2018 Model Practices

Applicant Information

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Select a size:
- [ ] Small (0-50,000)
- [ ] Medium (50,000-499,999)
- [✓] Large (500,000+)

Practice Categories

Model and Promising Practices are stored in an online searchable database. Applications may align with more than one practice category. Please select all the practice areas that apply:

- Access to Care
- Advocacy and Policy Making
- Community Involvement
- Cultural Competence
- Global Climate Change
- Health Equity
- Informatics
- Information Technology
- Organizational Practices
- Other Infrastructure and Systems
- Tobacco
- Vector Control
- Water Quality
- Workforce
- Coalition and Partnerships
- Communications/Public Relations
- Emergency Preparedness
- Environmental Health
- Food Safety
- HIV/STI
- Immunization
- Marketing and Promotion
- Maternal-Child and Adolescent Health
- Injury and Violence Prevention
- Quality Improvement
- Research and Evaluation
- Conference Theme: Unleashing the Power of Local Public Health
- Other:
  - Opioid and Heroin Use and Prevention

Is this practice evidence based, if so please explain:

All data used on this practice website were analyzed and presented adhering to strict epidemiologic standards, including HIPAA restrictions. Kernel density maps are based on guidelines widely used in the geographic information systems community for data display. The website was developed following the World Wide Web Consortium (W3C) standards for web design and applications and ArcGIS development principles.

Winnable Battles

To keep pace with emerging public health challenges and to address the leading causes of death and disability, CDC initiated an effort called Winnable Battles to achieve measurable impact quickly. Winnable Battles are public health priorities with large-scale impact on health and known effective strategies to address them. Does this practice address any CDC’s seven Winnable Battles? If so, please choose from the following:

- [✓] Food Safety
- [✓] Teen Pregnancy
- [ ] None
- [✓] Motor Vehicle Injuries
- [✓] HIV in the U.S.
- [✓] Nutrition, Physical Activity, and Obesity
- [✓] Tobacco
- [✓] Healthcare-associated Infections

Overview: Provide a brief summary of the practice in this section (750 Word Maximum)

Your summary must address all the questions below:

- Brief description of LHD- location, demographics of population served in your community
- Describe public health issue
- Goals and objectives of the proposed practice
- How was the practice implemented/activities
- Results/Outcomes (list process milestones and intended/actual outcomes and impacts.
  - Were all of the objectives met?
  - What specific factors led to the success of this practice?
- Public Health impact of practice
- Website for your program, or LHD.

