

**Request for Information and
Preliminary Proposal for AAFP
Clinical Data Repository**



AMERICAN ACADEMY OF
FAMILY PHYSICIANS

STRONG MEDICINE FOR AMERICA

DISCLAIMER: THIS DOCUMENT IS INTENDED TO GATHER INFORMATION ON POTENTIAL STRATEGIC PARTNERS FOR AN AAFP CLINICAL DATA REPOSITORY (CDR) AS PART OF THE DUE DILIGENCE PROCESS. A POTENTIAL PARTNER SHOULD ONLY SUBMIT A RESPONSE IF THEY ARE COMMITTED TO ENGAGE THE AAFP IN THE CREATION OF A CDR. THIS DOCUMENT AND RESPONSE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE AAFP AND THE RESPONDER. THE AAFP RESERVES THE RIGHT TO ENGAGE ONE, NONE, OR MULTIPLE RESPONDERS IN A FORMAL CONTRACTING PROCESS. THE AAFP WILL USE THE SUBMITTED RESPONSE TO THIS REQUEST AS THE BASIS FOR SUCH CONTRACT.

AAFP Clinical Data Repository

Request for Information & Preliminary Proposal

1 Introduction

The American Academy of Family Physicians (AAFP) is the national association of family doctors. It is one of the largest national medical organizations, with more than 93,000 members in 50 states, D.C., Puerto Rico, the Virgin Islands, and Guam. Of these 93,000 members about 58,000 are in active practice providing approximately 25% of all ambulatory office visits. The AAFP is planning the undertaking of a bold initiative to dramatically increase the quality and safety of care delivered by family physicians and to promote primary care through the development of a clinical data repository (CDR). This CDR would accept core clinical data on patients of the participating physician and provide reports that analyze key quality metrics back to the physician.

The AAFP is looking for strategic partners to help us realize this bold initiative. This document outlines the initiative in more detail and provides guidance to submit a valid response for further consideration.

1.1 Explanation of document

This document provides background information on the AAFP's CDR initiative. A list of specific information requests, to be completed and returned to the AAFP, accompanies this document. At any time, the applicant is invited to contact the AAFP for further clarification or to answer any questions.

To contact the AAFP:

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American Academy of Family Physicians
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Any revisions or further written clarifications will be posted at the same location as this document. The information submitted by the applicant will be considered confidential and not shared outside of the AAFP and its Board of Directors.

1.2 Scope & Purpose

The scope of the AAFP CDR is to accept core patient summary data (using the ASTM Continuity of Care Record (CCR) Standard) on patients from the majority of our 58,000 active members and their practice partners. Of course, initial activity will be far less, but

it is important to understand the potential scale of this initiative. The main goals for the AAFP CDR are:

- Increase the quality of care delivered by family physicians
- Demonstrate the value of family physicians and primary care
- Help physician practices provide the services needed to support the patient-centered medical home from the quality and safety perspective
- Inform the AAFP in its advocacy and product development
- Facilitate appropriate and valuable secondary uses of the aggregated data

1.3 Process & Timeline

The AAFP has made the decision to devote resources to perform the necessary due diligence for the establishment of a CDR. A final decision to pursue the CDR initiative will be made in December 2008. Although the AAFP is committed to the establishment of a CDR, if appropriate strategic partnerships cannot be identified through this RFI/RFP process, the AAFP may determine not to pursue the initiative at this time. If the decision is to proceed, the vendor(s) will be engaged by the AAFP to negotiate a definitive contract to solidify scope, responsibilities, and costs. At this time a pilot of 100-500 physicians would be the initial roll-out with subsequent roll-outs based on feedback from the prior roll-out. Market research points to 10% (~ 6,000) of our active membership having a strong interest in participating in a clinical data repository and an additional 33% (~20,000) having some interest.

Responses to this request for information and proposal are due by November 11th at 9:00 AM Central Time.

2 Use Cases

The following four Use Cases present the core, high-level functionalities that must be supported by the CDR. Intrinsic support of the “Point of Care Registry” use case is optional. The CDR could support that use case through standard interfaces for use by third-party point of care registries. Also partners will be required to manage compliance with state and federal laws and regulations, such as HIPAA.

2.1 Population Registry and Reporting

This use case involves the acceptance of clinical data from physicians and the provision of a series of reports back to them quantifying their level of quality of care as measured by national performance measures. The reports would also provide the physician with actionable data to improve performance on these measures. Reporting for the CMS Physician’s Quality Reporting Initiative (PQRI) would be constructed and sent to the physician or to CMS on behalf of the physician. Reporting to other third-parties, such as American Board of Family Medicine, that have mandatory reporting would be included.

