



# FIELD GUIDE

TO PUBLIC  
HEALTH  
**PRACTICE**

*A publication of the  
Center for Infectious  
Disease Research  
and Policy at the  
University of Minnesota*

April 2014

Equity & Access

# Distributing

# VACCINE

During H1N1

**Natalie Vestin, MPH**

**Public Health Practices Project**

Center for Infectious Disease Research and Policy

University of Minnesota Academic Health Center

# Field Guide to Public Health Practice: Equity & Access – Distributing Vaccine during H1N1

April 2014

The *Field Guide to Public Health Practice: Equity & Access – Distributing Vaccine during H1N1* was made possible through a joint project of the Association of State and Territorial Health Officials and the Center for Infectious Disease Research and Policy.

**The Center for Infectious Disease Research and Policy (CIDRAP)**, founded in 2001, is a global leader in addressing public health preparedness and emerging infectious disease response. Part of the Academic Health Center at the University of Minnesota, CIDRAP works to prevent illness and death from targeted infectious disease threats through research and the translation of scientific information into real-world, practical applications, policies, and solutions. For more information, visit: [www.cidrap.umn.edu](http://www.cidrap.umn.edu).

**The Association of State and Territorial Health Officials (ASTHO)** is the national nonprofit organization representing state public health agencies in the United States, the US territories, and the District of Columbia, and more than 100,000 public health professionals these agencies employ. ASTHO members, the chief health officials of these jurisdictions, formulate and influence sound public health policy and ensure excellence in state-based public health practice. ASTHO's primary function is to track, evaluate, and advise members on the impact and formation of public or private health policy which may affect them and to provide them with guidance and technical assistance on improving the nation's health.

**Permissions:** CIDRAP authorizes the making and distribution of copies or excerpts (in a manner that does not distort the meaning of the original) of this information for non-commercial, educational purposes within organizations. The following credit line must appear: "Reprinted with permission of the Center for Infectious Disease Research and Policy. Copyright © 2014. Regents of the University of Minnesota." No other republication or external use is allowed without the permission of CIDRAP. For information or inquiries, please e-mail [PHTools@umn.edu](mailto:PHTools@umn.edu) with the words "Vaccine Field Guide" in the subject line. Botanical images from [vintageprintable.com](http://vintageprintable.com). Topographic map from [Wikipedia.org](http://Wikipedia.org).

This publication is designed to provide accurate and authoritative information with regard to the subject matter covered. It is published with the understanding that the publisher is not engaged in rendering legal, medical, or other professional services. If legal advice or other expert assistance is required, the services of a competent professional should be sought. All URLs were verified at the time of publication.

Natalie Vestin, MPH | Author, Coordinator, Public Health Practices Project  
Kathleen Kimball-Baker | Editor, Director, Public Health Practices Project

## Public Health Practices Project

Center for Infectious Disease Research and Policy  
University of Minnesota Academic Health Center  
© 2014 Regents of the University of Minnesota. All rights reserved.  
<http://www.cidrap.umn.edu/public-health-practices>

# Contents

<b>Introduction</b>	5
<b>A quick note: Vaccine issues during the 2009-2010 H1N1 pandemic</b>	7
<b>Practices</b>	8
<b>1. Problem: I need to set up a mass vaccination clinic</b>	
<b>A. Strategy: Forming multi-agency partnerships</b>	
<b>1. Preparedness exercises pay off</b>	10
<i>Polk County Public Health, MN</i>	
<b>2. Planning group makes vaccination easy and safe</b>	11
<i>Blue Earth County Public Health, MN</i>	
<b>B. Strategy: Developing creative staffing models</b>	
<b>3. Nurse teams bring vaccine to people</b>	13
<i>Indiana State Department of Health</i>	
<b>4. Pharmacists boost vaccination rates</b>	14
<i>Louisiana Department of Health</i>	
<b>C. Strategy: Building decision-making tools and mechanisms</b>	
<b>5. Toolkit keeps clinics consistent</b>	16
<i>South Carolina Department of Health and Environmental Control</i>	
<b>6. Software adaptations help with clinic staffing</b>	17
<i>Oakland County Health Division, MI</i>	

[Continued]

## **2. Problem: I need to allocate vaccine during a shortage**

### **D. Strategy: Creating decision-making or ethics committees**

- 7. Prioritizing essential reservation roles** 20  
*Mille Lacs Band of Ojibwe, MN*
- 8. Prioritizing infants and children** 21  
*Otter Tail County Public Health, MN*

### **E. Strategy: Analyzing community risk**

- 9. Allocating to tribal providers** 23  
*Arizona Department of Health Services*
- 10. Making vaccine available to the elderly** 25  
*Oklahoma State Department of Health*

### **F. Strategy: Examining local supply and demand data**

- 11. Expanding eligibility beyond priority groups** 26  
*Florida Department of Health*
- 12. Responding to providers' needs** 27  
*Tennessee Department of Health*

## **3. Problem: I need to reach specific groups with vaccine**

### **G. Strategy: Establishing school-based clinics**

- 13. School clinics vaccinate majority of students** 30  
*Rhode Island Department of Health*
- 14. Community involvement in school clinics** 31  
*Arkansas Department of Health*
- 15. Mobile teams and central locations serve schools** 33  
*South Carolina Department of Health and Environmental Control*
- 16. PODs and volunteers keep school clinics running** 34  
*Yamhill County Public Health, OR*
- 17. School clinics for kids with medical needs** 36  
*Rhode Island Department of Health*

[Continued]

<b>H. Strategy: Offering vaccine in kid-friendly settings</b>	
18. Baseball team lends a hand to vaccination efforts	37
<i>Kane County Health Department, IL</i>	
19. Zoo vaccination clinic serves day care children	38
<i>Norfolk Department of Public Health, VA</i>	
<b>I. Strategy: Using mobile clinics to reach remote communities</b>	
20. Mobile clinic addresses rural needs	40
<i>Marion County Health Department, WV</i>	
21. Mobile clinic delivers vaccine to reservations	42
<i>South Dakota Department of Health</i>	
<b>J. Strategy: Providing free and accessible vaccine</b>	
22. Student volunteers and donations help run free clinic	43
<i>Oregon Adult Immunization Coalition</i>	
23. Paramedics bring vaccine to the homebound	45
<i>Oregon Department of Human Services</i>	
24. Faith-based coalitions provide vaccine to the homeless	46
<i>Anderson County Public Health, SC</i>	
<i>County of Sacramento Division of Public Health, CA</i>	
<i>Hillsborough County Health Department, FL</i>	
<b>Where do I go from here?</b>	48
<b>Acknowledgements</b>	49



