



# Presenters



Laura McCrary EdD  
President & CEO  
KONZA National Network



Bryna N. Stacey, MPH, BSN, RN, CIC  
Section Director, HAI/AR Microbial Infections  
Kansas Department of Health and Environment



Chris Guerrero, PMP  
Public Health Project Manager,  
KONZA National Network



Mel Talley, BSN, MBA  
Director of Quality Clinical Services,  
KONZA National Network

# Overview of the KONZA National Network



# Presentation Agenda

## **Overview of the KONZA National Network and STAR HIE Program**

- TRANSLATE and Immunization Registries
- COVID 19 Registry
- HQ Insights Dashboards

## **Challenges and Lessons Learned**

- Effectively Engaging Public Health
- Reducing Public Health Burdens

## **Advancing and Sustaining Public Health Programs**

## **Q & A**

# Overview of the KONZA National Network and STAR HIE Program

## The Problem

- Providers and public health faced increased demand for reporting COVID-19 data.
- To manage the spread of the virus, public health officials needed access to real-time longitudinal medical information for COVID-19 positive patients.

## The KONZA Solutions

- The KONZA team developed TRANSLATE which enhanced the lab data gathered for health information exchange (HIE) to create lab messages compliant with ELR requirements for public health reporting.
- KONZA adapted an alerting platform to provide real-time COVID-19 diagnosis information to the Kansas Department of Health and Environment.
- KONZA created new HQInsight Dashboards to provide clinicians and hospitals new COVID-19 *views* of their patients to better manage their care.
- KONZA worked closely with physicians and hospitals to ensure as much COVID-19 vaccination information was reported to the State Immunization Registries.

# KONZA National Network Development of TRANSLATE

## TRANSLATE established practice-based COVID-19 test result reporting by mapping EHR HL7 lab feeds to ELR five states:

- Kansas
  - Connecticut
  - Missouri
  - Mississippi
  - Texas
- Simplified LOINC Mapping for practices.
  - Eliminated the manual reporting burden on providers and public health departments.

### SAMPLE TRANSLATE MESSAGE

#### ORIGINAL COVID LAB MESSAGE RECEIVED FROM CLIENT

```
MSH|^~\&|ATHENANET|12012 KS - Test Clinic|KS - Kansas HIN - HIE - CHL7 - Global||202203211153||ORU^R01|14836605M152072|P|2.2|||||
PID||58557|58557||TEST^PATIENT^||19680216|F|1900^White|481 TEST STREET^NEWTON^KS^67114^UNITED STATES||573|878-8778^573|878-
8778||124^English|M||350092||143^Not Hispanic or Latino|||||
PO1|||143^Not Hispanic or Latino|||||
PV1||O||^Test Clinic Lab||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||
ORC|RE|3156687H12072||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||
OBR|1|3156687H12072||437258^RAPID SARS COV 2 AG, Q1, IA, RESPIRATORY|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||
SPECIMEN|2|20220318174528|20220318170500|20220318170500|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||
OBX|1|ST|COVID-19^COVID-19^ATHENA|1|negative|||||F||20220318180554|IN OFFICE ORDER||
```

#### NEW ELR TRANSLATED MESSAGE TO THE STATE

```
MSH|^~\&|ATHENANET|Test Clinic Lab - KSDOH|KS|202203211153||ORU^R01^ORU_R01|14836605M152072|P|2.5.1
ST|1|1099998215^PROVIDER^TEST^|1099998215^PROVIDER^TEST^|
PID||58557|58557||TEST^PATIENT^||19680216|F|W^White|481 TEST STREET^NEWTON^KS^67114^UNITED STATES||573|878-8778^573|878-
8778^573|878-8778||124^English|M||350092||N^Not Hispanic or Latino|||||
PV1||O||^Test Clinic Lab||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||
ORC|RE|3156687H12072||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||
OBR|1|3156687H12072||437258^RAPID SARS COV 2 AG, Q1, IA, RESPIRATORY|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||
SPECIMEN|2|20220318170500|20220318170500|20220318170500|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||1099998215^PROVIDER^TEST^|||||
OBX|1|ST|437258^COVID-19^ATHENA|1|negative|||||F||20220318180554|IN OFFICE ORDER||20220318180554||Test Clinic Lab
SPM|1|3156687H12072||437258^COVID-19^ATHENA|1|negative|||||F||20220318180554|IN OFFICE ORDER||20220318180554||Test Clinic Lab
```



