

DATA INCLUSION FOR A WEB-BASED SYSTEM FOR COMMUNITY HEALTH ASSESSMENT: THE NH EXAMPLE

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Presenter Disclosures

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The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose

What is HealthWRQS?

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- NH Health Web Reporting and Query System
- Includes five data sets:
 - ▣ Birth, Death, Cancer Registry, Inpatient, Emergency Department
- Provides Standard Indicator Reports for user-defined geographic areas:
 - ▣ County(s)
 - ▣ Hospital Service Area(s)
 - ▣ Senate District(s)
 - ▣ Public Health Network(s)
 - ▣ Town(s)

Standard Indicator Reports

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- For each data set, the most commonly reported and requested analyses were included as “Standard Indicator Reports”
- Common community health indicators from each data set, including:
 - ▣ Teen birth rate (Birth data)
 - ▣ Unintentional injury by cause (ED data)
 - ▣ Invasive cancer incidence by site groups (Cancer registry)
 - ▣ Leading causes of death by age group (Death data)
 - ▣ Ambulatory Care Sensitive condition inpatient discharges (Hospital data)
- Over 100 reports are available

CDC Assessment Initiative

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- Supports the development of innovative systems and methods to improve the way data are used to provide information for public health decisions and policy*
- Serves as a "test-bed" for developing new methodologies and promising practices in
 - Web-based data dissemination systems
 - Community health practices
- NH grant
 - Focus area is web-based data dissemination systems
 - September 2007- August 2012

*Source: CDC AI Flyer, 2007

Overall Goal of the CDC AI in NH

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- Augment the current NH Health WRQS by creating new modules based on additional datasets
 - ▣ Behavioral Risk Factor Surveillance System - risk factors
 - ▣ Comprehensive Healthcare Information System - claims
 - ▣ Performance measures data set - programmatic measures
- Form a comprehensive Community Health Profile that includes key indicators from the full range of indicators available in HealthWRQS (including the new modules)
- Improve the accessibility of data in HealthWRQS

Goal 1: BRFSS Module

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- Provides health behavior information that cannot be gleaned from administrative data
- Will have reporting to align with current Health WRQS geographic areas to start
 - ▣ County, Senate District, All Health Hazard Regions, Hospital Service Areas
- Will build ability to have user-defined geographic areas (by town)

Creation of BRFSS module

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- Reviewed several BRFSS-based tools and publications
 - ▣ CDC BRFSS web systems
 - ▣ NH BRFSS publications
 - ▣ NH Citizens Health Initiative “A Pound of Prevention”
 - ▣ 2003-2005 NH BRFSS questionnaires
- Determined which topics were consistently included
- Reviewed which questions are available consistently for NH
- Derived 11 indicators for initial BRFSS module

BRFSS Module Indicators

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- Any kind of health care coverage
- General health status
- Poor mental health days
- Heavy drinker
- Current smoker
- Current asthma
- Diabetes
- Overweight and obese
- Any physical activity
- Moderate or vigorous physical activity
- 5 or more fruits and vegetables

Goal 2: Claims-based module

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- Based on NH's all-payer healthcare claims database, Medicaid and commercial
- Module focuses on access and chronic diseases
 - ▣ Overall number of members with claims
 - ▣ Care indicators for members with conditions
 - ▣ Any preventive service or visit, adults and children
- Reports and methodology to allow for geographic flexibility (currently by zip code)
- Developed with On Point Health Data in Maine

