

Health Information Manager or Health Information Collector?

The changing face of Health Informatics at La Trobe University

by Belinda Torney, Kerin Robinson and Heather Grain

Abstract

Health information managers (HIMs) can be perceived as the front line collectors of health information but are often not given data ownership or seen to “manage” health information or the data structure of an organisation. Where does the progression of health information to electronic means leave those on the information front line? Will health information managers be overlooked, in favour of information technology professionals who have some experience in health, and asked to pick up the pieces? Will nurses, who have shown themselves willing to adapt, take on the information role? As a profession we need to be assertive in ensuring that our organisational value is both recognised and utilised.

Educating HIMs with expertise in and an understanding of information technology concepts is an essential part of our professional future. The Bachelor of Health Information Management at La Trobe University has undergone significant change in relation to health informatics to anticipate professional needs. Our students are now exposed to concepts in information technology that were considered beyond their reach in the recent past.

This paper will overview the exposure of health information management students to health informatics and review how HIMs can regain control of health data and avoid the threat from other health professionals.

Background

Health informatics has, over many years, constituted an ever increasing component of health information management education. As a profession we are becoming aware of the fact that changes and developments in information technology mean that clinical classification and associated functions such as data extraction, data management, and quality control of these processes will disperse; how this will occur, and whence these functions might be dispersed, is unknown. What we do know is that if our profession is to embrace one of the key components of the health information management definition, we must include health informatics high on that priority list.

A prospective student browsing the Victorian Tertiary Admissions Centre (VTAC) Guide (2004) will find the Bachelor of Health Information Management course from La Trobe University by reviewing the broad subject guides of information management, health systems, and health administration. The Health Information Management Association of Australia (HIMAA) states that health information management is a career combining health, management and computing (HIMAA 2005). As a result of my recent opportunity to join the Health Information Management team at La Trobe University I have become

aware of the increased opportunity that information technology knowledge can bring to our professional future. It has also raised my awareness of the notion that automated coding will occur in the foreseeable future (Robinson and Shepherd 2003). In order to move forward as a professional group, we need to shift from being perceived as expert collectors of health data and information, to being acknowledged as the expert collectors and proactive managers of health data, information, personnel, and systems. If we do not actively embrace and develop individual and profession-wide expertise in health informatics, knowledge and functions that underpin the higher health information management functions, we are at risk as a profession. We need to take hold of these roles before those less qualified stake their claim.

Impact of information technology on classification

I encourage you to consider the following from a coding perspective. A client attends a health service to have a routine colonoscopy performed because they have a strong family history of digestive tract adenocarcinoma. The results do not indicate any suggestion of disease. The clinician ticks the boxes indicating the patient has a family history of malignant neoplasm of the digestive tract, and has had performed a colonoscopy and biopsy. The anaesthetist marks the boxes to indicate that the patient received IV sedation, and the nursing staff have indicated, on the initial patient survey, that the patient is a current smoker. Coders working within a healthcare facility could list the codes required for this scenario without hesitation and their allocation would not raise many questions prior to accurate coding. In this case the process of technology-driven coding would be relatively uncomplicated. The information is already collected in a classified format and on forms which could be easily transferred to an electronic format, thereby avoiding the need for duplicate data entry or additional clinical input. While a computerised process can not replace the entirety of classification in facilities where there is a complex casemix, it is entirely possible and realistic that this can be achieved within the simpler casemix environments such as the day procedure service described above, in general obstetrics, community care, and primary care environments.

As developments in information technology capabilities increase it becomes feasible that the introduction of an electronic health record (EHR) is imminent. As a professional group we see the greatest benefit of an EHR as easier and faster access to the availability of data (NCCH 2003); in contrast, the greatest benefit to our health service providers may be financial. So what does that mean to those working in one of the traditional HIM roles, that is, to those on the information front line? The greatest financial benefits may include the introduction of clinical terminologies and automated coding which may drive the final stages of its implementation with relative speed.

In the 2002 National Coder Workforce survey, 14.5% of clinical coding service managers planned to introduce major changes to the way coding is carried out (**Add citation – author and year – here**). The nine distinct categories that they considered to constitute potential major change included increases in audits and in staff resources, ward-based coding, and software

implementation; however the coding managers did not include, in the top nine, the introduction or investigation of methods of electronic coding, nor did they consider the impact of clinical coding on data extraction and warehousing. Only 12.4% of the same group of coding managers predicted that it will become important for coders to develop information technology skills and computer literacy (NCCH 2003). By comparison, in the same year with the majority of members of the American Health Information Management Association were involved with an EHR, and 65% of the AHIMA members foresaw the need for more technology education in the future (AHIMA 2003). It is important to note that whilst there may be some differences in the background and level of education of the AHIMA members and the subjects in the NCCH survey, the differences in these statistics are quite substantial and should be explored further. This is, however, beyond the scope of this paper.

Educational development at La Trobe University

La Trobe University has recognised that information technology is one of the driving forces behind the profession and, to enable students to maintain a long and successful career, the health informatics component of the course has been reviewed and redeveloped. In the last five years the class time spent on health specific information technology units has increased by 75% with changes including the introduction of teaching in clinical terminologies, decision support, and electronic health records and the exposure of students to general information technology tools through completion of components of the International Computing Drivers License (ICDL). Students also have the option of taking additional elective informatics subjects that have been designed primarily to provide students in other allied health courses with a health professional-user perspective.

