LPH Data Modernization SCHSAC Workgroup September Meeting Minutes

DATE: SEPTEMBER 2ND, 2025

MINUTES PREPARED BY: GABBY CAHOW, MDH DATA MODERNIZATION PLANNER

LOCATION: VIRTUAL, MICROSOFT TEAMS

Attendance

- **Members**

Shelly Aalfs-Countryside Public Health, **Tarryl Clark-** Stearns County SCHSAC Elected, **Angie Hasbrouck-** Horizon Public Health **Melanie Countryman-**Dakota County Public Health, **Lisa Klotzbach**-Dakota County Public Health, **Alyssa Johnson**-Faribault-Martin CHB, **Richard Scott**-Carver County Public Health, **Rob Prose**-St. Louis County Public Health, **Joel Torkelson** (alternate for Sarah Grosshuesch)-Wright County Public Health, **Angel Korynta**- Polk-Norman-Mahnomen Public Health

- **MDH Subject Matter Experts**

Jessie Carr-MDH Environmental Health Division, **Vidhu Srivastava**-MDH Agency Project and Planning (APP), **Abby Stamm-**MDH Office of Data Strategy and Interoperability (DSI), **An Garagiola**- MDH Office of American Indian Health (OAIH), **Dawn Huspeni-** MDH Infectious Disease Epidemiology, Prevention, and Control (IDEPC) Division

- **Facilitators/Guest Attendees**

Gabby Cahow-MDH Public Health Strategy and Partnership Division (PHSP), **Nate Wright-** Injury Prevention and Mental Health Division, **Abby Jessen-** Hennepin County Public Health, **Dave Johnson-** Hennepin County Public Health, **Linda Zittleman-**MN EHR Consortium, **Chelsie Huntley**-MDH Public Health Strategy and Partnership Division (PHSP)

Purpose

- The main purpose of the September 2025 LPH Data Modernization SCHSAC Workgroup meeting is to create a shared understanding of Electronic Health Record (EHR) Data by looking at two different systems that have the ability to provide high quality, locally relevant and timely health data: Syndromic Surveillance and Health Trends Across Communities (HTAC).

Agenda

- Meeting Kick-Off

- Health Trends Across Communities (HTAC)-Abby Jessen-Hennepin County Public Health
- Syndromic Surveillance System- Nate Wright-MDH Injury Prevention and Mental Health Division
    - Discussion on EHR Data for Public Health Action
- Meeting Wrap-Up

Decisions made

- None

Action items

- *Continued from September*: As we inch closer and closer to moving into our "prioritization" phase of this work, I would encourage you to revisit the LPHDMSW July 2025 Topic Brainstorm Padlet and add ideas to the new section named, "What governmental public health data system/infrastructure issues do you need to understand more about in order to be able to set priorities?"
- Please take some time over the next month to review the Group Norms Draft that was attached to the meeting reminder email and leave feedback via: **https://www.menti.com/bl5fkimr62ky**
- Attend and encourage your regional or division partners to attend the Regional Data Models Webinar on October 2nd from 1:00pm-2:30pm. Register Here: Regional Data Models Webinar Registration

- Use or share the talking points below with your region or division.
    - Consider asking your region or division how they are using HTAC or Syndromic Surveillance to support their public health data work.
    - Consider asking your region or division to think about what Foundational Areas (communicable disease, chronic disease and injury prevention, environmental public health, maternal child and family health, access and linkage to care) are they using these EHR data sources for.
    - Consider asking your region or division what barriers still exist for them to be able to access, analyze, interpret, use, and share EHR data for public health decision-making.

Talking Points

- Electronic Health Record (EHR) data is a critical data source for public health surveillance and assessment. EHR data can provide timely and locally relevant data on chronic and infectious diseases, health risk factors, and much more. In Minnesota, two important tools that LPH can use to access this data is the Health Trends Across Communities (HTAC) dashboard and the Syndromic Surveillance System.
- HTAC provides prevalence data on over 30 conditions and has been used by LPH to meet a variety of community health assessment needs.
- Syndromic Surveillance provides pre-diagnosis data from emergency departments and in-patient visits and can be used to help to detect, monitor, and quickly understand events of public health importance.

