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### **EHR Preparation: Building Your MPI Game Plan**

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**Patty:** It's February and we have already hit the ground running. No time to slow down as the momentum toward the electronic health record (EHR) moves full steam ahead. The events of 2003 certainly laid the groundwork for this year's focus on the EHR.

**Leslie:** There has been a lot written on the "movement" toward an EHR. For a quick recap of 2003 EHR related events, readers can review our November 2003 column called "EHR Reaches Its 'Tipping' Point" and also read the January 2004 cover story in the Journal of the American Health Information Management (JAHIMA) titled "The Drive for an EHR Standard Picks up Speed." These articles provide a good overview of what's happening and why.

**Patty:** I know we are planning to discuss the importance of the master person index (MPI) to the EHR, but before we move on, what do you suggest health information management (HIM) professionals be doing to stay informed?

**Leslie:** A good place to start is by reviewing the draft of the EHR functional model. You can find this draft at AHIMA's HL7 Functional Model Community of Practice (COP) and also at [www.EHRcollaborative.org](http://www.EHRcollaborative.org). In addition, I would initiate discussion of the functional model with your IT counterparts and with physicians. Perhaps together you can provide comments to HL-7 and participate as an organization in the voting process scheduled for March of 2004.

**Leslie:** OK, let's turn our attention to the MPI and the EHR. The two topics are relevant to one another because the EHR is a catalyst for examining and assuring the integrity of a health care organization's MPI.

**Patty:** I am not surprised that several of the proposed functions in the draft EHR functional model relate directly to MPI integrity.

**Leslie:** MPI data management is important no matter where an organization is with EHR, but often it only becomes a focus of attention during the implementation of an EHR or when a health system merges to form an integrated delivery network (IDN). Achieving MPI integrity is a critical patient safety issue. A unique patient identifier should be linked to each patient as they receive care throughout a health system. Patients with duplicate medical records are at risk for duplicate tests and for medical errors, already a serious problem in our country.

**Patty:** The cost of duplicate records alone should be the impetus for cleaning the index and then maintaining it. Unfortunately, allocating resources to MPI integrity management isn't always identified as a priority in health care facilities.

**Leslie:** We talked last year about the importance of creating urgency to help people hear and feel a problem, thus leading them to want to solve the problem. One way to create urgency is to objectively quantify the yearly hidden costs and the risks of a “dirty” MPI. The real bottom line cost of yearly duplicates will likely peak the attention of a CFO. The CFO can then in turn help to influence decision makers who determine the allocation of funds for projects.

**Patty:** An average organization’s duplicate rate is typically between 5 percent to 10 percent for a single hospital. The error rate is generally higher, up to 25 percent for IDNs. To approximate an organization’s error rate, the total number of medical record numbers in the MPI is multiplied by 5 percent or higher to approximate the number of possible duplicates in your system and/or the number of duplicates created daily. To obtain the actual number of duplicates in your MPI, most organizations will want to utilize software specifically designed to identify duplicates.

**Leslie:** Based on our experience with clients, the hidden operational cost of a duplicate pair to an organization can be a minimum of \$50.00 per pair. These costs include the resources spent in the registration area to recollect and re-enter patient information. It also includes supply costs to support duplicates such as medical record folders, color labels and radiology jackets. Delays in billing and collection often result because of the inability to properly link the patient with an account and accurate guarantor information. There are also costs associated with unsatisfactory customer service such as repeat testing and service delays. Finally, the time HIM and billing staffs spend investigating and resolving duplicates are costly to an organization as is the time spent by ancillary departments such as the blood bank and radiology updating their information systems as well as legacy manual systems.

**Patty:** That is a lot of operational inefficiency. What about patient safety issues?

**Leslie:** Some of the more serious potential medical errors include providing the wrong record to a clinician such as in cases of overlay duplicates, i.e., two different patients with the same medical record number; or, failing to provide records from previous admissions that contain important allergy and DNR information. In a recent MPI assessment performed for one of our clients, the MPI clean-up staff identified two different patients with the same name and medical record number. The physical merge was quite confusing. Can you imagine a busy clinician trying to make sense of this information in the record online or on paper? Or, the potential breach of confidentiality if this record would have been released to third parties, or one of the patients linked to the medical record number?

