

HIE Accreditation Market Scan Report

May 22, 2008

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Executive Summary

The Electronic Healthcare Network Accreditation Commission (EHNAC) sought to determine the answers to three questions in regards to health information exchange (HIE) accreditation:

1. Are there both a market need and a demand for HIE accreditation or certification product(s)?
2. What are those product(s) specifically?
3. Should an entity(ies) develop a strategy to create these products and move into this market space?

The market scan methodology used was designed to draw information and input from every stakeholder segment within the industry: health information exchanges (HIEs); Federal, State and Local Government; Hospitals; Long Term Care; Physician Practices; Payers; Labs and Imaging; Consumers; Public Health; Pharmacies; and Vendors. The work scope was designed to maximize the number of subjects interviewed from the stakeholder groups. Interviews were conducted and the results analyzed to understand differences in perspective among the stakeholders. There was also interest to determine if consensus existed regarding the value and structure of the proposed products either across or within the various stakeholder groups.

Although there was general agreement that an accreditation product would have value, there were differences from group to group in their perception of market need and value. The Long Term Care and Physician Practice groups reported the highest level of perceived need, but both of these groups are among the least sophisticated in their understanding of HIE. There were also distinct differences in the perception of reliability of an accreditation or certification product. The Long Term Care sector and HIE interviewees reporting they would find a very high level of reliability; whereas, Hospitals indicated they would attribute a low to moderate level of reliability for accreditation.

There was strong consensus across the groups regarding the difficulties inherent in accrediting HIEs with all stakeholders reporting that they perceive the level of difficulty to be moderate-to-high or high. Likewise, the majority of stakeholder groups rated the relevancy of an HIE accreditation or certification product as moderate to moderate-to-high, with the exception of the HIE group itself, which rated the relevancy as slightly lower than moderate.

It was concluded that there is a market need for an accreditation product for HIEs that is distinct from the need for certification. Furthermore, many potential clients of such a service felt that working with CCHIT and others collaboratively would be an important industry initiative to fully develop and implement an accreditation product. However, there is a strong perception that evolution in health information exchange is very immature and unsettled; making the development of consistent standards highly complex. Consequently, the opportunity exists for key organizations to move in a unique and strategic direction.

After a review of the project findings and conclusions, four recommendations were developed for industry consideration. The industry may elect to adopt all, some, or none of the recommendations below:

1. Develop an HIE Accreditation product specifically for HIE organizations in the areas of operations and policy, i.e., privacy and security, etc.
2. Develop an HIE Participation Accreditation product aimed at stakeholder organizations that participate, or would like to participate, in a HIE in the areas of operations and policy, i.e., privacy and security, etc.
3. Convene a group to develop “Generally Accepted Health Information Exchange Principles”
4. Continue to cultivate the relationship with CCHIT, EHNAC, and others interested in organizational collaboration

The market scan determined that there is a need for HIE organizations to be accredited in order to assure that basic standards are being observed, which can facilitate trust within and among HIEs. By the same token, these same standards or principles should be applied to HIE participants or potential participants, which would ensure that the individual organizations adhere to the same level of standards as the HIE itself. The interviewees repeatedly mentioned a lack of trust among organizations regarding sharing their data with other HIE participants. Accreditation would alleviate these concerns because achieving accreditation status would indicate that minimum HIE standards are observed.

The third recommendation for creating “Generally Accepted HIE Principles” is aligned with the premise that the principles should be foundational and generalized, much like the “Generally Accepted Accounting Principles” that are developed and issued by the Financial Accounting Standards Board (FASB) which provide guidance around standards across every industry and business model. The diverse, and sometimes conflicting, needs of HIE stakeholder groups makes it very challenging to imagine that standards could be universally applicable regardless the organization or the nature of the HIE. In order to clarify and simplify this complexity, it is recommended that the healthcare community convene a group of experts from across the industry to develop “Generally Accepted HIE Principles.” By focusing at this seminal level of tenets for appropriate electronic health information exchange principles, the healthcare community can assume a strategic and highly visible role within the industry to assist in the development of HIE standards.

Additionally, it is recommended that CCHIT, EHNAC, and other interested parties continue collaborations to determine where synergies between the various organizations would be feasible. There is a very clear and complementary relationship that could be established between the interested parties to move forward with the development of the Generally Accepted HIE Principles.

A. Background and Context

The Electronic Healthcare Network Accreditation Commission (EHNAC) is an accrediting agency that currently offers accreditation in four major areas through the following products¹:

1. Healthcare network accreditation program which focuses on Business Practices identifying HIPAA related issues concerning security/privacy and especially Protected Health Information (PHI);
2. Financial Services line of business directed to Financial/Banking Clearinghouses, which are entities that utilize banking resources for HIPAA-defined, health data clearinghouse options;
3. e-Prescribing which focuses is on transmission timeliness for both electronic and fax e-Prescribing transactions; and
4. Payer product that provides an accreditation program that ensures any electronic healthcare network they own adheres to the same standards of excellence practiced by other EHNAC-accredited entities

EHNAC is exploring options to expand its accreditation expertise to additional markets. In December 2007, a market scan was conducted to determine the answers to three questions of interest to the Commission:

1. Are there both a market need and a demand for an HIE accreditation or certification product(s)?
2. What are those product(s) specifically?
3. Should a strategy to create these products be developed and a move into this market space considered?

1. Accreditation vs. Certification

In the healthcare industry, there are entities that provide accreditation and those that provide certification. It is necessary to clarify the two concepts. For the purposes of this project, accreditation — that with which EHNAC is contemplating — is defined as a process by which an impartial organization will review an entity's operations to ensure that the entity is conducting business in a manner consistent with national standards. Accreditation is primarily focused on business practices. Certification, in contrast, relates to performance and/or quality assurance tests that indicate that stipulated requirements are achieved. Certification is often required when one entity, organization, or program must interact or interface with another entity, organization, or program.

¹ EHNAC Products <http://www.ehnac.org/content/view/full/145/203/>

2. Healthcare Related Accreditation and Certification

Within the healthcare industry there are many organizations that either accredit or certify its various components. Among the areas either accredited or certified are professional status; education programs; healthcare institutions; technology components, such as networks and software; and ancillary healthcare related programs. Described below are some of the organizations involved in accreditation or certification in the healthcare industry and their programs.

The Joint Commission (JCAHO)

JCAHO accredits and certifies more than 15,000 healthcare organizations and programs in the United States. It provides accreditation for organizations that provide clinical care, such as hospitals, outpatient surgery centers, ambulatory care, and long-term care providers. JCAHO also provides certification of programs and services, such as programs for chronic kidney disease, chronic obstructive pulmonary disease, and other disease specific programs.

Certification Commission for Healthcare Information Technology (CCHIT)

CCHIT is a recognized certification body for electronic health records and their networks. It is an independent, voluntary, private-sector initiative. Their mission is to accelerate the adoption of health information technology by creating an efficient, credible, and sustainable certification program.