750 Word Maximum
Tri-County Health Department (TCHD) is the largest local health department in Colorado and serves over 1.5 million people in Adams, Arapahoe and Douglas Counties in the Denver metropolitan area. TCHD’s jurisdiction encompasses urban, suburban and rural areas and includes 26 municipalities and 3 unincorporated areas. The demographic characteristics of the jurisdiction vary and encompass vast extremes wherein one county has one of the highest proportion of Hispanic residents (nearly 40%) and highest rates of childhood poverty in the state, and another is one of the most affluent and least diverse counties in the state. Public Health Issue On October 26, 2017, the opioid crisis was declared a public health emergency by the Acting Health and Human Services (HHS) Secretary Eric D. Hargan. In recent years, reflecting national trends, areas within TCHD’s jurisdiction experienced a dramatic increase in the number of deaths due to opioid overdose; in one county rising from 10 deaths in 2013 to 60 deaths in 2015. The number of deaths due to heroin overdose within our jurisdiction has also increased with a particularly sharp upward trend starting in 2013, nearly tripling in one county and nearly doubling in another. Data from public health surveillance systems and lived experience from community members converged to heighten awareness of this critical public health problem. In the fall of 2016, public officials in TCHD’s jurisdiction turned to TCHD to illuminate the extent of the problem and to mobilize a comprehensive response. TCHD applied the 10 essential services, starting with monitoring and diagnosing the health problem and informing and educating people about the issues of the opioid crisis. Goals and Objectives The goal of this practice was to develop a website containing timely and accurate data to identify the scope of the opioid problem and available resources to support community-based efforts to address the crises from various angles. The objectives of this practice were to 1) geographically display local level prevalence of opioid and heroin deaths over time; 2) display substance abuse and mental health treatment options including contact information and detailed characteristics of each treatment setting; 3) display prevention initiatives including household drug take-back sites and Naloxone retailers; and 4) link viewers to concrete action items and community and statewide initiatives to address the crisis. Implementation/Activities/Outcomes: 1. Determined content for website by reviewing data requests from community members, agency staff, media, elected officials and organizations 2. Opioid overdose deaths by census tract over time 3. Heroin overdose deaths by census tract over time 4. Point locations of substance abuse treatment settings 5. Point locations of mental health centers 6. Point locations of household drug take-back sites and Naloxone retailers and links to prevention initiatives 7. Compiled and formatted data for the site 8. Geographic shape files; Vital records data; SAMHSA data; Colorado Dept. of Public Health and Environment (drug take-back data); Stop the Clock Colorado (Naloxone data) 9. Identified appropriate application for data display 10. ArcGIS Open Data site 11. Designed the website 12. October 2016 13. Demonstrated website to agency staff 14. Substance abuse coalitions 15. Experts and refined based on feedback 16. Completed December 2016-January 2017 17. Launched website 18. April 2017 19. Logged comments and further requests for data 20. Tweaked site according to feedback 21. Added link to the “Celebrating Lost Loved Ones” site 22. Altered wording, updated data 23. All of the objectives for this practice were met. Factors that led to the success of the practice included a proactive response to community needs; reliance on expressed community and stakeholder input into the design of the practice; timely, available data; analytic display tools; existing community partnerships, coalitions and networks; and TCHD staff capacity. Public Health Impact Since the creation of the opioid website, there has been a dramatic increase in the information available to the public. TCHD’s partner agencies have utilized the site to access data, identify communities in greatest need, share maps and graphs, and better understand the distribution of resources. Local governments have been able to better understand the magnitude of the problem and availability of resources within their boundaries. This site has also helped generate discussion around naloxone use, syringe disposal locations, and locations of future substance abuse treatment facilities. The success of this platform has inspired TCHD to create more topic-specific sites to provide ready-to-use data and maps to local governments and community partners, which will ultimately help TCHD provide the right resources to residents and keep them engaged with the latest health trends in their communities. Website: http://opiod-tchdgis.opendata.arcgis.com/
The LHD should have a role in the practice's development and/or implementation. Additionally, the practice should demonstrate broad-based involvement and participation of community partners (e.g., government, local residents, businesses, healthcare, and academia). If the practice is internal to the LHD, it should demonstrate cooperation and participation within the agency (e.g., other LHD staff) and other outside entities, if relevant. An effective implementation strategy includes outlined, actionable steps that are taken to move the community forward. Steps taken to implement the program, the timeline of events, and the outcomes of efforts should be documented and shared with other LHDs and stakeholders.

LHD and Community Collaboration

Goal(s) and objectives of practice

What did you do to achieve the goals and objectives?

Steps taken to implement the program

Any criteria for who was selected to receive the practice (if applicable)?

What was the timeframe for the practice?

Were other stakeholders involved? What was their role in the planning and implementation process?

What does the LHD do to foster collaboration with community stakeholders? Describe the relationship(s) and how it furthers the practice goal(s)

Any start up or on-going funds and services associated with this practice? Please provide actual data, if possible. Otherwise, provide an estimate of start-up costs/budget breakdown.

