

# Use of Maternal and Child Health Data

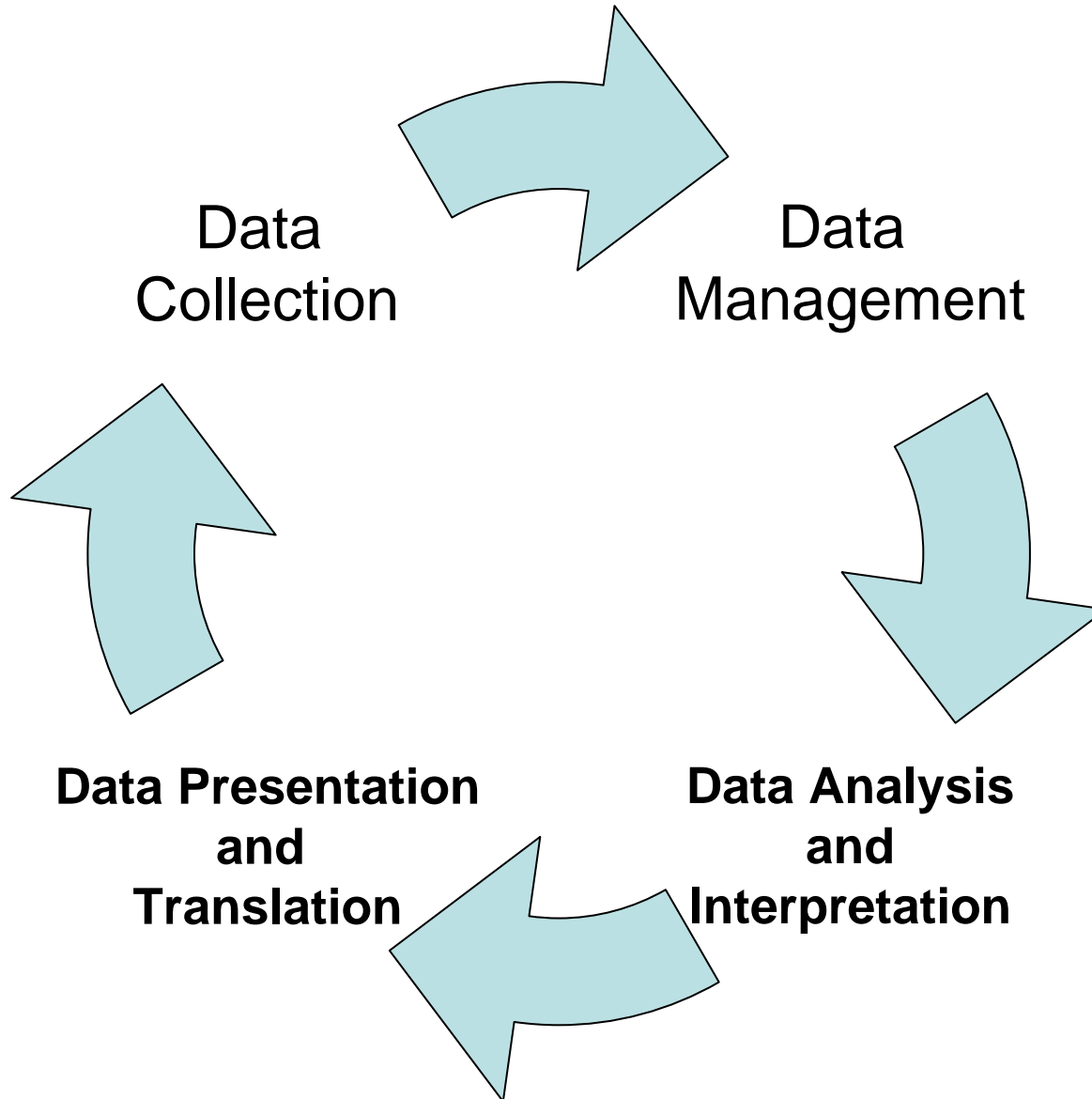
**Donald Hayes, MD MPH**

FHSD Epidemiologist  
Family Health Services Division, Hawai'i Department of Health  
Centers for Disease Control & Prevention

October 23, 2008  
Perinatal Summit  
Hilton Waikoloa Village, Hawai'i

# Data can help you answer questions?

- How many births are there in Hawai'i each year?
- Is there a relationship between alcohol intake and birth outcomes?
- Are teen mothers more likely to report barriers to accessing contraception?
- What groups or risk factors are more or less likely to be associated with an infant death?  
Childhood obesity? Hearing Loss? .....