American Health Information Management Association (AHIMA)

The Mission of the AHIMA is to be the professional community that improves healthcare by advancing best practices and standards for health information management and the trusted source for education, research, and professional credentialing. AHIMA accredits certificate-level programs in health information management. It also issues credentials in health information management, coding, and healthcare privacy and security through passing its certification exam.

URAC (Formerly Utilization Review Accreditation Commission)

URAC accredits many types of healthcare organizations. Their mission is to promote continuous improvement in the quality and efficiency of healthcare management through processes of accreditation and education of ancillary healthcare organizations. Examples of the types of organization accredited by URAC include: managed care services, healthcare related call centers, and utilization review organizations.

3. Health Information Exchange

The eHealth Initiative (eHI) defines health information exchange (HIE) as the mobilization of healthcare information electronically across organizations within a region or community.² The movement to develop regional and state HIEs is an unprecedented and flourishing sector in the healthcare industry.

² eHealth Initiative "Definition and Select Characteristics of HIE Initiatives" Retrieved <http://www.ehealthinitiative.org/pressrelease825A.msp>

In 2006 in its third annual survey, eHI reported that there were 165 HIE initiatives in the U.S. (in 2005 there were only 109 in existence).³ According to the six stages of development for HIEs articulated by eHI in 2005,⁴ forty of these initiatives reported that they were in stage four, the implementation stage. Forty-four reported that they were in the early stages of development (between stages one and three). The number of initiatives who reported they were fully operational increased from nine in 2004 to twenty-five in 2005. While in 2006, there were 26 fully operational health information exchange initiatives, 32 reported that they were fully operational in 2007.⁵ Thirty of the 2006 survey respondents reported advancement in their stage of development in 2007. These statistics reflect the significant growth and interest that has occurred at the federal and community levels in the last two years.

Table 1. Stages of HIE Development

Stage of Development	Percentage Reporting They Were in This Stage	Characteristics
Stage 1	12%	<ul style="list-style-type: none"> • Recognition of the need for HIE among multiple stakeholders in your state, region, or community
Stage 2	14%	<ul style="list-style-type: none"> • Getting organized • Defining shared vision, goals, & objectives • Identifying funding sources • Setting up legal & governance structures
Stage 3	15%	<ul style="list-style-type: none"> • Transferring vision, goals, & objectives to tactics and business plan • Defining needs and requirements • Securing funding
Stage 4	37%	<ul style="list-style-type: none"> • Well underway with implementation – technical, financial, and legal
Stage 5	12%	<ul style="list-style-type: none"> • Fully operational health information organization • Transmitting data that is being used by healthcare stakeholders • Sustainable business model
Stage 6	11%	<ul style="list-style-type: none"> • Demonstration of expansion of organization to encompass a broader coalition of stakeholders than present in the initial operational model

Public trust is fundamental to successful HIE. The use of electronic record systems and the processes in which these systems may share information in an HIE environment creates new challenges to safeguarding patient privacy and security not previously encountered or anticipated by healthcare organizations.

³ eHealth Initiative, "Improving the Quality of Healthcare through Health Information Exchange, Selected Findings from eHealth Initiative's Third Annual Survey of Health Information Exchange Activities at State, Regional and Local Levels," September, 2006, p. 6.

⁴ eHealth Initiative, "Emerging Trends and Issues in Health Information Exchange: Selected Findings from eHealth Initiative Foundation's Second Annual Survey of State, Regional and Community-Based Health Information Exchange Initiatives and Organizations", 2005, p 8.

⁵ eHealth Initiative, "Fourth Annual Survey of Health Information Exchange at the State, Regional and Community Levels" November 2007, <http://www.ehealthinitiative.org/2007HIESurvey/>

B. Methodology

The market scan approach was designed to be as comprehensive as possible and directed towards eleven stakeholder groups from whom opinions and feedback would be solicited. The eleven groups are:

- Consumers
- Federal, State, and Local Government
- HIEs
- Hospitals
- Labs and Imaging
- Long Term Care
- Payers
- Pharmacies
- Physicians
- Public Health
- Vendors

A total of 84 contacts were identified; of those contacts, 37 agreed to be interviewed Table 2 presents the distribution of completed interviews by stakeholder group.

Table 2. Stakeholder groups and numbers of participants

Stakeholder groups	Numbers of participants
Consumer	1
Federal, State, and Local Government	6
HIE	9
Hospital	5
Lab and Imaging	1
Long Term Care	4
Payer	4
Pharmacy	0
Physician	3
Public Health	0
Vendor	4

A steering group assisted in the design of the interview questions that provide the most meaningful responses in consistent areas of focus to enable an objective analysis of the input. The interview instrument was structured with five forced-choice questions that would enable the comparative quantitative analysis of views across the stakeholder groups. The interviewees were asked to characterize their opinions of the need, value, relevance, degree of complexity, and impact of the proposed accreditation or certification product as high, moderate, or low. For analysis purposes, responses of “high” were assigned three points, “moderate” was assigned two points, and “low” was assigned one point. Listed below are the five forced-choice questions that required an answer of “high,” “moderate,” or “low”:

1. Overall Market Need for an HIE Accreditation Product or Certification Products for HIE Security, Privacy, Interoperability, Authentication, Authorization, Stability, Processes, etc.;

2. Difficulties You View as Inherent in HIE Certification of an Organization's Processes or Capabilities;
3. Reliance Level You Would Give HIE Accreditation;
4. Relevance to Healthcare System Needs; and
5. Healthcare System Impact of Certification

In addition to their forced choice response, interviewees were instructed to identify why they classified each question at that specific level.

The interview instrument then moved to ten additional qualitative questions that were designed to be open-ended and allow the responder to talk as much as he or she wished about each specific question area. The qualitative questions were:

1. What are your primary concerns about the exchange of data and information in an HIE?
2. Would there be value to certifying various primary categories of HIE readiness, i.e., authentication, authorization, security, privacy, interoperability, staff skills, etc.?
3. If categorical certification or review has value, which areas or categories would you most like to see certified?
4. How would the market or system benefit by having an objective assessment of the subset certification categories?
5. What events outside the specific questions of this interview might have bearing on the main issue of HIE certification, i.e., trends in HIE success, models for sustainability, federal and/or state mandates, PHR's, etc.?
6. What other certifications or accreditations currently available within the industry do you see as related to this one? What is its (their) value added to the healthcare system?
7. Do you currently pay for a non-clinical healthcare certification or accreditation? What is the value you receive? What would be a realistic financial value or price point of the certification of processes and/or functions specific to healthcare information exchange?
8. What would you personally see as a benefit for accreditation?
9. Is there anything else you would care to share with EHNAC on the subject of HIE accreditation?
10. May I call you back with further questions?

