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January 22, 2016

Ms. Mariann Yeager
Chief Executive Officer
The Sequoia Project
1600 Tysons Blvd., 8th Floor
McLean, VA 22102

Dear Ms. Yeager:

Thank you for the opportunity to comment on the Sequoia Project's *Framework for Cross-Organizational Patient Identity Management*.

AHIMA is the national non-profit association of health information management (HIM) professionals. Serving 52 affiliated component state associations including the District of Columbia and Puerto Rico, AHIMA represents over 101,000 health information management professionals dedicated to effective health information management, information governance, and health data analytics. AHIMA's credentialed and certified HIM members can be found in more than 40 different employer settings in 120 different job functions—consistently ensuring that health information is accurate, timely, complete, and available to patients and providers. AHIMA provides leadership through education and workforce development, as well as thought leadership in continuing HIM research and applied management for health information analytics.

Accurate and reliable patient matching continues to serve as a barrier to successful nationwide information exchange. A number of our members have noted that patient matching errors often begin at registration and can generate a cascade of errors that continue until a patient is discharged. A recent survey of AHIMA members revealed that over half of HIM professionals routinely work on mitigating possible patient record duplicates at their facility. Of those, 72 percent work to mitigate duplicate records on a weekly basis.[1] Without this intervention by HIM professionals, clinicians would have an incomplete record of a patient's medical history, uncoordinated care with other providers that may be treating the patient, unnecessary testing or improper treatment(s), and workflow inefficiencies.

We appreciate the work the Sequoia Project has done in developing this framework to address the critical issues of patient matching and identity management. Our detailed comments and recommendations can be found below in **Table 1: Cross-Organizational Patient Matching**

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[1] Dooling, J. et al. "Survey: Patient Matching Problems Routine in Healthcare." *Journal of AHIMA*, Jan. 6, 2016. http://journal.ahima.org/2016/01/06/survey-patient-matching-problems-routine-in-healthcare/.

Maturity Model and **Table 2: Cross-Organizational Patient Matching Minimal Acceptable Principles**.

We thank you for the opportunity to submit comments on the Sequoia Project's *Framework for Cross-Organizational Patient Identity Management*. We look forward to working with the Sequoia Project to provide a robust, mature, cross-organizational patient matching framework. Should you or your staff have any additional questions or comments, please contact Lauren Riplinger, Senior Director, Federal Relations, at lauren.riplinger@ahima.org and (312) 233-1407, or Pamela Lane, Vice President, Policy and Government Relations, at pamela.lane@ahima.org and (312) 233-1511.

Sincerely,

Lynne Thomas Gordon, MBA, RHIA, CAE, FACHE, FAHIMA
Chief Executive Office

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Table 1: Cross-Organizational Patient Matching Maturity Model

Comment Number	Referencing Document Line Number	Original Text	Suggested Revised Text	Comments
1	59	Mature Organizations typically possess the following: 1. coordination, communication and collaboration across silos 2. work plans are generally realistic and accomplished for common project types 3. process and practice are largely in agreement 4. processes improve over time 5. staff understand their responsibilities and there are no key gaps in staffing or skills 6. management and staff are aligned.	Mature Organizations have a well-established information governance program which includes standard definition utilization, reconciliation processes, and established quality assurance controls. Mature Organizations provide a data governance framework as a component of their information governance program.	AHIMA applauds the definitions included in the framework. However, more attention should be given to information governance, which will assist with interoperability across organizations. AHIMA defines "information governance" as an organization-wide framework for managing information throughout its lifecycle and supporting the organization's strategy, operations, regulatory, legal, risk, and environmental requirements. AHIMA defines "data governance" as the responsibility of the business unit. It is the policies, processes and practices that address the accuracy, validity, completeness, timeliness and integrity of data. AHIMA is committed to advancing

				information and data governance in the healthcare industry to ensure the quality and integrity of all types of information necessary to safe, high quality, cost effective care and the improvement of the health of individuals and populations. For additional resources on information and data governance, please visit AHIMA's website.
2	102-103	At Level 3, organizations monitor, analyze, and systematically improve their ability to manage patients across organizational boundaries.	At Level 3, data governance is incorporated into the process with initial implementation of an information governance program. Data integrity with respect to patient matching, including all components, is recognized and supported. This includes an internal reconciliation process.	
3	109	At Level 4, innovation becomes a standard component of patient matching.	At Level 4, an information governance program is firmly in place with executive support and operational integration, and the value of information is recognized. Data integrity with respect to patient matching also includes external reconciliation with quality processes.	
4	132-133	At Level 2, staff are devoted, at least part-time, to cross-organizational patient matching.	At Level 2, there is mandatory training for staff involved with patient matching and identity management.	
5	134-135	At Level 3, staff includes formal responsibility for cross-organizational patient matching. Training is accepted as necessary and appropriate. Staff	At Level 3, staff is involved in raising business partner awareness.	

