The Office of the National Coordinator for Health Information Technology

HIEs and Human Services Across Communities

A Plenary Panel Discussion with 2-1-1 San Diego, MyHealth Access, and SHIEC

Kelly Hoover Thompson, CEO, Strategic Health Information Exchange Collaborative (SHIEC)
Dr. David Kendrick, CEO, MyHealth Access Network
John Ohanian, CEO, 2-1-1 San Diego
Mark Vafiades, Senior Advisor to the National Coordinator, ONC (Panel Moderator)

History of CIE

2010
Community Initiative around frequent fliers

2-1-1 joins LIVE WELL SAN DIEGO

2011
Community Exchange Created through Alliance Healthcare Foundation i-2 grant to 2-1-1

Cohort 1
Homeless Providers (Single sign on to HMIS)

Cohort 2
Senior Providers

2016
CIE returns to 2-1-1 San Diego

SAN DIEGO HEALTH CONNECT Strategic Partnership

2017
Launch referral network for veterans, UniteUS platform

2018
Launch of CIE within new Salesforce platform with bi-directional referrals

Expanded to all agencies and target populations

CIE: ROI

Year 1: Homeless Cohort Analysis

26% reduction

EMS Transports Post CIE enrollment

44% improvement

Remained housed in permanent housing

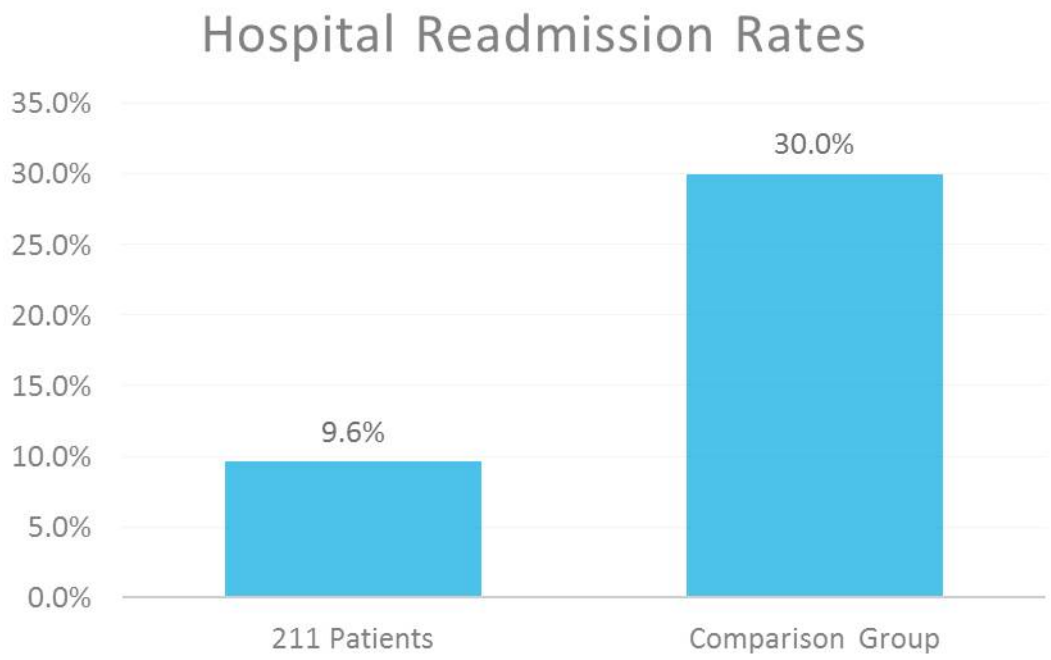
CIE: Social Navigation

Shared Goal:
Assist in the transition from hospital discharge to home by assessing and connecting to social determinants of health resources through electronic referrals from EHR to 2-1-1 Health Navigators

Measures:

- Percent of individuals readmitted into hospital
- Improvement on shared risk rating scale
- Patient Satisfaction
- Self-Efficacy

Year 1 Outcomes: 2016-2017



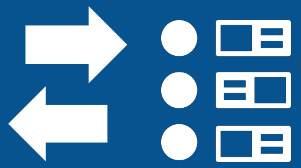
Community Information Exchange

Network Partners

Collective approach with standard Participation Agreement, Business Associates Agreement and participant consent with shared partner governance, ongoing engagement, and support.

