

**BioSense**

Public Health Surveillance Through Collaboration

<https://biosen.se>

**2.0**

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# BioSense 2.0 Webinar: The Kansas Experience, Health Information Exchanges, and Onboarding

March 13, 2014, 2:00 PM – 3:00 PM EDT

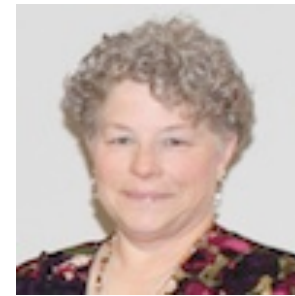
Hosted by ISDS & the BioSense Redesign Team



**Laura McCrary, EdD**

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State Registrar and Deputy Director

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Division of Health

Kansas Department of Health and Environment



## Learning Objectives

- ❑ **By the end of the Webinar, the audience will be able to:**
  - Describe how a jurisdiction can onboard BioSense 2.0 using a health information exchange (HIE);
  - Describe the benefits of using an HIE;
  - Assess the likely work effort involved in setting up BioSense 2.0; and
  - Describe next steps in effective use of BioSense 2.0.



## Looking for CPH Credit for this Webinar?

- ❑ If you are seeking Certified in Public Health (CPH) recertification credit for this Webinar, please be sure to fill out the evaluation form at the end of the Webinar.
- ❑ One credit is available for attending this Webinar and completing the evaluation. The cost for non-members is \$10. For ISDS members, the CPH credit is free.
- ❑ If you have any questions please contact us at [syndromic@syndromic.org](mailto:syndromic@syndromic.org).



## Upcoming March ISDS Events

- ❑ *BioSense User Group Meeting*  
Tuesday, March 25, 2014 – 3:00 PM – 4:00 PM EST
- ❑ *March Literature Review: Quantitative Methods for System-Level Biosurveillance*  
Wednesday, March 26, 2014 – 12:00 PM – 1:30 PM EDT

Visit [www.syndromic.org](http://www.syndromic.org) for more information on upcoming events.

For more information about BioSense 2.0, please visit the BioSense Redesign Collaboration Web Site [www.biosense2.org](http://www.biosense2.org)

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# **Kansas Health Information Organizations: Leveraging HIT for Syndromic Surveillance**

**Laura McCrary, EdD, Kansas Health Information Network and  
Lou Saadi, PhD, Kansas Department of Health and Environment,  
Division of Public Health**

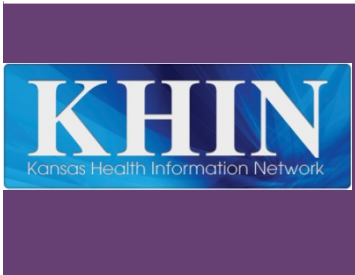
## HIOs: Landscape in Kansas

- ❑ **Two certified health information organizations (HIOs) offer statewide coverage:**
  - **Kansas Health Information Network – KHIN**
    - Partners with ICA
  - **Lewis and Clark Information Exchange – LACIE**
    - Partners with Cerner
  
- ❑ **For purposes of discussion regarding BioSense, KHIN is the key HIO partner because it is capable of reporting data to BioSense.**