# Introduction

**At its core, this guide is about the hard work, connection to community, and creative ideas that public health planners used during the novel H1N1 pandemic to respond to an emergency while placing health equity and fairness front and center in their daily decisions.**

During the 2009-10 H1N1 influenza pandemic, state and local public health agencies faced numerous challenges about how to allocate scarce healthcare resources while still doing everything possible to protect the health of every person in their communities. Some of the toughest issues agencies faced had to do with allocating scarce supplies of vaccine and antivirals in the fall of 2009, acknowledging national guidelines but also monitoring and responding to the effects of influenza at the local level.

In retrospect, the 2009-10 pandemic may seem like a time of public health frustration, logistical and ethical dilemmas, and scarce funding and resources. But in looking at stories about how state and local health agencies addressed problems, it becomes clear that during this time, public health planners used creativity, a sense of fairness, and close connections to their communities to increase access to healthcare.

**The theme running through each story and tool in this guide is access.**

These are examples of how public health agencies acknowledged disparities and barriers to care during an emergency and created projects that helped people access preventive care and treatment that would otherwise have been unavailable or unattainable.

## What can I do with this guide?

- Search for a problem you're having and check out stories for strategies that might be useful in your jurisdiction. We hope these stories will give you ideas and tools you can use. If you're looking for ways to quickly establish a mass vaccination site, provide vaccine to the uninsured, or create a calm environment for vaccinating children, take a look at various ways states and locals responded during the H1N1 pandemic.
- Summaries provide an overview of each practice, while more detailed stories are available if you'd like to learn more.
- Alternatively, you might just want to look for tools and resources. Feel free to download and use anything of interest.

## Background

This guide was compiled by the Public Health Practices (PHP) project at the Center for Infectious Disease Research and Policy (CIDRAP). Since 2007, we've managed an online library of more than 400 vetted emergency preparedness and response practices from state and local health agencies and their partners.

During the 2009-10 H1N1 pandemic, PHP collected numerous stories and tools from state and local health agencies and posted them on its Web site. The 24 featured practices come from 11 state health departments, 11 local health departments, and 1 American Indian tribe.

This guide is the first attempt to compile practices addressing vaccine allocation in a format that looks at overall themes, creative approaches, and results. It can provide examples should agencies need to respond to the emergence of another novel influenza strain. These stories can also provide great information if you're approaching a decision-maker with an idea or talking to elected officials about creative and effective ways to use preparedness funding.

# A Quick Note

## Vaccine Issues during the 2009-2010 H1N1 Pandemic

Unless otherwise specified, all vaccine allocation and access policies described in this guide occurred at the time the Advisory Committee on Immunization Practices (ACIP) had narrowed H1N1 vaccine eligibility to 5 priority groups:

- Pregnant women
- Household contacts and caregivers for children younger than 6 months of age
- Healthcare and emergency medical services personnel
- All people 6 months through 24 years of age
- Persons aged 25 through 64 years who have health conditions associated with higher risk of medical complications from influenza

This guide notes state and local health agencies' adherence to or departure from the ACIP priority group guidelines, as appropriate.

All practices described in this guide were undertaken with the support of Public Health Emergency Response (PHER) funding, phases 1 through 4, except where noted.



# Practices

[PROBLEM 1]

## **I need to set up a mass vaccination clinic**

STRATEGY A

### **Forming multi-agency partnerships**

1. Preparedness exercises pay off
2. Planning group makes vaccination easy and safe

STRATEGY B

### **Developing creative staffing models**

3. Nurse teams bring vaccine to people
4. Pharmacists increase vaccination rates

STRATEGY C

### **Building decision-making tools and mechanisms**

5. Toolkit keeps clinics consistent
6. Software adaptations help with clinic staffing

[PROBLEM] **I need to set up a mass vaccination clinic**

## STRATEGY A

---

### Forming multi-agency partnerships

---

#### PRACTICE 1

### Preparedness exercises pay off

#### In summary

**Polk County Public Health** (MN) spent 3 years working with 6 rural towns to exercise emergency response plans. During H1N1, experience with these exercises enabled the county to:

- Set up more than 20 mass dispensing sites
- Operate under the Incident Command System
- Communicate quickly with law enforcement
- Establish a vaccine eligibility hotline
- Recruit nurses

#### The story

- For 3 years prior to the emergence of H1N1, Polk County Public Health worked with 6 rural towns to exercise emergency response plans and set up seasonal influenza mass vaccination sites.
- Because of staff's experience with these exercises, the county was able to immediately set up mass vaccination clinics when the county received vaccine in late October 2009.
- Clinics were held at Polk County Public Health's 3 offices and staffed by nurses from area clinics, the local hospital, a nursing home, schools, and two Head Start Centers.

[PROBLEM] **I need to set up a mass vaccination clinic**

- Many of the nurses had participated in the preparedness exercises and had already been assigned to a clinic and role, thus eliminating this step when real vaccination clinics had to occur.
- Clinics operated under the Incident Command System, which staff had learned to use during the exercises.
- Community relationships established during exercises enabled the health agency to keep law enforcement officers apprised of clinic locations and schedules.
- The health agency set up a vaccine triage hotline for the public to use with questions about eligibility, which kept clinics running smoothly and quickly for those who were members of ACIP priority groups and eligible to receive vaccine.

## More details

Link to the practice:

<http://www.cidrap.umn.edu/practice/preparedness-exercises-and-h1n1-mass-vaccination-sites-mn>

## PRACTICE 2

# Planning group makes vaccination safe and easy

## In summary

A multi-agency planning group helped run vaccination clinics and provide resources, helping to:

- Set up clinics
- Ensure vaccine safety measures
- Communicate extensive schedules
- Add special touches to make clinics as convenient as possible.

