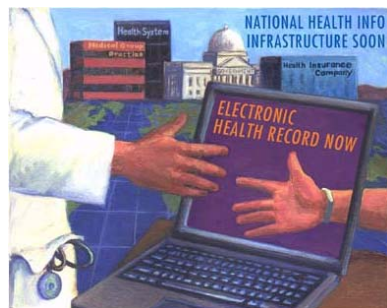


# 3.06 Public Health:

## Local Community Collaboratives

### Supporting Public Health

#### *- Examples from North Carolina*



**Holt Anderson, Executive Director**  
**North Carolina Healthcare Information and**  
**Communications Alliance, Inc. (NCHICA)**



# North Carolina Public Health Initiatives



- **NC-PHIN**
- **NC-HAN**
  - **NCEDD**
  - **NCHES**
- **NC PAiRS**
- **NCIR**

- **NC-PHIN**


- **North Carolina Public Health  
Information Network**

- **NC-HAN**

- **North Carolina Health Alert Network**

# Characteristics of Projects

- **All have evolved from earlier efforts**
- **All are statewide efforts**
- **All involve public and private sector**
- **All build toward a North Carolina “Local Health Information Infrastructure” and are positioned to connect into national PHIN and NHII efforts**
- **Expectation is for continued evolution and refinement**

 [Epidemiology](#) is part of [Public Health in North Carolina](#)

[Topics A-Z](#)

[Biological Agents Registry](#)

[Communicable Disease Control](#)

[DHHS Hurricane Information](#)

[Environmental Contaminants](#)

[Exposure to Chemicals](#)

[Fish Consumption Advisories](#)

[Harmful Algae](#)

[HIV/STD Prevention & Care](#)

[Indoor Air Quality](#)

[Medical Evaluation & Risk Assessment](#)

[Occupational Illnesses & Injuries](#)

[Ozone](#)

[Pfiesteria](#)

[Public Health Preparedness & Response](#)

[Tuberculosis](#)

[Veterinary Public Health](#)

[Centers for Disease Control and Prevention](#)

[CDC Health Topics](#)



## The Office of Public Health Preparedness and Response

### Ready North Carolina! Public Health Protecting You

#### **Bioterrorism: Disaster's Newest Face**

[To the People of North Carolina](#)

[Ready North Carolina!](#)

[Public Health: On the Front Line of Preparedness and Response](#)

[Public Health Helping You](#)

[Disaster Preparedness](#)

[Emergency Checklist](#)

[Important Contact Numbers](#)

[Know Your Local Health Department and Region](#)

[North Carolina and Homeland Security - The Partnership](#)

[Protecting North Carolina's Food from "Farm to Fork"](#)

[Animal Emergencies \(SART\)](#)

[UNC and Center for Public Health Preparedness](#)

#### **Bio-Terrorismo: La Nuevo Cara del Desastre**

[A los Habitantes de Carolina del Norte](#)

[¡Listo Carolina del Norte!](#)

[La Salud Pública: Al Frente de la Preparación y Respuesta](#)

[Como le Ayuda el Sistema de Salud Pública](#)

[Preparación para Desastres](#)

[Suministros basicos para emergencias](#)

[Números Telefónicos Importantes](#)

[Conoce Tu Region](#)

[Carolina del Norte y "Homeland Security" \(Seguridad Nacional\)](#)

# NC-PHIN

## *Vision: Framework for the Future*

- Automated electronic reporting of data
- Secure Internet pipeline for reporting information
- Consistent user interfaces
- Common data definitions
- Reusable software components
- Shared analysis and dissemination methods, e.g., outbreak detection algorithms
- Secure, HIPAA-compliant data warehouse
- Established set of technical standards acceptable and adopted by preparedness partners

# NC-PHIN Components

- ◆ **Health Alert Network NC-HAN**
- ◆ **Epi-X** (secure interactive communications with CDC and other states)
- ◆ **Enhanced Public Health Surveillance**
  - Electronic Disease Reporting
  - Hospital Data (ICD-9, UB92 Admin. Data)
  - Syndromic Surveillance
    - Hospital Clinical Data
    - Poison Control Center
    - PreMIS
    - Aberrancy Detection
  - Medical Examiner Data
- ◆ **Program Area Modules**
  - TB
  - Hepatitis
  - Meningitis
  - HIV/STD
  - Vaccine Preventable Diseases
- ◆ **Immunization Registry**
- ◆ **Multi-Hazard Threat Database**
  - GIS
- ◆ **Electronic Laboratory Results (LRN)**
- ◆ **Vital Records Automation**

## NC-PHIN Surveillance

*“Protecting our Citizens - Moving to the Next Level”*

- **What health events** are we trying to “sense”?
  - Reportable diseases and conditions
  - Emerging infections and outbreaks (intentional or not)
  - Chemical (intentional or not)
  - Radiological (intentional or not)
  - Injuries
- **What electronic data elements** are needed to “sense”?
  - Diagnosis
  - Clinical symptoms/syndromes
  - Related non-medical information
- **Where do these data elements exist?**
- **How do we get them into PHIN?**





## **North Carolina Health Alert Network - NC-HAN**

- The **NC-HAN** is a secure, Web-based system
- Designed to automatically issue health alerts to key individuals in :
  - The NC Division of Public Health
  - Local Health Departments
  - Hospitals
  - Laboratories, and
  - Other partners
- ...in the event of bioterrorism or other public health emergency.

