

## **Preventing Widespread Flu in Badgerland: Reviewing a Local Health Department's Ability to Meet Community Needs During a Public Health Emergency**

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### ***Abstract***

On April 30, 2009, the H1N1 influenza virus was declared a national emergency in relation to the ensuing pandemic. The U.S. Department of Health & Human Services was named the lead agency to guide the nation's response. In Wisconsin, local health departments led the effort for each of their jurisdictions with guidance and assistance from the state Department of Health Services. For the fictitious Badgerland County Health Department (HD), this effort initially involved educating the community about the virus and using various containment measures to minimize transmission. In fall 2009, local health departments were notified that vaccines would become available in September or October. With this news, Badgerland County HD realized that additional resources would be necessary to handle the progressing emergency, especially to assure workforce capacity.

This case study examines the events that took place at the Badgerland County HD during the period of September through December 2009. This period included a portion of Wave 2 of the H1N1 influenza pandemic; Wave 1 occurred April through August 2009. The case study addresses the core function of assurance—specifically, the ability of a local county health department to meet the needs of the public during an emergency. It reveals critical issues surrounding staffing capacity and competency, public health legal authority and scope of professional practice, the role of public messaging, awareness and utilization of existing policies, and funding implications.

### ***Introduction and Background***

Badgerland County covers 800 square miles and has a population of 55,941. Appendix A illustrates the population in terms of race and ethnicity. It is home to five large communities, each with populations between 4,000-6,000 residents, as well as several smaller communities. The Badgerland County HD is located in the south-east part of the county in the city of BadgerDen. BadgerDen is the largest municipality in the county, with a population of 10,000, and serves as the county seat.

Badgerland County has two weekly newspapers with circulation of approximately 15 percent of the county residents. Most residents have access to a public access cable TV channel.

Badgerland County has many resources including churches in most communities, a Red Cross Chapter, United Way, and a senior center located in BadgerDen. Medical services include a 25-bed hospital, a lab, and a medical center that is associated with the hospital. The majority of the physicians, physician assistants, and nurse practitioners in the central and eastern part of the county are affiliated with the medical center. The county has a voluntary emergency medical service for the residents.

Badgerland County HD operates within a health and human services model. There are five units in the department, including public health. The Badgerland Board of Health is comprised of nine members—eight men and one woman. One of its members is a physician that functions as a medical advisor. Board members have not participated in public health activities, but function in an advisory capacity. The Board of Health is one of 30 standing committees that report to the County Board of Supervisors. Public health rotates with the other four units in the department providing reports to the Board of Health meetings, which presents a barrier for board members to understand public health. The chair of the Board of Health, Gouda Lombardi, has experienced difficulty in getting issues placed on the agendas of the County Board of Supervisors meetings, and therefore many public health issues have not been brought to the forefront.

By Wisconsin statute, health departments are rated at level 1, 2, or 3. Level 3 supplies the largest variety of mandated services and level 1 the least. Badgerland County HD is a level 2 health department, providing statutorily mandated services as well as many additional services. Appendix B lists services offered by Badgerland County HD.

Badgerland County HD is led by Health Officer Buckminster Wiseguyski, a young and energetic professional who is new to this leadership role. He replaced the previous health officer who retired suddenly due to health issues, and reports directly to Department of Health and Human Services (DHHS) Director Brie Wedge, whose background is in social work. Wiseguyski, a ten-year public health veteran, was serving as a registered sanitarian in another county when he was hired as Badgerland's health officer in January 2009. He joined the team four months prior to the first wave of H1N1, which gave him time to learn his job, build relationships with his staff, and other community stakeholders.

Although Badgerland County HD is highly functional, it suffers from a less-than-optimal working relationship with Director Wedge, who historically has not supported public health issues such as preparedness. In his new role as health officer, Wiseguyski worked diligently to cultivate a positive relationship with Director Wedge, but continued to meet barriers. Wedge's misinformed and somewhat relaxed attitude about the anticipated second wave of H1N1 resulted in difficulties with internal coordination and unsuccessful attempts at incorporating the activities of neighboring county departments. These difficulties were especially pronounced when Wiseguyski attempted to acquire policy change approvals from key staff members, including the county human resources staff who were critical in interpreting Union rules, and Wedge herself who held authority to approve policy changes.

