NH Healthcare Claims Data Module User's Guide

Improving the health of individuals, families, and communities requires sound policy and program development in the areas of community and public health.

According to the Ten Essential Services of Public Health[1], one of the key services of public health is monitoring the health status of communities to identify and solve community health problems. This service includes "accurate diagnosis of the community's health status…and timely collection, analysis, and publication of information on access, utilization, costs, and outcomes of personal health services."

A landmark publication from the Institute of Medicine suggests that using health indicators to measure performance is critical to both program and policy development - to identify problems, and to measure positive and negative changes over time that may influence health priorities[2].

To this end, NH HealthWRQS, an automated reporting system not previously available in the state of New Hampshire, has been developed to provide information about health indicators for New Hampshire communities. NH HealthWRQS (pronounced "health works") is the New Hampshire **H**ealth **W**eb **R**eporting and **Q**uery **S**ystem, developed by the New Hampshire Department of Health and Human Services (DHHS) and the University of New Hampshire (UNH). The health indicator reports describe a community's health status from datasets that DHHS stewards: vital records (births and deaths), cancer registry, and hospital discharge (inpatient and emergency department) data. The reports are flexibly designed to allow the user to select geographic areas in NH to define their own "community" and its health indicators.

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[1] Adopted: Fall 1994, Source: Public Health Functions Steering Committee, Members (July 1995): American Public Health Association, Association of Schools of Public Health, Association of State and Territorial Health Officials, Environmental Council of the States, National Association of County and City Health Officials, National Association of State Alcohol and Drug Abuse Directors, National Association of State Mental Health Program Directors, Public Health Foundation, Agency for Health Care Policy and Research, Centers for Disease Control and Prevention, Food and Drug Administration, Health Resources and Services Administration, Indian Health Service, National Institutes of Health, Office of the Assistant Secretary for Health Substance Abuse and Mental Health Services Administration

[2] Durch JS, Bailey LA, and Stoto MA, eds., Improving Health in the Community: A Role for Performance Monitoring, *National Academy Press*, 1997.

Background of NH HealthWRQS

Recommendations from *The New Hampshire Health Care System: Guidelines for Change*[3] focused on increasing the availability of timely and reliable data and information. The Guidelines outline more specifically the policy and procedure for release of data, incorporating efforts to protect the confidentiality of individual data, while allowing for community health professional's controlled access to the state's health data.

In 2003, New Hampshire House Bill 670 was drafted to support the premise that the "collection and maintenance of reliable and comprehensive health care data is necessary to promote informed decision-making, increase accountability in the health care system, and improve health care planning."[4] As a result of this bill, DHHS established a procedure for releasing health data and statistical information by a state agency for research and public health purposes.

In an effort to promote the use of data and statistical information in a timely manner, DHHS collaborated with the NH Institute for Health Policy and Practice at the University of New Hampshire on the Empowering Communities Project (funded by the Endowment for Health) to produce NH HealthWRQS. In addition, DHHS has logged incoming data requests from community organizations to learn more about the specific data and analysis needs of communities. This information guided the original design of NH HealthWRQS and the decisions about what data to include in the standard indicator reports.

Since then, HealthWRQS has collaborated with other data efforts, including the Environmental Public Health Tracking Project (EPHT). HealthWRQS posted indicator reports for environmental health at www.nhhealthwrqs.org. EPHT has also provided funding to support the upgrade of the system from Cognos 7 to Cognos 8.

In 2007, DHHS and UNH secured a five year Cooperative Agreement from the CDC Assessment Initiative (CDC AI). CDC AI provided funding for the development of new innovative modules for HealthWRQS, including:
- A BRFSS module, including reports of prevalence of at risk behaviors and risk factors in communities;
- Using healthcare claims data, measures of care for chronic disease conditions and access to healthcare.

Some potential uses of NH HealthWRQS in New Hampshire may be:
- Strategic planning for an organization or community
- Program development and evaluation
- Reports to stakeholders or board members
- Benchmarking with state averages and/or standards, or national averages, where available
- Community Benefit Reporting

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[3] New Hampshire Department of Health and Human Services, Office of Planning and Research. *The New Hampshire Health Care System:Guidelines for Change*, 1998.

[4] New Hampshire HB 670, establishing a procedure for release by a state agency of statistical information for research purposes and relative to health care data. March 25, 2003.