The interviews were primarily conducted by phone, with a very few completed via e-mail. The interviewees were assured of confidentiality in the process and were aware that their specific responses would not be attributed or identifiable to them as individuals. The responses to the questions were coded, collected in a database, sorted by stakeholder group, and reviewed for similarities and differences both in the strength of the forced choice responses and in the qualitative questions. Graphs of the responses are included in Appendix 1 at the end of this report. The market scan results were shared with the steering team at a meeting in Baltimore on February 5, 2008, to discuss the findings and recommendations. In addition the steering team agreed on a timetable for completion and submission of this final report.

C. Conclusions

There is general agreement for the need of this type of product within the healthcare industry. However, there is also the perception that this area is extremely complex, and many interviewees expressed concern that this complexity might be difficult, if not impossible, to overcome. While the accreditation of electronic HIE organizations is innovative, it is not any more complex than the adoption of electronic information exchange in other industries that deal with highly confidential and sensitive information. In fact, long ago the banking industry resolved many similar issues in order to take advantage of the improved quality and efficiency of operating in an environment where sensitive information is available to the right people at the appropriate time for a legitimate reason.

In order to provide the needed solution for the industry, it will be imperative to develop a clear distinction between a problem that has a high level of granularity and a problem that has a high level of complexity. The findings indicate that while healthcare is complex, the issues surrounding HIE are mainly granular.

This section of the report presents an interpretation and analysis of the comments from the interviews.

Results by Stakeholder Group

1. HIEs

Predictably, the HIE stakeholder group was by far the most sophisticated and experienced in their understanding and the workings of an HIE. Many respondents in this group expressed concerns of trust among participants and the need for a clear value proposition around accreditation. Many of these organizations are struggling with their own sustainability, and voiced concern regarding the availability of funds and resources to pursue accreditation. In addition, these stakeholders shared the belief that more education in the marketplace will be required in order to gain more HIE participation. This group unanimously concurred regarding the need for standards and guidance for HIEs.

From a technical perspective, these stakeholders reported significant frustration with vendor claims of interoperability. Some HIEs have developed their own standards using external resources, such as the Baldrige criteria, in an effort to insure a reasonably basic level of quality in their operations. A few HIEs expressed their curiosity about the differences between HIEs organized around providers and those organized around payers, and whether or not different standards would be appropriate.

This stakeholder group, more than any other, recognizes that technology is not the issue; but instead, the need for discussion and resolution regarding defining appropriate high-level standards are of the essence. While there are relatively few HIEs today, accelerated development will begin in the next two to five years. Once this occurs, specific guidance for minimum standards and appropriate practices in the exchange of electronic healthcare information will be vital to improving the prospects of sustainability among HIEs.

2. Federal, State, and Local Government

The Federal, State, and Local Government stakeholder group was also extremely keen in its understanding of HIE issues and challenges. These interviewees were well versed in the complexities of HIE formation and sustainability because many state governments have begun the process of developing roadmaps and incentives for HIE and RHIO participation. Similar to the HIE stakeholder group, these respondents frequently referred to the trust issues among HIE participants and the concerns of privacy and use of information. They also felt that HIE accreditation is more complex than the certification of an EHR.

There were comments indicating a perception that the healthcare industry has a tendency to over-complicate implementations due to risk aversion; but that the banking industry, also a risk-averse industry, overcame the issue of interoperability and the sharing of confidential and sensitive information to achieve data exchange.

Almost every individual interviewed felt that accreditation and certification would be imperative due to the highly regulated nature of the healthcare industry. Most felt that developing a process for accreditation would help to define how the system evolves. They were also in close agreement about the importance of the accuracy, security, and privacy of the data, as well as the need for standards for interoperability. The group also felt that external validation is important and closely related to the issue of participant trust.

Enthusiasm from this group for HIE accreditation is extremely important to the Commission's decision on whether to move forward with product development. If the governmental entities believe that standards are necessary, and would support such an effort, they would be key drivers in the adoption of accreditation by the market.

3. Hospitals

Hospital stakeholder group interviewees were more divergent in their views on the feasibility and desirability of HIE accreditation. While there was cautious enthusiasm expressed about the need for the proposed products, there were also many concerns. In particular, the hospital stakeholders interviewed expressed their cynicism about interoperability. These individuals reported significant frustration with their vendors and a sense that their products did not perform with the level of interoperability and seamlessness that was promised by vendor sales personnel. Hospitals also spoke about the difficulty of managing unfunded mandates, but also maintained their belief that HIE participation would have to be mandated before there would be widespread adoption.

Another potential difficulty with this stakeholder market area is the struggle among hospitals to share electronic data internally. A significant opportunity exists to provide guidance in this area through the development of HIE principles that could be applicable in both an external and an internal data sharing environment.

Hospitals were also candid in their appraisal of other hospitals as competitors and their concerns about how HIE participation could have a negative effect on their local markets. These stakeholders were generally very clear in their understanding of the distinction between accreditation and certification, most likely because of their familiarity with JCAHO. They were clear that they see more value from accreditation than certification.

More than any of the other stakeholder groups, hospitals will need a clearly defined value proposition in order to consider an additional accreditation. However, if the questions of interoperability and market competition can be addressed, this group clearly understands what it could gain from both HIE accreditation and HIE participant accreditation.

4. Long Term Care

The Long Term Care stakeholder group exhibited the highest level of enthusiasm for the idea of HIE accreditation. These facilities often struggle to manage the flow of data between pharmacies, payers, and acute care facilities. This is particularly true in the skilled nursing facility environment where patients are commonly prescribed a wide variety of medications and may frequently transfer between the hospital and the facility.

The interviewees expressed concerns that privacy and security practices need to be raised to a standard beyond HIPAA requirements. They also described themselves as viewing certified systems and practices as having a high level of credibility.

This stakeholder group is very positive for market potential for HIE accreditation for three key reasons. First, increasing consolidation of long term care companies and facilities have created major players who, because of economies of scale, may be easily convinced of the efficiency and quality benefits of their facilities' participation in secure, accredited HIEs. Second, there is the anticipated increase in the need for long-term skilled care as a result of the aging of the baby boomer generation. Finally, the practice of elder care medicine requires a high level of data consolidation regarding diagnostics, multiple health challenges, numerous medications, and the optimization of care. This stakeholder group believes it would see tremendous benefit from HIE participation.

5. Payers

The Payer stakeholder group was looking for someone to define the purpose and structure of HIE organizations. They appear to be more concerned with using accreditation as a means of defining the "what and how" of an HIE than assuring that the HIE adheres to operational standards.

These interviewees generally rated the value and impact of the proposed products lower than the other stakeholder groups, citing a lack of vendor readiness to support standardized exchanges. Despite this difference, they were in agreement with the other stakeholder groups regarding the need for high standards for privacy and security. This group also cited its perceived need for enhanced marketing on the part of EHNAC to establish its brand.

