Vaccinating Health Care Personnel Against Influenza
Frequently Asked Questions About the Health Officer Order

Influenza vaccinations prevent illness among health care personnel and vaccinating them may reduce transmission to patients, many of whom are at high risk for influenza complications. To lower the risk of transmission of influenza to patients, Jonathan E. Fielding, MD, MPH, Los Angeles County Health Officer and Public Health Director, issued a Health Officer Order mandating that health care personnel (HCP) who work in licensed acute care hospitals, skilled nursing facilities, and intermediate care facilities in Los Angeles County receive an influenza vaccination during the annual influenza season. Those who decline to be vaccinated must wear a mask while in patient areas during the influenza season.

The following Frequently Asked Questions were developed in response to inquiries from administrators and health care personnel regarding the order. Additional information, such as further rationale for the order, influenza immunization resources, and a customizable masking poster, may be found at www.publichealth.lacounty.gov/ip/flu_order.htm.

Frequently Asked Questions

What does this Health Officer Order require?
Under this Order, all licensed acute care hospitals, intermediate care facilities, and skilled nursing facilities in Los Angeles County must require their health care personnel who have direct patient contact or work in patient areas to receive an influenza vaccine for the current influenza season or wear a mask for the duration of the influenza season when working in patient areas. The influenza season is defined as November 1 through March 31.

The order excludes facilities in the cities of Long Beach and Pasadena because they are separate health jurisdictions.

What is the purpose of the Health Officer Order?
This Order helps protect patients at the covered facilities from acquiring influenza from infected health care personnel. The Order also protects unvaccinated health care personnel from acquiring influenza from patients and residents.

What is the definition of health care personnel?
For the purposes of this Order, health care personnel are all paid and unpaid persons who have direct patient contact or work in patient areas (including outpatient care) within licensed acute care hospitals, skilled nursing facilities, and intermediate care. Personnel who are subject to the order include, but are not limited to, physicians, nurses, aides, physical therapists, contract workers, students, housekeeping, and maintenance personnel.

This piece is a followup to the article “Health Officer Issues Order to Vaccinate Health Care Personnel Against Influenza,” which was published in the September-October 2013 issue of Rx for Prevention.

continued on page 2 >
**FAQs ABOUT THE HEALTH OFFICER ORDER**

What is the definition of contact with patients? This means being within 6 feet of a patient. However, administrators of the facilities covered under this Order are aware of the unique features of their facility that could result in exposure to patients and possible disease transmission. For that reason, administrators may apply different criteria that are appropriate to their specific setting, as long as, at a minimum, they require masks for unvaccinated personnel who are within 6 feet of a patient.

What is the definition of patient-care areas? These are areas where patients are allowed to be present at the facility, or where patients are taken for procedures or tests. It includes elevators, hallways, and nurses’ stations in areas where patients are present or are likely to be present. Administrators of the facilities covered under this Order are aware of the unique features of their facility that could result in exposure to patients and possible disease transmission. For that reason, they should define the specific areas that are designated for patient care.

What is the evidence that masks prevent transmission of influenza and other communicable diseases? While vaccination is the most effective method to prevent influenza, masking can aid in preventing its spread between patients and personnel. Numerous studies have provided evidence that masks prevent the spread of respiratory agents in health care personnel to patients. One study, for example, found that both surgical and N95 masks prevented the spread of influenza when worn by patients with suspected influenza. Another study showed that masking pertussis patients, combined with an educational campaign, greatly reduced pertussis transmission to hospital personnel.

What is the evidence that masks prevent transmission of influenza and other communicable diseases? While vaccination is the most effective method to prevent influenza, masking can aid in preventing its spread between patients and personnel. Numerous studies have provided evidence that masks prevent the spread of respiratory agents in health care personnel to patients. One study, for example, found that both surgical and N95 masks prevented the spread of influenza when worn by patients with suspected influenza. Another study showed that masking pertussis patients, combined with an educational campaign, greatly reduced pertussis transmission to hospital personnel. Other studies have shown that having patients with active tuberculosis wear a surgical mask prevents transmission of his/her TB to others, most likely by trapping large respiratory droplets. Other studies have shown that the risk of transmission of influenza from patients to health care personnel decreases significantly when health care personnel wear masks.

Collectively, these studies provide substantial evidence that masks have a measurable benefit in preventing the transmission of respiratory disease agents between patients and health care personnel. While studies have not been conducted to assess whether mask-wearing by health care personnel prevents the transmission of influenza to patients, the evidence summarized above strongly suggests that this is likely and that the wearing of masks not only protects health care personnel but also the patients they serve.

What kind of mask does this Health Officer Order require? The Order requires unvaccinated health care personnel at the covered facilities to wear a surgical or procedure mask (also designated by some manufacturers as isolation, dental, or medical procedure face masks). The Order does not require or recommend the use of N95 masks to meet the requirement, although such masks should be used by health care personnel when indicated for other reasons (e.g., to protect against the spread of aerosol-transmissible diseases, such as tuberculosis).

How often does a mask need to be changed according to this Order? A mask should be changed per the health facility’s protocol.

What is the best approach to inform patients why some personnel are wearing masks? Facilities should carefully consider what strategies may be needed to inform patients why some health care personnel are wearing masks. These may include handouts, posters, and in-person discussions. Facilities may consider developing appropriate signage or patient informational materials indicating that at certain times of the year, some staff may wear masks, which does not indicate illness or other risks associated with the employee who is wearing the mask. A customizable poster that explains why staff are wearing masks can be downloaded at [www.publichealth.lacounty.gov/ip/flu_order.htm](http://www.publichealth.lacounty.gov/ip/flu_order.htm).

