

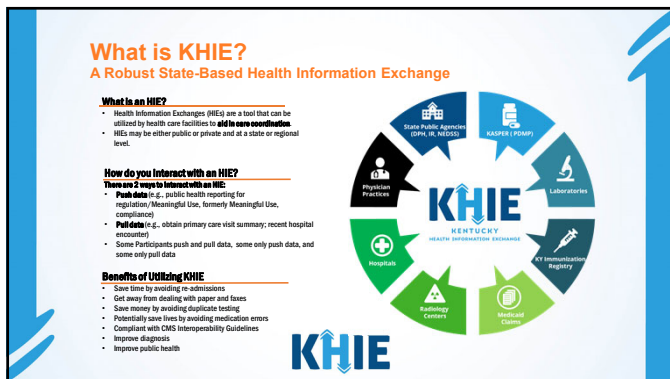
“Kentucky Health Information Exchange (KHIE)”

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753





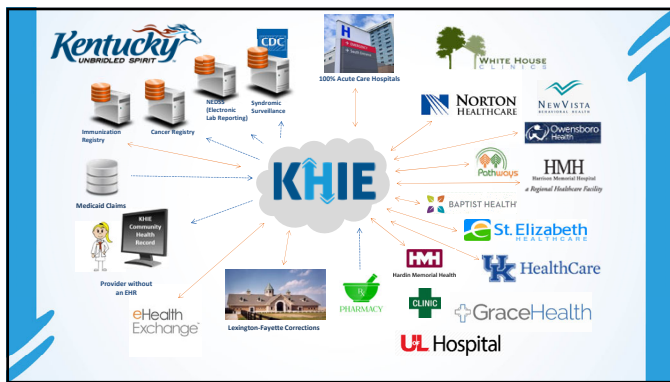


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Types of Data Common KHIE Data Elements

| KHIE Data Sets | |
|---------------------------|--|
| ADT/Patient Demographics | Name, Address, Phone, DOB – Required Clinician Information, Diagnosis, Facility Location, Next of Kin, Insurance Information - Optional |
| Lab Results | Include any pathology results |
| Radiology Reports | Transcribed findings and recommendations |
| Other Transcribed Reports | Any other type of transcribed reports. Ex: Operative report, ED report, Cancellation Notice, H&P. ANY document that is transcribed that a hospital wants to send. |
| CCD/CCDA | Summary of Care: Included when info is available in-patient record Patient Name Current Problem List Current Medication List Current Medication Allergy List Encounter Diagnosis Immunizations Demographic Information (preferred language, sex, race, ethnicity, date of birth) Procedures Laboratory Test Results Vitals Smoking Status Care Plan Field, including goals and instructions Care Team Discharge instructions |
| Medicaid Claims Data | Anything Medicaid or MCO has paid |
| Immunization | Anything available in Web2i |

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Patient Health Data

Sources of Data

- Hospitals / Health care Clinics
 - Acute Care Hospitals
 - Large Hospital Systems
- Ambulatory Facilities/Clinics
- Medicaid
- KASPER
- Labs
- Behavioral Health Centers
- Federally Qualified Centers
- Pharmacies
- Kynect resources
- KYIR and Other Registries
- Ambulance Run Sheets

Types of Data Available

- Routine health care visits
- Behavioral health (diagnosis information)
- Emergency department visits
- Facility utilization
- Lab and radiology services/results
- Pharmacy services/medication history
- Immunization records
- Admission, discharge, and transfer notifications/alerts

The information supports tracking physical and behavioral health diagnoses, prescribed medications, and emergent or non-routine medical/behavioral health visits.

Featured KHIE Services

KHIE Features and Services

The diagram features a central 'KHIE' logo with several service icons and labels around it:

- ePartnerViewer** (top left)
- Platinum Connection** (top right)
- Medicaid Paid Claims Data (CCD)** (left)
- Image Exchange** (left)
- Event Notifications** (bottom left)
- Social Determinants of Health** (bottom left)
- Electronic Case Reporting** (right)
- Electronic Lab Reporting** (right)
- Direct Secure Messaging** (right)
- eHealthExchange** (bottom right)

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Platinum Connection **KHIE**

Healthcare providers can query KHIE from within their EMR /EHR to quickly access the patient health information from multiple healthcare sources (other Participants such as hospitals, physician practices, and clinics). Authorized users of KASPER will be able to view KASPER data in KHIE.

