C.	Technical Approach

8.	**Kentucky Health Information Exchange (KHIE) and Electronic Health Records** *(Section 17 Kentucky Health Information Exchange, Section 18 Electronic Health Records)*

As a national health plan and an industry leader in interoperability, our goal is to facilitate data sharing by collaborating at national, state, and provider levels to reduce provider abrasion and increase the quality of care for our Enrollees.

A key foundation to enable interoperability is having providers utilize Electronic Health Records (EHR). Humana is committed to increasing the adoption of EHRs by all healthcare providers and also building upon connectivity to Health Information Exchanges (HIE) to enable care coordination. We address providers' barriers to EHR adoption and HIE usage with both technical and financial support. **Humana is committed to investing $500,000 to promote EHR adoption and increase connectivity to the Kentucky Health Information Exchange (KHIE)**. These funds will be targeted to providers serving high volumes of Medicaid Enrollees, those in isolated rural communities, and/or those offering behavioral health (BH) services. We have a partnership with the Regional Extension Centers (REC) to ensure these funds are leveraged to assist providers demonstrating the greatest need. We are enhancing our understanding of provider connectivity by collecting EHR information when providers are brought on board and during quarterly site visits. We will work with KHIE to understand which providers are connected and develop outreach efforts to non-connected providers.

> "
> **Interoperability gives doctors and other clinicians a complete view of the patient's medical history, which increases the personalization and timeliness of care interventions. It represents a powerful, exciting and positive change that's good for consumers, their health, and all of us who are innovating to make this happen.**
> "
> – Bruce Broussard, CEO, Humana

To advance interoperability in the industry, we work alongside government agencies and Health Information Technology (HIT) vendors to create national data standards that allow for accelerated and seamless information sharing. By partnering with states and their respective HIEs, we support the vision of statewide interoperability.

At the national level, **we are a founding member of the industry-driven DaVinci Project, which is tasked with accelerating the adoption of HL7® FHIR ®, which enables payers and providers to improve clinical, quality, and care management outcomes**. Humana's established relationships with eight of the top EHR vendors allow us to build direct connections with providers that streamline their daily workflows by developing electronic versions of administrative and clinical requirements. We abide by the latest Trusted Exchange Framework and Common Agreement (TEFCA), which enables electronic health information (EHI) to securely follow the patient when and where it is needed and supports scalability of data sharing nationwide. We support eHealth Exchange, which connects 61 regional and/or state HIEs and approximately three-quarters of U.S. hospitals.

At the State level, we promote interoperability with and among our providers, State Medicaid programs, and State HIEs. Since 2014, Humana has been collaborating with 11 State HIEs to build Admission, Discharge, and Transfer (ADT) connectivity. Currently, we have six additional HIE builds underway, and our Health Information Technology team has been in conversations with KHIE regarding a path to connectivity.

In summary, we intend on applying our enterprise-wide health information technology expertise to benefit our Kentucky Medicaid Managed Care (MMC) program by:

1) Enhancing our Provider Relations processes, including onboarding, training and education, and monitoring of contracted providers, to incorporate EHR usage and KHIE connectivity
2) Advancing interoperability and connectivity by directly connecting to provider EHRs and working with providers to improve connectivity to KHIE

3) Investing in Kentucky's HIT infrastructure by supporting providers by offering financial incentives to adopt or improve EHR usage and/or establish KHIE connectivity

4) Collaborating with Kentucky's RECs to improve interoperability and EHR adoption, particularly with rural providers and BH providers

a.	Describe strategies and incentives the Vendor will implement to encourage provider adoption and use of electronic health records that result in improvements in the quality of care for Enrollees and cost of health care services.

STRATEGIES AND INCENTIVES TO IMPROVE EHR ADOPTION IN KENTUCKY

Our EHR adoption goals for the MMC program in Kentucky are twofold: 1) maximize the number of contracted providers that are using EHR systems, and 2) optimize the breadth and depth of EHR connections with Humana, particularly for data that enable the delivery of high-quality care to Medicaid Enrollees. Our interactions with Kentucky providers, borne out by a systematic review of research on this topic (Kruse et al, 2016)[1], show that cost is the primary barrier to EHR adoption, followed by lack of technical support, technical concerns, resistance to changing work habits, maintenance/ongoing costs, and lack of training. Our multi-part strategy for increasing EHR adoption directly addresses these barriers.