- Grant writing (e.g. Federal 330 assistance worksheets and grants)

About NH Healthcare Claims Data

In 2005, the New Hampshire Comprehensive Health Care Information System (CHIS) was created by NH statute to make health care data "available as a resource for insurers, employers, providers, purchasers of health care, and state agencies to continuously review health care utilization, expenditures, and performance in New Hampshire and to enhance the ability of New Hampshire consumers and employers to make informed and cost-effective health care choices."

The same legislation that created the CHIS also mandated that health insurance carriers submit their encrypted health care claims data to the State. The CHIS is maintained by the New Hampshire Insurance Department (NHID) and the NH Department of Health and Human Services (NH DHHS). Learn more about CHIS at www.nhchis.org.

The CHIS, commonly referred to as an All-Payer Claims Database (APCD), includes data from both Medicaid and commercial payers (e.g. Anthem, Cigna, Harvard Pilgrim). In the future, the CHIS may also include Medicare data. All healthcare claims data is de-identified, encrypted, securely stored, and only accessed by approved users through a rigorous data release process.

The healthcare claims data includes information about member eligibility, medical claims, pharmaceutical claims and dental claims. The medical claims data includes information about procedures and diagnoses which can be used for analysis of population health status, and studies of patterns of health service delivery. Data dictionaries that include more detail about the data elements contained in the healthcare claims data are available at www.nhchis.org.

Healthcare Claims Data Module of HealthWRQS

With funding from the Centers for Disease Control and Prevention Assessment Initiative Program, the NH Institute for Health Policy and Practice (NHIHPP) at the University of New Hampshire and DHHS developed the Healthcare Claims Module for HealthWRQS. The Claims Module is a web-based query tool that produces both Standard Indicator Reports and Advanced Reports for indicators of access to care, population health measures of chronic conditions, and measures of care for those chronic conditions. Additional reports may be available at a future date. For each of the Standard Indicator Reports, tables are produced for a selected region either by age (county by age) group, or by gender (county by gender). For the Advanced Reports, tables are produced for each age group by county (age by county) and each gender by county (gender by county).

More information about indicator definitions is available in Appendix A (separate document): List of Healthcare Claims Indicators

Confidentiality

Confidentiality is protected both through the use of computer network firewalls and the programming of the healthcare claims module. Personal identifying information is removed from the data before it is used to generate results for NH HealthWRQS. The data does not contain any personal identifier information (e.g. name, social security number). The Claims Module does not release any information that could be used to help construct a person's identity (i.e. birth date, street address, occupation, etc.).

In addition, results are suppressed according to the following rules:

- Rates or percentages that are based on fewer than ten events will be suppressed to prevent misinterpretation of unstable rates or percentages. This rule has no effect on reporting of frequencies.

- Frequencies will be suppressed if there are between one and four events, and less than 10 towns in the selected geographic area.

- Since all New Hampshire counties have at least 10 towns, there is no suppression of frequencies at the county level.

- The system will not suppress frequencies of zero events or if ten or more towns are represented in the selected area.

- In addition to the rules above, for birth and death data, values are suppressed for towns with populations of less than 5,500.

An asterisk (*) and a notation on the suppression are displayed in place of any suppressed rate, percentage, or frequency.

By viewing and making use of the data in the Claims Module Standard Indicator Report, you agree to:

- Make no effort to determine any identities or disclose any presumed identities whether discovered intentionally or accidentally;

- Use the data only for statistical reporting or analyses; and

- Adhere to all related state and federal laws and regulations.

Examples Using the Claims Module

Example 1: Viewing a Standard Indicator Report

Step 1: Select *Healthcare Claims Indicator Report Module* from module list.

Step 1: Select *Healthcare Claims Indicator Report Module* from module list

Step 2: Choose a healthcare claims indicator from the indicator list.

HealthWRQS

For detailed information on the data and methods, please see the user's guide. To return to the HealthWRQS home page click here or the logo on the left. For technical assistance, click here.
Do not use your browser's back button on the CLAIMS module pages. Please click on "Module Home" in the menu to return to the CLAIMS home page and select new parameters if you would like to generate additional reports.
Please note that several of our user's guides and reports require software such as Adobe Reader to view. Please visit www.adobe.com to download the free viewer.

WRQS Home | Module Home
Admin

Healthcare Claims Indicator Report Module

+ Access to Care

- Cardiovascular Condition

   + Cardiovascular Condition Rate

   + Cardiovascular Condition and Cholesterol Screening

+ Diabetes

+ Mental Health Disorder

+ Substance Abuse

Step 2: Choose a healthcare claims indicator from the indicator list

Step 3: Select a report.