Shared Language (SDoH)

Setting a Framework of shared measures and outcomes through 14 Social Determinants of Health Assessments and a Risk Rating Scale: Crisis, Critical, Vulnerable, Stable, Safe Thriving



Bidirectional Closed Loop Referrals

Updated resource database of community, health, and social service providers. Ability to accept/return referrals and to provide outcomes and program enrollment.

Technology Platform and Data Integration

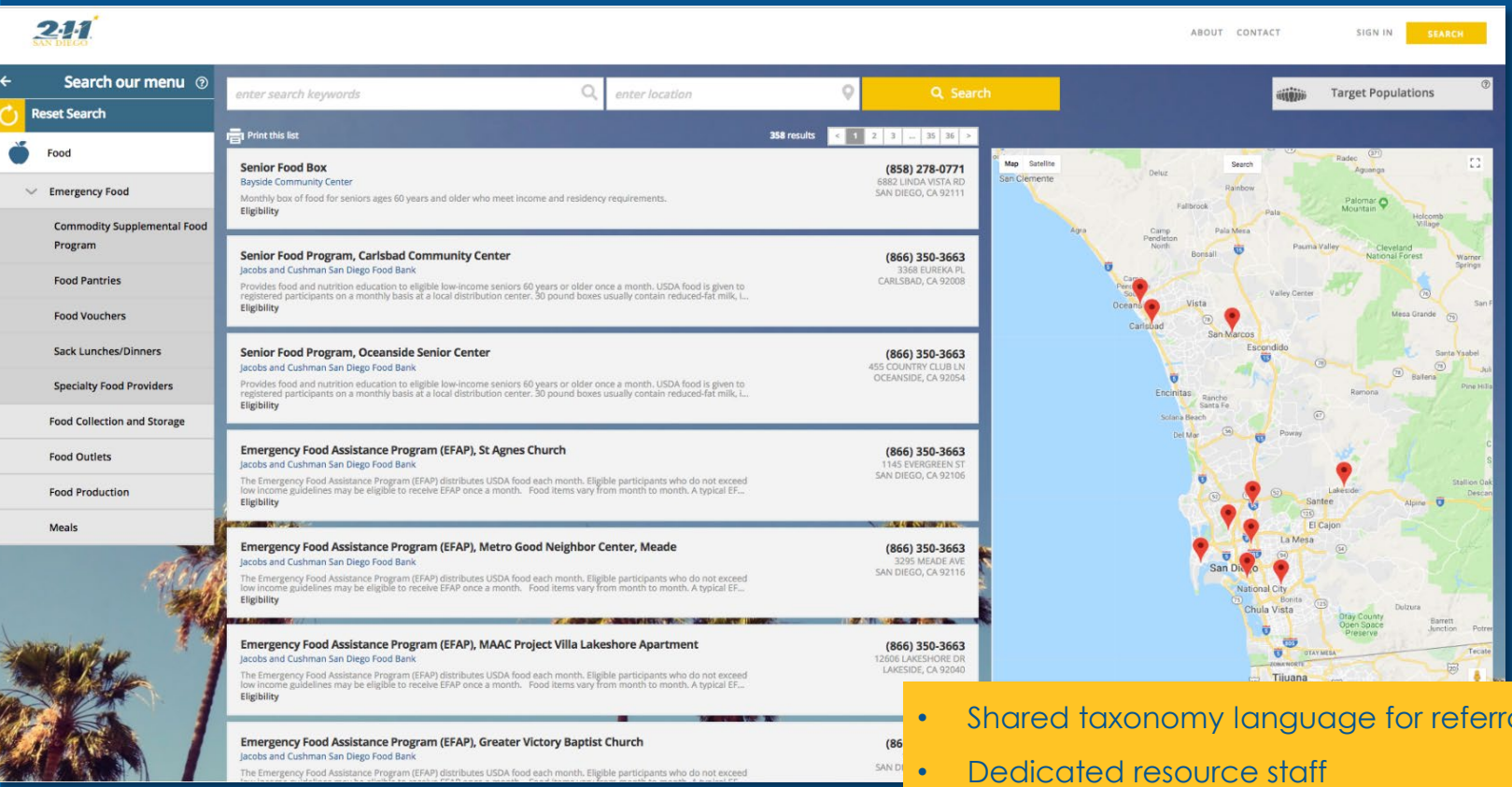
Technology software that integrates with other platforms to populate an individual record and shapes the care plan. Partners access the system. System features include care team communication feeds, status change alerts, data source auto-history and predictive analytics.

