Michigan Tuberculosis Cohort Review: Evolution from a Clinical Review to a Program Evaluation Tool

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Background statement
From 2010 through 2013, the Michigan TB Control Unit (TCU) emphasized clinical indicators and data quality in cohort review. In 2013, the TCU realized a need for improvement in the cohort review process by:
1. Identifying successes and barriers to case management;
2. Assessing program evaluation indicators not captured in the surveillance system;
3. Providing more structured feedback to local health departments (LHDs);
4. Understanding differences in policies and procedures between LHDs.

Methods
In 2014, the TCU engaged six high incidence LHDs to update the cohort review process. Cohort reviews were conducted during the spring and fall of 2014, and these six health departments reported 67% of total statewide cases during the cohort periods. The cohort review form was expanded to include use of incentives and enablers, contact investigation methods, and LHD policies and procedures. Each of these sections included prompts to capture barriers and successful practices (Figure 1). Following each cohort review, the TCU provided a feedback report to the LHD highlighting current and previous period performance. The expanded cohort form was piloted in the six high incidence LHDs during the fall cohort reviews.

Results
The TCU incorporated feedback from the LHDs to finalize the cohort process for 2015. As a result of the new process:
1. Five of the six LHDs were able to identify successes (i.e. collaboration with private providers and hospitals; collaboration with HIV case manager for social support services; extensive patient and family education) and barriers in case management (Figure 2);
2. The TCU was able to track change in indicators through the revised process (i.e. sputum culture conversion; number of contacts identified, evaluated, initiated and completed treatment);
3. The TCU was able to provide individualized feedback to all six LHDs including action points for improvement;
4. All six LHDs provided detailed information about policies and procedures in six main areas (Figure 3).

One LHD has changed their policies regarding HIV testing and sputum specimen collection as a result of the cohort feedback.

Conclusions
In five of six LHDs, barriers and successful strategies to case management were identified which were unappreciated in clinically-focused reviews. The apparent identification of more barriers during the fall cohort reviews may reflect improved data collection. The revised form also provided more accurate data on program evaluation indicators and LHD policies and procedures. The success of this pilot suggests that expansion of cohort review to additional LHDs might be beneficial. Process limitations still to be addressed include balancing added work to LHD nurses and continued data quality assurance.

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