Information Integrity is the accuracy, consistency and reliability of the information content, and associated processes, systems and environment.

2009 Excellence in Information Integrity (EII) Award
Non-Profit Application

(Application including verifiable information MUST NOT exceed 8 pages)

0. Briefly describe your organization's ***mission and primary business/ activity.*** State your organization's **Annual Revenue and Number of Employees**. If your submission is for a chapter or sub-unit, what is the primary activity of the chapter or sub-unit? Please provide a brief organizational chart if the submission is for a chapter or sub-unit.

XYZ Organization has provided care for HIV/AIDS infected patients since 1988. At the time he organization was started, a largely underserved segment of the population was afflicted with a deadly, stigmatized illness for which there was no cure. As stated in the initial organization charter, the XYZ Organization mission is to provide care for those afflicted, outreach and education to the community, and research on HIV/AIDS.

1. Describe your organization's **key Information Integrity (I*I) issue/ opportunity** and the related organizational issues that needed to be resolved *(member/ donor dissatisfaction, operational cost, regulatory fines, loss of reputation, etc.).* **Provide appropriate quantitative data**.

Information Integrity has always been critical to our enterprise. We face the responsibility of the ongoing care of our local patients as well as innumerable others whose care providers may use our research in medical decision making. Limitations to the initial XYZ Organization Database design included the secondary collection of information by medical records personnel removed from the point of care, affected by limitations of provider documentation on paper charts such as legibility and use of nonstandard abbreviations. Furthermore, providers did not have the opportunity to validate their contribution to the database and it became apparent that clinical data abstracted from clinical records varied among providers and often did not possess a sufficient level of granularity. In response to this, we developed (2000-2004) and deployed a locally designed electronic medical record (EMR) for HIV/AIDS care in 2004, that leveraged our long experience in research and clinical care, maximized the capture of a rich database of analyzable clinical information. Clinician validation of data entry now occurred at the point of care, and was completed undertaken via a homogenized process among all providers. The Information Integrity in the clinic was enhanced, but other challenges remained. Could the quality of provider data entry into an EMR be measured? How does one detect patterns in deficient provider data entry in an EMR? Can feedback improve provider documentation in an EMR?

Poor quality information in our EMR would lead to suboptimal patient care outcomes, as well negatively affecting the quality of our research. This would lead to erosion of trust from the scientific community and our patients.

Having an EMR was not enough. The organization recognized that measures had to be in place to enhance the quality of data capture in such an application (See Table 1). The establishment of ongoing monitoring of all provider notes to ensure data entry into structured fields allows for the individual monitoring of documentation accuracy for all our providers. With this data in hand, feedback on patterns of inaccurate documentation is brought to the attention of providers allowing for correction and ultimately enhanced information integrity across the enterprise. This feedback loop has been crucial to our efforts and has established a "climate of accountability" for documentation quality among our providers. Providers receive emails seeking clarification in instances of incomplete documentation and ongoing monitoring of their documentation accuracy rates over time.

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Table 1: Type of data and time since capture at XYZ Organization.

	1988	1995	1999	8/04	2007
Demographic					
Therapeutic					
Concurrent Treatments					
Clinical – HIV/AIDS events					
Clinical – Comorbidities					
Laboratory – HIV associated					
Laboratory – General					
Socioeconomic					
Health services utilization					
Adherence – Self report					
Patient Based Metrics					

2. Describe your organization's **senior leadership involvement** *(highest level responsible for the I*I project)* with the key I*I issue/ opportunity by checking appropriate roles and **provide a short narrative *(Select all that are applicable)*:**

Initial Commitment __X__   Personal Involvement__X___   Outstanding Support__X__

The Clinic Director, the Clinic Founder and the Research Database Director were behind this effort 100%. They were effective advocates and communicated with all providers who entered data into our EMR discussing need for new procedures/feedback loop on accuracy of documentation. Both the Clinic Director and the Clinic Founder serve as un-blinded controls to be discussed in our provider accuracy feedback sessions every two months. Financial support to fund the Data Quality Team was provided as well.

