

Wisconsin Environmental Public Health Tracking Network: Childhood Cancer

Lawrence P. Hanrahan PhD MS

Senior Epidemiologist

WI Division of Public Health

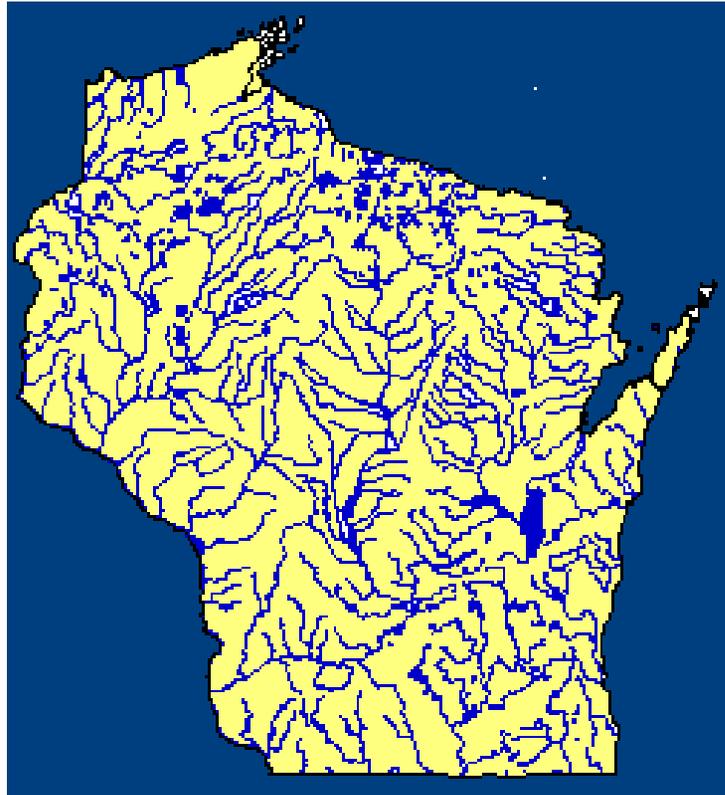
hanralp@dhfs.state.wi.us

www.han.wisc.edu

Agenda

- PHIN Infrastructure
- Program Area Module –
Requirements - Childhood
Cancer
- Wisconsin Cancer &
Exposures

PHIN Implementation – Using The Wisconsin Idea What Is It?



The Wisconsin Idea is Not About Cheese as Wearable Fashion While Clutching in the Play-offs



The Wisconsin Idea is – Rapid Technology Transfer From University to Society UW - PHIN Applications Provider

THE UNIVERSITY OF WISCONSIN-MADISON MY UW

COMPUTING@
UW-MADISON

[home](#) > [about](#)

ABOUT DoIT

- Human resources
- Billing office
- Research
- Reports
- Staff directory
- Groups

FOR STUDENTS

FOR FACULTY/STAFF

SERVICES

HELP DESK

TECH STORE

FEEDBACK

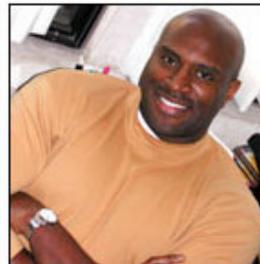
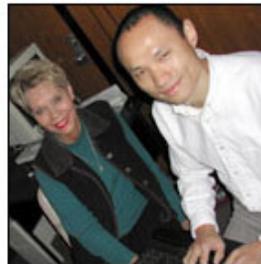
SITE MAP

ABOUT DOIT

Division of Information Technology (DoIT)

[Quick List](#) • [Hours & Locations](#) • [Organization Chart \(.pdf\)](#)

DoIT Profile 2004



SEARCH

go

About DoIT

The Division of Information Technology (DoIT) provides a wide variety of technology services to the University of Wisconsin-Madison. DoIT also provides limited service to UW System and other State entities.

CDC / WI PHIN Functions

1. Automated Data Exchange
2. Electronic Clinical Data - Event Detection
3. Manual Data Entry (Web)
4. Lab Data Exchange
5. Case Follow Back Management
6. Automated Analysis and Visualization
7. User Directories
8. Dissemination and Alerting
9. IT Security / Infrastructure Protection

WI PHIN Portal

You are on the Wisconsin Public Health Information Network
Who's Online: 17

HAN
WISCONSIN HEALTH ALERT NETWORK

Advanced Search

Home | My HAN | Topics | Survey | People | Training | Calendar | Data | Admin | Help logout

- Home
- Latest Additions
- Add To HAN
- Archived Health Alerts/Advisories
- Site News

HAN Home

Health Advisories:

HEALTH ADVISORY - Manufacturer's Recall of Nasal Spray Contaminated with Burkholderia cepacia Complex

Topic: [Recalls](#)
Posted: Penpek, David Mar 24, 2004 04:38 pm

Distributed via Health Alert Network
March 24, 2004, 16:12 EST (4:12 PM EST)
CDCHAN-00191-04-03-24-ADV-N

» [More Text](#) » [Add Shortcut](#) » [Comments \(0\)](#)

Health Updates:

Integrated Communications/ICS Intro

Topic: [Bioterrorism](#)
Posted: Fairchild, John Mar 24, 2004 04:08 pm

Course deals with the methods, technology, radio theory, and practical operation of comm devices. IC...

