

# Accreditation Beta Test Quality Improvement Project: Final Report

## TIOGA COUNTY HEALTH DEPARTMENT

### RABIES PROTOCOL R-LYSSA

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#### **EXECUTIVE SUMMARY**

Tioga County Health Department (TCHD) consists of 57 employees serving a rural population of about 51,784. After undertaking the Public Health Accreditation Board (PHAB) self assessment, TCHD decided to embark on a quality improvement (QI) effort related to the agency's rabies program. The resultant "R-Lyssa Rabies Team" addressed the effectiveness of the communication protocol between the Environmental Health (EH) and Clinical Divisions for reporting of human exposures to rabies. The results obtained from the effort produced improvements in addition to the communication protocol. Not only were there reductions in the reporting time between divisions within a three-day period, but the fiscal disbursements were affected, resulting in cost savings for the county.

#### **BACKGROUND/INTRODUCTION**

Tioga County, throughout its recent years of service to its community, has taken pride in providing quality services which are aligned with evidence based and measurable outcomes.

TCHD viewed this opportunity to become a beta test site as an open door to grow professionally, foster a sense of self worth, promote change within the agency, and provide personal and professional growth for the individuals involved—some of whom would gain skills in QI techniques, and all of whom would better understand how their work fit within the larger agency. TCHD also hoped to better understand the new public health standards as a means to be prepare for accreditation once the program is launched. Furthermore, TCHD believed that participation in this effort would provide the agency an important opportunity to enhance current programs and also potentially create new programs to meet needs identified through a community health assessment.

#### **BETA TEST SELF ASSESSMENT**

The beta team was made up of Johannes A. Peeters, MPA Public Health Director; Elaine Doupe, RN MS, Director of Patient Services; Denis McCann, Director of Administrative Services, BS; Erica Gifford, PE, EH Supervisor; Sue Haskett, Product Software Liaison; Marilyn Reynolds, RN, SPHN of Primary and Preventive Services; Tina Slavik, Accreditation Coordinator, Health Educator; and Albert F. Knapp, MPH, QI/Coordinator-Chairman, Public Health Sanitarian. Clerical and support staff also provided assistance to the beta team. The members of the team were chosen based on the work and knowledge that they provide to TCHD. The self assessment began with a review of documents and determination that

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assistance would be needed to ensure the documentation was complete. Syracuse University School of Public Health and Upstate Medical Center assisted in this effort.

To overcome challenges with obtaining and organizing document, the team developed a color-coded version of PHAB's black and white form to relate to various program areas, making it easier for all involved staff members to locate the domains they were responsible for. Collecting all the documentation for the self assessment took about four weeks to complete.

After collecting the documents that were related to the standards, Syracuse and Upstate Medical reviewed them and determined whether the documentation was sufficient for each measure, outlining in a report areas where additional or different documentation was needed.

As a result of completing the self assessment, TCHD learned where improvements were needed and where strengths existed. The self assessment also served as a means to better organize files and as an impetus to develop a process to ensure policies were up to date and documents were signed and dated, as appropriate

#### Highlights from Self Assessment Results

Standard/ Measure	Standard and Significance
2.1.5 B	Monitor timely reporting of notifiable diseases, lab results, and investigation results. <ul style="list-style-type: none"><li>• Even though this was not an area of weakness for TCHD, it was identified as an ideal area to implement QI.</li></ul>
5.4.1 B	Participate in the development and maintenance of an all hazards county plan. <ul style="list-style-type: none"><li>• This was an area of low scoring, and TCHD has added this as an issue to address in the three-year department improvement plan.</li></ul>
6.3.2 B	Conduct inspection activates of regulated entities according to mandated frequency and or a risk analysis method that guides the frequency and scheduling of inspection of regulated entities. <ul style="list-style-type: none"><li>• TCHD was pleased to verify a very strong enforcement division and scored very well in the related Domain 6.</li></ul>

#### QUALITY IMPROVEMENT PROCESS (PLAN-DO-CHECK-ACT)

##### PLAN

TCHD addressed the communications between the EH, Clinical, and Fiscal Divisions during the rabies protocol. The communications was chosen because this facet of interaction would touch on other aspects of each program. The selected program goal was to reduce the time to within a three days that cases of human exposures to rabies were communicated between EH and Clinical.

The Public Health Accreditation Team served as the core of the QI Team, feeling it was important to experience the QI activities as part of the accreditation experience. A disease specialist and a public health sanitarian (from the Clinical and EH divisions, respectively) were added to the team to ensure relevant knowledge and input from key personnel involved in the QI project program area.