LHD and Community Collaboration

The LHD should have a role in the practice's development and/or implementation. Additionally, the practice should demonstrate broad-based involvement and participation of community partners (e.g., government, local residents, businesses, healthcare, and academia). If the practice is internal to the LHD, it should demonstrate cooperation and participation within the agency (e.g., other LHD staff) and other outside entities, if relevant. An effective implementation strategy includes outlined, actionable steps that are taken to complete the goals and objectives and put the practice into action within the community.
Goal(s) and objectives of practice The goal of this practice was to develop a website containing timely and accurate data to identify the scope of the opioid problem and available resources to support individual and community-based efforts to address the crises from various angles. The objectives of this practice were to 1) geographically display the prevalence of opioid and heroin deaths over time; 2) display substance abuse and mental health treatment options including contact information and detailed characteristics of each treatment setting; 3) display prevention initiatives including household drug take-back sites and Naloxone retailers; and 4) link viewers to concrete action items and community and statewide initiatives to address the crisis. Steps taken to implement the practice This practice grew out of interest by community member, media, and elected official’s interest in understanding the opioid crisis on a local level and seeking actions to combat the crisis. Initially, requests for data and information from TCHD were fulfilled and shared with the public through the TCHD Executive Director and the Epidemiology and Community Development Division. The TCHD Executive Director directly engaged with individuals and organizations to identify potential partners. Two of the counties in TCHD’s jurisdiction were particularly concerned. In one county, a county commissioner pulled together a task force to address the opioid crisis with various county departments, community mental health centers, and Kaiser Permanente. In another county, a concerned citizen approached the county commissioners who then convened a diverse stakeholder group with government, private and nonprofit partners. In response to this growing concern, TCHD was asked to convene leadership from both of these county’s action groups and to form a coalition to reduce overdose deaths and increase awareness and education of prevention strategies. The third county in TCHD’s jurisdiction has asked to join this effort at a future date. This Coalition was named the Tri-County Opioid Overdose Prevention Partnership (TCOPP). Current membership includes public, private, non-profit partners, law enforcement, treatment providers, hospitals, community mental health centers, youth prevention coalitions, statewide organizations, and private residents. TCOPP desired to be data driven and also wanted to use data in its education efforts. It soon became apparent that a comprehensive central location for data and information which was easily accessible to the public would meet many of the needs. An internal TCHD team was assembled by inquiries from the media and elected officials. The Manager of Informatics, Epidemiology and Health Planning, the Public Health Prevention and Policy Manager (in charge of tobacco and substance abuse), the Synarc Surveillance epidemiologist, and the Medical Epidemiologist. This group reviewed the requests for data that were routinely coming in and the requests for data and data products from TCOPP. The group carefully catalogued all potential data sets and evaluated their utility for inclusion, deciding on the data elements to be included in the site. The groups also assessed the inclusion of other elements for the site. The Senior Population Health Epidemiologist, and GIS expert, explored the functionality of the Esri ArcGIS Open Data site to use as a platform for sharing the opioid and heroin data. It was determined that the Open Data site would be an adaptable and easy-to-use interface to quickly communicate relevant and accurate information that could be utilized by all the department’s community members. Two population health epidemiologists compiled the data from various organizations and prepared it for the site. The Senior Epidemiologist programmed the site. The team, including TCHD’s Executive Director and the Epidemiology, Planning, Management, and Communication Division Director, used input from internal and external stakeholders and start-up funds to gather feedback from county residents and stakeholders. The Executive Directors of the five metro Denver area LPHAs have formed the Metro Denver Partnership for Health to support collaborative public health initiatives across the region. One work group of the Partnership is the Infrastructure Work Group comprised of data analysts, epidemiologists and informaticians from each of the 5 LPHAs. The goal of this group is to build capacity to share data and analytic resources to reduce duplication of effort and enable data-driven collaboration efforts such as policy development. This group provided critical feedback regarding the site and offered suggestions for enhancements. TCHD is fortunate to have myriad active coalitions and community partners and this network was used to review and provide input into the site as well. Specifically the newly formed TCOPP was key in both supporting the development of the site and providing input into the content and feedback regarding the final site. With Mental Health being the focus of TCHD’s Community Health Improvement Plan, various mental health work groups comprised of an array of stakeholders also provided input into the site and suggestions for additions and other refinements. One unanticipated outcome of this was the desire among mental health professionals to develop a similar site focused specifically on mental health (Although not the focus of this application, the site has been recently developed and can be viewed here: http://mentalhealthtchdcs.opendata.arcgis.com/)). Finally, the site was made live and advertised through various channels including TCHD’s internal newsletter, presentation to TCHD’s Board of Health, email to TCHD’s board members, and presentations to various coalitions, committees, and at conferences, and in a blast through a state health department to all UPHOs to let them know about the state of Colorado. The timeframe for the practice from online development to site was spring 2016 to spring of 2017 (site was launched April 1, 2017). Stakeholder involvement As reported above, stakeholders played key roles in all phases of the practice. Much of TCHD’s work is conducted through community partnerships. TCHD carefully nurtures relationships with the medical provider community, mental health and substance abuse providers, the early childhood community, county and local government officials, and more. Because of these strong relationships, TCHD has ready avenues for disseminating information and resources such as this Open Data website. These groups also disseminated the website through their independent networks. Practice costs Most of the costs of the project were in labor and staff resources. As estimated salary costs were also required for the practice. Efficiency TCHD was able to Realize an efficiency of approximately 30% because the work was devoted to this project. Though the software and servers used were already purchased and in use by TCHD, the ArcGIS server had an initial cost of $5,000 and an ongoing maintenance fee of $2,000 per year and SAS software is used to analyze data. Both the server and software are used for many other projects as a part of the data and informatics infrastructure of TCHD. The free version of Tableau software was also used for part of the site.