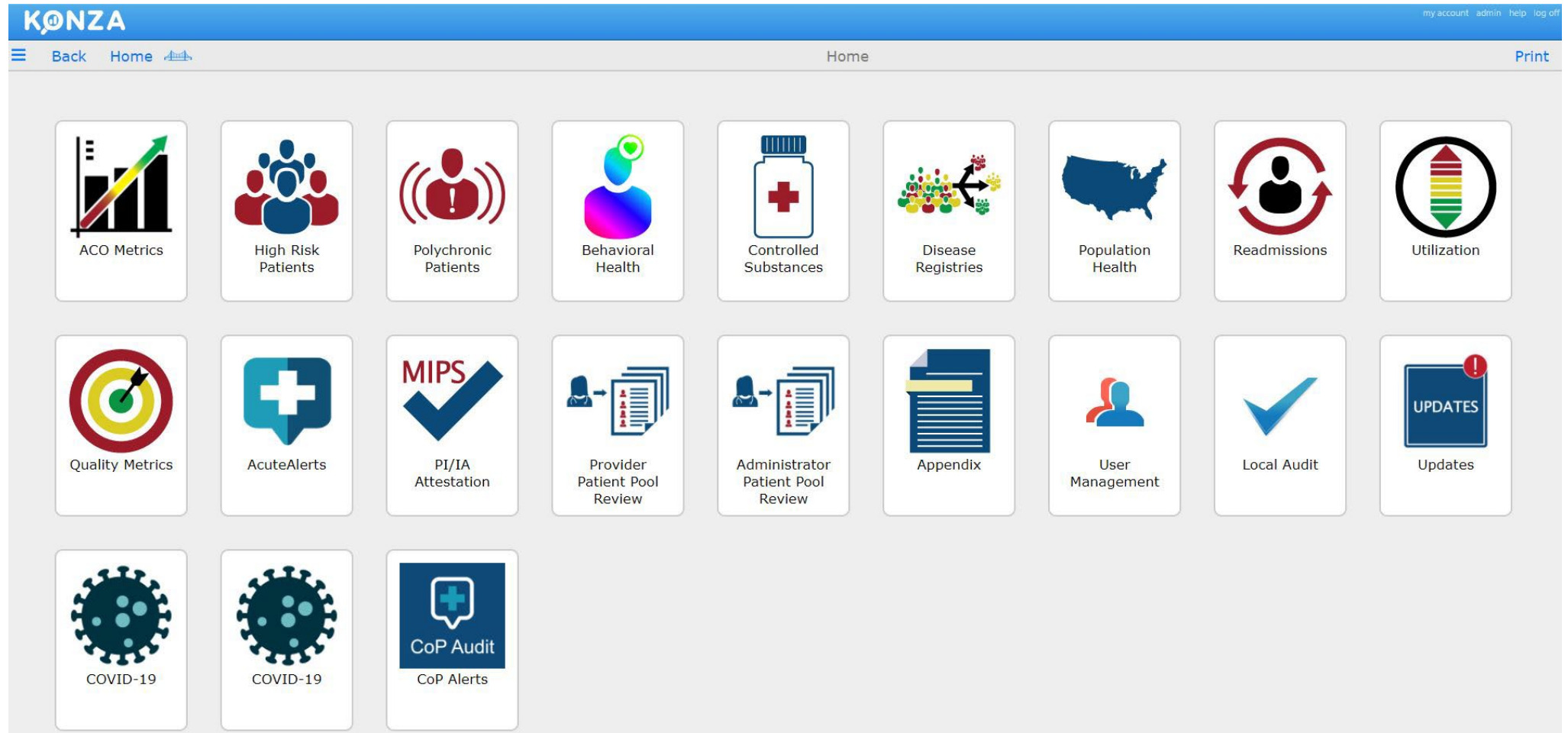
# KONZA Connecting Members to Immunization Registries

KONZA assists hospitals, practices and other health care providers connect to the KONZA HIE and submit data to the state immunization registry.

Current efforts include Connecticut practices that are now mandated to submit immunization data electronically to the state registry.



# KONZA Standard HQInsight Toolkit





# KONZA National Network COVID-19 Registry

KONZA contracted with Kansas Department of Health and Environment (KDHE) to create and maintain a data dashboard for obtaining complete and accurate hospitalization information based on ICD 10 diagnosis code for COVID 19.

