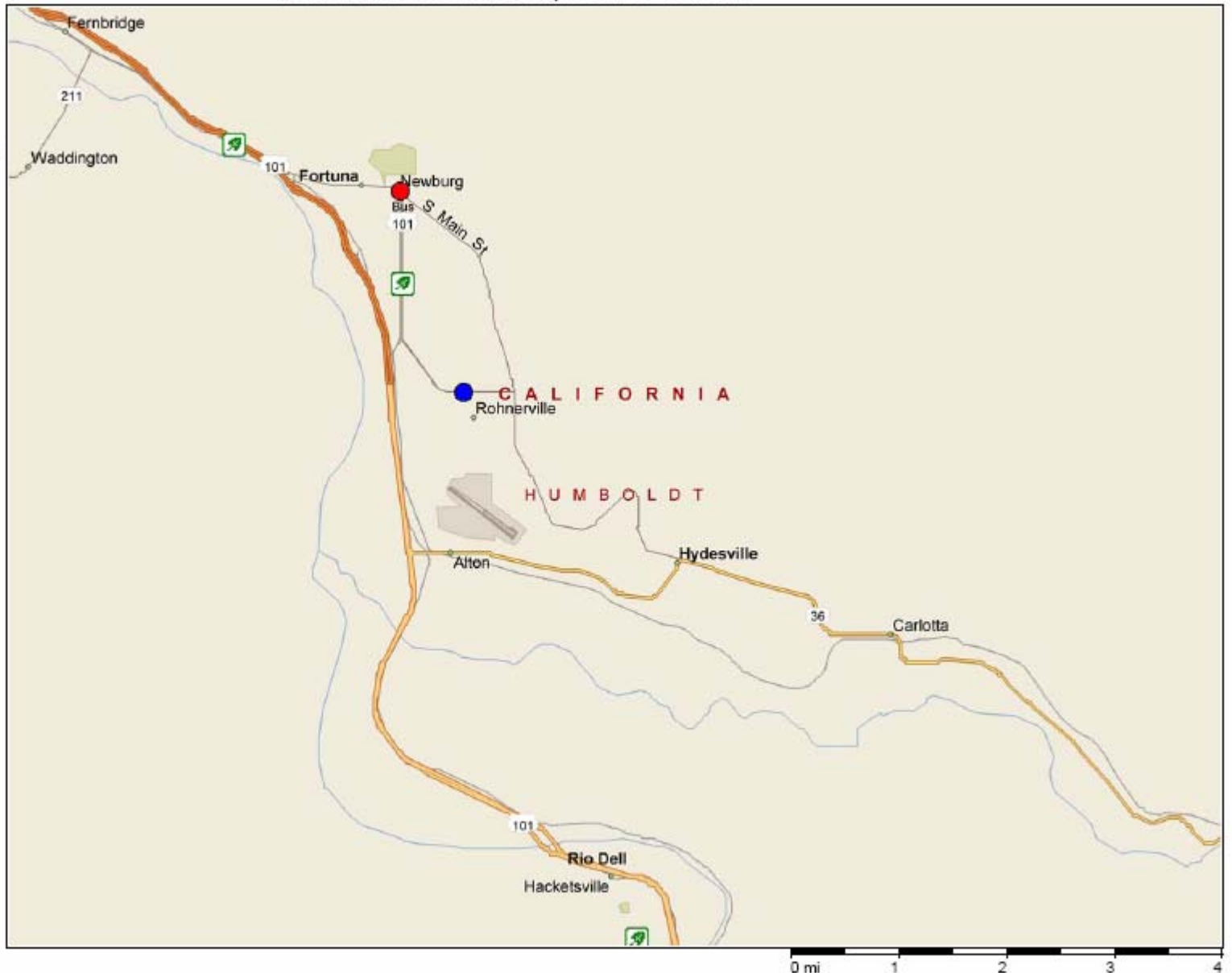


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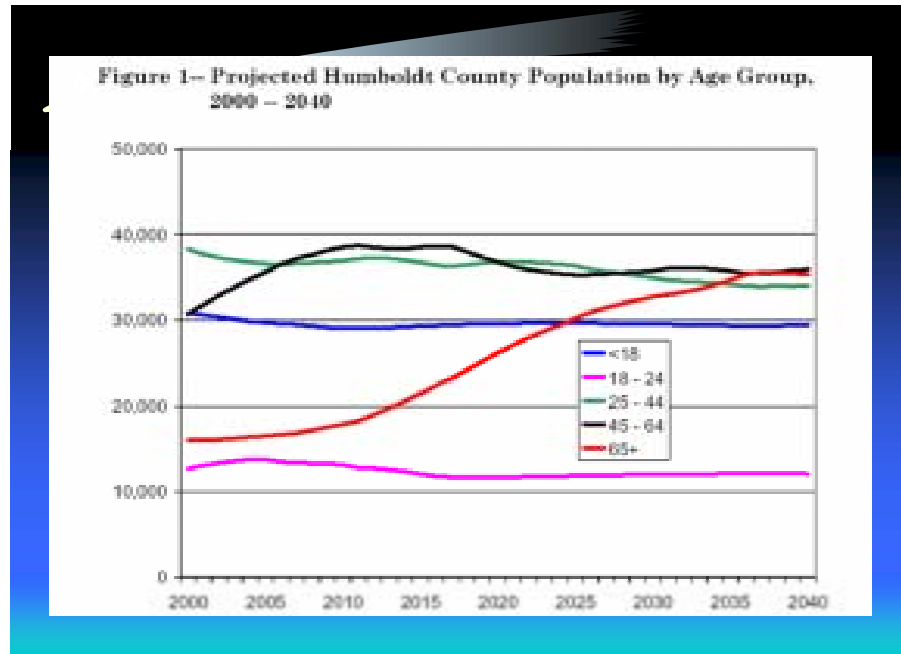
# Fortuna-Rio Dell retail produce vendors