Evaluation

Evaluation assesses the value of the practice and the potential worth it has to other LPHAs and the populations they serve. It is also an effective means to assess the credibility of the practice. Evaluation helps public health practice maintain standards and improve practice. Two types of evaluation are process and outcome. Process evaluation assesses the effectiveness of the steps taken to achieve the desired practice outcomes. Outcome evaluation summarizes the results of the practice efforts. Results may be long-term, such as an improvement in health status, or short-term, such as an improvement in knowledge/awareness, a policy change, an increase in numbers reached, etc. Results may be quantitative (empirical data such as percentages or numerical counts) and/or qualitative (e.g., focus group results, in-depth interviews, anecdotal evidence).

- What did you find out? To what extent were your objectives achieved? Please re-state your objectives.
- Did you evaluate your practice?
- Did you use any primary data sources, who collected the data, and how (if applicable)
- Did you use any secondary data sources (if applicable)
- Did you use performance measures? Include process and outcome measures as appropriate.
- Describe how results were analyzed
- Were any modifications made to the practice as a result of the data findings?

2000 Words Maximum

To what extent were practice objectives achieved? The objectives of this practice were to 1) geographically display the prevalence of opioid and heroin deaths over time; 2) display substance abuse and mental health treatment options including contact information and detailed characteristics of each treatment setting; 3) display prevention initiatives including household drug take-back sites and Naloxone retailers; and 4) link viewers to concrete action items and community and statewide initiatives to address the crisis. The first three objectives were achieved and can be empirically assessed as they appear on the website: http://opiods-tchdcs.opendata.arcgis.com/). The final objective can only be evaluated by process measures somewhat distant to the outcome of interest. Process evaluation in order to measure our fourth objective, link viewers to concrete action items and community and statewide initiatives to address the crisis, we tracked web analytics, recorded groups to which the website link was sent, and presentations of the website made by various groups. Between the launch of the website on April 1, 2017 and November 30, 2017 we have had over 9,000 unique visits to the website and an average of 44 visits per day. The link to the site was sent to between 116 partners at various organizations throughout TCHD’s jurisdiction. These organizations included nonprofits, schools, medical providers, mental health providers, government officials, and more. The link was also sent out to all 64 local health departments in Colorado. The website was featured in the internal TCHD newsletter and sent to TCHD’s approximately 360 FTE. A demonstration of the website was provided to several stakeholder groups and coalitions reaching over 100 individuals. The website attracted national attention as well. It was featured at Esri’s 2017 global user conference with over 17,000 attendees. Esri is also highlighting the site on its website: http://www.esri.com/industries/health and will include an article about it in their quarterly ArcUser Publication. Other LPHAs in the Metro Denver area have replicated some parts of this work for their jurisdictions. TCHD shares code and provides technical assistance as needed. Analysts at one of the county governments within TCHD’s jurisdiction have used the site to develop a county assessment of the opioid crisis to begin to determine how their county government and staff can address the crisis within their work here: https://www.google.com/url?sa=U&source=web&cd=4&ved=0CAcQFjAC&url=http://advanced.maps.arcgis.com/home/item.html?id=204894eadd3e-4e10-b1e0-a518b5bac266&usg=AOvVawPhB27y0Uc3R-uJ85Nvzw5MHa91 2017 (site was launched April 1, 2017). Stakeholder involvement As reported above, stakeholders played key roles