

The Bureau of Health Information and Policy presents...

**The Wisconsin Family Health Survey:
A Study of Population Health**

October 25, 2007



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Welcome & Introductions

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Introductions

- Bureau of Health Information and Policy (BHIP)
- University of Wisconsin Survey Center (UWSC)

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Who Funds the Survey?



- Division of Health Care Financing
- Division of Public Health
- Division of Mental Health and Substance Abuse Services
- Division of Long Term Care
- Custom Data Requests/Sales of Data

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What Is the Family Health Survey?

Eleanor Cautley, M.S.
Bureau of Health Information and Policy

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What Is the Family Health Survey?



The Family Health Survey is a scientific instrument.

It is used to measure the health of the Wisconsin population.

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What Is the Family Health Survey?

Surveys replace our assumptions with scientific data.

- Surveys use strict protocols.
- A **representative sample** is selected.
- Questions are carefully worded.
- Interviewers are trained to not introduce bias.

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What Is the Family Health Survey?

Online Polls and Call-in Votes:

Are They Scientific?

- **NO**
- Participants are **self-selected**
- Not a representative sample of any group

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What Is the Family Health Survey?

The results of a scientific survey represent everyone in the population which was sampled.

- A survey based on a representative sample provides reliable information about a population.
- The sample must be large enough.
- All survey results are **estimates** because they are derived from a sample.

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What Is the Family Health Survey?

Random samples are a critical feature of scientific surveys.

- The purpose of a sample is to represent a larger group.
- In a **random sample**, each person has a known probability of being selected.
- A sampling statistician helps us do this.



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What Is the Family Health Survey?

The Family Health Survey uses a random sample of all Wisconsin households with landline telephones

- The sample is drawn from all phone numbers in Area Codes 262, 414, 608, 715 and 920.
- Our 72 counties are divided into seven groups, so each group can be sampled at a different rate.

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What Is the Family Health Survey?

Family Health Survey Methods

- 2,400 Wisconsin households are sampled each year.
- It is a telephone survey, conducted throughout the year.
- Survey is conducted by trained interviewers in English or Spanish.

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What Is the Family Health Survey?

Family Health Survey Methods

- Annual data set includes about 6,000 Wisconsin household *residents*.
- Data set is adjusted for differing sampling rates and response rates.
- Final data set provides estimates of the number of Wisconsin residents.

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What Is the Family Health Survey?

The Family Health Survey is a high quality scientific survey.

- Random sample
- Carefully written questions
- Trained interviewers
- Knowledgeable data analysts

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Family Health Survey Topics

Ann Spooner
Bureau of Health Information and Policy

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Family Health Survey Topics

Where do questions come from?

- Questions are primarily designed to serve the information needs of DHFS.
- BHIP writes questions, and UWSC gives feedback.
- Many survey questions are comparable from year to year; therefore, changes in the state can be tracked over time.
- As needs change, questions can easily be added, deleted, or clarified due to the modular format of the survey.



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Family Health Survey Topics

FHS Modules

- Introduction
- Household Roster
- Health Status and Activity Limitations
- Health Care Utilization
- Health Conditions
- Health Insurance
- Employment Insurance
- Program Participants
- Social Connectedness & Emergency Preparedness
- Demographics
- Income
- Closing of Interview

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Family Health Survey Topics

The playing field

- Confidentiality is assured.
- Survey averages 20 minutes to complete.
- Questions are answered by one person in the household, called the respondent.
- Some questions are asked about individual household members.
- Some questions are asked about the household as a unit—for example, county of residence.
- Household can be related or unrelated people.

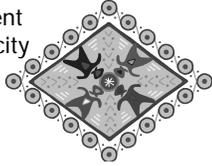


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Family Health Survey Topics

Demographic Information

- For each person in the household:
 - Age
 - Sex
 - Relationship to respondent
 - Race and Hispanic ethnicity
- For each adult:
 - Educational level
 - Marital status



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Family Health Survey Topics

Demographic Information

- For each household:
 - County, region, Zip Code, farm residence, and City of Milwaukee
 - Household-level totals; for example, how many adults or children in the household
 - Income level—by federal poverty level, and by dollar categories.



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Family Health Survey Topics

Health Insurance Status

- Does a person have health insurance?
- Two measures:
 - Currently Insured is a point-in-time measure: Insured or not on the day of the interview.
 - Health Insurance Coverage Over the Past Year: Insured all, part, or none of the past year?



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Family Health Survey Topics

Type of Health Insurance Coverage

- Employer or Union
- Privately Purchased Plan
- Medicare, Medigap, Medicare Part D
- Medicaid & BadgerCare
- Military Health Care
- Other types, including GAMP or HIRSP.

