

Achieving CA's Public Health Goals with Collaborative Health Data Sharing

Wednesday, November 9 from 12 pm – 1 pm PT



Mimi Hall, MPH VP of Public Health Innovation, Manifest MedEx (moderator)



Josh Dugas Director, San Bernardino County Department of Public Health



Heather Readhead, MD, MPH Public Health Medical Officer, California Department of Public Health





Sara Sowko, MPHShadiPublic Health Epidemiologist,SeniorContra Costa Health ServicesSan Jacobiaand California Association ofPublicCommunicable DiseaseControllers (CACDC)

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WEBINAR HOUSEKEEPING

All lines are muted.



You may submit a question at any time through the Q&A box located at the bottom center of your screen.



This session will be recorded. It will be available to attendees via email, added to our website, and shared via social media.



ABOUT MANIFEST MEDEX

- One of several independent, nonprofit health information organizations (HIOs), serving all of California
- Combine and deliver crucial health information for more than 32 million Californians across 12 health plans, 125+ hospitals, and 1800+ providers
 - Longitudinal patient records
 - Admission, discharge, and transfer (ADT) notifications
 - Population health analytics
- Mission: provide every healthcare organization in California with the information they need to improve care, enhance health, and lower costs
- Member of California Association of Health Information Exchanges (CAHIE), focused on facilitating and promoting the secure sharing of health information



DATA AS ESSENTIAL PUBLIC HEALTH INFRASTRUCTURE

- > One of the lessons from COVID-19 is the gaping divide between public health and clinical care, mirrored by stark inequities in health impacts and outcomes.
- > Data is essential to deliver equitable and effective public health services.
- Achieving CA's goals will require universally accessible, timely, and accurate data shared across systems.
 - Data Exchange Framework will require most health care entities to exchange health data by 2024.
 - Success under CalAIM relies on exchange of health information.



HEALTH INFORMATION EXCHANGE (HIE) DATA EXCHANGE INFRASTRUCTURE

Terminology

- > EHR/EMR: Electronic Health Record or Electronic Medical Record
- Health Information Exchange (HIE): also called an "HIO," allows different entities to share data on shared patients
- ADT: Admission, Discharge, Transfer messages/alerts – hospitals/ERs
- ONC: federal HHS Office of the National Coordinator for Health IT, regulates policy, security, data standards, data elements (USCDI), and EHR/HIE system functionality (www.healthIT.gov)





CONGENITAL SYPHILIS: WHAT, WHERE, WHY, & HOW?

- Congenital Syphilis (CS) occurs when mothers transmit it to their babies during pregnancy or at birth. It causes stillbirth, infant death, severe neurological disorders, and organ damage. It is 100% preventable.
- In 2019, 8 counties represent more than 70% of 446 congenital syphilis cases in California, which ranks sixth in the nation with a CS case rate of 107.7 per 100,000, almost double the national rate of 57.3.
- Increasing rates are most notable in the Central Valley and Southern California.
- CS disproportionately impacts communities of color and parallels issues like housing status, substance use disorder, and inadequate access to prenatal care and other health and social services.
- > While syphilis is reportable to LHJs, following pregnant women with syphilis, many of whom are lost to follow-up, has been one of public health's biggest challenges.

The number of babies born with congenital **syphilis** increased for the **7**th **year** in a row. 500 446 450 400 329 350 288 300 250 214 200 148 150 103 100 58 33

50

0

2012

2013

2014

2015

2016

2017

2018

2019



WELCOME BACK! CA LHJ & CDPH LUNCH 'N LEARN SERIES GUESTS

> The Kickoff Session Was A Success!

- We had over 350 people that participated
 - 222 LHJ Staff
 - 100 CDPH Staff
- We discussed in detail a FEW Public Health Use Cases:
 - COVID-19 Response
 - Heat Illness
 - Congenital Syphilis
 - And mentioned a few other ideas

Thank you for participating on behalf of:

California Association of Communicable Disease Controllers (CACDC) / California Conference of Local Health Data Managers & Epidemiologist (CCLHDME) Electronic Health Record (EHR) and Health Information Exchange (HIE) Data Committee, and

California Department of Public Health (CDPH) Health Equity Data HIE Pilot Project Team

PUBLIC HEALTH'S DIRECTIVES AND DECISIONS

> Federal Guidance/Expectations:

- CDC Public Health Informatics Roadmap
- Data Modernization Initiative
- State Mandates/Expectations:
 - CA AB133 & CHHS/Data Exchange Framework
 - Data Sharing Agreement
 - Digital Identities
- > Patient/public expectations for coordination & interoperability
 - Promote health & prevent death/disability
 - Serving the needs of the most vulnerable
 - "10 Essential Services" + Public Health 3.0 + Health Equity

PUBLIC HEALTH ACTION = "USE CASES"



CONGENITAL SYPHILIS / HIE USE CASE

Josh Dugas, REHS, MBA

Director, San Bernardino County Department of Public Health



SAN BERNARDINO COUNTY

San Bernardino County (SBC) is the largest county in the contiguous United States.