Community Care Planning

Longitudinal record with a unified community care plan that promotes cross-sector collaboration and a holistic approach.

Resource Database

Hub for social and health sites and providers

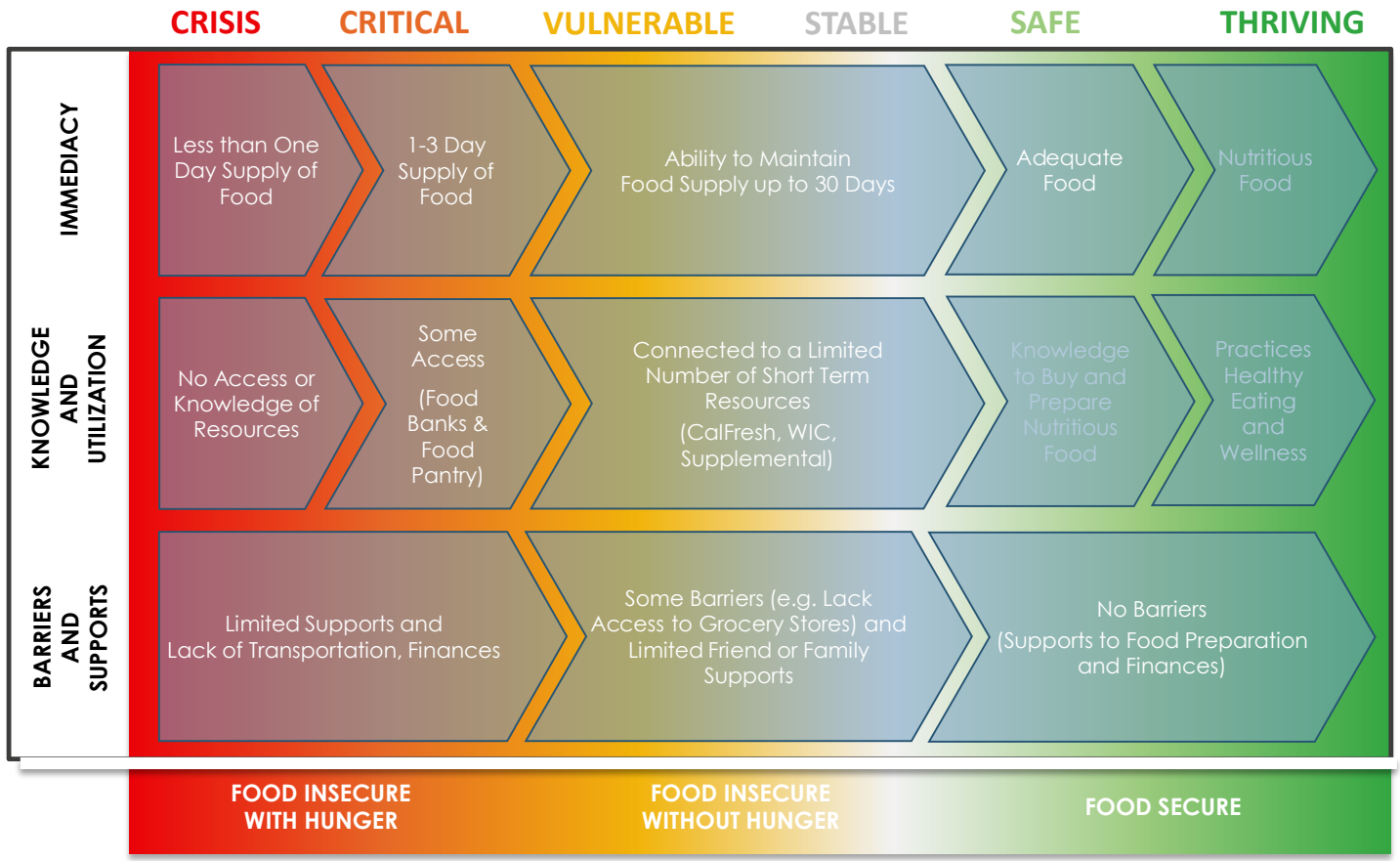


- Shared taxonomy language for referrals (AIRS)
- Dedicated resource staff
- Regular updates made to resources
- Standards to listings and requirements
- Inclusion/Exclusion Criteria
- Linked to health conditions
- Tracks resource availability and unmet needs

FOOD & NUTRITION

Long-term and sustainable access to nutritious foods and to support services to maintain access

CIE Risk Rating Scale