BENEFITS

- Access to real-time clinical data, PMP, and Medicaid Claims data at the point of care from other connected healthcare providers and the national eHealth Exchange
- Exchange clinical documents within the workflow of the Provider's EHR.
- Supports sharing Summary of Care Records, MS Word, PDFS, .TXT, .RFT, .JPEG, .GIF files.

CONNECTED PROVIDERS

PROVIDER A
 KY MEDICAID CLAIMS
 IMMUNIZATION REGISTRY
 PROVIDER A'S EHR

KHIE ePartnerViewer Support | Announcements | Advisories | Teresa Poff

Home

Announcement: Have training needs? Go to the KHIE COACH for assistance. It's located in the Resources section. [Read More | View All](#)

myDASHBOARD

QUICK SEARCH ADVANCED SEARCH

First Name: Bobby Last Name: Brady Date Of Birth: 07/12/1970

| BOOKMARKED PATIENTS | | EVENT NOTIFICATIONS (PAST 72 HOURS) | | | | | | |
|---------------------|------------|-------------------------------------|-----------------------|--------------------|----------|-------------|----------|--|
| LAST NAME | FIRST NAME | EVENT DATE | NOTIFICATION DATE | EVENT | FACILITY | NAME | AGE | ORGANIZATION USER |
| BRADY | BOBBY | 08/07/2024 7:00:00 am | 08/07/2024 7:35:27 am | Hospital Discharge | URHC | BRADY,BOBBY | 54 years | Ann O'Hara (Ann.O'Hara@ky.gov) |
| RADIANT | AMOS | 08/07/2024 7:00:00 am | 08/07/2024 7:35:27 am | Hospital Discharge | URHC | BRADY,BOBBY | 54 years | Tiffany Pearson (Tiffany.Pearson@ky.gov) |
| DREAMING | ALWAYS | 08/07/2024 7:00:00 am | 08/07/2024 7:35:27 am | Hospital Discharge | URHC | BRADY,BOBBY | 54 years | Charlese Blair (Charlese.Blair@ky.gov) |
| BROWN | BIC | 08/07/2024 7:00:00 am | 08/07/2024 7:35:27 am | Hospital Discharge | URHC | BRADY,BOBBY | 54 years | Teresa Poff |

Event Notifications **KHIE**

OVERVIEW

KHIE's Event Notification Services offers the ability to inform providers about specific healthcare events that have occurred with certain patients in their care for the purposes of treatment, quality improvement, and care coordination activities.

Partnering with KHIE to receive clinical event notifications about a patient's specific medical encounter can help providers "in the know" as their patients transition from various healthcare settings back to the practice. The use of Event Notifications supports care coordination activities across disparate providers to inform healthcare providers when a patient is admitted to or discharged from an Emergency Department, for example.

SOLUTION

KHIE currently supports the following 13 different event notifications:

- Emergency Admit
- Emergency Discharge
- Hospital Admit
- Hospital Discharge
- Readmission
- Specialty Visit
- Results Ready for Review
- Behavioral Health Discharge
- Teleology Screen Received
- Emergency Visit Overutilization
- COVID-19 Positive
- A1c
- Behavioral Health Admit

UNMATCHED IMPACT

Access to Clinical Event Notifications helps drive reductions in healthcare costs as it encourages providers to leverage the information available to the Health Information Exchange.

Access to Event Notifications may contribute to...

- 52%** FEWER REDUNDANT LAB TESTS!
- 36%** FEWER RADIOLOGY EXAMS!
- 13%** FEWER OVERALL PATIENT CHARGES!

~9.4M Event Notifications Generated since 2021

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The ePartnerViewer, Kentucky's Provider ePortal, is a customizable health record portal that offers users a view of **real-time and historical clinical data from more than 12,000 data feeds**. The ePartnerViewer connects disparate patient health data from providers into portals which can be easily accessed and viewed.

