

National standardisation for eHealth information initiatives in hospitals in Bulawayo, Zimbabwe

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Abstract

Standards are very important in guaranteeing a level field of play in areas such as eHealth. The failure to develop and implement eHealth standards impedes health information sharing, confidentiality, privacy, data migration, and preservation inter alia. This study sought to establish the state of eHealth information management in hospitals in Bulawayo, Zimbabwe. A qualitative research methodology, a case study research design and a judgmental sample were applied. Face-to-face interviews and document analysis were used to collect data. Seven research participants, who represented the Ministry of Health and Child Care, Health Information Management and Disease Surveillance Unit, hospitals and the National Archives of Zimbabwe, participated in this study. The study established that there was no clear-cut eHealth information in hospitals. Furthermore, there were no standards developed by the relevant ministry and this had led to the lack of interoperability, information silos, and failure to preserve, migrate and share information across different platforms. The study recommends the establishment of technical committees to develop, implement and oversee the eHealth standardisation process in Zimbabwe.

Keywords: eHealth; standards; e-records; health information; healthcare; Zimbabwe

1. Introduction and background to the study

The importance of standards in areas such as eHealth information management, which are driven by technology, cannot be ignored. Standards are the rules that define how health information systems interact and communicate to support electronic exchanges of health information and they are fundamental to health

information systems interoperability and the existence of a national health information systems (Public Health Data Standards Consortium of Baltimore, Maryland 2009:11). According to Nengomasha (2009:107), standardisation is critical to managing e-records and information effectively, and relying on recognised information technology standards is a preventive measure against potentially devastating effects of hardware and software incompatibility, coupled with rapid obsolescence of technology. According to Shoniregun, Dube and Mtenzi (2010:59), standards incorporate requirements that can be construed as meeting legal provisions. Standards are benchmarks that can be used for selecting or acquiring eHealth information systems. Nationally adopted standards should enable the procurement and implementation of affordable, cost-effective and accessible technology that complies with these standards (The Republic of South Africa Department of Health 2012:16).

The World Health Organisation (WHO) (2005) defines eHealth as the use of information and communication technologies (ICTs) for health to, for example, treat patients, pursue research, educate students, track diseases, and monitor public health. Furthermore, WHO (2004) defines e-Health as the transmission and exchange of health data and information either locally or at a distance. Dlodlo (2013) points out that the definition of eHealth covers electronic health records to enable the sharing of patient data between points of care, routine health management information, vital registration, consumer health informatics, health knowledge management, and eHealth among other things. The implementation of eHealth information systems has to be founded on sound standardisation without which, confidentiality, privacy, migration, interoperation and long-term preservation cannot be guaranteed. In addition, e-Health information standards deal with a broad range of eHealth records

aspects including the architecture, content, storage, security, confidentiality, functionality, and communication of information (Shoniregun, Dube & Mtenzi 2010). Without standardisation, new and vastly different software applications are implemented, creating information and records that require proprietary hardware and software to operate (Krahn 2012:19). This leads to software and hardware upstarts, with little to indicate which technology would survive the year (Krahn 2012:19).

A plethora of challenges makes eHealth standardisation challenging especially in developing countries. The challenge has been the low attention paid to standards covering e-records and eHealth. When it comes to eHealth standards adoption at the national level, there is no evidence of eHealth standards adoption in developing countries (Adebesin, Kotze, Van Greunen & Foster 2013: 65). While internationally, a wide range of eHealth standards developed by standards development organisations such as the International Standardisation Organisation (ISO) and European Committee for Standardization (CEN) is available, very few of these have been localised and formally adopted by African countries (Republic of South Africa Health Department 2012). The prevalence of non-interoperable healthcare systems in Africa is closely linked to the low level of e-health standards adoption, especially at the national level (Adebesin et al. 2013:66). A large number of e-health standards currently available can make the selection of the appropriate standard(s) difficult, especially for low resource countries in Africa (Adebesin et al. 2013). Many of these standards usually charge fees to access or implement and this can drive up the cost of eHealth products or discourage innovation based on eHealth standards (International Telecommunications Union 2012).