» [More Text](#) » [Add Shortcut](#) » [Comments \(0\)](#)

Wisconsin Public Health Preparedness Training Opportunities

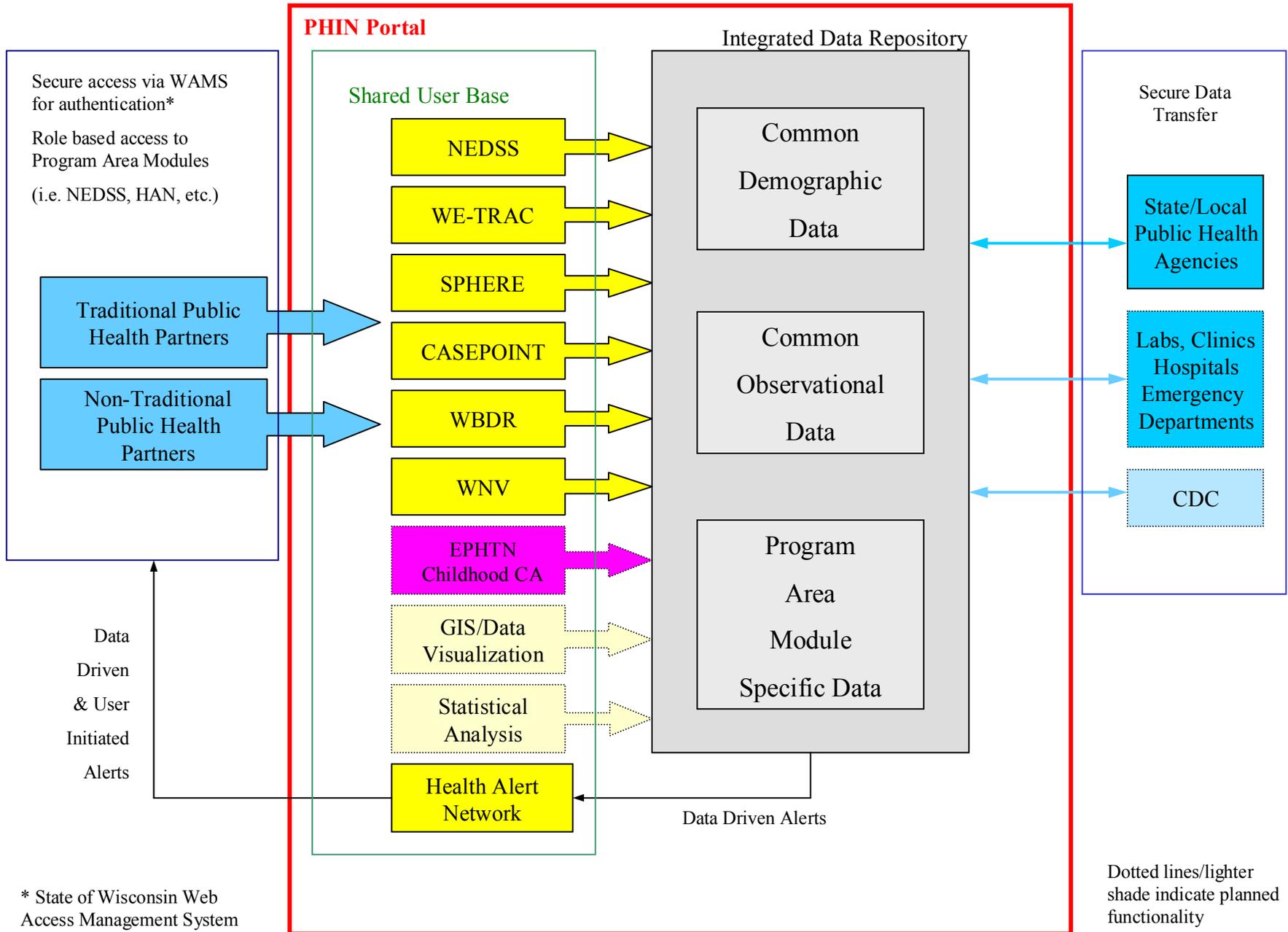
Topic: [State Recommended Bioterrorism Training](#)
Posted: Jelinek, Jeffrey Jan 05, 2004 09:30 am Last modified: Mar 24, 2004 02:54 pm

Updated on March 24, 2004. The attached document will show trainings that are currently scheduled th...

