

# STRATEGIES TO IMPROVE THE QUALITY OF VACCINE RECORDS IN A COMPUTERIZED IMMUNIZATION REGISTRY

## BACKGROUND

While computerized immunization registries are increasingly utilized, and can be a valuable tool in improving immunization coverage rates, incomplete and inaccurate data have hampered their effectiveness in some areas. High rates of immunization coverage among Indian Health Service (IHS) beneficiaries may be attributed in part to the implementation of immunization registry software within IHS's computerized Resource Patient Management System (RPMS), and efforts to improve data quality. The high coverage rates have been highlighted at the National Immunization Conference and in the August 2003 Morbidity and Mortality Weekly Report (MMWR). For this project, IHS partnered with Medical Decision Associations (MDA) to further improve the accuracy of registry data.

## OBJECTIVES

Identify strategies and software enhancements to improve quality and completeness of immunization records in IHS's computerized RPMS and several state registries.

## METHODS

Providers and users of the package worked with RPMS and MDA programmers to improve the RPMS Immunization software and increase use by health care facilities. Providers also worked with state immunization registries to allow the exchange of electronic immunization information between the RPMS and the state registries in several states.

## RESULTS

Reducing delays in data entry and coding errors were identified as the most important factors in improving the quality of immunization records. Changes to the software facilitated implementation of point-of-service data entry as a strategy. In addition, standard Health Level 7/Standard Code Set (HL7/CVX) immunization codes and manufacturers' codes were adopted and combination vaccines were incorporated. Other features of the package designed to increase provider use of the registry included 10 customized immunization forecasting options based on minimal or recommended ages of vaccination; customizable immunization due lists and letters; and standard immunization audits. The exchange of data with state immunization registries has resulted in more complete immunization histories for American Indian/Alaska Native (AI/AN) children in both the state registry and in the RPMS. This has resulted in increases in overall immunization coverage among AI/AN children, and will help to ensure better patient care by reducing over and under immunization that occurs due to incomplete immunization information.

## CONCLUSIONS

Immunization data quality and completeness has improved dramatically with the implementation of point-of-service data entry, increased utilization of the IHS immunization registry, and exchange of immunization information with state immunization registries. As a result, uses of the immunization data have expanded to include automated immunization due reminders on patient encounter forms, monthly reports to providers on the immunization status of their patients, and comparison of immunization rates by providers.

## COLLABORATORS

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