

2017 Model Practices

Applicant Information					
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Model Practice Title

Please provide the name or title of your practice: *

Utilizing the Incident Command System in a Pertussis Outbreak

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	Animal Control	Coalitions and Partnerships	Communications/Public Relations
Community Involvement	Cultural Competence	Emergency Preparedness	Environmental Health	Food Safety
Global Climate Change	Health Equity	HIV/STI	☑ Immunization	Infectious Disease
Informatics	Information Technology	Injury and Violence Prevention	Marketing and Promotion	Maternal-Child and Adolescent Health
C Organizational Practices	Other Infrastructure and Systems	Organizational Practices	Primary Care	Quality Improvement
Research and Evaluation	Tobacco	Vector Control	Water Quality	☐ Workforce
Conference Theme: Bridging				

Conterence Theme: Bridging Clinical Medicine and Population Health Other::

Is this practice evidence based, if so please explain. :

The practice was evidenced-based. DOH-Broward utilized the Incident Command System and National Incident Management System to manage the response. The Program Collaboration Service Integration Model (PCSI) and CDC guidelines regarding investigation and surveillance of communicable diseases, with a focus on the interruption of transmission guided the DOH-Broward response.

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

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

Please use this portion to respond to the questions in the overview section. :*

 Brief description of LHD- location, demographics of population served in your community Broward County is located in the southeastern portion of the State of Florida with Miami-Dade County to the south and Palm Beach County to the north. Broward County is the second most populous county in Florida in 2016, estimated at 1.809.604, and home to 10% of Florida's residents. Broward County is the second largest county in Florida and the eighteenth largest county in the nation. Broward County also hosts an estimated 10 million annual visitors including an estimated 250,000 winter seasonal residents. Broward County has a diverse population with residents originating and/or representing more than 200 different countries and speaking more than 130 different languages. 31.4% of the residents are foreign-born. Broward County is a minority/majority county demonstrated by its 2016 population by race (Black 28.5%, Asian 3.6%, Hispanic 26.9%, other races 4.1%, more than one race .2%, for a total of 59.5% and White 40.8%). The Florida Department of Health in Broward County (DOH-Broward) is the official Public Health Agency in Broward County and has been operational since 1936. It is part of the Integrated Florida Department of Health (DOH) and operates in cooperation with the Broward County Commission under Florida Statute 154. DOH-Broward's mission is "to protect, promote and improve the health of all people in Florida through integrated state, county and community efforts". DOH-Broward is the lead agency providing core public health functions and essential services in the county as part of a complex public health system that includes hospitals, clinics, planning agencies, community-based organizations and others. DOH-Broward provides population/community-based services to the county's 1.8 million residents and over 10 million annual visitors, and is responsible for assessing, maintaining and improving health and safety within the county. • Describe public health issue In March of 2015, the Florida Department of Health in Broward County identified four (5) confirmed cases of pertussis, or whooping cough, involving three (3) adolescents, (1) toddler, and one (1) infant. Pertussis is a highly contagious bacterial infection of the respiratory tract, and is a vaccine preventable disease. • Goals and objectives of proposed practice The goal of the practice was to reduce the transmission of pertussis in Broward County. The objectives were to coordinate the pertussis response activities of DOH Broward; minimize the spread of pertussis in the schools and day care centers, and provide the media and the public with accurate and timely information. • How was practice implemented / activities DOH Broward activated an Incident Management Team, utilizing the Incident Command System (ICS) and adhering to National Incident Management Standards (NIMS) to track and document progress for each of the goals/objectives identified in the Incident Action Plan (IAP). A formalized epidemiological and communications response was initiated. • Results/ Outcomes (list process milestones and intended/actual outcomes and impacts. o Were all of the objectives met? Yes o What specific factors led to the success of this practice? Utilizing Incident Command to provide structure to a multi-disciplinary team was extremely effective in targeting, tracking and documenting progress in meeting all identified goals and objectives. • Public Health impact of practice Utilizing the Incident Command System, the multi-disciplinary incident management team was effective in targeting, tracking and documenting the course of the initial 5 cases of vaccine preventable pertussis and halting its spread to the community.

Responsiveness and Innovation

A Model Practice must be responsive to a particular local public health problem or concern. An innovative practice must be (1) **new to the field of public health (and not just new to your health department)** OR **(2) a creative use of an existing tool or practice**, including but not limited to use of an Advanced Practice Centers (APC) development tool, The Guide to Community Preventive Services, Healthy People 2020 (HP 2020), Mobilizing for Action through Planning and Partnerships (MAPP), Protocol for Assessing Community Excellence in Environmental Health (PACE EH). Examples of an inventive use of an existing tool or practice are: tailoring to meet the needs of a specific population, adapting from a different discipline, or improving the content.