# NC-HAN Design

- The first piece in the NC Public Health Information Network (PHIN), **NC-HAN** has met or exceeded all CDC requirements.
- **NC-HAN** was designed to provide maximum flexibility to allow for the addition of new user communities
- **NC-HAN** is designed to interface with the CDC National Electronic Disease Surveillance System protocols.
- Both the **NC-HAN** system and database architectures allow for expansion which reduces development time to include new groups and organizations.

## NC-HAN Operation

- NC-HAN operates on a 24x7 schedule with complete system redundancy.
- NC-HAN users can issue an alert which automatically contacts subscribed users by email, FAX, pager, and voice until someone takes ownership of the event for resolution.
- Only an alert number is issued. **No confidential patient or event information is transmitted.**
- Only after the NC-HAN user logs into the secure system can they obtain more detailed information about the health alert and course of action.

## NC-HAN Users to Date

<b>Total to 8/1/2004:</b>	<b>984</b>
• NC Division of Public Health:	78
• NC Dept. of Agriculture Users:	27
• 131 NC Hospitals:	173
• 85 Health Departments:	692
• Law Enforcement:	5
• Emergency Management:	9

# NC-HAN Alerts To Date

122 HAN Alerts

Categories have included:

Smallpox

Influenza

Hepatitis A

Triple Play BT Exercise

SARS

Training

West Nile Virus

Measles

# **NC-HAN** *Future Enhancements*

- Public Health Directory
- Surveillance Links (NEDSS, LIMS)
- Data Feeds
- Expanded User Manual - business rules for partner utilization

- **NCEDD**

- **North Carolina Emergency  
Department Database**

- **NCHES**

- **North Carolina Hospital Emergency  
Surveillance System**

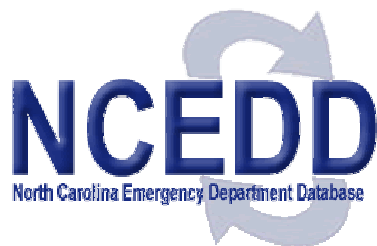


# Emergency Department Surveillance in North Carolina

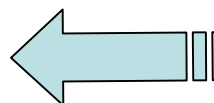
## Analysis, Decision & Response



## Standardization, Analysis & Reporting



## Data Collection



## Background and Timeline

- **1998** – Emergency Physicians form Standardizing Electronic Emergency Room Data (STEER) Work Group at NCHICA
- **1999** – CDC funds 3-year project to adopt DEEDS standard and pilot collection and analysis of ED data – NC Emergency Department Database Project (NCEDD) formed and managed by UNC-CH Dept. of Emergency Medicine
- **2002** – NC Division of Public Health (NC DPH) funds collection of data for public health BT surveillance purposes
- **2004** – NC Legislature mandates collection of data from NC emergency rooms for public health surveillance purposes
- **2004** - NC DPH contracts with NC Hospital Association (NCHA) to accelerate collection of data from all 112 EDs in NC effective January 1, 2005



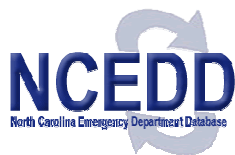
# Technical Overview

- Hospitals securely FTP select data elements from their information system(s) to NCEDD
- NCEDD standardizes and aggregates the data to CDC's Data Elements for Emergency Department Systems (DEEDS) standard
- Data quality checks performed to remove duplicates, check for out-of-range values and unacceptable levels of missing data
- Provide Web-based reporting access to the data



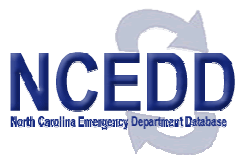
## Status

- Currently receiving data from 24 hospitals
  - 4000 visit records per day on average (including both new and updated records)
  - Total Number of Visits: 928,266
  - Total Number of Patients: 498,408
  - Total Number of Final Diagnosis Codes: 2,654,323
  - Total Number of Cause of Injury Codes: 315,043



