

TITLE

Lessons Learned from an Evaluation and Implementation of a Probabilistic Record Matching Tool

THEME

Enhance Environmental Public Health Tracking Workforce and Infrastructure

KEYWORDS

probabilistic record matching, linkage, tools for automated data import

BACKGROUND

The Washington Department of Health (DOH) lacks a centralized solution or standard tool for conducting record matching. After implementing a proprietary tool called “Netrics” into a pesticide exposure data tracking system, Washington EPHT conducted an assessment with other DOH programs to determine if Netrics would serve as a solution to record-matching and data merging needs in the agency.

OBJECTIVE(S)

The objective of this project was to assess the usefulness of a proprietary tool, “Netrics”, for probabilistic record-matching purposes, and to identify issues in implementing that tool into data processes across programs.

METHOD(S)

W-EPHTN worked with partnering DOH programs to conduct a side-by-side performance test of the Netrics probabilistic record-matching tool against various programs’ current record-matching processes. The assessment also included an investigation of the WA DOH network environment and an exploration of how a program might tap into a centralized record-matching tool, while maintaining data security.

RESULT(S)

Results from this side-by-side performance test of the tool for agency-wide use were written up in a report. In this poster, results from this report will be summarized and a demonstration of the Netrics tool will be provided. Findings include the determination that Netrics proved most beneficial for use with data systems requiring interactive record-matching, or for routine record-matching needs where only manual processes were previously in place. For these purposes, the Netrics tool was evaluated to be excellent in terms of accuracy of matching, speed, and security. For merging static datasets, the Netrics tool was just as effective (but not more so) as existing tools.

DISCUSSION/RECOMMENDATION(S)

W-EPHTN has concluded that Netrics could be a useful tool to integrate into active reporting systems, such as a lead exposure registry or a birth defects registry. The feasibility of integrating this kind of tool into existing reporting systems

depends on development of user interfaces, network systems and secure server environments, and others issues to be explored prior to customizing the Netrics tool for a particular program's needs.

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