Zimbabwe has been developing and implementing a number of eHealth innovations over the years. Chidawanyika (2012:8) highlights that eHealth initiatives in Zimbabwe include the District Health Information System (DHIS), Frontline SMS, the Human Immuno Virus (HIV) or Tuberculosis (TB) indicator database and the laboratory reporting system. Zimbabwe has also rolled out the laboratory information system, the logistics information system, the human resources information system, and the Inpatient Morbidity and Mortality Information System (IMMIS) (Chidawanyika 2012:8). Moreover, the electronic health record (EHR) and patient management systems (very minimal), Fuchia, IQ care, the electronic-register, Energy plan, the Electronic Medical Record (EMR) and hospital information system for accounts have been introduced (Chidawanyika 2012:8). The Ministry of Health and Child Care Zimbabwe (MOHCC) made significant progress in transforming its health information system when it made a change from a decentralised paper-based and standalone software-based information system to one that is centralised, integrated and is web-based (Matavire, Chidawanyika, Braa, Nyika & Katiyo 2013).

A weekly surveillance system was implemented using mobile technology, where all health facilities were provided with mobile devices as tools to report a limited amount of critical health information (Matavire et al. 2013). Furthermore, the District Health Information System 2 (DHIS2) was implemented in order to tackle the issue of fragmentation (Matavire et al. 2013). Zimbabwe's health information system is organised into four levels, namely, the health facility, district, provincial and national levels (Matavire et al. 2013). Zimbabwe's health delivery systems are divided into four levels of

care, namely, the primary, secondary and quaternary levels (MoHCW 2012). The primary level is made up of small clinics based especially in rural areas, whereas the secondary level of care consists of district hospitals (MoHCW 2012; Osika et al. 2010). The tertiary level of care comprises of seven provincial hospitals which are found in all other provinces with the exception of the Bulawayo and Harare Metropolitan provinces which are served by central hospitals (Osika et al. 2010). The quaternary level of care includes the six central hospitals located in Bulawayo and Harare. Bulawayo Metropolitan Province is one of the ten provinces in Zimbabwe and it is served by a total of six hospitals. These hospitals include Mpilo, Ingutsheni and United Bulawayo hospitals which are in the quaternary level. The province is also served by three other hospitals, which are Mater Dei Hospital (a private healthcare facility), Hillside Premier Hospital and Thorn-Grove Isolation Hospital. This study sought to establish the state of eHealth information management in hospitals in Bulawayo, Zimbabwe, given the fact that eHealth systems being deployed in the country do not use any international standards.

2. Literature review

Standardisation shows a willingness to execute best practice and it is an essential component of seamless communication of health information, robust health information system and flawless global interoperability (Kwak 2003; Hughes 2003). Standardisation in eHealth prevents single vendor lock-in as well as expensive customised solutions (Wager, Lee & Glaser 2009). To Adebesein et al. (2013:2), a standard is an agreed-upon, repeatable way of doing something; it is seen as the key to achieving interoperability of healthcare systems.

According to Berg (2005), the diversity of eHealth information and records management systems used in the health sector requires standardisation. Standardisation guarantees the smooth migration of records and information between systems, and where a diversity of systems is in use, standardisation facilitates the secure and seamless exchange of health information that is accessible to authorised users as and when required (International Standardisation Organisation (ISO) 2013). Wager, Lee and Glaser (2000) further posit that standardisation prevents single vendor lock-in, promotes healthy market competition and removes the need for expensive customised solutions. Standards are needed to assess whether the statistics available to decision-makers are comprehensive, timely, accessible, and reliable (Health Metrics Network 2008). To Berg (2005:44), standardisation is important in coordination and in ensuring that there is national and international compatibility, interoperability, open architecture, modularity and capacity for an upgrade (The Republic of South Africa Department of Health 2012:16). Mawire (2012) further stresses that the Ministry of Health and Child Care notes that one of the most important aspects for successful information management is standardisation.

EHealth information standardisation is loaded with many challenges which include the huge number of available standards, with many of them competing and overlapping, and some even contradicting one another (European Commission 2008). Williams and Boren (2008:114) state that owing to the complexity and different needs of each of the units/departments within the healthcare industry, maintaining technological standards is always difficult. As a result, each department usually implements its own technology pertaining to

the needs of that unit, which makes it impossible for all systems within the hospital system to communicate (ibid).

