

**H**elping **E**veryone **I**mprove **C**are

**2009-2010 Respiratory Virus Season**

**Hurd Hall Update**

**September 30, 2009**

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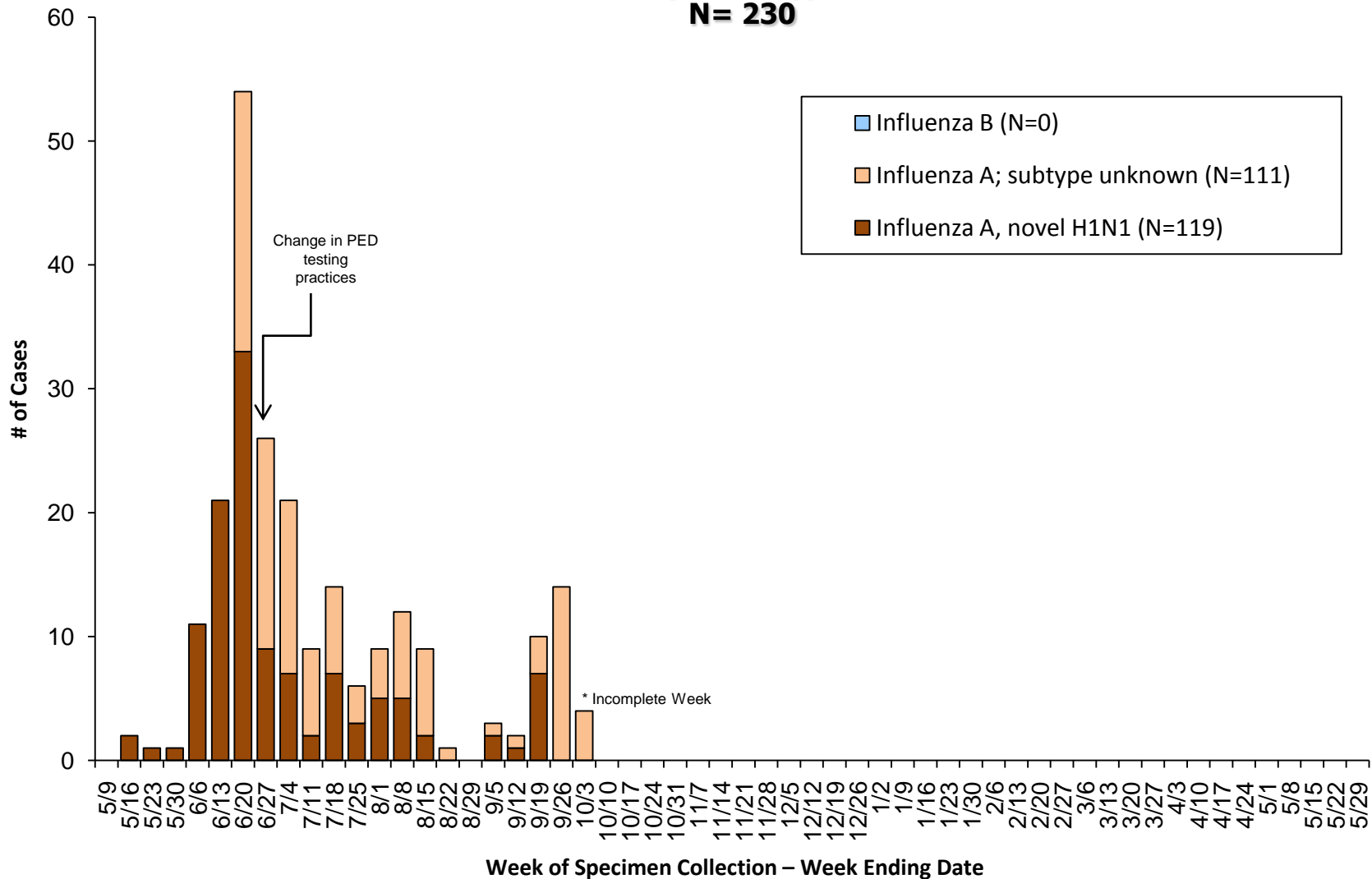