		are involved with industry initiatives.		
6	137-138	At Level 4, staff involved in patient identity management are involved at more senior levels within the organization and are leading innovation with respect to this topic.	At Level 4, staff involved in patient identity management are also engaged in mandatory periodic training for patient identity management. This includes refresher training for staff at all levels.	
7	145	At Levels 1 and 2, the patient is starting to be recognized as a potential active participant in their identity management.	At Levels 1 and 2, the patient is starting to be engaged as an active participant in their identity management. This may include manual workflows with visual oversight.	AHIMA believes that patients should begin to engage as an active participant in their identity management as early as possible in order to educate patients about the importance of proper patient identification and further reduce instances of patient matching errors.
8	147-148	At Level 3, the patient is involved via manual workflows and processes, but no system changes are made to accommodate such changes.	At Level 3, the patient is engaged as an active participant and system changes are made to incorporate contributions made by the patient.	
9	149-153	At Level 4, the patient is recognized as a key ally in optimal patient identity management. In addition, at Level 4, the knowledge gained as patients become involved in their own identify management is durable, shared across the enterprise, and reused for subsequent cross-organizational patient identity management.	At Level 4, the patient is actively engaged and “owns” their identity within the organization. This includes allowing patients to make decisions about the data being shared, including when and with whom to share such information.	
10	155	Use of technology at all levels is	At Level 0, there is an assumption that no	AHIMA recommends a narrative for

		assumed.	technology or loosely cobbled technology has been implemented by the organization. At Level 1, the use of technology is assumed.	each respective level so the reader of the framework can differentiate between levels.
11	156-160	The deployment of technology at Level 0 is largely built around ad hoc processes and standards, such as using custom data interfaces that are not fault tolerant, robust, performant, or well documented.	At Level 2, the deployment of technology is largely built around ad hoc processes and standards, such as using custom data interfaces that are not fault tolerant, robust, performant, or well documented.	
12	161-165	At Level 3, the organization is using software of commercial quality, either from a strong performing third party vendor, or custom developed with the same degree of robustness, performance, fault resilience, and internal documentation.	At Level 3, a technical process for data integrity and reconciliation has been developed by a strong performing third party vendor, or custom developed and is available via the product.	
13	166-168	At Level 4, the organization has developed new technology, is continuously testing their innovative technology, and is submitting a refined version to Standards Development Organizations (SDOs) to help advance the industry.	At Level 4, reporting capabilities also exist within the product to identify areas of opportunity to enhance patient matching and identity management.	
14	192-193	Workflows at Levels 1 and 2 are largely driven by the desire to meet federal regulatory requirements.	At Level 1, workflows are evaluating federal regulatory requirements and perhaps minimally meeting them. At Level 1, workflows are largely driven by payment requirements.	AHIMA recommends a narrative for each respective level so the reader of the framework can differentiate between levels.

			Beginning at Level 2, workflows are meeting federal regulatory requirements.	
15	194-196	Level 3 workflows are driven by more advanced objectives such as full round trip immunization query, administration, update, and reporting. Cross-organizational partners are partially incorporated into workflows.	At Level 3, data governance principles are in place that define data integrity and subsequent requirements.	
16	197-199	Level 4 workflows are driven by advancing the state of the art and tracking adherence to the best demonstrated practices. Level 4 includes optimization of workflow to incorporate partner organizations.	At Level 4, information governance, which includes data reconciliation processes and quality controls, is also in place.	
17	201 - 203	Organizations that are at Level 0 often do not yet understand that rules of patient identity management that work for them within their enterprise do not necessarily work across organizational boundaries.	Level 0 includes organizations that often do not yet understand that rules of identify management that work for them within their enterprise do not necessarily work across organizational boundaries. Data attributes to be standardized at Level 0 include: last name, first name, date of birth, gender, middle initial, race, primary phone number, and address. At Level 1, there is no defined reconciliation process. Data attributes to be standardized include: middle name, mother's maiden name, prefix, and marital status.	AHIMA recommends a narrative for each respective level so the reader of the framework can differentiate between levels. We also suggest, per the Office of the National Coordinator for Health IT's 2014 Patient Identification and Matching Final Report, that to enhance patient matching certain data attributes must be identified and standardized at each level.