211 SAN DIEGO/IMPERIAL

IN COLLABORATION WITH: University of San Diego SCHOOL OF LEADERSHIP AND EDUCATION SCIENCES, CASTER FAMILY CENTER FOR NONPROFIT AND PHILANTHROPIC RESEARCH

Nutrition

Concern about Food Supply

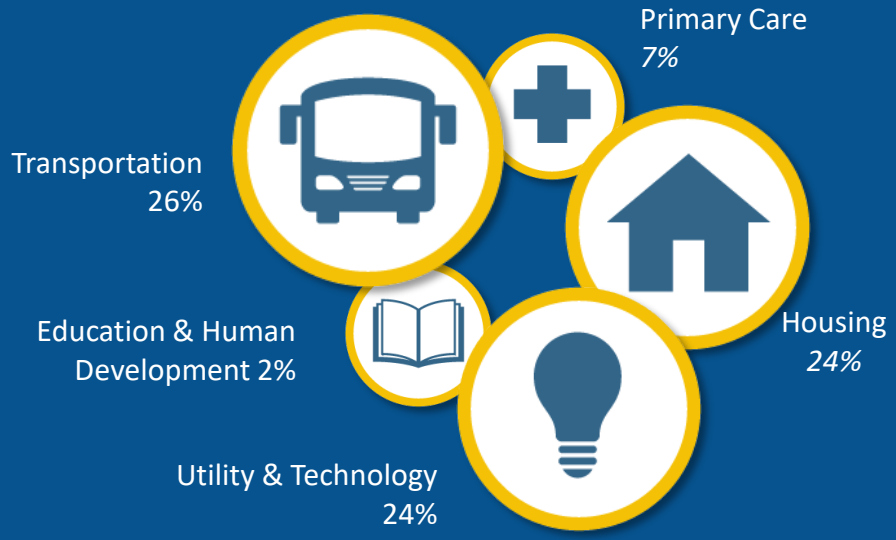
During the last 30 days, how often are clients concerned about their food supply? How often do they actually run out of food?

45% of clients are often **worried** their food supply will run out

39% of clients often **actually** run out of food during the month

Decisions over Nutrition

What other basic needs do clients need to meet before they can address their nutrition needs?