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Family Health Survey Topics

Employment and Health Insurance

- Asked about all working-age adults (ages 18-64):
 - Employed, self-employed, or not working?
 - Full-time or part-time worker?
 - A full-time student?
 - Health insurance through job or business?

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Family Health Survey Topics

Health Status and Activity Limitations

- Questions about adults:
Do they have any physical or mental limitations?
- Questions about children:
Do they have any physical, mental or learning limitations?



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Family Health Survey Topics

Health Care Utilization

- For each person in the household:
 - A regular place for health care?
 - Doctor and dentist visits
 - Hospitalization
 - Emergency room visits

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Family Health Survey Topics

Has anyone been diagnosed with...?

Asked every year

Diabetes
Heart Disease
Cancer
Stroke
Arthritis

Rotating, asked in 2007

Asthma
Osteoporosis
Digestive tract disorder
High blood pressure
Heart attack
Congestive heart failure

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Family Health Survey Topics

We also ask about...

- WIC, FoodShare (Food Stamps)
- SSI, SSDI, or Social Security
- Social connectedness
- Emergency preparedness
- An open-ended response: whatever a person would like to add, at the end of the survey.

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Data Collection

John Stevenson & Lisa Klein
University of Wisconsin Survey Center

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Data Collection

Components of Successful Data Collection

- ✓ Questionnaire Design
- ✓ Sampling
- ✓ During the Interview
- ✓ Coverage and Call Spread
- ✓ Processing and Documentation
- ✓ Analysis and Report Writing

Problems at any of these stages affect the outcome of the entire study

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Data Collection

Describing Our Population: Challenges

An interview filters experiences through a structured conversation.

- Many challenges are inherent: respondent's memories, willingness, trust, time constraints.
- Effective questionnaire design involves the following components:
 - **What we ask**
 - **Who we ask**
 - **How we ask it**
- Excellent methods, technology, staff, and design are critical to success.

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Data Collection

What We Ask- Designing the Right Questions

Importance of questionnaire design

- **Validity:** Does the question measure what researchers intend to measure?
- **Reliability:** Do repeated measurements with the same instrument yield consistent results?
- **Accessibility:** Does the language used help the general population comprehend the question and retrieve the desired information?

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Data Collection

Example:

Original Question: During the past 12 months, since October 25th, 2006, how many times have you seen or talked with a doctor or assistant about your health? Do not count any time you might have seen a doctor while you were a patient in a hospital, but count all other times you actually saw or talked to a medical doctor of any kind about your health.

Problem: "What counts as a visit to doctor?"

Source: Public Opinion Quarterly, 1992

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Data Collection

Revision: *Have you been a patient in a hospital overnight in the past 12 months, since October 25th, 2006?*

(a) (Not counting when you were in a hospital overnight): During the past 12 months, since October 25th, 2006, how many times did you actually see any medical doctor about your own health?

(b) During the past 12 months, since October 25th, 2006, were there any times when you didn't actually see the doctor, but saw a nurse or other medical assistant working for the doctor? (How many times?)

(c) During the past 12 months, since October 25th, 2006, did you get any medical advice, prescriptions, or results of tests over the telephone from a medical doctor, nurse, or medical assistant working for a doctor? (How many times?)

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Data Collection

What We Ask- Designing the Right Questions

Successfully designing questions means

- ✓ Understanding cognitive processes
- ✓ Cognitive Interview research
- ✓ Recording and pre-testing questions
- ✓ Understanding the interviewer-respondent dynamic

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Data Collection

How We Ask the Question

We need to have a robust instrument that can handle lots of different situations, including...

- Different family experiences
- Different work experiences
- Different insurance scenarios
- Different language backgrounds

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Data Collection

Data Collection Challenges: Before the Interview

Many challenges already exist, including:

- Caller ID
- Call Blocking
- Answering machines
- Voice Mail
- Public perceptions about the "Do Not Call List"
- Cell Phones

Achieving high response rates is critically important.

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Data Collection

Data Collection Challenges: During the Interview

A well-trained staff ready to handle difficult situations, build rapport with respondents, and avoid refusals is essential.