			At Level 2, an ad hoc reconciliation process has been implemented. Data attributes to be standardized include: alias or previous name(s), use of standard data definitions for address (e.g., USPS ZIP code), last four digits of Social Security Number and/or drivers license number and/or passport or alien ID number. At Level 3, a daily reconciliation process has been implemented. Data attributes to be standardized include: multiple birth designation, birth order (if a multiple birth), birthplace, e-mail address, previous address(es), and phone numbers. At Level 4, a quality assurance process has been implemented. Data attributes to be standardized include: insurance ID/policy number, insurance plan, previous insurance, Medicaid ID, Medicare ID, and Biometric ID.	
18	216-217	At Level 2 and above, testing is largely automated, based on significant real world lessons learned, and is a good predictor of successful deployment.	At Level 1, testing programs should at least be validated based on name, address, and date of birth. This process could be completed manually.	AHIMA recommends a narrative for each respective level so the reader can differentiate between levels.
19	218-219	At Levels 3 and 4, testing programs assure, with a high degree of confidence, successful deployments.	At Level 3, testing programs ensure with a high degree confidence, successful deployments. At Level 4, a testing program with a	

			defined level of acceptance exists with published definitions.	
20	224	At Level 2, quality metrics are being captured.	At level 2, quality metrics are in place with data definitions defining the metrics. Information governance concepts are also introduced with support by executive leadership.	
21	225	At Level 3, the metrics are being used to actively improve.	At Level 3, quality metrics are being used to actively improve. Executive leadership is also actively engaged and supports data stewardship. Initial training is implemented and integrated into the fabric of the organization.	
22	226-228	At Level 4, the metrics are being further refined, and include feedback loops to the systems and organizations involved in patient identity management. Their external health IT trading partners join in metrics capture, use, and feedback.	At Level 4, engagement with external health IT trading partners includes business partners as well as consensus on metrics and definitions.	
23	230 - 235	Diagnostic approaches vary within the level of maturity (ad hoc, some automation, full automation, innovative approaches.) At Level 0, all patient matching exceptions and errors require human intervention. Processes are not well understood or documented. Errors are often not recognized in a timely manner. Manual work queues are not consistently staffed.	At Level 1, minimal automation is in place with ad hoc manual intervention required. At Level 2, some automation is in place with the need for human intervention. At Level 3, full automation is in place but there is still a need for human intervention in exceptional cases. Based on metrics (as defined by the organization), the need for human intervention should be less than 0.5	AHIMA recommends a narrative for each respective level so the reader of the framework can differentiate between levels.

		Management has little to no visibility into exceptions (frequency, types, root causes, impact, remediation plan, etc.)	percent. At Level 4, an innovative, fully automated approach is implemented that does not require human intervention.	
24	246	Incremental improvements are made at Levels 1-2.	At Level 1, system stability improvements are completed as a task on an inconsistent basis. At Level 1, there is no awareness of the value of data integrity or patient matching. At Level 2, system stability improvements are not recognized as having a return on investment (ROI), but the activity is being completed as a task. At Level 2, there is also a general lack of understanding about the impact or importance of patient matching.	AHIMA recommends a narrative for each respective level so the reader of the framework can differentiate between levels.
25	263-264	At Level 1, management awareness has increased and basic management controls are being defined.	At Level 1, training for staff is ad hoc and formalized training programs are lacking.	
26	265-271	At Level 2, management is actively involved in cross-organizational patient matching. Initial management controls have been implemented, are being used, and being improved. Metrics are being captured but are not yet being fully used.	At Level 2, formalized on-boarding training for staff is in place.	
27	272-277	At Level 3, management is leveraging metrics. Senior management is aware of the importance of cross-	At Level 3, a formalized enterprise training program is in place for staff with a feedback mechanism to enhance patient matching and identity	

		organizational patient matching as being of strategic importance as a prerequisite for other activities such as care summary exchanges. Management ensures that key staff are trained and skills developed. Workflow is reviewed and optimized at a system-wide level to ensure that patient matching dependencies, such as proper staff incentives, are in place.	management.	
28	278-284	At Level 4, management has empowered the organization to assume a leadership role in the industry. Innovation projects are funded and staffed. Innovations, once proven, are incorporated into production operations. Knowledge is shared with SDOs and with the wider community via significant industry involvement. Senior management includes at least one member that is focused on cross-organizational identity management as a formal area of responsibility.	At Level 4, formalized enterprise training programs have expanded to the organization's business partners.	
29	288-290	At Level 0, the organization may use custom solutions that are based on standards, or that are based on standards that are not well understood. Organizations at this level may have the naïve	At Level 1, organizations have established few industry recognized standards and have the naïve belief that the standards will solve more problems than they actually do.	AHIMA recommends a narrative for each respective level so the reader of the framework can differentiate between levels.