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Barriers were encountered in convening the full QI Team for each meeting. As a small local health department, personnel responsibilities are vast and quite varied often requiring staff to be in the field and thus unable to attend a meeting in TCHD. To address this issue, the team developed summaries of every meeting that were filed electronically for those that missed the meeting.

Resistance to change was a factor, with team members expressing a prevailing theme in the initial meetings of “Why change? We have been doing this process for years.” As QI tools were implemented and the potential for improvement began to emerge, team members embodied more encouraging behaviors and support became evident.

#### *Original AIM Statement*

Increase performance of communication between EH, Clinical, and Fiscal to enhance timely series follow-up for human rabies exposures.

#### *Final AIM Statement*

By Nov. 15' 2010, reduce to real time (day three) the reporting of rabies confirmations between EH, Clinical, and Fiscal. (Appendix A - Storyboard)

State form 487 was at the center of the communications effort. Potential cases of human exposure to rabies are required to be communicated to the state public health laboratory via a state form 487. In TCHD, the EH Division is responsible for generating these forms, and they should also notify Clinical when a form is generated; however, the Clinical Division is not routinely notified in a timely fashion. This is problematic because people with confirmed cases of rabies need to begin the vaccination series within three days of exposure. If a laboratory report is not received by Clinical within three days, the person receives the series as a precautionary measure. Eliminating unnecessary vaccinations is not only desirable for residents, but it also results in cost savings to TCHD. Baseline data (obtained by random sampling of both confirmed and suspected human exposures over the past years) revealed that the internal communication takes anywhere from three to 180 days.

In the process of mapping the protocols for handling all aspects of a human exposure to rabies, the team discovered there was unnecessary duplication of effort in the EH and Clinical divisions. When this was discovered, Clinical modified their internal process to delete activities that only need to be completed by EH. This modification, resulting in the elimination of wasted steps for Clinical, was an unexpected benefit of the QI process (see Appendices C and D).

A root cause analysis revealed that many external partners (e.g., veterinarians, sheriff department, and others) had a significant effect on TCHD's communications processes, particularly because a number of them report cases after hours and also submit reports to the state public health laboratory without notifying TCHD. Identifying the partners and the relationships was instrumental in ensuring that the new process addresses these factors (see Appendix E).

After considering the results of the root cause analysis, a solutions diagram was developed (see Appendix F) and a decision was made to focus efforts on state form 487.

To handle potential communication delays associated with notification of exposures from external partners, TCHD requested veterinarians to submit information as soon as possible to TCHD, and TCHD would immediately submit an electronic form 487 to the New York State laboratory. This represents a change in prior practice of veterinarians directly submitting the form to the laboratory via mail or fax,

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which resulted in a much longer time for TCHD to be informed of an event. Additionally, the internal process was modified so that the EH division notifies Clinical of the submission of the Form 487 at the same time it is submitted to the state public health laboratory.

#### *Improvement Theory*

If TCHD implements an electronic form 487 and refine our internal communication strategies, then the department will achieve a three-day notification between the EH and Clinical divisions.

A process was enacted in the event of rabies call-in EH secretaries will take information that is related to exposures or possible exposures. TCHD will record all incoming information on form 487 and e-mail the New York State laboratory. Clinical staff can then see, in real time, the human exposure cases within a three-day period. The veterinarians will record their business in the same format.

TCHD has demographic records that will record which township the call comes from. TCHD will be able to determine if clusters are a problem within the townships. This gives TCHD an opportunity to precisely address cluster concerns with public health education and veterinarian's animal vaccinations. Human exposure, vector species carrying the rabies virus, wild or domestic animals, and which external partner (if necessary) is contacting TCHD, will all be recorded with the call in. TCHD will also record if the animal has been submitted for testing and the date diagnosed. Other animals or humans in the exposure area will be documented. TCHD will record all the incoming information on a DOH-487 and e-mail to the New York State laboratory. Once rabies is confirmed at the New York State laboratory the lab produces an electronic document DOH-485 with their results. This information then becomes visible to all divisions in real time at TCHD. Each member has played a significant role in the specialties that made them unique to the team (see Appendix G).

TCHD's perception changed to realize that the outside partners that were responsible for contacting TCHD for the rabies protocol consisted more than the ordinary homeowner to other external system partners. TCHD realized that multiple external customers and partners may influence the process would be instrumental in a plan to maintain three-day constraint period.