Meeting notes

- **Health Trends Across Communities (HTAC)**
  - Learn more: Health Trends Across Communities in Minnesota | Minnesota EHR Consortium
  - HTAC Snapshot
    - Prevalence estimates based on EHR dx codes
    - 30+ health conditions
    - Race/ethnicity, age, sex, SVI
    - State - region - county - city - census tract
    - Timely – data refreshed at least annually
  - 30+ health conditions (and counting)
    - Substance Use
      - Alcohol
      - Cannabis
      - Cocaine
      - Hallucinogens

        - Inhalants
        - Opioids
        - Psychostimulants
        - Sedatives
- Mental Health
    - Anxiety
    - Bipolar disorder
    - Depression
    - Psychotic disorders
    - PTSD
    - Suicidal ideation or recent attempt
- Maternal and Child Health
    - Severe maternal morbidity
    - Maternal opioid use
    - Deliveries
    - Eclampsia and preeclampsia
- Other
    - Firearm injury and recovery
    - Cognitive decline
    - Dementia
- Chronic Conditions
    - Asthma
    - Cancer
    - Arthritis
    - COPD
    - Heart attack
    - Heart disease
    - Heart failure
    - High cholesterol

- Hypertension
- Lung cancer
- PVD
- Stroke
- Type 2 diabetes
- CKD
- Obesity

- HTAC data from MNEHRC
  - Summary Electronic Health Record (EHR) Data
    - Diagnosis codes from hospitalizations, ED visits, clinic visits
    - Maintains privacy
  - Deduplication process to avoid double counting
  - Covers ~90% of MN population
  - Prevalence estimates based on patient address
  - Counts under 15 are masked for privacy
  - Data for 2020 – 2024
- Who is included in the data?
  - MN residents who got care at one of the participating health systems in the last 3 years AND had a diagnosis for a particular condition in the last 5 years
- Who is not included in the data?
  - People who died
  - People who live outside of MN

- How Data Flows
- Centrally Managed Code -> Health System 1 -> Health System 1 Summary, Health System 2-> Health System 2 Summary, Health System 3 -> Health System 3 Summary -> Summary of the summaries -> Dashboard visualization

- What's New

- Change log
- Public use file – users can request to download data tables
- Condition groups
  - Ex. Any cardiovascular dx, any substance use disorder, any mental health, any mental health and substance use disorder, etc.
- HTAC User Group (HUG)
- Confirmed updates for March 2026
  - Addition of filter for patient primary language
  - Adding county-level incarceration, homelessness, Medicaid data
  - Updating map!!
  - Adding urban/rural toggle

- Project Structure
- MDH State Infrastructure Innovation Grant
  - Hennepin County Public Health (HCPH) is grantee, MNEHRC is subcontractor
  - MDH Infrastructure Innovation Grant award (round 1): $4.5M
    - Round 1: April 2022 – June 2024
  - MDH Infrastructure Innovation Grant award (round 2): $4.15M
    - Round 2: July 2024 – June 2026
- Healthcare + public health partnership
  - MN EHR Consortium
    - Project lead
    - Health system data analysts build and maintain technical infrastructure
    - Hosts dashboard
    - 11 largest health systems contribute data
  - Hennepin County Public Health
    - Grantee
    - Project planning and support
    - Project evaluation

    - Data Users
        - HTAC User Group (HUG)
            - 40+ members, over 22 LPH agencies represented
            - Provide guidance, help prioritize indicators for inclusion, share use cases
    - MDH
        - Provides funding through a State Infrastructure Fund grant
        - Project support
    - Planning and collaboration:
        - Biweekly project planning team meetings (MNEHRC, HCPH, MDH)
        - Biweekly meetings for project data analysts (HTAC Advisory Committee)
        - Biweekly meetings for communications, community engagement, and technical assistance team
        - Monthly MN EHR Consortium HTAC update meetings

- Governance
    - Governance Board
        - Members: representatives of each organization supplying patient data to the Consortium; others
        - Activities: Maintain governance plan, set Consortium priorities, oversee committees, assist in strategic budgeting decisions
    - HTAC Advisory Committee
        - Members: clinicians, data analysts, researchers, epidemiologists, state/local public health
        - Activities: conduct quality assurance, develop and maintain data models, recommendations to Governance Board
    - HTAC User Group
        - Members: public health, population health, health plans, community orgs
        - Activities: Provides feedback, insights, to the advisory committee; brings together users for peer-learning, sharing use cases, collaboration
- Additional Support
    - Scientific review committee

