A fishbone (cause and effect) diagram was developed to identify root causes for lower vendor compliance rates.

A main factor identified through the fishbone diagram was the lack of communication between vendors and county staff. Vendors did not have a means to provide customer service feedback to county compliance staff.

In addition to analyzing survey results, other tools were used to collect and analyze program-related data and to determine the next steps for improving the compliance program. Vendor compliance rates were tracked on a control chart to determine common cause and special cause variation.

Vendors indicated that the main barriers to reducing underage sales of alcohol and tobacco were high employee turnover and inconsistent times of day for trainings. From the public health administrator's perspective, the main barriers were training for employees and vendor compliance issues. The public health administrator was interested in obtaining increased availability of vendor training and technical assistance on vending rules, regulations, and ordinances. Result: Analyzing stakeholder feedback did indeed allow the Project Team to assess service delivery.

DO Test the Theory for Improvement

5. Identify Potential Solutions
Free areas were discussed as potential activities based on a SWOT analysis:
- Improve the data collection, reporting and analysis process
- Improve overall vendor compliance rates
- Work to enhance relationships with external stakeholders
- Diagrams time spent on each aspect of the vendor compliance program by staff to pinpoint the internal resources devoted to the program
- Enhance vendor compliance education

The decision was made to focus on soliciting stakeholder feedback as a way to enhance relationships with external stakeholders and to use this information to improve the compliance program.

6. Develop Improvement Theory
Prediction: Soliciting stakeholder feedback would allow the department to assess and improve service delivery.

ACT Implement Action Plan

7. Test Theory
An on-line pilot survey to 56 alcohol and tobacco vendors was developed and marketed by postcard notification, resulting in an 11.1% response rate. Recommendations were then made to improve the survey response rate by utilizing both mail and on-line survey response collection methods. Survey questions were also revised after the pilot test in order to collect more reliable information from stakeholders. Two stakeholder surveys were then distributed, one to vendors and one to police chiefs and city administrators. These surveys solicited stakeholders to rate services provided by the county and to provide feedback on desired training and equipment. Response rates increased by 10 percentage points for the vendor survey based on the changes made to the survey collection methodology. Both survey response rates were over 30%.

8. Analyze Results
Key findings of the vendor survey included: vendors believe the training programs they use are effective; the majority of vendors utilize corporate training programs; those who participated in county training believed it was effective; few training programs are offered on-line; vendors want information on how to check IDs and identify fake IDs; information on laws, ordinances, penalties, and employee incentive programs; the majority had no problems passing compliance checks; and the majority did not think the county could assist them further with compliance issues.

CHECK Use Data to Study Results of the Test

9. Use Results to Develop Action Plan
An affinity diagram was completed to review the results and plan the next steps.

10. Establish Future Plans
Next steps include: maintaining police chief enchancement on future planning teams; establishing goals, measures and targets for program results; analyzing content, locations, and times of county and other vendor trainings; and incorporating these activities into future projects. Additionally, the survey result will be sent to all stakeholders through a link on the Washington County website. Finally, the department will strive to maintain an ongoing focus on program evaluation and quality improvement using QI tools and techniques for all services.