### DATA QUALITY SOLUTIONS TO IMPROVE HEALTHCARE DATA



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### Patient Care Begins With Accurate Patient Information

Patient well-being and healthcare operational efficiencies both rely on data integrity. While accurate data is necessary, there are challenges to overcome.

#### Data quality is essential ...

- A single view of the patient is crucial, from onboarding and treatment to continuing good health.
- In a digital world, healthcare operations, e-communications & telemedicine rely on accurate data.
- Precise demographic data help assure community health, resource allocation and better public policy.
- 'Preventive data care' is a first step toward data quality.

#### But data management is complex.

- Patient records change and contact points constantly evolve.
- Coding & filing claims require data updating, often by hand, leading to critical errors.
- Health plan data regularly changes, driven by socioeconomic and political factors.
- Regulation & compliance demand institutional data security and patient record privacy.



### Achieving optimal healthcare data quality.

Assuming your data is 'just fine' is not a sufficient data-quality program for today's best-of-breed healthcare systems. Both lives and operational efficiencies are at risk. Melissa can assist your healthcare organization with always-on data quality assurance.

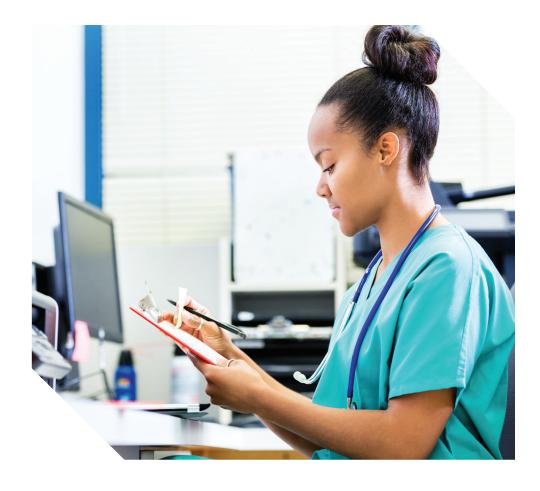


## Health systems require accurate patient data, location and medical history.

It's critical to know exactly who your admitted patient is, not only to provide the best care—histories, prior illnesses, admittances, etc.—but also for insurance, compliance and demographic issues. Data cleansing verifies patient names and matches them with all personal contact information, identifying exactly who is being admitted and treated, and why.

- Parse & validate addresses, names, phone numbers and email addresses.
- Geocode U.S. and Canadian addresses for exact patient locations.
- Make standard corrections and/or use Advanced Address Correction to optimize further outreach.
- Make clear connections within and across data sets to gain a 'valid view' of your patient.
- Update addresses of patients that have moved over last 10+ years.
- Add information that may influence medical history, including children, gender, race, household income and occupation.





### A single, accurate view of patient records is critical across time and physical space.

Often faulty identity matchings produce inaccurate patient records. There may be multiple logged-in names that are similar, abbreviated, with or without initials, and genderambiguous, among innumerable variables. Patients change households and even names, leading to patient identity confusion, mistreatment, billing and claim errors, and legal liabilities.

- Merge, purge, match and consolidate duplicate patient records across city, state and national boundaries.
- Identify multiple records at the same address.
- Create Golden Records based on survivorship rules and a data quality score.
- Compare records as they come in, in real time, against a database of verified records.
- Customize the process of real-time data entry with hybrid de-duping.
- Understand patients' histories, treatments, risks, diagnoses, and prognoses.





## Accurate data leads to improved patient communications and operations efficiencies.

Email is an essential tool to communicate with patients and their families. However, 30% of emails are undeliverable at any given time because of faulty data entry or decay. Addresses and phone numbers also go out of date, harming patient communications and billing. Real-time communication verification enhances medical alerts and patient and family satisfaction, and reduces costs due to communication errors.

- Batch and remove virtually all bad email addresses to avoid miscommunicating with patients and family, high marketing bounce rates, and blacklisting.
- Ping emails to ensure they are active.
- Correct typos and illegal characters that lead to high bounce rates.
- Maintain CAN-SPAM compliance for email addresses.
- Assure mobile phone number accuracy for real-time medical alerts.
- Parse, standardize, verify, cleanse and format physical addresses to ensure optimal patient billing, and reduce mailing costs.





## Rigorously verified records help assure regulatory compliance, liability protection.

Privacy and compliance needs must be met by all healthcare providers. Errors can be averted in real time by hosting a data quality server, whether onsite or in the cloud, to assure adherence to HIPAA, Sarbanes-Oxley, and other industry regulations.