- Administrative core
- Ad-hoc workgroups

- Example Use Cases
  - A local public health agency in the Twin Cities east metro is using HTAC to identify groups experiencing health disparities for place-based interventions
  - Several counties in Greater Minnesota are modifying their adult health surveys to either focus on collecting SDoH data or shorten the survey with the goal of increasing response rates
  - One community health board in southern Minnesota extensively pulled health outcome prevalence data for their most recent community health assessment
  - A partnership of public health agencies identified disparities in health outcomes among older adults and is sharing that data with the Central Minnesota Council on Aging
  - The Collaborative for Rural Public Health Innovation in Southwest Minnesota led a project with students at Minnesota State University, Mankato to use HTAC data to identify trends and prevalence rates for priority health conditions for local public health agencies

- HTAC Evaluation:
  - Formative evaluation to understand how HTAC is being used, the value of HTAC to the public health system in Minnesota, and the potential for the project to contribute to public health system transformation in Minnesota.
  - Findings will help improve HTAC, highlight successes, and demonstrate project value for future funding
    - Phase 1: qualitative & contextual data
      - Review of published reports
      - Key informant interviews
        - Interview topics:
          - Pros/cons of various population health data sources
          - Uses of pop. health data in work
          - Experience with HTAC
          - Uses of HTAC

        - Reasons for non-use of HTAC
        - Benefits & limitations of HTAC
        - Areas for improvement
        - HTAC impact on work
        - HTAC impact on public health system
        - Federal & state data landscape
        - Etc.
- 18 completed
    - 8 metro LPH
    - 5 Greater MN LPH
    - 3 health systems
    - 1 MDH
    - 1 community org
- Highlights
    - Use of data to shorten adult health surveys
    - Use of data for CHAs
    - Using chronic disease data for county performance management
    - Primarily use geography page
    - Health condition descriptions helpful
    - New condition groups helpful
    - Easier to access than state, internal data
    - Concern about reduced access to data at state and federal level
        - Quotes:
            - The idea of being able to combine these different health systems and being able to harmonize the records to be able to really present that I think is an innovation that not every state gets to have, and it does provide something very unique.
            - We don't have epidemiologists on staff, so this makes it feel a lot more capacity-building, extends our ability for sure.

        - Being able to access data that is timely like that is a game changer for public health
        - In our own data collection, we're now gonna have space for things that have turned out to be really important, like mental health, community questions. One of the really big things we picked up on was this deterioration in social connections and community engagement and belonging... Well, we were able to get that information because, you know, we don't have to give as much space now to the things that are now coming through HTAC.
    - Evaluation Timeline:
        - Quantitative evaluation survey: September/October 2025
        - Dissemination of evaluation results: December 2025

- Grant ends June 30, 2026
    - Target date for securing funds to continue HTAC as-is, : Dec 31, 2025
    - Cost of HTAC: $2 million per year
        - Combined across all 13 sites, HTAC currently funds approximately 1 FTE of a PI/Scientific Lead, 4.1 FTE High-Level Data Analysts, and 2.4 Project Managers
            - Staff time used for aggregation, quality assurance, and supporting the technical infrastructure to pull data
    - Health systems contribute to servers and software in-kind

- **Syndromic Surveillance**
    - Learn more: MDH Syndromic Surveillance Reporting - MN Dept. of Health

- Syndromic Surveillance in MN
- Real-time, pre-diagnosis patient and clinical data from Minnesota healthcare facilities for detecting, monitoring, and understanding public health risks.
    - Information for every visit (emergency department and inpatient hospitalizations)
        - Initial information received within 24 hours of patient presenting for care

- Syndromic data can serve as an early warning system

- Syndromic surveillance use cases:
  - Case finding
  - Cluster detection
  - Trend monitoring
  - Descriptive epidemiology
  - Intervention evaluation
  - Event surveillance
  - Data on all visits for questions on any health topic
    - Adaptable and nimble
  - These data help to detect, monitor, and quickly understand events of public health importance.