# Influenza: 2009-10 Season\*

## Pediatrics and Adults – Outpatients and Inpatients at JHH

### By Virus Type

N= 230



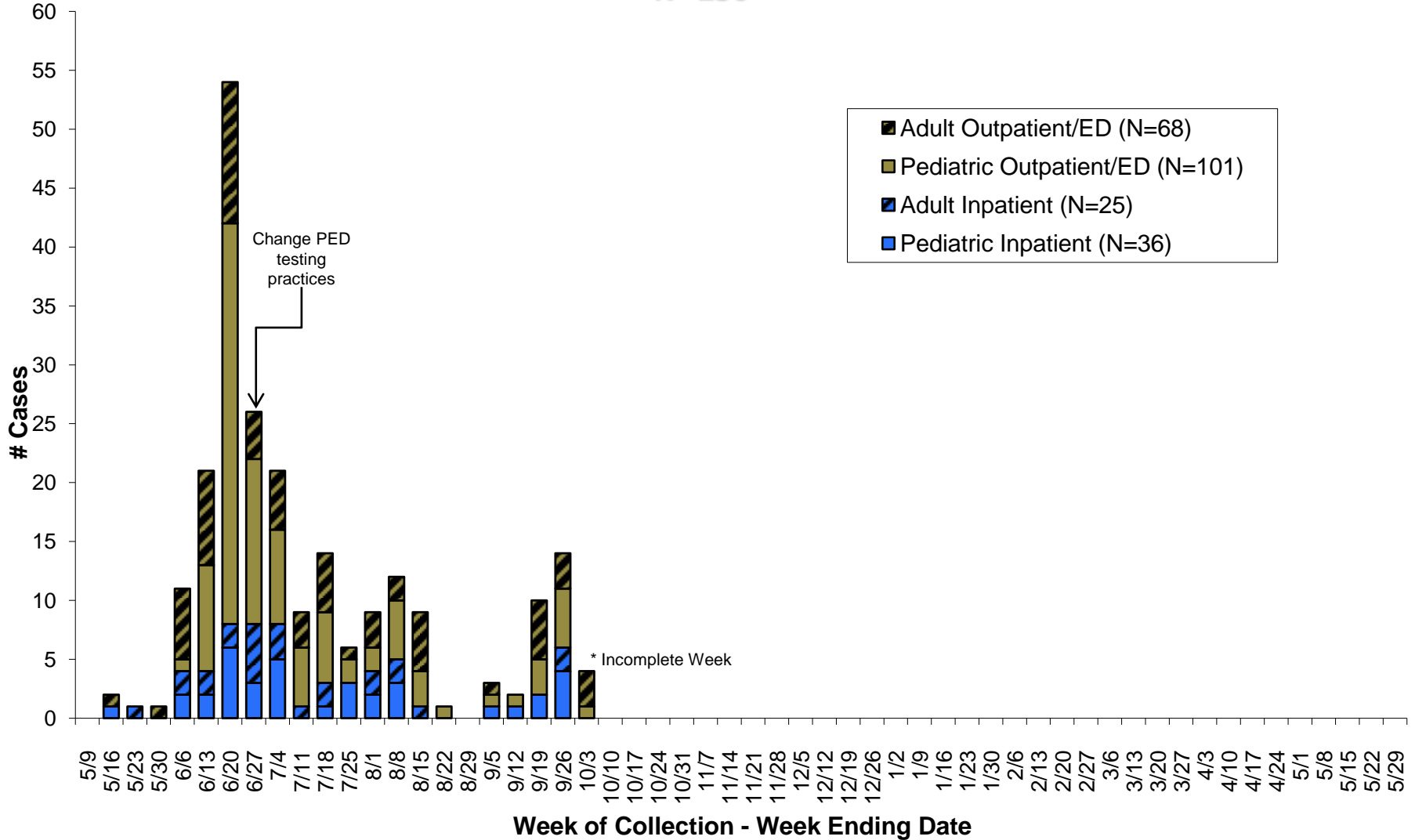
\* Data available as of 9/29/09 11am

# Influenza: 2009-10 Season\*

## Pediatrics and Adults; Outpatients and Inpatients at JHH

### By Age and Location

N=230



\* Data available as of 9/29/09 11am

Prepared by Hospital Epidemiology & Infection Control - Privileged and Confidential