> "**This transformative relationship [with Humana] brings together the provider, the payer, and the patient in new ways so they're all working from the same playbook. The relationship is also about aligning information to reduce the administrative burden on providers and improve quality and transparency for patients.**"
>
> - Alan Hutchison, Vice President of Population Health, Epic®

Targeted Outreach and Financial Assistance

Humana educates all our providers about the importance of using EHRs via our Provider Manual, Medicaid orientation training, and our secure provider portal, Availity. We provide targeted outreach to providers who are currently not operating EHRs or have inadequate EHRs. On the initial site visit to a provider's office, our Provider Relations Team will record the type of systems used, the vendor and EHR model/version, and any problems the provider has had with the use of the system.

For those providers lacking EHRs or using inadequate systems, the Provider Relations Team will identify specific provider needs that could be addressed through a financial award from Humana's EHR Adoption/KHIE Connectivity Fund. As mentioned earlier, we have set aside $500,000 over the course of the Contract period to be used to assist providers with EHR adoption and KHIE connectivity. In determining those providers eligible for financial awards, we will prioritize those providers with inadequate or non-existent EHR systems serving high volumes of Medicaid Enrollees and those in high need areas such as isolated, rural communities. Additionally, we will prioritize BH providers and providers who have integrated BH and physical health and have inadequate or nonexistent EHRs.

Provider Relations Team Support

Our Provider Relations Team will assist eligible providers in applying for awards from the fund. In the course of their routine site visits, the Provider Relations Team will certify that those providers in receipt of an award are using the funds for the intended purpose and assist with any EHR issues the provider may be experiencing. Humana Provider Relations representatives will also promote the use of Humana's proprietary provider performance management platforms Availity and Population Insights Compass (Compass), which Humana has developed to transmit and display information concerning care received by Enrollees. These platforms assist providers in in key areas:

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[1] Kruse, C. S., Kristof, C., Jones, B., Mitchell, E., & Martinez, A. (2016). Barriers to Electronic Health Record Adoption: a Systematic Literature Review. *Journal of medical systems*, *40*(12), 252. doi:10.1007/s10916-016-0628-9

Availity eases administrative burden through streamlined prior authorization (PA) and claims submission and management, while Compass guides providers through quality improvement opportunities such as identifying Enrollees who are due for preventive care, have gaps in care, show patterns of inappropriate use of the emergency department (ED) or prescription drugs, or are not receiving the care needed to manage chronic conditions. We will offer training and technical assistance to providers and their staff who need assistance in using these platforms.

Partnering with Regional Extension Centers

We also will support the outreach and education activities of RECs concerning interoperability and EHR adoption to Kentucky providers. The work performed by the Commonwealth of Kentucky's RECs closely aligns with Humana's need to support providers adopting EHRs. The RECs, funded by the Commonwealth and managed through the University of Kentucky (UK) HealthCare system, employ HIT experts to help provider organizations, including hospitals, critical access hospitals, Federally Qualified Health Centers (FQHC), rural healthcare providers, and 2,000+ primary care practices.

RECs have agreed to partner with us to facilitate EHR adoption by provider practices across the Commonwealth regardless of whether they are Humana-contracted practices. Through the activities of the RECs, we will encourage those practices considering EHR to participate in a mock audit, which is an initial preparatory step sponsored by RECs for practices considering EHR adoption. Additionally, we will collaborate with RECs and provider practices to identify common problems and solutions to EHR adoption. For those providers with high concentrations of Medicaid patients, we will work with RECs to leverage State and federal funds to enable EHR adoption.

> In June 2019, Humana and Epic announced a partnership through which we will share technologies to give patients and their practitioner's integrated and real-time access to patients' medical history, health insights, and treatment options and real time prescribing information.

OUR COMMITMENT TO DATA EXCHANGE THROUGH EHRs

Humana's Health Information Technology team is dedicated to facilitating the bidirectional exchange of clinical information between key external and internal stakeholders. In 2019, the team updated our corporate EHR data strategy and established a vision centered on building robust connections with EHRs that provide clinically meaningful data to providers in real time, thereby enhancing care coordination and quality while reducing administrative burden for providers.