Crystal Reports Viewer

1 / 1 Main Report 100% BusinessObjects



Number of Members with Health Care Claims for a Mental Health Disorder

Year: 2008

County: Strafford

Payer: All

Enrollment: Continuously Enrolled

Selected Region

New Hampshire

Age Group	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of Members with Claims for Condition	Total Region Members	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of Members with Claims for Condition	Total State Members	Significance
Total 0-64	189.3	185.1	193.5	7,945	41,973	182.6	181.4	183.8	87,724	480,313	Sig
0-4	38.5	31.6	45.3	121	3,145	40.1	37.9	42.3	1,268	31,630	Not Sig
5-14	180.6	170.9	190.3	1,326	7,342	176.7	173.8	179.5	14,851	84,054	Not Sig
15-24	188.4	177.8	199.0	1,220	6,476	197.6	194.4	200.9	14,404	72,877	Not Sig
25-34	234.9	221.5	248.3	1,187	5,053	218.9	214.8	223.1	10,707	48,903	Sig
35-44	224.2	212.7	235.6	1,471	6,562	208.2	204.9	211.5	15,322	73,604	Sig
45-54	202.5	192.5	212.5	1,583	7,818	193.6	190.8	196.4	18,497	95,534	Sig
55-64	185.9	174.6	197.3	1,037	5,577	172.0	169.0	174.9	12,675	73,711	Sig

Indicator definition: Patients with any diagnosis of a mental health disorder (ICD-9 CM code 290-319)



Number of Members with Health Care Claims for Cardiovascular Disease

Year: 2008

County: Strafford

Payer: Medicaid

Enrollment: Continuously Enrolled

Selected Region

New Hampshire

Age Group	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of Members with Claims for Condition	Total Region Members	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of Members with Claims for Condition	Total State Members	Significance
Total 0-64	20.2	17.0	23.3	161	7,990	14.8	14.0	15.7	1,127	75,960	Sig
0-4	*	*	*	2	1,602	0.3	0.1	0.8	5	14,788	Not Sig
5-14	*	*	*	2	2,984	0.2	0.1	0.5	7	29,566	Not Sig
15-24	*	*	*	1	1,324	1.1	0.6	1.8	14	13,064	Not Sig
25-34	*	*	*	8	678	5.4	3.6	7.8	29	5,332	Not Sig
35-44	27.0	15.1	44.5	15	556	24.5	20.0	28.9	117	4,782	Not Sig
45-54	95.1	69.9	126.5	47	494	72.4	64.9	79.8	363	5,017	Not Sig
55-64	244.3	195.4	301.7	86	352	173.6	159.6	187.5	592	3,411	Sig

* Rates based on fewer than 10 events are suppressed; numerator values are suppressed when between 1 and 4 for geographic areas with fewer than 10 towns

Indicator Definition: Patients with any diagnosis of cardiovascular disease (ICD-9 CM 390-477, 272.0-272.4)

Data Source: NH Department of Health and Human Services. Office of Medicaid Business and Policy. Bureau of Systems and Data Management. Comprehensive

Crystal Reports Viewer - Windows Internet Explorer

Crystal Reports Viewer

1 / 1 Main Report 100% BusinessObjects

New Hampshire HealthWRQS
web reporting and querying system

Adults' Access to Preventive/Ambulatory Health Services (AAP)

Year: 2008
 County: Merrimack
 Payer: Commercial
 Enrollment: Continuously Enrolled

Age Group	Selected Region					New Hampshire					Significance
	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of AAP Members	Total Region Members	Rate per 1,000	Lower 95% CI	Upper 95% CI	Number of AAP Members	Total State Members	
Total 19-64	792.9	784.4	801.4	33,493	42,242	768.0	764.9	771.1	233,657	304,250	Sig
19-24	720.3	694.1	746.5	2,905	4,033	695.8	686.5	705.1	21,598	31,040	Sig
25-34	756.2	734.1	778.4	4,479	5,923	735.9	727.9	744.0	32,066	43,571	Not Sig
35-44	772.9	755.4	790.5	7,434	9,618	751.5	745.0	757.9	51,717	68,822	Sig
45-54	799.9	784.4	815.5	10,180	12,726	778.9	773.1	784.6	70,501	90,517	Sig
55-64	854.5	836.3	872.6	8,495	9,942	821.8	815.1	828.5	57,775	70,300	Sig

Indicator Definition: Patients 19 years and older who had an ambulatory or preventive care visit during the measurement year.

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, April 2009. Accessed at <https://secure.mhlc.org/nhwrqs> on 10/09/2009.

Significance testing is based upon region members compared to total state members.

Goal 3: Performance measure module

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- Building topic-specific modules including indicators from all data sets
 - ▣ Tobacco first; obesity second
- NH DHHS, through the Multi-state Learning Collaborative (MLC), has developed a collection system for performance measures from contracted agencies.
 - ▣ DHHS is also establishing key performance measures for internal programs.
- The AI project will work with the MLC team to determine what measures are useful for a public view.
 - ▣ Those programmatic measures will be integrated into the performance measure module.