3. Problem statement

Most African countries have not localised and formally adopted eHealth standards (Republic of South Africa Health Department, 2012). Shoniregun, Dube and Mtenzi (2010) note that the absence of eHealth standards inhibits interoperability, portability, mobility, quality, and trust in eHealth. Zimbabwe's healthcare sector has been developing eHealth systems which do not use international standards (Ministry of Health and Child Welfare, Zimbabwe, 2012:9). The lack of standardisation in eHealth initiatives leads to the use of proprietary eHealth systems which vendor lock-in, the lack of interoperability hindering information sharing, migration and long-term preservation. The Ministry of Health and Child Welfare, Zimbabwe (MoHCW) (2012:9) laments that the lack of standardisation in the country's eHealth initiatives has led to information silos and the loss of health data and information, duplication of effort, and unworkable system implementations. This creates a scenario where one service provider is confronted with numerous service points, costly systems that do not produce desired results and create an inefficient service delivery system.

4. Purpose and objectives of the study

This study sought to establish the state of eHealth information standardisation in hospitals in the Bulawayo Metropolitan Province, Zimbabwe.

The specific objectives of the study were to

- Establish how hospitals deal with eHealth information initiatives under the current state of eHealth information standardisation;
- Determine how the current state of standardisation has affected eHealth information initiatives; and
- Recommend the way forward in eHealth information initiative standardisation.

5. Methodology

The study applied a qualitative research methodology and a case study research design. Purposive sampling was also applied as the researchers selected research participants who were directly involved in eHealth initiatives at hospital and national levels. Face-to-face interviews and document analysis were used to collect data. The population of the study included health information officers from each of the five hospitals, the National Health Information Manager representing the Ministry of Health and Child Care and the Chief Archivist from the Bulawayo National Archives of Zimbabwe (NAZ). The participants were selected based on their being principal officers in their respective units and departments who were aware of issues concerning policy and standardisation in health information and records management. Seven face-to-face interviews were conducted. The 100% response rate was achieved because interviews were set at a convenient time for research participants.

6. Data presentation

Data were presented and analysed thematically, with themes derived from the objectives of the study. Coding was used, where A, B, C, D, and E represented health information officers from the five hospitals. Code F and G represented the Chief Archivist and the National Health Information Manager respectively. Data are presented in subsequent sub-sections.

6.1 Instruments being used in place of eHealth information standards in Zimbabwe

Given the fact that Zimbabwe has not yet deployed eHealth information standards, respondents were asked to highlight instruments which were being used instead of eHealth information and records standards in Zimbabwe. Their responses are tabulated below.

Table 1: Instruments being used in Place of eHealth information standards

Respondents	Responses
G	“There are no clear-cut national eHealth standards in the country and eHealth initiatives are currently guided by the country’s health information strategies which are not comprehensive. We also consult experts from within and outside the country, but honestly speaking we have not adopted international standards and we have not developed our own local standards.”
F	“The National Archives of Zimbabwe has not yet developed or endorsed any e-records management standards yet.”

A, B, C, D, and E	Respondents A, B, C and D were not aware of any national e-records and eHealth information standards. Respondent C highlighted that “This hospital has not yet received any communication with regards to eHealth or e-records standards from the Ministry of Health and Child Care Health Information Management and Disease Surveillance Unit.”
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The Ministry of Health and Child Care (2012) and Draft E-Health Strategy of Zimbabwe (2012-2017) revealed that e-health information systems being developed and deployed in the country did not use any national or international standards, increasing the risk of developing vertical silos of data and limited information exchange across the healthcare systems. However, the Ministry of Health and Child Welfare, Zimbabwe (2009) highlights that the country’s Health Information Strategy which builds on the existing National Health Information and Surveillance (NHIS) system is still being used as a standard. An analysis of the Ministry of Health and Child Welfare (2009:16) and Health Information System: National Strategy for Zimbabwe (2009-2014) document highlights that the eHealth framework will guide the development of standards related to the use of ICT in the health sector.