Through this process, the HIT team compiled an inventory of Humana enterprise use cases to identify a common set of needs for inbound data access and workflow integration; validated, refined, and proposed additional use cases to consider based on market research; and evaluated interoperability solution mechanisms against their ability to deliver for enterprise use cases. These use cases are enabled by our ability to directly connect and build out capabilities with EHR companies. The following table provides a summary of the current use cases identified by the team. We will build on these to achieve the vision outlined above.

Table I.C.8-1: Current EHR Use Cases Enabled By Humana Systems

Mode	Use Case
Inbound Data Access	**Medical Records:** (authenticated and non-authenticated): Where options exist, EHR networks represent the most scalable options for accessing data, followed by third parties.
	ADT Notifications: Largely, HIEs are the primary source for accessing ADT data, with a slow transition to EHR vendors and a growing portfolio of third-party payers.
	Targeted Clinical Data & Measures: (e.g., labs, medications, radiology, etc.): There are limited solutions for supporting more real-time, event-driven interoperability (e.g., real-time notification when the medication list updated); however, third parties support certain use cases.

	Scheduling and Administrative Data & Insights: Direct-to-Provider EHRs and third-party vendors tend to support fairly standard feeds for communicating information surrounding patients' appointments; meanwhile, a growing number of EHR vendor networks are beginning to offer access to these data.
Humana-Provider Workflow Integration	**Gaps in Care & Coding:** Where options exist, EHR vendor networks have developed solutions for integrating care, coding gaps, and capturing provider feedback within the EHR; a number of the third party and SMART on FHIR solutions also exist.
	Comprehensive Health Record (CHR): Several EHR vendor networks have started to carve-out dedicated spaces in the EHR to natively launch and present payer-based Enrollee summaries.
	Prescription and Medical Alternatives & Transparency: E-prescribing and other third-party vendors provide solutions for presenting alternatives at the point of order entry; in some cases, solutions can be deployed through EHR vendor networks.
	Authorizations & Referral Insights: Third parties and EHR vendor networks represent the most viable options for streamlining authorizations and delivering referral insights.
	Clinical Decision Support (CDS): There is a well-supported and growing market of third-party vendors offering decision support solutions for specific use cases, some of which have been widely deployed into EHRs through app stores [e.g., Aunt Bertha in Epic for Social Determinants of Health (SDOH)].

From October 2018 to September 2019, Humana experienced more than 40.6 million transactions with EHR vendors and HIEs on behalf of providers located in Kentucky, the remaining 49 states, and the District of Columbia. This high level of connectivity has increased the number of notifications to providers on Enrollee admissions and service utilization, led to gap in care closures, and improved our ability to report on services our Enrollees received. Most importantly, it enhanced the Enrollee's quality and timeliness of care. We aim to achieve similar results for Kentucky Medicaid Enrollees through our relationships with EHR vendors and third-party integrators.

We have configured technology to align with the HL7 FHIR® standards and have built application programming interfaces (API) to support real-time data exchange with our providers. We maintain bidirectional data sharing with providers via connections with EHR systems; State HIEs; and material Subcontractors who submit data on dental, vision, BH, and nurse hotlines. **These transactions include, but are not limited to ADT, Continuity of Care Documents (CCD) (C32, C62, CCDA), and images. We also support providers' performance on Healthcare Effectiveness Data and Information Set (HEDIS) measures by providing current and actionable data reporting via Humana's proprietary platform Compass.**

Table I.C.8-2 Electronic Health Records (EHR) Vendors

EHR Vendor	Chart Retrieval	Pharmacy	Hospital Notifications	PBHR + Insight Integration	PAF
Allscripts® (Veradigm)	●	○	○	○	○
Athenahealth®	●	●	○	○	○
eClinicalWorks®	●	◔	○	◔	●
Epic®	●	●	◔	◔	●

EHR	Col 1	Col 2	Col 3	Col 4	Col 5
GE Healthcare®		○	○	○	○
Practice Fusion® via Veradigm	◐	○	○	○	○
NextGen® via one-fifth	◐	○	○	○	○
Cerner (via Moxe)	●	○	○	◐	○

KEY:	● In Production	◐ In Progress	○ Evaluated: No Capability

Chart Retrieval: Humana receives encounter records for the purpose of health plan operations, either via a request/response process or automatic feed based on payer identifier in the EHR.