# Some MCH datasets in Hawai'i

Pregnancy Risk Assessment Monitoring Survey

Women, Infant, and Children

Hawai'i Household Survey

Child Death Review

Fetal Deaths

Birth Certificate

Youth Risk Behavior Surveillance

Medicaid

Cancer Registry

Birth Defects

Newborn Metabolic Screening

Death Certificate

Youth Tobacco Survey

Newborn Hearing Screening

Breastfeeding survey

Immunization

Injury data

Emergency Preparedness

Early Intervention Services

Children with Special Health Needs

Family Planning

Behavioral Risk Factor Surveillance System

EMS transport data

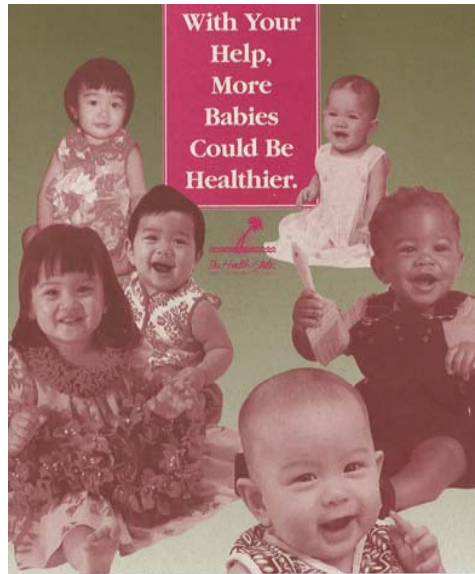
JABSOM National children study

Hospital discharge data

Emergency room data

Breast pump survey

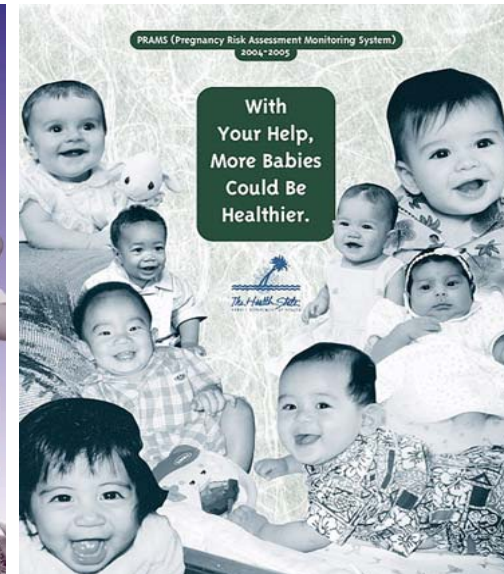
# Hawai'i PRAMS Survey



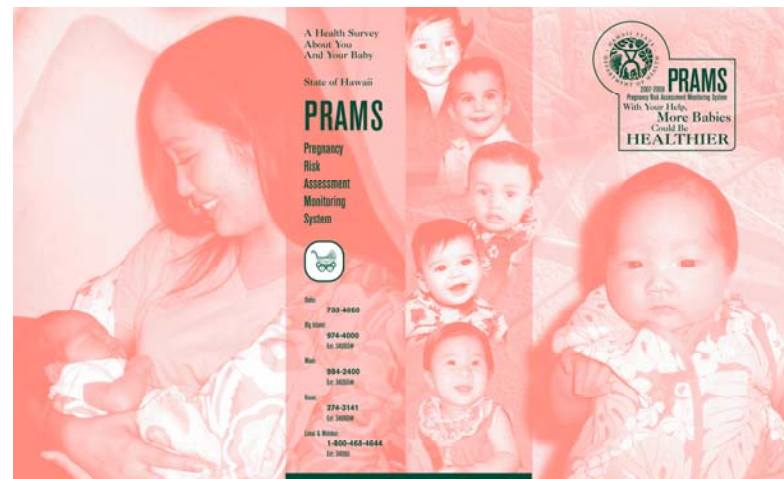
2000-2001



2002-2003



2004-2006



2007-2008

# PRAMS

- State-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy
- Mailed survey with follow up by telephone
- Core questions and state selected content
- Elements of birth certificate included

# Some Limitations of PRAMS

- Self-reported information
- Limited number of questions/detail
- Varying response rates among various groups

# How is data being used in the Community?

## Examples:

- Hawai'i DOH Genetics Program uses the data in grant applications to increase genetics education and/or clinical services in Hawai'i .
- Hawai'i Kids Count/Center on the Family at the University of Hawai'i at Manoa requested data on the prevalence of women that smoked, drank or used drugs during the last three months of pregnancy.
- Hawai'i DOH MCHB requested data on the prevalence of women who smoked three months before pregnancy and who smoke now for a presentation to the FSHD to assist with its ongoing needs assessment and discussion.

