

## **Netrics Customer Success Story**

### *Netrics Matching Platform™ Helps California Department of Public Health Reduce Costs and Improve Care for Expectant Mothers*

*State-wide Prenatal Screening Program Employs Netrics to Link Critical Patient Records*

## **The Customer**

California Department of Public Health (CDPH)

## **Testimonial**

Patients across California have come to rely on the CDPH to provide them with accurate diagnostic services and genetic counseling. It's critical that CDPH accurately matches all of the test results so that we have the correct patient. Customers have said "Netrics data matching enables us to electronically link our test results, which reduces costs, improves efficiency, and allows us to provide better-quality care."

## **Situation Analysis**

Expectant mothers face risks during their pregnancy for birth defects and disabilities. The most successful outcomes are possible for mother and baby when these risks are identified and managed in the earliest stage of pregnancy.

To reduce these risks, CDPH developed a comprehensive Prenatal Screening Program for expectant mothers. The state-wide program currently provides blood-test screenings to more than 360,000 women a year.

Recently CDPH sought to expand the program's capabilities by adding first-trimester screenings. With earlier screenings, risks could be identified earlier, improving the outcome of at-risk pregnancies and further reducing costs.

## **The Challenge**

CDPH uses contract labs and Prenatal Diagnostic Centers (PDC) throughout California. Most test results received from the labs are in hand written reports which are scanned and keyed into the database. This inevitably results in challenges to be able to accurately link the test results to the right record. Introducing first-trimester screening would only add to these challenges.



Data Matching Solved

With more than 360,000 women screened each year, variations in their records make an exact search for matches a daunting task. Conventional systems are designed to recognize exact matches in data (e.g. Teresa Garcia-Ramirez matches only with Teresa Garcia-Ramirez). What happens when Teresa Garcia-Ramirez in one entry is really the same person as Theresa Remirez-Garcia in another entry? Conventional rules-based solutions will not identify them as the same person. To overcome this limitation, CDPH staff was required to manually search and identify links in the data which created a significant drain on resources.

## Finding the Solution

With the ramifications of manually linking the right report to the right record, CDPH sought a technology solution that would *fully automate* the matching process with the highest accuracy, reducing staffing costs and freeing up personnel to provide better care.

CDPH created a test data set using their production data – and withheld the known link information. A select list of software vendors were given the opportunity to demonstrate how well their solutions worked in an on-site, supervised test. Vendors were allowed to generate results only with their software, with no additional human review. It was important that the test measured the software's matching capability and accuracy, not a human's.

CDPH compared the vendors' results against their known results (which they withheld). Netrics was found to be the most accurate matching solution. The Netrics Matching Platform uses advanced mathematical modeling to identify links within and between databases. After just a few hours, Netrics' powerful mathematical software produced superior results on CDPH's test data. Netrics successfully identified 97 percent of the links in CDPH's test data, resulting in a mere 3% requiring manual linking.

CDPH found its fully-automated solution.

## Successful Outcome and Looking Ahead

Once fully deployed, the Netrics Matching Platform accurately identified more than 2.3 million duplicates out of approximately 5.5 million records in the CDPH database. Without Netrics Matching Platform, manual identification of these duplicates would have been required. With duplicates identified, the agency was able to quickly and accurately link the records, resulting in approximately one million unique records, effectively eliminating 1.3 million duplicate entries that made up almost 25 percent of the database.

With this greater efficiency and cost-savings, CDPH can now offer first-trimester prenatal screenings beginning in 2009. This means hundreds of thousands of at-risk women throughout California will have access to the earliest possible detection of potential birth defects, minimizing the risk of death and major birth abnormalities.

Netrics represents a marked improvement over conventional rules-based matching. Netrics' automated approach delivers much higher accuracy, far lower maintenance costs, and greater cost-savings with greater efficiency, and ultimately allows CDHP to provide better-



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quality care. Policy makers and health care providers get better quality data to make better strategic decisions and improve the health of women and children.

**About Netrics:** Netrics' intelligent data matching technology utilizes advanced mathematical modeling to automate data matching processes. Ultra-precise, real-time data matching enables users to extract greater value from their structured data, regardless of the underlying data quality. One hundred percent automated and immune to human error, Netrics's industry-unique technology ensures that decision makers always have access to information they can trust. Visit [www.netrics.com](http://www.netrics.com) for more information.

**Contact Information:**

Netrics, Inc.  
707 State Rd.  
Suite 212  
Princeton, NJ 08540  
609.683.4002  
[info@netrics.com](mailto:info@netrics.com)  
<http://www.netrics.com>