# Respiratory Virus Testing

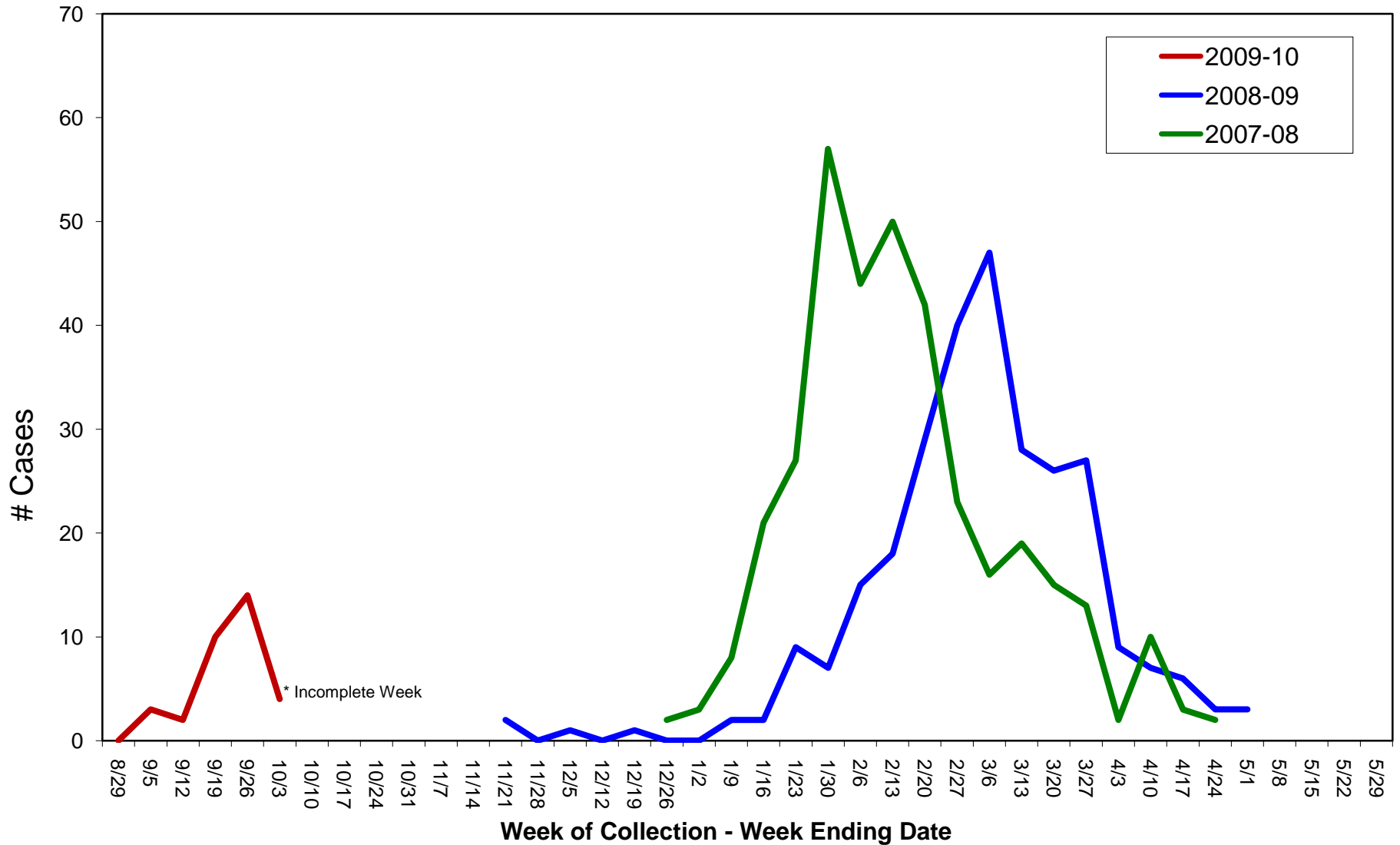
9-15-09 to 9-29-09

## Specimens from JHH/JHOC/Harriet Lane

|                       | Number |
|-----------------------|--------|
| Specimens Tested      | 362    |
| Total Positive        | 33     |
| Influenza             | 26     |
| RSV                   | 0      |
| Adenovirus            | 3      |
| Parainfluenza 1       | 3      |
| Parainfluenza 2       | 1      |
| Parainfluenza 3       | 0      |
| Human metapneumovirus | 0      |

