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| Project Basics | |
| Nomination ID | 22 |
| Project Name | Improving the quality and availability of Minnesota vital records death data  *A name for the improvement project/achievement; this should be understandable by people with no specific knowledge of your business and should include an action word such as "developing, reducing, or streamlining"*  *Examples: "streamlining printing and mailing," "reducing work-related injuries," "increasing restitution paid to victims," etc.* |
| Agency | Health, Department of  *Which agency did this improvement primarily take place in?* |
| Project Contact | Molly Crawford  *Who can we contact about the project?* |
| Project Sponsor | Molly Crawford, State Registrar, Minnesota Department of Health, Office of Vital Records. Robert Wood Johnson Foundation and the Association of State and Territorial Health Officials  *Who sponsored the project? (Please include name/s and title/s)* |
| Project Team Members | MDH-Office of Vital Records, ​Molly Crawford, Heidi Granlund, Cheri Denardo, Gloria Haluptzok, Kirsti Taipale, Maria Schaff, Roxanne Somers, Usha Valappil, Cindy Coleman; MN.IT @ MDH, Otto Hiller, Larry Winship; City of Minneapolis Health Department, Richard Carlson; Hennepin County Medical Examiner, Roberta Geiselhart; Mississippi State Department of Health, Lynn Pittman; Arkansas Department of Health, Melinda Allen; National Association of Public Health Statistics and Information Services, Andrea Price; Centers for Disease Control, National Center for Health Statistics, Matt Rowe. Association of State and Territorial Health Officials, Lia Katz; Robert Wood Johnson Foundation, Pamela Russo; Continual Impact, Chris Bujak and Pam Vecellio  *Please list the names and agencies of all project team members who you would like to be included in any communications about the Awards; include all team members who should receive certificates if the project receives an Award.* |
| Project Start | 3/1/2015  *When was the project initiated?* |
| Project Completion | 11/30/2015  *When was the project completed?* |

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| Project Details | |
| **Business Case/Problem Statement** | The Minnesota Department of Health (MDH) shares data about vital events. However, historically, that data was shared only when MDH published a final statistical file.   In 2014, Minnesota local public health agency representatives collectively approached MDH leadership to voice their needs for vital records death data sooner. Local public health expressed a need to have access to death data sooner than the release of the annual statistical file which was as many as 22 months after the death events. Local public health wanted preliminary death data to enable a more timely response to emerging issues such as drug overdose deaths so that public health surveillance and prevention activities could be accomplished in near real-time.   Shortly after this, the Office of Vital Records was invited by the Robert Wood Johnson Foundation to replicate a quality improvement project conducted in North Carolina to provide local public health death data sooner. The Robert Wood Johnson Foundation created this project as part of their Quality Improvement Forum to improve performance across federal, state, and local public health agencies. The Office of Vital Records accepted the invitation and used project resources to renew its focus on death registration and to create a solution to satisfy Minnesota's local public health needs. The effort was named the Minnesota Death Data Delivery Project.  *Why did you take on this project?* |
| **Project Objective/s and Goal/s** | The Minnesota Death Data Delivery Project set an overall goal to reduce the elapsed time in providing quality death data to multiple consumers of the data. The project team focused improvement efforts in three areas: 1. FAMILIES – Increase availability of death certificates that have both the fact of death and the cause of death completed within 10 days from 81% to >91%. 2. LOCAL PUBLIC HEALTH AND USERS OF DEATH DATA - Reduce the elapsed time from receiving ICD-10 Coded records (International Classification of Disease, 10th Revision) from the CDC National Center for Health Statistics (NCHS) to sharing real time death data—from up to 22 months to within ONE WEEK. 3. ALL USERS OF DEATH DATA - Align Minnesota’s average with the national average for death records coded automatically on first attempt by NCHS, from 75% to 80%.  *What were you trying to do or change? What were your project goals?*  *Examples: Increase customer satisfaction from x to x, reduce process time from x to x.* |
| **Customer Focus** | *The project included federal, state, and local customers in identifying the problem and in collectively and collaboratively finding a solution. Local public health voiced its need and desire to get death data sooner; families had complained and provided feedback about their experience in waiting for complete death certificates; and programs within MDH also indicated an increasing demand for real-time death data. In addition, partners in the death registration process such as funeral directors and their staff, physicians, medical examiners and coroners who use the vital records system, had requested system enhancements to increase efficiency and maximizing use of the electronic application.  The quality improvement project included a week-long kaizen event that involved a 22-member multi-jurisdictional team with representatives from the Centers for Disease Control, National Center for Health Statistics, The Association of State and Territorial Health Officials; Vital records staff from the State of Arkansas and Mississippi; the Hennepin County Office of the Medical Examiner; The City of Minneapolis Public Health, MN.IT at Minnesota Department of Health, and staff from the Office of Vital Records and the Center for Health Statistics. These members brought various customer perspectives and expertise to the project which provided a spring board to creative solutions.   During the kaizen event and throughout the project, team members sought customer feedback on communication, new system enhancements, and processes to move death records to completion. Their feedback informed and shaped final solutions.*  *How did the project include customers of the process in identifying the problem, causes, and solutions?* |