» [More Text, Document](#) » [Add Shortcut](#) » [Comments \(0\)](#)

Hospital SNS Presentation

Topic: [SNS](#)
Posted: Cordova, Joseph Mar 02, 2004 03:34 pm Last modified: Mar 24, 2004 01:46 pm



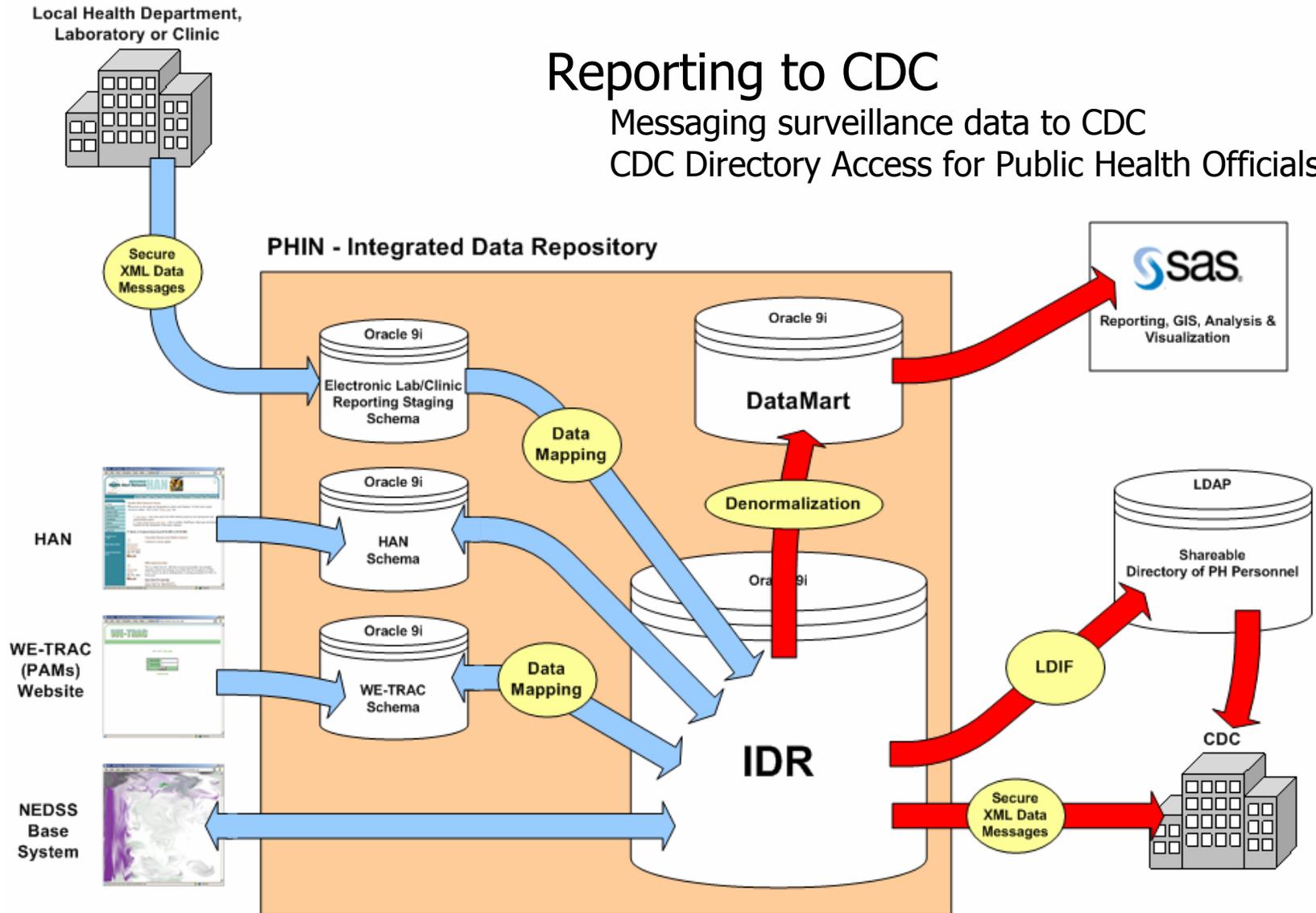
* State of Wisconsin Web Access Management System