		belief that the standards will solve more problems than they actually do.		
30	292-295	At Levels 2 and 3, use of standards has matured, organizations understand that standards have limits but they leverage those capabilities fully, and provide for backend system support, such as more advanced internal algorithms, to make the best use of standards. Organizations also work with SDOs to fix errors and vagueness in the standards.	At Level 2, the use of standards has matured, organizations understand that standards have limits but they leverage those capabilities fully, and provide for backend system support, such as more advanced internal algorithms, to make the best use of standards. At Level 3 organizations work with SDOs to fix errors and vagueness in reports and standards.	AHIMA recommends a narrative for each respective level so the reader of the framework can differentiate between levels.
31	308-309	At Level 4, feedback loops are established with all participants, human and system, in the patient matching process across organizational boundaries.	At Level 4, feedback loops are established and include external organizations.	
32	311-312	At Level 4, organizations recognize that some patient identities are “fragile” and tend to consistently be false negatively matched or false positively matched.	At Level 0, fragile identities are not recognized. At Level 1, legal name changes due to instances of marriage and divorce are recognized and managed. At Level 2, cultural variations and newborn naming conventions are recognized and managed. At Level 3, naming conventions that exist for multiple births are recognized and managed.	AHIMA recommends a narrative for each respective level with respect to fragile identities so the reader of the framework can differentiate between levels.

			Each level (including Level 4) includes engagement and management of external business partners when managing fragile identities.	
33	323 - 327	At Levels 0 to 2, organizations do not have any special provisions in their various legal agreements covering the organizations with which they contract to enforce any degree of patient identity management practices. For example, if the organization is a data sharing network with participation agreements with their hospitals, the data sharing network may not require their hospitals to quality-assure patient demographics.	At Level 0, organizations do not have any special provisions in their various legal agreements covering the organizations with which they contract to enforce any degree of patient identity management practices. At Level 1, organizations have contractual language agreeing to partner with external organizations on patient identity matching. At Level 2, organizations have initiated discussions with external organizations on updating contractual language regarding patient identification matching.	AHIMA recommends a narrative for each respective level so the reader of the framework can differentiate between levels.
34	364-369	At Levels 2 and above, the inventory of known temporary values is accurate. Technological enforcement of these values is in place including at the staff data capture levels as well as at the automated data exchange levels. Staff processes are also in place to enforce this list. As new partners begin the onboarding process, temporary value inventories are exchanged as part of the formalized process.	At Level 2, the inventory of known temporary values is accurate. At Level 3, technological enforcement of known temporary values is in place. This includes at the staff data capture levels as well as automated data exchange levels. At Level 4, both new and established partners exchange temporary value inventories.	AHIMA recommends a narrative for each respective level so the reader of the framework can differentiate between levels.
35	407-410	At Levels 3 and 4, data quality is	At Level 3, training is provided to staff on	AHIMA recommends a narrative for

		expanded in scope to include human workflow considerations, staff training and formal responsibilities, and is being reported to senior management, whom is measuring and tracking progress towards targeted improvements.	workflow considerations as well as education on the impact of not following training guidelines. At Level 4, performance improvement is occurring on a routine basis and is embedded in the project. Performance evaluations include quality measurements of staff for accountability.	each respective level so the reader of the framework can differentiate between levels.

Table 2: Cross-Organizational Patient Matching Minimal Acceptable Principles

Comment Number	Referencing Document Line Number	Original Text	Suggested Revised Text	Comments
1	559-563	Patient Discovery Initiating Gateways SHOULD query using all traits required by the underlying specifications. In addition, where optional traits are known to be of high quality, then participants SHOULD query using all possible optional traits. [*Note to reviewers: the term "high quality" is not defined. Can and should it be defined? Is it possible to define?]*	High quality could be defined as less than one percent of records requiring manual intervention for linking.	AHIMA finds that there is an absence of literature on the number of records requiring manual linking for health information exchange. Therefore, we have provided this number as an illustration of the need to identify and measure.