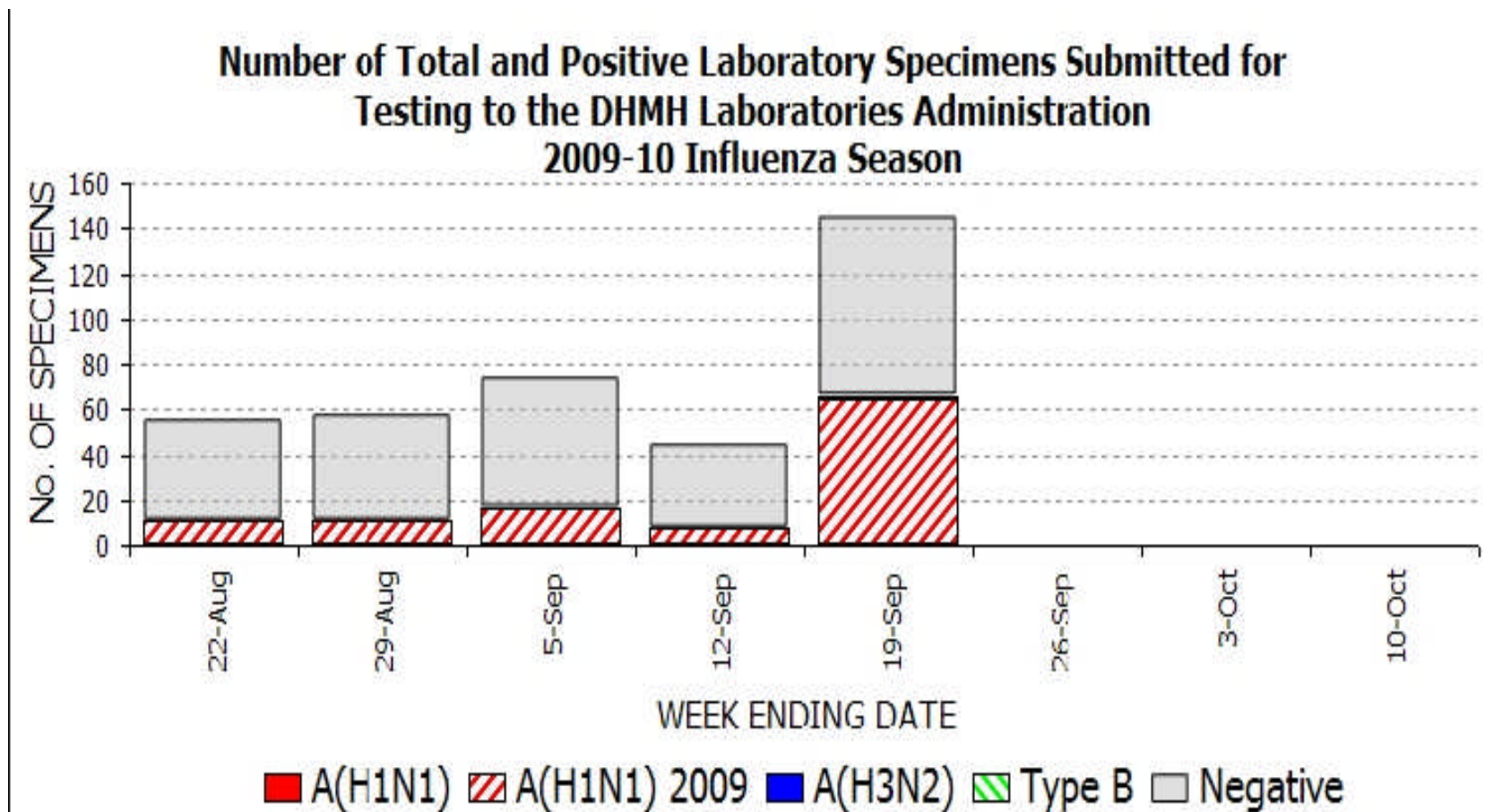


# Influenza Season Comparison 2009-10\* and Previous 2 Seasons All Patients Seen at the Johns Hopkins Hospital



\* Specimens collected through 09/28/09

# Maryland State Laboratory (DHMH) Influenza Testing



# Which patients should I screen for respiratory symptoms?

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- **All patients** should be screened for fever and cough and/or sore throat.
- **All patients** observed to have respiratory symptoms should don a mask and perform hand hygiene even if they are afebrile
- **Screening should be documented** for the following patients:
  - **Emergency Department** – document screening on HMED
  - **Inpatients not admitted through the ED** – complete a Respiratory Screening Card and place it in the patient's chart
- Documentation of screening is not required for **outpatients**