The opinions expressed by this group were the most diverse, possibly because many RHIO models today are organized around administrative transactions, this may have caused a somewhat “payer-centric” perspective on HIE. As a whole, they reported the lowest level of short term value for HIE accreditation, despite the fact that this group is most commonly the first to experience positive return on investment from participation in an electronic HIE. The interviews still confirm the value to Payers of accreditation, but it will clearly require some education and marketing effort to achieve general acceptance in this market sector.

6. Vendors

The Vendor stakeholder representatives that were interviewed were from a variety of product areas, including e-prescribing, EMRs, and practice administration solutions. Vendors reported a number of concerns about the market readiness for an HIE accreditation product. They shared a perception that most providers are not currently using their electronic healthcare tools to their full capacity, which complicates the question of HIE readiness. The politics of HIE are an issue from the vendor perspective. One respondent noted, “The politics are difficult to manage and those that are in a position to create an HIE often have vested interests in specific outcomes.” While the sediments of this statement are understood, the presence of that dynamic also suggests accreditation would be a welcome means to ensure that political agendas do not drive HIE functionality or standards.

Vendors were more concerned with prioritizing accreditation for authorization and authentication processes, where most of the other stakeholder groups were generally focused on privacy and security. Vendors were more enthusiastic about the potential for accreditation of categories of HIE functionality (authentication, patient matching, privacy, etc.) than an overall accreditation of an HIE, or the HIE readiness of a potential participant. Not surprisingly, this group was the most focused on the work CCHIT is doing around EMR and network certification.

A specific message was received from the Vendor stakeholder group concerning defining how HIEs should operate. This group mentioned that what was needed was a definition of the HIE “operating model.” However, in reviewing these comments it was determined that the group was actually referring to is that HIEs need a set of principles upon which they can build their organizations.

7. Physicians

The Physician stakeholder group was similar in its level of understanding to the Long Term Care group concerning the purpose of HIEs. Once the concept was explained, however, there was agreement that HIE is a valuable activity, particularly to specialists and acute care providers. There was less enthusiasm among primary care practices. They have concerns around sharing data with other competing primary care physicians. Additionally, this stakeholder group was the most vocal about the potential of HIE becoming another unfunded mandate. The Medicare reimbursement reduction and the growing demand for clinical personnel have strained medium and small practices to a perceived breaking point.

This group also emphasized their belief that involvement from all stakeholder groups in the development of standards and principles for HIEs is crucial to their acceptance and adoption of HIE. Physician practices are in the very earliest stages of EMR adoption and are concerned about technical ease of use. It is very difficult for a practice that has not adopted EMR to fully comprehend how HIEs work, but there was consensus that the concept is extremely valuable and should be pursued.

This is a stakeholder group that will require significant education and marketing in order to generate demand for HIE participant accreditation. A comprehensive strategy will need to be developed to determine how to best gain support from this group.

8. Consumer

The individual interviewed was not completely comfortable speaking about this topic due to his belief that he is not appropriately knowledgeable about HIEs, but did share a concern about redundancy with the CCHIT network certification product currently in development.

9. Labs and Imaging

The single Labs and Imaging interviewee expressed the view that the proposed accreditation product would have great value. The interviewee stated that while many of the results they send to providers are in electronic format, most of the orders they receive from providers are in paper or fax format. The interviewee believed it would streamline the internal processes of this group tremendously to be able to receive the majority of their orders electronically.

There was also a concern that the standards would need to be reasonable and appropriate in order to create widespread adoption of HIE. The interviewee felt coordination with CCHIT is very important. Also of concern were the quality and timeliness of data, patient matching and privacy. The interviewee commented, "The impact to us would be very significant. I think if you were able to overcome the competing interest among payers, vendors, and providers, this could be a very big deal."

D. Recommendations

The market scan strongly suggests that the healthcare industry commence moving forward with a product development planning process. The plan should consider two distinct but closely related accreditations: HIE accreditation and HIE participant accreditation. These two products would accredit both HIEs and their participants as adhering to the observance of “Generally Accepted Health Information Exchange Principles,” which will be explained below. In addition, the feedback from the stakeholders represents the industry desire to collaborate and determine synergies between the key industry partners to communicate with and, if possible, coordinate these new products with CCHIT’s upcoming network certification product.

1. Develop HIE Accreditation Product

The stakeholders interviewed as part of this project shared a common view that HIEs should be accredited as operating entities. Throughout the interview process the respondents expressed the need for recognized standards, the need for third party compliance review, and the need for trust to be facilitated among HIE participants. Every stakeholder group referred to the need for something that was often described as a “Good Housekeeping Seal of Approval” for HIE policies, processes, and activities. In addition, many interviewees felt that the value of accreditation would be to point the way to a more unified answer to the question, “What is an HIE?”

The consensus deemed the need for a third party assessment and validation for HIEs based on the development of “Generally Accepted Health Information Exchange Principles.” The role of certification/accreditation entities in this assessment and validation would be to objectively confirm that HIEs adhere to these principles through a process of compliance and substantive testing, which is similar to the processes used by Certified Public Accountants during an annual financial audit.

2. Develop HIE Participant Accreditation Product

In addition to a product that attests to an HIE’s operation within “Generally Accepted HIE Principles,” the stakeholder interviewees generally agreed that individual HIE participants and potential participants should also be accredited as to their compliance to these principles. Many of them felt strongly that in order to be accepted into an HIE initiative, the participants should submit to an independent assessment of their practices and policies focused on the same guiding principles as those applied to the HIE itself; although it should be noted that this market might be constrained in the short term due to shrinking operating margins in the provider stakeholder group. As more states consider mandating HIE creation and participation, there could be opportunities for key entities to collaborate and to expand into that market.

3. Develop “Generally Accepted HIE Principles” for the Healthcare Industry

The healthcare industry has a unique opportunity to take a leadership role in the advancement of healthcare information exchange. Currently there are multiple forms

and structures of HIEs and RHIOs, with different value propositions, different types of participants, and different revenue models. However, what these HIEs have in common is a fundamental concern that the right information is shared with the right user, for the right reason, and at the right time. The HIE principles that safeguard this process have not yet been fully developed.

There is a direct correlation between these HIE principles and Generally Accepted Accounting Principles (GAAP). These principles address widely divergent business types and industries to account for and safeguard their assets and information, which ensure that their financial statements fairly, objectively, and accurately reflect their financial performance.

a) Background on FASB and GAAP

Since 1973, the Financial Accounting Standards Board (FASB) has been the designated organization in the private sector for establishing standards of financial accounting and reporting. Accounting standards are essential to the efficient functioning of the economy because decisions regarding the allocation of resources rely heavily on credible, concise, transparent, and understandable financial information. This function is analogous to the needs within the healthcare system to make clinical and administrative decisions about care, treatment, and reimbursement among multiple entities with various technical and operational systems.

