QUESTIONS AND ANSWER FOR FHIR SYSTEMS-INTEROPERABILITY AND PATIENT ACCESS

1. What is the desired timeline for testing and go-live for this initiative? KHS will follow the selected vendor timeline for testing and implementation. KHS will need to be in production by Summer of 2021.

2. Will the selected vendor be required to retain associated data or will KHP utilize an in-house data warehouse or 3rd party data warehouse vendor? KHS maintains a data warehouse and stores ten (10) years of data. The selected vendor will not need to maintain data except to meet the FHIR API Standards.

3. If with the selected vendor, how long would the date need to be retained? Data will not need to be retained by the vendor.

4. If the vendor does not provide the service described in section 2 - API 3rd Party Onboarding Services (If Services are Available), how will Kern address this requirement? KHS has not decided on outsourcing the onboarding services and asked that this be included in the RFQ (if available) to perform a cost analysis.

5. Does Kern desire a hosted or on-prem solution? Please quote both solutions if available. KHS has not made a final decision as to hosted or on-prem.

6. How many PCP providers make up 80% of KHS' billings? 33 PCP's make up 80% of billings.

7. How many inpatient facilities makeup ~80% of KHS' billings? 5 Inpatient facilities make up 80% of the Inpatient billings.

8. Do you have your own care management team? If so, how many of them are there? 9 teams.

9. What is the demographic age distribution of your member population? Children (129K); Adults (133K) and Seniors (8K).

10. Please describe the contractual relationship between KHS and network providers in terms of risk-sharing, value-based contracts, the fee for service engagements, etc., including MLR performance and volume of patients/providers under risk-sharing arrangements? KHS has a variety of contractual relationships with its provider network and maintain a significant portion (90%) in Fee for Service capacity. KHS does offer a P4P program to incent providers to perform preventative care.

11. Does KHS already have any clinical EMR data integrations with their provider network? If so, please describe? Please also share the details for ADT feeds that the vendor would be expected to integrate. For example, how many different feeds, and what frequency would be most desirable for ETL? KHS has several Health Homes where clinical data is

exchanged in a delimited/fixed length file format. KHS will transform any data into the FHIR vendor specification to be included in any customer facing API's.

12. What systems currently in use (+ legacy / archived) will need to be exposed? Is the intent to migrate and update multiple different systems' data into a centralized data warehouse, processed into a master patient index schema, then expose this as the API source of truth, or does KHS already have a mapped, organized EDW? KHS already has an Enterprise Data Warehouse (EDW) and Operational Data Store (ODS) in place to extract either the data for transport or establish a view for an API.

13. Does KHS have an existing relationship/preference with a cloud hosting vendor they wish to leverage? If yes, which one? Currently, KHS uses the Microsoft Azure cloud for archive and disaster recovery.

14. Could you please specify the customer portals and 3rd party applications that will be in scope for the anticipated RFQ? KHS will develop integrate the KHS (HealthX) provider and member portal with the vendor selected FHIR solution. Also, KHS intends on reviewing a few major 3rd party application that will work with FHIR solution. The selected vendor will need to support the onboarding of these solutions as it would in the normal course of business.

15. Please list the names and instances of source systems for medical claims and encounters. KHS manages the Cognizant QNXT core claims system and the ZeOmega medical management system. Additionally, KHS has HL7 transactions with 90% of the laboratory results, CAIR Immunization Registry, and EMR data from several Health Homes. KHS aggregates this data into its Operational Data Store (ODS) and Enterprise Data Warehouse (EDW).

16. Does KHS have a single drug formulary or multiple ones across several contracts/lines of business? KHS has one drug formulary.

17. If this service is not available from the prime vendor response, is it acceptable to coordinate with a 3rd party as part of the response? KHS will accept 3rd party coordination.

18. Please describe what analytics and reporting systems are in place, a list of those reports, and the frequency at which reports are generated? KHS maintains a Business Intelligence Department to mine and analyze its data repositories. KHS uses several tools including PowerBI, Business Objects, and Excel.