in all phases of the practice. Much of TCHD’s work is conducted through community partnerships. TCHD carefully nurtures relationships with the medical provider community, mental health and substance abuse providers, the early childhood community, county and local government officials, and more. Because of these strong relationships, TCHD has ready avenues for disseminating information and resources such as this Open Data website. These groups also disseminated the website through their independent networks. Practice costs Most of the costs of the project were in labor and staff resources. As estimated salary costs were also required for the practice. Efficiency TCHD was able to Realize an efficiency of approximately 30% because the work was devoted to this project. Though the software and servers used were already purchased and in use by TCHD, the ArcGIS server had an initial cost of $5,000 and an ongoing maintenance fee of $2,000 per year and SAS software is used to analyze data. Both the server and software are used for many other projects as a part of the data and informatics infrastructure of TCHD. The free version of Tableau software was also used for part of the site.

Sustainability

Sustainability is determined by the availability of adequate resources. In addition, the practice should be designed so that the stakeholders are invested in its maintenance and to ensure it is sustained after initial development (NACCHO acknowledges that fiscal challenges may limit the feasibility of a practice’s continuation).
Describe sustainability plans

Lessons learned TCHD reaped the benefits from developing this practice with heavy subject matter expertise and community input. Before using this method, our data products reflected traditional display methods—prevalence graphs, pie charts and the like. These methods have their utility, but we have found that building data products with and for the community engages our partners in a more meaningful way and therefore ensures that data are used. This method requires more time on the front end, but saves time in response to data requests on the back end.

Cost/benefit analysis done? No. Stakeholder commitment to sustain the practice The project is self-supporting; however, partner’s interest in the site can only be maintained through regular updating of the data on the site, and by including new datasets and information as it becomes available. For instance, Colorado has a Prescription Drug Monitoring Program and we have been working with partners to mine the data related to opioid prescribing practices and trends. TCHD’s Medical Epidemiologist has partnered with another LPHA to develop a dashboard displaying opioid-related calls to the Rocky Mountain Poison Control Center and we will link this site to and from this practice site in the near future.

Sustainability plans As mentioned, we built this practice using hard- and software that are already part of TCHD’s informatics infrastructure. We have skilled staff who can develop these websites using the ArcGIS technology. We are building redundancy for this skill set as well. One outgrowth of this project’s success was the development of our website featuring mental health. This was initiated based on stakeholder request and is currently live. In this case, we were able to capitalize on lessons learned and repurpose much of the code and data for this site. As we go further, our process will become better refined and our skills will increase, making this practice our new way of doing business. We are currently working on developing a site featuring tobacco and one featuring obesity. Due to the interest in the approach among our regional LPHA partners, we will also be able to support their efforts and subsequently learn from them as we grow this practice in our region.

How did you hear about the Model Practices Program:: *

- I am a previous Model Practices applicant
- Model Practices Brochure
- Public Health Dispatch
- At a conference
- Colleague in my LHD
- Colleague from another public health agency
- E-Mail from NACCHO
- NACCHO Connect
- NACCHO Exchange
- NACCHO Exhibit Booth
- NACCHO Website