KDHE COVID Dashboard

My COVID-19 Patients **KDHE COVID-19 Patients**

Sending Facility: All Values (164) Patient Type: All Values (4)

Code: 02-19999 (4)  
840539006  
840546002  
834.2

Patient Total: 34,281

Patient Account Number	Message Timestamp	Patient First Name	Patient Last Name	Date of Birth	Gender	Patient Ethnicity	Patient Race	Date of Admit	Date of Discharge	Patient Type	Unit
	2020-08-25 23:12:42				M		W	2020-08-25 21:36:00		Inpatient	W.ED1
	2020-08-25 23:12:42				M		W	2020-08-25 21:36:00		Inpatient	W.ED1
	2020-08-25 23:12:42				F		W	2020-08-25 20:37:00		Inpatient	
	2020-08-25 22:44:02				F	NH	CA	2020-08-25 18:37:00	2020-08-25 19:17:00	Outpatient	016.UR
	2020-08-25 22:44:02				F	NH	CA	2020-08-25 18:32:00	2020-08-25 18:47:00	Outpatient	016.ST
	2020-08-25 22:15:37				F	2186-5	2106-3	2020-08-25 18:24:22	2020-08-25 18:52:49	Outpatient	FHC
	2020-08-25 22:15:37				M	2135-2	2103-6	2020-08-25 18:24:15	2020-08-25 18:52:45	Outpatient	FHC
	2020-08-25 22:39:45				F	NH	American Indian/Alaska Native	2020-08-25 17:35:00	2020-08-25 18:49:00	Outpatient	AMB.R
	2020-08-25 22:29:25				F	43	900	2020-08-25 17:01:00		Outpatient	
	2020-08-25 22:29:25				F	43	900	2020-08-25 17:01:00		Outpatient	
	2020-08-25 22:29:25				F	43	900	2020-08-25 17:01:00		Outpatient	
	2020-08-25 22:29:25				F	43	900	2020-08-25 17:01:00		Outpatient	
	2020-08-25 22:50:45				F	NON-HISPANIC	1	2020-08-25 16:57:00	2020-08-25 19:32:00	Emergency	EMD
	2020-08-25 22:44:02				M	NH	CA	2020-08-25 16:32:00	2020-08-25 16:53:00	Outpatient	016.ST
	2020-08-25 23:12:42				F	18	900	2020-08-25 16:23:00		Outpatient	
	2020-08-25 22:44:02				F	NOT HISPANIC	Other	2020-08-25 16:05:38	2020-08-25 16:51:10	Outpatient	40UKPE
	2020-08-25 16:15:12				M	NH	WH	2020-08-25 16:03:00		Outpatient	LAB
	2020-08-25 16:59:32				F	43	900	2020-08-25 15:50:00		Outpatient	
	2020-08-25 16:15:12				M	UA	PTDECLINED	2020-08-25 15:47:00		Outpatient	
	2020-08-25 16:59:32				M	NH	Unknown	2020-08-25 15:41:00	2020-08-25 16:34:00	Outpatient	HMC.PL
	2020-08-25 16:15:12				M	NH	WH	2020-08-25 15:32:00		Outpatient	LAB
	2020-08-25 16:45:53				M	NH	WH	2020-08-25 15:21:00	2020-08-25 16:22:00	Outpatient	ATCMA

Excel

KDHE COVID Dashboard

My COVID-19 Patients **KDHE COVID-19 Patients**

Sending Facility: All Values (164) Patient Type: All Values (4)