- MN SyS Data Flow
  - Health System -> Health Information Exchange (HIE) Koble ->
    - MDH Data Exchange-> MDH Data Lakes->Tableau
    - National Syndromic Surveillance Program (NSSP) Biosense Platform->CDC ESSENCE Platform-> Accessible to MDH and LPH
  - Accumulation of cumulative ADT messages for a hospital visit
    - Admit + updates during visit + discharge + updates after discharge = all visit messages
    - Being sent in real-time to MDH and to the CDC BioSense Platform
    - Messages are de-duplicated to create unique visit

- Uses admit date, facility id, and MRN (unique patient ID) to create a unique Biosense ID to prevent duplication.

- Days 0-2
  - Patient presents for treatment
    - 1st message received (A01: Admit)
  - Update message received (A08: Update)
- Days 3-5
  - Update message(s) recieved (A08: Update(s))
- Days 6-7
  - Patient discharged
    - Discharge message received: (A03: Discharge)
- Days 8-20
  - Update message(s) received: (A08: Update(s))

- Data elements of syndromic surveillance
  - Message Information
    - Sending application
    - Receiving application
    - Message date time
    - Trigger event
    - Message control ID
  - Facility Information
    - Facility name/ID

        - Facility type
        - Hospital unit – patient location
    - Visit information
        - Patient Demographics
        - Patient Factors
        - Clinical Information
        - Admit/discharge date and time
        - Patient class (ED vs. IP)
        - Discharge disposition
        - Admission type
        - Ambulatory status
        - Death indicator
        - Mode of arrival
    - Patient Demographics
        - Age
        - Sex
        - Race
        - Ethnicity
        - ZIP Code
        - City
        - County
        - State
        - Country

        - Height
        - Weight
    - Patient Factors
        - Smoking status
        - Pregnancy status
        - Occupation
        - Industry
        - Insurance
    - Clinical Information
        - Admit reason
        - Initial acuity
        - Chief complaint
        - Triage notes
        - Diagnosis codes
        - Procedure codes

- Syndromic surveillance participation:
    - Total SyS Facilities: 130
        - Onboarded SyS Facilities: 105
        - % Onboarded: 81%
    - Licensed Beds at SyS Facilities:15, 241
        - Onboarded SyS Facilities: 14157
        - % Onboarded: 93%
    - Central: 94%

- Metro: 89%
- Northeast: 93%
- Northwest: 54%
- South Central: 93%
- Southeast: 100%
- Southwest: 61%
- West Central: 56%
    - Working to onboard hospital system (Sanford) in Western MN (SW, WC, NW) to improve coverage in those areas
        - Tentative timeline is October/November 2025
- Incentive for participation: In order to recieve full reimbursement they must attest to reporting requirements including SyS
- Out-of-State Data Sharing: Data sharing agreements with North Dakota, Wisconsin, and South Dakota so MN residents that receive care in border states can be included in the data
    - Working on a data sharing agreement with Iowa

- Syndromic Surveillance Analysis and Reporting Tools:
    - ESSENCE: ESSENCE | National Syndromic Surveillance Program (NSSP) | CDC
        - Functionality: Query Interface, Time Series, customizable reports and dashboard, GIS Maps, Detector Results
        - Custom reports
            - Data quality report
            - Facility-level overdose alerts
            - Facility-level CCDD alerts
            - Drug overdose mortality report

        - Report templates (via Rnssp)
            - Syndrome definition
            - ICD-10-CM code use
            - Data quality filter matrix
        - Report templates (MDH)
            - Environmental health

- Syndromic Surveillance Use Cases
    - Case Finding
        - Proactively monitor for visits of interest/syndromes of interest for potential follow-up
            - e.g., 24/7 reportable conditions; highly transmissible infections
            - NOTE: does not replace current disease reporting processes/requirements
    - Case auditing between syndromic surveillance and other data sources
        - Cross reference from other data
        - Examples: Diamond Shruumz investigation and Varicella and Herpes Zoster Cases
    - Trend Monitoring & Situational Awareness
    - Example: Respiratory disease situational awareness: COVID-19, influenza, RSV, acute respiratory illness syndrome
    - Example: Drug overdose alerts in the past 90 days:
        - Drug Overdose Dashboard: Monthly Syndromic Surveillance Drug Overdose Dashboard - MN Dept. of Health
    - Chronic disease overview
        - Improve timeliness and fill gaps in existing chronic disease data sources
        - Provide a new way to look at chronic disease data
        - Initial Topics: asthma, MI, stroke, dental care
    - Social determinants of health
        - Demographic and SDoH data to assess the impact of SDoH on health
        - Patient demographic data, narrative fields, existing syndrome definitions
- Early Outbreak Detection