HealthWRQS

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WRQS Home | Module Home
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Healthcare Claims Indicator Report Module

+ Access to Care

- Cardiovascular Condition

   - Cardiovascular Condition Rate

      County BY Age

      County BY Gender

    + Advanced Reports

    + Cardiovascular Condition and Cholesterol Screening

+ Diabetes

+ Mental Health Disorder

+ Substance Abuse

Step 3: Select a report

Step 4a: Select measurement year, type of payer, and desired criteria for indicator report.

Step 4b: Click on 'Get Report' button to generate report.

New Hampshire
HealthWRQS
web reporting and querying system

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WRQS Home | Module Home
Admin

Healthcare Claims Indicator Report Module - Coming Soon!
Cardiovascular Condition
Cardiovascular Condition Rate
County BY Age Report

Measurement Year:
2009

Type of Payer:
Commercial

County of Residence:
Belknap
Carroll
Cheshire
Coos
Grafton
Hillsborough
Merrimack
Rockingham
Strafford
Sullivan
Windows users: <CTRL> Click for multiple selections
Macintosh users: <Command> Click for multiple selections

Get Report

Step 4a: Select measurement year, type of payer, and desired criteria for indicator report

Step 4b: Click on 'Get Report' button to generate report

Step 5: View report.

WRQS Home | Module Home

Admin

Measurement Year=2009
Type of Payer=Commercial

NH HealthWRQS
Report Category: Cardiovascular Condition
Report Title: Cardiovascular Condition Rate

Step 5: View report

Age Group (Standard)	County of Residence=Grafton					State of New Hampshire Total					
	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of Selected Individuals	Number of Population Individuals	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of Selected Individuals	Number of Population Individuals	Significance
-- Age-Adjusted Total --	8.6	7.8	9.3	N/A	N/A	10.0	9.8	10.3	N/A	N/A	Sig
0-4	*	*	*	*	1,167	*	*	*	*	15,154	*
5-14	*	*	*	*	3,817	0.1	*	*	7	49,762	*
15-24	*	*	*	*	4,278	0.4	0.3	0.4	23	56,948	*
25-34	1.9	*	*	6	3,184	1.4	1.1	2.4	59	42,011	*
35-44	3.7	2.2	5.9	18	4,801	5.3	4.8	5.9	332	62,237	Not Sig
45-54	16.2	13.1	19.3	104	6,435	19.3	18.4	20.2	1,613	83,558	Sig
55-64	49.3	43.6	55.1	282	5,717	57.4	55.6	59.1	3,972	69,243	Sig
-- Crude Total --	14.0	12.7	15.4	413	29,399	15.9	15.5	16.3	6,010	378,913	N/A

Number of Selected Individuals: Members who were continuously enrolled for 11+ months and satisfied the identification criteria for a cardiovascular condition (v1.0).
Number of Population Individuals: Members who were continuously enrolled for 11+ months.

Data Source: NH Department of Health and Human Services, Office of Medicaid Business and Policy, Bureau of Systems and Data Management, Comprehensive Healthcare Information System data, on HealthWRQS Pilot Claims Module. Accessed at http://nhhealthwrqs.org/

Example 2: Viewing an Advanced Report

Step 1: Select *Healthcare Claims Indicator Report Module* from module list.

Step 1: Select *Healthcare Claims Indicator Report Module* from module list

Step 2: Choose a healthcare claims indicator from the indicator list.

For detailed information on the data and methods, please see the user's guide. To return to the HealthWRQS home page click here or the logo on the left. For technical assistance, click here.
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WRQS Home | Module Home

Admin

Healthcare Claims Indicator Report Module

+ Access to Care
- Cardiovascular Condition
    + Cardiovascular Condition Rate
    + Cardiovascular Condition and Cholesterol Screening
+ Diabetes
+ Mental Health Disorder
+ Substance Abuse

Step 2: Choose a healthcare claims indicator from the indicator list

Step 3: Select "Advanced Reports".

For detailed information on the data and methods, please see the user's guide. To return to the HealthWRQS home page click here or the logo on the left. For technical assistance, click here.
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WRQS Home | Module Home

Admin

Healthcare Claims Indicator Report Module

+ Access to Care

− Cardiovascular Condition

   − Cardiovascular Condition Rate

      County BY Age

      County BY Gender

   + Advanced Reports

   + Cardiovascular Condition and Cholesterol Screening

+ Diabetes

+ Mental Health Disorder

+ Substance Abuse

Step 3: Select "Advanced Reports"

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Step 4: Select an Advanced Report.