Code: 02-19999 (4)  
840539006  
840546002  
834.2

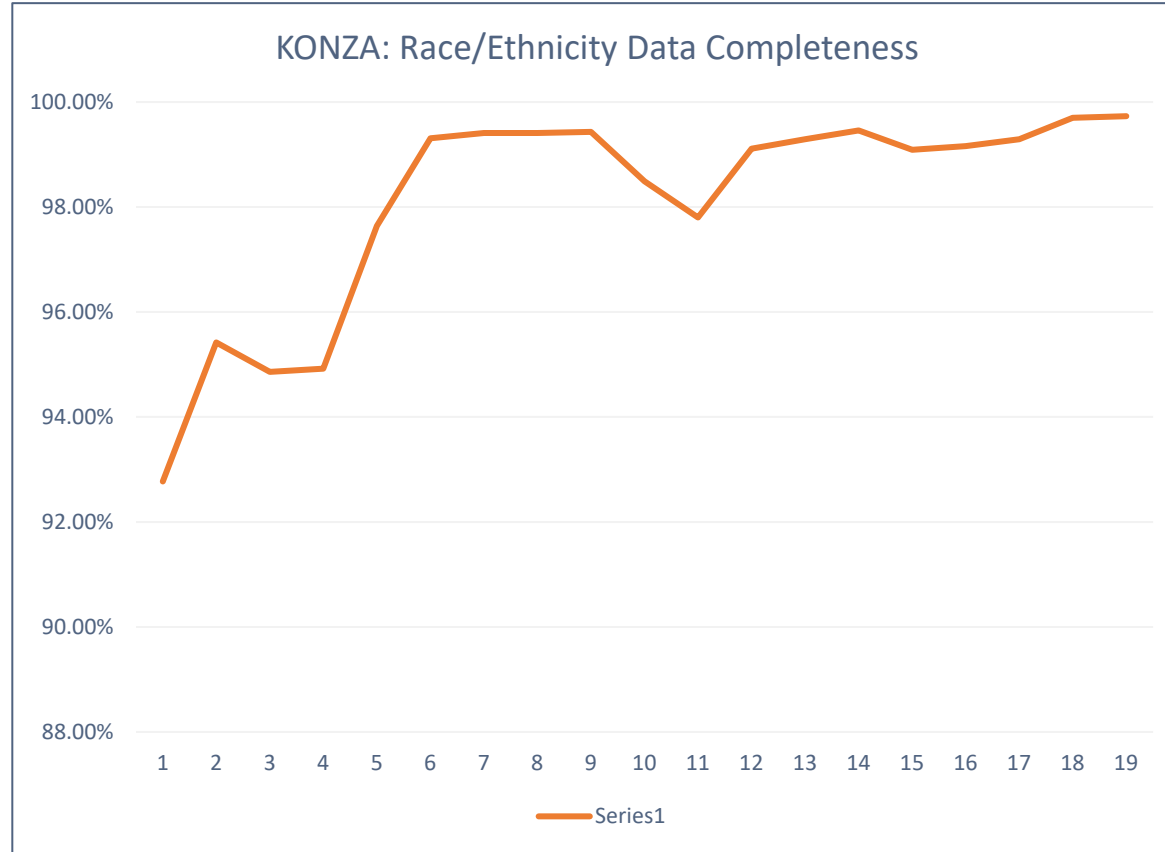
Patient Total: 34,281

Discharge Disposition	Sending Facility	Patient Phone Number	Patient Address	Patient City	Patient Zip	Patient County	Diagnosis Codes	Diagnosis Text
-	-	-	-	W	67212	Sedgwick	Z20.828	CONTACT W AND EXPOSURE TO OTH VIRAL COMM
-	-	-	-	W	67212	Sedgwick	Z20.828	CONTACT W AND EXPOSURE TO OTH VIRAL COMM
-	-	-	-	W	67213	Sedgwick	Z20.828	CONTACT W AND EXPOSURE TO OTH VIRAL COMM
01 - Dc Home/Routine/Law	-	-	-	TOPEKA	66605	Shawnee	Z20.828	CONTACT W AND EXPOSURE TO OTH VIRAL COMM
01 - Dc Home/Routine/Law	-	-	-	SALINA	67401	Saline	Z20.828	CONTACT W AND EXPOSURE TO OTH VIRAL COMM
-	-	-	-	ULYSSES	67880	Grant	U07.1	CONTACT W AND EXPOSURE TO OTH VIRAL COMM
-	-	-	-	ULYSSES	67880	Grant	U07.1	CONTACT W AND EXPOSURE TO OTH VIRAL COMM
HOM -	-	-	-	HARTFORD	66854	Lyon	Z20.828	Contact with and (suspected) exposure to other viral commu
-	-	-	-	GREAT BEND	67530	Barton	U07.1	
-	-	-	-	GREAT BEND	67530	Barton	U07.1	
-	-	-	-	GREAT BEND	67530	Barton	U07.1	
-	-	-	-	GREAT BEND	67530	Barton	U07.1	
01 - Other	-	-	-	TOPEKA	66605	Shawnee	Z20.828	Contact with and (suspected) exposure to other viral commu
01 - Dc Home/Routine/Law	-	-	-	NEW CAMBRIA	67470	Saline	Z20.828	CONTACT W AND EXPOSURE TO OTH VIRAL COMM
-	-	-	-	NEWTON	67114	Harvey	Z20.828	CONTACT W AND EXPOSURE TO OTH VIRAL COMM
-	-	-	-	TOPEKA	66618	Shawnee	Z20.828	CONTACT W AND EXPOSURE TO OTH VIRAL COMM
-	-	-	-	WEST PLAINS	65775		U07.1	Contact with and (suspected) exposure to
-	-	-	-	BEL AIRE	67226	Sedgwick	U07.1	
-	-	-	-	HIGGINSVILLE	64037		U07.1	
-	-	-	-	DODGE CITY	67801	Ford	U07.1	U07.1 - COVID-19
-	-	-	-	WESTON	64098		U07.1	
-	-	-	-	WESTON	64098		U07.1	