# PRAMS 2008 Abstracts

## APHA Annual conference (Oct 2008)

- Estimates of self-reported postpartum depression and racial/ethnic disparities among women in Hawai'i
- Characteristics of women eligible for the special supplemental nutrition program for women who were not on WIC during pregnancy, Hawai'i 2000-2006.
- Relationship between physical abuse and access to prenatal health care: Findings from Hawai'i PRAMS
- A Hawai'i case study on interconception care for women on Quest/Medicaid

## Annual MCH Epi Conference (Dec 2008)

- Self-reported Postpartum Depression, Unintended Pregnancy, Racial/Ethnic, and Socioeconomic Disparities among Women in Hawai'i : Pregnancy, Risk, Assessment, and Monitoring System (PRAMS), 2004-2006
- Gestational weight gain and birthweight outcomes using prenatal weight gain grids, a method to account for gestational age at birth, Hawai'i Pregnancy Risk Assessment Monitoring System (PRAMS), 2000-2006
- Declining Trend in Early Entry to Prenatal Care in Hawai'i : A Problem of Supply or Demand?
- Infant Sleep Position in Hawai'i : Avenues for Intervention to Meet Healthy People 2010 Goals
- Inadequate Multivitamin or Prenatal Vitamin Intake in Hawai'i by Maternal Characteristics: Finding from Hawai'i PRAMS Survey, 2004-2006

# PRAMS 2008 Fact Sheets

- Preconception Vitamin
- Unintended Pregnancy
- Prenatal Care
- Perinatal Substance Use
- Cesarean Delivery
- Breastfeeding
- Sleep positioning
- Postpartum depression

# Data to Action

- HB2761 2008 Legislative Session
- Act 2, 2008 Special Session
  - Expanding interconception care for Medicaid/QUEST insured women from 6 weeks to 6 months

# Data Analysis and Interpretation

- University of Hawai'i , Office of Public Health Studies: (MPH, DrPH, MCH leadership, etc...)
- Some typical steps:
  - Develop Hypothesis
  - Review public health literature
  - Revise Hypothesis
  - Identify potential data sets
  - Collaborate
  - Revise Hypothesis
  - Develop structured analytic plan
  - Conduct analysis
  - Summarize analysis
  - Make new Hypotheses

# Data Responsibility

- Read the literature
- Know your data set
- Document limitations
- Identify potential biases
- Collaboration

# Use of Data

- Identify new research hypotheses
- Evaluation
- Other researchers/organizations
- Grant applications
- Prepare for legislation
- Assist in policy development
- Where should limited funds get distributed

