Time Reduction in Conducting Point-of-Sale Real Estate Septic and Well Inspections

Mahoning County District Board of Health (Ohio)

49 FTEs/population served: 175,000

Public Health
Prevent. Promote. Protect.
Mahoning County District Board of Health

PLAN
Identify an opportunity and Plan for Improvement

1. Getting Started

The Mahoning County District Board of Health (MCDBOH), in wanting to keep a promise to local realtors, sought to ensure timely inspections of residential septic and well systems when properties are to be sold. The current processes were examined to see if this promise was being fulfilled.

2. Assemble the Team

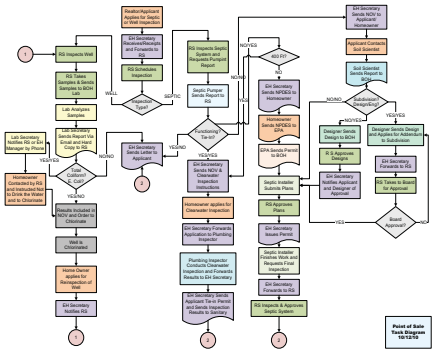
Team members that work in, or with, the Septic and Well Inspection Program were selected to participate with the Accreditation Coordinator, who has QI team facilitation experience, on the QI team. Realtors, from the local Board of Realtors Association, also participated on the QI team. Initially, scheduling conflicts with the Realtors posed a barrier to the effort. After moving meeting locations to the Realtors location and not requiring attendance at all meetings, they became fully engaged.

3. Examine the Current Approach

The flowchart is a representation of the current process for septic and well inspections as a result of real estate transactions. Each inspector conducts inspections, per this process, in their assigned part of the county.

A force field analysis to look at where the process tends to slow down and may cause the process to unnecessarily take longer was conducted. A list of the restraining forces identified in the force field analysis include:

- The lab secretary notification to the inspector can take longer than expected.
- The time it takes for the inspector to schedule the inspection
- The time it takes for the septic pumper to send the report to the Board of Health
- No system in place to follow-up on the Clearwater Inspection Report for those properties who are required to tie in to the sanitary sewer and cease using their septic system.
- Realtors wait too long to apply for inspections
- Waiting on external parties when the case dictates - the involvement of the EPA, a soil scientist, Board of Health approval, or engineers.
- The lack of follow through on part of the homeowner
- The inspector forwards hand written notes to be typed by secretary
- Each inspector may do this process a little differently.
- Requirement to pump the septic system even if it is functioning properly.
- Variance in inspector workloads.



AIM Statement

Between October 18th and November 30th, reduce the average time it takes to conduct septic and well evaluations for real estate transactions by 15% (from 11.8 to 10 calendar days).

4. Identify Potential Solutions

Restraining forces were evaluated to determine where MCDBOH could make improvements. Using baseline data, the team reached consensus and decided to address the distribution of the workload among the three inspectors.

Two sets of baseline data were collected and examined. From July through October, data on 55 properties was collected including the time it took for various critical points in the process from the time of application for the inspection to completion.

- The average time it takes from application to scheduling is 7.4 days.
- The average time it takes from application to inspection is 11.8 days.
- The average time it takes from application to process completion is 22.3 days.

The second set of baseline data was to examine the variance in workloads. It became clear that inspections that were furthest from the health department took longer. Workloads from the three inspectors were also examined. One inspector had a disproportionate workload to the others

- Inspector 1 conducted 41% inspection activities. Many of this inspector's real estate evaluations took longer than the other two.
- Inspector 2 conducted 29.5% inspection activities
- Inspector 3 conducted 29.5% inspection activities

Through a more equitable redistribution of the workload, MCDBOH believed the overall time between application and completion could be shortened from 11.8 to 10 days.

5. Develop an Improvement Theory

If the workload is redistributed among the inspectors more equitably, the average time it takes to conduct the septic and well inspection can be reduced from 11.8 to 10 days. The mean time it takes to both schedule and conduct all septic and well inspections as a result of real estate transaction was calculated to determine if the redistribution of workload had the desired effect.

DO
Test the Theory for Improvement

6. Test the Theory

Workloads were redistributed among the inspector as of October 18, 2010. Data was collected throughout subsequent inspections at critical points in the process, including date the applicant applied for a septic and well inspection, the date they were contact by an inspector to schedule the inspection, the date the initial inspection was conducted and the date the approval/ disapproval letter was mailed out to the applicant.

CHECK
Use Data to Study Results of the Test

7. Check the Results

The data collected were sufficient to conclude that the improvement tested was effective. Twenty-four inspections were conducted within a six-week test period. The time it takes from application for a septic and well real estate evaluation to when the inspection was conducted was reduced from 11.8 to 7.1 calendar days, a 40% decrease in time. This far exceeded the final AIM statement goal of 10.0 days or a 15% decrease. Below is a summary of post test data.

- The average time it takes from application to scheduling is 2.7 days.
- The average time it takes from application to inspection is 7.1 days.
- The average time it takes from application to process completion is 13.8 days.

ACT
Standardize the Improvement and Establish Future Plans

8. Standardize the Improvement or Develop New Theory

As a result of the success with assigning more equitable workloads, it was appropriate to adopt the improvement. The three affected inspectors decided and agreed to the distribution, thus no challenges or obstacles arose.

9. Establish Future Plans

This improvement will continue to be monitored, particularly in warmer months when home sales are more common. Gains will be monitored throughout the summer of 2011 to determine if there are seasonal fluctuations.