

The H1N1 Pandemic- What did we do well, what were we unprepared for, and what can we improve upon?

The Virginia Experience



I had a little bird and its name was Enza

I opened the window and in-flu-enza

Children's jump rope rhyme heard nationwide during the height of the pandemic.

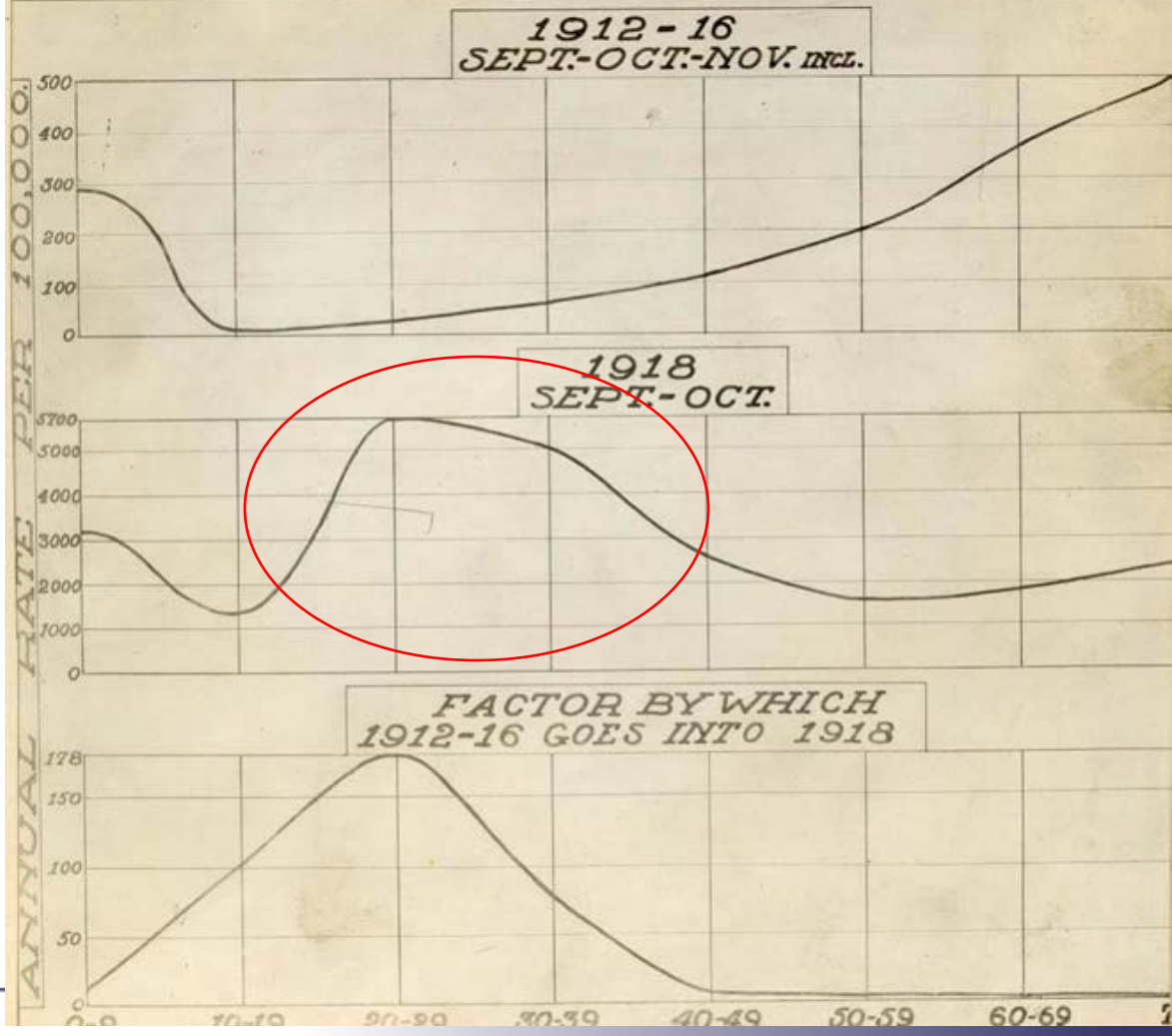
Karen Remley, MD, MBA
State Health Commissioner
Virginia

Mission and Role of Public Health in Infectious Disease Outbreak

- Reduce (or slow) disease transmission
- Minimize mortality and morbidity
- Understand magnitude of infection through clinical screening, laboratory testing, and epidemiologic investigation
- Identify likely sources and channels of disease transmission
- Identify and protect high risk populations (very old, very young, nursing home residents, pregnant women, and people with chronic conditions)
- Provide guidelines for laboratory testing, clinical treatment, and post exposure prophylaxis
- Make sure plans, personnel and materials are in place for higher levels of response

AGE DISTRIBUTION OF DEATHS FROM INFLUENZA AND PNEUMONIA AT BOSTON

Avoiding the Epidemic of Fear - 1918 Spanish Flu



Avoiding the Epidemic of Fear - Avian Flu



Friday



CDC determined that two cases of febrile respiratory illness occurring in children who resided in adjacent counties in southern California were caused by infection with a new influenza A (H1N1) virus



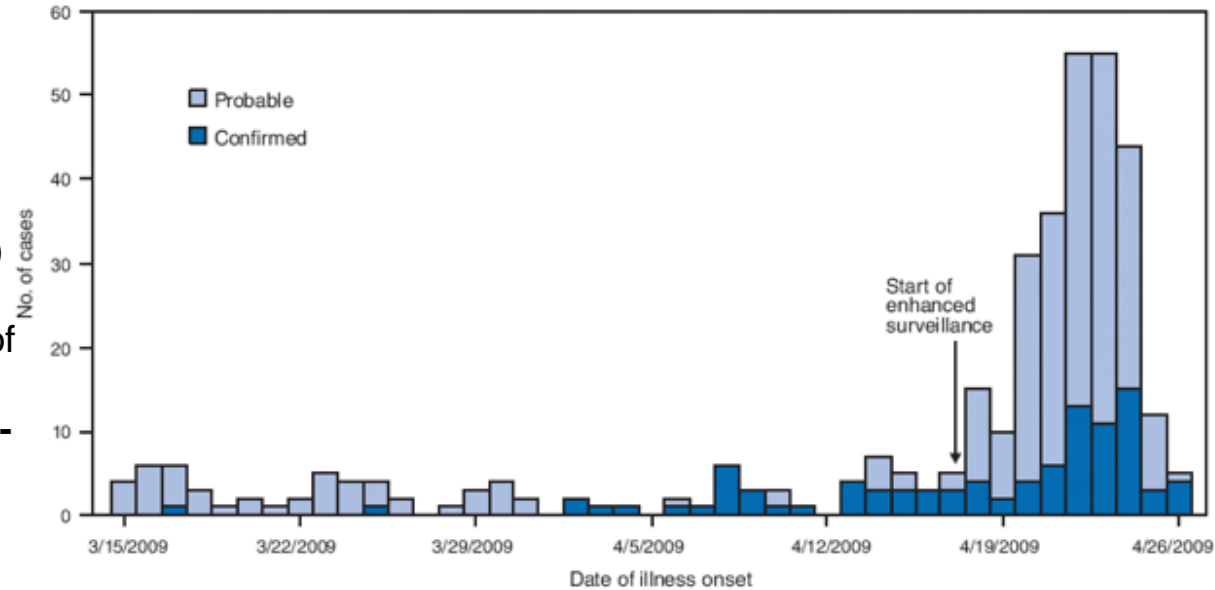
Richard Besser, Acting Director CDC holds briefing on H1N1- 8 cases in US, 6 confirmed in Mexico- just getting information from Mexico- very worrisome