Data Architecture

Reporting to CDC

Messaging surveillance data to CDC

CDC Directory Access for Public Health Officials



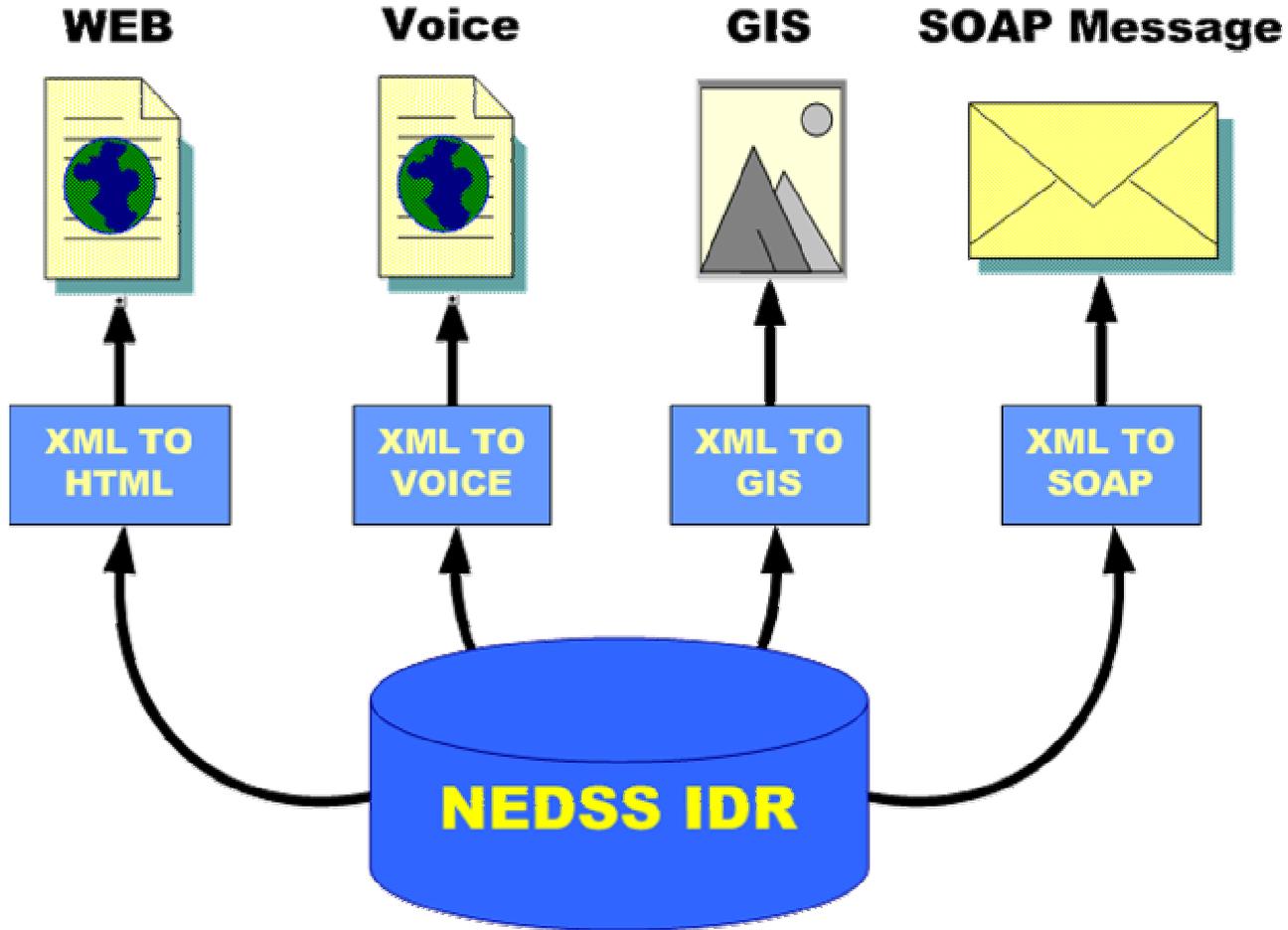
Applications Architecture

- PAM Builder Framework
- MVC Paradigm
- XML Data Model
- XSL Presentation
- JSP Controller

PAM Builder Framework

- Platform Agnostic Java
- Rapid and Low-Risk Development
- Conformance and MVC Adherence
- SQL Maintained in XML Document
- Connection Pooling and Caching
- Developers Love It

MVC Paradigm



Bi-Directional Messaging

- Fail Safe Data Transfer
- SOAP (Simple Object Access Protocol)
- Several Layers of Security
- In use at SLH and Milwaukee Laboratory
- Lightweight Message Producer
- Hospital Messaging / Tumor Registry

Security

- Physical
- Technical
- Administrative

- HIPAA / CDC Specs

Staff Directory

Integrate State Directory Efforts (WAMS)

Use Infrastructure

Use CDC recommendations / Sharable

Use industry-standard protocols

Staff White Pages

- Role Based Access Control - PAMS
- Public Health Response

PHIN Directory Entry

You are on the Wisconsin Public Health Information Network
Who's Online: 19

HAN
WISCONSIN HEALTH ALERT NETWORK

Advanced Search

Home | My HAN | Topics | Survey | People | Training | Calendar | Data | Admin | Help logout

- My Profile
- My Directory
- My Email
- My Groups
- My HAN Additions
- My Shortcuts
- My Surveys

My Profile

To change information in your User Profile, click on the "modify" link next to the specific category. Remember to accept any changes made when finished.