[PROBLEM] **I need to set up a mass vaccination clinic**

## The story

- The **Greater Mankato Area Vaccination Planning Group** (MN) — comprising Blue Earth County Public Health, healthcare systems, emergency management agencies, school districts, and city government officials — set up a mass vaccination clinic at Minnesota State University Mankato’s field house in December 2009.
- Each partner provided nursing staff, volunteers, and/or vaccine and supplies. The university and emergency management agencies supplied cones, caution tape, tables, chairs, signs, and radios.
- Staff color-coded different types of vaccine and matched color coding with consent forms and areas of the clinic. Large signs indicated which types of vaccine were appropriate for various age-groups.
- Partners ensured that the public knew about the clinic by distributing or participating in Public Service Announcements, newspaper and radio ads, Chamber of Commerce e-blasts, news conferences and public forums, student flyers, Web site updates, listserv e-mails, community calendar updates, posters, and radio talk shows.
- Special touches made the clinic convenient and kid-friendly, including a shuttle bus that transported people between the parking lot and the venue, a special needs area with separate reserved parking and entrance, and visits from Santa Claus and the university mascot.
- The clinic vaccinated 5,025 people in 6 hours.

## More details

Link to the practice:

<http://www.cidrap.umn.edu/practice/collaborative-planning-leads-successful-vaccination-clinic-mn>

## STRATEGY B

---

# Developing creative staffing models

---

### PRACTICE 3

## Nurse teams bring vaccine to people

### In summary

A traveling team of nurses was able to:

- Offer clinics in creative and flexible locations where people work and play
- Manage supplies and record-keeping
- Make vaccination convenient to many different groups of people

### The story

- Rather than use temporary nursing staff for mass vaccination clinics, the **Indiana State Department of Health** employed 8 full-time nurses to staff statewide clinics for 30 days.
- The team comprised 4 licensed practical nurses, 4 registered nurses, and 1 staff person responsible for entering data into the state's immunization registry.
- The nursing team brought vaccine to people for free, hosting immunization clinics near where they worked and played.
- Clinics included the following locations:
  - ▲ State Vital Records Division (483 people vaccinated)
  - ▲ Indianapolis International Airport (500 people vaccinated)
  - ▲ Airports in Fort Wayne, Evansville, and South Bend (1,400 people vaccinated)
  - ▲ Children's Museum of Indianapolis (500 people vaccinated)

## [ PROBLEM ] I need to set up a mass vaccination clinic

- ▲ Downtown Indianapolis (119 people vaccinated)
- ▲ Movie day for seniors (300 people vaccinated)
- ▲ FedEx (Numbers not available)
- ▲ Conseco Fieldhouse prior to a Pacers game (Numbers not available)
- The close-knit nature of the nursing team allowed members to maintain necessary supplies, keep accurate and consistent records, and collaborate with health agency field staff when the team needed to hold a vaccination clinic at a large venue.

## Tools and downloads

Indiana's vaccine thermometer (PDF):

[http://www.cidrap.umn.edu/sites/default/files/public/php/506/506\\_vaccinethermometer.pdf](http://www.cidrap.umn.edu/sites/default/files/public/php/506/506_vaccinethermometer.pdf)

## More details

Link to the practice:

<http://www.cidrap.umn.edu/practice/vaccination-strike-team>

## PRACTICE 4

# Pharmacists boost vaccination rates

## In summary

Louisiana developed a protocol that:

- Allowed pharmacists to administer vaccine in accessible locations
- Increased vaccination rates
- Opened the door to expanding pharmacists' role in preparedness and response

## The story

- Louisiana law allowed pharmacists with proper training and credentialing to administer prescribed vaccine.

## [PROBLEM] **I need to set up a mass vaccination clinic**

- H1N1 vaccination presented a problem, because it didn't require a prescription.
- The **Louisiana Department of Health** developed a protocol that allowed pharmacists to vaccinate people under the approval of the State Health Officer.
- The protocol was approved in October 2009 by the state Board of Pharmacy and the Board of Medical Examiners.
- The health agency communicated this change in protocol to all pharmacists able to administer vaccine and asked them to register with the Louisiana Immunization Network for Kids.
- A list of registered pharmacists provided with vaccine was posted on state Web sites.
- The protocol increased vaccination rates in Louisiana and allowed pharmacists to become more involved in emergency preparedness and response.

### **Tools and downloads**

Protocol for Administration of Influenza Vaccination by Pharmacists (DOC):

[http://www.cidrap.umn.edu/sites/default/files/public/php/464/464\\_protocol.doc](http://www.cidrap.umn.edu/sites/default/files/public/php/464/464_protocol.doc)

### **More details**

Link to the practice:

<http://www.cidrap.umn.edu/practice/modifying-procedure-helps-pharmacists-provide-flu-vaccinations-la>

[PROBLEM] **I need to set up a mass vaccination clinic**

## STRATEGY C

---

# Building decision-making tools and mechanisms

---

### PRACTICE 5

## Toolkit keeps clinics consistent

### In summary

To ensure that all mass vaccination clinics ran consistently and provided a high level of service, South Carolina created a toolkit to help clinic administrators track:

- Staffing roles
- Supply management
- Standing orders
- Data collection

### The story

- When the state first received shipments of H1N1 vaccine, the **South Carolina Department of Health and Environmental Control** wanted to ensure that all counties in the state had access to materials and protocols necessary to setting up a mass vaccination clinic and hiring temporary staff.
- In response, staff in South Carolina's Region 6 developed a detailed toolkit to guide colleagues through setting up school-based and public vaccination clinics.

[PROBLEM] **I need to set up a mass vaccination clinic**

- Tools included helpful phone numbers, protocols, job action sheets, supply lists, standing orders, and data collection forms.
- Twelve manuals were made for clinics held in Region 6, and other South Carolina regions have requested copies.