# Which patients should I test?

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- **Inpatients/Patients being admitted with any one of the following:**
  - Fever ( $\geq 37.8^{\circ}\text{C}$  or  $100^{\circ}\text{F}$ ) AND cough and/or sore throat
  - Clinical suspicion of respiratory virus infection
  - Suspected bronchiolitis or pneumonia (increasing oxygen requirement, sputum production)
  - Pregnant with respiratory symptoms
  - Adult with COPD, asthma exacerbation, respiratory failure or unexplained cardiac disease exacerbation
  - Elderly patient with unexplained new onset malaise



# Which patients should I test? (2)

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- **Inpatients/Patients being admitted with any one of the following (cont.):**
  - Child with apnea or ALTE
  - Child with reactive airway disease, respiratory decompensation/failure or requiring increased respiratory support
  - Child <6 years of age with HIV infection (excludes neonates with HIV during hospitalization after delivery)
- **Outpatient** testing is at the clinical discretion of the provider



# What isolation do I use?

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- **All suspected respiratory virus cases should be placed on Droplet Isolation**
  - Gown
  - Gloves
  - Mask with eye protection
    - Mask and Goggles
    - Fluid Shield Mask with eye protection
    - *Prescription eyeglasses are **not** considered adequate protection*



# DROPLET PRECAUTIONS

Standard Precautions always apply

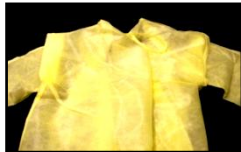
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## Before entering room



1. Clean your hands



2. Put on an isolation gown.



3. Put on a fluidshield mask w/eye shield or mask w/goggles.



4. Put on gloves.

## Ready to Enter



OR



## Before leaving room



1. Remove gloves, gown and fluidshield mask w/eye shield or mask w/goggles in room.



2. Clean your hands on the way out of the room.

# When do I need to use an N95?

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- N95s plus eye protection or PAPRs are needed for **aerosol generating procedures** on **all suspected respiratory virus patients** until influenza A is ruled out.
- Aerosol-generating procedures include:
  - NPA (**not NP swabs**)
  - Bronchoscopy
  - Nebulizer treatments
  - Intubations
  - Suctioning
- Healthcare workers with the potential for patient contact during these procedures **must be fit tested** before using an N95.
- This is in accordance with WHO, SHEA and HICPAC guidelines (see [http://www.shea-online.org/Assets/files/policy/H1N1\\_Grid\\_II.pdf](http://www.shea-online.org/Assets/files/policy/H1N1_Grid_II.pdf))



**A FIT-TESTED N-95 W/EYE PROTECTION OR PAPR IS REQUIRED WHEN PERFORMING AEROSOL GENERATING PROCEDURES SUCH AS:**

- NP ASPIRATE
- INTUBATIONS
- SUCTIONING
- BRONCHOSCOPY
- NEBULIZER TREATMENTS



N-95 respirator



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R**



PLUS

**HIGH RISK PROCEDURES**  
**DROPLET PRECAUTIONS**



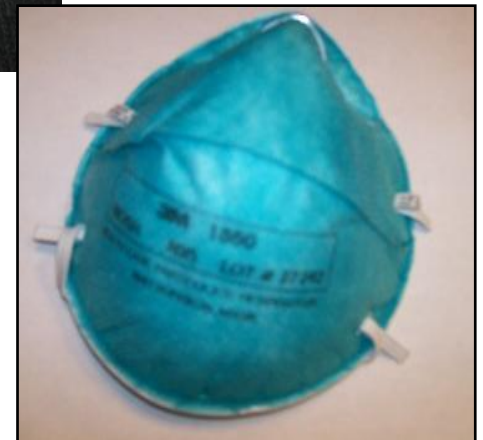
# Mask Types

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- Medical/Surgical



- N95 Respirators



# How long is the patient on isolation?

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- If testing is **negative** (antigen AND shell vial or PCR negative)
  - **until respiratory symptoms have resolved**
- If testing is **positive** for influenza, RSV, adenovirus, parainfluenza or hMPV,
  - **a minimum** of five days **and** until respiratory symptoms have resolved
  - discontinuing isolation **must be approved by HEIC**
  - Children and immunocompromised patients require a negative test before isolation can be discontinued
- For detailed instructions on **discontinuing isolation**, see [the HEIC website](http://www.hopkinsmedicine.org/heic) ([www.hopkinsmedicine.org/heic](http://www.hopkinsmedicine.org/heic))