Goal 4: Community Health Profile

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- With the new modules developed, the AI team will work with stakeholders to determine what the “key” indicators for a comprehensive community health profile are.
- Will develop a community health profile prototype to include on HealthWRQS that includes the key indicators.

“Community” in NH

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- Barrier: NH public health infrastructure has not historically been organized by standard geographic areas.
 - ▣ There are no standard geographic areas for public health practice (e.g., no county health departments), although we are moving towards regionalization.
 - ▣ Organizations and practitioners define their areas and populations served in many different ways.
 - Reports of NH data organized into standard geographic regions are of limited value.
- Solution: Build a web-based data dissemination system that allows for geographic flexibility

Current HealthWRQS Accessibility

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- **Barrier: Geographic flexibility needs to be balanced with privacy concerns.**
 - Access to the full system is limited to approved users via Virtual Private Network (VPN) access.
 - Need for VPN access has been problematic for some users.
 - **Solution: Build a version with multiple user types**
 - Most needs can be met with a public portal
- **Barrier: This takes a long time to develop.**
 - **Solution: Make reports available another way (in the meantime)**
 - www.nhhealthwrqs.org library

New Hampshire HealthWRQS - Windows Internet Explorer

http://www.nhhealthwrqs.org/reporting/

File Edit View Favorites Tools Help

Google Search

Bookmarks Check Translate amy.co...

New Hampshire HealthWRQS



Request Standard Indicator Reports: Step 2

Home

Report Library - *New!*

- Search Library
- Download Library

Request Reports

Background

Future Plans

Documentation

Other Resources

NH Environmental Public Health Tracking

Indicator Report

Maternal tobacco use reported for birth (percent)

All Health Hazard Regions

- Bristol/Franklin
- Concord
- Exeter
- Great North Woods
- Greater Sullivan County
- Keene
- Laconia/Meredith
- Lebanon/Hanover

Years

- 2006
- 2005
- 2004
- 2003
- 2002
- 2001
- 2000
- 1999

Windows users: CTRL or SHIFT Click for multiple selections
Macintosh users: Command Click for multiple selections

Note: Selecting multiple geographic areas and multiple years will give you the aggregate, not individual breakouts.

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New Hampshire HealthWRQS - Windows Internet Explorer

http://www.nhhealthwrqs.org/library/index.cfm?CFID=23248334&CFTOKEN=25876293

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New Hampshire HealthWRQS



New Hampshire HealthWRQS
web reporting and querying system

Home

Report Library - *New!*

- Search Library
- Download Library

Request Reports

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NH Environmental Public Health Tracking

Search the Library of Indicator Reports

Results

All Inpatient Hospital Discharge Data Reports for Cheshire:

2006

- Ambulatory Care Sensitive Condition Inpatient Discharges - Acute: [VIEW REPORT](#)
- Ambulatory Care Sensitive Condition Inpatient Discharges - Chronic: [VIEW REPORT](#)
- Assault injury inpatient discharges any cause/mechanism: [VIEW REPORT](#)
- Asthma inpatient discharges: [VIEW REPORT](#)
- Chronic bronchitis inpatient discharges: [VIEW REPORT](#)
- Complications of medical and surgical care inpatient discharges : [VIEW REPORT](#)
- Diabetes inpatient discharges: [VIEW REPORT](#)
- Diabetes-related conditions inpatient discharges: [VIEW REPORT](#)
- Diabetes-related lower extremity amputation inpatient discharges: [VIEW REPORT](#)
- Heart disease inpatient discharges: [VIEW REPORT](#)
- Inpatient discharges by major condition group by age group: [VIEW REPORT](#)
- Inpatient discharges by major condition group for all ages: [VIEW REPORT](#)
- Inpatient discharges by sub-condition group by age group: [VIEW REPORT](#)
- Inpatient discharges by sub-condition group for all ages: [VIEW REPORT](#)
- Marker condition inpatient discharges for all ages: [VIEW REPORT](#)

Questions?

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