TB QUALITY IMPROVEMENT STORY BOARD 5/12/15

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|  | **WHATCOM COUNTY HEALTH DEPARTMENT** | **QI Team:** Alice Simmons, TB Program Supervisor |
|  | 509 Girard Street, Bellingham, WA, 98266 | Ann Lund, TB Program PHN |
|  | (360) 676-6724 | Connie Kelley, Immunization Program PHN |
|  | 75 employees, serving a | German Gonzalez, MD & CD & EPI Division Manager |
|  | population of 201,140 | Susan Sloan, Performance Management Specialist |
|  |  |  |
| **qi project:** | ***TB Rate Improvement Project*** |  |

**DEFINITIONS:**

**LTBI:** Latent Tuberculosis (TB) Infection

**NNPHI:**  National Network of Public Health Institutes

**COPPHI:** Community of Practice Public Health Improvement

**PLAN:** Identify an Opportunity and Plan for Improvement

**1. Getting Started**

Our overall goal for the project was to increase the percentage of high-risk clients with latent TB infection (LTBI) who start treatment by 5 percent.

**2. Assemble the Team**

Our team included TB supervisory staff, a TB nurse, an Immunization program nurse, and our QI facilitator. We also received QI coaching support from NNPHI as part of a $10,000 COPPHI grant.

**3. Examine the Current Approach**

We focused our efforts on researching guidelines used by other LHJ’s in screening clients for TB and how to improve our effectiveness in getting high-risk LTBI clients into treatment.

**AIM STATEMENTS:**

**Quality Planning: By July 31, 2013, the TB-. Project will increase the percentage of high-risk LTBI clients who are screened by staff from 75 percent to 90 percent (thus reducing numbers of low-risk clients screened)**

**Quality Improvement: By July 31, 2013, the TB-. Project will increase the percentage of high-risk LTBI clients who start treatment by 5 percent.**

The team conducted a detailed

review of

the VFC

* + - * The team identified that most TB programs have clear guidelines as to the types of clients who are screened. Our lack of guidelines drove up program expenses (WCHD carried the $311.47 cost per screening) and reduced staff resources to focus on high-risk LTBI clients—those most at risk for becoming a positive TB case.
* The team also identified inadequate staff one-on-one contact with clients as the root cause as to why clients do not start treatment.

**4. Identify Potential Solutions**

The following potential changes were identified:

* Create and implement LTBI Guidelines for the screening, treatment, and outside referral of clients originally referred to WCHD. Decrease WCHD low-risk client screening.
* Improve communication and follow-up with high-risk LTBI clients who are recommended treatment.

**5. Develop an Improvement Theory**

* ***If*** *we reduce the number of low-risk LTBI screenings done* ***then*** *we will save staff resources that can be focused on obtaining better LTBI client outcomes.*
* ***If*** *we are more effective in convincing high-risk LTBI clients to start and complete treatment, we will see lower rates of active TB in our county.*

**DO:** Test the Theory

**6. Test the Theory**

* Guidelines were created.
* The QI team and Health Officer created TB education resources (including revision of TB web page) that enabled the providers to more easily screen low-risk cases. In order to track our work, an MS Excel database was developed using standardized, objective methods.

**CHECK:** Use Data to Study Results

**7. Study the Results**

* **Screening Savings:** During the period 2013-2014, a total of 151 fewer TB clients were seen by staff than in the baseline year (2010). This resulted in a savings in screening costs of $47,032 over two years.
* **ROI:** For every $1 invested in the quality planning component, WCHD realized a return of $1.31 after costs.
* **Improved Treatment Starts:** From 2010-2014, there was a **25% increase** in the percentage of Class 2 clients who started treatment for LTBI. (2010=48%(n=95), 2014=60%(n=30)
* **Improved Treatment Completion:** From 2010-2014, there was an **11.9% increase** in the percentage of Class 2 clients who completed treatment. (2010=74%(n=70), 2014=82.8%(n=24)

**ACT:** Standardize the Improvement and Establish Future Plans

**8. Standardize the Improvement**

The TB QI Initiative is fully incorporated into the TB program.

**9. Establish Future Plans**

The LTBI screening process continues to be refined as needed.