6.2 Responsibility for eHealth information standardisation in Zimbabwe

In order to establish the eHealth standardisation process and line of authority in Zimbabwe, these authors conducted document analysis. The Standard Association of Zimbabwe’s (SAZ) (2010) document titled *Preparation of standards: Part: SAZ and the Technical Committee Procedures*, was analysed. Document analysis reveals that SAZ is the recognized national standard body in Zimbabwe responsible for the preparation and promulgation of national standards in all fields (SAZ 2010). SAZ’s core activity is to prepare and publish various Zimbabwe standards, specifications, code of practice, test

methods, a glossary of terms and definitions by agreement among all the interests concerned and to promote their adoption (SAZ, 2010). According to SAZ (2010), the Technical Committees appointed under the authority of the Councils and responsible to them have delegated the work of standards projects and for deciding the broad programme and priorities for work in their fields. The administration of the technical committee is performed by the Association's Standards Development section (SAZ 2010:6). SAZ (2010) further points out that standards are being prepared at any one time by a number of active technical committees that report to their respective councils and subsequently to the technical board. The committees are required by the rules of the association to represent the main interests concerned in the work referred to them. According to SAZ (2010), there is a technical committee representing health and environment, which was assigned the code TC HE 1 / TC HE 2.

These researchers also analysed the Ministry of Health and Child Welfare (MoHCW): Zimbabwe's E-Health Strategy (2017) document. This analysis revealed that there would also be sectorial standards adherence committees that will be responsible for ensuring compliance with the national and global standards so that the fragmentation of health information and applications is reduced (MoHCW, 2017). Document analysis also showed that all health stakeholders should be involved in setting up standards and global standards being pursued by international organisations should also be considered as services offered may become global in the future (MoHCW 2017). The Zimbabwe National Policy for Information and Communication Technology (ICT) (2014) highlight that the government should support the development of an eHealth policy to promote the development, access to and use of ICTs. This

document does not particularly address eHealth standardisation but only eHealth policy development.

An analysis of a news article by Mawire (2012) titled *Zimbabwe establishes national health Information Committee*, shows that a National Health Information Technical Committee (NHISTC) has been established in Zimbabwe to oversee the implementation of the National Health Information strategy for 2009-2014 and to promote eHealth initiatives. Mawire (2012) clarifies that the task of the NHISTC will be to advocate and provide technical assistance towards a vision and strategic approach to eHealth and the development of ICTs and eHealth policies and systems. Mawire (2012) also reveals that an ICT/e-Health Technical Work Group has been set up to provide technical support and monitor the establishment of ICT/e-health policies and systems. The committee will assist and guide the health ministry in advocating for the establishment of an ICT/e-health policy framework, which provides for the use of ICT in the health service delivery in tandem with the national health strategy and ICT policy (Mawire, 2012). It will also provide technical support and monitor the development and setting up of a digital and e-communication solution for health services delivery in Zimbabwe (Mawire 2012).

6.3 The eHealth and e-records standardisation process in Zimbabwe

The respondents were also asked to shed light on the e-records and eHealth standardisation process in Zimbabwe. Their responses are presented in the table below.

Table 2: The eHealth and e-Records standardisation process in Zimbabwe

<i>Respondents</i>	<i>Responses</i>
G	“The Ministry of Health and Child Care Zimbabwe established a Technical Committee which was supposed to look into eHealth initiatives and that would include the adoption and development of standards for eHealth in the country.”
F	“The National Archives of Zimbabwe had a Records Committee which was supposed to be looking into issues of standardisation. This Committee was dysfunctional and the national archival institution currently does not have active structures to endorse international standards or even draft national ones.”
A, B, C, D, E, F and G	All seven respondents stated that there were no structures such as committees within hospitals responsible for eHealth standardisation.

In order to further establish the eHealth standardization process in Zimbabwe, these researchers also analysed the SAZ (2010) Preparation of Standards: Part: SAZ and the Technical Committee Procedures document. This analysis revealed that the committee structure of SAZ seeks to bring together all those with a substantial interest in particular projects, wherever possible through organisations representing the views of industry, sector, trade, or other interest (SAZ, 2010). This achieves, economically, a wide measure of consultation and support in standards work (SAZ 2010). The basic principles are that SAZ should carry out its task in the national interest, take account of all significant viewpoints, secure their representation at all committee levels, and through its consultation procedures, have an authoritative body of opinion behind every Zimbabwe standard (SAZ 2010:10).