- Statement of the problem/public health issue
- What target population is affected by problem (please include relevant demographics)
 - What is the target population size?
 - What percentage did you reach?
- What has been done in the past to address the problem?
- Why is the current/proposed practice better?
- Is current practice innovative? How so/explain?
 - Is it new to the field of public health OR
 - Is it a creative use of existing tool or practice:
 What tool or practice did you use in an original way to create your practice? (e.g., APC development tool, The Guide to Community Preventive Services, HP 2020, MAPP, PACE EH, a tool from NACCHO's Toolbox etc.)
- Is the current practice evidence-based? If yes, provide references (Examples of evidence-based guidelines include the Guide to Community Preventive Services, MMWR Recommendations and Reports, National Guideline Clearinghouses, and the USPSTF Recommendations.)

2000 Word Maximum

Please state the Responsiveness and Innovation of your practice (2000 Word Maximum): *

 Statement of the problem/public health issue In March of 2015, the Florida Department of Health in Broward County (DOH-Broward) identified five (5) confirmed cases of pertussis, or whooping cough, involving three (3) adolescents, one (1) toddler, and one (1) infant. Pertussis is a highly contagious bacterial infection of the respiratory tract. The disease spreads easily from person to person; people get pertussis by breathing in droplets from an infected person's cough or sneeze. Transmission of the infection may also come through direct contact with droplets from an infected person's cough. Initial symptoms of pertussis are like those of a cold, including runny nose, sneezing, low-grade fever and a mild cough. Within two weeks, the cough can become much worse. Pertussis can infect people of all ages, yet most commonly affects infants and young children and can be fatal, especially in babies less than one year of age. Children and the elderly with pertussis often have episodes of rapid, sporadic coughing followed by a characteristic intake of breath that sounds like a "whoop". These "whooping" coughing spells can make it hard for a child or older adult to eat, drink, or even breathe. • What target population is affected by problem (please include relevant demographics) o What is target population size? The 5 cases of confirmed pertussis were identified as affecting two schools, a daycare center, and a transitional housing site. The two schools have a combined student population of 2,331, the daycare has a capacity of 40 children, and the transitional housing site had a total of 20 persons in residence with one affected family of 4. Health care providers and other first responders were also included in the target population for this practice. o What percentage did you reach? Contact investigation was utilized to define the affected population in Broward County. The 2 affected area schools, daycare/aftercare center, and transitional housing sites were visited as part of the epidemiological field investigation. DOH-Broward utilized its existing healthcare provider database to quickly transmit information regarding pertussis to Emergency Departments, Urgent Care Centers, Family Practitioners, Pediatricians, Internal Medicine Practitioners, Infection Control Practitioners, Infectious Disease Physicians, OB/GYNs and pulmonologists, day care centers, nursing homes, assisted living facilities, and EMS/Fire rescue. Established community relationships and partnerships assisted in the accurate and timely exchange of necessary incident information. Pertussis informational flyers were widely distributed at community meetings and to the community organizations including Emergency Support Function - 8 Health and Medical Work Group, Emergency Coordinating Council (Emergency Management Representatives from all 31 Broward County Municipalities), Family Central, Healthy Start, Me and My Dad event, Early Learning Coalition, WIC, and Health Mothers/Healthy Babies. A pertussis press release was written and approved for release quickly by the Florida Department of Health Director of Communications and was transmitted to the media and posted to the DOH-Broward website and computer partner websites. The multi-faceted social media campaign provided information to the 1.8 million residents in Broward County • What has been done in the past to address the problem? In the past, responses to pertussis outbreaks (outbreaks in general) were conducted as individual stand-alone programs with minimal coordination of activities across programs. Internal agency program coordination and integration provides a team approach to reaching clients, health care providers and the public to educate them on disease transmission and prevention and avert to further spread. • Why is current/proposed practice better? DOH-Broward utilized the Incident Command System (ICS), a component of the National Incident Management System (NIMS), to provide organizational structure, meeting formats (Incident Action Plans (IAP) and Situation Reports) and After Action Planning to manage the response across multiple internal and external programs and entities. ICS provided an effective structure to manage, track, document, and evaluate our response to a local health threat. The integrated team formed for this response included the following programs: Epidemiology, Emergency Preparedness, Provider/Community Outreach, Public Information, Planning, Pharmacy, Finance, School Health, Immunization, and WIC. Meetings were held daily to coordinate an integrated plan in response to the outbreak. • Is current practice innovative? How so/explain? o New to the field of public health OR o Creative use of existing tool or practice. What tool or practice did you use in an original way to create your practice? (e.g., APC development tool, The Guide to Community Preventive Services, HP 2020, MAPP, PACE EH, a tool from NACCHO's Toolbox etc.) DOH-Broward utilized the Incident Command System (ICS), a component of the National Incident Management System, to provide organizational structure, meeting formats (Incident Action Plans (IAP) and Situation Reports (SitRep)) and After Action / Improvement Planning to manage the response across multiple internal and external programs and entities.