# Kansas Health Information Network, Inc.

## Founding members

Not-for-Profit Organization





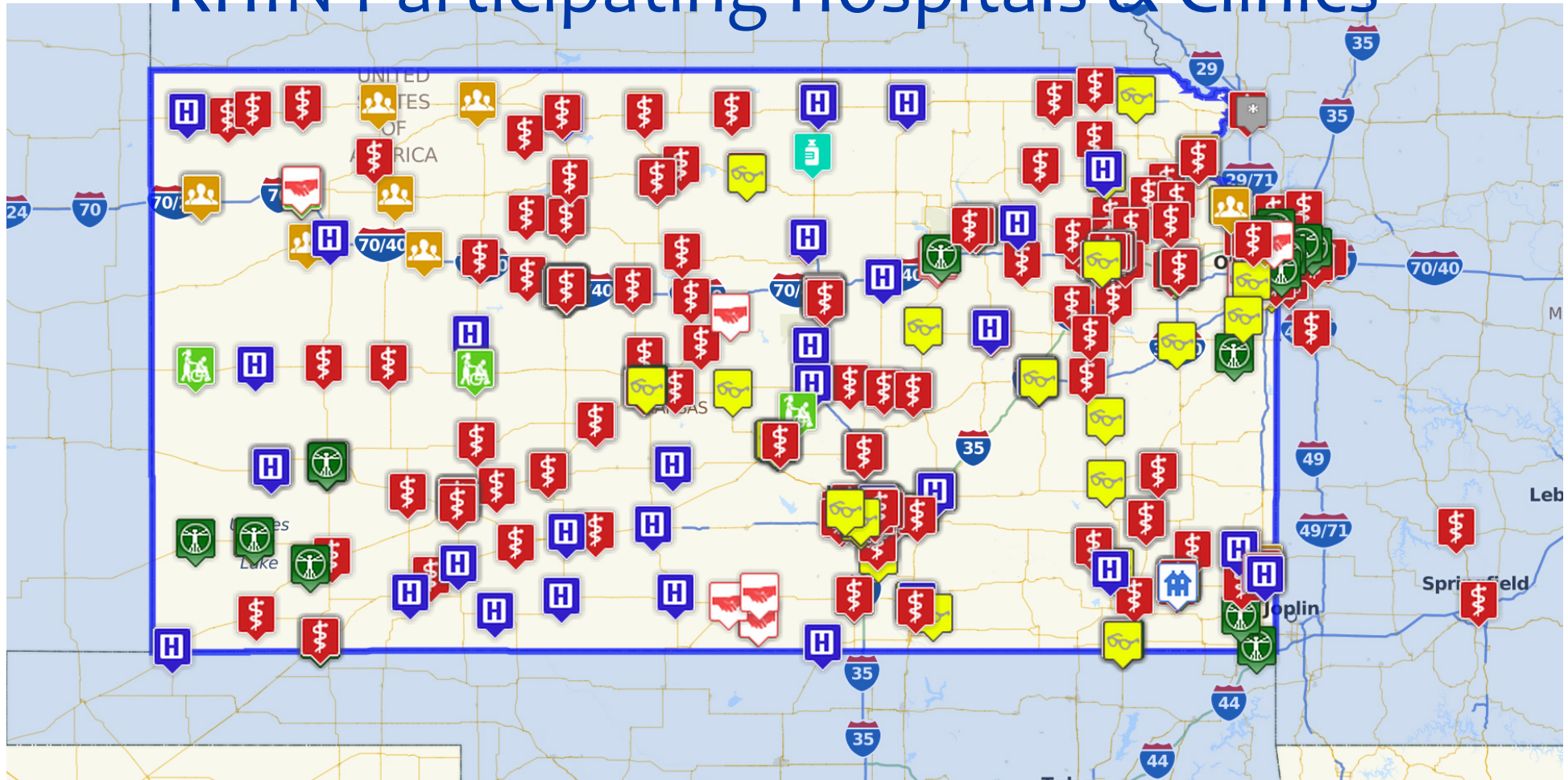
# KHIN Key Statistics

1. Over 2 million unique patients in KHIN exchange
2. 665+ KHIN members
3. 61 HIOs in production—21 testing
  - 46 hospitals
  - 209 clinics
  - Other HIO members
4. Public health transmissions
  - Syndromic surveillance—1,200,000 +transmissions
  - Immunizations—35,000+