SBC has a population of 2.1 million; 5th-most populous in California and 14th-most populous in the U.S.

Due to its large size, San Bernardino County faces unique public health challenges.



MANIFEST MEDEX (MX)

- Nonprofit health data network or health information exchange network
 - Access tool within Manifest MedEx
 - Improved data sharing between clinics and Clinical Disease Section (CDS)
 - Notify tool within Manifest MedEx:
 - Sends real-time admission/discharge/transfer (ADT) notifications when a patient is admitted to and discharged from a healthcare facility





CHALLENGE

- Congenital syphilis care coordination requires a substantial amount of resources to coordinate testing, treatment, and follow-up of mother and infants born infected with syphilis.
- Since 2017, San Bernardino County Communicable Disease Section has seen an 84% increase of congenital syphilis cases.



Congenital Syphilis Cases in SB County



POPULATION AT RISK AND CHALLENGES

> Syphilis among mothers of infants with congenital syphilis has been associated with the following:

- Limited or no prenatal care
- Recreational drug use, especially methamphetamine use
- Homelessness or unstable housing
- Incarceration within the prior 12 months
- Having a partner who is incarcerated
- HIV infection
- History of syphilis infection

> Foster care

- Without notification, infants may end up in the foster care system further complicating treatment coordination
- Out-of-state cases



PROGRAM

- MX Notify addresses many of the challenges of coordinating care between the healthcare system and the public health department.
- Objectives and outcomes:
 - Improve identification and coordination of care for pregnant mothers diagnosed with syphilis and their infants
 - Provide prenatal care health education to provider
 - Provide referrals and linkages to other County programs



New Manifest MedEx Notification

D donotre

donotreply@bsvcs-prod-ainq.com

 ← Reply
 ≪ Reply All
 → Forward
 ····

 Wed 10/19/2022 9:43 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you can confirm the sender and know the content is safe.

There is a new Notification available in the MX Notify Portal from Redlands Community Hospital for one of your SBDPH - Congenital Syphilis patients.

Please login to https://access-prod.manifestmedex.org/csp/mxuux/ui/login to view.

If you need assistance with the MX Notify Portal, please send an email to the Manifest MedEx Support team at support@manifestmedex.org. **PLEASE DO NOT RESPOND to this system-generated email.**

WORKFLOW

- 1. Receive email notification
- 2. Access portal
- 3. Look up recent interaction
- 4. Follow up with provider

Manifest MEDEX			User St				
Home	Welcome to Manifest MedEx Portal!			=			
0	Click on Admin to create and manage user accounts.						
Access	Click on Access for patients' longitudinal health records.		8	Eilter by Name or MRN Any Participant (3)		Saved Custom Eilters	
Notify	Click on Notify for real-time event notifications when patients are seen in the emergency department or discharged from the hospital.			All Not started O In progress O Completed ●			
	Useful Resources	Release Notes	Motify	Notifications count 110			
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*	Access Manual	May 2022 Release Notes			-	The information contained in this system is privileged and confidential and/or protect	
Admin	Admin Manual	April 2022 Release Notes	Report			information (Contained in this system is privileged and containing and opported information (PHI) and may be subject to protection under the law, including the Heal Portability and Accountability Act of 1996, as amended (HIPAA). This system is inter	
	Privacy Officer Manual	March 2022 Release Notes	•	© 07/31/2022 06:30 PM		use of the individual or entity to whom it is addressed. If you are not the intended us you are notified that any use, dissemination, distribution, printing or copying of this fr	
	MX Access Logging In and Homepage	February 2022 Release Notes	Admin	P Discharge Pain History of uterine scar from previous surgery		strictly prohibited and may subject you to criminal or civil penalties. If you notice any system please contact the administrator immediately by reporting an issue.	
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IMPACT





LESSONS LEARNED

- Provide feedback to MX to improve data collection and user accessibility
- Fitting the tools provided in MX for other disease investigations and interventions
- Weekend and evening notifications can be challenging to address
 - However, updated contact information from the most recent encounter is still beneficial for patient outreach
- Better use of resources