CIE Shared Record

Client Profile

- Demographic and important information about the client

Domains

- Examples like Housing, Food & Nutrition,
- Categorization of Needs (SDOH) & Risk Level
- Shared Assessments and Values across agencies

Care Team

- Case Managers working with client across agencies
- Contact Information

Referrals & Program Enrollment

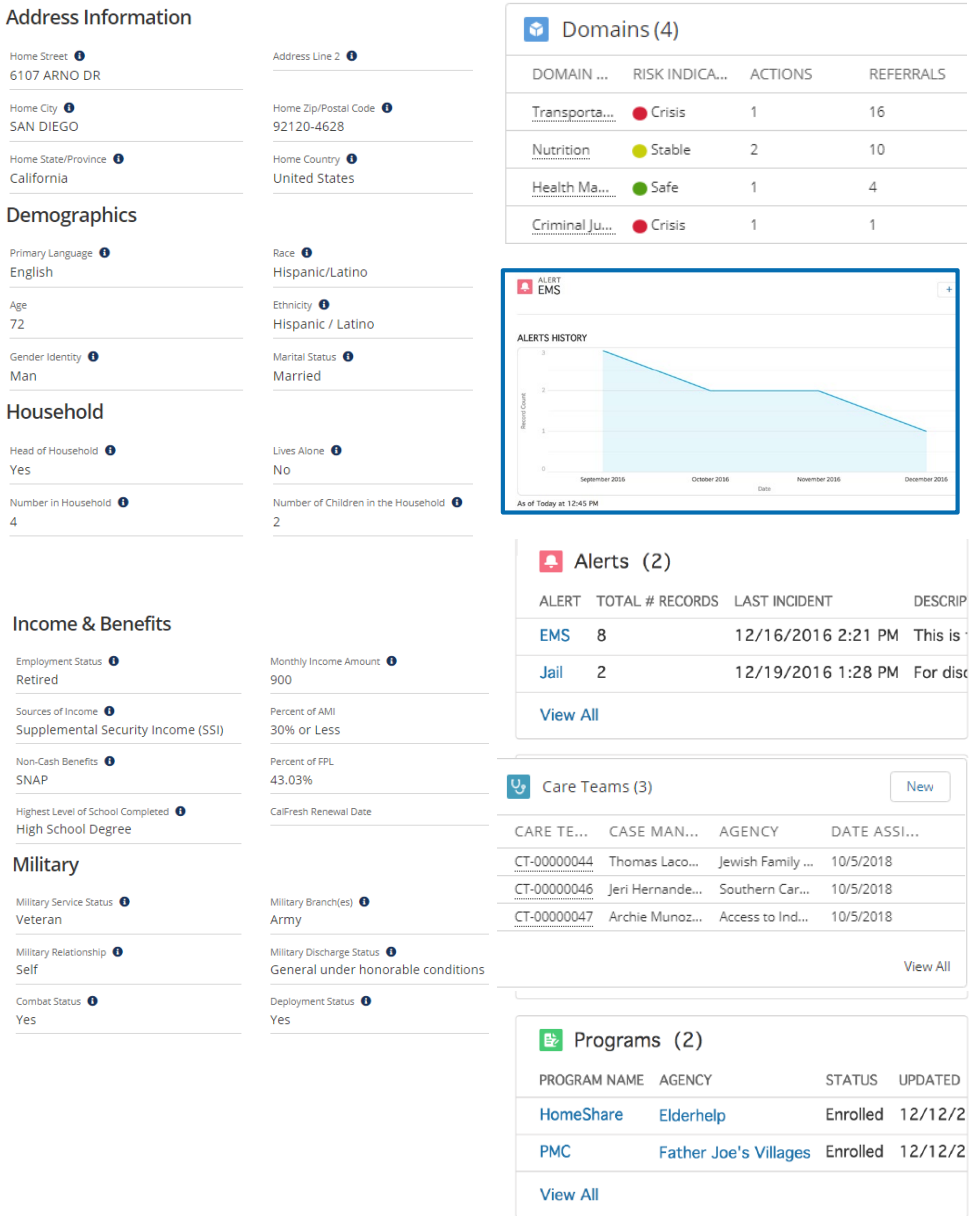
- Agencies or programs client is referred
- Connection to Services

Alerts

- Notification of emergency services & jail
- Ability to notify Care Team Members of changes

Feed

- Ability to communicate like Twitter to other Care Team members



Community Information Exchange Partners

Driving Interoperability

- Patient identification
- Consent management
- Notifications and alerts
- Data quality
- Data provenance
- PHI and PII
- Public health to primary care
- Proper presentation summary
- Closed loop referral system