Friday



Mexico Outbreak

Number of confirmed (N = 97) and probable (N = 260)* cases of swine-origin influenza A (H1N1) virus (S-OIV) infection, by date of illness onset --- Mexico, March 15--
April 26, 2009

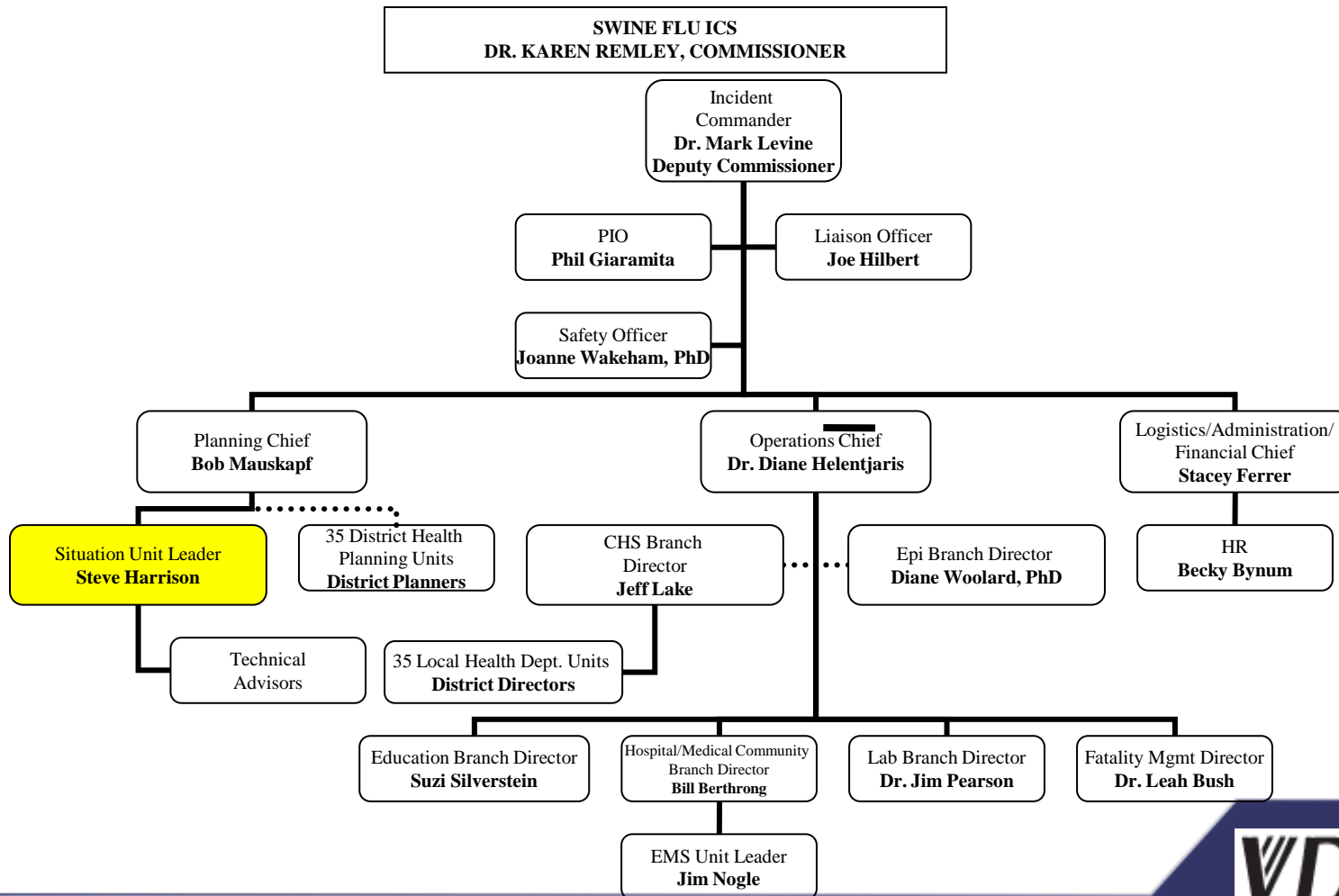


VDH Actions

1. Health Alert to all clinicians- Rapidly evolving public health issue
2. Heightened surveillance for H1N1
3. Press release

1. VDH and DCLS leadership emergency meeting
2. Request for Emergent briefing with Governor and Senior leadership
3. Incident Command System established

Sunday



Information & Communication



Print Preview

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Print		Page Setup			Zoom					Preview					

Governor's Confidential Working Papers – Do Not Release – Information Subject to Change on Hourly Basis

**Daily Swine Flu Briefing for Governor Kaine and Senior Leadership
April 27, 2009**

Background

- Human cases of swine influenza A (H1N1) virus infection are very rare with one to two cases a year, normally associated with direct contact with swine.
- Since March 2009 an increased number of cases have been identified in the United States, including CA, TX, KS, OH and NYC. Cases in the U.S. have been relatively mild, all of the affected individuals have recovered.
- Swine flu cases in Mexico appear to be more severe with 81 deaths reported by the Mexican government. It is not known at this time what factors are responsible for the more severe disease in Mexico. Most worrisome is the reported deaths are in young previously healthy individuals. The U.S. Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) are in Mexico investigating the outbreak
- Cases have also been reported in New Zealand, Canada, and the United Kingdom
- This particular strain of virus is new, and has never been seen before in swine or humans, there is currently no vaccine available.
- Initial steps are underway to initiate the development of a vaccine, but it is estimated it will take six months before vaccine will be produced.
- The virus is sensitive to existing antiviral medications including Tamiflu which has been stockpiled.
- It is anticipated that there is strong potential for more severe disease in the U.S.
- The Pandemic level is classified as a level Three by the CDC.
- Interim guidance information is being released and revised on a daily basis by the CDC along with daily informational calls.

The current U.S. case count is 40 as of 1 PM EDT on April 27, according to the CDC

California	7 cases
Kansas	2 cases
New York City	28 cases
Ohio	1 case
Texas	2 cases

Current Status in Virginia

- As of 4/27/09 no confirmed or suspect cases in Commonwealth.