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WRQS Home | Module Home

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Healthcare Claims Indicator Report Module

+ Access to Care

- Cardiovascular Condition

   - Cardiovascular Condition Rate

      County BY Age

      County BY Gender

      Advanced Reports   ←

      Age BY County

      Gender BY County

+ Cardiovascular Condition and Cholesterol Screening

Step 4: Select an Advanced Report

Step 5a: Select measurement year, type of payer, and desired criteria for advanced report.

Step 5b: Click on 'Get Report' button to generate report.

Step 5a: Select measurement year, type of payer, and desired criteria for advanced report

Step 5b: Click on 'Get Report' button to generate report

Step 6: View report.

WRQS Home | Module Home
Admin

Measurement Year=2009
Type of Payer=Commercial

NH HealthWRQS
Report Category: Cardiovascular Condition
Report Title: Cardiovascular Condition Rate

Step 6: View report

County of Residence	Age Group (Standard)=45-54				
	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of Selected Individuals	Number of Population Individuals
Belknap	22.8	18.3	27.2	101	4,437
Carroll	16.4	12.1	21.7	49	2,989
Cheshire	21.8	17.6	25.9	105	4,824
Coos	18.7	13.4	25.3	41	2,196
Grafton	16.2	13.1	19.3	104	6,435
Hillsborough	19.3	17.6	21.1	469	24,286
Merrimack	19.0	16.6	21.4	239	12,604
Rockingham	19.2	17.1	21.4	308	16,006
Strafford	20.0	16.7	23.3	139	6,955
Sullivan	20.5	15.6	26.5	58	2,826
-- Crude Total --	19.3	18.4	20.2	1,613	83,558

Number of Selected Individuals: Members who were continuously enrolled for 11+ months and satisfied the identification criteria for a cardiovascular condition (v1.0).
Number of Population Individuals: Members who were continuously enrolled for 11+ months.

Data Source: NH Department of Health and Human Services, Office of Medicaid Business and Policy, Bureau of Systems and Data Management, Comprehensive Healthcare Information System data, on HealthWRQS Pilot Claims Module. Accessed at http://nhhealthwrqs.org/

Interpretation of Report Output

Because there are two different types of reports in the claims module, standard indicator reports and advanced reports, two different samples of reports are presented in this section.

Interpretation of Standard Indicator Report

Within the standard indicator report, the health indicators are organized in tables. The tables include data for the selected region and the state of NH as a whole. For both of these geographic areas, several statistics are presented, including: number of events, size of the population, rates and confidence intervals. The statistical test results of the comparison of the selected region and state rates are also presented.

Sample: Standard Indicator Report

Cardiovascular Condition Prevalence (2008, Commercial Data, Cheshire)

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WRQS Home | Module Home
Admin

Measurement year: 2009

Variable: County of Residence

Type of Payer: Commercial

Measurement Year=2009
Type of Payer=Commercial

NH HealthWRQS
Report Category: Cardiovascular Condition
Report Title: Cardiovascular Condition Rate

Variable: Age Group

Age Group (Standard)	County of Residence=Grafton					State of New Hampshire Total					
	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of Selected Individuals	Number of Population Individuals	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of Selected Individuals	Number of Population Individuals	Significance
-- Age-Adjusted Total --	8.6	7.8	9.3	N/A	N/A	10.0	9.8	10.3	N/A	N/A	Sig
0-4	*	*	*	*	1,167	*	*	*	*	15,154	*
5-14	*	*	*	*	3,817	0.1	*	*	7	49,762	*
15-24	*	*	*	*	4,278	0.4	0.3	0.4	23	56,948	*
25-34	1.9	*	*	6	3,184	1.4	1.1	2.4	59	42,011	*
35-44	3.7	2.2	5.9	18	4,801	5.3	4.8	5.9	332	62,237	Not Sig
45-54	16.2	13.1	19.3	104	6,435	19.3	18.4	20.2	1,613	83,558	Sig
55-64	49.3	43.6	55.1	282	5,717	57.4	55.6	59.1	3,972	69,243	Sig
-- Crude Total --	14.0	12.7	15.4	413	29,399	15.9	15.5	16.3	6,010	378,913	N/A

Number of Selected Individuals: Members who were continuously enrolled for 11+ months and satisfied the identification criteria for a cardiovascular condition (v1.0).
Number of Population Individuals: Members who were continuously enrolled for 11+ months.