## Tools and downloads

- Resource Manual for School-Based Clinics (PDF):  
[http://www.cidrap.umn.edu/sites/default/files/public/php/439/439\\_schools.pdf](http://www.cidrap.umn.edu/sites/default/files/public/php/439/439_schools.pdf)
- Resource Manual for Health Department Clinics (PDF):  
[http://www.cidrap.umn.edu/sites/default/files/public/php/439/439\\_healthdept.pdf](http://www.cidrap.umn.edu/sites/default/files/public/php/439/439_healthdept.pdf)

## More details

Link to the practice: <http://www.cidrap.umn.edu/practice/resource-manual-ensures-smooth-clinic-operations-sc>

### PRACTICE 6

## Software adaptations help with clinic staffing

### In summary

To address communication and scheduling issues inherent in setting up mass clinics, a Michigan county adapted Microsoft SharePoint to:

- Provide nurses with information on potential clinic dates and locations
- Assign responsibilities and skills-based activities to clinic staff
- Maintain accurate clinic schedules and records
- Allow clinic administrators to schedule nurses in a way that reflects predicted community demand for vaccine

[PROBLEM] **I need to set up a mass vaccination clinic**

## The story

- When **Oakland County Health Division** in Michigan first began establishing mass vaccination clinics, administrators ran into numerous problems with scheduling staff, many of them having to do with inconsistent communications regarding clinic assignments, uneven staffing capacity related to demand for the vaccine, and unpredictable vaccine supply.
- The health agency partnered with the county Department of Information Technology to customize Microsoft SharePoint to enable the following activities:
  - ▲ Store and retrieve nursing staff contact and availability data in relation to proposed clinic dates
  - ▲ Schedule clinics according to nursing staff availability, skill sets, and anticipated public demand for vaccine
  - ▲ Provide online access to job action sheets and maps to clinic locations
- The use of modified technology allowed the health agency to set up 2 vaccination clinics within 48 hours and efficiently vaccinate more than 24,000 people.

## More details

Link to the practice: <http://www.cidrap.umn.edu/practice/adapting-common-software-tool-during-h1n1-helped-streamline-mass-clinic-operations-improve>

[ PROBLEM 2 ]

## **I need to allocate vaccine during a shortage**

STRATEGY D

### **Creating decision-making or ethics committees**

7. Prioritizing essential reservation roles
8. Prioritizing infants and children

STRATEGY E

### **Analyzing community risk**

9. Allocating to tribal providers
10. Making vaccine available to the elderly

STRATEGY F

### **Examining local supply and demand data**

11. Expanding eligibility beyond priority groups
12. Responding to providers' needs

[PROBLEM] **I need to allocate vaccine during a shortage**

## STRATEGY D

---

# Creating decision-making or ethics committees

---

### PRACTICE 7

## **Prioritizing essential reservation roles**

### **In summary**

A tribal committee that had been in operation for nearly 10 years brought together people in key roles to decide how to:

- Allocate vaccine while keeping the reservation functional
- Address the needs of residents with chronic health problems, such as diabetes

### **The story**

- The **Mille Lacs Band of Ojibwe in Minnesota** formed a Tribal Emergency Response Committee in 2000, bringing together 25 people in key roles (tribal commissioners, tribal health leaders, public safety personnel, and communications staff).
- Prior to the emergence of H1N1, the committee determined that maintaining the reservation's operations was a top preparedness priority and developed a plan to allocate vaccine for that purpose.
- During H1N1, the band received 1,500 doses of vaccine, which were distributed for use by employees and some patients at two satellite clinics, administrators and additional key staff, and ACIP priority groups, especially those tribal members with diabetes.

## [PROBLEM] I need to allocate vaccine during a shortage

- Currently, the committee is focusing on defining quarantine practices and policies for funeral ceremonies during a future emergency.

### More details

Link to the practice: <http://www.cidrap.umn.edu/practice/tribal-emergency-response-committee-lays-important-groundwork-response-mn>

## PRACTICE 8

### Prioritizing infants and children

#### In summary

After a Minnesota county received a small number of injectable vaccine doses, an ethics committee formed to determine how/if to allocate the few doses to:

- Infants and children
- Pregnant women
- Caregivers of infants and small children

#### The story

- In the fall of 2009, **Otter Tail County Public Health** in Minnesota received 100 doses of live attenuated influenza vaccine (LAIV) and 200 doses of injectable vaccine. Injectable vaccine was the only type available for infants/toddlers 6 to 35 months of age.
- The county formed an ethics committee comprising a pastor, an infection control nurse, a parent with a child with special health needs, a behavioral health specialist, and a district nursing consultant.

[PROBLEM] **I need to allocate vaccine during a shortage**

- The ethics committee decided to provide the available injectable vaccination to children 6 months to 4 years of age through scheduled appointments at mass clinics.
- When the Minnesota Department of Health told the county they could not limit vaccine to this age-group, nurses staffing the triage line identified other family members who could receive the injectable vaccine (eg, pregnant women or people with underlying health conditions) and scheduled appointments for these household members as well.

### **More details**

Link to the practice: <http://www.cidrap.umn.edu/practice/h1n1-vaccine-allocation-ethics-process-mn>

## STRATEGY E

---

### Analyzing community risk

---

#### PRACTICE 9

### Allocating to tribal providers

#### In summary

In response to large numbers of hospitalizations and deaths among American Indians in the fall of 2009, Arizona allocated 10% of vaccine and 10% of preparedness funding to tribal healthcare providers.

#### The story

- In October 2009, the **Arizona Department of Health Services** noticed that American Indians were experiencing a disproportionate rate of H1N1-related hospitalizations and deaths.
- A state multi-disciplinary work group compiled surveillance data from 12 states showing that American Indians were twice as likely to be hospitalized with severe complications or die due to H1N1.
- In response, the health agency allocated 10% of H1N1 monovalent vaccine to 37 registered tribal providers, even though American Indians represent only 5% of the state population. The state health agency also allocated 10% of phase 1 and 2 PHER funding directly to tribal public health partners and provided phase 3 funding to three Indian Health Service offices and five tribes that planned to provide independent healthcare, for a total of \$2 million of state PHER funding allocated to tribes.

[PROBLEM] **I need to allocate vaccine during a shortage**

- To aid in monitoring the situation, tribal stakeholders were included in Joint Information Center activities and weekly surveillance conference calls.

