

New York City

Project title: Master Child Index

Organization responsible: Citywide Immunization Registry and Lead Poisoning Prevention Program, New York City Department of Health and Mental Hygiene

Service coverage area: New York City

Annual birth cohort: Approximately 125,000

Project scope and goals

In January 2004, the Citywide Immunization Registry (CIR) and the Lead Poisoning Prevention Program (LPPP) launched the Master Child Index (MCI) system for the Department of Health and Mental Hygiene (NYC DOHMH) to facilitate matching and consolidating patient records across their systems. The MCI allows the LPPP and the CIR to share information and includes all of the children in both systems, with each child having an assigned unique identifying number. The MCI uses a specially designed system to match and merge records entering the database. This system is designed to replicate the human decision-making process and is composed of a matching software and a set of highly-specific business rules.

Funding

Funding from New York City and the State of New York total approximately 65 percent. Federal funding accounts for about 35 percent of annual revenues.

History

In 1999 the leadership of the NYC DOHMH issued a directive to integrate the department's existing Citywide Immunization Registry (CIR) and childhood blood lead test registry, known as LeadQuest (LQ). By 1999 both registries were already large: 1.7 million children in CIR and 1.3 million in LQ. The rationale for integration was clear: CIR and LQ target the same population of pre-school and school-age children. Both programs were separately devoting vast resources to matching and merging records for potentially the same children in separate data systems. The inability to relate information for the same child across separate systems resulted in missed opportunities for identifying children at risk for both vaccine-preventable disease and lead poisoning.

Executive leadership and organizational endorsements

Critical to the success of the MCI was the support of the Director of the CIR, the Director of LQ, the Assistant Commissioner of Environmental Health and the Deputy Commissioner of MIS. The MCI was developed under the terms of the CIR and LQ programs, which have staff with strong public health backgrounds, and who understand the importance of information. These key stakeholders demonstrated strong leadership throughout all phases of the project.

External endorsements

As a result of the integration, immunizations and lead screening histories of children are available individually, and in batch mode, to providers, MCOs, the NYS Medicaid Program, WIC, schools, parents or legal guardians, and custodians through CIR's existing dissemination tools. This reduces missed opportunities to screen for lead, or unnecessary lead tests, and supports outreach and follow-up by providers and agencies to children who should be screened for lead exposure.

Significant challenges

- 1) Engage data submitters/partners in initiatives aimed at strengthening their commitment, trust, and joint sense of purpose with the program.
- 2) Develop measures of quality to identify data reporting patterns and problems related to specific sources.
- 3) Establish front-end as well as back-end automated procedures to identify problems with incoming and existing data.
- 4) Ensure a quick, preferably automated, process to identify and resolve false merges.
- 5) Ongoing and efficient training of staff on data, technology, and policy issues.
- 6) Adopt cost-effective solutions to data quality issues without compromising quality of data.
- 7) Use integrated data for joint research activities and leveraging of resources.

Contacts

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