VDH- Difficult Decisions

- Information Management
- Communications to various groups
- The Press
- Details of Case reporting
- Stockpile use- when/where/how
- Care of Indigents/Special Populations
- Testing Protocol
- School Closures- Pre K, K-12, Colleges
- Work schedule for VDH Leadership Team
- Redundancy of critical roles

Communications to various groups

- MDs and Hospitals (4/17)
- All Clinicians (4/24, 5/3, 5/10)
- Local Government (4/28)
- Congressional Delegation (4/28)
- General Assembly Members (4/28)
- Judiciary (4/29)
- Pharmacists (4/30)
- Business Community (5/4)
- Funeral Directors (5/5)
- DOE letter to Superintendents (4/28)
- Daily update to Governor

- **1-800 Call Center for Public- only one in HHS region**

H1N1 Lessons Learned- Nothing replaces pre-event planning

- Communications
 - Consistent Messaging; link to CDC
 - Embrace Media; feed frequently
 - Be early; be concise; be accurate
 - Focus messages to targeted communities
 - Open Public Inquiry Hotline early
- Immediate Heightened Surveillance
- Engage Lab and other partners early
- Keep leadership informed (No surprises!)
- Organize in depth
 - Unified Command
 - Plan for the long haul
 - Share info; update regularly
- Threat is NOT just in the Health arena

U.S. Department of Health and Human Services H1N1 Response Pillars

- Surveillance
- Communication
- Vaccination
- Mitigation

- Virginia addition
- Direct Medical Care / Surge

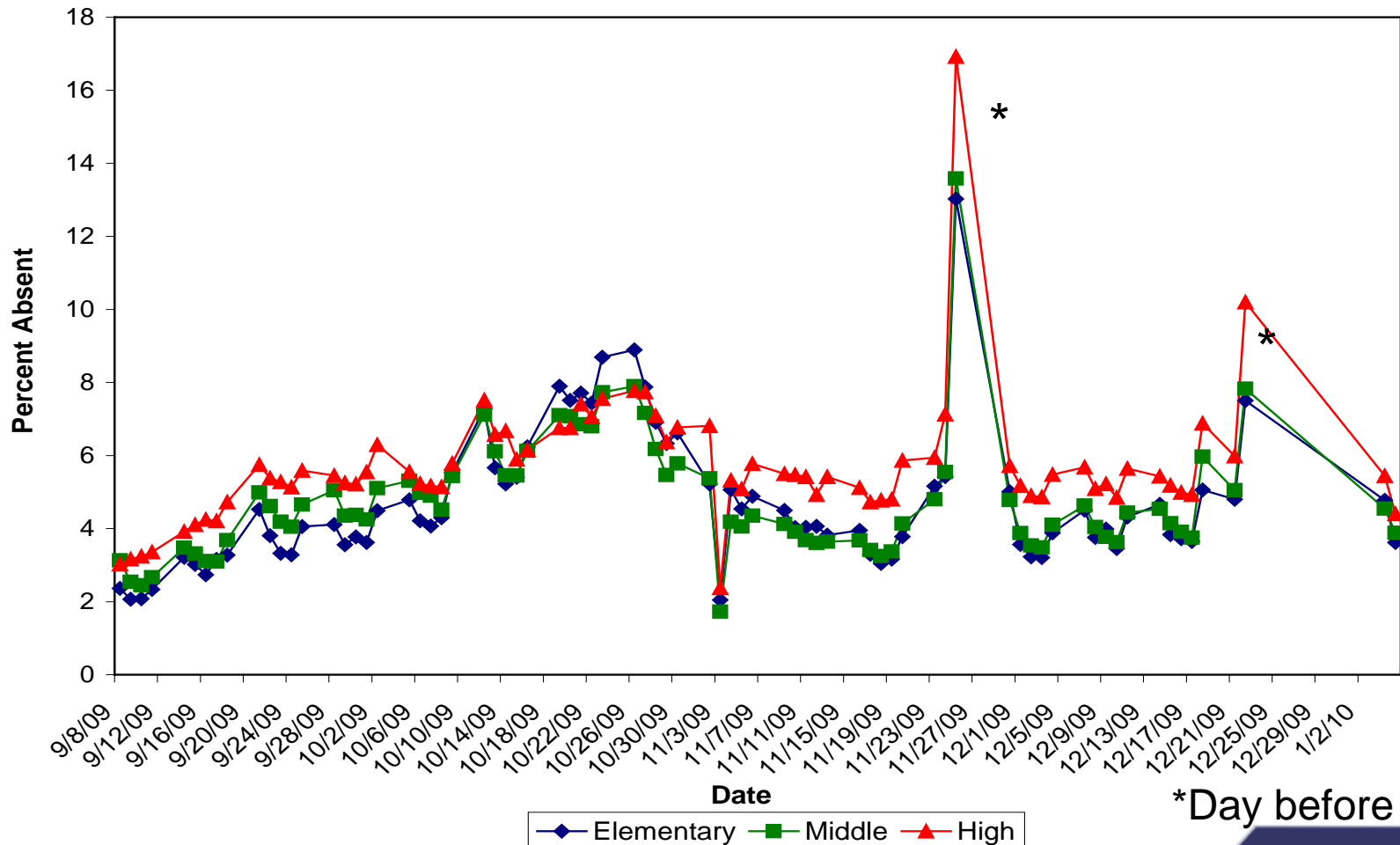


Surveillance: Monitoring Flu Activity in Virginia

- ED/UC visits for flu-like illness (ILI)
 - By age group, region
- Lab surveillance
- Outbreaks reported
- Deaths confirmed*
- School absences*
- School and day care closures*
New for 2009 H1N1

School Absences

Daily Public School Absenteeism
by School Type, Virginia, 2009-10 School Year



*Day before holiday



Data available through the Influenza Dashboard should be considered provisional and are for internal VDH use only.

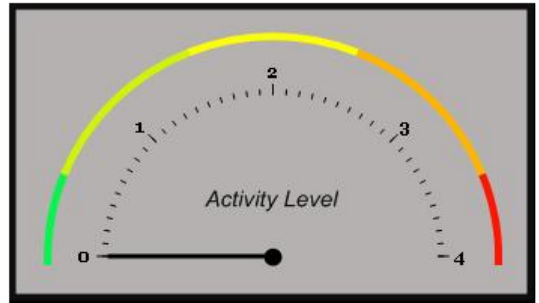
V 1.0

Help Logout

Overview | ILI and Lab | Influenza Vaccine

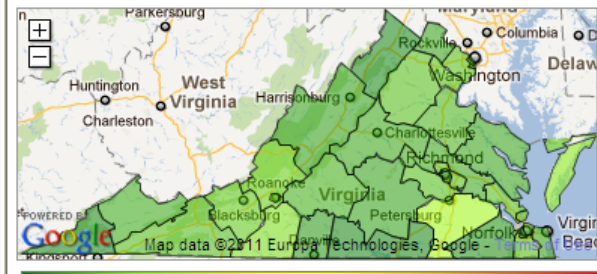
Change Dashboard

Current Influenza Activity Level



Activity Levels : 0 = No Activity, 1 = Sporadic, 2 = Local, 3 = Regional, 4 = Widespread.