**Patty:** So let’s quantify this. If an organization creates one duplicate for every 20 patients they register and they register about 100 patients a day, six days a week, they are creating five duplicates a day or 30 a week. The hidden operational costs at \$50.00 per duplicate are \$1,500/per week. In a year the organization unknowingly spends about \$78,000 as a result of duplicate records! And that doesn’t even take into account potential litigation costs that might result from errors or a breach of privacy.

**Leslie:** The cost of doing an MPI integrity project is less in the long term than the on-going hidden costs incurred by an organization that does not address the problem of duplicates. To create a cost justification, we suggest that you determine your ongoing annual spending on duplicates vs. the cost to eliminate the problem once and for all. Correcting the problem is often less expensive than the accumulating annual costs of inaccurate MPI data. So what does an MPI integrity project look like?

**Patty:** A comprehensive MPI integrity project has multiple phases. Phase I typically includes performing an overall MPI assessment. Phase II deals with cleaning up duplicates that have slipped through the cracks over the past several years. Phase III includes developing and implementing registration standards, updating policy and procedures, installing an MPI duplicate prevention software and lots of training, monitoring and

feedback to achieve change in MPI practices.

In larger systems such as IDNs, an additional phase will most likely be included, which consists of planning for and implementing an enterprise wide MPI. This technology adds a level of technical complexity and additional expense to the project.

**Leslie:** Phase II can be very labor intensive. In general, HIM services vendors in collaboration with their clients perform the MPI clean-up phase. Hospital staff will often manage electronic merges while the vendor may focus its efforts on the physical merge.

**Patty:** This is often our experience but it is facility specific. The cost of the clean-up phase will vary and is based on what is included in the project scope. When planning the MPI clean-up phase there are a few ways to keep costs in check. Clean-up projects can include electronic merge only or electronic and physical merge. The economics of a physical merge usually require an organization to be selective regarding how much they decide to merge.

For some organizations, performing a partial physical merge of duplicates created in the past two years is a cost effective solution for them. The remaining duplicates are physically merged as patients present to the organization. Organizations need to determine what works best for them balancing patient safety, record management and economics.

**Leslie:** There are a number of excellent references to guide HIM professionals through the logistics of building an MPI and conducting clean-up projects. AHIMA has developed practice briefs on the topic and individuals have written about their lessons learned.

**Patty:** Because the MPI infrastructure is part of a well-constructed EHR initiative we encourage our readers to check in with their organization's MPI game plan. Readers can also review our recommended MPI action plan found in the online version of this article at [www.ADVANCEforHIM.com](http://www.ADVANCEforHIM.com).

## References

Hewitt Joseph, B. and Michelle O'Conner, "Connecting Care Through EMPs" JAHIMA November/December 2002.

Wheatley, Vicki, "Master your Master Person Index" HIMSS 2001 Proceedings.

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## MPI Action Plan – Getting Started

- Perform a literature search on MPI technology and clean-up projects to better acquaint you with case studies, AHIMA practice briefs and industry experiences as well as the elements of successful MPI Integrity projects.
- Form a cross-functional project team that includes registration, HIM, IT and ancillary departments such as lab, radiology and pharmacy. The goal of the team would be to bring about organizational awareness to the issue and approval for funds to implement an MPI Integrity project. Be sure you have an executive sponsor.
- Gather information about how much a duplicate costs your organization today. Use the examples in this

column for types of expenses. For additional costs and issues refer to the following feature article in the November/December 2002 JAHIMA article "Connecting Care Through EMPs pp. 34-36."

- Determine the cost of litigation should the organization be sued because of a medical error resulting from a duplicate number problem. Also determine the cost of a HIPAA violation related to data integrity and breach of privacy.
- Perform an MPI assessment to determine the number of current duplicates, the type of duplicates (overlap, overlay or multiples) at what rate duplicates are created daily and the root causes of duplicates.
- Develop an action plan and a working budget that includes a clean-up project, implementation of preventative technology and process redesign of registration functions.
- Seek guidance from your executive sponsor on how to best present the action plan and budget for funding.
- Present your action plan and budget to funding decision makers. Work on your plan and budget based on feedback. Begin the process of distributing an RFP or RFI to HIM service and technology vendors.