## RFEI by Street Address

-  produce vendor
-  supermarket
-  supermarket chain
-  supermarket co-op

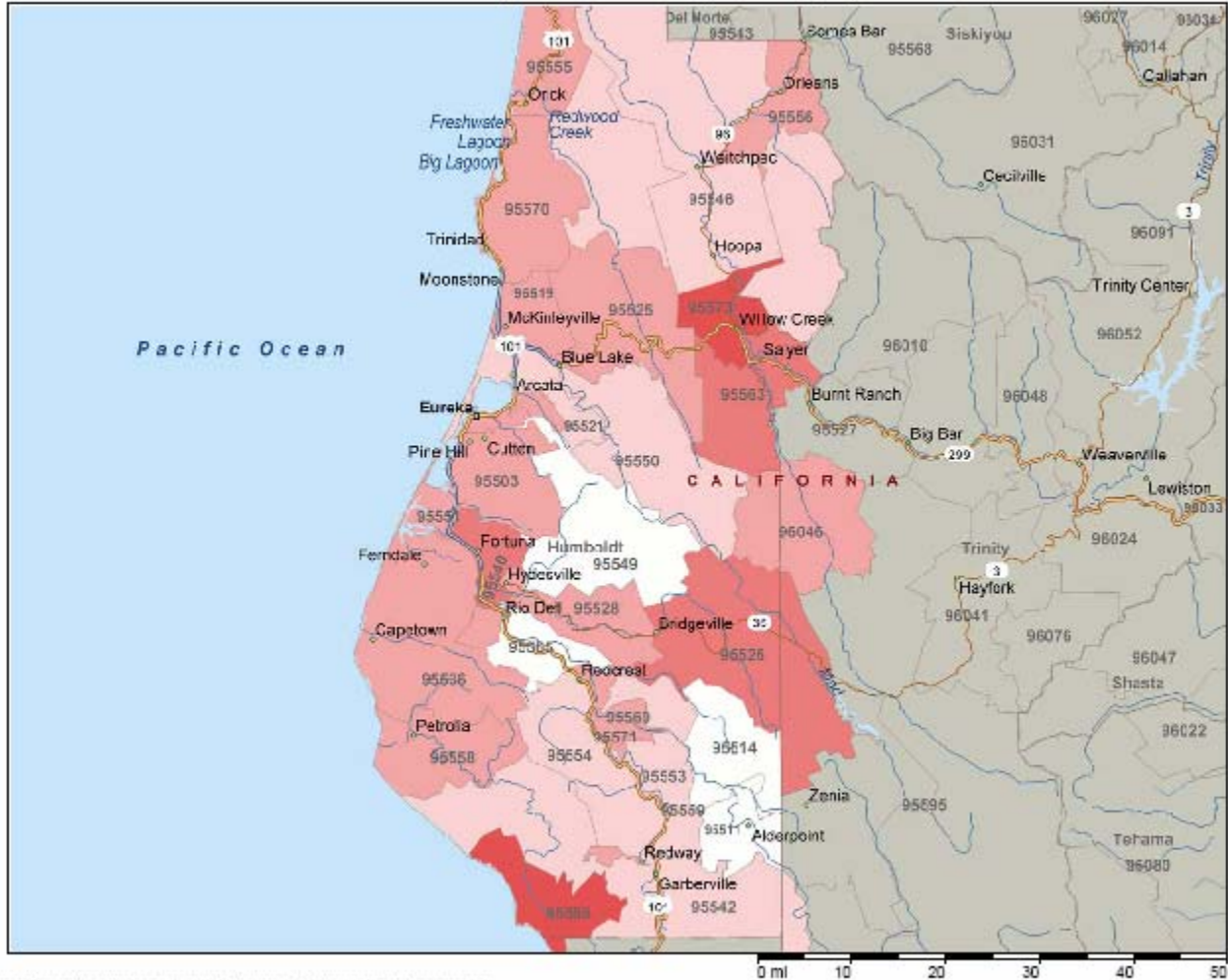
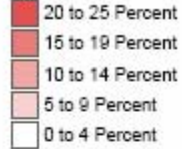