# Data Elements

- Patient & Visit IDs
- DOB, Sex, Race
- City, County, State, 5-digit ZIP
- Arrival and Disposition  
Date/Time
- Chief Complaint and Triage  
Nurse Notes (when available)
- Triage Acuity Rating
- Transport Mode to ED
- Insurance Coverage
- Facility and Data Source
- ED Disposition
- Vital Signs (when available)
- ICD-9 Final Diagnosis and  
Injury (E) codes
- Procedure Codes



## Data Users

- Public Health Epidemiologists (PHEs)
  - In-hospital liaison to LHDs in NC's 12 largest hospitals
  - Perform in-hospital surveillance for community-acquired infections and for defined syndromes which may be indicative of a terrorist attack
- NC Division of Public Health Epidemiologists
  - Injury, Occupational Health, Cardiovascular Epidemiology, among others...
- Local Health Directors
- Authorized users at participating hospitals

# Reports Portal Basics

- Data are accessible 24/7/365 from any Internet-ready computer using SSL
- Updates every morning
- Functionality offering report customization
- Strictly defined user access controls

# Report Selection Page

NCEDD Report Selection - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address [https://www.ncedd.org/reports\\_demo/ReportSelection.asp](https://www.ncedd.org/reports_demo/ReportSelection.asp) Go Links >>

**NCEDD**  
North Carolina Emergency Department Database

**Demo Reports Portal**  
These reports contain fictional and fabricated data

MedGroup: State Healthcare System  
Hospital: Regional State Hospital  
UserID: (Select Location)  
UserName: County State Hospital  
Date/Time: Regional State Hospital

• Report Selection • Logoff • FAQs • User Guide

**Welcome**  
Welcome to the NCEDD reporting module *Report Selection* page.  
You last logged on at 1/26/2004 5:35:00 PM.

**Requests**  
If you would like to suggest a report to be added to this list, please send an email to the [NCEDD Advisory Committee](#) with a detailed description of your report request.

**[Create Your Reports with EDISON Version1.0 \(NEW!\)](#)**

**Aggregate Reports**

1. Count of ED Diagnoses Grouped by ICD9 Diagnosis Cluster
2. Number of Injuries Seen in the ED by Intent and Mechanism of External Cause of Injury
3. Number of Visits Comparing Age Group and Gender
4. Number of Visits Comparing Age Group and Gender - Blood Pressure
5. Number of Visits Comparing Age Group and Insurance Coverage
6. Number of Visits Comparing Hour of Arrival Time and Select Age Groups



# Aggregate Reports

https://www.ncedd.org/reports\_demo/rptVisitsByAdmit.asp - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address https://www.ncedd.org/reports\_demo/rptVisitsByAdmit.asp



## Demo Reports Portal

These reports contain fictional and fabricated data

Region: PHRST2  
 County: DUPLIN  
 UserID: aising  
 UserName: Amy Ising  
 Date/Time: 8/31/2004 10:14:08 PM

[Report Selection](#) • [Logoff](#) • [FAQs](#) • [User Guide](#)

### Number of Visits Grouped by Admit Status

**Note: Admitted includes patients with the following dispositions (DEEDS codes 110-140): Admitted to hospital floor bed, Admitted to intermediate care/telemetry unit, Admitted to intensive care unit, Admitted to operating room. Not Admitted includes all other dispositions (except Unknown/Other), including those patients who left without being seen, left against medical advice, etc.**

**Note: This Demo site contains only 90 days worth of fictional and fabricated data.**

DATE Ranges:

DATE from: 8/01/2004

DATE to: 8/30/2004

ICD9 Ranges: ?

ICD9 low: 410

ICD9 high: 414.9

Search Primary Diagnosis Only

Refresh Report


Admit Status	All NCEDD Visits		PHRST2 Visits		DUPLIN Visits	
<b>Report Summary</b>	<b>314</b>		<b>48</b>		<b>11</b>	
Admitted	73.25%	230	87.50%	42	90.91%	10
Not Admitted	26.43%	83	12.50%	6	9.09%	1
Unknown / Other	0.32%	1	0.00%	0	0.00%	0

# Case Reports

https://www.ncedd.org/reports\_demo/rptCasePHE\_GI\_All.asp - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address https://www.ncedd.org/reports\_demo/rptCasePHE\_GI\_All.asp Go Links >>



**NCEDD**  
North Carolina Emergency Department Database

## Demo Reports Portal

These reports contain fictional and fabricated data

Region: PHRST2  
County: DUPLIN  
UserID: aising  
UserName: Amy Ising  
Date/Time: 8/31/2004 10:32:37 PM

[Report Selection](#) • [Logoff](#) • [FAQs](#) • [User Guide](#)

### PHE Case Report: GI Syndrome - All

**Note:** This report searches for Gastrointestinal syndromes based on symptoms in Chief Complaint and Nurses Notes. It excludes chronic illnesses such as Irritable Bowel Syndrome and Chron's. (Note: This report is still under design awaiting further clarification of symptoms.)