## **More details**

Link to the practice: <http://www.cidrap.umn.edu/practice/risk-based-vaccine-allocation-american-indian-population-az>

PRACTICE 10

## **Making vaccine available to the elderly**

### **In summary**

After noticing an increase in flu deaths among people older than age 65, Oklahoma made vaccine available to its senior population, despite elderly people not being included in ACIP priority groups.

### **The story**

- In mid-November 2009, the **Oklahoma State Department of Health** observed increased H1N1-related deaths in people older than 65.
- Although elderly people were not eligible for H1N1 vaccine under the ACIP priority group guidance, the state health agency expanded vaccination eligibility to include them after reviewing the epidemiologic data and receiving pressure from senior groups.
- Other factors in the state's decision to expand eligibility included low attendance at clinics targeting priority groups, along with a decrease in influenza among children and an increase in adults.
- During the first week of expanded eligibility, the state administered 40,000 doses of vaccine (a 70% increase) with high uptake among the elderly.

### **More details**

Link to the practice: <http://www.cidrap.umn.edu/practice/state-specific-assessment-leads-early-expansion-vaccine-eligibility-ok>

## STRATEGY F

---

# Examining local supply and demand data

---

### PRACTICE II

## Expanding eligibility beyond priority groups

### In summary

Florida analyzed supply and demand data from local health agencies and developed several criteria for them to follow when expanding their vaccination eligibility beyond the ACIP priority groups.

### The story

- Although ACIP provided guidance for vaccine eligibility based on priority groups, the **Florida Department of Health** allowed counties to make the final decision as to when they would expand eligibility to the general public in their jurisdictions.
- To help counties make informed decisions about expanding vaccine eligibility, the health agency developed a concept of operations.
- In support of this concept, Florida surveyed county health departments to determine when they would be able to offer vaccine to everyone.
- In making these predictions, counties were asked to consider disease uncertainty, quantity of vaccine, private provider vaccine usage, reasonable efforts to reach priority groups, the impact of seasonal and nonresident visitors, the effect of expansion on neighboring counties and states, and appropriate messaging.

## [PROBLEM] I need to allocate vaccine during a shortage

- The concept organized priority groups into phases based on who was most at risk of influenza-related complications, asked counties to monitor uptake of vaccine in their communities, and provided tools for predicting availability of vaccine.

### Tools and downloads

H1N1 Mass Vaccination Campaign Priority Groups Concept of Operations (PDF):

[http://www.cidrap.umn.edu/sites/default/files/public/php/455/455\\_conceptofoperations.pdf](http://www.cidrap.umn.edu/sites/default/files/public/php/455/455_conceptofoperations.pdf)

### More details

Link to the practice: <http://www.cidrap.umn.edu/practice/mass-vaccination-campaign-concept-operations-fl>

## PRACTICE 12

### Responding to providers' needs

#### In summary

Tennessee communicated closely with healthcare providers and worked with them to:

- Distribute doses for their highest priority patients (regardless of ACIP recommendations)
- Keep close tabs on vaccine orders
- Make evidence-based decisions about need for and supply of vaccine

## [PROBLEM] I need to allocate vaccine during a shortage

### The story

- The **Tennessee Department of Health** partnered extensively with private providers to ensure that vaccine distribution was meeting healthcare needs.
- Tennessee implemented a pre-registration system that enabled providers to place specific orders for vaccine, rather than the health department assuming how much vaccine they would need.
- Pre-registration allowed providers to order vaccine based on age of intended recipient, specify quantities of LAIV and injectable vaccine, receive a weekly explanation of how doses were distributed, and use a dedicated hotline for questions or order changes.
- Every morning, the health agency distribution team verified orders, assessed regional breakdown of allocations, updated order balances, and transmitted orders to the CDC.
- The health agency initially encouraged providers to follow ACIP priority group recommendations but made available 100 doses to all providers so that they could make their own decisions about who represented their highest-priority patients.
- Frequent small shipments of vaccine to providers kept vaccine available even when supplies were inadequate to offer a mass clinic.

### More details

Link to the practice: <http://www.cidrap.umn.edu/practice/flexible-vaccine-distribution-plan-adjusts-community-needs-tn>

## [PROBLEM 3]

# I need to reach specific groups with vaccine

## STRATEGY G

### Establishing school-based clinics

13. School clinics vaccinate majority of students
14. Community involvement in school clinics
15. Mobile teams and central locations serve schools
16. PODs and volunteers keep school clinics running
17. School clinics for kids with medical needs

## STRATEGY H

### Offering vaccine in kid-friendly settings

18. Baseball team lends a hand to vaccination efforts
19. Zoo vaccination clinic serves day care children

## STRATEGY I

### Using mobile clinics

20. Mobile clinic addresses rural needs
21. Mobile clinic delivers vaccine to reservation

## STRATEGY J

### Providing free and accessible vaccine

22. Student volunteers and donations help run free clinics
23. Paramedics bring vaccine to the homebound
24. Faith-based coalitions provide vaccine to the homeless

[PROBLEM] **I need to reach specific groups with vaccine**

## STRATEGY G

---

### Establishing school-based clinics

---

PRACTICE 13

## School clinics vaccinate three fourths of students

### In summary

Convenient times and locations, close communication with parents and staff, and a large volunteer force enabled most enrolled students in Rhode Island to become vaccinated.

### The story

- The **Rhode Island Department of Health** held vaccination clinics at every K-12 school for 28 days in November 2009.
- The health agency held separate clinics for pre-registered students who reside in Rhode Island but attend school out of state.
- Clinics were staffed primarily by volunteers from the school, parents, and members of the Rhode Island Medical Reserve Corps.
- An online schedule and frequent situational updates to medical providers, school staff, and parents ensured the success of each clinic.

[PROBLEM] **I need to reach specific groups with vaccine**

- In the first 10 days of offering school clinics, more than 38,000 children had been vaccinated. The majority of enrolled students (76%) in the state received their H1N1 vaccination in a school clinic.