LHD and Community Collaboration

The LHD should have a role in the practice's development and/or implementation. Additionally, the practice should demonstrate broadbased involvement and participation of community partners (e.g., government, local residents, business, healthcare, and academia). If the practice is internal to the LHD, it should demonstrate cooperation and participation within the agency (i.e., 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
- 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 in-kind costs and funding services associated with this practice? Please provide actual data, if possible. Otherwise, provide an estimate of start-up costs/ budget breakdown.

5000 words maximum

Enter the LHD and Community Collaboration related to your practice (5000 words maximum): *

 Goal(s) and objectives of practice The goal of the practice was to reduce the transmission of pertussis in Broward County. The objectives were to coordinate the pertussis response activities of DOH Broward; minimize the spread of pertussis in the schools and day care centers, and provide the media and the public with accurate and timely information. • What did you do to achieve the goals and objectives? o Steps taken to implement the program Upon notification of the 5 confirmed cases of pertussis, DOH-Broward activated an Incident Management Team, and an epidemiological investigation was initiated. ICS meetings were held from March 10, 2015 through March 16, 2015. A total of five Situation Reports were developed. An initial Incident Action Plan (IAP) was prepared on March 10, 2015, with a total of three IAP's developed over the course of the event. The Incident Management Team was demobilized on March 16, 2015. An After Action meeting was held on March 30, 2015 and was utilized to develop the After Action report. The decision to activate an action planning team quickly was based on the potential severity of the reported illness, the number of cases or sick population, potential for disease spread, the particular pathogen, and the level of community concern and media interest. The use of the Incident Command System (ICS) provided an effective structure to manage, track, document, and evaluate our response to the outbreak. The ICS structure utilized included: Incident Commander, Liaison, PIO, Operations, Planning, Logistics, and Finance. The integrated team formed for this response included the following programs: Epidemiology, Emergency Preparedness, Provider/Community Outreach, Public Information Officer, Planning, Pharmacy, Finance, and School Health. This strengthened the ability to effectively manage key staff from a variety of sections across the Health Department. Additionally, ICS was employed continuously throughout the response period as opposed to activating it in separate phases. This enabled the team to focus on situation awareness and characterization of the epidemiology of pertussis while simultaneously focusing on the distribution of prophylaxis and immunization. The ICS structure and reporting process was used intermittently, which allowed staff to revert to their day-to-day structure, while reporting information for the purpose of managing the response. Staff were assigned to ICS roles that aligned with their skill sets or job functions. Consequently, the Communications efforts were strengthened by the fact that staff within the ICS structure often reported to staff who were their day-to-day supervisors. Immediately upon assembly of the team, the following were reviewed: the epidemiology of the disease, specimen collection and available laboratory tests, investigation priorities, regulations pertinent to the disease situation. The early review of this information, allowed for the setting of objectives and priorities and the sharing of information (risk communications). Early disease control interventions were also activated. This included: community containment, social distancing, isolation and guarantine, mass prophylaxis, risk communication. Early guidance to physicians and hospitals were issued, including reporting requirements, treatment and support, infection control, and disposition of patients. At each Situation Meeting, DOH-Broward's pharmacy reported on the current prophylaxis inventory on hand and maintained an adequate supply of adult and pediatric doses to meet community needs. Under the Operations branch, lead personnel were assigned to