**Note:** This Demo site contains only 90 days worth of fictional and fabricated data.

DATE Ranges: DATE from: 8/01/2004 DATE to: 8/30/2004

ICD9 Ranges: ICD9 low: 001.00 ICD9 high: V82.9  Search Primary Diagnosis Only

Graphic Option:  Bar Chart  Line Chart

Graphic Option:  Grouped by Day  Grouped by Week

Graphic Option:  View percentage of syndromic cases/total visits  
*(Note: the number of total visits is based on the data scope chosen)*

Data Scope:  Show only DUPLIN Visits  
 Show all PHRST2 Visits  
 Show All NCEDD Visits

Refresh Report

# Case Reports

https://www.ncedd.org/reports\_demo/rptCasePHE\_GI\_All.asp - Microsoft Internet Explorer

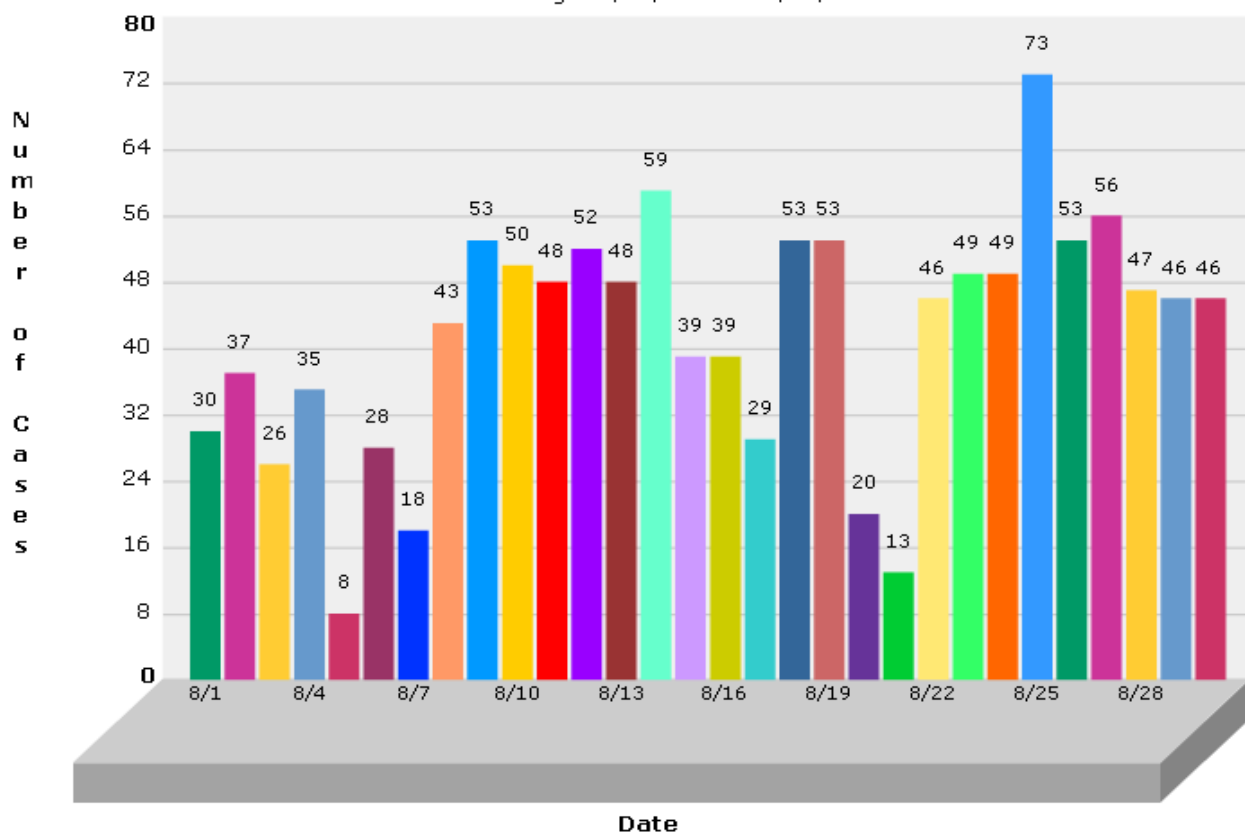
File Edit View Favorites Tools Help

Address https://www.ncedd.org/reports\_demo/rptCasePHE\_GI\_All.asp Go Links >>

Please drag your mouse over the graph to see specific values. If grouped by day, click on the graph to see cases for that day. Please refer to the FAQ for graph [copy/paste](#) and [print](#) instructions.