3. Prior to the deployment of any I*I solution(s) in your organization, what was the **impact your organization's key I*I issue/ opportunity had** *on your members/ donors such as loss of reputation, loss of members/ donors, decreased membership/ donations, etc.* **Provide appropriate quantitative data and a short narrative**.

*Indicate the **severity** of the key I*I issue/ opportunity **(Select only one):***

Low___   Medium___   High__X__

This simple equation illustrates our beliefs: Enhanced Information Integrity = Improved quality of care and research. Poor quality data can hurt the underserved population in tangible ways, by delaying their applications to agencies to fund their care or providing for incomplete datasets that lead to poor healthcare decision making. Poor quality data results in suboptimal research which erodes the confidence of the scientific community in XYZ Organization Cohort research efforts and undermines our ability to perform complex analyses due to faulty or missing data. On the other hand, here are some direct benefits to enhanced Information Integrity in our enterprise:

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A) Some direct benefits to patient:

1. Accurate problem/allergy/medication lists allow for better care at the XYZ Organization. Ex: Accurate medication list assists in detecting interactions with new drugs.
2. Social workers and nurses and more easily assist patients in both getting refills for needed medications and in gathering data for applications to agencies to fund therapy.
3. Accurate problem/allergy/medication lists and comprehensive notes sent via HL7 to hospital EMR gives thorough set of information to providers in other settings within the organization health system. Better information = better care.
4. Accurate database allows for ongoing analyses and reporting of quality of care measures. This monitoring enables us to improve our quality of care.

B) Some direct benefits to researchers:

1. Access to comprehensive and flexible database that allows for analyses across multiple scientific disciplines.
2. Processes to maximize Information Integrity are in place allowing for high quality, "24-7" analyzable data which can be used to rapidly respond to new scientific inquiries.
3. Highly structured, homogenized data entry among providers minimizes "missing data" in analyses.

Poor quality data recorded in the EMR impacts organization finances by hindering medical billing and more importantly decreases our ability to compete for research grants (governmental and industry) on a national level.

4. Describe the **root causes (RCs) of the key I*I issue/ opportunity.** *A root cause refers to underlying issue(s) causing the I*I issue/ opportunity, rather than a symptom.*

Provider variances lead to different documentation standards/styles. No established way to provide feedback about the quality of documentation to providers working on an electronic medical record. New providers with different standards of documentation added to practice, no mechanism to monitor their documentation and bring it in line with local standards/expectations.

5. Describe **specific I*I solution(s)** your organization deployed. *Indicate any best practices/ interventions used such as - automation, simplification, standardization, etc.*

Our responsibility to our patients and the scientific community drive an earnest fervor to increase information integrity at the XYZ Organization. In the interest of enhancing the accuracy of the data captured in the organization EMR, we established a Data Quality Team (DQT). This team reviews all data entered by our providers into the organization EMR within 24 hours. Discrepancies between the data mentioned in the notes and that recorded in the problem, medication and adverse event lists are identified and reconciled. An accuracy ratio is calculated for each visit (changes performed by provider/ changes detected in note). Providers receive bimonthly feedback of their documentation accuracy rates in a blinded fashion in a public presentation where they are able to see their improvement over time and compare their rates to those of their peers. Three providers, the organization founder, the organization director and one provider are un-blinded to all clinic personnel. The implied message is that Information Integrity is a priority to the clinic leadership. General strategies to improve documentation are discussed at the bimonthly meetings and common patterns for documentation errors that have been observed are reviewed. An additional benefit of this system is the ability to rapidly identify the quality of documentation by providers new to the clinic. These providers then receive individualized feedback on how to bring their documentation in line with the XYZ Organization standards.