- Clinical Documents
- Lab and Reports
- Electronic Case Reports
- Radiology
- Transcribed Reports
- Immunizations
- Procedures
- Advance Directive
- Patient Alerts
- Social Determinants of Health
- Encounters
- Pathology
- Uncategorized
- Problems
- Medications and Allergies
- Sensitive Data

LAB Data in the ePartnerViewer

LABORATORY | PATHOLOGY

EXAMPLES OF MISSING INFORMATION
The data shown throughout this page is based on the data provided by participating facilities. You may need to contact the source for more information.

Sort Real-time path by facility type
A facility report number has been designated as a particular type of result will be included in Uncategorized data, Laboratory, Pathology, Transcription and Radiology reports may also appear here.

LIPID 1996 PANEL - SERUM OR PLASMA

| FLAG | NAME | VALUE | UNIT | REFERENCE RANGES | RESULT |
|------|---|-------|-------|------------------|------------------|
| | Cholesterol in HDL, (Heterozygous) - Serum or Plasma | 112 | mg/dL | | |
| | Cholesterol (Heterozygous) - Serum or Plasma | 158 | mg/dL | 0-200 | |
| ⚠ | Cholesterol in LDL, (Heterozygous) - Serum or Plasma by calculation | 21 | mg/dL | | Below Low Normal |
| ⚠ | HDL-C (Heterozygous) - Serum or Plasma | 18 | mg/dL | 30-100 | Below Low Normal |

Cumulative LAB in the ePartnerViewer

LABORATORY | PATHOLOGY

EXAMPLES OF MISSING INFORMATION
The data shown throughout this page is based on the data provided by participating facilities. You may need to contact the source for more information.

Sort Real-time path by facility type
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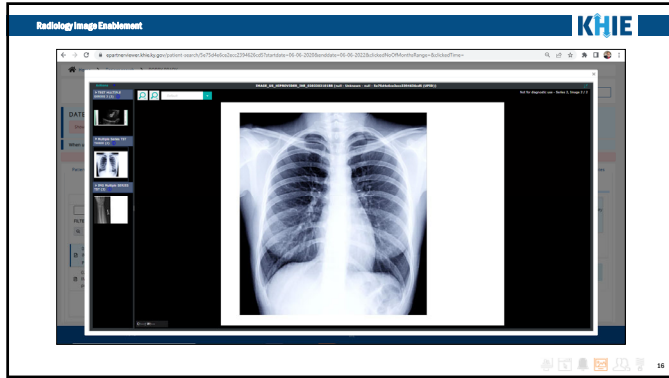
Hemoglobin

| FLAG | NAME | DATE | REFERENCE RANGE | VALUE | UNIT | REFERENCE RANGES | RESULT |
|------|------------|------------------------|-----------------|-------|------|------------------|--------|
| ⚠ | Hemoglobin | 02/15/2021 12:00:00 pm | Denmark | 16 | g/dL | 14-17.5 | Normal |
| ⚠ | Hemoglobin | 03/15/2021 12:00:00 pm | Denmark | 16 | g/dL | 14-17.5 | Normal |
| ⚠ | Hemoglobin | 04/15/2021 12:00:00 pm | Denmark | 16 | g/dL | 14-17.5 | Normal |
| ⚠ | Hemoglobin | 05/15/2021 12:00:00 pm | Denmark | 16 | g/dL | 14-17.5 | Normal |

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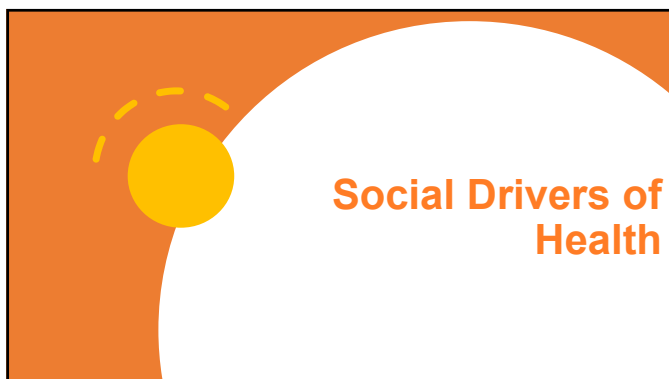
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Current Connections
Over 970,000 Images Available

| Provider | Services | Number of Facilities |
|--|--------------|--|
| Appalachian Regional Healthcare | PACS Imaging | 4 Hospitals |
| Baptist Health Systems | XCA Imaging | 8 Hospitals 441 Ambulatory Facilities |
| Kings Daughters Medical Center | PACS Imaging | 2 Hospital 221 Ambulatory Facilities |
| Med Center Health | PACS Imaging | 2 Hospitals |
| St. Elizabeth | PACS Imaging | 6 Hospitals |

There are additional facilities in the onboarding process.