Cases Grouped by Day

Date Range: 8/01/2004 -- 8/30/2004



EDfacility ID

Arrival Date and Time

County

Age

Sex

Chief Complaint

Initial ED Temperature

Triage Notes

# Case Reports

http://etl0/medinfo/EDDOR/rptCasePHE\_GI\_All.asp - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://etl0/medinfo/EDDOR/rptCasePHE\_GI\_All.asp Go Links

EDfacility ID	Arrival Date and Time	County	Age	Sex	Chief Complaint	Initial ED Temperature	Triage Notes
	8/18/2004 3:30:00 PM	WV	29	M	Dizziness, Fever, Vomiting	36.5	nausea/ vomiting/ dizziness/fever since this am...took 800mg Ibuprofen @ 0915...denies urinary/ bm problems
	8/13/2004 6:30:00 AM	ONSLow	19	F	GASTROINTESTINAL COMPLAINT	36.2	C/O ABD PAIN TO MID ABD AREA STARTING AN HR AGO. DENIES VOM/DIARRHEA. MOTHER STATES PT ATE TUNA LAST PM.
	8/1/2004 12:30:00 PM	ONSLow	26	M	GASTROINTESTINAL COMPLAINT	37.3	DIARRHIA INTERMITTENT X 2 WEEKS AND LOW BACK PAIN ALSO INTERM
County	8/31/2004 7:50:00 PM	ALEXANDER	61	F	?UTI		TOA 1616 C/O LT FLANK PAIN, DENIES FEVER EMESIS YESTERDAY SX SINCE SAT
County	8/31/2004 7:44:00 PM	CATAWBA	75	F	GASTROINTESTINAL COMPLAINT	36.2	FINISHED 3RD DOSE OF CHEMO TODAY (OF 1ST ROUND) NAUSEA, VOMITING AND DIARRHEA ONSET TODAY AFTER EATING AT THE GOLDEN CORRAL
County	8/30/2004 1:45:00 PM	HARNETT	12	F	Vomiting	36.3	
County	8/30/2004 9:44:00 AM	UT	55	F	Abdominal Pain	36.7	
County	8/30/2004 12:33:00 AM	HARNETT	20	M	Abdominal Pain	36.7	
County	8/29/2004 10:41:00 PM	NEW HANOVER	27	M	Abdominal Pain	37	Pt c/o lower abd pain since this am. Pt denies vag bleeding, abnl discharge, dysuria. Pt was seen at Martin Gen for same today. G1; EDC Dec 24, LMP Mar 16, 2004
County	8/29/2004 4:45:00 PM	STOKES	47	M	Chest Pain/sob/n/v	36.4	
County	8/29/2004 5:32:00 AM	NEW HANOVER	38	M	EMS STS PT HAS ABD PAIN		
County	8/28/2004 2:42:00 PM	POLK	4	F	NV/FEVER		TOA 1045 EMESIS X 4 THIS AM SEEN ON FRIDAY WITH NV WIT FEVER, NAD IN TRIAGE PT ALERT AND ACTIVE
County	8/28/2004 11:42:00 AM	RUTHERFORD	12	M	Syncope	37.4	Pt states she got on the school bus and the last thing she remembers is her sister and others standing over her. States she also vomited at some point during this.
County	8/28/2004 4:45:00 AM	RUTHERFORD	74	M	Chest Pain And Resp Distress	36.9	Pt c/o n/v, chest pain, sob
County	8/27/2004 10:31:00 PM	HARNETT	31	M	Rectal Bleeding/vomiting Blood	37.9	
County	8/27/2004 6:40:00 AM	CASWELL	66	M	VOMITING NAUSEA		