TCHD has also recognized that the gathering of the baseline data opened up information TCHD ordinarily would not have recognized. Animal exposures per township, financial savings opportunities from proper reporting times, outside customers, and influences on TCHD's communications are the major unexpected results. TCHD can now statistically measure changes in our environments.

#### **DO**

In the do phase, the plan has proceeded as it was intended. The state lab reported that information could be relayed within the necessary time period. During this time, there were five exposures, each with the results being relayed within the three-day period. Field investigations can now continue with the information of exposure levels and clinical responsibilities.

Data examination has resulted in an understanding of the exposure levels of the community statistics and TCHD noticed that rabies calls are not as common during particular seasons.

#### **CHECK**

At the time of this report, five events were recorded. These five cases do not provide enough data to effectively determine if the process qualifies for adoption, though so far, it is having the intended effect. Each event has been recorded within a one- to two-day period, exceeding the three-day goal. In

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determining next steps, TCHD is going to continue to record data. Additionally, the data being recording will provide an understanding as to in which townships the rabies is occurring.

After a positive exposure, additional field investigation occurs. An unexpected result of this effort was the ability to measure the field investigations within the rabies protocol. Additional customers then come forward inquiring about possible exposure, and field investigations can be measured and improved upon.

Financial data is being collected and will allow for monitoring of internal financial gains as a result of this effort (see Appendix H).

#### **ACT**

TCHD has been able to identify the locations of rabies by the use of the Geographical Information Systems (GIS) in the townships where the rabies events have occurred. We can identify clusters and provide vaccinations with public health education on these clusters. Historical cases of rabies were plotted and examined in GIS See Appendix I – J – K for detailed GIS Maps of rabies events.

#### **RESULTS, NEXT STEPS, AND ACCREDITATION**

The process in which to meet Public Health Accreditation Boards accreditation expectation has increased agency awareness. As the department collected the documentation, there was recognition that some measures were being met but there was an inability to document them.

The experience of the QI Beta Accreditation process was in itself more valuable than the results that came out of the self assessment as the experience assisted in a continued understanding of department processes and improvements that could be made.

A key concept learned through this process is there must be consensus throughout the whole agency of what the management's expectations are at each department level prior to implementation. It took the team time to organize key personnel to help in the self assessment process and perhaps a full time accreditation coordinator may have been beneficial. Towards the end of this process is when the reality set in that "change for the whole agency" was eminent to achieve accreditation. TCHD is now looking forward to implement changes needed to achieve accreditation, such as strengthening documentation protocol and addressing the current policy making procedures.

The future goal of Tioga County Health Department is to continue on this path of quality improvement and to apply for accreditation. The knowledge that the Beta team acquired throughout the process is priceless and will need to be disseminated throughout the Agency before applying to PHAB.

Some of the successes that emerged from the experience were what it meant to work as a team. Also the QI project brought out the best in our three divisions. It allowed the divisions to work together more effectively, within the rabies program in a synergistic mode. The QI process is very detailed with numerous facets, processes and data collection. The process is intended to stream line programs, eliminate duplication of efforts, save money and make them productive programs. Working though a first QI project, the rabies program, it was found, as in the case for the Accreditation Coordinator, a full time QI coordinator could be very effective.

Looking back, TCHD believes that what it accomplished or received in failure were reflective of not quite understanding the goal of accreditation. The Public Health Accreditation Board team can say that they

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have an understanding of accreditation only to the point of what was measured. There is much more to learn. The next challenge is to engage the whole agency, beginning with education, as a means to bring about a new paradigm.

#### LESSONS LEARNED

In order to have governing support needed to apply for accreditation, the beta test effort and QI initiative were presented to the local board of health. . Questions were asked in which we could answer.

The experience with the outside partners from Syracuse University assisted in the understanding of accreditation. Also the networks established through the Conferences hosted by NACCHO provided insight into what to expect during the effort.

The support received from NACCHO assisted TCHD and directed staff in their efforts. TCHD learned from a project of this magnitude that the team is an essential part of such a dynamic system; no one person can lead a program of this magnitude with effectiveness. In the end TCHD each had an opportunity to present findings from individual departments to contribute to this report.

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#### APPENDICES

[Appendix A: Storyboard](#)

[Additional Appendices:](#)

Appendix B: Environmental health protocol

Appendix C: Corrected nursing protocol

Appendix D: Duplication identified

Appendix E: Summary cause and effect diagram

Appendix F: Summary solutions diagram

Appendix G: Team member roles and responsibilities

Appendix H: Rabies identified and household human exposure potential

Appendix I: Exposures near water sources

Appendix J: 2007 human exposure cluster – Waverly