Building an Evidence Base for High-Quality HIM

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One of the charges of AHIMA's Foundation of Research and Education (FORE) is to develop the body of knowledge for the HIM field. Supported by the FORE Research Committee and other research initiatives, this body of knowledge with an evidence-based foundation is required to continue the advancement of the HIM practice.

This practice brief outlines the importance of research and the evidence it produces to the HIM field, describes research types applicable to HIM practice, and outlines ways HIM professionals can be involved in research.

Background

The HIM field is a unique discipline focused on planning, collecting, aggregating, analyzing, and disseminating individual patient and aggregate clinical data.[1] These activities are fundamental to the efficient and effective delivery of modern healthcare throughout the world. All but the most isolated practitioners must exchange information in some fashion, either to continue the delivery of care or to receive payment for the care delivered.

HIM is in need of research findings (evidence) upon which to base its practices for the proper education of HIM students and to establish its credibility within the broader healthcare and clinical informatics community. This need exists in all aspects of HIM practice: data management and quality, data privacy and security, the use and implications of technology on HIM, and clinical terminologies.

In this pursuit, HIM follows the examples of other fields such as medicine in the mid-1900s, medical librarians in the 1970s, nursing in the 1950s, and physical therapy in the 1960s, which developed research literature to support practice. Just as these professions rely on evidence to guide their practices, the HIM profession must do the same in order to support consistent quality and efficiency in its services to the healthcare industry.

It may be helpful to take medicine's approach and review the levels of research evidence that have been categorized. This provides a road map for increasingly sophisticated development of research questions and evidence-based problem solving.

- Level I: Evidence obtained from at least one properly designed randomized controlled trial.
- Level II-1: Evidence obtained from well-designed controlled trials without randomization.
- Level II-2: Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.
- Level II-3: Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled trials might also be regarded as this type of evidence.
- Level III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.[2]

As HIM practitioners and researchers increase their commitment to and output of evidence-based research, these categories will begin to take shape according to the unique aspects of health information management.

HIM currently uses two methods for developing practice recommendations: consensus-based and research (evidence-based). Both are explored here.

Consensus-based Best Practices

AHIMA has used consensus-based best practices extensively. Many of the practice briefs published in the *Journal of AHIMA* and available in the FORE Library: HIM Body of Knowledge were developed using the consensus process.

Consensus-based best practices are arrived at through collaborative efforts. The processes these guidelines address have the following attributes:

- Participants represent stakeholder groups or interests, not simply themselves.
- All necessary interests are represented or at least supportive of the discussions.
- Participants share responsibility for both process and outcome.
- An impartial facilitator, accountable to all participants, manages the process.
- The intent is to make decisions through consensus rather than by voting.[3]

Consensus is used for many recommendations in health information technology. For example, many of the standard-setting organizations such as Health Level Seven or the Certification Commission for Healthcare Information Technology use a consensus process.

Strengths of consensus-based recommendations include:

- Providing a mechanism for input where there are a variety of stakeholders, overlapping jurisdictions, and fragmented power
- Improved understanding among participants, often resulting in long-lasting solutions
- Creating decisions that can be implemented[4]

Concerns about consensus-based recommendations fall into several areas, including:

- Decision-making authority or knowledge base of the stakeholders
- Determination of participants in the process
- Adequacy of training for the mediators or facilitators
- Effectiveness of the recommendations if consensus is required (perhaps what everyone agrees to is not really best)[5]

The consensus process for developing best practices within AHIMA is conducted via its practice councils and e-HIM work groups. The recommendations from these groups are extremely valuable to the industry and the profession. The biggest drawback to this process is that these practices do not have objective supporting evidence; much of the work is based on opinion.

Research (Evidence-based) Best Practices

The creation and use of research by HIM professionals is increasing and thus a body of evidence-based best practices has been established. The peer-reviewed research journal *Perspectives in Health Information Management* (*PHIM*) was launched in 2004 and represents an important first step in stimulating research development.

Recently, such diverse issues as the effect of HIPAA on release of information, the effect of ICD-10-CM on public health reporting, and evaluation and management documentation and coding technology adoption were addressed by research published in *PHIM*.[6,7,8]

Research is the "systematic collection, analysis and interpretation of data to answer a certain question or solve a problem."[9] Often when HIM professionals think of research it is in the context of patient care or medical practice. However, HIM, as a unique profession, requires its own evidence or data upon which to base its practices.

As a systematic inquiry or investigation, research often fits into a framework of:

- Topic selection
- Hypothesis development
- Research plan or methods
- Data collection
- Data analysis

- Synthesis of the results

Good quality research strives to be as objective as possible, presenting the results regardless of researcher bias or preferences. It is important that research that does not support what is thought to be standard practice be published and discussed in the practice community.