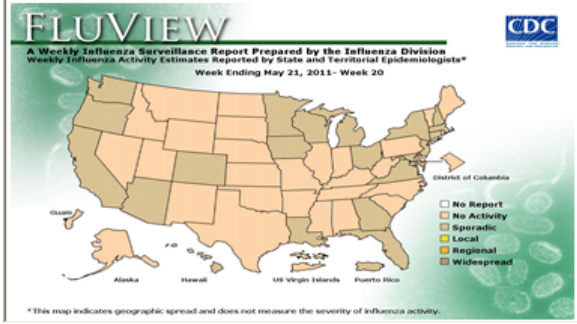
Map by District



0.00% Percent of Visits Due to ILI 10.00%

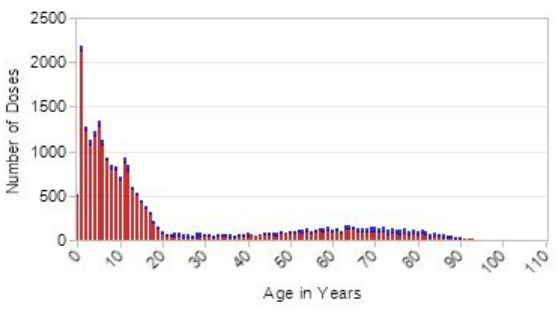
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Weekly Influenza Surveillance Report

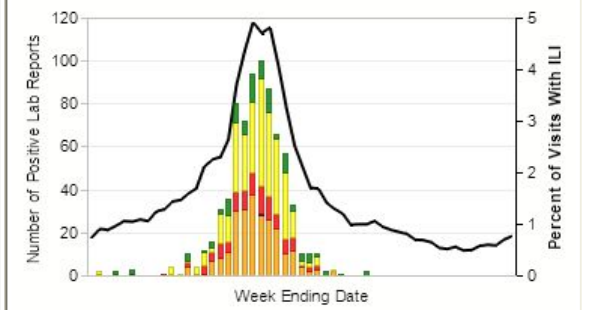


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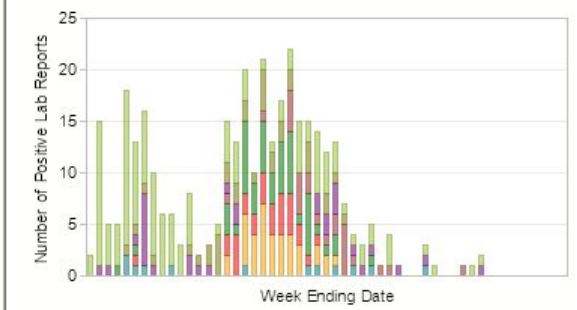
Flu Doses Administered By Age, Cumulative



Percent ILI Visits and Positive Influenza Lab Results by Subtype



IISP Lab Test Results of ILI Specimens by Week



H1N1 Communications:

- Phases
 1. Crisis Communications- credible, timely, accurate
 2. Disease education and prevention campaign
 3. Vaccination campaign
- Overarching theme of education, collaboration and partnerships
- Establish VDH as trusted source of information

Information Sources: H1N1GET1 website

Phone line

877-1-ASK-VDH3

Opened 4/09

89% of calls were from the general public

88% phone, 12% email

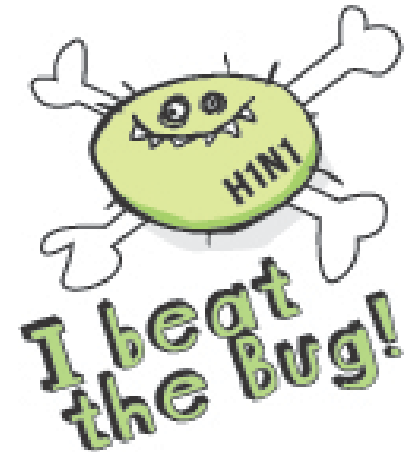
Volume peak >700 calls/day

84% in reference to vaccine



Targeted communications

- Schools- parents
- Employers
- Executive, Legislative and Judicial Branch of State Government
- Virginia Federal Congressional Delegation
- Other state agencies
- Tribal leaders
- Home school community
- Private Schools
- Constituent responses



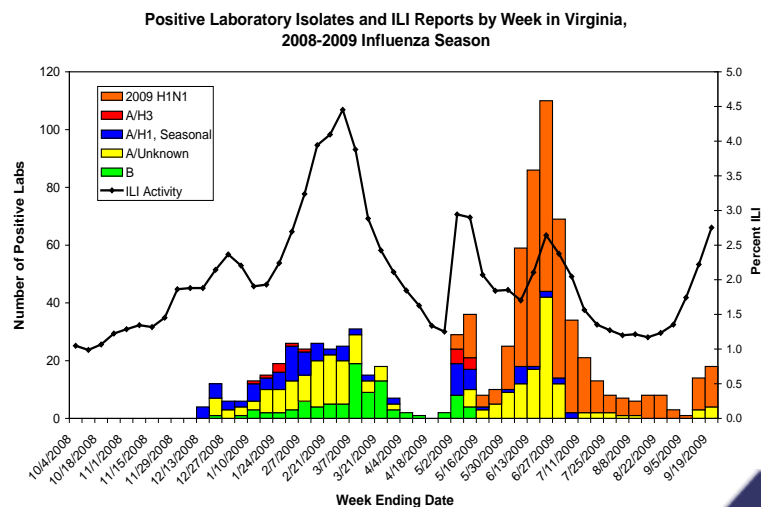
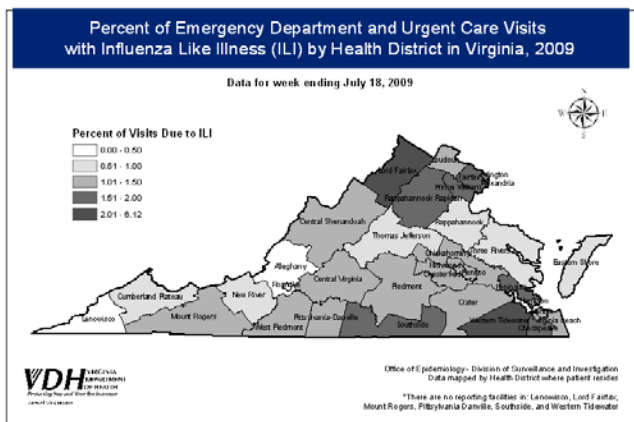
Internal Communications

- Local Health Director Conference calls
- Polycom with relevant staff
- Daily Senior Leadership meetings
- Weekly Governor's report



“Dear Colleague” Letters

- Forum for sharing actionable information using four pillars approach including CDC updates
- DHP emergency contact information- over 120,000 providers
- MD, other clinical specialty organizations distribute





VDH VIRGINIA
DEPARTMENT
OF HEALTH
Protecting You and Your Environment

DOH
DEPARTMENT OF HEALTH
PREVENT. PROMOTE. PROTECT.