the following: Epidemiology, Provider/Community Outreach, and School Liaison. Two Lead Epidemiologist were assigned to focus their contact investigation on the day care and the schools. Contacts were notified to assess for vaccination, prophylaxis and/or treatment. Prophylaxis was provided to those persons that were not immunized. Immunization Outreach was also provided at the schools and daycare center for those students that were found to be unvaccinated. New Incident Action Plans, updates to the Incident Command structure chart, and Situation Reports were available electronically to staff involved in the investigation. Electronic documentation was also utilized to track and monitor activities of staff, the immunization status of contacts and whether they required and/or received prophylaxis. DOH-Broward successfully developed and implemented targeted outreach efforts to providers, facilities and the communities within Broward County. Existing and trusted community relationships and partnerships were beneficial to initiating communication and assisted in the accurate and timely exchange of necessary incident information. DOH-Broward utilized its existing database to quickly transmit information regarding pertussis to Emergency Departments at the 17 Acute Care Hospitals, Urgent Care Centers, Family Practitioners, Pediatricians, Internal Medicine Practitioners, Infection Control Practitioners, Infectious Disease Physicians, OB/GYNs and pulmonologists, day care centers, nursing homes, assisted living facilities, and EMS/Fire rescue. The physician/provider letters were emailed to 1,400 recipients, 150 Urgent Care Center/Volunteer Clinics, and EMS/Fire and ESF 8. Letters were also emailed to 840 day care centers and 65 nursing homes and assisted living facilities. Pertussis informational flyers were created and widely distributed at community meetings and to the community organizations including ESF-8 Work Group, Emergency Coordinating Council (Emergency Management Representatives from all 31 Broward County Municipalities), Family Central, Healthy Start, Me and My Dad event, Early Learning Coalition, WIC, and Health Mothers/Healthy Babies. A total of 10,000 flyers were distributed in English, Spanish, and Creole languages. The pertussis press release was approved quickly by the Florida Department of Health Director of Communications and was transmitted to the media and posted to the Florida Department of Health and DOH-Broward websites, as well as computer partner websites. The multi-faceted social media campaign provided information to the 1.8 million residents in Broward County. • Any criteria for who was selected to receive the practice (if applicable)? Any affected institutions and health care providers who would be sought for treatment. • What was the timeframe for the practice? March 10, 2015 through March 16, 2015. • Were other stakeholders involved? What was their role in the planning and implementation process? Broward County public and parochial schools sent letters, in three languages, home to the parents of students at the schools with pertussis cases. The schools also provided information on the unvaccinated students, absenteeism and health room visits for cough to DOH-Broward. The daycare provided information on the vaccination status of teachers and students at the day care. Informational flyers were distributed to local community based organizations and were distributed and well as the WIC (Women, Infant Children) sites regarding pertussis. o What does the LHD do to foster collaboration with community stakeholders? Describe the relationship(s) and how it furthers the practice goal(s) DOH-Broward has strong collaborative relationships with public and private health care providers, faith-based organizations. local governmental agencies, civic associations, the Miccosukee and Seminole tribal nations, and serve on many committees, Boards and provider networks. Increased awareness and the mitigation of communicable diseases within our communities are more effectively achieved with these collaborative relationships. • Any start up or in-kind costs and funding services associated with this practice? Please provide actual data, if possible. Else, provide an estimate of start-up costs/ budget breakdown. Startup costs were minimal due to use of existing DOH-Broward staff for the ICS. Costs of the vaccine is \$35.00 per dose with a reimbursement of \$52.50.

