

**CMSS CDC Award: Specialty Societies Advancing Adult Immunization**

*Data Management and Analytics Firm Request for Proposals (RFP):*

**Bidder Questions and Responses**

Question Number	Section and Page #	Question	Response
1	Activity 1, p.2	In the Cooperative Agreement between CMSS and the CDC, does the agreement state the Security Risk Level: Low, Medium, or High? If so, please provide that Risk Level.	The Cooperative Agreement between CMSS and CDC does not state the Security Risk Level.
2	Activity 1, p.2	Does CMSS expect the system to be hosted by the CDC, CMSS, or the selected contractor?	CMSS expects that the vendor will host the system.
3	Activity 1, p.3	Can you provide an estimate on the volume/number of records and frequency by which data will need to be collected from the health systems?	We do not have an estimate of the volume of records. However, among the first group of 25 health systems approved to participate in the project, the target patient population size varies from 113 patients to over 90,000 patients on an annual basis. Each system will determine whether they will submit data from a sample of patients via manual abstraction and/or all patients via electronic

Question Number	Section and Page #	Question	Response
			<p>extraction. We are in the process of further refining the data collection process with the systems now and the vendor will be actively involved in these discussions once an agreement is in place.</p> <p>Health systems will be requested to report immunization data on a monthly basis.</p>
4	Activity 1, p.3	Based on Exhibit A, it appears that the system to be developed will be receiving patient level information that will need to be de-identified. Is that a correct assumption?	No de-identification is required, as all incoming data are aggregated above the individual patient level.
5	Activity 1, p.3	How often does the data collection occur (daily, weekly, monthly, quarterly, annually)?	Health systems will upload data on a monthly basis at a minimum.
6	Activity 1, p.3	Approximately, how many users will need to access the system?	<p>CMSS estimates that up to 400 people could require access to the portal. This includes 4 people at up to 75 health systems and additional individuals from CMSS, CDC, and the seven partner societies.</p> <p>Among that group, different levels of access will be required. We assume one person per health system will upload data. All others will not need to be able to upload data, but will need to be able to access dashboards and system-generated data reports.</p>

Question Number	Section and Page #	Question	Response
7	Activity 1, p.4	CMSS interchanges the term "selected firm" with "Data Partner". Can you please clarify if the selected firm and data partner are referring to the offeror or do those terms represent different roles?	Yes, we used these terms interchangeably.
8	Activity 1. p.4	Is an ATO required or do you require us to meet CDC ATO requirements to demonstrate our ability to ensure that privacy and security of the data will be maintained?	The CDC ATO requirements do not apply to this contract.
9	Overview, p.3	Does CMSS have a preference on the technical infrastructure environment or tooling (Microsoft, AWS, SAS, SQL/Oracle/Postgres, Tableau etc.) to support the four main Data related activities?	CMSS does not have a preference for a technical infrastructure environment. CMSS prefers a system that provides flexibility for third party tooling access and controls. Bidders should determine which environment and tooling is most appropriate, efficient and sustainable given the scope.
10	Proposal Evaluation Process, p 6	To assist in the creation of the work plan, what is the anticipated system release date based on the contract start date of 1/3/2022?	CMSS prefers a vendor that can ramp up quickly. We would like bidders to define a development and implementation timeline in their bids.

Question Number	Section and Page #	Question	Response
11	Scope, p.2	Besides the CDC's Immunization Information System (IIS) to facilitate data collection and quality improvement efforts, does CMSS and the seven subspecialty societies have technical environments, registries, or data model/schema/ interoperability systems that will be used to receive data from health system or occupational health partners to implement and report on quality improvement initiatives to advance adult immunization?	<p>The assessment of the feeding environments has not been done yet. CMSS and the societies are asking awarded health systems to do this analysis now.</p> <p>CMSS would like vendors to give us a menu of choices. Assuming a single data model, vendors should propose a small set of options for ingestion methods (i.e., CSV, FTP).</p>
12	Scope, p.2	Will the data model/schema and tools have to be configured to interchange data with CDC's Immunization Information System (IIS) to facilitate data collection and quality improvement efforts?	Ideally, yes, the system will be able to interchange data with IISs.
13	Standards based App Auth (Data Storage), pg 5	Its mentioned "Customer's FHIR server, data warehouse...." . Does that mean there is an existing FHIR infrastructure? Please elaborate / clarify?	The data vendor will, at a minimum, be able to accept, understand, parse, and store FHIR data.