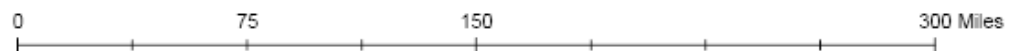
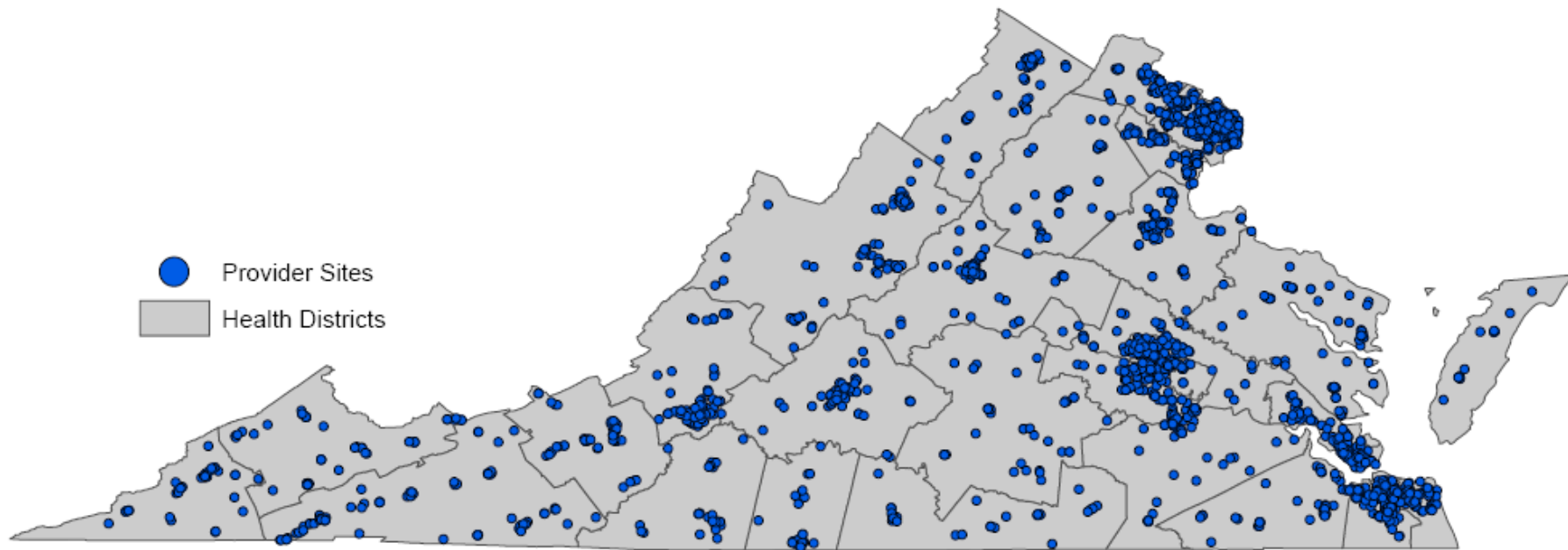
STATE OF MARYLAND
DHMH