Seniors are the population group that is growing.



## 2000 Census Humboldt Percentage of Persons Age >65 by Zip Code

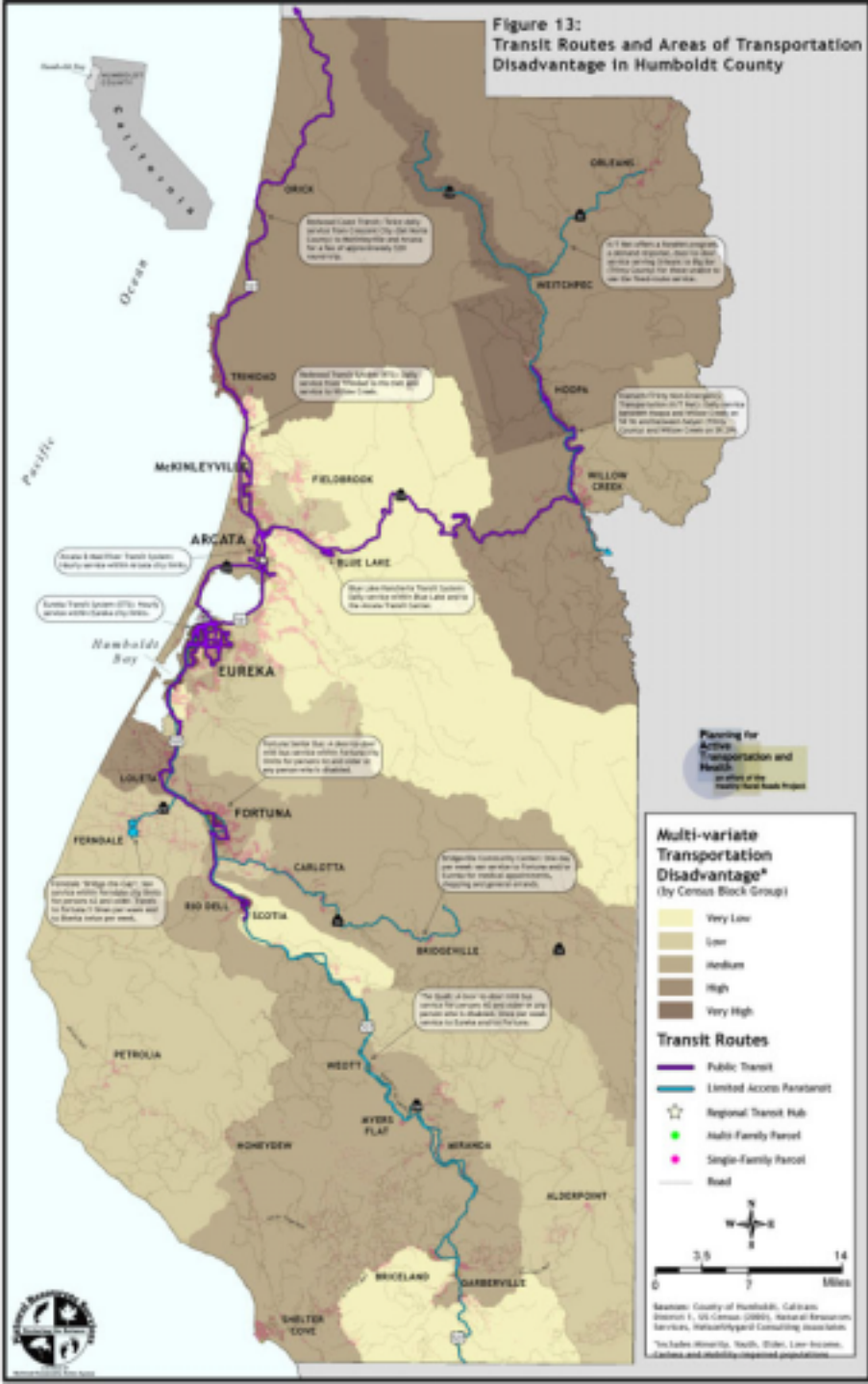
% of Total Population  
by ZIP Code



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Figure 13: Transit Routes and Areas of Transportation Disadvantage in Humboldt County