- Protect patient health information while improving reporting of clinical data.
- Assure that changes to address data are collected and transmitted.
- Make sure that required 9-digit ZIP™ codes are provided for all claims submissions.
- Verify that P.O. boxes are not used for billing provider addresses to prevent claims rejections.
- Determine that pay-to-provider addresses are provided when different from billing provider.





# Understanding patient healthcare consumption can aid community health initiatives and inform public policies.

Healthcare systems do not operate in a vacuum. They are essential elements of the communities they serve. The data they glean from their patient populations and metropolitan areas can inform their leadership in community-wide health initiatives and optimize intervention.

- Verify, correct and standardize addresses for more precise location intelligence.
- Convert postal addresses to a precise geocode (lat/long coordinate) to pinpoint at-risk areas and populations.
- Get precise plotted coordinates to improve logistics.
- For larger health systems, get real-time geocoding in more than 40 countries for better patient demographics and healthcare intelligence.
- Help identify those most at risk with accurate demographic data.





### Big Data helps assure treatments and governance protocols are accurate and effective.

Detecting, analyzing and enhancing the quality of column data & metadata allows for the furtherance of sophisticated analytics by other means, to understand consumption, healthcare logistics, outreach, modeling, and to facilitate the critical move from fee-for-service to fee-for-outcome.

- Analyze data in a variety of column types to ensure adherence to specified limitations.
- Analyze new data and correct data fields, formats and standards before they enter the data warehouse, saving time & money.
- Monitor business rules supported by multiple methods of access (web, desktop, tablet, phone).
- Allow the parsing of regular expressions (regex) and error thresholds for full-fledged monitoring.
- Use sophisticated matching to produce fuzzy & exact match counts.
- Bring quality analysis to data contained in columns.
- Create a metadata repository that aids in data governance, building strategic datamarts.





#### HealthLink Dimensions

HealthLink Dimensions provides content-rich healthcare database products for the pharmacy, healthcare, medical device and insurance industries. Its demographic files contain more than 2.3 million physicians and allied professionals, with titles, specialties, DEA, UPIN and NPI numbers, state license numbers, and more. But this information changes constantly, and manual corrections and updating were impossible.

Melissa deployed its data quality APIs that fully automated the contact data cleansing process. Data errors were resolved quickly, and entry errors were caught in real time. In addition, Melissa's Geocoder was utilized to determine proximity and distance to physician locations and service areas, and to maintain multiple addresses for individual physicians.

Healthcare data changes quite often. We see anywhere from a 2% to 3% change in demographic data every month

### Medusa Medical Technologies

Medusa Medical Technologies offers its Siren ePCR Suite, an electronic patient care reporting software solution to make it easier for paramedics to deliver quality patient care. Collected EMT data includes emergency location, circumstances, victim age and medical status, etc., and all must be accurately and quickly entered before reaching the hospital.

Melissa provided its data verification tools to clean incomplete data at point of entry, and verify and correct addresses on the fly. The result improved patient care and dramatically reduced insurance company billing errors.

Every minute counts when dealing with cardiac arrest. It can mean the difference between life and death

### CalOptima

CalOptima serves 422,000 members with 5,800 physicians at 24 hospitals. CalOptima decided to migrate its member data to a data warehouse to better serve members, improve communications and grow its business, but suffered from poor data quality, including inaccurate mailing information.

Melissa's solutions provided CalOptima with data hygiene and geospatial functions, helping the company determine member locations and the distance between members and their primary case physicians.





### How Melissa helps

Melissa is a leading provider of global data quality and address management solutions. We have proven experience in handling data right so diverse clients can gain and maintain a single, accurate and trusted view of critical information assets.

- Breadth of data: billions of postal addresses, landline and mobile numbers, email addresses.
- Over 30 years' experience.
- HIPAA/HITECH and SOC 2 compliant.
- Flexible technology: developer tools, enterprise software plugins, service bureau.
- Professional services, consulting and proof of concept development.
- Unlimited technical support and 120-Day ROI Guarantee

#### Work with us to:

- Reduce operational costs
- Make sense of your data
- Manage risk and prevent fraud
- Improve the patient experience
- Enable compliance

For Product Demos or Proof of Concept, visit www.Melissa.com/healthcare	F	or Product I	Demos or	Proof of	Concept,	visit www.	Melissa.	com/healthcare
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