The mission of FASB is shown below with each mission point pertinent to electronic health information exchange. Table 3 below shows this comparison.

Table 3. Comparison of FASB’s mission to EHNAC’s mission

FASB acts to:	EHNAC facilitated group acts to:
Improve the usefulness of financial reporting by focusing on the primary characteristics of relevance and reliability and on the qualities of comparability and consistency.	Improve the usefulness of health information exchange by focusing on the primary characteristics of accuracy, reliability, and on the qualities of consistency, authenticity, and privacy.
Keep standards current to reflect changes in methods of doing business and changes in the economic environment.	Keep standards current to reflect changes in the healthcare environment, business practices, and technology.
Consider promptly any significant area of deficiency in financial reporting that might be improved through the standard-setting process.	Consider promptly any significant areas of deficiency in health information exchange that might be improved through the standard-setting process.
Promote the international convergence of accounting standards concurrent with improving the quality of financial reporting.	Promote the national and international convergence of health information exchange standards concurrent with improving the quality and usability of health information exchange.
Improve the common understanding of the nature and purposes of information contained in financial reports.	Improve the common understanding of the nature and purpose of information shared in a health information exchange.

b) House of GAAP.

The complexity and highly regulated nature of the healthcare industry make it an excellent environment in which to create an analogous model. The role that accounting standards play in establishing the rules for disclosing both public and private financial data assumes levels of authority of “more to less” which guide reliance on and determines the weight of the standards. Understanding this hierarchy is paramount to understanding the meaning of “**generally accepted accounting principles**” (GAAP), and the many supporting documents.

The concept of the “house of GAAP” was introduced by Steven Rubin in a 1984 article⁶ from the **Journal of Accountancy**. The author describes and defines the vast universe of accounting standards as a hierarchy that is structured along the lines of the floor plan of a house. “Like any other structure, the house of GAAP rests on a foundation, in this case a foundation of the basic concepts and broad principles that underlie financial reporting, without which, like a house of cards, the house of GAAP would tumble.”

This construct was the first practical codification and stratification of the vast numbers of pre-existing documentation, principles, pronouncements, practice bulletins, and other guides to appropriate practices in the financial field. This work was subsequently modified by the American Institute of Certified Public Accountants (AICPA) from the original bottom-up approach to a top-down approach. In 1991 AICPA’s Auditing Standards Board revised the house of GAAP by changing some of the levels of authority of certain accounting pronouncements. Further, it distinguished between the standards defining state and local government entities established by the Government Accounting Standards Board (GASB) and those for all other entities, falling under the FASB’s jurisdiction.⁷

Moving beyond Rubin’s model of a house, the AICPA’s model adapted a revised hierarchy. The full model can be found in Appendix 2 of this report.

Category A Officially established, authoritative accounting principles; also referred to as authoritative literature or pronouncements. These principles are over-arching.

Category B Pronouncements of organizations, composed of expert accountants, that discuss and analyze accounting issues in public for the purpose of establishing accounting principles or describing existing accounting practices that are generally accepted and approved by FASB and GASB, and have been exposed for public comment.

Category C Includes pronouncements of organizations, composed of expert accountants, organized by FASB, that discuss and debate accounting issues in

⁶ Steven Rubin, "The House of GAAP," **Journal of Accountancy**, June 1984, pp. 122-128

⁷ Douglas Sauter, "Remodeling the House of GAAP," **Journal of Accountancy**, July 1991, pp. 30-37; Adrian P. Fitzsimons, Marc H. Levine, "A Roadmap Through GAAP," **The Practical Accountant**, May 1993, pp. 47-52

public forums for the purpose of interpreting and establishing accounting principles or describing existing accounting practices that are generally accepted.

Category D If an accounting treatment is not specified in a source from any of the first three floors, the accountant may consider other accounting literature; the appropriateness of the source depends on its relevance to particular circumstances, the specificity of the guidance, and the general recognition of the author as an authority.

Category E When a generally accepted accounting pronouncement is not covered by Categories A-D, the independent auditor may use other sources of guidance as deemed relevant.

Although the model described above is complex, it is accepted and well regarded in the financial community. A similar model could serve as a useful construct to coordinate the various regulatory, accreditation and certification entities by providing overarching principles for HIE within the healthcare community. Not only would this provide a critical service, it would allow the opportunity to convene a large number of strategically important organizations and thought leaders in a discussion regarding over-arching HIE principles.

E. Timeframe

The recommendations contained in this report have the potential for a significant impact to the field of healthcare information. The development of the Generally Accepted HIE Principles is an ambitious, but achievable goal. However, the level of coordination across the industry that will be required is extensive. For that reason, a realistic timeframe for the introduction of the accreditation product based on the Generally Accepted HIE Principles is likely a *minimum* of 18 to 24 months. In the meantime, it is advisable to convene the appropriate industry experts to initiate the discussion process.

F. Next Steps

To move forward with developing HIE accreditation, the following actions will provide a foundation for further work:

1. Prepare a Business Use Case

It will be important to understand a general sizing of the proposed product market and to begin to develop a high level business plan for industry consideration. Ideally this business use case would estimate the market size and a reasonable set of assumptions surrounding market growth over a five-year period. It should incorporate several different pricing assumptions in order to create three to four scenarios. This analysis will then allow for the development of high level pro forma financials that would be useful in supporting discussions and become the foundation of a formal business plan.

2. Initiate Discussions with Financial Accounting Standards Board (FASB)

The healthcare industry should approach FASB about having a meeting to discuss the application of the GAAP architecture to the development of General Accepted HIE Principles. The FASB staff can be extremely helpful with guidance around how GAAP was codified, including difficulties experienced by the FASB predecessor organizations. This information will be useful in avoiding similar mistakes. FASB currently utilizes a set of seven factors that it uses in order to evaluate proposed topics for principle development. Restated for applicability to Generally Accepted HIE Principles, they are:

- Pervasiveness of the issue – the extent to which an issue is troublesome to users or others; the extent to which there is diversity of practice; and the likely duration of the issue;
- Alternative solutions – the extent to which one or more alternative solutions that will improve data exchange in terms of relevance, reliability, security, and interoperability are likely to be developed;
- Technical feasibility – the extent to which a technically sound solution can be developed or whether the principle under consideration should await completion of other principles;
- Practical consequences – the extent to which an improved HIE solution is likely to be generally accepted, and the extent to which addressing a particular subject (or not addressing it) might cause others to act, e.g., CMS, ONC;
- Convergence possibilities – the extent to which there is an opportunity to eliminate significant differences in standards or practices between the U.S. and other countries with a resulting improvement in the quality of U.S. standards; the extent to which it is likely that a common solution can be reached; and the extent to which any significant impediments to convergence can be identified;
- Cooperative opportunities – the extent to which there is support by one or more other standard setters for undertaking the project jointly or through other collaborative means; and
- Resources – the extent to which there are adequate resources and expertise available from the principle setting entity, or another standard setter, to complete the project; and whether the entity can leverage off the resources of another standard setter in addressing the issues (and perhaps thereby add the development of a principle as a project at a relatively low incremental cost).