Evaluation assesses the value of the practice and the potential worth it has to other LHDs 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, or anecdotal evidence).

- What did you find out? To what extent were your objectives achieved? Please re-state your objectives.
- Did you evaluate your practice?
 - List any primary data sources, who collected the data, and how (if applicable)
 - List any secondary data sources used (if applicable)
 - List performance measures used. 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

Please enter the evaluation results of your practice (2000 Words Maximum): *

• What did you find out? To what extent were your objectives achieved? Please re-state your objectives from the methodology section. The after action report developed includes discussion of how each of the objectives in the Incident Action Plan were met during the activation of the multidisciplinary team. The major strengths identified during this activation area as follows: • All members of the incident management team had previous incident command experience which enabled the team to function smoothly with seamless adjustments being made in real-time. • Lessons learned from prior incident command operations including the availability of electronic documentation created for the incident greatly improved the efficiency and effectiveness of the staff. • The incident management team was activated immediately and included the subject matter expertise required to address the incident objectives. • The meeting frequency was scaled in accordance with the needs of the incident. • The epidemiology staff and school liaison staff successfully coordinated the review of health room logs and lists of unvaccinated and immunocompromised students to assess the need for vaccine, prophylaxis, and/or treatment. • The Logistics/Pharmacy staff quickly inventoried current prophylaxis on hand and maintained adequate inventory throughout the incident. • DOH-Broward utilized its existing database to quickly transmit information regarding pertussis to Emergency Departments, Urgent Care Centers, Family Practitioners, Pediatricians, Internal Medicine Practitioners, Infectious Control Practitioners, ID physicians, OB/GYNs and pulmonologists, day care centers, nursing homes, assisted living facilities, and EMS/Fire rescue. • Existing and trusted community relationships and partnerships assisted in the accurate and timely exchange of necessary incident information. • Pertussis informational flyers were widely distributed at community meetings and to community organizations including ESF-8 Work Group, Emergency Coordinating Council (Emergency Management Representatives from all 31 Broward County Municipalities), Family Central, Healthy Start, Me and My Dad event, Early Learning Coalition, WIC, and Healthy Mothers/Healthy Babies. • The pertussis press release was approved quickly by the Florida Department of Health Director of Communications and was transmitted to the media and posted to the DOH-Broward website and computer partner websites. • Did you evaluate your practice? o List any primary data sources, who collected the data, and how (if applicable) FloridaSHOTS (the State of Florida immunization registry) was utilized by DOH-Broward school health personnel to verify vaccine status of affected children. ESSENCE data system and reports from the schools indicated no new additional cases of pertussis. Based on this information, the actions taken mitigated additional spread of pertussis in the community. o List any secondary data sources used (if applicable) o List performance measures used. Include process and outcome measures as appropriate. o Describe how results were analyzed o Were any modifications made to the practice as a result of the data findings? The after action report developed includes discussion of how each of the objectives in the Incident Action Plan were met during the activation of the multidisciplinary team. The major strengths identified during this activation area as follows: • All members of the incident management team had previous incident command experience which enabled the team to function smoothly with seamless adjustments being made in real-time. • Lessons learned from prior incident command operations including the availability of electronic documentation created for the incident greatly improved the efficiency and effectiveness of the staff. • The incident management team was activated immediately and included the subject matter expertise required to address the incident objectives. • The meeting frequency was scaled in accordance with the needs of the incident. • The epidemiology staff and school liaison staff successfully coordinated the review of health room logs and lists of unvaccinated and immunocompromised students to assess the need for vaccine, prophylaxis, and/or treatment. • The Logistics/Pharmacy staff quickly inventoried current prophylaxis on hand and maintained adequate inventory throughout the incident. • DOH-Broward utilized its existing database to quickly transmit information regarding pertussis to Emergency Departments, Urgent Care Centers, Family Practitioners, Pediatricians, Internal Medicine Practitioners, Infectious Control Practitioners, ID physicians, OB/GYNs and pulmonologists, day care centers, nursing homes, assisted living facilities, and EMS/Fire rescue. • Existing and trusted community relationships and partnerships assisted in the accurate and timely exchange of necessary incident information. • Pertussis informational flyers were widely distributed at community meetings and to community organizations including ESF-8 Work Group, Emergency Coordinating Council (Emergency Management Representatives from all 31 Broward County Municipalities), Family Central, Healthy Start, Me and My Dad event, Early Learning Coalition, WIC, and Healthy Mothers/Healthy Babies

Sustainability

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.)

- · Lessons learned in relation to practice
- Lessons learned in relation to partner collaboration (if applicable)
- Did you do a cost/benefit analysis? If so, describe.
- Is there sufficient stakeholder commitment to sustain the practice?
 - Describe sustainability plans

1500 Words Maximum

Please enter the sustainability of your practice (2000 Words Maximum): *

• Lessons learned in relation to practice Cross collaboration across programs is extremely important as well as continuing to foster existing relationships with Community Based Organizations, Schools and Child Care centers. The development and use of the existing community wide data bases (physician, urgent care, etc.) continues to be invaluable in order to rapidly provide accurate and timely information to the community. • Lessons learned in relation to partner collaboration (if applicable) Existing and trusted community relationships and partnerships assisted in the accurate and timely exchange of necessary incident information. • Did you do a cost/benefit analysis? If so, describe. No as existing staff was utilized to implement this practice. • Is there sufficient stakeholder commitment to sustain the practice? yes o Describe sustainability plans The Florida Department of Health in Broward County will continue to use incident command for communicable disease outbreaks. Incident command for outbreaks is scalable and assists in bringing staff from different departments together under a succinct structure with identifiable positions.

Additional Information

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

- ✓ I am a previous Model Practices applicant
- ☐ At a Conference

□ NACCHO

Exhibit Booth

- Model Practices brochure
- NACCHO Exchange

- e NACCHO Website
 - NACCHO
 Connect
- Public Health Dispatch
- Colleague from another public health agency
- Colleague in my LHD
- E-Mail from NACCHO