# I'm a healthcare worker and I have respiratory symptoms – what do I do?

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- If you have a fever: Call Occupational Health (7:30am-4pm M-F @ 410-614-1620, all other times @ 410-955-5000 and ask for the OHS nurse on-call)
  - Occupational health must clear anyone with a fever before they return to work
  - Healthcare workers who are tested and/or receive treatment may be eligible to return to work earlier than those healthcare workers who are not tested and/or treated.
- If you do not have a fever, you can work but must wear a surgical mask within 6 feet of patients



# Who should get vaccinated for influenza?

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- **All healthcare workers without contraindications to vaccination** should receive a seasonal influenza vaccine
- If you do not want a influenza vaccine you must sign a declination and wear a mask
- H1N1 vaccine will be offered as soon as it becomes available
- Both intranasal (live attenuated) and intramuscular (inactivated) seasonal and H1N1 vaccine will be available
- If supply of H1N1 vaccine is limited, vaccine will be offered first to **priority groups based on ACIP/CDC recommendations**



# Priority Groups for H1N1 Influenza Vaccination

Final Version, Revised September 8, 2009

Final Version, Revised September 8, 2009

## Priority Groups for H1N1 Influenza Vaccine or Chemoprophylaxis in the Setting of Inadequate Supply

- Healthcare workers are a group at high risk of exposure who have been shown to respond well to influenza vaccination
- Vaccination of HCWs for seasonal influenza has been shown to decrease morbidity and mortality in their patients
- The vaccine prioritization scheme presented here is based on the recommendations of the CDC's Advisory Committee on Immunization Practices (ACIP) for novel H1N1 influenza vaccination (<http://www.cdc.gov/vaccines/recs/acip/default.htm>). HCWs are divided into vaccine priority tiers based on the following considerations:
  - The risk of complications from novel H1N1 in the HCW's primary patient population
  - The frequency and duration of contact between the HCW and patients
  - The risk to the HCW of acquiring H1N1 from their patients in the course of their duties
  - The risk of complications from novel H1N1 for the HCW
  - Staffing needs that are essential for fulfillment of the hospital's core mission
- Within each tier, individuals will be prioritized as follows:
  - Pregnant Women
  - HCWs who work on obstetric units
  - HCWs who work with children on infant/toddler units
  - Children 6 months through 4 years of age
  - Children 5 through 18 years of age with chronic medical conditions
  - Patients and HCWs between the ages of 4 and 24 years
  - Patients and HCWs between the ages of 25 and 64 years who are at higher risk of complications from H1N1 due to chronic health disorders or compromised immune systems.

| Tier    | Group description   |
|---------|---|
| Tier 1A | <ul style="list-style-type: none"> <li><b>Health care workers—Highest risk Group</b></li> <li>Pregnant health care workers</li> <li>Any personnel working on a designated "respiratory unit"</li> <li><b>House staff, clinical fellows, nurse practitioners and physician assistants with daily patient contact, attending physicians with daily sustained patient contact</b> (≥ 30 minutes of continuous, face-to-face contact), and clinical nursing staff working in the following units:                             <ul style="list-style-type: none"> <li>Obstetrics</li> <li>NICU/PICU and infant/toddler units</li> <li>Pediatric Emergency Department</li> <li>Other pediatric units and clinics</li> <li>Adult Emergency Department (includes psychiatry ED)</li> <li>Adult intensive care units</li> <li>Inpatient Polk, Oncology, Bone Marrow and Solid Organ Transplant Units</li> <li>Oncology, Moore, Cystic Fibrosis, Transplant, OB Clinics</li> <li>Infectious Disease and Pulmonary services</li> <li>Inpatient Medicine, Neurology Units</li> <li>CHF, Pediatrics (including Child Psychiatry), Pulmonary, and Internal Medicine Clinics</li> </ul> </li> <li>Personnel in the Virology laboratory and those screening and processing respiratory specimens</li> <li>Triage and Screening personnel (ED and Outpatient Departments)</li> <li>Personnel who have contact with respiratory secretions from suctioning or other invasive procedures such as intubation and bronchoscopy (ENT, Anesthesia, NCCU and Pulmonary/Critical Care Medicine personnel)</li> <li>Any personnel working on a designated "respiratory unit"</li> <li>Daycare workers for hospital affiliated programs</li> </ul> |