Badgerland County HD had much work to do—and little time to prepare—before the second wave of H1N1 was anticipated to hit. Wiseguyski knew that he and the staff faced many late hours and weekends addressing serious issues including staffing capacity and competency, legal matters and scope of practice, current policies and procedures, the media, public perception, and funding. He knew that without the many competent and passionate public health workers in his department, and possibly other community resources, Badgerland County residents would not be able to access critical services they might need during such an emergency.

### ***Staffing Capacity and Competency***

Badgerland County HD has 27 staff members. Despite the increase of responsibilities, workload, and community expectations over the years, the size of staff has remained stagnant. Positions include the health officer, administrative staff (shared among the five units in the department), nursing, registered dietitians, an environmental health professional, public health educators, and several paraprofessionals. The health officer and one nurse have master's degrees. Appendix C illustrates the breakdown of staff functions.

As of September 2009, Badgerland County HD had three vacant positions: a nurse, a public health educator, and a support staffer. These vacancies created a strain on other staff members who picked up larger workloads to keep the department running. In addition, the lead nurse, who piloted the design and implementation of preparedness plans and was a key community contact, recently took maternity leave and was not anticipated to return until December. In her absence, Colby Fondue, a seasoned public health nurse, took on the role of acting lead nurse, but he knew little about preparedness.

During the first wave of H1N1 (April through August), and even into the beginning of the second wave (September through December), Badgerland County HD met their objectives in responding to the pandemic emergency. The Wave 1 After Action Report showcased that their focus on community education was well received. They had been successful in educating key partners such as schools, non-profit organizations like United Way and their partners, and faith communities about the anticipated second wave of influenza and how to prevent its transmission.

The anticipated arrival of vaccines in coming weeks threatened the capacity of the department's staff. They would be expected not only to continue educating partners and the public— additionally they would be required to plan, implement, and staff vaccination clinics. The clinics' success depended on the contributions of the entire nursing staff, other staff members, and potentially external professionals. In response, Health Officer Wiseguyski took action to increase staffing capacity by engaging in three key activities.

First, he met with the Emergency Management Director and together they decided to activate the Incident Command System (ICS) and open the Emergency Operations Center on a limited basis. Weekly meetings were scheduled and action plans were designed with one-week operational periods. Wiseguyski was aware of the need to engage other county departments (e.g. UW-Extension, County Administration Office) to appoint command and general positions, as well as Human Services for some primary and secondary roles in the ICS structure. He had not yet attained support of Human Services Director Wedge to implement these roles, which resulted in deteriorating staff morale caused by frustration and excessive workload. Several individuals had been appointed to these roles during summer, but they had not yet completed all required training in compliance with National Incident Management System (NIMS) standards. Some just-in-time training would be necessary in order for them to function effectively in their roles.

Second, Wiseguyski identified that phone calls from the public had increased steadily and would likely continue during the months of October, November, and December as reported cases of influenza climbed. Although a 211 hotline was in place and staffed by trained operators to provide information to the public, many callers didn't use it, and instead called the Badgerland

County HD directly. The number of these direct phone calls to the health department had tripled, causing longer wait times and shortened conversations with callers. Wiseguyski could see that the role of a public health educator would be critical, and filling that vacant position became a top priority. The department received federal funding through a Public Health Emergency Response (PHER) grant to assist in hiring, but board approval to fill the vacancy would take two to three months. Given the situation, this vacancy needed to be filled within two weeks. Because the department could contract for staff without going through the board approval process, Wiseguyski worked with a local agency who quickly hired a limited term (mid-October through mid-December) public health educator and the individual was placed in the department under contract within three weeks. The primary responsibility of the educator under contract was to handle incoming phone calls from the public and be at vaccination clinics to educate those presenting for vaccinations.

Third, Badgerland County HD sought community assistance. They connected with their partners such as neighboring county health departments, hospitals, and the American Red Cross to ask nurses to volunteer in vaccination clinics. They used the state's public health volunteer registry, Wisconsin Emergency Assistance Volunteer Registry (WEAVR), to contact qualified professionals. They placed an ad in the local newspaper calling for nurses and others to volunteer. These actions were essential in assuring staff capacity of a vaccination clinics to be held in mid-December.

