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| Date | May 19, 2015 |
| QI Project Name | Whatcom County Health Department  TB Rate Improvement Project |
| QI Team Division | Communicable Disease & Epidemiology |
| Aim Statement | Quality Planning: By July 31, 2013, the TB QI Project will increase the percentage of high-risk clients with latent TB infection who are seen by WCHD staff from 75 percent to 90 percent. This will be accomplished by decreasing the number of low-risk clients with latent TB that are seen by WCHD staff.”  Quality Improvement: By July 31, 2013, the TB QI Project will increase the percentage of high-risk clients with latent TB infection who start treatment by 5 percent.” |
| Baseline Measurements at Project Start (2010 data) | Quality Planning:   * 50 percent (n=199) of LTBI clients seen by WCHD staff were high-risk clients.   Quality Improvement:   * 48 percent (n=95) of all LTBI clients recommended treatment actually started treatment. * 74 percent (n=70) of LTBI clients who started treatment completed treatment. |
| Benefits Obtained & Outcomes Improved (include Intangible Benefits[[1]](#footnote-1)) | * QP: A savings of $311.47 for each low-risk LTBI case referred to the community. * QI: A total of 199 clients were screened by WCHD in 2010. The change in screening protocols was implemented starting in 2013 and fully implemented in 2014. There was a 21.61% decrease in the total number of TB clients seen by staff in 2013 (n=156) and a 54.27% decrease in the total number of TB clients seen by staff in 2014 (n=91). |
| Financial Benefits[[2]](#footnote-2) | With new screening guidelines in place, the program realized a savings of $311.47 per screening for every low-risk LTBI client who was subsequently seen by a community provider for screening rather than Whatcom County Health Department. This resulted in actual 2013-2014 screening savings in the amount of $47,032 (151 eliminated screenings X $311.47). |
| Total Financial Benefits | $47,032 (2013-2014) |
| Project Costs[[3]](#footnote-3) | $15,526.67 (labor) plus $4,875.37 (indirect) |
| Total Project Costs | $20,402 |
| Return on Investment (ROI)[[4]](#footnote-4)  ROI Formula:  (Total benefits – total costs)/Total costs | ($47,032 - $20,402) /$20,402 = 1.31 |
| ROI Results | **For every $1 invested in quality improvement, the division received in return $1.31 after costs.** |
| Economic Impact (EI)[[5]](#footnote-5) | By transferring the screening of low-risk LTBI clients to the community, the Health Department was also able to direct resources to improve client treatment starts and successful completion of treatment, thus potentially saving the county hundreds of thousands of dollars in treatment costs by preventing high-risk LTBI clients from becoming active cases.  Specific Results:   * From 2010-2014, there was a **25% increase in the percentage of Class 2 clients who started treatment for LTBI** (2010=48%, 2014=60%). The original goal of the project was an increase of 5%. * From 2010-2014, there was an **11.9% increase in the percentage of Class 2 clients who completed treatment** (2010=74%, 2014=82.8%). The project did not have a specific goal for treatment completion. |

1. Intangible benefits: Non-monetary benefits derived from the QI project (e.g., improved staff morale, improved teamwork). [↑](#footnote-ref-1)
2. Financial benefits: Tangible monetary benefits derived from the QI project (e.g., reducing lead time results in overtime salary reduction, 5S results in elimination of storage rent). [↑](#footnote-ref-2)
3. Project costs: The costs incurred and associated with the QI project (e.g., team salary during project time, cost of new supplies purchased as a result of project). [↑](#footnote-ref-3)
4. ROI: A performance measure used to evaluate the efficiency of an investment (the QI project); usually a ratio or %. [↑](#footnote-ref-4)
5. EI: Refers to and compares costs and benefits of the QI project. [↑](#footnote-ref-5)