Hospital Notifications: Humana receives ADT notifications that allow Humana to know, in near real-time, the activity of Humana Enrollees in participating facilities. These notifications support care management and authorization management processes.

Payer-Based Health Record (PBHR) and Insight Integration: Humana delivers a clinical summary with insights of an identified Enrollee to a provider, intended for use at the point of care to support care decisions. These summaries include lab results, prescription history, and hospitalizations.

Pharmacy Integration: Humana can deliver real-time prescription drug coverage and patient cost information with lower-cost alternatives and mail benefit information, as well as real-time care alert integration. Humana also allows for electronic pharmacy prior authorization (PA) submission within an EHR order entry.

Practitioner Assessment Forms (PAF): Humana is working with EHRs to develop PAF templates and connections to allow for the Centers for Medicare and Medicaid Services' (CMS) annual form to be completed by the provider (and delivered to Humana) in a more effective fashion by transitioning from a paper/fax model.

PROMOTING VALUE-BASED CARE THROUGH EHRs

The insertion of additional clinical data into Compass affords payers and providers a complete picture of whom they are treating and the ability to identify trends, opportunities, and potential problems. An effective EHR is a critical element for participation in value-based payment (VBP) arrangements because EHRs greatly ease the administrative burden of selecting and extracting relevant data from practice management systems. We have assisted providers in selecting HEDIS measures, listed in the table below, to close out through our gathering of Consolidated Clinical Document Architecture (CCDA) data from EHR Subcontractors and third-party integrators.

Table I.C.8-3: HEDIS Measures Populated via EHRs

2019 HEDIS Measure	Description
ABA	Adult BMI Assessment
ART	Disease-Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis
BCS	Breast Cancer Screening
CBP	Controlling High Blood Pressure
CBP-Setting	Controlling High Blood Pressure - Setting
CDC-Eye	Comprehensive Diabetes Care - Diabetic Retinal Screening
CDC-HbA1c	Comprehensive Diabetes Care - HbA1c
CDC-Neph	Comprehensive Diabetes Care - Nephropathy
COA-ACP	Care of Older Adults - Advanced Care Plan
COA-F	Care of Older Adults - Functional Status Assessment
COA-M	Care of Older Adults - Medication Review
COA-P	Care of Older Adults - Pain Assessment
COL	Colorectal Cancer Screening
MRP	Medication Reconciliation Post-Discharge

Table I.C.8-3: HEDIS Measures Populated via EHRs

2019 HEDIS Measure	Description
OMW	Osteoporosis Management in Women who Had a Fracture
SPC	Statin Therapy for Patients with Cardiovascular Disease

b.	Describe strategies for requiring participants to establish connectivity to the Kentucky Health Information Exchange (KHIE) for a minimum of:

b.i.	**Providers**: applicable public health reporting

Our Provider Relations Team in Kentucky completed an analysis of non-hospital provider groups contracted to Humana and connected to KHIE. We found that approximately one third of the 39 FQHCs contracted to Humana are connected to KHIE; fewer than one fifth of the 66 Rural Health Clinics (RHC) contracted to Humana are connected to KHIE; and, of 120 counties, 24 do not have connectivity with KHIE, including Allen, Ballard, Bourbon, Breckinridge, Carlisle, Edmonson, Fulton, Gallatin, Hancock, Henry, Hickman, Jackson, LaRue, Letcher, Lewis, Lyon, McCreary, Monroe, Owsley, Robertson, Todd, Trimble, Wolke, and Woodford.

Based on this analysis, we have developed a multi-part campaign to encourage or induce providers to connect with KHIE. The Provider Relations Team, which has direct contact with providers through site visits and other outreach, will lead a multidisciplinary group within Humana that will draw from units responsible for information system interoperability, provider training, and population health. There are six key elements of this campaign:

1. Our initial push will be in those counties where there is currently no KHIE connectivity. As described previously, **we will make awards from the Humana's EHR Adoption/KHIE Connectivity Fund to those providers who do not have KHIE connections and are serving high volumes of Medicaid enrollees**. Our Provider Relations Team will exchange information with KHIE on a regular basis to identify providers who lack KHIE connectivity.