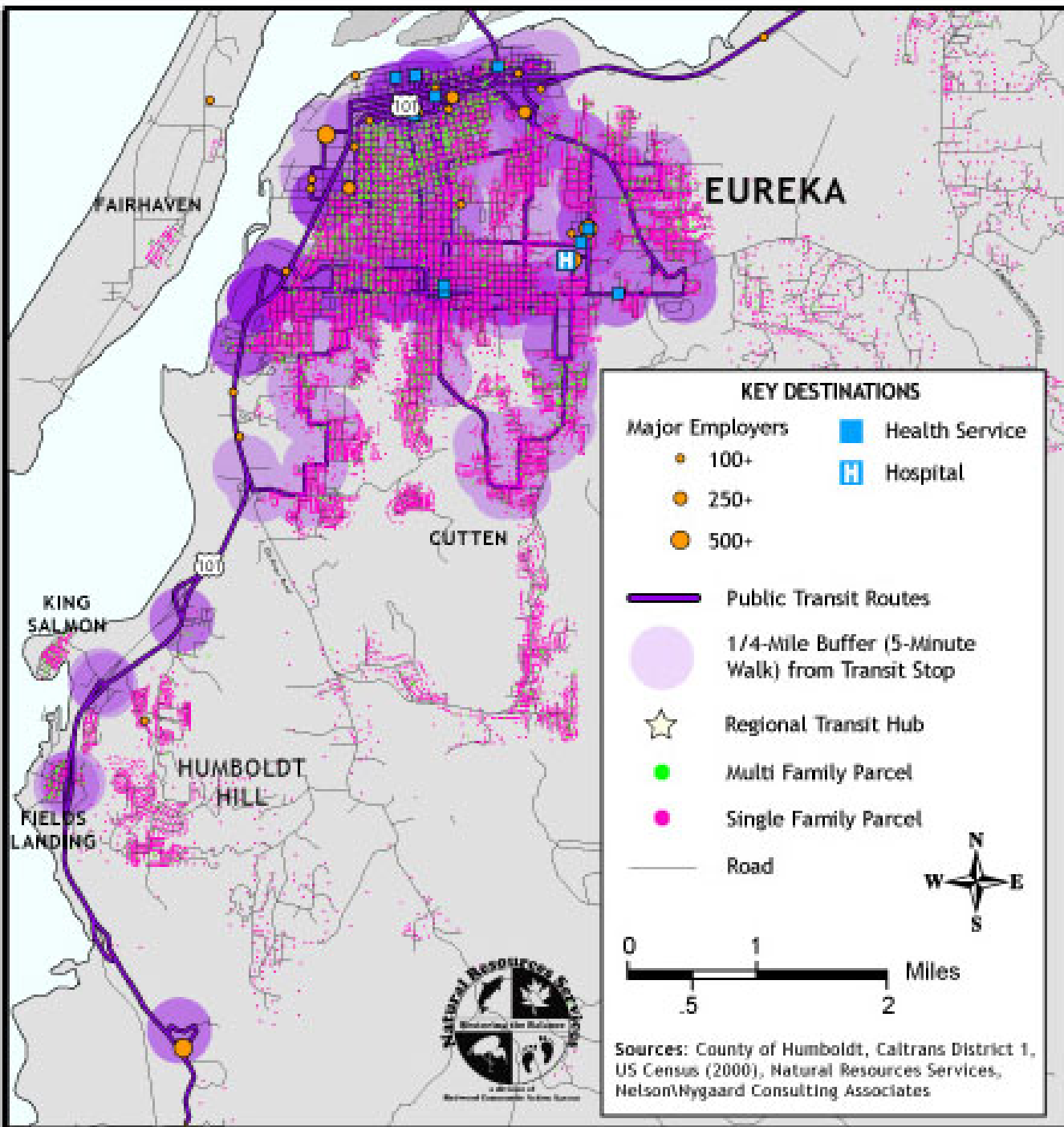
# Mapping Transportation-Disadvantaged Populations