Question Number	Section and Page #	Question	Response
14	Standards based App Auth (Workflow), pg 6	Is there a need to maintain separate data workflow for FHIR? Or can it maintain similar workflow as other data after data capture activities are completed?	The incoming FHIR data should be accepted like any other file type (e.g., CSV) and therefore will funnel into a common ingestion workflow.
15	Standards based App Auth, pg 4,5	Will the ATO include the build and maintenance of FHIR infrastructure or will there be a need to keep this independently developed and maintained?	The FHIR store should be part of the vendor's proposed data store. An ATO does not apply to this non-CDC IT vendor. However, the same privacy and security processes outlined by the vendor should also apply to the FHIR store.
16		Please confirm that CMSS expects the offeror, if awarded, to provide both the infrastructure and application to support data collection, analytics, reporting, and visualization.	Yes, CMSS expects the vendor to provide both the infrastructure and application to support data collection, analytics, reporting, and visualization.

Question Number	Section and Page #	Question	Response
17	Page 3, Exhibit A	We have a clarifying question regarding the statement about direct to patient data collection on page 3 “As noted in Exhibit A, we are considering whether any of the potential metrics are feasible to collect by each health system and whether any can or should be collected through patient report (via survey or other method).” In addition to describing the approach to feasibility assessment and direct to patient capabilities, would CMSS like this included in the overall pricing or separated out as optional, if CMSS decides they would like to include it at a later point?	As this activity is an optional part of the vendor’s scope of work, pricing for this activity should be separate.
18	Scope of Work, page 2	Can the contract be awarded to multiple vendors or will a single vendor be selected for the contract?	CMSS will make an award to one vendor. If two vendors are interested in partnering, it should be as a prime/sub relationship.
19	Activity 1. Data Collection and Reporting, page 4	Is the “data partner” provided by the vendor? Is it the provider? When you say the ‘data partner’ will provide infrastructure can you clarify what party this will be? We assume it will be a member of the vendor’s team.	The data partner is the Data Management and Analytics Firm. We have been using the terms ‘data partner’ and ‘vendor’ interchangeably and both refer to the firm that will be selected through this procurement process.

Question Number	Section and Page #	Question	Response
20	Activity 1. Data Collection and Reporting , page 4	Will the “data partner” be responsible for managing the security of the infrastructure and data centres?	Yes, the vendor will host the system and will be responsible for managing the security of the infrastructure.
21	Activity 1. Data Collection and Reporting , page 4	Are there any preferences for deploying the data system on-premises (on a Health System managed infrastructure), software as a service, or combination of both? Do all providers have existing cloud infrastructure? If so, can we deploy in their tenancy?	CMSS’s preference is software as a service / cloud infrastructure. As the data will come from multiple organizations with varying degrees of technological capabilities, our preference is to centralize to the vendor’s tenancy and not commingle with the health system partners.
22	Activity 1. Data Collection and Reporting , page 4	Is there an estimation of the amount of data that will be sent to the system? What data types are expected?	See response to Question 3.
23	Activity 1. Data Collection and Reporting	What data provenance reporting is required if any?	The vendor should maintain data provenance from source systems (data received from health system partners) through ingestion and normalization processes. The vendor should have the capability to backtrace a single clinical site’s data back to the origin and date of receipt from the health system. The vendor should demonstrate logs of this data provenance for a clinical site.