Excel

# Data Completeness

KONZA



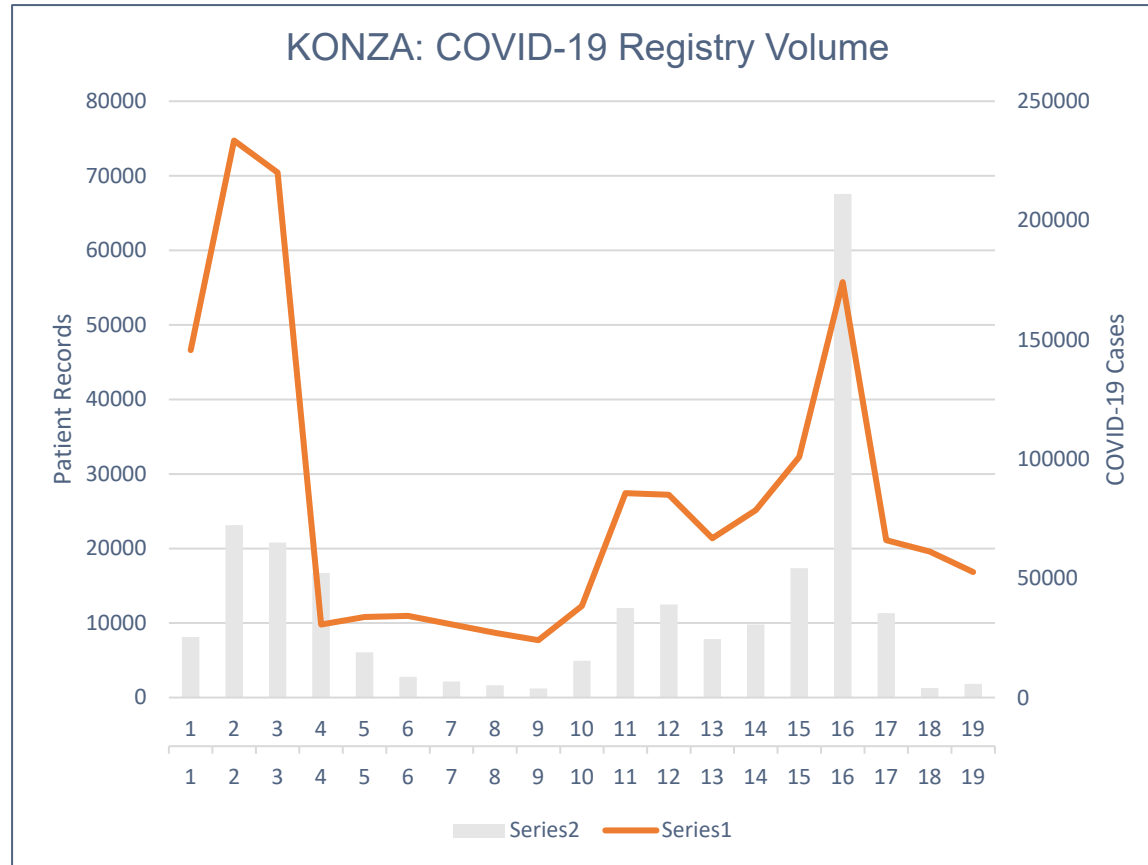
While starting at a high level, KONZA was able to increase race/ethnicity data completeness.