2. We will build upon the existing practice of contracted providers submitting immunization data to the Kentucky Immunization Registry via KHIE. As such, we will first ensure that all Humana-contracted providers participate in this process and supply technical assistance to those providers who need help in making this vital connection.

3. We will improve the accuracy of immunization data by requesting a separate feed of immunizations records from the Kentucky Immunization Registry and matching that information against claims history and clinical information from Continuity of Care Document (CCD) and EHR data feeds. We will report data to the Kentucky Immunization Registry to support accuracy. **Humana is entering into a Business Associate Agreement (BAA) with the Kentucky Immunization Registry to allow for data connectivity**.

4. We will provide additional use cases demonstrating the value of HIE connectivity for improving continuity of care, reducing gaps in care, capturing data used for HEDIS measures, and receiving event notification. We will broadly disseminate this information to contracted providers.

5. We will liaise with the EHR vendors that provide services to the majority of Kentucky providers and with whom Humana has long-standing relationships in order to identify and resolve any technical barriers to KHIE connectivity.

6. For those providers who do not have EHRs and do not intend to get one, we will ensure that they comply with Section 17.1 of the Draft Medicaid Contract by signing a Participation Agreement with KHIE and signing up for Direct Secure Messaging to enable the exchange of clinical information with other providers. Our Provider Relations Team will work with KHIE to obtain a monthly list of providers who have Participation Agreements in place. For those who do not, the Provider Relations Team will educate them on the Participation Agreement process and contract requirement.
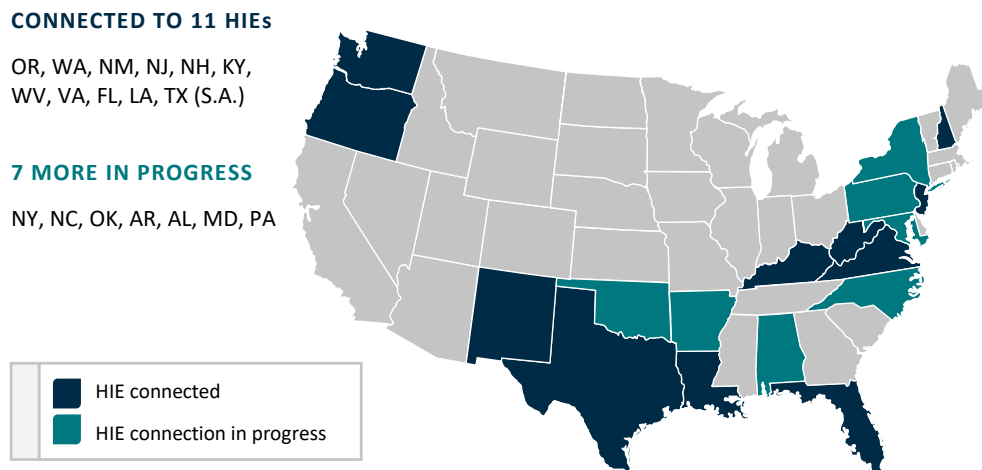
b.ii.	**Hospitals**: applicable public health reporting and Admit Discharge Transfer (ADT's).

Of the 58 hospitals under contract to Humana in Kentucky, 25 currently submit ADT data to KHIE. We are updating our contracts with each of these hospitals to ensure that each is contractually bound to have connectivity with KHIE to enable transmission of ADT data and other applicable public health reporting. Kentucky administrative regulations require that hospitals report the following public health data through KHIE: immunizations, syndromic surveillance data, cancer diagnoses, advance directive documents, and laboratory results for certain infectious diseases.

Associates of our HIT team, specialized in interoperability, have met with KHIE to identify potential technical roadblocks to expanding provider connectivity. We will be working with the Kentucky Hospital Association (KHA) and its E-Health Technical Advisory Committee to gain hospital perspectives on barriers to KHIE connectivity. Based on this information, we will develop packages of education and targeted technical assistance, which we will deliver in collaboration with KHA and its member hospitals.