Question Number	Section and Page #	Question	Response
24	Activity 2. Data Analytics, Page 4	How often do dashboards and reports need to be updated	For the design and development of the dashboards and reports, CMSS anticipates that there will be an initial phase of development and a couple of phases of refinement based on pre-implementation review and feedback and again after implementation as experience is gained. Following that initial phase of development and refinement, CMSS anticipates that the dashboards and reports would need to be updated on an annual basis or as needed when additional immunizations are added to the scope of the health systems' quality improvement efforts.
25	Activity 4. Data Support, Page 4	Will project and change managers, clinician/physician champions, IT staff/resources be available for software implementation at Health System sites?	Each health system identified a clinician champion, full-time program manager, and IT lead, all of whom will be available to assist in the data collection and reporting process.
26	ALIGNMENT WITH NATIONAL DATA STANDARDS  Data Access, Page 4	How often would new data be sent to the system as part of the SMART on FHIR Bulk Upload process?	For this phase of the project, our focus is on the receipt of bulk FHIR data. Bulk FHIR data will be sent at the same frequency as non-FHIR data (e.g., "bulk" CSV uploads)



Question Number	Section and Page #	Question	Response
27	ALIGNMENT WITH NATIONAL DATA STANDARDS  Data Storage, Page 5	Is it necessary to store data in FHIR format or is it enough that FHIR is used to exchange data between systems? FHIR is not a recommended standard for analytics as per the inventors of both SMART and FHIR	The original FHIR data should be persisted in some manner, however its intent is as a source of data. In other words, relevant data should be extracted from the FHIR source as needed.
28	ALIGNMENT WITH NATIONAL DATA STANDARDS  Data Storage, Page 5	Can multiple data standards (i.e. OMOP and /or FHIR) be used for analytics and to generate reports?	Yes. The vendor should choose whichever data standards most efficiently and effectively produce the intended output.
29	ALIGNMENT WITH NATIONAL DATA STANDARDS  Standards-Based App Authorization, Page 5	Are there standard patient identifiers? i.e. by unique ID? by source of record? by provider? Is there an expectation for a master patient identifier?	All data received will be aggregated. Therefore there are no individual identifiers. The smallest unit of aggregation will be a clinical site.

Question Number	Section and Page #	Question	Response
30	ALIGNMENT WITH NATIONAL DATA STANDARDS, page 5	Do you have any preferred data linkage methods? Will we be required to link from 'hashed' data?	The only linking required for this project is up from clinic site to health system to society to CMSS. Therefore, hashed linkages will not be required.
31	PROPOSAL EVALUATION PROCESS, page 6	Will there be an opportunity to demonstrate capability through a pilot/proof of concept?	A selected group of bidders may be invited to present in mid-December. However, we are not planning for a pilot/proof of concept phase as part of the procurement process.
32	General	We notice several societies (ASCO, AECOM) have released RFPs for Health Partners for this CMSS CDC award. Can you help us understand how this process is coordinated and who owns the funds being deployed? We understand the \$55M is allocated to several different societies?	CMSS holds a Cooperative Agreement with CDC and is the prime recipient of funds. The seven partner societies are subrecipients of CMSS. The data management contractor will hold an agreement with CMSS for the scope of work defined in the RFP.
33	General	Is there a budget set for the Data Management and Analytics contract?	The maximum budget for this project is \$1M over a 4 year period (ending Sept 2026), based on current CDC funding. It is expected that at least 50% of costs will occur in the startup year.
34	General	Who is on the selection committee?  How will the grant be governed?	Proposals will be reviewed by CMSS staff, consultants, and invited experts who have clinical, data, measurement and health IT domain expertise. The vendor will contract directly with CMSS.

Question Number	Section and Page #	Question	Response
		How will the project be governed?	CMSS holds the Cooperative Agreement with CDC. The seven society partners are subrecipients. The societies are contracting with the health systems. The societies are accountable for the health systems' work. CMSS is ultimately accountable for all work performed on the project.
35	General	What certifications / attestations are needed for information security?	Bidders should detail their security standards and compliance certifications that are relevant to non-PHI data.
36	General	Will there be a uniform security/infrastructure requirement across all implementation sites or will each site dictate their own? We note the societies mentioned above are articulating different functional/outcome requirements for their specific RFP's	The vendor will build a uniform security/infrastructure solution to receive data from all implementation sites. The vendor should assume that some sites will require guidance and support with gathering and processing their data into the single common format ready for upload.
37	General	Do you have a vision/plan for the evolution of the data/metrics being reported by this system (e.g social care data, PROM's or PGHD), etc..)	<p>CMSS anticipates that the primary data source for the metrics will likely continue to be clinical with the potential of expanding to PROMs for a subset of health systems. In addition, we would like the ability to stratify these data to analyze potential disparities in care and are looking for potential data sources and solutions to enable this stratification from vendors.</p> <p>Decisions to expand to additional data types will be made collectively across all of the project partners with input from the</p>