Data Source: NH Department of Health and Human Services, Office of Medicaid Business and Policy, Bureau of Systems and Data Management, Comprehensive Healthcare Information System data, on HealthWRQS Pilot Claims Module. Accessed at http://nhhealthwrqs.org/

Interpretation: In Grafton County in 2009, the cardiovascular condition rate for those aged 55 – 64 was 49.3 per 1,000 individuals.

Interpretation of Advanced Report

Within the advanced report, similarly to the standard indicator reports, the health indicators are organized into tables. The tables include data for selected NH region(s). Several statistics are presented, including: number of events, size of the population, rates and confidence intervals.

Sample: Advanced Report

Cardiovascular Condition Rate (2009, Commercial Data, All NH Counties)

For detailed information on the data and methods, please see the user's guide. To return to the HealthWRQS home page click here or the logo on the left. For technical assistance, click here.
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Please note that ... orts require software such as Adobe Reader to view. Please visit www.adobe.com to download the free viewer.

WRQS Home | Module Home
Admin

Measurement year: 2009

Variable: Age Group

Type of Payer: Commercial

Measurement Year=2009
Type of Payer=Commercial

NH HealthWRQS
Report Category: Cardiovascular Condition
Report Title: Cardiovascular Condition Rate

Variable: County of Residence

County of Residence	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of Selected Individuals	Number of Population Individuals
Age Group (Standard)=45-54					
Belknap	22.8	18.3	27.2	101	4,437
Carroll	16.4	12.1	21.7	49	2,989
Cheshire	21.8	17.6	25.9	105	4,824
Coos	18.7	13.4	25.3	41	2,196
Grafton	16.2	13.1	19.3	104	6,435
Hillsborough	19.3	17.6	21.1	469	24,286
Merrimack	19.0	16.6	21.4	239	12,604
Rockingham	19.2	17.1	21.4	308	16,006
Strafford	20.0	16.7	23.3	139	6,955
Sullivan	20.5	15.6	26.5	58	2,826
-- Crude Total --	19.3	18.4	20.2	1,613	83,558

Number of Selected Individuals: Members who were continuously enrolled for 11+ months and satisfied the identification criteria for a cardiovascular condition (v1.0).
Number of Population Individuals: Members who were continuously enrolled for 11+ months.

Data Source: NH Department of Health and Human Services, Office of Medicaid Business and Policy, Bureau of Systems and Data Management, Comprehensive Healthcare Information System data, on HealthWRQS Pilot Claims Module. Accessed at http://nhhealthwrqs.org/

Interpretation: In Sullivan County in 2009, the cardiovascular condition rate for those aged 45 – 54 was 20.5 per 1,000 individuals.

Key for Standard Indicator Report

Report Category and Report Title

Reports are organized by chronic condition or other major indicator of access to care

Measurement Year(s)

Year in which service was incurred.

Type of Payer

Commercial or Medicaid

Selected Region

The rates and values in this section of the table pertain to the geographic region selected by user.

State

The rates and values in this section of the table are calculated for the population of the State of New Hampshire in the same way that the rates were calculated for the "selected region".

Rate per 1000

The rate for each of the age groups is the number of population individuals (as defined in the notes below the table) divided by the "number of selected individuals" (as defined in the notes below the table) * 1000.

Lower and Upper 95% CI

These are the upper and lower limits of the 95% confidence interval.

Number of Selected Individuals

This is the number of individuals that meet the criteria as defined in the notes below the table. This number is used in the numerator of the age-specific and crude rates.

Number of Population Individuals

This is the number of individuals that meet the criteria as defined in the notes below the table. This number is used in the denominator of the age-specific and crude rates.

Age-Adjusted Rate

This number is the age-adjusted rate for the geographic area.

NOTE: Age-adjusted weighting based on 2000 Census, U.S. population data.

Crude Rate

This number represents the raw, or blended, rate, unadjusted for age.

Comparison - Statistical Test

Based on results of the test of significance between the calculated statistic (rate or percentage) for the "selected region" and the calculated statistic for the state, one of the two results will appear in the table:

Not sig   "selected region" statistic is NOT significantly different than the state statistic

Sig   "selected region" statistic is significantly different that than the state statistic