As part of the contracting process with each hospital, we will seek to understand the reasons they have not yet connected to KHIE or any difficulty they may be experiencing if they are connected. If the reason is related to technical compatibility with KHIE systems, our HIT team (which has broad HIE experience across the country, including with KHIE) will provide advice on solutions that meet the needs of KHIE and the hospital. If the issue is a lack of understanding of the use case, we will educate the hospital on the value of HIE connectivity resources based on our considerable experience. In certain circumstances, such as small, rural hospitals, we will consider making financial awards to hospitals to assist with establishing KHIE connectivity. **By the operational start date, all hospitals under contract to Humana will have connectivity with KHIE**. Humana will work with EHR vendors concerning our connectivity with hospitals for the exchange of ADT data. The following map demonstrates our connectivity to HIEs across states.

Figure I.C.8-1: Health IT Notification Footprint

CONNECTED TO 11 HIEs

OR, WA, NM, NJ, NH, KY, WV, VA, FL, LA, TX (S.A.)

7 MORE IN PROGRESS

NY, NC, OK, AR, AL, MD, PA

■ HIE connected
■ HIE connection in progress

In addition, based on our experience in other markets, we feel we could benefit hospitals and the Medicaid program as a whole by having direct connectivity between Humana and KHIE. Some of the use cases we have been able to demonstrate by connecting HIE data with our integrated clinical platform, Clinical Guidance eXchange include:

- Automatically updating authorizations with discharge information from the ADT feed
- Automatically generating referrals for post-discharge outreach
- Using ADT in real time to coordinate with hospitals to transition members to appropriate level of care (home health, skilled nursing facility, etc.)
- Using ADT data to send alerts to the Primary Care Provider (PCP) when an Enrollee discharges enabling the PCP to schedule follow-up appointments

With the establishment of Humana connectivity to KHIE, we can monitor hospital compliance with the requirement to submit data to KHIE, identify noncompliance, and troubleshoot hospital connectivity issues.

c.	Provide a description of initiatives and incentives to encourage adoption of electronic health records and information exchange.

Humana understands the value of EHRs and information exchange in informing providers of gaps in care in real time, enhancing medical records to ensure a comprehensive understanding of Enrollee health, and alerting providers to medical care already received by Enrollees to avoid unnecessary care. The impact of these improvements in information sharing is better health for our Medicaid Enrollees. **Table I.C.8-4** provides a summary of the initiatives and incentives we are deploying to encourage the adoption of EHRs and information exchange.

Table I.C.8-4: Initiatives and incentives to encourage the adoption of EHRs and HIE

Initiative/Incentive	Goal	Plan
Provider EHR Usage and Adoption Program	Humana seeks to ensure that contracted providers have adopted and are making optimal use of EHRs	• Enhance site visit verification of providers to include EHR status and promotion of EHR adoption • In collaboration with RECs, educate providers on the value of EHR, especially as it relates to quality of care • Provide technical assistance on use of EHR-enabled tools such as Availity and Compass • Make financial awards to high need/high volume providers with no/inadequate EHR usage • Conduct quarterly site visits to PCPs and high volume specialists to confirm the use of funds (if applicable) and provide technical assistance on EHR usage
Connectivity to KHIE	Humana will assist providers in establishing a connection to KHIE	• Offer financial assistance to high need/high volume providers lacking KHIE connectivity • Ensure providers are sending immunization records to the Kentucky Immunization Registry via KHIE • Improve accuracy of immunization data via the data enhancement agreement with the Kentucky Immunization Registry • In collaboration with RECs conduct education campaign on KHIE • Liaise with EHR vendors to assist with KHIE connectivity • Ensure Direct Secure Messaging is in place for those with no EHR connectivity • Contractually require hospitals to have KHIE connectivity • Offer financial incentives to certain small, rural hospitals • Promote hospital connectivity to Humana • Work with other MCOs and KHIE to establish MCO connectivity to KHIE
Provider Education on Health Information Technology-Sponsored Events	Improve understanding of EHR adoption and KHIE connectivity among providers throughout the Commonwealth	• Provide support to RECs to organize and sponsor two annual educational events supporting public health data sharing and how to connect and work with KHIE • Include information on the value of KHIE and EHR on the provider section of our public website and opportunities for targeted technical assistance on our secure provider portal, Availity