Module 7: Geographical Charts

This module includes information on rate maps and spot maps, the two most common types of geographical charts used in public health.
Two Types of Geographical Charts

- **Spot map:** Each dot represents a specified number of cases
- **Rate map:** Geographical areas shaded, patterned, or colored according to magnitude of rate
Examples of Spot Maps

Source: *Am J Public Health, April 2004;94:669*

Over 4,400 Mercury Thermometers Collected at 41 Sites Across Boston

Note. BHA = Boston Housing Authority.

FIGURE 1—Map of Boston showing locations of mercury thermometer exchanges and the number of thermometers collected at each exchange.
Note. Outbreak locations represent the centroid of the affected watershed.

**FIGURE 1**—Waterborne disease outbreaks and associated extreme levels of precipitation (precipitation in the highest 10% [90th percentile]) within a 2-month lag preceding the outbreak month: United States, 1948–1994.
Examples of Rate Maps


FIGURE 2—Domestic elder abuse substantiation rates.
FIGURE 1—Map of North Carolina showing counties that experienced moderate or severe damage from Hurricane Floyd in September 1999.
FIGURE 2—Years of potential life lost, by county: 1990–1992 average.
Obesity Trends* Among U.S. Adults

BRFSS, 1985

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

BRFSS, 1986

(*BMI ≥ 30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

BRFSS, 1987

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

BRFSS, 1988

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Obesity Trends* Among U.S. Adults

BRFSS, 1993

(*BMI ≥ 30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

BRFSS, 1994

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

BRFSS, 1995

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults
**BRFSS, 1996**
(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

BRFSS, 1997

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Obesity Trends* Among U.S. Adults

BRFSS, 2000

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

BRFSS, 2001

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults
BRFSS, 2002

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)

Source: Behavioral Risk Factor Surveillance System, CDC
Obesity Trends* Among U.S. Adults

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Obesity Trends* Among U.S. Adults

BRFSS, 1988

(*BMI \geq 30, or \sim 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

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Obesity Trends* Among U.S. Adults

**BRFSS, 1996**

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)

No Data          <10%            10%–14%          15%–19%
Obesity Trends* Among U.S. Adults

BRFSS, 1997

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

BRFSS, 1998

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

BFESS, 1999

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

**BRFSS, 2000**

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

**BRFSS, 2001**

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults
BRFSS, 2002
(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)

Source: Behavioral Risk Factor Surveillance System, CDC