Please use your business or government e-mail address for your account.

- » 1. **Wisconsin Emergency Assistance Volunteer Registry** - Update your WEAVR participation information
- » 2. **Skills Profile** - This is where you can update your skills, licenses, etc.

Personal Information	
Last Name:	Hanrahan
First Name:	Lawrence
UserID:	hanralp
» modify (via wams)	

Organization Information		
Organization:	Bureau of Environmental Health - State Health Department	» modify
Job Title:	Epidemiologist	» modify
Address:	Madison, WI Dane County	

Email Addresses		
Standard:	hanralp@dhfs.state.wi.us	
* WAMS:	hanralp@dhfs.state.wi.us	» modify (via wams)
* - indicates your preferred email address.		» modify

Done

Data Visualization & Reporting Schema / SAS / ESRI

RBAC Level	Case Report / Alerts	Tables	Statistic Analysis	GIS
Tracking Staff	Yes / Yes	Line Listing	Detailed	Detailed
Public Health	No / Yes	Fine	Fine	Fine
Public	No / Yes	Coarse	Coarse	Coarse

Childhood Cancer Tracking Information Track 1 Hypothesis Generation

- Cancer Case Messaged / Reported
- Record Populates Integrated Data Repository
- Environmental Data Merge / Time / Place
- Data Visualization / GIS
- Geographic / Ecologic / Exposure Risk

Integrated Data Inventory

- DWS: Drinking Water System
- GRIN: Groundwater Retrieval Information System
- SWAP: Source Water Assessment Plan “database”
- BRRTS: Bureau of Remediation and Redevelopment Tracking System
- GIS (formerly SWAP) RR Data Layer
- RR GIS Registry
- GEMS – Groundwater environmental monitoring system

Integrated Data Inventory

- SHWIMS: Solid & hazardous waste information management system.
- FIST: Field Investigation Site Tracking
- TRI:Toxics Release Inventory
- Air Emissions Inventory
- Great Lakes Air Toxic Emissions Inventory
- Periodic Emissions Inventory
- National Emissions Inventory (NEI)
- Census – Age / Race / Gender

Childhood Cancer Tracking Information Track 2 Hypothesis Testing

- Cancer Case Messaged / Reported
- Record Populates IDR
- Case / Control Interview
- Exposure Histories (ATSDR Interview / Literature Search)
- Employment & Residential Histories
- Hazard / Biologic Monitoring
- Other Risk Factors (Genetic)

Secure Web –Supplemental Exposure Data Entry

[Home](#) [My Reports](#) [Add a Report](#)

Child's Info

Parent's Info

Diagnosis

Submit Report

My Reports - Search

Use the following form to search for a particular birth defect report.