VDH VIRGINIA
DEPARTMENT
OF HEALTH
Protecting You and Your Environment

Provider Sites Which Have Received H1N1 Vaccine as of January 8, 2010

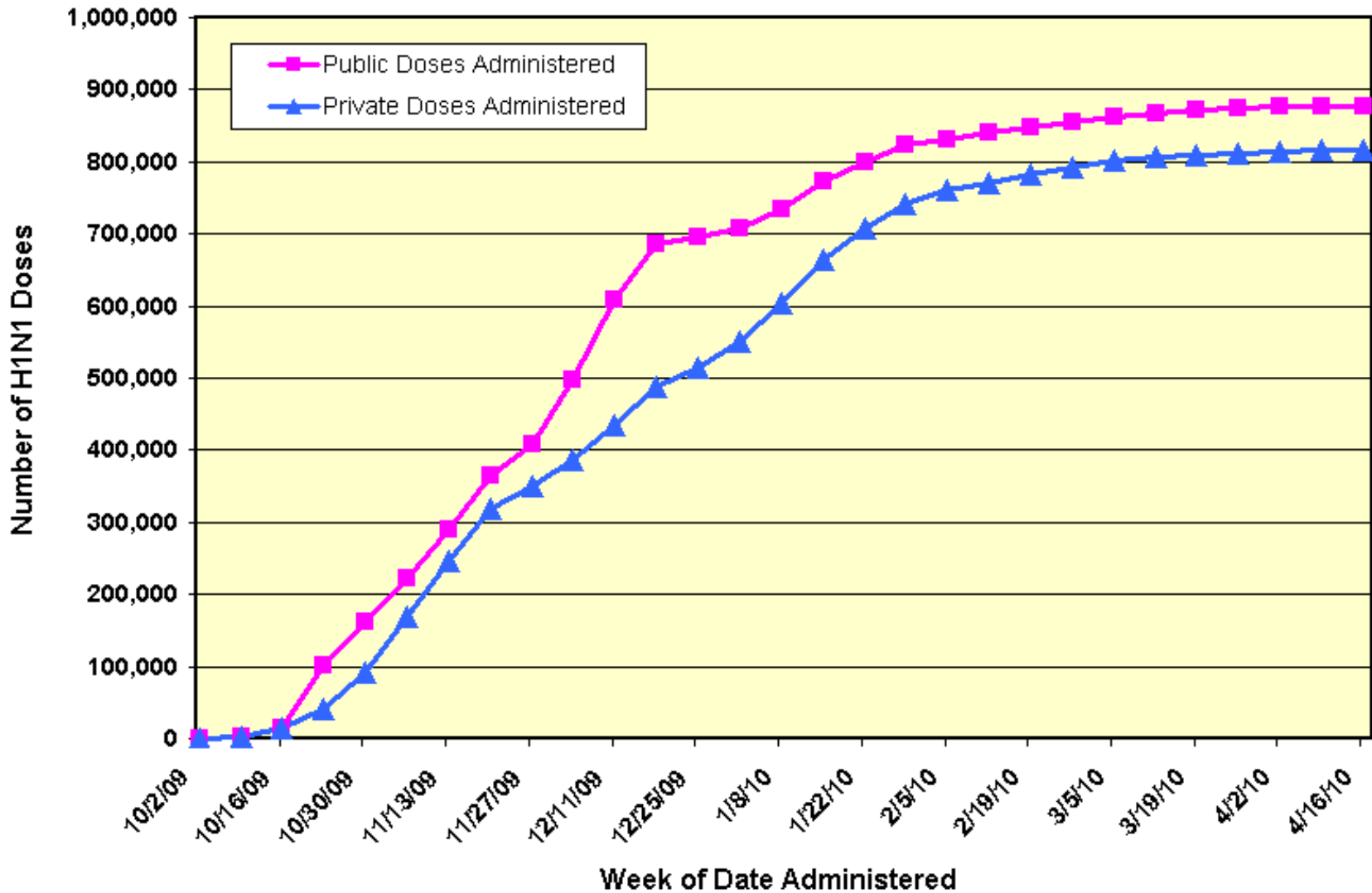


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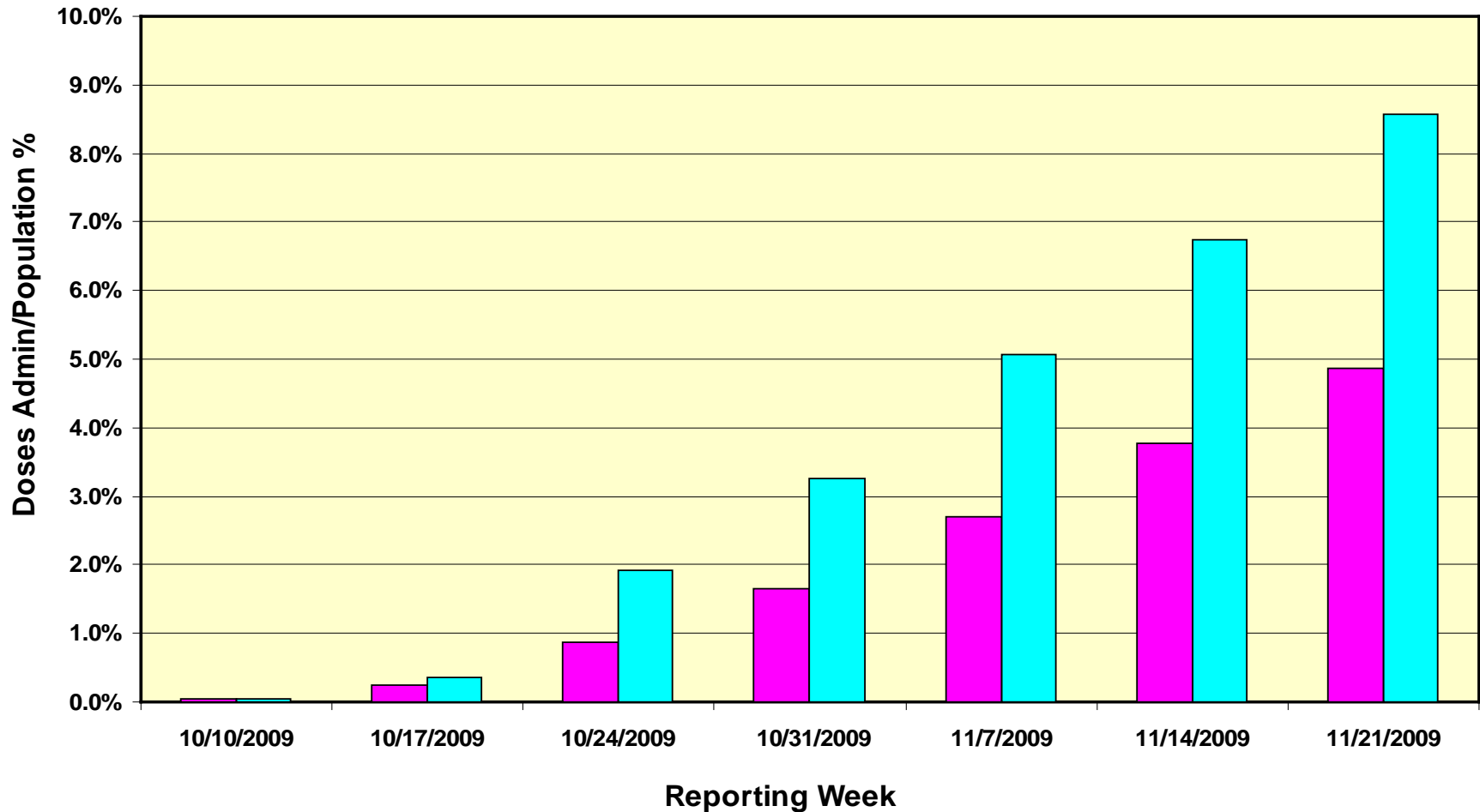
Division of Disease Prevention
Office of Epidemiology
Virginia Department of Health

H1N1 Doses Administered by Public and Private Sectors by Week Administered, Cumulative, Reported as of 4/13/2010, (N=1,718,850)



H1N1 Doses Administered Based on Population First Seven Weeks of Vaccination Campaign

■ National Average ■ Virginia



Mitigation - Protecting Healthcare Workers



Distribution of PPE from State SNS Stockpile

- 57 Free Clinics & 27 Community Health Centers
 - 60,000 surgical masks
 - 122,000 N-95 respirators
 - 10,000 face shields
 - Gloves & Gowns
- PPE Distributed to 520 EMS Agencies
 - 245,000 N-95 respirators
 - 120,000 surgical masks
- Augmented hospital PPE as requested from the remaining 25% of the SNS allocation
- 810,000 additional respirators and 1 million surgical masks purchased with Federal grant funds; now stocked at the Virginia Distribution Center for distribution as needed