- Example: Heat Related Illness ED Visits During heatwave

- Active groups contributing to Syndromic Surveillance
  - MDH Syndromic Surveillance CoP
    - Began late 2024/early 2025
    - Internal group to share and collaborate with SyS data users
    - Early adopters of SyS data use
    - Highlight analyses and share tips and tricks
  - Syndromic Surveillance Governance Team
    - Monthly meetings
  - Planning and strategy
  - Provide input on direction of program
    - No decision-making ability

- Benefit is ease of data sharing with local public health
  - Once local facilities begin sending data
    - Data users sign the BioSense Platform User Agreement
    - MDH will coordinate data access based on facility and patient location
    - MDH can provide training and/or assistance
      - e.g., templates for queries, dashboards, maps, graphs, etc. that can be shared
  - The same tools and resources are available
    - Goal: Help with community level health monitoring and assessment.
      - Situational awareness
    - Public health intervention
    - Reference data source
  - How many LPH agencies are using ESSENCE to access the data?
    - There are 22 local public health agencies that have access to ESSENCE. There are varying levels of use of the data within those agencies.

- Strengths and Limitations of Syndromic Surveillance:
  - Strengths
    - Timeliness (i.e., real-time)
    - All hospital visit-level data
    - Representativeness (i.e., statewide)
    - Flexibility of queries
    - Trends/changes over time
    - Generate hypotheses/corroborate other data
    - Ease of data sharing
    - Participation in a national system
    - Limitations
  - EHR snapshot; fixed data elements
    - Data complexity
    - No "final" dataset
    - Onboarding impacts
    - Limited long-term trends
    - No outpatient/urgent care (currently)

- Syndromic Surveillance Funding:
  - How much does the syndromic system cost health systems and MDH?
    - Health systems are responsible for an annual Koble participation fee, which is based on the net patient revenue of the health system, ranging from $2,000 to $10,000 per year. The first year is covered by MDH and health systems are responsible for the fee starting in year two. This fee is per health system which can include multiple hospitals, labs, pharmacies, clinics and any affiliated hospitals. This fee supports the ongoing maintenance costs for all public health use cases that come through the feed (e.g., syndromic surveillance, ELR, eCR, MIIC, etc.). MDH supports the interface fee for each public health use case implementation, ranging from $7,000 to $11,000. MDH will continue to cover this fee through August 2026.
    - For MDH, two staff are CDC grant funded to directly support syndromic surveillance. There are also MDH funds that support the syndromic surveillance infrastructure (e.g., Koble contract, IT costs, etc.). Syndromic surveillance is a core data source for

MDH and conversations are ongoing on sustainably supporting the technical infrastructure and staff for this system.

- What is the funding source?
  - There are multiple funding sources, primarily from CDC, including the Epidemiology and Lab Capacity (ELC) grant as well as data modernization funding.

- **Discussion Summary**
- EHR Data limitations:
  - Scattered coverage in some areas and health systems not participating
  - Resource, capacity, and priority issue for provider participation
  - Limited social determinants of health data
    - HTAC working towards incorporating SDH screenings on food and housing insecurity
  - Limited SOGI (Sexual Orientation and Gender Identity) Data
  - Not always representative of population
  - Limited information on health behaviors or other upstream factors

Garden Plot

The "Garden Plot" is a place for topics, ideas, and questions that came up during the meeting that still need to be "tended" to at a future meeting.

- Understanding how EHR data moves through our systems, how it is accessed, and how it is being used. Identifying opportunities for alignment and deduplication of efforts.

Next meeting

Date: Monday, October 6th, 2025

Time: 10:05am-11:30am

Location: Virtual, Microsoft Teams

Agenda items: 2024 LPH Annual Reporting Data on Data Performance Measures, Proposal from Carver County

(If there are additional agenda items, please email them to gabby.cahow@state.mn.us)

Minnesota Department of Health
Public Health Strategy and Partnership Division

625 Robert Street N
St. Paul, MN 55164
gabby.cahow@state.mn.us
www.health.state.mn.us