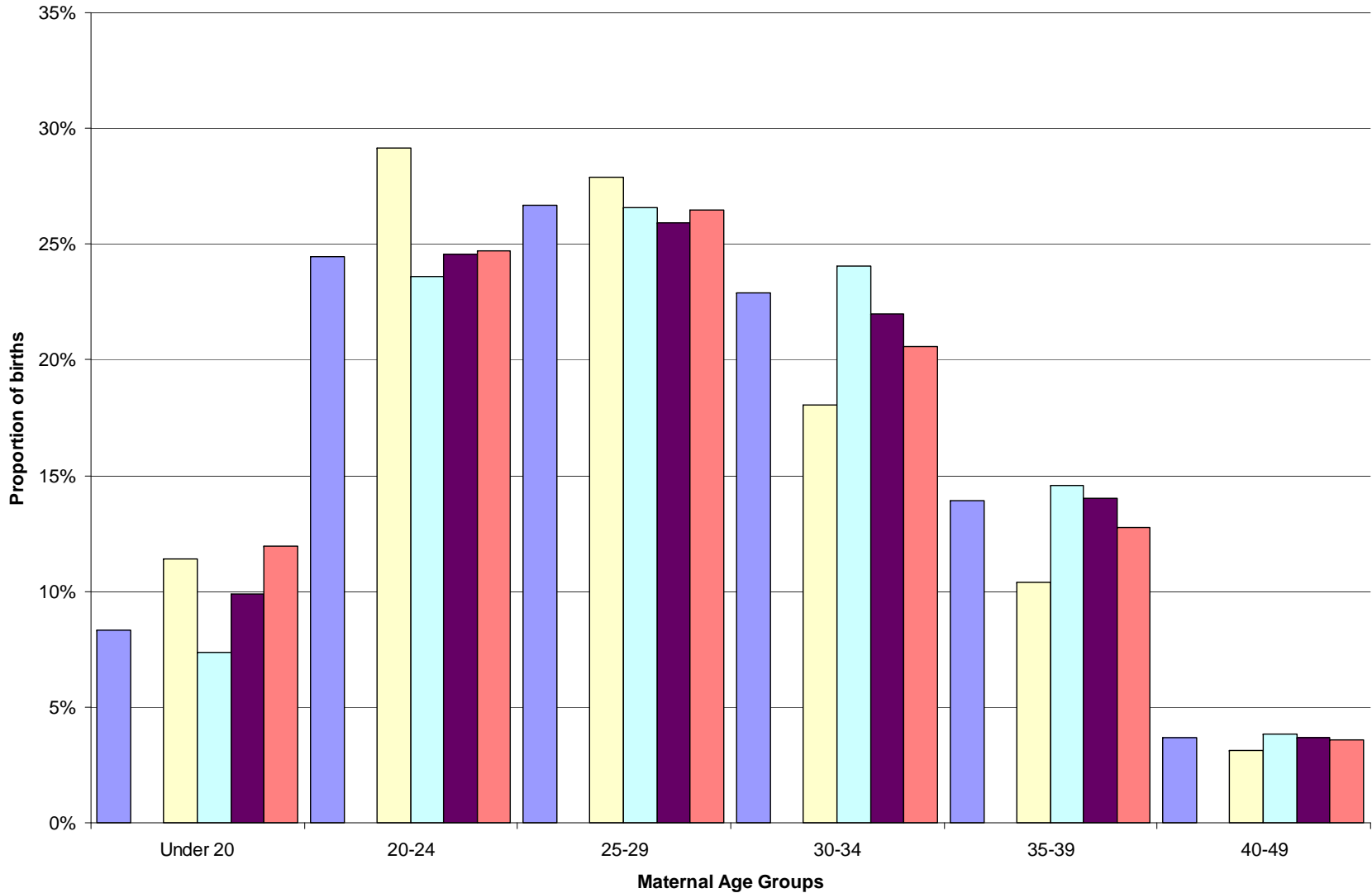
**www**

**world wide web**

**internet**



## Maternal Age Groups for Births in the State of Hawaii and by County, 2005



■ Hawaii 
 ■ Hawaii County, HI 
 ■ Honolulu County, HI 
 ■ Maui County, HI 
 ■ Hawaii counties <100,000 population



# CDC WONDER

[WONDER Home](#) [FAQ](#) [Help](#) [Contact Us](#) [Search](#)

WONDER online databases utilize a rich ad-hoc query system for the analysis of public health data. Reports and other query systems are also available.

**WONDER Systems** [Topics](#) [A-Z Index](#)

## WONDER Online Databases

- ▶ [AIDS Public Use Data](#)
- ▶ [Births](#)
- ▶ [Cancer Statistics](#)
- ▶ [Infant Deaths](#)
- ▶ [Mortality - underlying cause of death](#)
- ▶ [Online Tuberculosis Information System](#)
- ▶ [Population Data \(from Census\)](#)
- ▶ [Sexually Transmitted Disease Morbidity](#)
- ▶ [Vaccine Adverse Event Reporting](#)

## Reports and References

- [Prevention Guidelines \(archive\)](#)
- [Scientific Data and Documentation](#)

## Other Query Systems

- ▶ [Healthy People 2010](#)
- ▶ [MMWR Morbidity Tables](#)
- ▶ [MMWR Mortality Tables](#)

▶ *Denotes numerical data available to query or download*

This page last reviewed: Friday, August 29, 2008

- What is WONDER?
- [Frequently Asked Questions](#)
- [Data Use Restrictions](#)
- [Data Collections](#)
- [Citations](#)
- [Republishing WONDER Data](#)
- What's New?

http://wonder.cdc.gov

## Weight classification by Body Mass Index (BMI)

Export Printer Friendly

Gender:		Neither overweight nor obese (bmi le 24.9)	OVERWEIGHT (bmi 25.0 - 29.9)	OBESE (bmi 30.0 - 99.8)
Male	%	33.6	44.5	22.0
	CI	(31.1-36.1)	(41.9-47.1)	(19.8-24.2)
	n	912	1249	580
Female	%	54.3	26.5	19.2
	CI	(52.1-56.5)	(24.6-28.4)	(17.4-21.0)
	n	1990	977	683