Applied, evidence-based research includes the following desirable characteristics:

- Systematic methods—generally the methods and statistical tests have been proven.
- Objectivity—bias exists in all studies; however, research strives to minimize bias.
- Peer-reviewed—researchers examine and critique each other's work.
- Replication—ability to duplicate and support the findings.
- Building—researchers often design their studies to build on or otherwise continue the work accomplished in previous studies.

Evidence-based research also includes challenges. It requires training. Wide varieties of research designs, methods, and statistical tests must be used correctly. Research also takes time. Performing a research study well, so that it remains objective, is time-consuming and cannot be rushed. Resources are also required for proper research. Time, people, or other resources such as equipment are usually required for research. Research can also prove to be difficult. As the saying goes, "If research were easy, everyone would do it."

Research, in one form or another, is the foundation upon which medicine and healthcare have been built. It is how a profession continues to advance its knowledge, education, and practice. Research also provides the stimulus for change in any profession. A good example from medicine is the current discussion and supporting literature, guidelines, and best practices about hand-washing and infection control in hospitals. Various small and simple studies indicated that actually having a best practice of washing hands regularly, on the part of all personnel in contact with patients, could reduce the transfer of infections in hospitals.

The Intersection of HIM and Research

In a 2004 *PHIM* article on the intersection of HIM and research, authors Bailey and Rudman state, "It is imperative that HIM professionals, educators, and practitioners alike increase the visibility of our profession, making others within the healthcare arena aware of HIM's potential role in the research process. Increasing the visibility of our profession will require HIM professionals to create a presence in the literature and become involved in funded research across boundaries that span the health disciplines."[10]

These statements remain true and resonate even more loudly today. In 2007 FORE convened a multidisciplinary group of health information technology researchers to assist in developing HIM research priorities that would benefit the entire industry. That list can be found at www.ahima.org/fore/research/priorities.asp [web page no longer available].

As important as this list is, it should be noted that all HIM topic areas generally lack foundational research. This includes everything from our record management processes (paper, hybrid, and electronic) to privacy and security to terminologies and vocabularies to health information exchange to data quality.

Bailey and Rudman state that HIM professionals have a unique skill set.[11] A good goal would be to have at least one prominent, published HIM researcher in each area.

Research is multidisciplinary. HIM professionals who are interested in participating in research should seek to participate in related research projects of others in their institutions. Even if this involvement begins with the basic activity of acquiring data or records, HIM professionals will learn from the collaborative experience and, most importantly, begin to build a valuable network.

HIM professionals can also seek research-related education through workshops offered at AHIMA's Assembly on Education Summer Symposium, AHIMA's annual convention, the year-long HIM Researcher Training Institute, or through academic course work.

As a profession, HIM requires data to support its practices, and it must support those who wish to pursue the studies to produce that data.

The FORE Research Committee is charged with supporting the development of a culture of research for the HIM profession. This group of volunteers advises the FORE director of research, ensures research activity is aligned with AHIMA and FORE strategic priorities, and assumes responsibility for the Assembly on Education and annual convention research tracks. It coordinates written reviews of HIM research, and reviews grant-in-aid and dissertation assistance applications.

Notes

1. AHIMA. "HIM Professional Definition." 2007.
2. US Preventive Services Task Force. *Guide to Preventive Services*, 2d ed. Baltimore, MD: Williams and Wilkens, 1996.
3. Association for Conflict Resolution. "Best Practices for Government Agencies: Guidelines for Using Collaborative Agreement-Seeking Processes." Available online at www.acrnet.org/acrlibrary/more.php?id=13_0_1_0_M.
4. Ibid.
5. Ibid.
6. Houser, S.H., H.W. Houser, and R.M. Shewchuk. "Assessing the Effects of the HIPAA Privacy Rule on Release of Patient Information by Healthcare Facilities." *Perspectives in Health Information Management* 4, no. 1 (2007). Available online at www.ahima.org/perspectives.
7. Watzlaf, V.J.M., et al. "The Effectiveness of ICD-10-CM in Capturing Public Health Diseases." *Perspectives in Health Information Management* 4, no. 1 (2007). Available online at www.ahima.org/perspectives.
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9. Varkevisser, C.M., I. Pathmanathan, and A. Brownlee. *Designing and Conducting Health System Research Projects: Proposal Development and Fieldwork*. Amsterdam, Netherlands: KIT Publishers, 2004, 16.
10. Bailey, J., and W. Rudman. "The Expanding Role of the HIM Professional: Where Research and HIM Roles Intersect." *Perspectives in Health Information Management* 1, no. 7 (2004). Available online at www.ahima.org/perspectives.
11. Ibid.

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