These researchers also analysed the Ministry of Health and Child Welfare, Zimbabwe (2009), Health Information System: National Strategy for Zimbabwe (2009-2014) document. This analysis revealed that the Health Information System Technical Committee shall define the minimum set of national indicators and data sets necessary to support the implementation of the National Health Strategy (MoHCW 2009). A set of 99 core health indicators has been adopted and the Technical Committee will periodically review and update this list. All health facilities shall use the same list and definitions of core health indicators for standardisation and comparison purposes (MoHCW 2009:17). The MoHCW (2009) also highlights that software consultant together with IT and HIS department personnel will develop electronic data standards and technical guidelines on the management, transfer (including communications standards) and access to data, and on data security (MoHCW 2009:28). The standardisation of health-related information has to tally with the national standards being set for other ICT related fields, broadly defined under e-commerce, e-government (Mawire 2012).

6.4 Relationships with international eHealth standardisation bodies

This section sought to establish the level of engagement between Zimbabwe and international standardisation organisations on eHealth initiatives. Responses to this question are presented in Table 3.

Table 3: The level of engagement between Zimbabwe and international standardisation organisations on eHealth initiatives

<i>Respondents</i>	<i>Responses Standardisation</i>
G	<p>“Professional bodies and associations are key to the standardisation of eHealth initiatives in the country. However, there is no health information management association in Zimbabwe and the country cannot be a member of international health information management associations without a national association.”</p> <p>“The International Standardisation Organisation (ISO) is responsible for standardisation internationally whereas the Standards Association of Zimbabwe (SAZ) is tasked with standardisation in the country. SAZ has endorsed international standards and also developed local ones in areas such as manufacturing, medicine, retail and other areas but has not yet done the same for eHealth and e-records management.”</p>
B	<p>“Without a national health information management association the country cannot be linked to international health information management bodies which promote health information and eHealth standards.”</p>
B, G and F	<p>SAZ has neither engaged in endorsing international eHealth and e-records standards nor developing national ones.</p>
A, C, D, and E	<p>These respondents were not aware of the ground covered by SAZ in endorsing or developing eHealth and e-records management standards.</p>

6.5 Capacity to participate in eHealth and e-records standards development

The researchers also sought to establish the respondents’ capacity to participate in eHealth standards development. Their responses are presented in Table 5.

Table: 5: Respondents' capacity to participate in eHealth standardisation

Respondents	Responses
A, B, C, D and E	These respondents could not develop local eHealth and e-records management standards because there were no national standards to adopt and localise.
A, C, D and E	Highlighted that they did not have the capacity to develop eHealth standards
B, F and G	Highlighted that their training and experience had prepared them for standards interpretation and application. However, these respondents highlighted that they were never exposed to standard development.”

6.6 The state of affairs of eHealth information initiatives

This section sought to determine the state of affairs of eHealth information initiatives in hospitals, given the absence of national standards in that area. Responses are presented in Table 6.

Table 6: Challenges resulting from the absence of standardisation in eHealth

Respondents	Responses
G	<p>“The lack of standardisation in eHealth is a challenge as the Ministry of Health and Child Care is funded by different donors who bring with them different eHealth information management systems which are not compatible. At some point, there were systems for HIV and AIDS, Tuberculosis, malaria and other programmes. These systems had no interoperability and data analysis was a challenge as these systems were not integrated.”</p> <p>“The application of standards in eHealth should stipulate the minimum qualification for eHealth professionals. Without standards, the Ministry of Health and Child Care will employ unqualified or underqualified personnel into eHealth information management.</p>

	<p>Without standards, there is no accreditation and even the health information management field cannot be taken seriously in the country.”</p> <p>“By applying proprietary eHealth software in the past, we found ourselves bound to certain systems and vendors and we could not migrate our data or information from one system to another.”</p> <p>“Prior to 2013, we had challenges as systems that were in use were parallel and they could not talk to each other. However, now we have DHIS2 which is an open system which integrates all other systems such as Frontline SMS and other systems.”</p> <p>“Without standards, donors can just impose eHealth systems which will not produce any meaningful results. Moreover, standards also are useful when selecting eHealth information systems and without them, we have been falling into the trap of selecting systems based on sales pitches by vendors and other players in eHealth.”</p> <p>“Without standards, the evaluation and or assessment of eHealth information management systems was impossible as there was no yardstick to be used to objectively measure the effectiveness of such systems.”</p> <p>“Without standards, health information will be incomplete as long as there is no link between the private and public health systems. The health data and information produced therein is incomplete and insufficient for decision making and resource allocation.”</p>
<p>A, B, C, D, E, F</p>	<p>The absence of eHealth and e-records management standards in the health sector is a challenge as proprietary systems do not guarantee the migration of data or records from one system to another.”</p>
<p>D</p>	<p>“We once decided to migrate from one eHealth information management system to another only to discover that we could not do so as the two systems were incompatible. We had to recapture some of the information into the new system and that was a tedious and very long process”</p> <p>“Our hospital' s eHealth systems are selected by the hospital administrators who have no health information background and that has led to purchasing systems which are not interoperably leading to information silos.”</p>