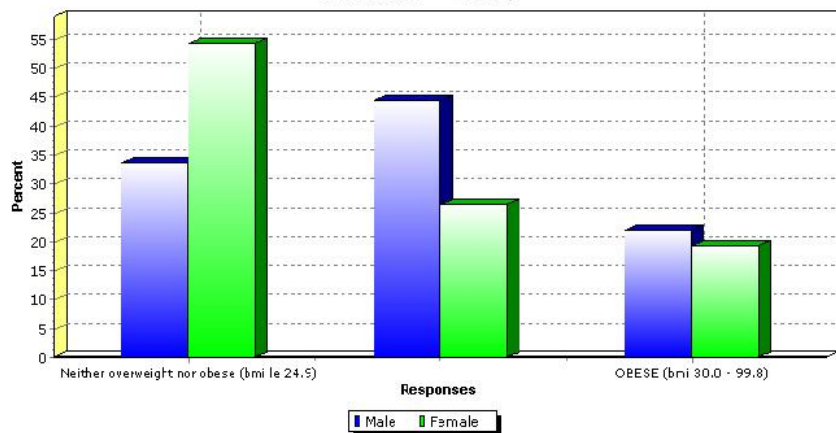
% = Percentage, CI = Confidence Interval, n = Cell Size  
Percentages are weighted to population characteristics.

Use caution in interpreting cell sizes less than 50.

N/A = Not available if the unweighted sample size for the denominator was < 50 or the CI half width was > 10 for any cell, or if the state did not collect data for that calendar year.

See [States conducting surveillance, by year.](#)

### Overweight and Obesity (BMI) Hawaii - 2006



Select Another Year For Hawaii: 2006 Go

Select Another State For 2006: Hawaii Go



## Interactive Atlas of Reproductive Health: Map results

### Interactive Atlas of Reproductive Health

#### Quick Tips

#### Infant Health Rates for Hawaii by Smooth Counties\*, 1998-2002

Low birth weight; 10-54 years; All Races; All Ethnicities

#### Demographics

##### 1 Risk

Low birth weight

##### 2 Age

10-54 years

##### 3 Race

All Races

##### 4 Ethnicity

All Ethnicities

#### Classification

Equal Interval

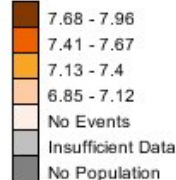
Redraw map

Show table

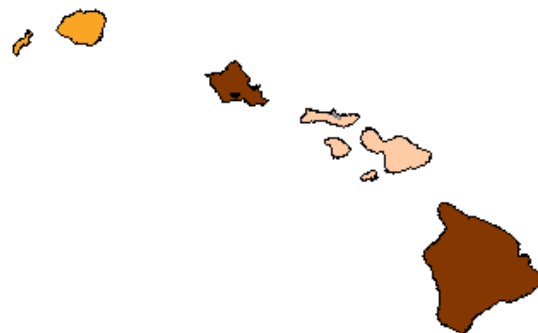
Start over



% of Live Births



County Outlines



The rate for Hawaii is 7.80.

#### National Statistics: <sup>1</sup>

The rate for the nation is **5.76**.

The upper 10th percentile rates for this demographic group are **10.48** and above.

The lower 10th percentile rates for this demographic group are **5.61** and below.

**Source:** CDC, National Center for Health Statistics, Division of Vital Statistics, National Vital Statistics System

**Map classification method:** Equal Interval

<sup>1</sup>Data used to calculate national statistics includes the 50 states, the District of Columbia, and the following United States territories of American Samoa, Guam, Northern Mariana Islands, Puerto Rico and the American Virgin Islands, when available.

- > [Interactive Atlas of Reproductive Health](#)
- > [GIS Concepts](#)
- > [Atlas Update Log](#)
- > [How to Use the Interactive Maps](#)
- > [FAQ's](#)
- > [Map Tools](#)
- > [Reading the Maps and Tables](#)
- > [Reproductive Health Indicators](#)
- > [Demographic Groups](#)
- > [Geographic Layers](#)
- > [Statistical Methods](#)
- > [Data Sources](#)
- > [Glossary](#)
- > [Abbreviations](#)

## **Acknowledgements**

**Loretta Fuddy, FHSD chief**

**Hawai'i PRAMS team**

**Mark Eshima**

**Hawaii Health Data Warehouse**

**CDC**

**Email: [DON.HAYES@DOH.HAWAII.GOV](mailto:DON.HAYES@DOH.HAWAII.GOV)**