Local intranet

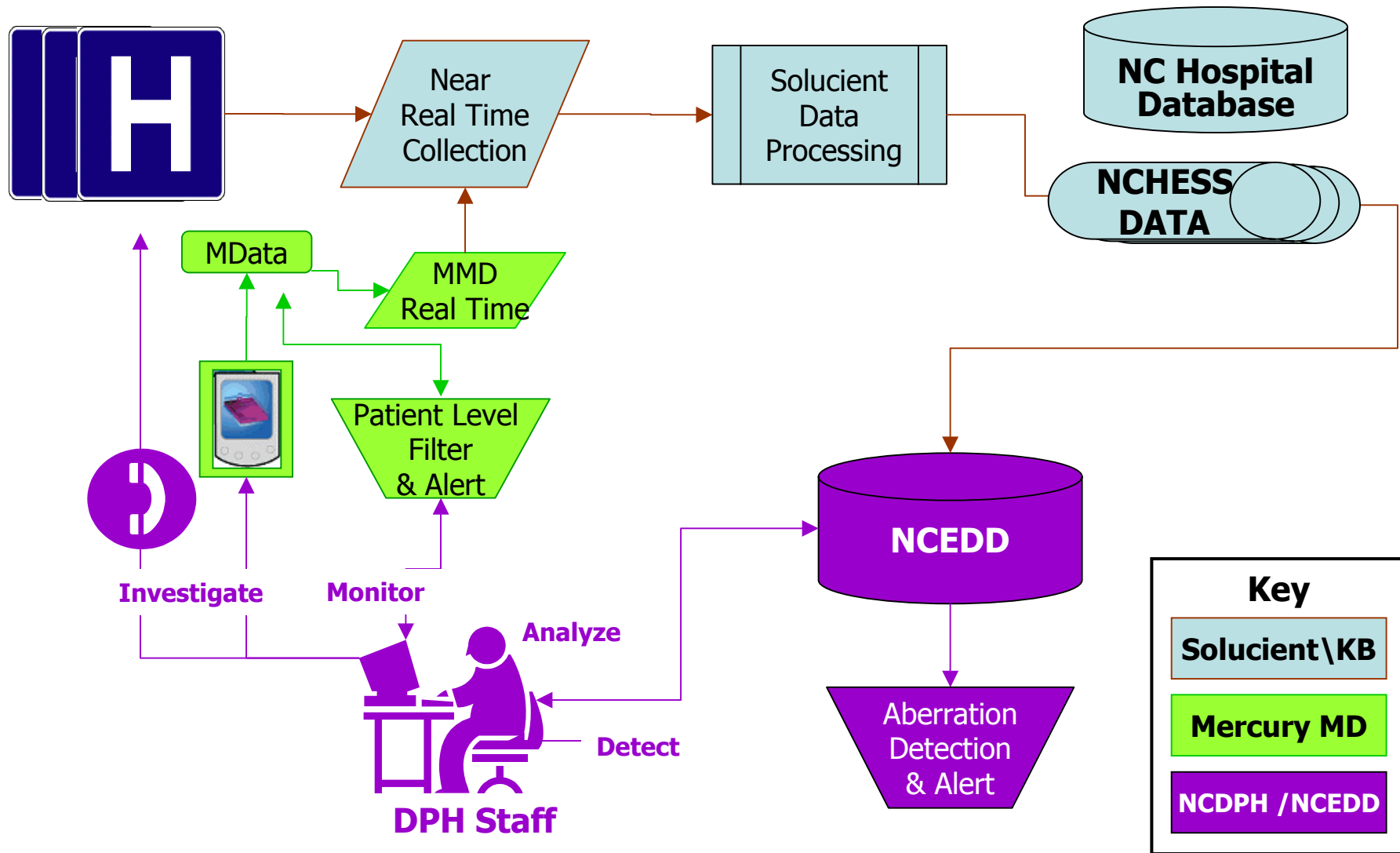


**North Carolina  
Hospital Emergency Surveillance  
System  
(NCHESS)**

## **NC Hospital Emergency Surveillance System (NCHESS)**

- Partnership with NC Hospital Association
- Mandatory reporting law for hospitals with 24-hour emergency rooms
- Near real time data
- Monitoring
- Investigation
- Begins to come online in January 2005

# NCHES Architecture Solution



- **NC PAiRS**

- **North Carolina Provider Access to  
Immunization Registry Securely**

- **NCIR**

- **North Carolina Immunization Registry**





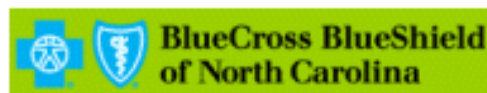
## Background and Timeline

- **1998** – Work group formed to develop project demonstrating the secure use of the Internet to access clinical information. Children's immunization records were selected and NCHICA members volunteer to contribute to prototype development.
- **1999** – Initial demonstration sites online
- **2000** – Trial use of PKI technology not successful
- **2002** – NC reviews fully-functional registry technology
- **2004** - NC DPH awards contract for modification and implementation of WI system in NC beginning in late 2004

# NCHICA PAIRS PROJECT

PROVIDER ACCESS TO IMMUNIZATION REGISTRY SECURELY

Welcome!



**IMPORTANT:** You may use this system only according to the [PAIRS PROJECT policy guidelines](#).

I Agree. Please continue...

# NCHICA PAIRS PROJECT

PROVIDER ACCESS TO IMMUNIZATION REGISTRY SECURELY

---

**Main Page**

[Search For Patient](#) - [Recommended Childhood Immunization Schedule Tutorial](#) - [Policy Guidelines](#) - [Help Desk](#) - [Main Page](#)

*Please choose one of the following options:*

- [Search For Patient](#)
- [Recommended Childhood Immunization Schedule](#)
- [Tutorial](#)
- [Policy Guidelines](#)
- [Help Desk](#)

---

#### IMPORTANT NOTES AND DISCLAIMERS

The immunization information furnished herein has been reported to the PAIRS demonstration project. There may be relevant events (e.g. other immunizations, adverse events) that have not been reported to this authority. Clinical judgement should be used in reviewing the presented information in conjunction with any other information that may be available.