7. Conclusion and recommendations

This study established that international eHealth information and records standards had not yet been endorsed or local ones developed for use in the health sector. This was in line with the conclusion made by Adebessin et al. (2013) that many of the high-level government officials who make policy decisions regarding eHealth initiatives do not understand the important role of standards in effecting quality care. The study established that a number of eHealth initiatives had been rolled out by the government through the MoHCC without paying attention to standards development.

The study also established that a number of technical committees had been established to cater for eHealth initiatives in general. However, there was no committee specifically created to cater for eHealth information standards. The SAZ also was not having a committee specifically dedicated to eHealth information standardisation. Therefore, the study concluded that there was no eHealth standardisation body which could work together with international eHealth standardisation bodies in developing and implementing eHealth standards locally. The study also established that there was no records management or health information management professional body that could advocate for eHealth standardisation or even promote standards locally. Khumalo (2016:214) stresses that without a national professional body for health records managers, health information and records professionals in the country could not be members of international and regional professional bodies such as IFHIMA and AHIMA whose membership could only be facilitated through a national health information association.

The study further established that the lack of eHealth standards had led to the implementation of eHealth information systems which were not interoperably leading to information silos and the loss of health data and information. Without eHealth information management standards, there is a duplication of effort, unworkable system implementations where one service provider is confronted with numerous service points, costly systems that do not produce desired results and create an inefficient service delivery system (MoHCW 2012:9). The findings of this study were in line with Krahn's (2012:3) view that without standards, vast amounts of recorded information in electronic or digital form have been lost to deterioration, obsolescence, ignorance, and neglect.

This study further concluded that challenges faced in the quest to standardise eHealth and e-records management included the fact that most standards were available at a price and developing countries like Zimbabwe could not afford to purchase the many standards which were developed by international organisations. Furthermore, the study revealed that there was a lack of personnel qualified to develop and interpret standards. The findings of this study were in line with the European Commission's (2008) conclusion that eHealth standardisation is loaded with challenges such as the huge number of available standards, with many of them competing and overlapping, and some even contradicting one another (European Commission 2008). This study concludes that different donors were introducing their own eHealth systems for their specific programmes and attention was not being given to ensuring compatibility and interoperability. Williams and Boren (2008:114) buttress that owing to the complexity and different needs of each of the units/departments within the healthcare industry, maintaining technological standards is always

difficult. As a result, each department usually implements its own technology pertaining to the needs of that unit, which makes it impossible for all systems within the hospital system to communicate.

The researchers concluded that there was no specific body or committee dedicated to eHealth standardisation. Although SAZ has the mandate to develop standards, it has not yet done so or even established an eHealth standardization technical committee. The researchers noted the presence of SAZ and different committees in the health sector established to cater for standardising different aspects of eHealth initiatives. However, none of the said bodies was directly responsible for developing eHealth standards. The study also concluded that the absence of standards had led to unworkable systems, which were not interoperable and leading to information silos and making integration impossible. The study also concluded that policymakers were not paying attention to the importance of eHealth standards as different eHealth information management initiatives were being implemented without standards. These researchers also concluded that eHealth Strategies, which were incomprehensive were being used as in the absence of comprehensive standards.

This study recommended that MoHCC and SAZ must establish a technical committee responsible for eHealth. This study recommends that committees dedicated to eHealth standardisation be established and that such bodies be affiliated to international eHealth standardisation bodies. Furthermore, the researchers recommended that health information management professional bodies be established to among other things, advocate for eHealth standardisation. The researchers also recommended that the standardisation of

eHealth systems in the country must be done in consultation with professionals from fields such as records and archives management, health information management, health professionals, epidemiology, statistics, law, and other fields. This is because eHealth draws from a number of disciplines which should be considered when drafting standards and legislation. The study also recommended that international eHealth standards be adopted and adapted to local needs.

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