### ***Legal Authority and Scope of Professional Practice***

Badgerland County HD received medical standing orders from the state in early October which provided the department with the legal authority to appoint qualified volunteers (i.e. emergency medical technicians) to dispense vaccines at temporary clinics. The health officer also had authority to temporarily cease and/or redirect some operations, reassign duties of staff, and to assign additional hours to part time workers.

Because all health department non-professional staff and nursing staff are members of the Badgerland County Union, specific rules would need to be followed. Tensions arose between the nursing staff, the department staff, and Wiseguyski during preparation of a staff schedule for the vaccination clinics. Although the staff was being taxed to a high degree, the union stated that regular staff was to be offered any available hours first. This meant implementing a laborious process of having nurses sign up for clinics. The Union contract stated that professional staff (i.e. nurses, etc.) would be paid overtime (time and a half) for hours over 38.75 per week. Nurses could bank up to 80 hours of "comp time" before getting overtime. Because of the unique nature and restrictions on funding of the clinics, Wiseguyski decided to disallow "comp time" for hours worked at these clinics. Instead, union staff would be paid directly for their time worked (including overtime). Nurses were angered by Wiseguyski's decision, and that they were not getting their allotted break and lunch time. Other similar tensions were experienced by clerical staff. While there were no grievances brought up to the union, these tensions created additional stressors for all staff in the department.

At the same time, Badgerland County HD recruited licensed practical nurses, registered nurses, and emergency medical technicians to vaccinate at numerous clinics. Colby Fondue, the acting lead public health nurse, screened volunteers for skill sets as they signed up to assist at

vaccination clinics. The department was successful in recruiting enough qualified volunteers to provide the coverage needed. However, they lacked having a system in place to credential the staff and provide background checks. The lead public health nurse that was currently on medical leave had begun this process but had not been able to complete it before she took leave. It was important that this situation be resolved immediately.

Badgerland County HD provided just-in-time training to all volunteers of the mass clinics. The issue of liability was a concern for both staff and volunteers. Wiseguyski located and shared information provided by the state on the Public Readiness and Emergency Preparedness (PREP) Act. Because Wisconsin's governor declared a public health emergency for H1N1, this act provided immunity from tort liability (except for willful misconduct) to all persons—paid or volunteer—involved in the administration of vaccines at mass clinics. They were also able to persuade volunteers to sign up on the Wisconsin Emergency Assistance Volunteer Registry (WEAVR), which provided them additional legal protection.

### ***The Role Public Messaging in Public Perception***

Throughout the spring and summer of 2009, Badgerland County HD utilized multiple media sources to educate citizens and health care providers about signs and symptoms of H1N1, recommended medical follow up and testing criteria, case definition, transmission, and the preventing transmission of the virus. Local press releases were sent weekly to the two newspapers and several radio stations serving the county. Public access cable TV provided free information and showcased programming on actions residents could take to prepare for the next wave. Posters were disseminated in public places in all communities such as the local libraries, schools, and restaurants. Yard signs were distributed that highlighted the three ways to prevent the spread: cover cough, wash hands, stay home if sick.

Public health nurses gave talks to various business and civic groups about influenza prevention in the workplace. Information was provided to all school districts and day care centers for use in parent newsletters. Meetings with the area school district administration were implemented to discuss recommendations and prepare for the fall return to school. The faith communities received articles for inclusion in church bulletins and for recommendations on reducing risk at church services/gatherings. Information was provided regarding public access of the 211 hotline that provided H1N1 facts and prevention strategies in both English and Spanish. These activities required the majority of staff time and afforded little time to review mass clinic plans to be utilized in the fall and winter.

H1N1 information changed frequently. Despite the public messaging activities listed above, public perception about the threat of the virus ranged from lack of interest to extreme concern bordering on panic—especially when media covered stories about deaths of young children. Although the 211 hotline was established and taking many calls, direct calls to Badgerland County HD were increasing and requiring more staff time. Unlike the hotline, the health department was not prepared to take and document these phone calls.

In September, information about vaccine's arrival became available prompting Badgerland County HD staff to begin shifting their focus from general H1N1 information to organizing immunization clinics and prioritizing risk groups. Initially, information from the CDC indicated

that enough vaccine would be available to all people who were interested in receiving it. However, when vaccines arrived in smaller amounts, first priority was given to individuals six months to 24 years of age, individuals over 24 years of age with chronic health conditions, caregivers of infants less than six months of age, and pregnant women.