Direct Medical Care /Surge



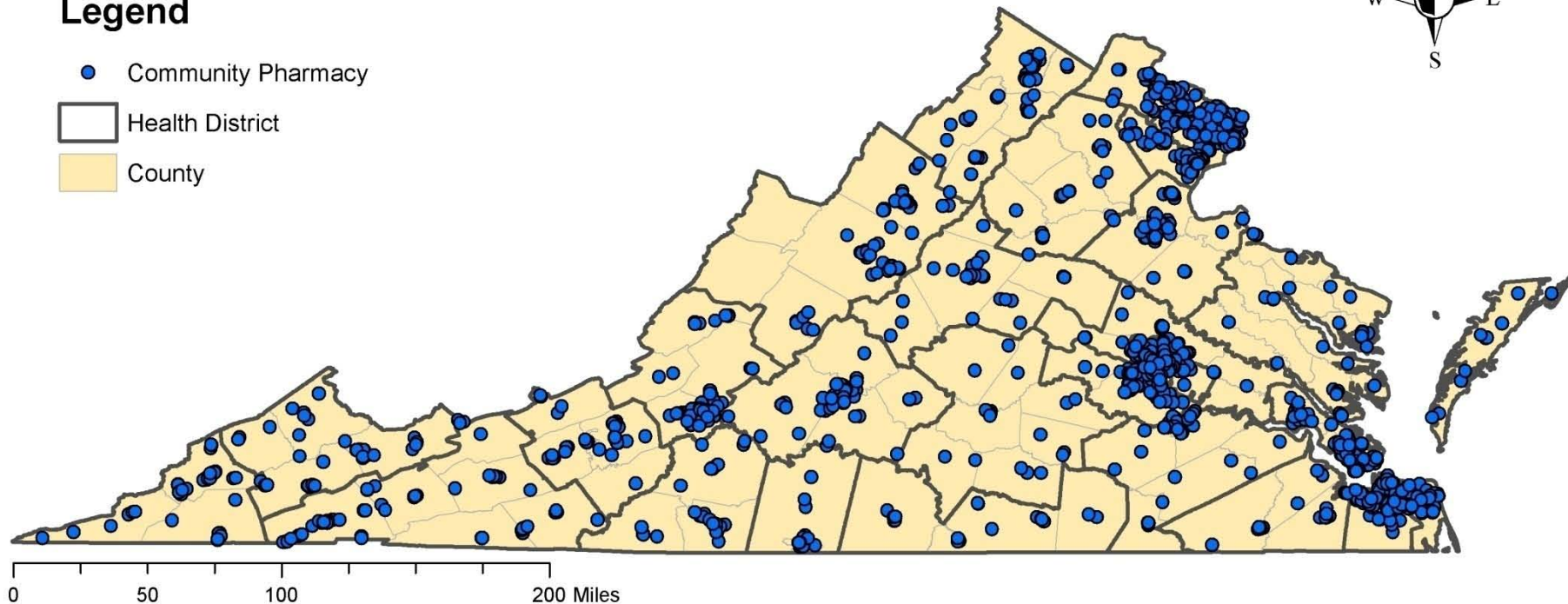
- State antiviral stockpile
- Surge



Community Pharmacies in Virginia

Legend

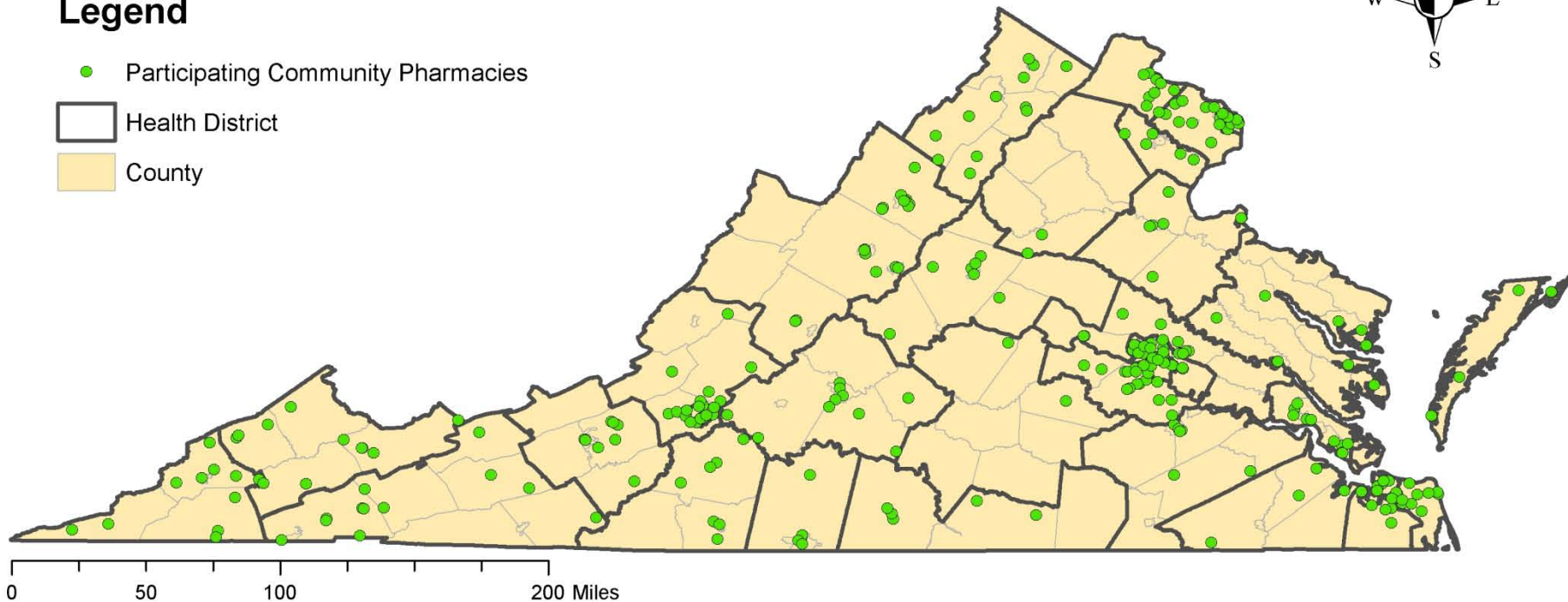
- Community Pharmacy
- Health District
- County

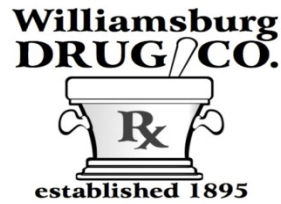


Community Pharmacies in Virginia Participating in Antiviral Medication Distribution

Legend

- Participating Community Pharmacies
- Health District
- County





STONEY CREEK
MEDICAL PHARMACY

Whitestone
Pharmacy

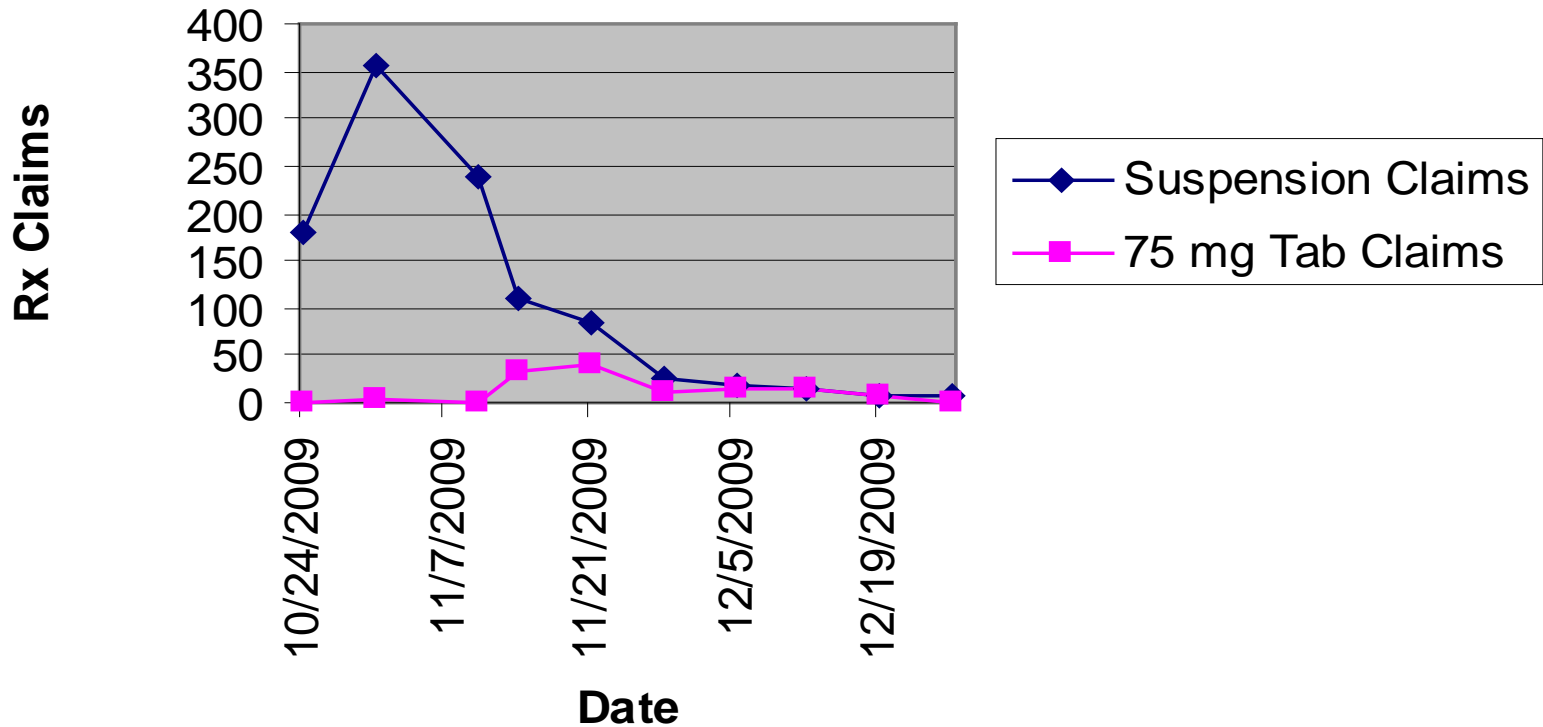


Stuarts Draft
Family Pharmacy



State Antiviral Stockpile Release

VDH Stockpile Tamiflu Rx Claims Weekly summary



Health Commissioner's Infectious Disease Advisory Committee

- **Frederick G. Hayden, MD**
- **Professor of Internal Medicine and Pathology,**
- **Division of Infectious Diseases**
- **University of Virginia Health Systems**