- 20 hours of training and certifications
- Constant monitoring of data collection quality
- Project-specific training
- Refusal avoidance and conversion seminars
- Staffing across days, evenings and weekends



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Data Collection

Data Collection Challenges: During the Interview

- Case management tools to minimize respondent burden
 - Flexible enough instrument to accommodate all respondent situations
 - Call-scheduling software to deliver cases at different times of day, manage appointments, allow interviewer call-backs

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Data Collection

Data Collection Challenges: During the Interview

- High-quality supervision
 - Motivating staff
 - Providing performance feedback
 - Creating incentives
 - Providing training
 - Monitoring study progress
 - Staying current on industry trends and research (e.g., cell phones)

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Data Collection

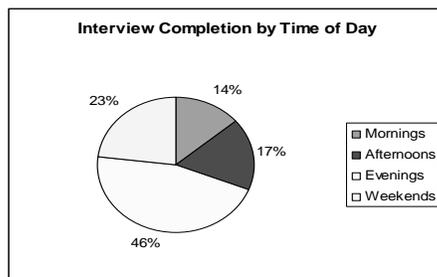
Data Collection Challenges: Call Spread and Coverage

- **Call Spread:** different times work for different respondents
- **Call Coverage:** Some respondents take more attempts than others
 - ✓ Amount of contact
 - ✓ Calling distributions
 - ✓ Appointment scheduling
 - ✓ Staffing coverage
 - ✓ Refusal avoidance and conversion

Making every attempt to contact the respondent consistently and throughout a lengthy time span is essential to reducing response bias.

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Data Collection



Source: Family Health Survey data (Quarter 3, 2007)

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Data Collection

Call Spread: Differences by Call Attempts

Question Topic	Responses 1-3 Calls	Responses 4+ Calls
Dental Care Coverage?	67.7% yes	76.2% yes
WIC Participation?	1.8% yes	10.6% yes
FoodShare Participation?	4.8% yes	10.6% yes

Source: Family Health Survey data (Q3 2007)

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Data Collection

Call Spread: Differences by Call Attempts

Question Topic	Responses 1-3 Calls	Responses 4+ Calls
Ethnicity- Hispanic?	3% yes	5.5% yes
Race- African-American?	5.8% yes	12.3% yes
Medicare Enrollment?	26.4% yes	17.4% yes
Medicaid Enrollment?	9.9% yes	14.9% yes

Source: Family Health Survey data (Q3 2007)

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Data Collection

Cell Phones

- How Concerned Do We Need To Be?
- What Does the Future Hold?

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Data Collection

Cell Phones:

Issue of effects is debatable.

- Some studies find few effects
- Others do find differences

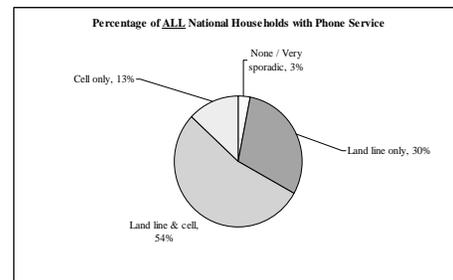
Coverage issues- Nationally

- 13% of households nationwide are cell phone only
- 50% of cell-phone-only adults are under 30 years old
- 22% of adults living in poverty are cell-only
- 15% of Hispanic adults are cell-only

Source: NHIS

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Data Collection



Source: NHIS

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Data Collection

Cell Phones- What Does the Future Hold?

- Cell phone prevalence is increasing nationwide.
- Sampling statisticians and survey researchers are experimenting and working on solving these challenges.
- We also can look to Europe.

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Data Collection

Cell Phones - Reasons For Optimism:

- Cell-only households are treating their cell phones more like land lines.
- Worries about "paying for minutes" seem to be on the decline.
- UWSC experience surveying students helps work out kinks.
- UWSC experimentation: The 2008 BRFSS Cell Phone Study

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Data Collection

Why Use RDD (Random Digit Dialing)?

- The Options:
 - Mail
 - In-Person
 - Web
 - Telephone
 - Listed Sample Phone
 - RDD Sample Phone

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Data Collection

Why Use RDD (Random Digit Dialing)?

- Cost
 - In-person interviews would be prohibitively expensive
- Coverage issues
 - Frame and Internet access issues (Web)
 - Land line coverage vs. Listed address sample (mail)
- Complex questionnaire requires a phone instrument (instead of SAQ) to accommodate variety.
 - Name, Age, Gender and Relationship Fills
 - Skip patterns (based on Name, Age, Gender, Relationship, Income, Insurance Coverage, Employment Status)
 - Rosters
 - Questionnaire length

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Data Collection

Summary: Gathering High-Quality Data Takes Time and Effort, Experience and Expertise

- Designing good questions
- Reducing response bias; ensuring validity and reliability
- Response rates
- Well-trained staff
- Monitoring quality of data collection
- Well-staffed phone center- coverage
- Well-equipped phone center
- Case management technology

Data Quality Takes Priority

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Data Collection

What Makes this Collaboration between DHFS and UWSC So Cost-Effective?

