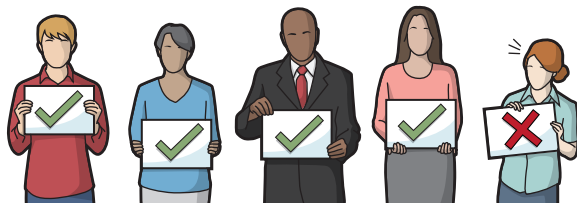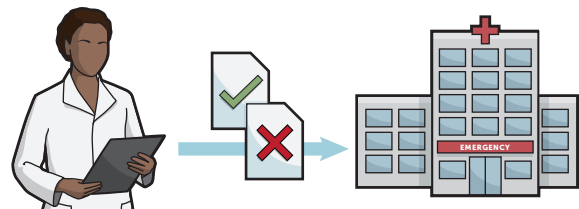# Patient Matching Errors Risk Safety Issues, Raise Health Care Costs

Mistaken identities and unmatched records can have serious consequences

Many patients see multiple doctors in different locations, but current methods of matching patients to their electronic health records (EHRs) are inadequate.

Up to **1 in 5** patient records is not accurately matched within the same health care system.[1]
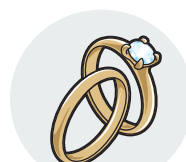
Up to half of patient records are not matched in transfers—e.g., from a rural doctor to an urban hospital.[2]

Common Problems [3]

Typos
Patient Name
JHON

A patient's name, address, birth date, phone number, or other identifying information is entered incorrectly.

Patient information changes
Patients move, get married, or change phone numbers, so their records are out of date.

Similar patient information
Patients or members of a family have similar names, the same birthday (e.g., twins), or other easily confused data.

Data formatting
MAIN ST
FIRST AVE

Patients' data are not standardized because EHR systems use formats that do not match.

Missing information
?

Useful patient information—such as a full middle or mother's maiden name—may not be recorded in the files.
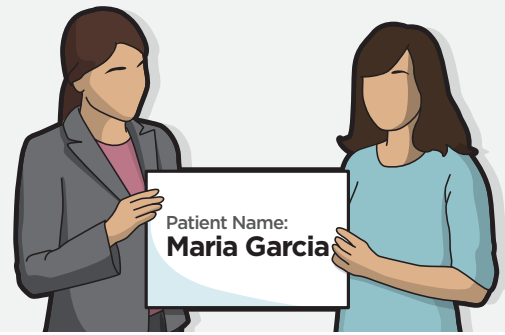
Insurance fraud
Patients use someone else's information to get treatment, introducing data from multiple people into the record.

One Name, Thousands of Records

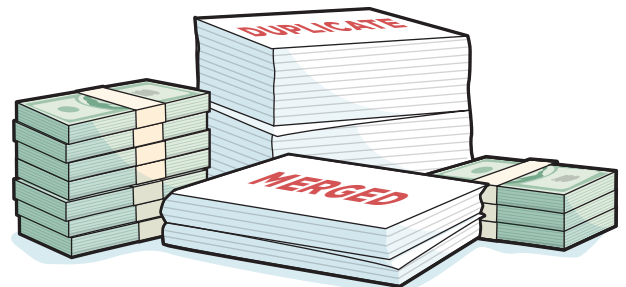There are 2,488 records for 'Maria Garcia' in the county including Houston—and **231 of them list the same birthday.**[4]

Patient Name:
Maria Garcia

Mistakes can harm patients...

1 in 5 hospital chief information officers linked at least one case of patient harm within the past year to a mismatch.[5]

ALLERGY

...And drive up costs

One hospital spent **$96** to fix each duplicate record.[6] The Mayo Clinic found it cost **$1,200** to correct mistakenly merged records.[7]

DUPLICATE

MERGED

Possible solutions

Pew is conducting research on how one or a combination of solutions can improve patient matching nationally. Options may include:

- Using a unique identifier—such as a patient number, a biometric (e.g., a palm vein or iris scan) or a smart card—to link patients to their records.
- Standardizing the data elements—such as name and address—used for matching to increase the likelihood that health care systems can link patients to the right records held at other facilities.
- Syncing EHRs with other systems, like the post office or credit bureaus, to ensure that changes in a patient's name, address, or other identifying information will be noted in his or her record.
- Creating a system in which patients ensure that their records are correctly matched and can send their data to different providers.

Endnotes

1   HeroX, "CHIME National Patient ID Challenge," accessed March 23, 2017, https://herox.com/PatientIDChallenge; Ken Terry, "National Patient Identifier Struggles for Life," *CIO*, Aug. 18, 2015, http://www.cio.com/article/2972266/healthcare/national-patient-identifier-struggles-for-life.html; Bipartisan Policy Committee, "Challenges and Strategies for Accurately Matching Patients to their Health Data" (June 2012), http://cdn.bipartisanpolicy.org/wp-content/uploads/sites/default/files/BPC%20HIT%20Issue%20Brief%20on%20Patient%20Matching.pdf.

2   Genevieve Morris et al., "Patient Identification and Matching Final Report," February 7, 2014, https://www.healthit.gov/sites/default/files/patient_identification_matching_final_report.pdf.

3   Beth Haenke Just et al., "Why Patient Matching Is a Challenge: Research on Mater Patient Index (MPI) Data Discrepancies in Key Identifying Fields," *Perspectives in Health Information Management*, Spring 2016, http://perspectives.ahima.org/why-patient-matching-is-a-challenge-research-on-master-patient-index-mpi-data-discrepancies-in-key-identifying-fields; The Sequoia Project, "A Framework for Cross-Organizational Patient Identify Management" (Nov. 10, 2015), http://sequoiaproject.org/wp-content/uploads/2015/11/The-Sequoia-Project-Framework-for-Patient-Identity-Management.pdf?x54807; Richard Hillestad et al., "Identity Crisis: An Examination of the Costs and Benefits of a Unique Patient Identifier for the U.S. Health Care System," RAND Corp. (2008), http://www.rand.org/pubs/monographs/MG753.html; ECRI Institute PSO, "ECRI Institute PSO Deep Dive: Patient Identification," https://www.ecri.org/Pages/Patient-Identification-Deep-Dive.aspx.

4   Giuseppe Lippi et al., "Patient and Sample Identification: Out of the Maze?" *Journal of Medical Biochemistry* 36 (2017): 1-6, http://dx.doi.org/10.1515/jomb-2017-0003; Harris Health System, "Harris County Hospital District Puts Patient Safety in the Palm of Your Hand" (April 5, 2011), https://www.harrishealth.org/en/news/pages/patient-safety-biometric-palm-scanner.aspx.

5   College of Healthcare Information Management Executives, "Summary of CHIME Survey on Patient Data-Matching," May 16, 2012, https://chimecentral.org/wp-content/uploads/2014/11/Summary_of_CHIME_Survey_on_Patient_Data.pdf.

6   Just Associates, "Studies in Success: Duplicate Records Compromise EHR Investment" (2015), http://hypercache.h5i.s3.amazonaws.com/clients/1446/filemanager/StudiesInSuccess/Just_ChildrensMedicalCenter_Testimonial.pdf.

7   Genevieve Morris et al., "Patient Identification and Matching Final Report" (Feb. 7, 2014), https://www.healthit.gov/sites/default/files/patient_identification_matching_final_report.pdf.

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