There are numerous tools and approaches that exist within FASB today that can easily be structured for HIE purposes. Identification of these items will support the development of the business use case, and later of the business plan.

3. Secure Funding

A project of this scope and impact will require funding. In the near term, the healthcare industry should develop a list of key potential funding sources. Based on industry discussions, the following potential funders in the following order should be considered:

- Federal funds – ONC and CMS are obvious opportunities. Informal discussion should begin as soon as the industry has made a decision regarding proceeding.
- Private foundations – The Markle Foundation and the Robert Wood Johnson Foundation are both entities whose missions would align with a project of this nature. The funding cycle for many private foundations requires a timeline between 18 and 24 months from proposal development to funding decision, which must be considered when seeking funding from these sources.
- Payer funding – This project represents a potentially strong opportunity for payers to reduce costs and improve quality.

It will be important to identify the specific steps of a comprehensive funding strategy swiftly to facilitate a sustainable business plan.

4. Convene an Expert Panel

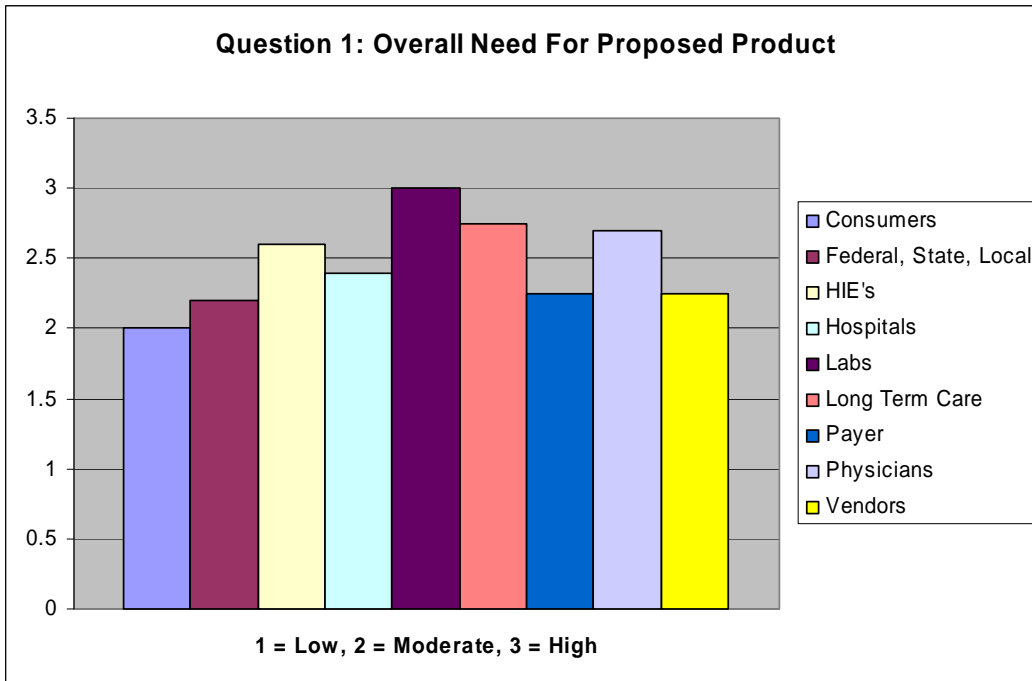
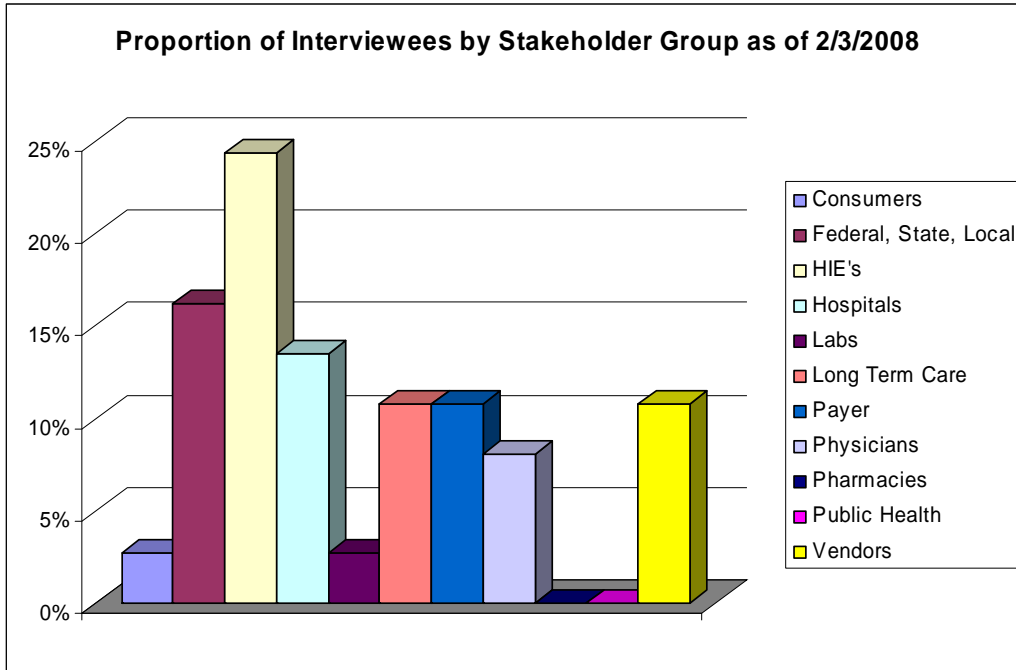
The healthcare industry should identify both a steering committee for this project, as well as key individuals who will be asked to be part of the expert panel. The panel should represent a cross section of stakeholder interests across the industry, and should also attempt to engage not only thought leaders but individuals who can influence the industry to embrace the project. Discussions should begin as quickly as possible to determine the areas to be considered for principle development.