They did so by setting up a COVID-19 registry to bring together data from multiple participants and PHAs.

*\*Program Evaluation for the Strengthening the Technical Advancement and Readiness of Public Health via Health Information Exchange (STAR HIE), UCSF October 2022*

# COVID-19 Registry Volume

KONZA



KONZA submitted patient records to the KDHE COVID-19 Registry for COVID-19 positive cases, totaling 508,669 unique patients over a year and a half.

*\*Program Evaluation for the Strengthening the Technical Advancement and Readiness of Public Health via Health Information Exchange (STAR HIE), UCSF October 2022*

# KONZA HQInsight Dashboards

Updated the KONZA HQInsight dashboards with COVID-19 immunization data and COVID-19 diagnosis data.

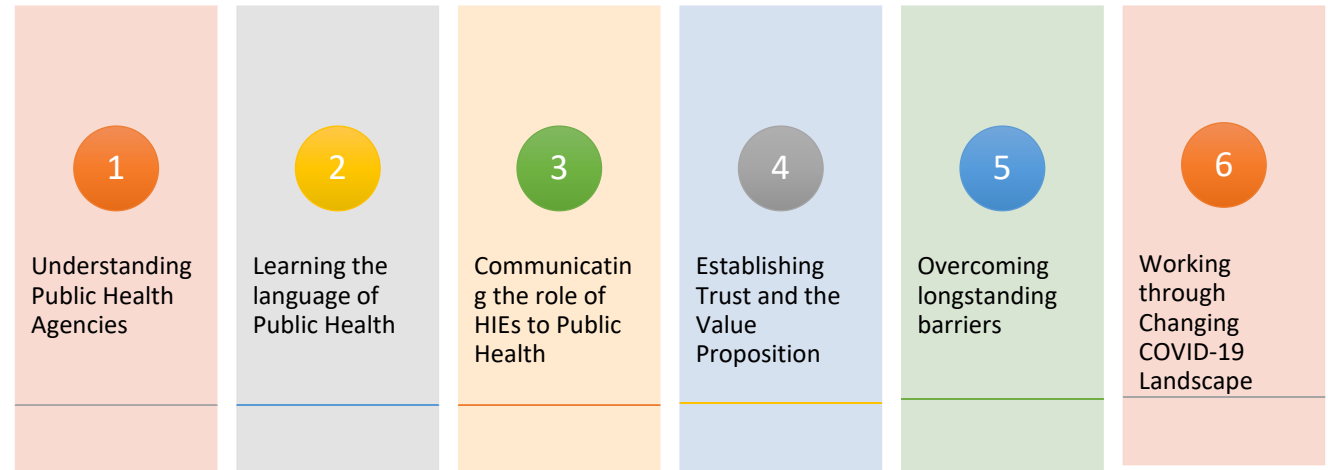
This allows physicians and other clinicians to determine if their patients have received a COVID-19 vaccine and if they have been diagnosed with COVID-19.

Provider COVID Alert Screenshots

The top screenshot displays a 'Back to Patient Alerts' button and a table of patient alerts. The table includes columns for Patient Last Name, Patient First Name, Patient Phone Number, Date of Birth, Gender, Admit Date, Patient Type, Discharge Date, Discharge Disposition, Sending Facility, Patient Address, and Admitting Diagnosis Codes. The bottom screenshot shows a 'Quality Metrics' section with a dropdown for 'Metric: COVID 19 Immunization' and a table of patient records. The table includes columns for Patient Name, DOB, Sex, Ethnicity, Race, Activity Date, Most Recent Facility, Provider, Act Type, Act Desc, and Record #.

# Challenges and Lessons Learned

# Effectively Engaging Public Health Agencies



## **STAR HIE Program**

STAR HIE Program objectives required that KONZA and PHAs combine program efforts in a way that the HIE was additive and enhanced PHAs capabilities.

Collaboration was successful because it did not distract from the COVID response but delivered clear and measurable value to Public Health.