## More details

Link to the practice: <http://www.cidrap.umn.edu/practice/school-based-h1n1-vaccination-clinics-each-k-12-school-ri>

## PRACTICE 14

# Community involvement in school clinics

## In summary

Despite vaccine shortages and inconsistencies in supply, Arkansas held several school clinics that were successful owing to:

- Vocal support from the governor
- School nurse assistance and advocacy
- Prioritization of very young children

[PROBLEM] **I need to reach specific groups with vaccine**

## The story

- The **Arkansas Department of Health** worked with 98% of school districts to provide H1N1 vaccine in the fall of 2009.
- School vaccination clinics were funded by the Governor's Healthcare Initiative and tobacco tax proceeds.
- The health agency partnered with school nurses, school administrators, and community volunteers to offer the clinics, with such significant school participation due in part to the governor's support and advocacy of the vaccination initiative.
- Schools noted several lessons learned during the clinics, including:
  - ▲ Prioritizing the youngest children first and staff last was the best way to handle vaccine shortages.
  - ▲ The school nurse is the health agency's best friend.
  - ▲ One staff person should always be designated to control clinic flow.
  - ▲ A system for double-checking whether the appropriate vaccine is administered, reviewing health histories, and tracking lot numbers is essential.
- By November 2009, school clinics had provided more than 113,000 H1N1 vaccinations and more than 144,000 seasonal flu vaccinations in 1,053 schools.

## More details

Link to the practice: <http://www.cidrap.umn.edu/practice/arkansas-school-based-vaccination-clinics>

PRACTICE 15

## **Mobile teams and central locations serve schools**

### **In summary**

Two South Carolina school districts used mobile teams and geographic clusters to offer vaccine to more than 80,000 children.

### **The story**

- The **South Carolina Department of Health and Environmental Control** worked with two school districts — Greenville County Schools and Richland School District 2 — to vaccinate school children in ways that were appropriate for the communities.
- Greenville is the largest school district in the state; it includes 54 elementary schools and serves more than 70,000 students.
- Greenville surveyed parents on preferred times and locations for vaccination clinics, finding a strong preference for after-hours clinics.
- The health agency clustered Greenville schools into five geographic areas, assigning a vaccination clinic to one school in each cluster.
- Richland school administrators assigned school nurses to mobile teams that traveled to district schools and immunized students under the direction of a state health agency nurse.
- Greenville school clinics vaccinated more than 8,000 students and scheduled additional clinics. Richland vaccinated more than 11,000 students in 13 days and scheduled additional clinics.

[PROBLEM] **I need to reach specific groups with vaccine**

## Tools and downloads

Parent Packet Cover Letter (PDF):

[http://www.cidrap.umn.edu/sites/default/files/public/php/425/425\\_letter.pdf](http://www.cidrap.umn.edu/sites/default/files/public/php/425/425_letter.pdf)

## More details

Link to the practice: <http://www.cidrap.umn.edu/practice/school-vaccination-campaign-sc>

PRACTICE 16

## PODs and volunteers keep school clinics running

### In summary

Establishment of Points of Dispensing (PODs) and training for nurses and volunteers allowed an Oregon county's school clinics to run smoothly.

### The story

- In fall 2009, **Yamhill County Public Health** in Oregon set up PODs in all 7 school districts, along with day care and child care centers.
- To enable schools to provide vaccination clinics, the county hired 2 liaisons, 25 temporary certified medical assistants, and 25 registered nurses and trained them in policies and procedures related to sick leave, screening, triage, and social distancing.

[PROBLEM] **I need to reach specific groups with vaccine**

- Schools recruited their own staff and volunteers to help with the clinics, and many nursing students who volunteered with the school clinics joined the county Medical Reserve Corps.
- The health agency diverted general public traffic away from school PODs by running a hotline informing people about target groups eligible for vaccine and where people not affiliated with schools could find vaccination clinics.
- In early 2010, health agency staff revisited day care centers and elementary schools to administer booster doses, obtaining a 60% vaccination rate for second doses.

### **More details**

Link to the practice: <http://www.cidrap.umn.edu/practice/yamhill-county-launched-mass-vaccination-campaign-school-age-children-or>

[PROBLEM] **I need to reach specific groups with vaccine**

## PRACTICE 17

# School clinics for kids with medical needs

## In summary

Rhode Island offered vaccine in specialty schools to prioritize the needs of children with neurologic illnesses or underlying medical conditions.

## The story

- The **Rhode Island Department of Health** began vaccinating children with severe neurologic illnesses and other severe, chronic underlying medical conditions in November 2009.
- In cooperation with the Rhode Island Department of Education, the health agency vaccinated more than 750 children in 16 specialty schools within 3 days.
- All children received a booster dose in January 2010 if they were eligible.

## Tools and downloads

Fact Sheet for Parents (DOC):

[http://www.cidrap.umn.edu/sites/default/files/public/php/441/441\\_factsheet.doc](http://www.cidrap.umn.edu/sites/default/files/public/php/441/441_factsheet.doc)

## More details

Link to the practice: <http://www.cidrap.umn.edu/practice/h1n1-vaccine-clinics-medically-fragile-children-ri>

[PROBLEM] **I need to reach specific groups with vaccine**

## STRATEGY H

---

### Offering vaccine in kid-friendly settings

---

#### PRACTICE 18

## Baseball team lends a hand to vaccination efforts

### In summary

Close collaborations with a local baseball team in Illinois created:

- An ideal environment — private stadium suites — for administering vaccine
- A comfortable and fun experience for children
- Event management that extended to monitoring supplies and records, along with ensuring that staff were provided with meals

### The story

- In December 2009, the **Kane County Health Department** in Illinois held a clinic at the local baseball stadium for children 9 years and younger who needed a second dose of H1N1 vaccine.
- Vaccinators turned six private suites into Points of Dispensing (PODs) and used other suites for Incident Command, storage of supplies, and registration.
- Each vaccination suite was staffed by a task force comprising 13 people, including 4 vaccinators and 2 vaccine preparers.
- Stadium staff took over logistics and used their event management experience to move people in and out within 25 minutes, work within available space, control temperature, and obtain supplies for health agency personnel.