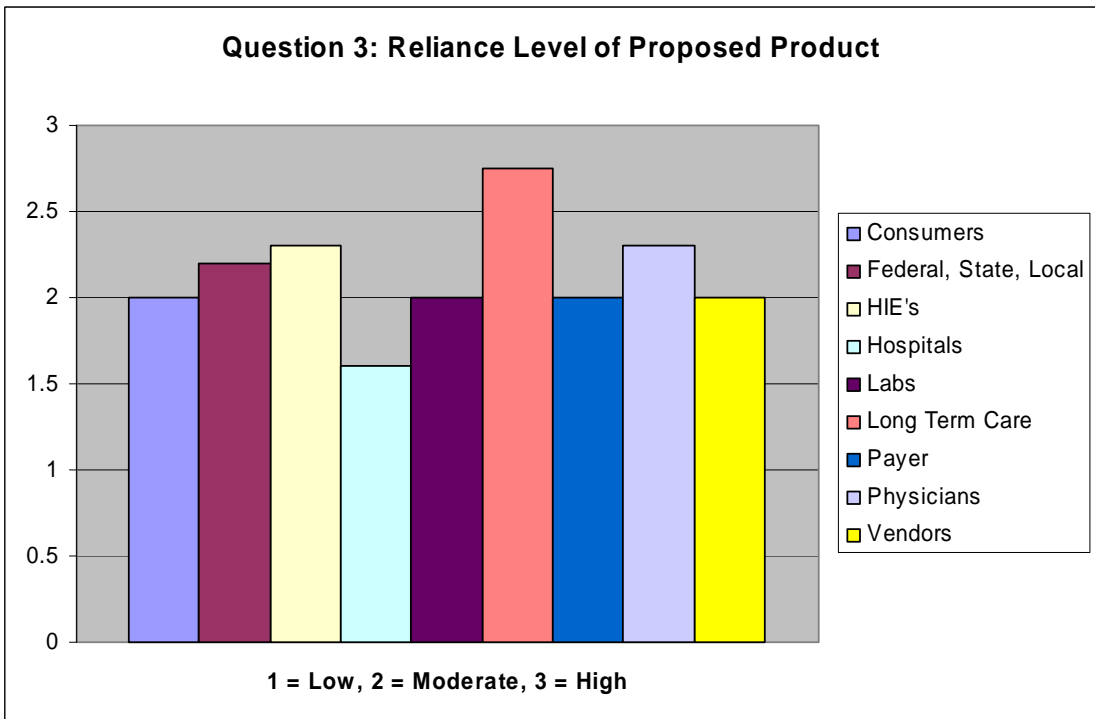
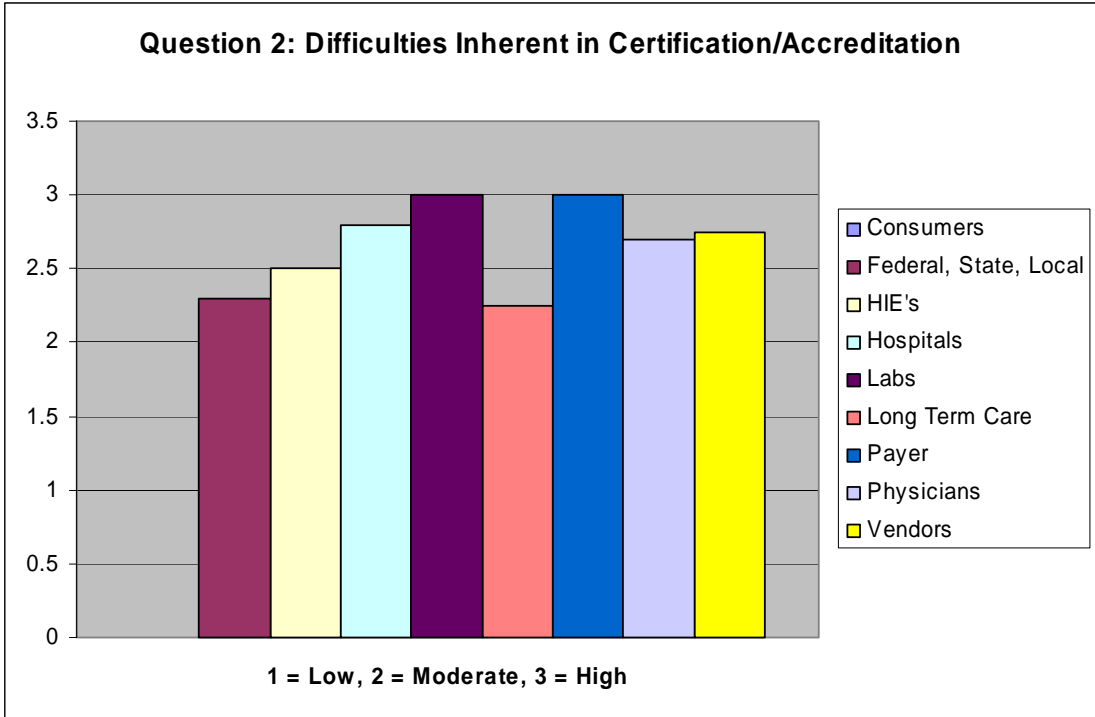
5. Consider Establishing the Principle Development Organization as a Separate Entity

