



## Informatica Helps Cancer Council of New South Wales, Australia in the Fight Against Cervical Cancer

### CHALLENGE

- Augment database of healthcare records with identity data search-and-match capabilities to power backup reminder system
- Accurately identify patient records despite data entry errors

### SOLUTION

- Informatica's identity resolution technology

### RESULTS

- Accurately identified patient records to enable proper follow-up care and treatment
- Contributed to success of award-winning database and life-saving government program

“Given the highly variable quality of the data the Register receives from its 54 pathology laboratories, the quality of matches detected by the technology is impressive.”

— David Schanzer, Senior Systems Analyst, New South Wales, Australia Cancer Council

### Timely Patient Identification and Follow-Up Are Critical to Life-Saving Program

The Cancer Council of New South Wales (NSW), Australia aims to reduce the incidence of and mortality from preventable cervical cancer. Thanks to the NSW Cancer Council's award-winning database, the Pap Test Register, one million NSW women receive regular Pap tests as part of a life-saving government program.

The Pap Test Register was nominated for the prestigious Computerworld Smithsonian Awards Program. The Register receives and processes information on more than 50,000 Pap tests every month, according to David Schanzer, a senior systems analyst with the NSW Cancer Council.

“Its aim is to save lives by increasing the number of women having regular Pap tests and helping to ensure that women with cervical abnormalities receive timely follow-up care,” says David Schanzer.

The Pap Test Register automates communications between 54 laboratories and maintains storage analysis of demographic information and test results. The system relies on Sybase's database and Informatica's identity resolution technology (formerly known as SSA-NAME3)\* for its backup reminder system, which plays a critical role in the life-saving program.

\* Informatica Corporation acquired Identity Systems in May 2008. Identity Systems products have been repackaged.

## Comprehensive Database Maintains Important Health Records

By receiving details of all Pap tests from laboratories and automatically linking them with previous tests, the Pap Test Register provides a comprehensive test history for each patient.

The Register generates reminders and runs a range of quality assurance procedures on the data, checking for irregularities and ensuring that mandatory fields are filled in.

The system also acts as a safety net for patients who have abnormalities by ensuring that their test results are sent to their doctor for follow-up care.

## Identity Resolution Capabilities Prove Indispensable

The NSW Cancer Council evaluated and purchased Informatica identity resolution technology because of its ability make a significant contribution to the process of linking a patient's test results with previous test records.

"Achieving the highest levels of accuracy of matching a new test against the existing database is critical," says Schanzer. Informatica's identity resolution technology was implemented into the Pap Test Register—a PowerBuilder/Sybase system running on a DEC Alpha computer—to assist with the processing of batches of test results and requests.

Achieving the highest levels of accuracy of matching a new test against the existing client database is critical because pathology

laboratories rely upon a patient's previous test history when screening her current test. It is also critical in ensuring that each patient on the Register is reminded to attend for subsequent cancer tests.

## Under The Hood of Identity Data Search-and-Match

The Pap Test Register supports on-line searches for ad-hoc queries from laboratories or practitioners, and for NSW Cancer Council operators to decide on suspect matches identified by the various processes.

A search by Lab Client ID Number and Previous Lab Accession Number (when available) usually provides a quick and accurate way of finding the patient record. But sometimes these numbers are entered incorrectly. Informatica's identity resolution technology is used to search the patient's name, address, and date of birth to confirm the match.

The matching process proceeds through several search levels before a non-match condition is accepted.

A full name search is used to find candidates when the Client ID or Accession Numbers are missing or wrong. The name search overcomes error and variation using negative keys with a positive search. The search proceeds as far as the two-word level, but stops as soon as a match above the score threshold is found.

The software's address search capabilities find candidate records where the names were different enough to escape the name search and relies on name and data of birth to confirm the match.

The last search on given names and dates of birth is to find candidates where a name change (such as a surname) and address change have occurred. Scoring capabilities enable the name and address match results.

## Accurate Patient Identification and Timely Follow-Up

The goal of the Pap Test Register "...is to save lives by increasing the number of women having regular Pap tests and helping to ensure that women with cervical abnormalities receive timely follow-up care," says David Schanzer.

"Given the highly variable quality of the data the Register receives from its 54 pathology laboratories, the quality of matches detected by the technology is impressive."

### LEARN MORE

For more information about the NSW Cancer Council, please visit [www.nswcc.org.au](http://www.nswcc.org.au).

Learn more about Informatica's identity resolution technology and the entire Informatica product platform. Visit us at [www.informatica.com](http://www.informatica.com) or call 800.653.3871.

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