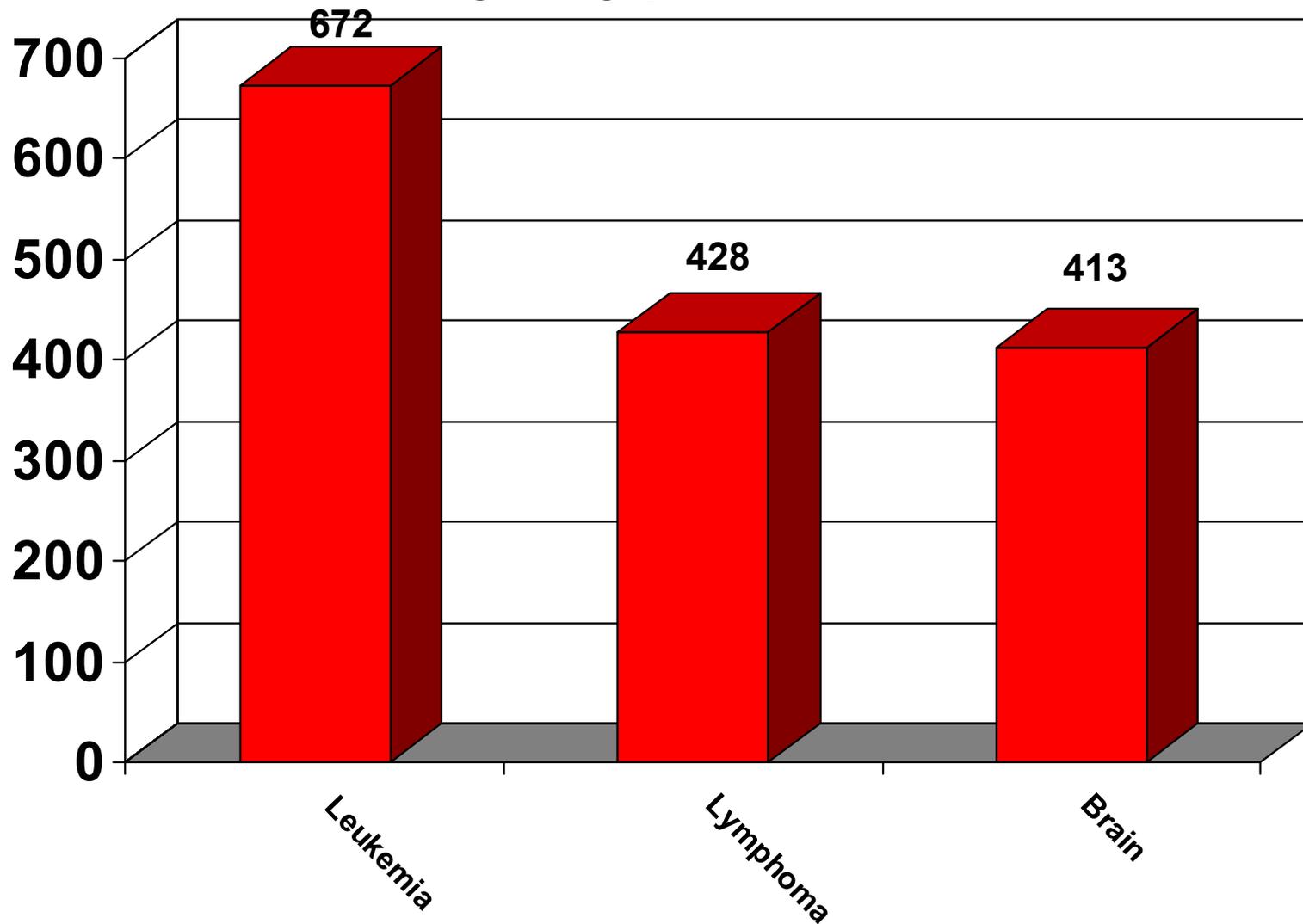
Report Date:	<input type="text"/> / <input type="text"/> / <input type="text"/>
Child's Date of Birth:	<input type="text"/> / <input type="text"/> / <input type="text"/>
Child's First Name:	<input type="text"/>
Child's Last Name:	<input type="text"/>
Mother's First Name:	<input type="text"/>
Mother's Last Name:	<input type="text"/>
Code/Condition:	<input type="text" value="Select..."/>
Reporter:	<input type="text" value="Select..."/>
Submitter:	<input type="text" value="Select..."/>
Physician:	<input type="text" value="Select..."/>

Search

Wisconsin Cancer Registry

- Began in 1978
- 20,000 Reports Annually
- Incidence / Registry
- Linkage to Mortality
- 269 Childhood Cases Annually