SUCCESS OF MX NOTIFY

- MX Notify has expedited the usual case management procedures by notifying congenital syphilis (CS) case managers immediately of patients who are in the ED or hospital, which has:
 - Removed the time frame between waiting for lab reports to be processed and received by DPH and sent to CS Case Managers
 - Allowed CS case managers to quickly notify providers of care that is needed, thus ensuring mother and baby are tested for syphilis at birth and receive treatment before being discharged
 - > MX Notify has also prevented:
 - Time-consuming search for patients who are discharged before testing and/or treatment
 - Costly treatment of babies who are found to have congenital syphilis after being discharged



Department of Public Health Manifest MedEx Use Case 2022

FUTURE EXPANSION AND ADDITIONAL USE

Our team is currently expanding use of the MX Notify tool, training all staff on use for congenital syphilis, HIV care coordination, and lost-to-follow-up cases among early syphilis incidents.







HIV



Early Syphilis





THANK YOU

For more information on this use case, please visit: <u>https://www.manifestmedex.org/sbcdph-case-study</u>



FOR INQUIRIES CONTACT: CDS@DPH.SBCOUNTY.GOV



SYPHILIS PILOT PROJECT MANIFEST MEDEX ADT IMPLEMENTATION 2022

Shadi Barfjani, MD, MS

Senior Deputy Director, San Joaquin County Department of Public Health Services



CHALLENGE

- UC Davis: Study published June 2022 reviewed county level data from 2019-2020 <u>https://www.nature.com/articles/s41372-022-01445-y.epdf</u>
 - Central Valley small to medium counties had significantly higher rates of congenital syphilis compared to larger metro counties in 2019.
 - Counties with the highest congenital syphilis incidence rates were Kern, San Joaquin and Fresno, with 297.5, 297 and 277.6 congenital syphilis cases per 100,000 live births.
 - Central Valley counties also had the highest poverty rate in the state.
 - Female poverty and the associated burdens of out-of-pocket costs, employment demands, and housing insecurity, and difficulty accessing prenatal care were major contributors to loss of patient follow-up





CHALLENGE

- > San Joaquin County Public Health Services STD Control:
 - Significant number of cases with known and unknown stages are lost to follow up
 - Risk factors: Drug use (methamphetamine), homelessness, HX of incarceration, multiple sexual partners, delayed or no prenatal care (missed opportunities), and low health literacy
 - Partner elicitation and partner services extremely challenging and often unsuccessful





MISSED OPPORTUNITIES FOR PREVENTION WERE ALSO IDENTIFIED IN EMERGENCY DEPARTMENT AND CORRECTIONAL SETTINGS



- Among 17 with an ED visit, 29% were not tested in the ED
- Among those with a positive test, 45% did not initiate treatment in the ED

Correctional Settings

Of the three who were incarcerated, 33% were not tested





STD CONTROL GOALS

- > Improve identification and care coordination for pregnant mothers and infants
- Improve case finding, education and care coordination-male and female in reproductive age
- > Improve referral to other county and community programs (WPC, MCAH, BIH)





INTERVENTIONS

- > Multi- pronged approach
 - Expanded Syphilis Screening Recommendation (2021)
 - Provider detailing (2021)
 - Jail Syphilis Project to screen, treat and educate reproductive age F&M inmates (2022)
 - Manifest MedEx (MX) ADT Notification System (2022)





SYPHILIS CASES SAN JOAQUIN COUNTY, 2013 - 2022 YTD



Data as of 10/23/2022 Source: San Joaquin County STD Program Data





SYPHILIS CASES BY STAGE AND FOLLOW UP STATUS FEMALES AGES 15-44 SAN JOAQUIN COUNTY, 2013 – 2022 YTD Cases Cases - Lost to Follow Up



Data as of 10/23/2022 Source: San Joaquin County STD Program Data

700





MANIFEST MEDEX PILOT

- MX Pilot Pre-launch
 - Establish HIE with HCS and three other hospitals
 - Identified lost-to-follow-up incidents
 - Created patient panels for MX (to be updated monthly)
 - Created an email to specifically receive real-time notifications when Pt admitted in ED, inpatient care or Labor & Delivery
 - Created Standard Operating Procedures in collaboration with participating hospitals
 - Identified and trained PHNs and CDIs to follow up when notifications received





OPERATION

- > MX Pilot Standard Operating Procedures: Normal Business Hours
 - 1. Sr. CDI will review the STD Notification email daily and assign new notifications to CDIs





2. CDI logs in to Manifest MedEx and retrieves patient information.

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3. The CDI reviews syphilis incident in CalREDIE to determine what the patient needs (e.g., treatment).