| Data-driven decision making | In Minnesota, a statewide electronic web-based application is used to securely register vital events, store records, and issue certificates. This system allows easy access to data about the speed, accuracy, and completeness of death registration and the resulting records. Office of Vital Records staff mined the system to collect data. They analyzed the current state and used that information to set improvement targets and goals. This internal data helped expose performance gaps and bring scope to the problems so that the team could prioritize actions within the project and for future improvements.  In In addition, the Minnesota Department of Health had never regularly or systematically released preliminary death data. The agency culture was resistant to change and reluctant to release non-final data. Data indicated that 81% of Minnesota death records were complete (containing both the fact and cause of death) within 10 days of the fact of death being registered. Data from the National Center for Health Statistics indicated that Minnesota, on average, was below the national average for death records being automatically coded on first pass. Minnesota had about 75% of its death records coded compared to the 80% at the national average. Finally, annual statistical files had been historically released in September for the previous year. This meant that data about deaths wasn't released until 9 to 22 months after the death event. Many other factors were examined including stakeholder input, customer feedback, best practice recommendations from the National Association of Public Health Statistics and Information Systems, and examples from other vital records jurisdictions.  *How did the project use data collection and analysis to measure, confirm, and identify problems and assess possible causes and solutions? Include examples of the data used.* |
| Results | The project's primary objective of getting death data to local public health sooner was achieved in just three weeks after the kaizen event. In that time, staff from the Office of Vital Records and MN.IT worked to create a SharePoint Connect site, provide access to local public health, and post a weekly file of coded death records many of which were available within a week of the death event.   Coding improvement was achieved through analysis and testing. By the end of September, four months after the Kaizen, Minnesota had achieved an average of 85% of the death records being automatically coded by the CDC-National Center for Health Statistics-this not only achieved the project goal, it surpassed it by 5%. Much energy has been expended on improving the vital records system to error-proof data registration (not allow records to be registered with mistakes such as misspelled medical terms), improving navigation within the application, and creating system-generated notifications sent via e-mail automatically to help alert users of the system monitor the status of a death record and track the record to completion. These efforts, released through enhancements in September and October of 2015, have not yet achieved the goal of moving Minnesota's completed death records from 81%. However, within the 10 days between the fact of death being filed and the cause of death being filed, more than 50% of the records are complete within the first three days--a significant shift that is important to families and their choices for disposition.  By getting preliminary death data, representatives from the local public health community report that they feel the 'pulse" of the mortality landscape and that the substantial reduction in wait time for data enables a more timely response to emerging issues. In fact, some believe that the leveraging effect may help "move the dial" on persistent public health issues such as traffic fatalities and the "toward zero deaths" initiative; infant mortality, sudden unexpected infant death; and other efforts.  *To what extent were project goals achieved? For each goal or objective, describe how success was measured and share the current or most recent measures.* |
| **Respect – for Employee engagement and empowerment** | The Minnesota Department of Health and MN.IT staff were directly involved in responding to the local public health requests to get death data sooner and in creating solutions to share the data. Staff investigated causes for delays in getting complete and accurate death records and used data gleaned from the system to inform ideas for possible solutions. The project team and staff gathered feedback on ideas and focused their energy to achieve solutions that produced exponential results that none on their own could have achieved. The kaizen event empowered team members to make decisions and take action during the event. This built confidence and a new level of ownership and accountability for outcomes. State staff continue to meet weekly to share information and mark progress toward the goals. Original kaizen team members continue to contribute to monthly conference calls and they continue to provide suggestions and cheer on the progress. Program and technical staff work together to complete the action items and keep the project within scope.  *How did the project include the staff directly involved in the process in identifying the problem, causes, and solutions?* |
| **Performance Excellence** | The project was a catalyst to culture change. The project applied a "just do it" approach to sharing real-time death data. Program staff overcame their risk aversion and reluctance to share preliminary data. Staff in the Office of Vital Records stepped up and took an active role in working with MN.IT to satisfy customer needs and position MDH to meet the increasing demand for real-time data. A simple SharePoint Connect site was created as an efficient and effective solution. Since the site went live, more than 17 public health agencies and programs have access and are regularly visiting the site to retrieve the weekly files. In addition, families are better served because complete death certificates can be issued sooner. Because of the project, more records have the cause of death filed within 72-hours of the fact of death being registered. This shift means that more families who choose non-burial dispositions are relieved of extra preservation expenses.  Demand for real-time death data moved the Office of Vital Records to take action and change the way MDH shares data.  *How did the project challenge the status quo, apply best practices or benchmarking, or develop or implement innovative solutions?* |
| **Project Tools and Methods** | *The project incorporated many tools and methods. The project included a kaizen event, as-is and future state mapping, root cause analysis, line of sight models, and the plan-do-study-act cycle. The team produced solutions, tested them, gathered stakeholder feedback, improved the solutions and put improvements into action. Staff within the Office of Vital Records experienced quality improvement at its best. Exposure to the tools and methods built knowledge and skill. Staff now recognize the need for clear aim statements and goals. They appreciate metrics and measures of progress and improvement. The team continues to monitor measures and employ continuous improvement. The enthusiasm among team members and their cooperative spirit is infectious and other staff not directly involved in Minnesota Death Data Delivery have caught the quality improvement fever and actively seek opportunities to improve processes within their spheres of influence and activity.*  *What did you do to achieve your objective? What activities, tools, and methods did you employ? Examples: process mapping, Kaizen event, DMAIC process, "turn the curve" exercise, SIPOC, stakeholder research, root cause analysis, data collection and analysis, etc.* |
| Nomination Completed By | Molly Crawford |
| Nomination Status | Agency Approved |