19. Is KHS' preference for a capital expense model with a high initial outlay and smaller incremental run out for the term of the agreement, or an op-ex model with predictable monthly/quarterly / semi-annually / annually made payments, or milestones during implementation and build-out? KHS reviews the total cost of the contract over a 3-5 year model and will use the aggregate cost in its final decision-making.

20. We understand that CMS has moved the deadline for audit-worth performance under these interoperability requirements that have been moved to July 1, 2021. Is it KHS's intent to have an operable system by the original timeline of January 1, 2021? KHS is aware of the new enforcement deadline of July 2021, and will work with the selected vendor to test and implement to complete work by summer of 2021.

21. Based on the RFP FHIR document, bidders only need to respond to the KHS'.agreement PSA document once they have been selected as the successful bidder. Please confirm this is correct. KHS will work with vendors on contractual agreements, and KHS prefers using its Professional Services Agreement (PSA) as it has been approved by DHCS.

22. Please provide a technical landscape of your data points (QNXT, portals, Argus PBM, etc)? QNXT, JIVA, HL7 laboratory results, CAIR immunizations, Health Homes EMR data, John Hopkins Risk Modeling, HEDIS/MCAS.

23. How many members are active in your portals today? Approximately 10K lives.

24. Do you anticipate replacing your portals as part of future enhancements? Not at this time.

25. Have you conducted an assessment and made future state decisions for data aggregation strategy, data governance, privacy and security policy remediation and 3rd party/partner impact, patient engagement strategy and compliance operations? No.

26. Have you conducted data discovery to evaluate the sources of records and systems impacted by the interoperability mandate? If yes, what level of FHIR standards data mapping has been done- system-level or field level data mapping? Currently, KHS is mapping data to the CARIN format to evaluate all sources.

27. What aspects of highly-sensitive (behavioral, substance abuse, HIV/AIDS, etc.) data labelling or tagging do you already have in place? KHS does not have tagging in place for these data sources but manages HIV/AID information separately.

28. Have you already performed an analysis of the full breadth of the access controls including both those governed by HIPPAA and flowing through BAAs and those governed by interoperability and flowing through consent from patients and their personal representatives? No.

29. Do you have an existing API gateway? Is there a requirement for 3rd party Identify provider integration? KHS has integrated with API's on various internal platforms (i.e. Jiva, QNXT). The 2nd part of the question needs more context.

30. Do you allow Offshore resources to work on implementation? Are there any restrictions for PHI data? Offshore resources can work on the implementation as long as KHS data is not transported outside the United States.

31. Is KHS looking for assistance in developing business readiness for interoperability as part of this RFQ or just the integration of the functionality defined in attachment A? As part of the project, KHS will be developing business readiness and will not need the vendor to provide these services.

32. Have the sources of data been identified that will be needed to integrate with the solution (claims data, member data, provider data, formulary data, etc.) A. What level of mapping to the USCDI has been completed for the existing clinical data? B. What level of mapping to the CPCDS has been completed for claims/encounter data? C. What are the database technologies that the solution must integrate/interact with? KHS maintains very little of the USCDI format, and is currently analyzing its data repositories for CARIN and USCDI. KHS uses Microsoft SQL Server for all of its data reporting and 3rd party systems.

33. Has KHS identified an 'on prem' location to house incoming directed member data? KHS manages an Operational Data Store (ODS) and Enterprise Data Warehouse (EDW) where all data is aggregated.

34. Does KHS have a means to uniquely identify members or will that be needed as part of the solution? KHS has a unique identifier on all members.

35. What expectations and requirements are there for solution testing? KHS will look to the selected vendor for a recommendation, and as with any system KHS will undergo standard Development, UAT, and Production testing as the system is being implemented.

36. Will KHS be providing test data? Yes, the data is not deidentified.
37. What engineering resources do you have?
    a. DBAs - Yes, 7.
    b. Network administrators – Yes, 2.
    c. Software developers – Yes, 5
    d. Data Scientists - Yes, 5.