## [PROBLEM] I need to reach specific groups with vaccine

- The POD task forces combined screening and vaccine administration, which reduced error rates and provided a single point of contact for questions.
- The baseball team provided their mascot and a Santa Claus to keep children calm, broadcast cartoons over televisions in the suites, and provided meals for clinic staff.

### More details

Link to the practice: <http://www.cidrap.umn.edu/practice/mass-vaccination-clinic-held-baseball-stadium-il>

## PRACTICE 19

### Zoo vaccination clinic serves day care children

#### In summary

In order to reach children in day care who would not be served by school clinics, a Virginia county offered free admission and a fun environment for children and child care providers who got vaccinated at the zoo.

#### The story

- The **Norfolk Department of Public Health** in Virginia needed to vaccinate children in day care environments who would not be served by a school-based clinic.
- The agency held a focus group with child care providers, who suggested that vaccination staff hold a clinic in a central location that could also serve as the destination of a field trip.

## [PROBLEM] I need to reach specific groups with vaccine

- In December 2009, the health agency collaborated with the Virginia Zoological Park on "The Virginia Zoo and H1N1 Too" — a program that offered children H1N1 vaccination combined with free admission to the zoo.
- Public health nurses wearing Santa hats provided vaccine to people 6 months to 24 years and to day care providers, along with booster vaccinations to children 9 years and younger.
- Everyone who was vaccinated was given free zoo admission, free parking, and a free ride on the zoo train.
- More than 240 children and providers were vaccinated.
- The zoo clinics enabled public health to form partnerships with day care providers and zoo administrators and were particularly helpful for parents who had not been able to access booster doses in primary care clinics.

### Tools and downloads

- Event photos (PDF):  
[http://www.cidrap.umn.edu/sites/default/files/public/php/463/463\\_photos.pdf](http://www.cidrap.umn.edu/sites/default/files/public/php/463/463_photos.pdf)
- Media release (DOC):  
[http://www.cidrap.umn.edu/sites/default/files/public/php/463/463\\_mediarelease.doc](http://www.cidrap.umn.edu/sites/default/files/public/php/463/463_mediarelease.doc)
- Event flyer (PDF):  
[http://www.cidrap.umn.edu/sites/default/files/public/php/463/463\\_eventflyer.pdf](http://www.cidrap.umn.edu/sites/default/files/public/php/463/463_eventflyer.pdf)

### More details

Link to the practice: <http://www.cidrap.umn.edu/practice/zoo-vaccination-clinic-targets-daycare-children-va>

[PROBLEM] **I need to reach specific groups with vaccine**

## STRATEGY I

---

### Using mobile clinics

---

PRACTICE 20

## Mobile clinic addresses rural needs

### In summary

A West Virginia county created a mobile vaccination clinic to reach people in rural locations who might otherwise not have had access to a traditional clinic due to snowy roads or significant distance to the nearest vaccination site.

### The story

- **Marion County Health Department** in West Virginia serves a rural population of 59,000 people, many of whom were unable to access H1N1 vaccine at central clinics due to snowy roads, distance to and from the clinic, and limited clinic hours.
- The health agency partnered with the Marion County Office of Emergency Services (OES) to adapt the pull-behind trailer that serves as the OES mobile command center into a traveling vaccination clinic.
- Staff on the mobile clinic included the OES driver, 2 OES personnel who set up the trailer as a vaccination clinic, 2 health agency staff who facilitated vaccine registration, and 1 to 2 nurses who administered vaccine.
- The trailer traveled to 9 locations around Marion County, spending 1 to 2 hours providing vaccine at central locations such as country stores or community centers and advertising its services on radio and television.

[PROBLEM] **I need to reach specific groups with vaccine**

- More than 200 people were vaccinated at the mobile clinic.
- The mobile clinic represented the first time Marion County had brought vaccine into rural communities. Health agency staff said they would not exclude a community for health resources because it had too few residents.

### **More details**

Link to the practice: <http://www.cidrap.umn.edu/practice/mobile-vaccination-clinic-reaches-rural-areas-wv>

[PROBLEM] **I need to reach specific groups with vaccine**

PRACTICE 21

## **Mobile clinic delivers vaccine to reservation**

### **In summary**

South Dakota used a clinic normally reserved for providing services to children and pregnant women to deliver vaccine to remote reservation communities.

### **The story**

- Prior to the emergence of H1N1, the **South Dakota Department of Health and Social Services** collaborated with Indian Health Service, Oglala Tribal Health, and Rapid City Regional Health to create a mobile medical clinic to provide services to children and pregnant women living on the rural Pine Ridge Reservation.
- The reservation comprises 2 million acres, and residents have limited access to transportation and trained healthcare providers.
- South Dakota used its mobile medical clinic to offer H1N1 vaccine, which was obtained via the Indian Health Service allocation.
- The mobile clinic administered 73 doses at Red Shirt Table (50 miles from the nearest healthcare provider), 70 doses at the American Horse School, and 58 doses at Porcupine School during the school's first vaccination clinic. The mobile clinic also traveled to and administered vaccine at the Lakota Nation Invitational, a large annual sports, academic, and cultural event.

### **More details**

Link to the practice: <http://www.cidrap.umn.edu/practice/mobile-vaccination-clinic-reaching-south-dakota-reservation>

[PROBLEM] **I need to reach specific groups with vaccine**

## STRATEGY J

---

### Providing free and accessible vaccine

---

PRACTICE 22

## **Student volunteers and donations help run free clinic**

### **In summary**

An Oregon coalition provided vaccine to the homeless, uninsured, homebound, or undocumented via:

- Vaccine allocations donated to the coalition by area clinics
- A volunteer staff primarily consisting of nursing and pharmacy students
- The establishment of free clinics in non-healthcare settings

### **The story**

- During H1N1, the **Oregon Adult Immunization Coalition's Underserved Project** collected donated vaccine and clinical supplies, trained nursing and pharmacy students in immunization practice, and organized free clinics for traditionally hard-to-reach populations: the homeless, homebound, uninsured, limited English speakers, or those without access to money or medical care.
- The Underserved Project was able to access state-owned vaccine via the 317 funding stream and took donations of privately owned vaccine and supplies.