The information in this report may only be used or disclosed in accordance with NC Immunization Laws and Rules (G.S. 130A-153, G.S. 130A-155, G.S. 130A-155.1, 15A NCAC 19A .0406).

# NCHICA PAIRS PROJECT

PROVIDER ACCESS TO IMMUNIZATION REGISTRY SECURELY

## Search for Patient

[Search For Patient](#) - [Recommended Childhood Immunization Schedule Tutorial](#) - [Policy Guidelines](#) - [Help Desk](#) - [Main Page](#)

<b>LAST NAME*</b> <input type="text"/>	<b>FIRST NAME*</b> <input type="text"/>	<b>MIDDLE NAME</b> <input type="text"/>
<b>DATE OF BIRTH</b> [MM/DD/YYYY]* <input type="text"/>	<b>MOTHER'S MAIDEN NAME</b> <input type="text"/>	
<b>SOCIAL SECURITY NUMBER</b> [###-##-####] <input type="text"/>	<b>MEDICAID NUMBER</b> <input type="text"/>	
<b>ZIP CODE</b> <input type="text"/>		
<input type="button" value="Search for Patient"/>	<input type="button" value="Clear"/>	

*Fields marked with an asterisk (\*) are required and must not be left empty.*

### IMPORTANT NOTES AND DISCLAIMERS

The immunization information furnished herein has been reported to the PAIRS demonstration project. There may be relevant events (e.g. other immunizations, adverse events) that have not been reported to this authority. Clinical judgement should be used in reviewing the presented information in conjunction with any other information that may be available. The information in this report may only be used or disclosed in accordance with NC Immunization Laws and Rules (G.S. 130A-153, G.S. 130A-155, G.S. 130A-155.1, 15A NCAC 19A .0406).

# Users of the New Registry

The NCIR has been deemed to be exempt from the HIPAA Privacy Rule. North Carolina Law requires the sharing of immunization information with the following parties:

- NC Department of Health and Human Services
- Local Health Departments
- Physicians
- Schools K-12
- Colleges and Universities
- Licensed and registered childcare facilities
- Head Start
- Health Maintenance Organizations
- Other state and LHDs outside of NC

(NC public health law (N.C.G.S. 130A-153 c; 10A NCAC 41A .0406)

# Features of New Registry

- Similar look and feel to PAiRS for users
- User-friendly, web-based system
- Helps to control vaccine-preventable diseases and identify at-risk populations
- Serves as a clinical tool to identify and track children to allow providers to maintain high immunization coverage
- Ability to view a patient's immunization history and automatically generate recommendations for current/future doses
- Ability to generate automatic reminder/recall notices.
- Easy inventory management and on-line ordering of state-supplied vaccine



organization **North Carolina DHHS** • user **Nancy Smith** • role **Typical User**

### Client Search Criteria

Last Name	<input type="text" value="jenkins"/>	Gender	<input type="radio"/> M <input type="radio"/> F <input type="radio"/> N/A	<input type="button" value="Find"/>
First Name	<input type="text" value="janice"/>	SSN	<input type="text"/> - <input type="text"/> - <input type="text"/>	
Mother's Maiden Last	<input type="text"/>	Phone	<input type="text"/> - <input type="text"/> - <input type="text"/>	
Mother's First Name	<input type="text"/>	Chart #	<input type="text"/>	
Birth Date	<input type="text" value="07/02/2002"/>			

**Possible Matches: 4**

Last Name	First Name	Birth Date	Chart #	Mother's Maiden First	Mother's Maiden Last	Gender	Telephone
<a href="#">JENKEN</a>	JANICE	07/20/2002		JUDITH		F	
<a href="#">JENKINS</a>	JANICE	07/02/2002				F	
<a href="#">JENKINS</a>	JANICE	07/20/2002	488234567	CAROLINE	PRESSLY	F	444-8989
<a href="#">JENKINS</a>	JANICIA	07/20/2002		CAROLINE	PRESSLY	F	



Training Region 4.0

- Clients**  
manage client  
enter new client
- Immunizations**  
manage immunizations
- Reports**  
request new client form

[home](#) | [change password](#) | [logout](#) | [help desk](#)

organization **North Carolina DHHS** • user **Nancy Smith** • role **Typical User**

**Client Information** VFC Eligible: Yes

Client Name (First - MI - Last)	DOB	Gender	Mother's Maiden	Tracking Schedule	Chart #
JANICE W. JENKINS	JUL-20-2002	F	PRESSLY	CDC/ACIP	488234567
Address: 800 4th ave, pittsboro, NC (919) 444-8989					
Comments: <input type="text"/>					

**History**

Vaccine Group	Date Administered	Series	Trade Name	Owned?	Reaction	Hist?	Edit
HepB	<a href="#">Jul-20-2002</a>	1 of 3	Engerix-B ®				