38. What other interoperability-related business needs besides compliance with the CMS rule do you have? KHS has many needs, and all of the listed are of interest, but this RFQ is for the compliance of the CMS rule.
    a. Health record exchange with providers
    b. Creation of an ecosystem of 3rd party solutions
    c. Data analytics
    d. Other (e.g. aggregating SDOH info, patient-reported data, etc.)

39. What is your implementation preference?
    a. Implement a platform with minimal involvement of your organization's engineers

b. Implement a platform by a "hybrid" team of your and Samurai's engineers to receive extensive training for your engineering team

40. What education/training for your team would you like to receive?
    a. General education about FHIR and the CMS rule
    b. Training to maintain and monitor API solution
    c. Training to develop software solutions on top of FHIR API
    d. Other

    KHS expects that any training to manage the solution will be provided by the selected vendor in either a collaborative implementation, or formal session, to ensure that a proper operational handoff to KHS occurs.

41. Is your IT infrastructure in the cloud (AWS, GCP, Azure, etc) or on-premises, or hybrid?
    We have a couple solutions in a private cloud, Azure for our DR/BC, and mostly on-premises with a hyper-converged infrastructure with VMWare and Nutanix.

42. Where do you want to host a FHIR platform?
    a. Aidbox cloud
    b. Your on-premises data center
    c. Your virtual private cloud in AWS, GCP, or Azure

    KHS has not made a final decision on the location.

43. What clinical data do you maintain? (USCDI) KHS maintains very little of the USCDI format, and is currently analyzing its data repositories for CARIN and USCDI.

44. What IT solutions do you have that can be used as sources for any of the data below (E.g., X12 EDI 837/835 logs, HL7 v.2 logs, Data Warehouse, System with API, etc.):
    KHS has the EDIFECS system, on premise, for all of its standard data transformations (i.e. 837, 835, 820, HL7, etc.).

45. Do you know if these IT solutions have APIs? What APIs? Do you have all the logs of X12 EDI 837/835? KHS currently exposes the 270/271 X12 transaction for real-time consumption by providers via API. This is done through the Edifecs platform.

46. Does this source have all the data for this dataset (since Jan 1, 2016 for claims and maintained clinical data)? No. Not all data comes to KHS in a standard format, but KHS does aggregate this data into its Operational Data Store (ODS), and Enterprise Data Warehouse (EDW).

47. Does it receive data timely? (within 1 business day except for provider directory). KHS receives data from a variety of sources on different schedules. KHS does replicate all core system data into the KHS Operational Data real-time.

48. How easy to extract data from the data source? (API, ETL, etc) Provider directory, Drug formulary Claims & encounters, Clinical data (USCDI), alphabetic order, Allergies, Care Plans, Care Team, Clinical Notes, Goals, Imagining Notes, Immunizations, Implantable

Devices, laboratory results, Medications, Patient Demographics, Problems, Procedures, Smoking Statuses, Vital Signs (Including Pediatric**)** KHS maintains very little of the USCDI format, and is currently analyzing its data repositories for CARIN and USCDI.

49. Do you have an OAuth Server (perhaps integrated with your member portal)? Yes, currently KHS leverages SSO with a variety of solutions and manages the authentication server.

50. Which company provides your member portal? HealthX

51. Can you share details about technologies behind the member portal? The HealhX portal is hosted by HealthX on a private cloud. KHS has developed and hosts C# .NET applications that Single Sign On (SSO) with the HealthX portal.

52. What are the different data sources at KHS that will help support the CMS IPA Rule data requirements? (Claims, Clinical, provider, Pharmacy). KHS manages the Cognizant QNXT core claims system and the ZeOmega medical management system. Additionally, KHS has HL7 transactions with 90% of the laboratory results, CAIR Immunization Registry, and EMR data from several Health Homes. KHS aggregates this data into its Operational Data Store (ODS) and Enterprise Data Warehouse (EDW).