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6. State **demonstrable I*I results** achieved by your organization to **improve your key I*I issue/ opportunity.** Support your results using ***relevant financial metrics*** *(e.g., operating costs, membership dues, etc.)* and ***non-financial metrics*** *(e.g., member/ donor satisfaction, retention, etc.).* **Provide appropriate quantitative data.**

In measurable parameters we have increased information integrity XX%. However, the establishment of a "climate of accountability" among providers for the accuracy of their documentation has greatly assisted our information integrity in other less quantifiable ways (See Tables 2 and 3).

Table 2: Documentation accuracy[1] over time, selected providers and organization total: Diagnoses

Provider	Patients Seen					Diagnosis Accuracy%1				
*Time Periods**	A	B	C	D	E	A	B	C	D	E
5	11	25	21	16	27	XX%	XX%	XX%	XX%	XX%
16	--	--	36	30	42	--	--	XX%	XX%	XX%
22	91	166	168	180	151	XX%	XX%	XX%	XX%	XX%
26	26	53	39	47	38	XX%	XX%	XX%	XX%	XX%
Clinic Total	557	783	818	833	826	XX%	XX%	XX%	XX%	XX%

*Time periods: A (4-5/06); B (6-7/06); C (8-9/06); D (10-11/06); E (12/06-1/07) [1]Accuracy % = Made/Mentioned (changes)

Table 3: Documentation accuracy[1] over time, selected providers and organization total: Medications.

Provider	Patients Seen					Medication Accuracy%1				
*Time Periods**	A	B	C	D	E	A	B	C	D	E
5	11	25	21	16	27	XX%	XX%	XX%	XX%	XX%
16	--	--	36	30	42	XX%	XX%	XX%	XX%	XX%
22	91	166	168	180	151	XX%	XX%	XX%	XX%	XX%
26	26	53	39	47	38	XX%	XX%	XX%	XX%	XX%
Clinic Total	557	783	818	833	826	XX%	XX%	XX%	XX%	XX%

*Time periods: A (4-5/06); B (6-7/06); C (8-9/06); D (10-11/06); E (12/06-1/07) [1]Accuracy % = Made/Mentioned (changes)

Indicate closest ***% improvement achieved as a result of deploying the I*I solution(s) for the key I*I issue/ opportunity from the Question #3 above*** *(e.g., If your organization membership increased from 200 to 300, this will result in* ***50% improvement****).*

Make the number ***Bold*** *or Underline a number* ***(Select only one):***
*10%   25%   **50%**   75%   90%   100%*

7. **How long** has your **I*I solution been in operation** *(Select only one and* ***provide a short narrative****)?*
*< 3 months___   = > 3 to < 6 months ___   = > 6 to 12 months___   > 12 months_X_*

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8. Was your **I*I best practice shared with other non-profit organizations** *(Select only one)?* Please explain with a **short narrative**.
   No___ *No, but have plans__X__* *Yes______*

   We plan to continue working with providers who receive individualized feedback on how to bring their documentation in line with the XYZ Organization standards. This program has fostered a climate of accountability among providers and has been conducive to an improved emphasis on accurate documentation at the point of care. Such an emphasis allows us to better meet the clinic missions of patient care and high quality research. We also plan to share our practices with other non-profit organizations, so they can benefit from our successful practices.

9. What steps are you taking for **sustaining and expanding your organization's I*I best practice**?

   The quality of our dataset is directly influencing the design of the next iteration of the XYZ Organization EMR. With a precise problem, allergy and current medication list we are planning decision support functions such as decision support for the dosing of HIV medications which must take into account parameters such as patient weight, renal function, co-morbid conditions and co-administration of other drugs. The level of information integrity we have achieved allows us to pursue such ambitious features in our EMR.

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This should be the last page of your application and does not count towards the 8 pages limit.

Release Consent from Applicant

Applications for the Excellence in Information Integrity Award provide valuable illustrations of the achievements organizations have made in their quest for Information Integrity. We would like the opportunity to use the information contained in the application form and need your consent.

The information in the application form may be used for the purpose of press releases and publishing of Information Integrity best business practices in print and online, only after I have an opportunity to review it for accuracy and content.

Signature of Organizational Representative

Name of the Organization

Date