|         |   |
|---------|---|
| Tier 1B | <ul style="list-style-type: none"> <li><b>Patients—Highest-risk groups and household contacts</b> <ul style="list-style-type: none"> <li>Pregnant women</li> <li>Household contacts of children under 6 months</li> <li>Household contacts of severely immunocompromised individuals</li> <li>Children 6 months through 4 years of age</li> <li>Children 5 through 18 years of age with chronic medical conditions</li> </ul> </li> <li><b>Health care workers—Moderate Risk (second to receive vaccine)</b></li> <li>Health care workers with direct patient contact or exposure to influenza and critical health care support staff                             <ul style="list-style-type: none"> <li>Anesthesiology</li> <li>Phlebotomy</li> <li>Psychiatry</li> <li>Physical and Occupational Therapy and Speech Pathology</li> <li>Rehabilitation Medicine</li> <li>Transport personnel</li> <li>Dialysis workers</li> <li>Gynecology</li> <li>Inpatient consult attendings</li> <li>Cardiac, trauma, neurosurgery and general surgery</li> <li>Environmental services personnel on inpatient units</li> <li>Clinical microbiology laboratory personnel</li> </ul> </li> <li>Security personnel with <b>daily sustained patient contact</b> (≥ 30 minutes of continuous, face-to-face contact), e.g. security personnel stationed at JHOC main entrance or Wolfe St. entrance</li> <li>Critical Information Technology personnel</li> <li>Influenza response team (Incident Command Center Teams, ICP's)</li> </ul> |
| Tier 1C | <ul style="list-style-type: none"> <li><b>Healthcare groups—Low Risk (third to receive vaccine)</b> <ul style="list-style-type: none"> <li>Operating Room personnel</li> <li>Ward Clerks</li> <li>Rehabilitation medicine</li> <li>Surgical Clinics</li> <li>Echocardiography</li> <li>All remaining units</li> <li>All remaining specialty clinics</li> <li>Radiology technicians and other Radiology personnel with ≥ 30 minutes of continuous, face-to-face patient contact</li> <li>Clinical Pharmacists in the ED or on inpatient units</li> <li>Dermatology</li> <li>Social work</li> <li>Pastoral care</li> <li>Nutrition Services personnel with ≥ 30 minutes of continuous, face-to-face patient contact</li> <li>Other endoscopy areas</li> <li>Other administrative staff without patient contact whose duties involve work in inpatient care areas (e.g., computer repair, equipment maintenance)</li> </ul> </li> </ul>  |
| Tier 1D | <ul style="list-style-type: none"> <li><b>Patients—Other high-risk groups</b> <ul style="list-style-type: none"> <li>All patients between the ages of 6 months and 24 years</li> <li>Patients age 25 through 64 years with chronic health disorders or those with compromised immune systems who would immunologically respond to vaccination</li> </ul> </li> <li><b>Health</b> <ul style="list-style-type: none"> <li></li> <li></li> </ul> </li> </ul>   |



**Hospital Epidemiology & Infection Control**  
**The Johns Hopkins Hospital**

# Who should get vaccinated for influenza? (2)

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- Only **one dose** of H1N1 vaccine will be required for individuals 10 years of age or older.
- Seasonal and H1N1 inactivated vaccine can be given **before, after or at the same visit** as each other
- Any combination of inactivated and live attenuated vaccine (i.e., seasonal inactivated and H1N1 live attenuated or vice versa) can be given **before, after or at the same visit** as each other.
- Seasonal and H1N1 live attenuated vaccines (i.e., FluMist) must be given **28 days apart**



# Who should get vaccinated for influenza? (3)

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- **If you decline influenza vaccine, you must wear a mask within 6 feet of patients**
- **If you decline seasonal influenza vaccine, you will not be able to receive H1N1 Vaccine**



**Helping Everyone Improve Care**

## **HEIC Influenza/Respiratory Virus Website:**

**[www.hopkinsmedicine.org/heic/h1n1](http://www.hopkinsmedicine.org/heic/h1n1)**