The Office of the National Coordinator for Health Information Technology

Please address follow-up questions to:

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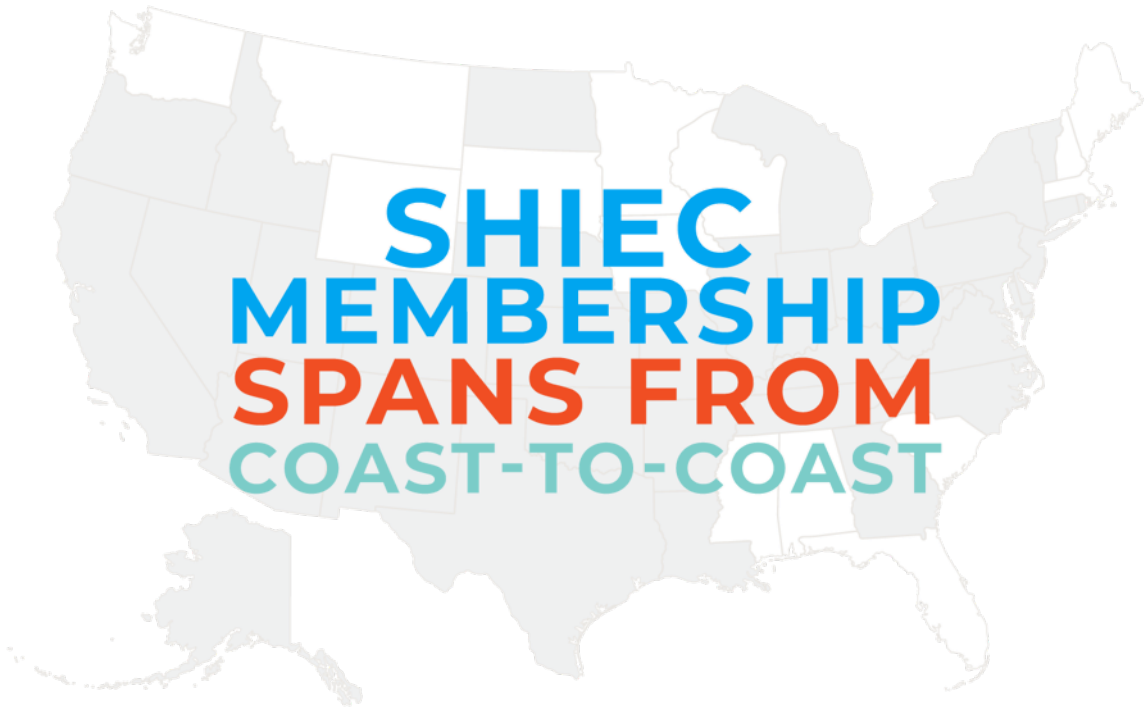
SHIEC—A Nationwide Approach to Interoperability