- **Thomas M. Kerkering, MD**
- **Chief of Infectious Diseases**
- **Virginia Tech, Carilion School of Medicine**

- **Edward C. Oldfield, III, MD**
- **Chief of Division of Infectious Disease**
- **Eastern Virginia Medical School**

- **Donald Poretz, MD, FACP, IDSA**
- **Clinical Professor of Medicine, MCV School of Medicine**
- **And Georgetown University School of Medicine**

- **Richard P Wenzel, MD, MSc**
- **Chair of Internal Medicine**
- **Virginia Commonwealth University School of Medicine**
-
- **Michael B. Edmond, MD, MPH, MPA**
- **Chair of the Division of Infectious Disease**
- **Virginia Commonwealth University Health System**

- **James L. Pearson, DPh, BCLD**
- **Director, Division of Consolidated Laboratories**
- **Department of General Services**

- **Ronald B. Turner, MD**
- **Professor of Pediatrics**
- **Associate Dean for Clinical Research**
- **Department of Pediatrics**
- **University of Virginia School of Medicine**

- **Marissa J. Levine, MD, MPH**
- **Deputy Commissioner of Emergency Preparedness & Response Programs**
- **Virginia Department of Health**

- **Diane Helentjaris, MD, MPH**
- **Deputy Director, Office of Epidemiology**
- **Virginia Department of Health**

- **James E. Burns, MD, MBA**
- **Deputy Commissioner of Public Health**
- **Virginia Department of Health**

- **Karen Remley, MD, MPH, FAAP**
- **Commissioner**
- **Virginia Department of Health**

Early Nov. Hospital Status

- As of 11/04, % Occupied
 - Adult ICU 73%
 - Medical/Surgical 80%
 - Pediatric ICU 86%
 - Pediatrics 62%
 - Airborne Infection Isolation 60%
- Only 1 ED reported going on Diversion status
- 11 hospitals activated disaster protocol/emergency operations plan
- 3 hospitals implemented surge plans
- 4 additional hospitals activated at least some portion of their Emergency Operations Plan

Comments from the Front Line- Director, Emergency Preparedness

1. Never thought vaccine would be available so soon for a novel strain; therefore all our plans for response during first waves were focused on antiviral med distribution and non-pharma interventions.
2. Bringing in private sector vaccinators was the right thing to do; however, pre-H1N1 plans focused on Public Health MASS Vaccination.
3. Didn't plan on availability of PHER funds. This was a God-send, of course, but it changed the nature of our response, in that we were able to: expand the workforce; hire contractors; pay dispensing fees; develop an antiviral meds tracking system and engage pharmacies to participate; and develop a polished / media-ready communications response.
4. We planned against a more serious (e.g. 1918 or H5N1) pandemic. H1N1 was a health-specific event with near no critical infrastructure / key resources impact outside public health / healthcare. Therefore, in VA, Health took the lead in response. i.e., no Governor's Declaration; no State EOC activation.
5. Vaccine distribution was affected through a private-sector partner (McKesson). They did a great job; however we had planned on medical countermeasure distribution (MCMD) through SNS-Can't argue with success...perhaps distribution TO the states for all MCMD ought to be via private sector; leaving the states to focus on the dispensing challenge.

Comments from the Front Line-Director, Surveillance and Investigation

1. We were not surprised by it, but we were proud to see the 'all hands on deck' and 'can do' attitude of the staff. Everyone pitched in to help with the response, including signing up to work extra shifts to be sure all the bases were covered.
2. We were pleased with how quickly funds were released by CDC to support the effort and how VDH facilitated efficiencies in hiring and procurements. Staff were on board quickly to help out.
3. While the differences in perspective between the clinical community and public health were magnified because of it, we were pleased that we quickly set up a system to approve patients to be tested for the new H1N1 influenza at the state lab. The system allowed the lab to process all the submitted samples in a timely manner, protected their staff from being completely overwhelmed with the volume of test requests, and facilitated the communication and tracking of results between the lab and the surveillance staff.
4. We had been planning for an influenza pandemic for over 3 years before the pandemic occurred, but our plans did not account for the level of interest that was seen in individual case counts and patient follow-up. These are difficult to do for influenza with a high degree of validity, but we quickly implemented procedures to try to meet the expectations for information.

Comments from the Front Line-Local Health Director

1. On the positive side, it was encouraging 1) to see our local health department staff and local community partners (schools, police, EMS) step up and cooperate to offer efficient, effective mass vaccination events in the first weeks of vaccine availability and 2) to have the community come out, wait patiently in line, and be generally appreciative that the vaccine was being made available.
2. Being able to distributing the H1N1 vaccine at no cost was a pleasant surprise and was invaluable for successful local efforts. Having funding to offer “free” seasonal vaccine last year was appreciated. Unfortunately, we are unable to meet the “free” flu vaccine expectation that lingers this year. If we want to achieve high level coverage with annual flu vaccine, we need to find a way to offer it to everyone with no out-of-pocket expense.
3. On the negative side, I was somewhat disappointed (more than surprised) that the central (state and national) vaccine priority planning, guidance and messaging did not adapt when vaccine delivery in quantity was delayed. The mild pandemic was a blessing. For a pandemic with high morbidity/mortality, we (public health and private practitioners) at the tip of the needle will need clear guidance, strong public messaging, and very strong support on who gets vaccine and who does not get vaccine -- because vaccine supply will be insufficient to meet demand

Comments from the Front Line- Deputy Commissioner Public Health and Preparedness

One story that was very instructive and insightful and provided a great example of community resilience was that related to Washington & Lee's handling of Virginia's first "school based" H1N1 outbreak. There are so many positive facets of the story but I would highlight the value of partnerships, excellent organizational leadership, quality and coordinated communications, a foundation of capability upon which they were able to adapt to the situation and, after all was said and done, a willingness to share what they learned so that other colleges/universities could be more prepared.

Comments from the Front Line- Deputy Commissioner Community Health Services

I was caught by surprise that there was so much variability, and in some cases resistance and outright opposition, among local school divisions to provisions (hold harmless) in the standard MOA to conduct school-based vaccination clinics. What really caught me by surprise was a small number of school systems that actually refused to allow school-based vaccination. The most high profile example was “XXX” . In the finest tradition of creative health directors, a ‘work around’ to use a vacant store in the mall was innovative and they had lots of traffic, although not nearly as much as if they’d been allowed in the schools.

I was caught by pleasant surprise that the Dept of General Services pulled out all the stops to assist us in modifying state contracts to accommodate our needs. Follows my motto that the ‘best time to make a friend is before you need one’. Our prior working relationship with the DGS Deputy really made the difference.