Wisconsin Childhood Cancers Count by Type 1990-2000

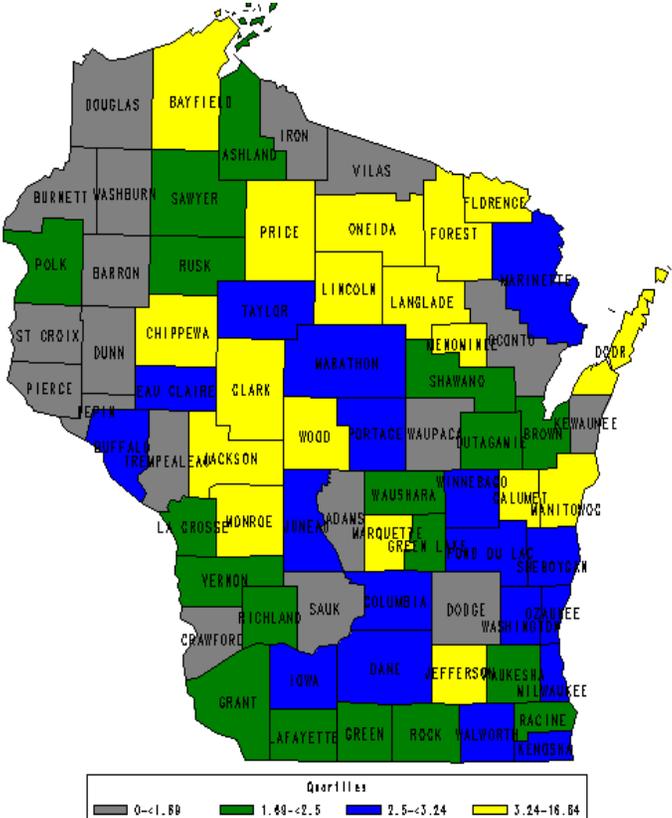


Track 1 – Data Linkage Exploration

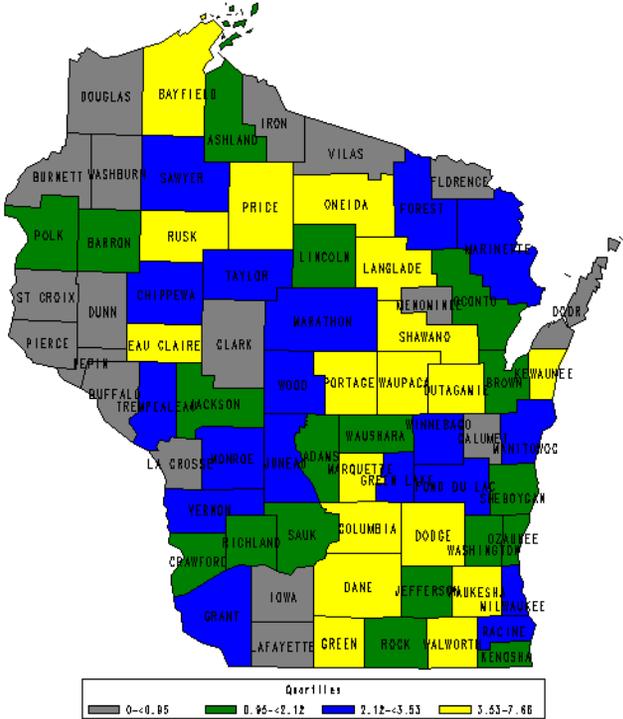
- National Air Toxics Assessment
- Census
- Cancer Registry

Childhood Cancer Age Adjusted 1990-2000

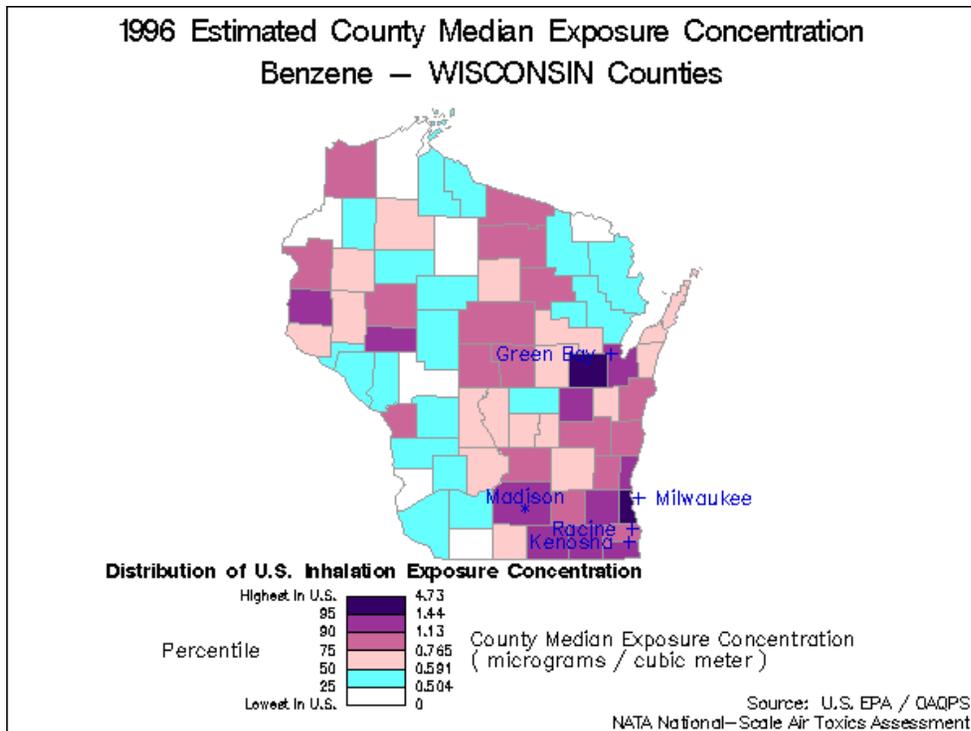
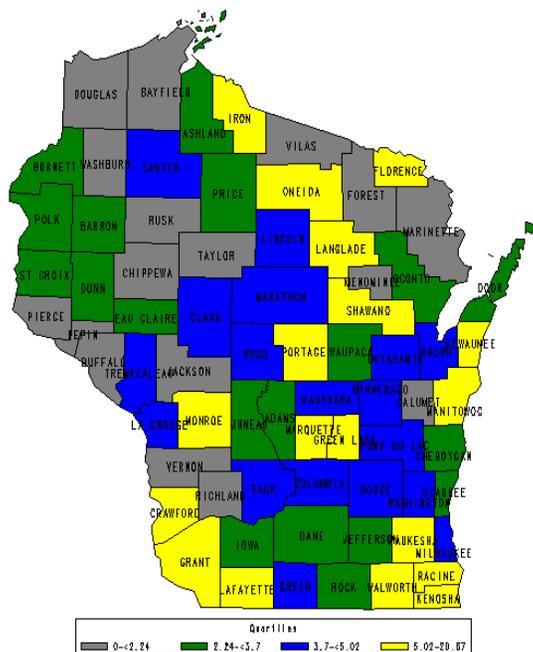
Brain