More than

130

Members

70+ HIE Members

60+ SB&T Members

Providing health data to more than

75% of Americans


MiHIN
NYeC
NEW YORK eHEALTH COLLABORATIVE
PA eHEALTH PARTNERSHIP
one Health Record
healtheconnect ALASKA
Camden Coalition
HEALTH INFORMATION EXCHANGE
BronxRHIO
Connecting for Better Health
SHIEC
Strategic Health Information Exchange Collaborative
New Jersey Innovation Institute
An NJIT Corporation
OeHI
ClinicalConnect
Health Information Exchange
CORHIO
COLORADO REGIONAL HEALTH INFORMATION ORGANIZATION
cihie
Communities of Illinois
ConnectVirginia
DHIN
Delaware Health Information Network
etHIN
East Tennessee Health Information Network
FLORIDA
HIE SERVICES
GEORGIA HEALTH INFORMATION NETWORK
GRACHIE
GLHC
GREAT LAKES HEALTH CONNECT
GDAHA
GREATER DAYTON AREA HOSPITAL ASSOCIATION
GNOHIE
HAWAII
HEALTH INFORMATION EXCHANGE
healthcurrent
HASA
HealtheConnections
HEALTHeLINK
HealtHIE
NEVADA
HealthInfoNet
Healthix
healthLINC
CONNECT. CARE. COLLABORATE.
healthlinkny
HealthShare Exchange
Hixny
ihde
Indiana Health Information Exchange
ihin
Iowa Healthcare Connected
KHIN
KHIE
KENTUCKY HEALTH INFORMATION EXCHANGE
KeyHIE
LANES
Louisiana Health Care
QUALITY FORUM
CRISP
Manifest
MedEx
mhin
MISSOURI
HEALTH
CONNECTION
MyHealth
ACCESS NETWORK
NeHII
Nebraska Health Information Initiative
NC Health Information Exchange Authority
NDHIN
North Dakota Health Information Network
NYU Langone
MEDICAL CENTER
ClinicSync
Ohio Health Information Partnership
Health Information in a Heartbeat
OneHealthPort
SHARE
State Health Alliance for Records Exchange
PHIX
QUALITY
HEALTH
NETWORK
Reliance
eHEALTH COLLABORATIVE
Rhode Island
Quality Institute
RGVHIE
ROCHESTER RHIO
SACVALLEY
MEDSHARE
St.JosephHealth
SAN DIEGO
HEALTH CONNECT
Better Information • Better Care
Santa Cruz
Health Information
Exchange
Stony Brook
University Hospital
THE HEALTH
COLLABORATIVE
UHIN
COUNTY OF SAN MATEO
HEALTH SYSTEM
VITL
VERMONT INFORMATION TECHNOLOGY LEADERS
WVHIN
WEST VIRGINIA HEALTH INFORMATION NETWORK
Western Connecticut
Health Network
WISHIN
WYFI


4medica
One Patient...One Record
AMBRA
BARCLAY DAMON
briljent
carecom
SHIEC
Strategic Health Information Exchange Collaborative
AUDACIOUS INQUIRY
CarePort
An Allscripts Company
CEDARBRIDGE GROUP
CLARETO
Clinical Architecture
clinithink
CollectiveMedical
crossix
DataFile Technologies
Deloitte.
Diameter Health
DrFirst
DRUMMOND GROUP
DUO
eHealth TECHNOLOGIES
ELLKAY
Healthcare Data Plumbers
EMERGENCETEK GROUP
FORCARE
EMPOWERING YOUR FLOW
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IMAT SOLUTIONS
Advancing Healthcare Through Data
IATRIC systems
InterSystems
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IOTECH CONSULTING
J2
KUMA
KPININJA
Leap Orbit
Inspired innovation
Lightbeam Health Solutions
medfx
MedicaSoft
Medicity
MOSAICA PARTNERS
Transforming Communities and Organizations Into Healthcare Leaders
nextgen healthcare
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ORCHESTRATE HEALTHCARE
ORION HEALTH
PATIENTPING
RIGHT ANGLE SOLUTIONS, INC.
RosettaHEALTH
Connecting a Whole World of Healthcare
secure exchange solutions
Smartlink Health
Stella Technology
Exchange > Coordinate > Collaborate
SymphonyCare
TABNER
veda
velatura
verato
VeriNovum
Vorroconnect
Connect · Care · Engage
WOMBA
Powered by MeOnly
XCHANGEWORX
zen
Healthcare IT

HIE Services

- Master patient index / patient matching services
- ADT or other alerting services
- IHE Query/Retrieve services
- Clinical data repository
- HISP / secure messaging between Providers
- Clinician Portal
- Data quality / mapping services
- Public Health Data delivery/interface to state Dept. of Health
- Results / clinical message delivery
- Population Health Management data service
- Transitions of Care services
- Provider Directory
- Referral Services
- Patient focused services