Using the same outlets used in the initial public education campaign, Badgerland County HD began a social marketing campaign to educate individuals in the high risk groups, and encourage them to get vaccinated. Staff worked closely with school districts to plan mass vaccination clinics at the schools.

In addition to educating citizens about the H1N1 vaccine, Badgerland County HD had to alter its usual practice of providing seasonal flu vaccines in October and November to providing it in September. This required additional education about seasonal flu vaccine. Many misperceptions existed about early administration of seasonal flu, the difference between the various types of flu vaccine, and the difference in target groups to receive each type of vaccine. The complexity of this information created public confusion and resulted in increased phone call to the department inquiring about the different strains of flu virus.

Within a short period of time after the vaccine education campaign began, it became apparent that a shortage of vaccine would require a narrower definition of target groups eligible to receive the vaccine. In addition, receipt of any vaccine was likely to be even further delayed. Revised recommendations were put into place and a new education campaign began.

The severity of the pandemic was still unknown. This resulted in increased public interest in receiving the vaccine. Confusion about the targeted risk groups was prevalent. Regular press releases were sent to the weekly newspapers, TV and radio stations covering the county. Information was made available to all school districts as new information became available. The county website was updated daily. Residents were encouraged to use the 211 System for latest and most up to date information.

### ***Awareness and Utilization of Existing Policies***

As a result of a public health emergency being declared, existing county policies and procedures were impacted. These existing policies, as well as implementation of emergency plans, significantly affected Badgerland County HD operations.

### **Unions**

The Union contract specified rules that impacted recruitment of volunteers (i.e. professional staff would receive first option to volunteer). Interpretation of the contract was a critical role of human resources. This interpretation process slowed recruitment, and therefore the positions took more time to fill.

### **Mass Clinic Plans & ICS Structure**

The lead public health nurse responsible for preparedness planning was unable to implement these plans prior to her maternity leave. As a result, it took additional time to get others up to speed on the mass clinic plan and placed in Incident Command System (ICS) roles. The absence of these plans led to a small, but preventable delay in the provision of vaccine to the community.

### **Continuity of Operations Plan**

The Badgerland County HD successfully implemented its Continuity of Operations Plan in early fall when it realized that normal operations could not continue due to the redirection of duties related to H1N1. All staff agreed with the decisions related to this plan, as well as the need to reduce services temporarily and redirect staff towards clinics. Following the clinics, Wiseguyski learned that certain mandated services need to be continued which contributed to the strain of staff due to their ongoing increased workloads.

### ***Budget and Funding***

The Badgerland County HD used a combination of funding by PHER I, II, and III, CDC Preparedness, and tax levy dollars to fund the H1N1 response activities. The total cost of activities came to \$186,395 and included personnel, site expenses, advertising and coordination of clinics, general public messaging, as well as other miscellaneous expenses. Appendix D itemizes all expenditures.

After the PHER I, II, and III funding (\$137,187) was exhausted, CDC Preparedness funding (\$44,527), and a small part of a tax levy (\$4,681) was used to pay for remaining response activities. The PHER funds were one-time funds specifically directed at and restricted to H1N1 response activities. Use of the CDC funds is restricted to certain types of emergency; the H1N1 epidemic met all restricting criteria. The tax levy, which was the smallest portion of funding, had the least restrictions.

### ***Conclusion***

Health Officer Buckminster Wiseguyski, and the talented, committed staff at the Badgerland County HD, were successful in accomplishing their mission of assuring adequate and competent staff to provide critical services during an emergency. But this success came with significant challenges, especially related to staffing, that required resolution. The provision of augmented legal authority to Wiseguyski allowed him to recruit and authorize staff to conduct the vaccination clinics, however several position vacancies, lack of cross-training, and compliance with Union rules delayed the process by two weeks as compared to their neighboring counties.

Health Officer Buckminster Wiseguyski invested significant time in communicating information to the Human Services Director, Board of Health, County Board of Supervisors, and the general public. This resulted in the Health Department becoming a priority agenda item for each County Board of Supervisors meeting.

The 2009 H1N1 pandemic was relatively mild. While the response was delayed in Badgerland County, no deaths or other serious events occurred. Following an initial debriefing with stakeholders, Wiseguyski held an After Action Conference inviting all applicable partners to discuss best practices and implement necessary changes to improve operations in future events.