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Collaborating within CHFS

KHIE shares data with Kentucky's Resource Engine, kymect resources, to create **standardized, actionable Social Determinant of Health (SDoH) data** to improve holistic care coordination by linking residents to Community Partners and engaged healthcare organizations.

Contributing Health Factors

Per County Health Rankings

| SDoH Domain Indicators | | Individual Determinants Impacting Health | | | | | |
|------------------------|----------------------|--|------------------|---|----------|--------|---------------------------|
| Indicator | Last Assessment Date | Code | Domain | Intervention | Priority | Source | SDoH Indicator Evaluation |
| Health Insurance | 9/15/2023 | 96102001 | Health | Insurance | Medium | PHS | Yes, data is available |
| Medication | 9/15/2023 | 96102002 | Medication | Change status | High | PHS | Yes, data is available |
| Income | 9/15/2023 | 96102003 | Economic | Employment | Medium | PHS | Yes, data is available |
| Living | 9/15/2023 | 96102004 | Health Behaviors | What are the highest risk behaviors in your community? Have you reduced or eliminated the highest risk behaviors in your community? | High | PHS | Yes, data is available |
| Food | 9/15/2023 | 96102005 | Food Security | Do you have enough food to eat every day? | High | PHS | Yes, data is available |
| Transportation | 9/15/2023 | 96102006 | Transportation | Transportation | Medium | PHS | Yes, data is available |
| Education | 9/15/2023 | 96102007 | Education | How many years of school have you completed? Do you have a high school diploma or GED? | High | PHS | Yes, data is available |
| Language | 9/15/2023 | 96102008 | Language | Do you speak English well enough to get along in your community? | High | PHS | Yes, data is available |
| Healthcare Access | 9/15/2023 | 96102009 | Health | Do you have a usual source of care? Do you have a usual source of care? Do you have a usual source of care? | High | PHS | Yes, data is available |
| Healthcare Quality | 9/15/2023 | 96102010 | Health | Do you have a usual source of care? Do you have a usual source of care? Do you have a usual source of care? | High | PHS | Yes, data is available |
| Healthcare Cost | 9/15/2023 | 96102011 | Health | Do you have a usual source of care? Do you have a usual source of care? Do you have a usual source of care? | High | PHS | Yes, data is available |

PHS maps the SDoH codes received to simple, color-coded SDoH indicators.

- CRITICAL
- SIGNIFICANT
- STABLE
- NO DATA AVAILABLE

Direct Secure Messaging

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Direct Secure Messaging

CareAlign PORTAL
CareAlign is a web portal for users who do not have an EHR, or one without Direct capabilities, to send Direct Secure Messages.

Benefits:

- Assists in closing the gaps in care coordination
- Benefits providers without an EHR or EHR without direct capabilities
- User Friendly
- HIPAA Compliant
- **EBE**

Message Flow:

Provider A **Secure Messages** **Provider B**

KHIE TRANSMITS OVER 100,000+ DIRECT SECURE MESSAGES A MONTH

Kentucky Direct Email Catalog

Direct Provider Search

* Enter your direct email address:

First Name: _____ Last Name: _____

Specialty: City: County:

Organization Name: Organization Type:

I agree to the [terms and conditions](#)

A Direct email address is required to perform the search. A search can be performed on one or multiple fields. The search results are sorted by the last name of the provider and can be filtered by last name using an alphabetical filter.