- Expertise and experience of BHIP and UWSC
- Development and design already completed
- Survey Center infrastructure is in place
- Oversight costs are pro-rated

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Data Collection

What Unique Opportunities Does FHS Offer You?

- Modules
- Oversamples with important sub-populations
- Follow-up studies

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Family Health Survey Results

Stephanie Ward
Bureau of Health Information and Policy

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Survey Results

Family Health Survey data is used to compile:

- Annual reports
- Tracking the State Health Plan 2010 website
- Special tabulations within DHFS
- Data requests from external users

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Survey Results



There are two standard annual reports compiled by BHIP staff:

- Wisconsin Health Insurance Coverage
- Wisconsin Family Health Survey

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Survey Results

Wisconsin Health Insurance Coverage

- Estimates of the number and proportion of Wisconsin residents who have health insurance and who do not
- Tabulations by various characteristics include:
 - Age
 - Sex
 - Race and/or ethnicity
 - Place of residence (Milwaukee, other metro, non-metro)
 - Poverty status
 - Employment

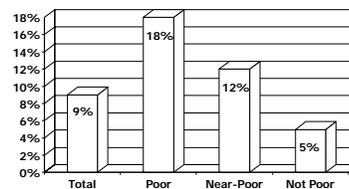
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Survey Results

Wisconsin Health Insurance Coverage, 2005

Examples of Key Findings:

Children Uninsured for Part or All of the Past Year by Household Poverty Status, Wisconsin 2005



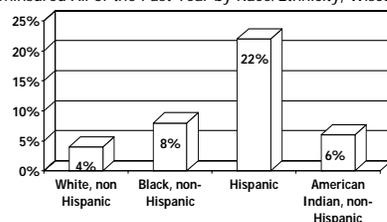
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Survey Results

Wisconsin Health Insurance Coverage, 2005

Examples of Key Findings:

Uninsured All of the Past Year by Race/Ethnicity, Wisconsin 2005



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Survey Results

Wisconsin Family Health Survey

- Estimates for Wisconsin as a whole on health status, chronic conditions and use of health services
- Tabulations by various characteristics include:
 - Age
 - Sex
 - Race and/or ethnicity
 - Place of residence (Milwaukee, other metro, non-metro)
 - Poverty status
 - Education
 - Employment

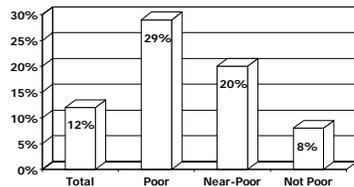
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Survey Results

Wisconsin Family Health Survey, 2005

Examples of Key Findings:

Fair or Poor Health by Poverty Status, Wisconsin 2005



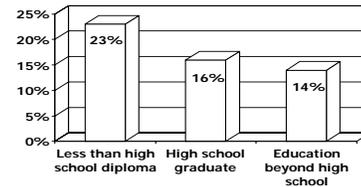
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Survey Results

Wisconsin Family Health Survey, 2005

Examples of Key Findings:

Treated in the Emergency Room in Past Year by Educational Attainment, Wisconsin 2005



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Survey Results

Wisconsin Family Health Survey Report: The Future

- Revised in order to release data more timely
- Will be formatted as fact sheets
- Examples of possible fact sheets include:
 - Mental Health
 - Chronic Conditions (Arthritis, High Blood Pressure)
 - Health Status
 - Health Limitations Among Adults

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Survey Results

Question:

What if these reports don't have
the data I need?

Answer:

You can request
Custom Data Analysis!

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Survey Results

Custom Data Analysis:



- BHIP staff will fill custom data requests for a fee as long as the sample size is large enough to analyze.

- Don't know how to define what you want? We can help!

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Survey Results

Question:

What if I can analyze the data myself?

Answer:

You can purchase
an entire dataset!

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Survey Results

Who Uses Family Health Survey Data?



- DHFS
- Legislators
- Other State Agencies
- Private Companies
- University of Wisconsin
- Media
- Health Advocacy Groups

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Survey Results

What do they use it for?

- Aid in creating public policy
- Evaluate progress in meeting program goals
- Apply for funding
- Use funding efficiently
- Establish priorities and target populations
- Many more uses!



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How do I obtain the data?

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Survey Results

Family Health Survey on the Web:

<http://dhfs.wisconsin.gov/stats/familyhealthsurvey.htm>

Want to be informed when Family Health Survey reports are released?

Sign up on our e-mail notification list!

<http://dhfs.wisconsin.gov/healthcareinfo/forms/docs.asp>

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I Want Family Health Survey Data!

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The Family Health Survey

Issues for the Future

- Secure funding
- Challenges from new technology
- Opportunities for new topics and reports

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