Question Number	Section and Page #	Question	Response
			vendor and be based on the potential impact to the budget and alignment with the project's goals.
38	General	What are the CDC reporting requirements if any? CMSS reporting requirements?	It is our expectation that reports will be updated and available to the CDC and CMSS monthly.
39	General	Does the consortium require ownership of any potential intellectual property developed as a result of the integration/reporting/customisation undertaken? (eg derivative works)	CMSS does not require ownership of any potential intellectual property developed by the vendor. However, given that this is supported by Federal funds, there may be flow down requirements we need to adhere to. CMSS will investigate this further.
40	General	Is there a preferred prime partner?	No, CMSS does not have a preference for a preferred prime partner.
41		Are there any additional requirements/specifications on type of de-identification (safe harbor, expert determination)?	No de-identification is required, as all incoming data are aggregated above the individual level.

Question Number	Section and Page #	Question	Response
42		Will data be collected only at the patient level for all health systems and then data will be aggregated at the Society & CMSS/CDC levels or will participating hospitals require access to data and reports as well? What is the approximate number of individual sites (breakdown of hospitals/health systems and clinics) CMSS is anticipating?	<p>Data will be collected at the practice site level and aggregated at the health system, society and CMSS levels. Health systems should have access to their own data and reports.</p> <p>For the purposes of developing the proposal, vendors should assume 300 individual sites at maximum (75 health systems x 4 practice sites/health system).</p>
43		Through what means will patient-level data be collected (in office vs. remote)?	Data will be collected at each clinical site and be aggregated at the health system, society and CMSS levels.
44		In what situations will patient matching be used for? Is this when patients move from one provider to another? Is it for matching from health systems to IIS?	CMSS does not anticipate a need for patient matching.
45		In addition to providing reports and visualizations for health systems, specialty societies, and CMSS, will entities have a desire to query and research the raw data as well?	Enabling CMSS, societies, and health systems to query and research raw data is not within the scope of this project at this time.

Question Number	Section and Page #	Question	Response
46		Given FHIR is not fully adopted, can you provide details on which providers are fully on FHIR and bulk FHIR? In addition, is CMSS open to a short-term integration and long-term integration approaches given the markets various levels of FHIR adoption across providers and EHRs to meet the market where their needs are today and evolve over time?	The societies are currently determining the methods and modes of data collection that each health system will use. Given that FHIR is not yet fully adopted, we are open to receiving a proposal that includes short-term and long-term approaches.
47		Will there be a standard dashboards and then each society would have additional reports on top of that?	Yes, there will be a standard set of reports. The seven subrecipient societies may choose to contract separately with the data partner to create customized reports.
48		The Draft Metrics include PRO metrics (e.g. number and % of patient reporting access to their own immunization records) – is this expected to be reported via PRO survey or some other means? If via PRO will it be collected via the health systems they are affiliated or are there other workflows?	The societies are currently determining the methods and modes of data collection that each health system will use with a subset potentially electing to collect some data through a patient survey. Regardless, each health system that elects to collect these data in this manner will be responsible for developing the required workflows.

Question Number	Section and Page #	Question	Response
49		Is email-only delivery of our proposal acceptable to CMSS, or do you require print copies?	CMSS prefers e-mail only responses.
50		Does CMSS anticipate a bid defense/vendor presentation period for shortlisted vendors? If so when would that be scheduled?	Schedules permitting, CMSS anticipates this taking place in mid-December.
51		Is CMSS able/willing to execute a mutual NDA with the selected firm?	Yes, CMSS would be willing to execute a mutual NDA.