Population Registry and Reporting		
Code	Name	Description/Comments

Physician Signs up and Interacts with the CDR		
A.1	Practice creates an account	Responder should discuss the process of managing thousands of users.
A.2	Providers are added to the account	It is important to be able to report on an entire practice and individual physicians.
A.3	Patient data is standardized	The AAFP will define a standard profile of the ASTM CCR to define the data required for the CDR. The responder should discuss how they handle and integrate disparate data sources (e.g. multiple EHRs).
A.4	Data is made available to the CDR	The responder should discuss any data quality and integrity processing during data submission.
A.5	Analysis is run to compare physician data against national quality measures	AAFP would define which measures to be used. New measures will be added over time.
A.6	Report is provided to individual physician benchmarking their performance against national standards	There currently is no defined format and delivery method for the report. Those will be defined in collaboration with the strategic partner(s) (i.e. PDF, Web pages, etc.)
A.7	Physician uses the report to implement an action to improve their performance metric	Reports must be able to allow the physician to identify groups of patients to target and links to quality improvement resources. AAFP has the quality improvement resources.
Additional Performance Measurement is Added to the CDR		
B.1	Performance measure is identified by AAFP	
B.2	Performance measure is converted to a formalized language	The AAFP and strategic partner(s) would work to refine national performance measures to a concrete definition that could be implemented in the CDR.
B.3	Performance measure is encoded into the CDR	Strategic partner would be responsible for taking the formalized measure and encoding it into the CDR for processing.
B.4	Performance measure is made available for reporting	AAFP could now add the performance measure to existing or new reports
AAFP Access to Reports		
C.1	AAFP reviews the performance metrics in aggregate for all participants in the CDR	
C.2	AAFP filters the aggregated report	Filtering criteria would be, for

		example, information about the physician/practice available in the "account" information.
C.3	Report is generated on the statistics of the CDR	

2.2 Point of Care Registry

This use case is an extension of Use Case 2.1. At this time, this use case is optional, although a proposal that can support this use case would be valued. The purpose here is to extend the population reporting functionality of Use Case 2.1 by providing a point of care clinical registry. This registry would provide data input and display capabilities and provide guidance to the physician at the individual patient level. Said another way, Use Case 2.2 provides functionality to help the physician improve care on a population (e.g. diabetics) when a member of that population is being seen during an office visit. Support of this use case can be satisfied through a standard interface with a third-party clinical registry product.

Point of Care Registry		
Code	Name	Description/Comments
Physician Signs up and Interacts with the CDR		
A.1	Practice creates an account	
A.2	Providers are added to the account	
A.3	Patient data is standardized	
A.4	Data is made available to the CDR	
D.1	User is able to search and select an individual patient	Search based on patient demographics and/or clinical parameters
D.2	User is presented with a summary of the patient's clinical data along with their relationship to national quality measures	
D.3	User is presented with recommendations for this patient to improve the quality measures for this patient	

2.3 Benchmarking

The purpose here is to score individual physicians on a range of quality metrics and compare that physician against peers, national norms, and national standards. Detailed reports would be generated for individual physicians and potentially groups of physicians (e.g. a practice, IPA, etc.). The reports would provide the physician with information on areas for improvement. The reports would also give the physician the ability to predict compliance with pay for performance programs and to verify/refute reports generated by health plans based on claims data.

Benchmarking		
Code	Name	Description/Comments
Physician Signs up and Interacts with the CDR		
A.1	Practice creates an account	
A.2	Providers are added to the account	
A.3	Provider is able to add herself to a group such as an IPA	
A.4	Patient data is standardized	
A.5	Data is made available to the CDR	
A.6	Analysis is run to compare physician data against national quality measures	
E.1	Report is provided to individual physician benchmarking their performance against national standards, national peers, regional peers, group peers, and practice peers	

2.4 Ad hoc query by AAFP

The purpose here is to be able to ask a diverse set of questions of the data. The AAFP would use this ability to help direct the deployment of resources to assist family physicians to improve quality and to promote public policy that facilitates the acceleration of this quality improvement. It also allows for secondary uses of the data by researchers and others. The AAFP should be able to generate queries that result in both reports and exportable data sets.

Ad hoc query by AAFP		
Code	Name	Description/Comments
Assisted Query Creation		
F.1	AAFP is presented with a graphical user interface to construct a query of the CDR	This should take limited technical skill by the AAFP user.
F.2	Query is created and made available for scheduled execution	
F.3	New query is created as a modification of an existing query	Queries should be saved in a "library" to allow for reuse. Meta-data about the query should be captured and be searchable.
Native Query Creation		
G.1	AAFP user with special permission is able to construct a native query against the CDR	This could require a high level of technical skill on behalf of the AAFP user. This would be used for complex queries.

G.2	Query is analyzed for performance issues and optimized	Since the query creation is not guided, the system should be able to analyze the query for performance characteristics.
G.3	Query is saved and made available for future execution	Execution should be restricted to users with special permission.

3 Design Requirements

As use cases provide the business constraints on the CDR, it is equally important to articulate the technical constraints on the CDR. The following design requirements discuss these technical constraints.

3.1 Data Export

The physician data and clinical data to be stored in the CDR will be of great value. For this reason, it is important that the CDR be capable of full data export to a standard format. The CDR must be able to export a patient's information in a standard ASTM Continuity of Care Record (CCR) format. The CDR must be able to generate and export a CCR for each patient assigned to a physician for export to that physician.