Countywide by Census Block Group

- Carless Households: 9%  
- (High of 38%)
- Low Income: 20% (91%)
- Youth: 20% (39%)
- Seniors: 13% (34%)
- Minorities: 18% (90%)
- Physical or Mental Disability: 19% (41%)
- Unmapped...  
Geographic Isolation: 20%

# Mapping Transit Access to Key Destinations

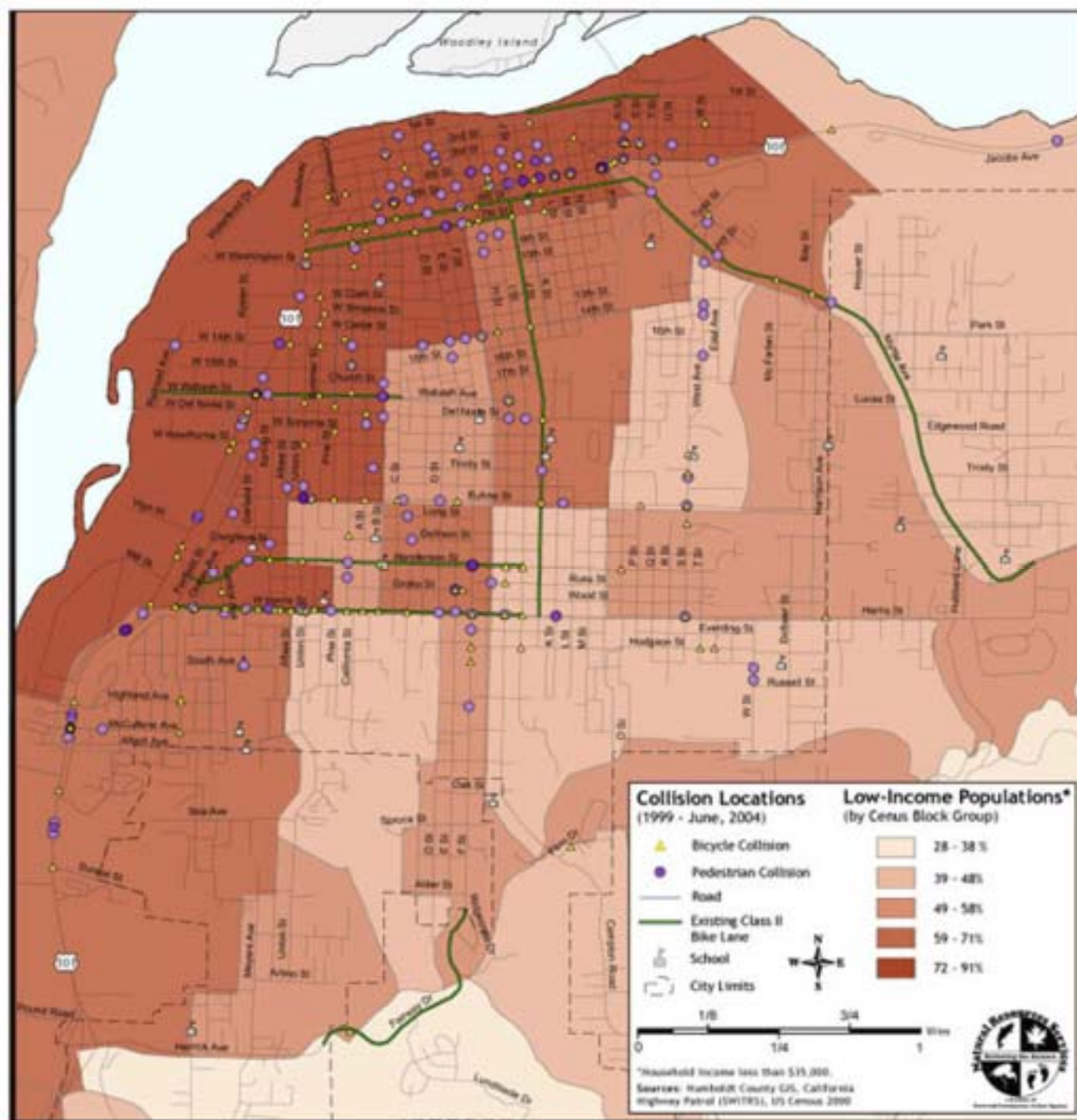
Compared with residential parcel locations



# Mapping Ped- & Bike-Auto Collision Locations

Correlation with low-income neighborhoods

County GIS, HCAOG, Caltrans have all GIS data and results







# Envisioning Change



# Envisioning Change



# Envisioning Change