4. The CDI calls the hospital contact person and provides recommendation. Documentation of the call is recorded in CalREDIE.

Sample script: "Hello, I am a communicable disease investigator with SJCPHS. We received a
notification that one of our lost to care syphilis patients has checked in to your ED. It is
recommended that the patient receive syphilis treatment. I can send you the treatment
guidelines and the patient syphilis summary".

5. Next business day, the CDI obtains medical records (HER) to verify that patient received treatment. Documentation of treatment is recorded in CalREDIE.





OPERATION

- MX Pilot Standard Operating Procedures: After Hours (Weekdays 5pm-9pm, Weekends/Holidays 8am-9pm)
 - 1. Standby PHN receives email notification from MMX Notify. Notifications received after 9pm can be addressed the next day.
 - 2. The PHN logs in to Manifest MedEx and retrieves patient information.
 - 3. The PHN reviews patient list and/or syphilis incident in CalREDIE to determine what the patient needs (e.g., treatment).
 - 4. The PHN calls the hospital contact person and provides recommendation. Documentation of the call is done on CalREDIE.
 - 5. Next business day, the PHN will send an email to Sr. CDI notifying them of call made.
 - 6. Sr. CDI will assign case to a CDI who will obtain medical records to verify that patient received treatment. (Confirmed completed follow up)





CURRENT RESULTS

- > Pilot with MX went live 9/15/2022
- Current Data snapshot: 24 ADT alerts for 5 clients
 - ED frequent utilizers
 - 2 Reproductive age female: 1 adequately treated, 1 referred for further testing and was lost to follow up
 - 1 over 50 female: Discharged without treatment (real time)
 - 2 Reproductive age male: 1 received test results and education, and was referred for Tx, 1 unable to reach





COSTS OF IMPLEMENTATION

- > Technology implementation cost for the LHJ: ~\$10K annually
 - Cost is subject to change with MX revised fee schedule
- Staffing: Not Significant
- > Existing CDIs and PHNs funded through STD grants
- Potential next step: Health Plans to fully cover or heavily subsidize the cost of HIE participation
 - Due to cost saving for health plans as a result of LHJs interventions



ADDITIONAL USE AND FUTURE POSSIBILITIES

San Joaquin Public Health is currently using Manifest MedEx in Enhanced Care Management and coordination in Whole Person Care Program

> PHS is exploring possibilities to use MX Access and Notify for HIV Care Coordination and lost-to-follow-up patients in the LTBI project



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THANK YOU!



MULTI-COUNTY CONGENITAL SYPHILIS WORKGROUP NOVEMBER 16TH FROM 2:00 PM – 3:30 PM PT

To have a broader statewide impact on preventing CS and expand the initial CS use case piloted by MX HIO, San Bernardino County Public Health Department, and San Joaquin Public Health Services, we invite LHJs and HIOs with rising CS cases to join two workgroup meetings to learn more about the resources, workflows, and partnerships needed to implement this model.

Intrepid Ascent, a strategic consulting firm, is available to organize and facilitate the workgroups and providing subject-matter expertise on shared use-cases between HIOs and PH entities.

Second meeting: DECEMBER 7TH FROM 2:00 PM – 3:30 PM PT

LHJ & CDPH STAFF ARE INVITED!

"MODERNIZING DATA EXCHANGE: OPPORTUNITIES FOR PUBLIC HEALTH" LUNCH & LEARN SERIES WEDNESDAYS AT NOON

- **Nov 2:** Public Health Use Cases to Leverage HIE Data
- **Nov 9:** LHJ HIE pilot projects: Congenital Syphilis Manifest MedEx
- > **Nov 16:** Health Information Exchange 101 & Myth busting -Wellbrook Partners
- Nov 30: HIE Data Standardization, Interoperability, Quality and Usability Wellbrook Partners
- Dec 7: Medi-Cal Initiatives: EHR adoption, Data Exchange, and Population Health Management – Dr. Scott, Medi-Cal CDO
- **Dec 14:** CDPH HIE Pilot Project



Overview: Understanding the Data Exchange Framework and Data Sharing Agreement Requirements under AB133

Thursday, December 1 from 12 pm – 12:45 pm PDT



Jason Buckner Chief Information Officer Member, CalHHS Data Sharing Agreement and Policies & Procedures Subcommittee



Felix Su

Director, Health Policy Member, CalHHS DxF Implementation Advisory Committee