53. Are we able to receive a high-level solution architecture that includes relevant data sources, technology stack and deployment platform (Cloud, On-Prem) of your current environment? No. KHS is a Microsoft centric technology shop, managing a data center using VMWare and Nutanix infrastructure on Juniper routing and switching. KHS has redundant fiber connectivity to the Internet with all typical InfoSec practices.

54. What is the current volume of Membership at Kern Health? What is the anticipated Membership volume growth over next 3 years? KHS has approximately 265K lives, and would not expected growth past 300K lives.

55. The RFQ mentions USCDI and CARIN as required source data formats. Are there additional source data formats that KHS expects to have as part of the scope? KHS manages the Cognizant QNXT core claims system and the ZeOmega medical management system. Additionally, KHS has HL7 transactions with 90% of the laboratory results, CAIR Immunization Registry, and EMR data from several Health Homes. KHS aggregates this data into its Operational Data Store (ODS) and Enterprise Data Warehouse (EDW).

56. If you are considering a cloud-based implementation, is there any preference for Cloud Vendor (Azure/ AWS/ GCP & PaaS/SaaS)? Azure.

57. Is there an enterprise wide authentication and authorization mechanism currently in place? If yes, can you share its characteristics at high level? KHS uses Active Directory for most of its system authentication and role-based security.

58. What are the known internal and external systems, such as existing customer portals, that would make calls to the FHIR API services? KHS will develop and interface for the existing KHS portals to access the FHIR API.

59. What is your current approximation for the number of FHIR API calls per hour? KHS does not have enough data to answer this question.

60. How many environments would be accessible/available to vendor? (i.e. DEV, TEST, UAT, PROD) KHS maintains a minimum of Production and Test, depending on licensing costs, and prefers to have all four Development, Test, UAT, and Production.

61. What tools do you currently have available for patient matching? (e.g. Master Data Management (MDM), Master Patient Index (MPI/EMPI)) KHS has a unique member ID for all clients.

62. If opting for a hosted solution, what is the expected scope of work for the vendor for ongoing testing and monitoring? KHS has a sophisticated technology team and will manage the FHIR solution as per the vendor requirements. KHS expects the vendor to manage any normal support and maintenance as contracted.

63. Is there an existing data aggregation platform in use at KHS? If so, please share pertinent details. KHS manages an Operational Data Store (ODS) and Enterprise Data Warehouse (EDW). The system leverages the Enterprise Microsoft SQL Server.

64. Is there an existing interface engine in use at KHS? No.

65. Are there existing reporting and analytic tools that are envisioned to be used to analyze FHIR API utilization? KHS will consume any raw data from the FHIR vendor to be incorporated into the KHS Operational Data Store (ODS). The KHS Business Intelligence Department will use this raw data with clinical data and other engagement data to develop any correlations and analytics. KHS uses tools such as Excel, PowerBI, and Business Objects.

66. What is the desired file format for final RFQ response? (excel, word, pdf) Any of the three mentioned.

67. Does KHS have an existing FHIR Server? No.

68. Does KHS have an existing Identity and Access Management system which should be leveraged for this solution? No. KHS uses Active Directory for most of its system authentication and role-based security.

69. What details can you share about your existing customer/provider portal? The HealhX portal is hosted by HealthX on a private cloud. KHS has developed and hosts C# .NET applications that Single Sign On (SSO) with the HealthX portal.

70. Is there a need to create a separate FHIR repository at enterprise level? This will depend on the FHIR solution procured.

71. Will there be need to de-identify/ encrypt sensitive data elements in the FHIR Repository? No.

72. Is there any preferred API management tool that is being used at the enterprise level? Will there be a preference for one an a going forward basis? No and No.

73. What is the of data aggregation strategy at KHS (API, File, Batch, Real time streaming, etc.)? Would it be push or pull operations? KHS has a variety of engagements that fall under all of the mentioned strategies. KHS will work with the vendor to leverage the normal design of the FHIR solution.

74. Is it safe to assume that data quality checks and possibly data standardization rules will be required during the process of ingestion of data from another health plan? Yes, that is correct.