## ***Case Study Questions***

1. What key components of the case study demonstrated the core function of assurance?

### Staffing Capacity & Competency

2. How might the decisions of which tasks/programs get reduced or temporarily eliminated impact the county's health? What issues impacted these decisions?
3. What key new activities were required of staff? Other than following the continuity of operations plan, how could staff better manage increasing workload?
4. What key staffing issues created obstacles for Badgerland County HD? Which incidents would be alleviated by cross-training of staff?
5. The Badgerland County HD hired the public health educator using a contracting agency. What pros and cons are related to using a contracting agency to hire?

### Legal Authority and Scope of Professional Practice

6. During the emergency, Wiseguyski had a broadened statutory authority. How did he use it to assure adequate and competent staffing? What additional legal authority could he have used to accomplish the health department's mission?
7. What options were available to fulfill the requirement of credentialing volunteer staff and provide background checks?

### Public Messaging and Public Perception

8. Did Badgerland County HD communicate effectively with other organizations in the community (i.e. schools) that could request clinics to be conducted on their sites? How could it effectively estimate what the demand would be?
9. How could Badgerland County HD use the local media to influence the public's perception of the situation and stimulate interest in getting vaccinated? Was the department's public messaging effective?

### Existing Policies

10. What leadership priorities were critical for Health Officer Wiseguyski to put into action? Were there any policies that should have been in place but were not?
11. What drove the decisions related to organizing and implementing different types of vaccination clinics (i.e. mass clinics, in-school clinics, etc.)? How would the health department determine how many clinics to hold?

### Budget & Funding

12. Which response activities would have been cut if sufficient funding were not available? How would the outcome have been impacted without those activities?

**Appendix A: Population by Race & Ethnicity**

Badgerland County Total Population: 55,941		
Race	Total Number	Percent of Population
White	54,941	98.6%
Black or African American	167	0.3%
American Indian and Alaska Native	390	0.7%
Asian	223	0.4%
Native Hawaiian and other Pacific Islander	0	0.0%
Other Race	390	0.7%
Hispanic (any race)	1,337	2.4%

**Appendix B: Services Offered by Badgerland County Health Department**

- Fluoride Rinse
  - Fluoride Vanish
  - Vision and Hearing Screening
  - Prenatal Care Coordination
  - First Breath
  - Quit Line
  - Wisconsin Well Woman Program
  - Lead Testing
  - Radon Testing
  - Blood Pressure Checks
  - Blood Glucose Checks
  - Immunizations
  - Postpartum/Newborn Care
  - Children and Youth with Special Needs
  - Reproductive Health
  - School Nursing
  - Environmental Health
  - Jail Health
  - Communicable Disease Control Programs
  - Rabies Control & Coordination
  - Public Health Emergency Preparedness
  - Home Health Services (Contracts these services out)
- Water Testing
  - Beach Testing

**Appendix C: Badgerland County HD Staff Members**

<b>Badgerland County Health Department Staffing</b>						
	<b>Total (Per 10,000 Population)</b>	<b>Administrative Staff</b>	<b>Public Health Nursing Staff</b>	<b>Other Professional Staff</b>	<b>Para- Professional Staff</b>	<b>Support Staff</b>
<b>Staff Positions</b>	27 (4)	3  Includes health officer	6  One PHN FTE position is vacant.	6	8  One Public Health Educator FTE position is vacant.	4  One .5 FTE Support Staff position is vacant.
<b>FTEs</b>	15 (3)	2	4	4	4	1
* Shared with other Human Service Department.						

**Appendix D: Budget for H1N1 Response in Badgerland County**

<b>Item</b>	<b>Cost</b>
Health Department Personnel	\$131,036
2 Public Health Educators (Contract Employees)	\$24,000
2 Nurse Contracts	\$6,000
Mental Health Contract	\$3,700
EMS Stipends	\$3,300
Mass Clinic Site Expenses (buses, building maintenance, heat, electricity)	\$5,000
Catering for Mass Clinic sites	\$6,000
Mass Clinic supplies	\$1,000
Advertisements	\$2,000
Web Cams (8)	\$850
Microsoft Live Meeting two year license	\$390
Yard Signs	\$1,000
Family Preparedness Kits	\$600
Website enhancements	\$1,519
<b>TOTAL</b>	<b>\$186,395</b>