Public Health Reporting

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Type of Reporting in KHIE

| Kentucky Immunization Registry (KYIR) Reporting | Electronic Lab Results (ELR) | Electronic Case Reporting (eCR) |
|--|--|--|
| <p>KHIE is the designated public health reporting authority in Kentucky and serves as the data intermediary for healthcare providers seeking to electronically submit immunization data, syndromic surveillance data, cancer case reporting, and communicable disease reporting. Additionally, through the connection to the KYIR, KHIE participants can send immunization to KYIR and pull historical immunization records from the registry.</p> | <p>KHIE has the capabilities to securely transmit electronic lab results for COVID-19 and communicable diseases, initiated from the participant EHRs or community labs. Additionally, KHIE has built-in capability (Direct Data Entry) to create electronic lab reports from the web-based provider portal for the COVID-19 and configured communicable disease conditions, transmitting to Kentucky Department for Public Health and CMS to receive a Reportable Response (RR).</p> | <p>KHIE has the capabilities to securely transmit case reports for communicable disease monitoring, initiated from the participant EHRs. Additionally, KHIE has built-in capability (Direct Data Entry) to create electronic case reports from the web-based provider portal for the configured communicable disease conditions and transmit to Kentucky Department for Public Health and CMS to receive a Reportable Response (RR).</p> |

TEAM KENTUCKY

Reporting ELR and eCR

| Lab Results | UPLOAD TYPES |
|---|--|
| <ul style="list-style-type: none"> • Logs the test and test results • Used for positivity rating • Positive and negative results must be submitted to DPH or LHD <ul style="list-style-type: none"> ○ Positive within 24 hours ○ Negative within 7 days | <ul style="list-style-type: none"> • HL7 VPN Feed • HL7 SFTP Upload • Direct Data Entry • TEXT "Flat File" SFTP Upload • HL7 Web Service Feed |
| Case Reports | |
| <ul style="list-style-type: none"> • Provides details of the case and individual • Only required for positive results • One form submitted to LHD | |

KHIE

Current Reporting Capabilities

| | |
|-----------|-----------------------------|
| STIs | COVID-19 |
| Hepatitis | Other Reportable Conditions |
| MDRO | |

TEAM KENTUCKY

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Expanding Electronic Reporting

The infographic displays five categories of diseases and conditions that are now reportable electronically:

- Vaccine Preventable Diseases
- Vector-borne Disease
- Food-borne and Water-borne Diseases
- Other Reportable Conditions
- Tuberculosis

TEAM KENTUCKY logo is visible in the bottom right corner.

Electronic Case Reporting

IMPROVING CASE REPORTING EFFICIENCY

KHIE's electronic case reporting functionality digitizes the case reporting process by facilitating the flow of electronic case reports via Direct Secure Messaging (DSM) from providers to the Association of Public Health Laboratories (APHL) Integrated Messaging System (AIMS). The reportability review process is then automated and sends information to the appropriate stakeholders and endpoints.

The flowchart illustrates the data flow: Provider EMR/EHR (with eICR and RR labels) connects to KHIE (Kentucky Health Information Exchange), which then connects to APHL (Association of Public Health Laboratories), and finally to KY DPH and NEDSS (Kentucky Department for Public Health). The KHIE logo is prominently displayed at the bottom.

Direct Data Entry

GATHERING REAL-TIME DATA

Direct Data Entry (DDE) creates a workflow in the ePartnerViewer that allows end-users to submit laboratory record information directly into KHIE. The DDE workflow contains validations to ensure data quality.

The workflow diagram shows: Positive COVID-19 Results from Laboratory X Entered into the ePartnerViewer. This leads to ePartnerViewer Passes Laboratory Results onto Public Health Registries. The data then flows into the National Electronic Disease Surveillance System (NEDSS) and the Kentucky Department for Public Health (KDPH). The KHIE logo is at the bottom.

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NEXT STEPS

- Determine Desired KHIE Services
 - Discuss Vendor Capability & Possible Cost with your EHR Vendor
 - Remember KHIE is FREE
- Sign the KHIE Participation Agreement and Applicable Addendum(s)
- Schedule Appropriate Follow-Up Meetings:
 - ePartnerViewer Training
 - Event Notification Training
 - Direct Secure Messaging Intake Call
 - Official Services Intake Call

Learn More About KHIE



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