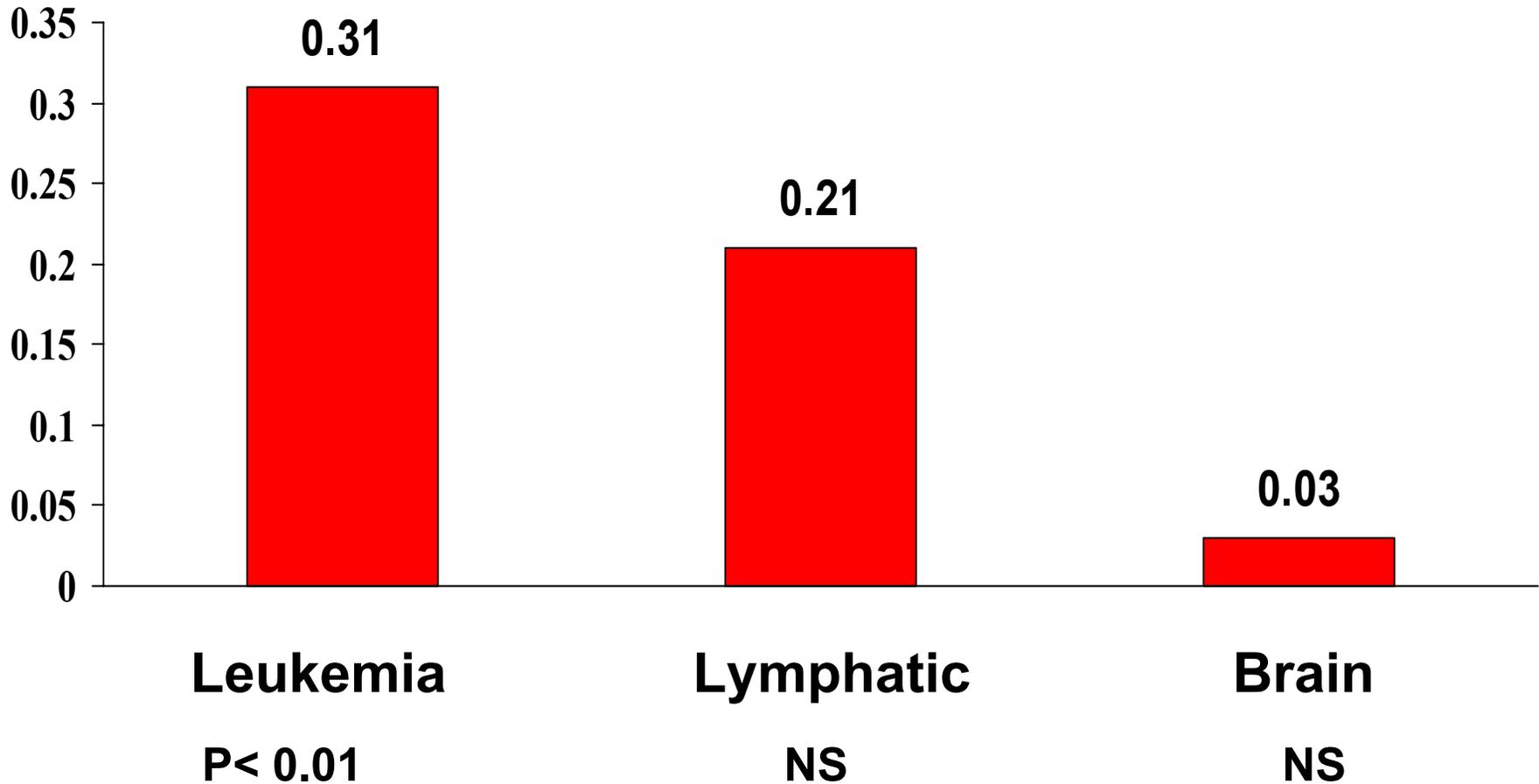
Lymphatic



Childhood Leukemia 1990-2000 & Benzene (National Air Toxics)



Preliminary Childhood Cancer & Benzene Exposure Correlation



Summary

- PHIN – Comprehensive, Secure IT EPHTN
- Scalable Model – Other Conditions / Exposures
- Track 1 – Hypothesis Generation
- Track 2 – Person Level, Hypothesis Testing, Population Attributable Risk
- Moving Beyond Ecologic Fallacy