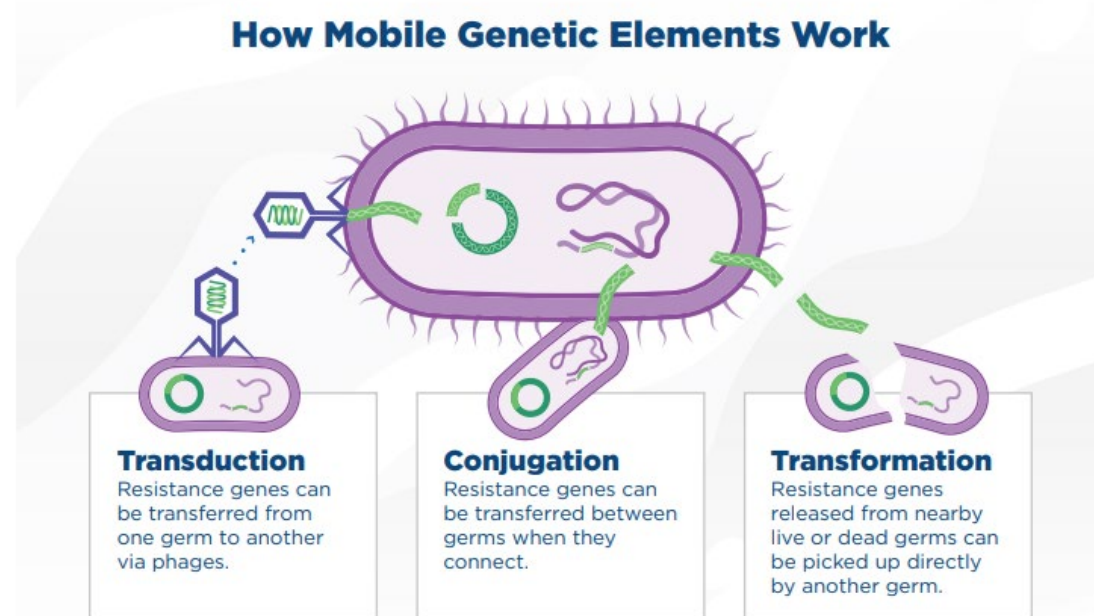
# Reducing Public Health Burden through Sound Stewardship

## **The STAR HIE Program established and strengthened trusting relationships and communication between PHAs and KONZA**

- Public Health benefits from increased awareness through Health Information Exchange (HIE).
- Public Health can quickly respond where needed when it has timely data.
- Public Health burden can be reduced where HIEs and Providers align capacity to deliver critical data electronically.

Sustaining Long-term  
Data Sharing  
Relationships  
Established &  
Strengthened by the  
STAR HIE Program

## KDHE and KONZA Pilot Program for MDRO Alerting



Multidrug-Resistant Organisms - Why Alerting  
is Important to Healthcare and Public Health

*\*Image from CDC <https://www.cdc.gov/drugresistance/pdf/threats-report/How-AR-Moves-508.pdf>*

# KHIN Advancing and Sustaining Public Health Programs

## **Building on the STAR HIE Program Foundation for Sustaining Public Health Programs**

Public Health Programs Benefits if we continue to

- Include Public Health in Health Information Exchange Strategies
- Identify gaps in data where systems do not talk to each other
- Connect the vast number of facilities with critical data to Public Health
- Surface other opportunities for Public Health to leverage existing or potential data flows from EHRs and HIEs

# Public Health and KONZA Working Together

**COVID response efforts 2020-2022 strained PHA capabilities nationwide.**

## **Public Health and KONZA Working Together**

- Aligning time and resources
- Adopting public health language
- Deliver timely data capture and exchange
- Demonstrated the benefit of KONZA and Public Health Partnering to achieve shared goal of improved health



Questions?

For additional information please contact

Chris Guerrero – [cguerrero@konza.org](mailto:cguerrero@konza.org)

Mel Talley - [mtalley@konza.org](mailto:mtalley@konza.org)



# The KONZA National Network

KONZA National Network helps our customers connect to the world. As a member of eHealth Exchange KONZA National Network works with health care providers across the nation to design custom solutions to meet their unique needs. KONZA National Network connects health care systems together to share data internally and with external partners such as the Veterans Administration, Military Health Services, CVS, DaVita, Yale New Haven Health, and many others.

KONZA operates exchanges in multiple states, including Kansas, Missouri, Louisiana, Mississippi, Georgia, South Carolina, New Jersey and Connecticut. KONZA is deeply committed to connecting healthcare providers, patients, health plans, and our technology partners together to organize healthcare data into information that will drive healthcare transformation. Patients, health plans, physicians, healthcare facilities, and other healthcare providers from across the country benefit from KONZA's delivery of unequaled actionable intelligence.