HIE Use Cases

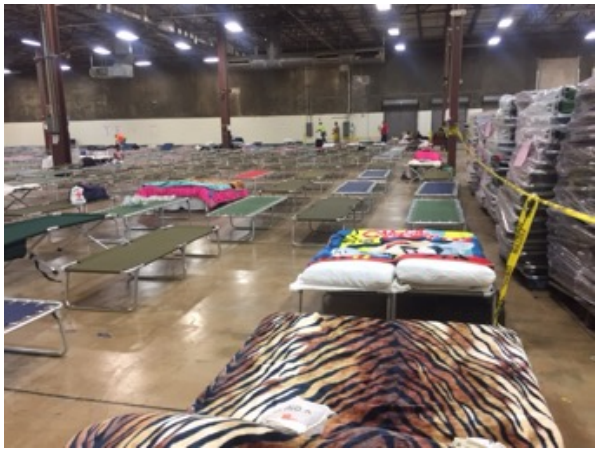
- **Georgia**—School Nurses—*immunization information to school nurses & rural counties*
  —American Heart Assoc. & World Economic Forum Heart Failure Projects—*reduce readmission and improve outcomes*
- **Louisiana**—Coroners and Prisons—*supports transitions in care*
- **Colorado**—Youth Services and Medical Clinics—*supports care coordination*
- **New York—**Discovered cancer diagnosis of a resident—*provides comprehensive records*
  —Provided access to records during ransomware attack
- **Nebraska**—PDMP—*leading HIE and PDMP partnerships: 1M+ records*
- **Indiana**—Population Health—*caring for the community across the continuum*
- **Pennsylvania—**Payers—*serves as data aggregator to calculate quality measures, supports CMS CPC+ program*
- **Kentucky**—Public Health Data—*deliver to state agencies, specialized registries*
- **Oklahoma**—Real Time Data—*text between patient and provider screens*
- **Michigan**—End of Life Care—*provide patient preferences POA, POLST, Organ Donation*
- **New Jersey—**Cross Sector Data Sharing—*partnering with community leaders*
- **Arizona**—Part 2 Data—*sharing comprehensive patient information*
- **California**—Wild Fires—*supporting thousands of displaced residents and patients*

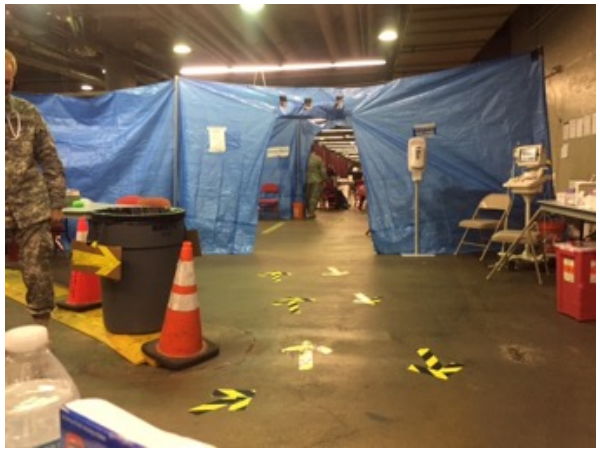
HIE—Disaster Preparedness and Response

Texas: Hurricane Harvey—Megashelters 30,000+ evacuees

Carolinas, TN, VA, GA, AL, FL: Hurricane Florence & Michael—1 M+ evacuees

California: Wild fires—60,000+ evacuees





Providers can Assess, Diagnose, Treat, Fill Medications
Connect to Portals, Patients avoid unnecessary medications and tests, tracking dialysis patients, electricity dependent patients

This is why Patient Centered Data Home™ is so important.

Patient Centered Data Home™ (PCDH)

PCDH™ is a SHIEC initiative that creates a nationwide network connecting health information exchanges (HIEs).

Deliver patient health information across state lines and across health systems, improving the patient experience by making their health information available whenever and wherever their care occurs.

Based on triggering episode alerts, PCDH™ notifies providers a care event has occurred outside of the patients' "home" HIE, and confirms the availability and the specific location of the clinical data, enabling providers to initiate a simple query to access real-time information across state and regional lines and the care continuum.

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Please address follow-up questions to:

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