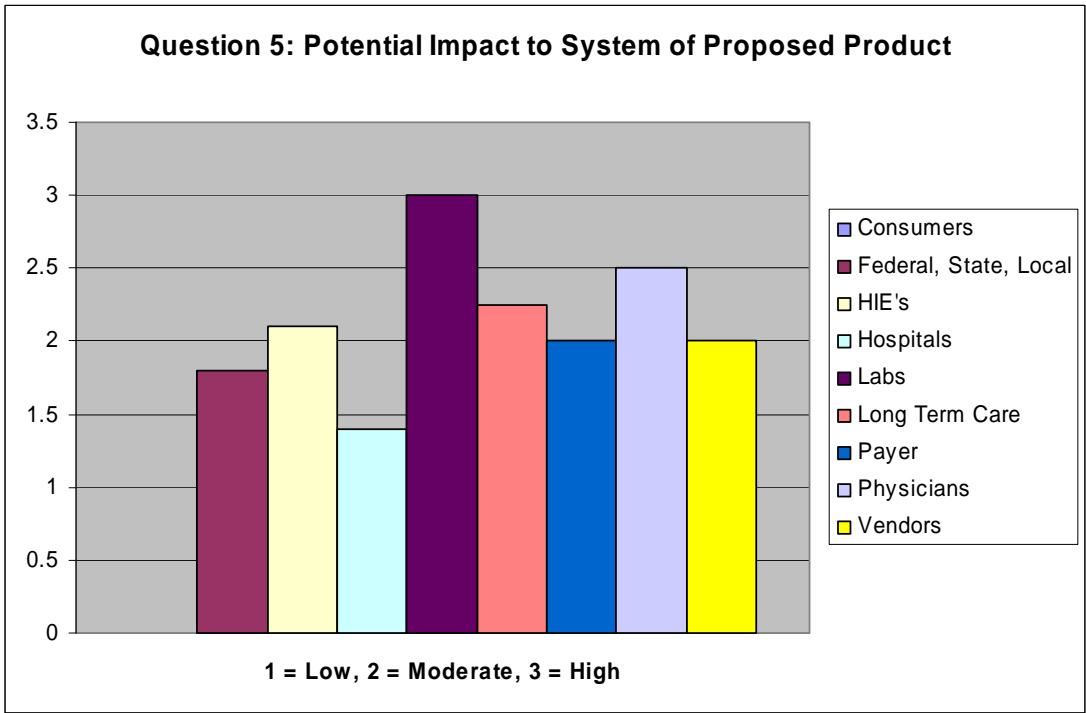
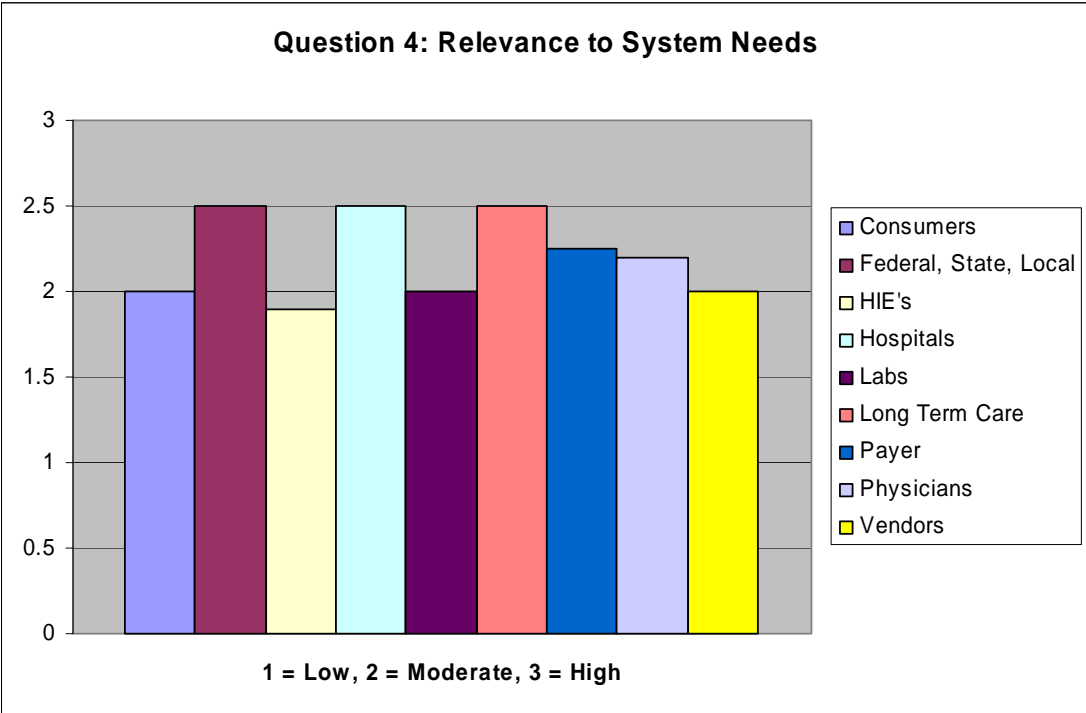
The FASB is part of a structure that is independent of all other business and professional organizations. From 1936 until 1973 the standards were established first by the Committee on Accounting Procedure of the American Institute of Certified Public Accountants. However, AICPA later determined that the role of their members in attesting to adherence to Generally Accepted Accounting Principles needed the objectivity achieved by separating the principle development body from the certifying body. The advantages and disadvantages of separation should be topics of discussion with the FASB staff. The actions of the FASB have an impact on many organizations within the Board's large and diverse constituency, as such it is essential that the Board's decision making process be impartial. Accordingly, the FASB follows an extensive due process that is open to public observation and participation. This process was modeled on the Federal Administrative Procedure Act and is more stringent than previous processes.

G. Appendices

Appendix 1: Overview of Interview Results







Appendix 2: House of GAAP

First Floor (Category A) Constitutes the highest level of GAAP authority.

Officially established, authoritative accounting principles; also referred to as authoritative literature or pronouncements.

- FASB Statements of Financial Accounting Standards (SFAS)
- FASB Interpretations (FIN) which modify, extend, clarify and elaborate on existing Statements on Financial Accounting Standards (SFAS), AICPA Accounting Principles Board Opinions and Accounting Research Bulletins
- AICPA Opinions and their Interpretations which have not been superseded
- AICPA Accounting Research Bulletins which have not been superseded
- Examples:
 - **Statement of Financial Accounting Standards No. 131**, *Disclosures about Segments of an Enterprise and Related Information*
 - **Accounting Principles Board (APB) Opinion No. 18**, *The Equity Method of Accounting for Investments in Common Stock*

Second Floor (Category B) Pronouncements of organizations, composed of expert accountants, that discuss and analyze accounting issues in public for the purpose of establishing accounting principles or describing existing accounting practices that are generally accepted and approved by FASB and GASB and have been exposed for public comment:

- FASB Technical Bulletins (TB)
- AICPA Industry Audit and Accounting Guides
- AICPA Statements of Position (SOP)
- Examples:
 - **SOP 97-2**, *Software Revenue Recognition*
 - **FASB Technical Bulletin No. 01-1**, *Effective Date for Certain Financial Institutions of Certain Provisions of Statement 140 Related to the Isolation of Transferred Financial Assets*

Third Floor (Category C) Includes pronouncements of organizations, composed of expert accountants, organized by FASB, that discuss and debate accounting issues in public forums for the purpose of interpreting and establishing accounting principles or describing existing accounting practices that are generally accepted:

- FASB Emerging Issues Task Force (EITF) consensus position
- AICPA Practice Bulletins approved by the FASB
- Examples:
 - **EITF Issue No. 98-10**, *Accounting for Contracts Involved in Energy Trading and Risk Management Activities*
 - **AICPA Practice Bulletin 14**, *Accounting and Reporting by Limited Liability Companies and limited Liability Partnerships*

Fourth Floor (Category D) If an accounting treatment is not specified in a source from any of the first three floors, the accountant may consider other accounting literature; the appropriateness of the source depends on its relevance to particular circumstances, the specificity of the guidance, and the general recognition of the author as an authority:

- AICPA Accounting Interpretations
- FASB Implementation Guides in Q and A format

- Uncleared AICPA Statements of Position and Industry Audit and Accounting Guides
- Industry practices that are widely recognized and prevalent
- Examples:
 - **FASB Special Report**, *A Guide to Implementation of Statement 125 on Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*
 - **AICPA Accounting Interpretations**, *Reporting the Results of Operations: Accounting Interpretations of APB Opinion No. 30*

Fifth Floor (Category E) When a generally accepted accounting pronouncement is not covered by Categories A-D, the independent auditor may use other sources of guidance as deemed relevant:

- FASB Financial Accounting Concepts (CON)
- AICPA Accounting Principles Board Statements
- AICPA Issues Papers
- Pronouncements of other professionals associations or regulatory agencies
- AICPA Technical Practice Aids
- Accounting textbooks, handbooks and articles
- Examples:
 - **AICPA Issues Paper**, *Identification and Discussion of Certain Financial Accounting and Reporting Issues Concerning LIFO Inventories*
 - **FASB Concept No. 5**, *Recognition and Measurement in Financial Statements of Business Enterprise*