The CDR must provide a mechanism to extract all of the data from the CDR into a format accessible by AAFP staff. Since this can be accomplished in multiple ways, the exact mechanism will not be dictated by the AAFP but will require negotiation during the contracting process.

3.2 Data Semantic Normalization

A CDR is more complex than putting the data from multiple physicians into a large database. The semantics of the data must be managed to allow for valid queries across multiple sources of data. Although the CDR will define a standard (see section 3.8.2) CCR for all data import, the CDR must demonstrate the ability to manage this semantic complexity.

3.3 Report generation

One of the main values of the CDR to physicians is the ability to receive actionable reports about their quality of care. Reports will need to be generated at the individual physician level. The CDR must provide a mechanism to deliver these reports to the physician.

3.4 Report and Query construction

The CDR should support the construction of reports and queries in a manner that does not require technical programming (e.g. Java, Perl, SQL, etc.) expertise (named Assisted Query Creation in the Ad hoc query use case). Construction of simple and moderately complex reports and queries should be accomplished through a graphical user interface. Advanced querying of the repository must be supported. This advanced querying could require technical expertise such as SQL and database design.

3.5 Data Ownership / Privacy

It is critical that the privacy of the individual patients and physicians be maintained. The CDR must have the security measures in place to protect this privacy. Access to the data must be restricted to authorized individuals only. There must be no secondary use of the data in the CDR or metadata about the CDR without the expressed permission of the AAFP.

3.6 Hosting

Understanding the complexity, sensitivity, and criticality of the CDR, the AAFP is interested in a vendor to host the CDR. The vendor would be responsible for scaling the hardware, software and technical assistance to support the CDR.

3.7 Potential Scaling to 60,000 physicians

Although the AAFP does not expect participation by its entire membership overnight (or in the next couple of years) there is the potential to have over 60,000 physicians participating in the CDR at full implementation. As scaling involves both technical and personnel issues, it is important to understand the current scaling limitation of a solution and the potential strategies to overcome those barriers.

3.8 EHR Integration

Approximately 40% of the AAFP membership is using an EHR in their practice today. To reduce or eliminate duplication of data entry, the CDR must accept data from the EHR. With well over 20 top EHR vendors in family medicine, it will be important to standardize the data to be submitted to the CDR and the transport mechanism.

3.8.1 Interface

The CDR must support, at minimum, an open Web Service to submit data to the repository. Additional avenues for data submission would be valued.

3.8.2 CCR Support

The AAFP will publish an initial standard profile for the ASTM CCR that defines the clinical data that should be submitted to the CDR and the controlled vocabularies and code sets that will be supported. As the CDR grows, the standard profile will require planned modification. The CDR must be flexible enough to accommodate these modifications. The CDR must support the ability to export all CCRs for a given physicians and/or practice in a format accessible to physician practices.

3.8.3 Data normalization at the EHR level

As some EHRs may not currently support the required data in the AAFP CCR profile, transformation of the data at the EHR would be required. The AAFP would highly value the ability to either normalize the data at the EHR level or be able to accept a more diverse set of data to be normalized by the CDR.

Specific Information Requests

As part of your submission, please address each of the following points. Additional information is acceptable, but please provide an explicit response to each point separately.

1. Provide your key contact's information for all communications about this proposal and the AAFP CDR initiative
2. Provide a brief background of your company and experience in clinical data repositories
3. Discuss your capacity and key challenges to scale to meet the demands of the potential 60,000 physician users of the CDR (address technical issues, personnel issues, user management issues)
4. Discuss how data can be exported from the CDR, both for individual physicians and as the entire repository
5. Discuss your approach to data modeling and normalization, particularly of data from multiple sources (semantic normalization)
6. Discuss how you can support Use Case 2.1: Population Registry and Reporting
7. Discuss how you can support Use Case 2.2: Point of Care Registry
8. Discuss how you can support Use Case 2.3: Benchmarking
9. Discuss how you can support Use Case 2.4: Ad Hoc Query by AAFP
10. Discuss your approach and capacity to generate reports
11. Discuss the user interface for query and report generation
12. Discuss available options for hosting the CDR
 - a. Technical Hosting
 - b. User Support
 - c. AAFP Support
 - d. User Installation
13. Describe your unique technologies, not mentioned elsewhere, to support the CDR
14. Describe your unique methodologies, not mentioned elsewhere, to support the CDR

15. Describe your unique resources, not mentioned elsewhere, to support the CDR
16. Discuss your current business and business models
17. As part of the deployment of the CDR, successively larger pilots are planned. Please discuss anticipated costs to support the following pilots. (cost data submitted with this RFI will not be used to rank applicants, but rather provide the AAFP and its board with an approximate cost range. A formal contracting process would be used to formalize any cost data.)
 - a. 500 physicians
 - b. 2,000 physicians
 - c. 10,000 physicians
18. Please provide any additional information you believe is relevant to this application and this CDR initiative.