**Current Age: 2 months**

**Vaccines Recommended by Selected Tracking Schedule**

Select	Vaccine Group	Earliest Date	Recommended Date	Overdue Date	Latest Date
<input checked="" type="checkbox"/>	<a href="#">DTP/aP</a>	Aug-31-2002	Sep-20-2002	Oct-20-2002	Jul-20-2009
<input checked="" type="checkbox"/>	<a href="#">HepB</a>	Aug-17-2002	Aug-20-2002	Sep-20-2002	
<input checked="" type="checkbox"/>	<a href="#">Hib</a>	Aug-31-2002	Sep-20-2002	Oct-20-2002	Jul-20-2007
<input type="checkbox"/>	<a href="#">MMR</a>	Jul-20-2003	Jul-20-2003	Nov-20-2003	
<input checked="" type="checkbox"/>	<a href="#">Pneumococcal</a>	Aug-31-2002	Sep-20-2002	Oct-20-2002	Jul-20-2007
<input checked="" type="checkbox"/>	<a href="#">Polio</a>	Aug-31-2002	Sep-20-2002	Oct-20-2002	
<input type="checkbox"/>	<a href="#">Varicella</a>	Jul-20-2003	Jul-20-2003	Feb-20-2004	Jul-20-2015



# Benefits of the NC PAiRS Project

- Immediate and convenient access to records by public AND private providers – good will!
- Experience with the Internet, security methods, and Web access
- Expanded connections to private sector
- Prepared private sector for speedy implementation of new registry
- Secure Internet connectivity can lead to other PH applications such as automation of mandatory reporting, HAN alerts, etc.



# IMMUNIZE

## North Carolina



Parents

School  
Info

Adults

Providers

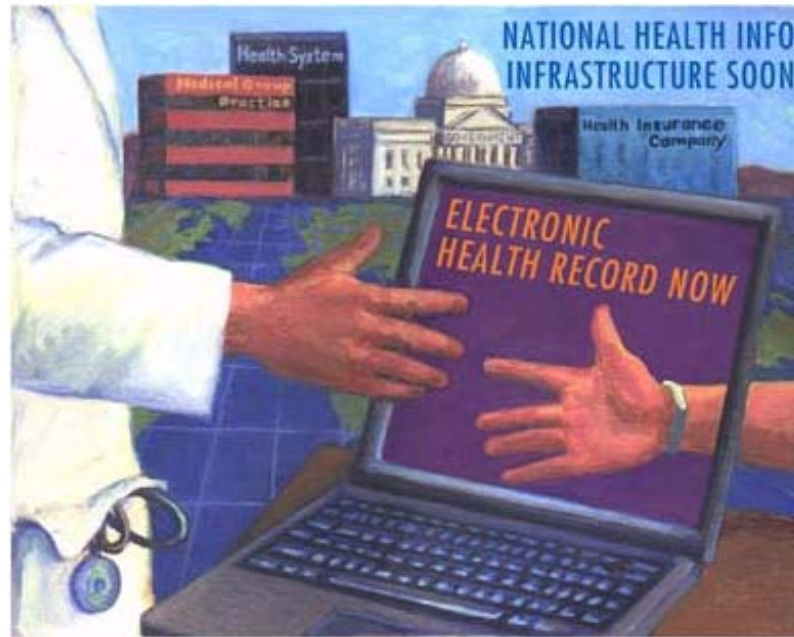
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The N.C. Immunization Branch exists to promote public health through the identification and elimination of vaccine-preventable diseases like polio, hepatitis B, measles, chickenpox, whooping cough, rubella (German measles), and mumps. In 1994, North Carolina became a universal vaccine state, meaning it provides vaccines for all children from birth through 18 years of age. In 2001, the Branch incorporated an adult education component into the program to raise awareness of the agelessness of immunizations. According to national statistics, North Carolina is one of the top five states leading the nation in the percentage of 2-year-old children who have received all age-appropriate immunizations.

- Adults: [Adult Immunization Schedule](#), [Flu Info](#), [Pneumonia Information](#), [More...](#)
- NCIR: [Up-to-Date Progress](#), [PAiRS](#), [Parents' FAQs About Registries](#), [More...](#)
- News: [Press Releases](#), [Immunize for Healthy Lives!](#), [Immunization Rates](#), [More...](#)
- Parents: [Childhood Immunization Schedule](#), [Adolescent Imm. Schedule](#), [FAQs](#), [More...](#)
- Providers: [Joining the UCVDP](#), [Managing Vaccine Supply](#), [Immunization Schedules](#), [More...](#)
- Child Cares/Schools/Colleges: [Immunizations and Child Care](#), [School Entry Requirements](#), [Immunization Requirements for College](#), [More...](#)

**Thank you !**

***Questions ???***



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