Graduates possess the skills required to work and succeed in the ever expanding area of health informatics. In the earlier years of the course, the students are empowered through learning the language of information technology and components and concepts such as TCP/IP, router, GUI, UNIX, pipelining, menu driven interfaces, among a plethora of terms and definitions. They become familiar with information systems currently used in health and information management, and the mechanisms used to report and analyse the information within those systems.

In the later years of the course, students learn database design, use, and manipulation to improve and assess health data quality and data representation. They can perform functional analysis of systems across the entire health care system and they develop skills to assist in managing those systems. Skills are developed in the analysis, evaluation, management, and strategic planning of health information systems. Electronic health records are emphasised on the final year agenda, when students become highly skilled in the management and use of shared health records, including internet based tools, interoperability standards for information sharing, decision support systems and data representation requirements for health terminology and classification, including the development of EHR screens and concept representation and rules.

Application of IT skills

Whist graduates possess these health IT skills, there does remain a perception that their first career step should comprise experience in a “traditional” hospital Health Information Service. Lisa Quick, in a 2001 informal survey of HIM colleagues working in the IT industry, found that 100% of participants had commenced their careers as managers of a Medical Record Department (Quick 2001). Why do we think that we require that grounding? At La Trobe, we are observing an increasing number of students who are looking to work outside a Health Information Service and who choose not to include this first step in their career plan.

Health information management students have the knowledge-base and all of the strengths to make a successful career in health information technology without first spending this ‘mandatory’ time at the start of their careers working in a Health Information Service. While the value of the HIM work experience in the typical, hospital Health Information Service role cannot be overlooked, the opportunities arising for those interested in information technology are there for the taking. The 2002 AHIMA workforce survey indicated that the EHR offered an important opportunity for members to participate in strategic and operational activities, and we believe the same opportunities exist in Australia both for students and career-established HIMs. Our American colleagues have also indicated that greater technological competence will support professional advancement and career development in Health Information Management (AHIMA 2003).

Therefore, our La Trobe University students, and those of the other health information management courses at Sydney and Curtin Universities, and the Queensland University of Technology, are prepared for a career in information systems with a detailed understanding of health information systems including the application, management, development (without performing the physical development) and implementation. What about all of the HIMs who are working in a clinical classification role that, many believe, will become redundant? Classification will initially remain a significant component of our role with the EHR and this forms the ‘collection’ phase. The progressive introduction of automated coding will replace the need for manual extraction and input or collection, moving the focus to monitoring, interpretation, analysis, quality, and management roles. HIM functions will include refining the computer rules which will eventually decrease to the point where, in some places, up to 80% of the coding could be automated relatively easily. A career in health IT does not require the complex skills of a programmer; it does require a sound, in-depth understanding of IT concepts and an ability to convey requirements in a language that both users and programmers can understand. Many HIMs possess the abilities, knowledge and skills required to work in IT but are not inclined to utilise these fully in a technology environment. One HIM IT professional has stated that once you are working within IT you can understand that it is fun and interesting. Real value can be gained from a HIM translating the business requirements to the programmer (Quick 2001)

HIMs possess essential project management and organisational skills, an understanding of the workings of the health system, and human resource management skills. These all translate well to the health IT environment. In contrast, the same cannot be said for IT graduates, some of whom may have never worked in a health care environment, do not understand health language, or the reasons behind EHR legal and ethical requirements, or the functional working needs of clinical, nursing and administrative staff in the clinical workplace setting. The IT industry itself acknowledges that an industry-specific qualification may increase the career prospects of IT graduates (Bennett n.d) But what does an IT career involve for a HIM? While your thoughts might be cast to a career in network management or programming, the reality is different. HIMs play an integral part in many roles to improve clinical care, and manage risks and health information, and the opportunities could be endless.

We have the skills and, hopefully, the inclination, but why would we change? As a HIM who also works as a coder, I thought that the EHR and automated coding seem so far away. It has been talked about and developed or part-developed for years and 'we' don't believe it will happen in 'our' lifetime! But what if it does? It is now clear that the move is an essential one. The time is upon us; it is no longer in the distant future. State and national governments are investing hundreds of millions of dollars in electronic health records and taxpayers will expect financial returns. One of the easiest returns is to automate simple coding tasks, reduce coding staff and the flow-on effect of clerical support. The impact of this on the 36% of coders who hold a HIM degree (McKenzie et al 2004) would be significant as these HIMs would be required to use their 'other' skills. The impact on our clinical coder colleagues would be even more dramatic. We are currently in an environment where work as a HIM/coder is considered fairly easy to obtain, with 20% of hospitals having a coder position vacant (McKenzie et al 2004) If a significant component of the relatively well-paid classification positions were to be replaced with technology, this situation may be very different. Those doing coding would have to invest more time in auditing, analysis, and assisting with research and other applications of the coded data. HIMs have the skills to diversify our roles. If, like many of us, you are not confident in taking a look at your health IT career prospects, consider the following. In the USA an average IT professional earns 15-57% more than a HIM working in a health environment (AHIMA 2003). A recent Australian survey also indicated that technology jobs, including management, business analysis, project management and administration positions, have increased by 60% in one year (Foreshaw 2005).

Conclusion

How can HIMs make that move into IT? Some would say just go for it, others can see the link between further education and career advancement (AHIMA 2003). It is essential that all HIMs take the time to think about the future. We have the opportunity to make this change in a progressive and innovative

manner, rather than via a reactive approach. If we wait to react we will not be sufficiently informed to become leaders in the change process, and left to pick up the pieces. However, if we continue with the momentum to re-focus that has commenced in the past five years, our profession will go from strength to strength.

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