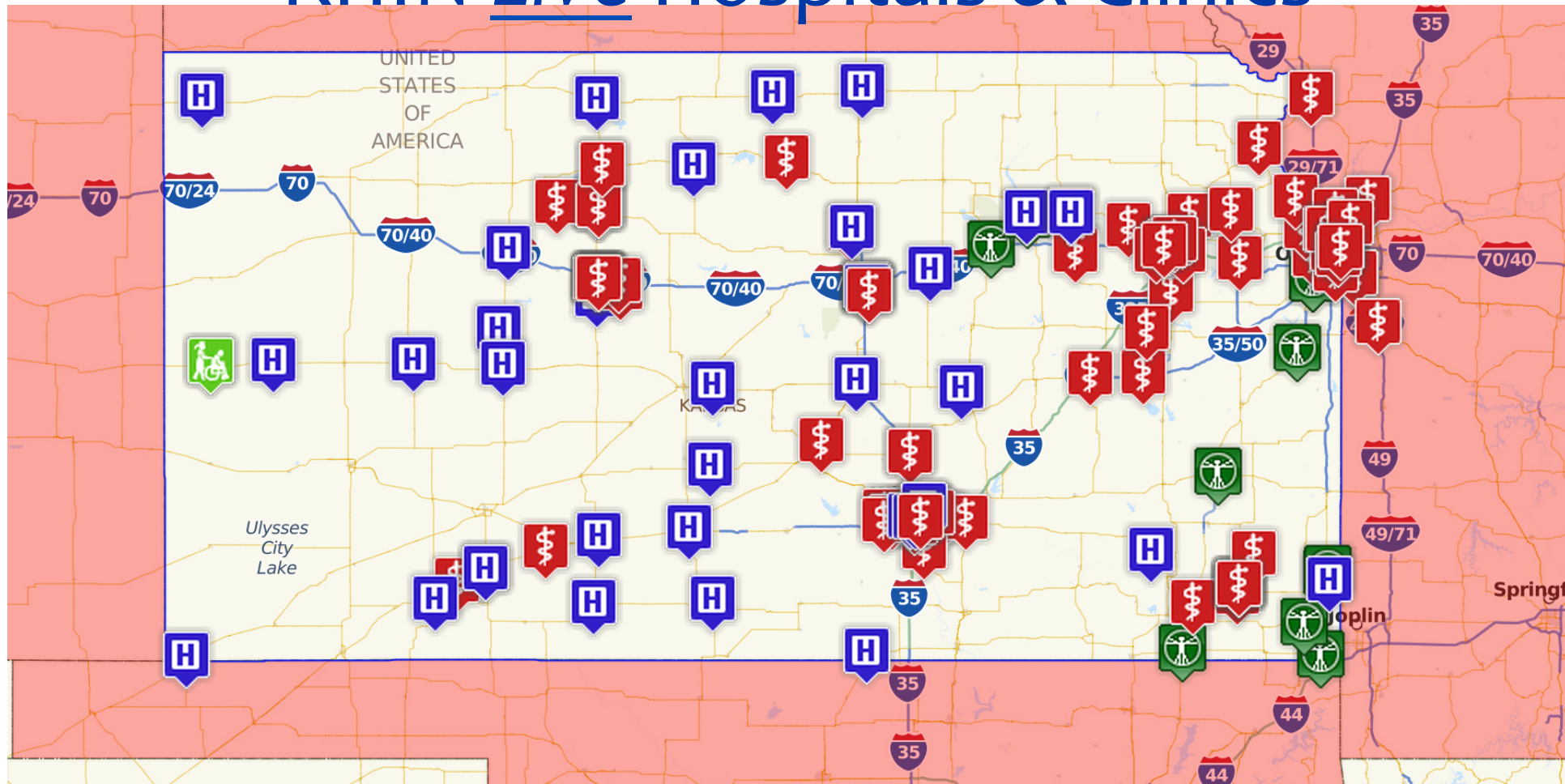




## KHIN Participating Hospitals & Clinics



# KHIN Live Hospitals & Clinics





# KHIN HIE Products 2013-2014

1. Secure clinical messaging/  
DIRECT
2. Provider portal
  - Full HIE-query functionality
  - Web-based access
3. Personal health record
4. State-level interfaces (in production or development)
  - Immunizations
  - Syndromic surveillance
  - Reportable diseases
  - Cancer registry
  - Infectious disease registry
5. Alerts and data extracts



## Meaningful Use (MU) 2-Syndromic Surveillance

- ❑ MU2 measure: successful ongoing submission of electronic syndromic surveillance data from Certified Electronic Health Record (EHR) Technology to a public health agency for the entire EHR reporting period.
- ❑ November 2012: KHIN began submitting syndromic surveillance messages to BioSense
  - 1.2 million+ messages to date

How does a facility onboard with KHIN?

## MU 2-Syndromic Surveillance Technical Challenges

- ❑ ADT feed from KHIN members – C32 not adequate
- ❑ De-identified the data-removed name, address, SSN, etc.
- ❑ Added a facility identifier
- ❑ Easier if EHR vendor is creating a compliant HL7 2.5.1 message



## Issues to Address

- ❑ Public health is taking advantage of the MU goals and activities.
- ❑ Timelines of MU implementation are problematic regarding timing for reporting and relevance for statistical use.
- ❑ Data quality issues need to be addressed.

| 1 <sup>st</sup> Year | Stage of Meaningful Use |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------------------------|------|------|------|------|------|------|------|------|------|------|
|                      | 2011                    | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| 2011                 | 1                       | 1    | 1    | 2    | 2    | 3    | 3    | TBD  | TBD  | TBD  | TBD  |
| 2012                 |                         | 1    | 1    | 2    | 2    | 3    | 3    | TBD  | TBD  | TBD  | TBD  |
| 2013                 |                         |      | 1    | 1    | 2    | 2    | 3    | 3    | TBD  | TBD  | TBD  |
| 2014                 |                         |      |      | 1    | 1    | 2    | 2    | 3    | 3    | TBD  | TBD  |
| 2015                 |                         |      |      |      | 1    | 1    | 2    | 2    | 3    | 3    | TBD  |
| 2016                 |                         |      |      |      |      | 1    | 1    | 2    | 2    | 3    | 3    |
| 2017                 |                         |      |      |      |      |      | 1    | 1    | 2    | 2    | 3    |

## Assessing the Scope of Reporting

- ❑ How many hospitals are reporting?
- ❑ Kansas has more than 150 licensed “hospitals” but licensure can include those without emergency departments (i.e., skilled nursing facilities, rehab, etc.). Currently, 44 facilities are onboarded but 28 actually report via KHIN and are in varying stages of development.
- ❑ Of the 44, only those who can produce an HL7 message can be sent to BioSense. KHIN is encouraging this capability.
- ❑ HIO feeds can include facilities other than hospitals.
- ❑ Four facilities are reporting directly.
- ❑ Missouri border hospitals report data Kansas experience to BioSense through Missouri ESSENCE. Six Kansas facilities in the Kansas City Metro area are reporting in this manner.
- ❑ Plans are under way to recruit hospitals on the border and other portions of the state for direct reporting or via KHIN.

## Data Quality Considerations

- ❑ The BioSense implementation guide allows fields to be populated as null, and we are noticing that items such as chief complaint, for example, are not being populated.
- ❑ At this point, data comparisons are being run for completeness.
- ❑ Staff must work directly with hospitals (not the HIO) on data quality issues.
- ❑ At what level do we consider the reporting to be relevant for the Kansas population? We don't know yet.
- ❑ It's critical that public health knows (in real time) what facilities are fully reporting to understand denominators and population relevance.
- ❑ How does the information compare to what's being reported via other means, such as influenza-like illness monitoring?
- ❑ Frontend tool is limited; backend database access and manipulation are critical.

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