## [PROBLEM] I need to reach specific groups with vaccine

- Staff held free vaccination clinics at health fairs, food banks, migrant worker agencies, detox facilities, and homeless outreach centers.
- Partnerships with the state immunization program, local health agencies, nursing and pharmacy schools, community-based organizations, and businesses were critical to the success of the project, with partners in different sectors providing necessary resources, including vaccine storage, use of standing orders, advertising to low-income clients, use of interns, assistance with translation, and cash donations.
- The Underserved Project provides approximately 400 influenza shots per year and has expanded to offer 5 additional vaccines (pneumococcal, Tdap, HPV, and hepatitis A/B)

### Tools and downloads

- Oregon Adult Immunization Coalition Web Site (URL):  
<http://public.health.oregon.gov/PreventionWellness/VaccinesImmunization/ImmunizationPartnerships/Coalitions/Pages/index.aspx>

### More details

Link to the practice: <http://www.cidrap.umn.edu/practice/nursing-and-pharmacy-students-are-trained-provide-immunizations-high-risk-adults-free-0>

PRACTICE 23

## **Paramedics bring vaccine to the homebound**

### **In summary**

A multidisciplinary team in several Oregon counties created a program to deliver vaccine to homebound individuals and people who lacked transportation to a vaccination clinic.

### **The story**

- The **Oregon Department of Human Services** developed a pilot program to bring H1N1 vaccination to homebound people via paramedics and ambulance providers.
- The project was formed by a steering committee consisting of staff from public health, the state immunization program, emergency medical services, and the ambulance association.
- The pilot provided vaccine in 5 counties that represented more than 46% of Oregon's H1N1-related hospitalizations and 34% of deaths.
- Community-based organizations distributed information about how to sign up for the program to their clients.
- During the program, 70 people were vaccinated, and people served by the program identified lack of transportation and vaccine availability as the 2 largest barriers to vaccination.

### **Tools and downloads**

Taking H1N1 Vaccination to Vulnerable Populations Project report (DOC):

<http://www.cidrap.umn.edu/sites/default/files/public/php/Taking%20H1N1%20Vaccination%20to%20Vulnerable%20Populations%20Project%20Report.DOC>

[PROBLEM] **I need to reach specific groups with vaccine**

## More details

Link to the practice: <http://www.cidrap.umn.edu/practice/local-health-departments-and-community-organizations-work-paramedics-provide-flu-vaccine-0>

PRACTICE 24

## Faith-based coalitions provide vaccine to the homeless

### In summary

Several counties around the nation partnered with faith-based agencies to offer vaccine to the homeless at events where food and warm clothing were also provided.

### The story

- Despite ACIP recommendations for priority group eligibility, several counties decided to prioritize homeless individuals for H1N1 vaccination in the winter of 2009-10.
- **Anderson County Health Department** in South Carolina collaborated with a Baptist church to offer a vaccination clinic to guests and volunteers during a New Year's Day lunch for the homeless. More than 100 people were vaccinated during the 3-hour event.
- The **County of Sacramento Division of Public Health** in California partnered with Loaves and Fishes — a faith-based organization committed to providing food and shelter to the homeless — to hold a vaccination clinic at a local shelter.

[PROBLEM] **I need to reach specific groups with vaccine**

- The **Hillsborough County Health Department** in Florida collaborated with Servants of Christ Tampa to hold a vaccination clinic and provide meals for the homeless in a makeshift restaurant in a former gas station.

## More details

Link to the practice: <http://www.cidrap.umn.edu/practice/public-health-and-faith-based-organizations-partner-offer-food-and-vaccine-homeless-sc-ca>



## Where do I go from here?

- Feel free to use any of the stories or summaries here as you plan to distribute vaccine, tailor mass dispensing clinics, or create new projects to address health equity during an emergency. Share this guide on your Web site or use it to start conversations with decision-makers and planners.
- Browse our **collection** of more than 400 practices, downloadable tools, and **special reports**. Practices are available in 9 areas of emergency preparedness and response — from tornados to radiological events — and everything’s been vetted, curated, and made available free of charge.
- Sign up for our semi-weekly **newsletter**. Each issue features a specially selected collection of practices that showcase health agencies’ work in building pediatric healthcare coalitions, reaching populations that speak limited English, working with public safety, and more.
- Don’t hesitate to contact us if you’d like assistance finding practices on a certain topic. The Web site is extensive, and we’re always happy to help you find what you need. You can contact [PHTools@umn.edu](mailto:PHTools@umn.edu), [vest0013@umn.edu](mailto:vest0013@umn.edu), or [kkb@umn.edu](mailto:kkb@umn.edu)



# Acknowledgements

This guide would not have been possible without the following agencies' work, dedication, and willingness to share practices from the field. Thank you!

## Contributing agencies and groups

Anderson County Public Health, SC  
Arizona Department of Health Services  
Arkansas Department of Health  
Blue Earth County Public Health, MN  
County of Sacramento Division of Public Health, CA  
Florida Department of Health  
Hillsborough County Health Department, FL  
Indiana State Department of Health  
Kane County Health Department, IL  
Louisiana Department of Health  
Marion County Health Department, WV  
Mille Lacs Band of Ojibwe  
Norfolk Department of Public Health, VA  
Oakland County Health Division, MI  
Oklahoma State Department of Health  
Oregon Adult Immunization Coalition  
Oregon Department of Human Services  
Otter Tail County Public Health, MN  
Pine County Public Health, MN  
Rhode Island Department of Health  
South Carolina Department of Health and Environmental Control  
South Dakota Department of Health  
Tennessee Department of Health  
Yamhill County Public Health, OR

## **CIDRAP / Public Health Practices staff**

Jill DeBoer  
Kathleen Kimball-Baker  
Natalie Vestin  
Carlos R Cruz  
Jim Wappes

## **ASTHO project staff**

Connie Jorstad  
Afeke Kambui  
Jennifer Sinibaldi  
Kathy Talkington  
Garrit Bakker

**Field Guide to Public Health Practice: Equity & Access – Distributing Vaccine during H1N1**

**Public Health Practices Project** | Center for Infectious Disease Research and Policy, University of Minnesota Academic Health Center