Staff will likely require training regarding how to best discuss with patients why some health care personnel are wearing masks and others are not. Specific scripts may be developed both for personnel who are wearing masks and those who are not. For example, personnel wearing masks might say, “I am wearing a mask to protect both of us during the influenza season.” Derogatory remarks by staff members about masking policies should be discouraged, as this may adversely affect the environment of care. The public is generally well-accepting of mask-wear by health care personnel, especially when they know it is part of the facility’s infection control plan to protect them during the influenza season.

**REFERENCES**

Health Care Personnel

Potential Transmitters of Vaccine-Preventable Diseases

A. Nelson El Amin, MD, MPH

Health care personnel play important roles in the initial assessment of persons with illnesses and medical conditions, often conducting face-to-face interviews and patient assessments. Consequently, they are at risk for both acquiring communicable infectious diseases and transmitting them to their patients, many of whom have chronic medical conditions or some level of immune deficiency that makes them more likely to become ill or even die from an infectious disease. Colleagues and personal family members of health care personnel are also at risk of becoming infected by a health care worker who has a communicable disease.

Recent experiences in Los Angeles County reinforce the importance of health care personnel staying up-to-date with recommended immunizations and maintaining accurate records of vaccination and immunity. There have been instances where health care personnel who were exposed to patients with measles and pertussis became ill. During many disease investigations, exposed health care personnel could not produce evidence of vaccination against or documentation of immunity (i.e., results of serological testing) for the disease of concern. As a result, some personnel have been excluded from work for their own and their patients’ protection. In many cases health care personnel and administrators were not aware of national recommendations or Cal/OSHA requirements regarding health care personnel vaccination or immunity testing for specific diseases.

The following is a summary of the recommendations and regulations for health care personnel vaccination and immunity testing in California.

Vaccination Recommendations for Health Care Personnel

On November 25, 2011, the Advisory Committee on Immunization Practices (ACIP) published recommendations for the immunization of health care personnel in the Morbidity and Mortality Weekly Report (www.cdc.gov/mmwr/preview/mmwrhtml/mm6007a1.htm). These updated recommendations for vaccinating health care personnel in the U.S. were developed in collaboration with the Hospital Infection Control Practices Advisory Committee. These recommendations should be considered the standard for vaccinating health care personnel in acute care facilities, long-term care facilities, physician offices, urgent care centers, outpatient clinics, and home health care personnel.

What follows is a list of diseases for which vaccination or documented evidence of immunity are recommended: measles, mumps, rubella, pertussis, varicella, hepatitis B, and influenza.

Measles-Containing Vaccine: Two doses of a measles-containing vaccine, at least 28 days apart, are recommended for all health care personnel unless the health care worker has had laboratory serological testing for measles that shows a positive measles IgG titer. Birth before 1957 does not absolve the need to be vaccinated or have serological testing unless the health care worker had documented laboratory confirmation of measles at the time he/she was sick with the disease.

Mumps-Containing Vaccine: The recommendation for mumps is the same as for measles: 2 doses of a mumps-containing vaccine, at least 28 days apart, are recommended for health care personnel born in 1957 or thereafter. Additionally, persons born before 1957 without serological evidence of mumps immunity should be vaccinated during mumps outbreaks and should consider vaccination under non-outbreak situations.

Rubella-Containing Vaccine: The recommendation for rubella differs from that for measles and mumps: only 1 rubella-containing vaccine dose is recommended. This recommendation applies to persons born in 1957 or after that year. All health care personnel born before 1957 without serological evidence of immunity to rubella should be vaccinated during rubella outbreaks. In addition, females born before 1957 should be vaccinated, regardless of the presence of rubella in the community, if they could become pregnant (i.e., through use of fertility technologies).

Pertussis-Containing Vaccine: Currently, all health care personnel should have 1 dose of Tdap to protect against pertussis as soon as feasible regardless of the time interval since receipt of the last Td vaccination. However, female personnel who become pregnant should also receive 1 Tdap dose during each pregnancy.

continued on page 4 >
Varicella Vaccine: All health care personnel should receive (or have documentation that they received) 2 doses of varicella vaccine if they don’t have laboratory evidence of immunity, laboratory confirmation of varicella at time of illness, or diagnosis or verification of a history of varicella or shingles by a health care provider.

Hepatitis B Vaccine: Health care personnel at risk of exposure to blood or bodily fluids should receive 3 doses of hepatitis B vaccine at the appropriate intervals, unless they have documentation of a positive hepatitis B surface antibody test result. Consult the full ACIP recommendations for further guidance on hepatitis B vaccination and revaccination.

Influenza Vaccine: Annual influenza vaccination is recommended for all health care personnel.

Health care personnel who have certain health conditions (asplenia or persistent complement component deficiencies) and laboratory workers whose duties expose them to certain risks may also need to be vaccinated against meningococcal disease, typhoid fever, or polio.

Vaccination Standards and Regulations

Cal/OSHA Standards

In California, specific vaccines are required to be offered to health care personnel to meet Cal/OSHA standards, therefore, strengthening and supporting the national recommendations detailed above. The Cal/OSHA Aerosol-Transmissible Disease (ATD) Standard became effective September 1, 2010, and requires that employees whose exposure from work activity or working conditions is reasonably anticipated to create an elevated risk of contracting any disease caused by aerosol-transmissible pathogens be offered vaccination against influenza, measles, mumps, rubella, pertussis, and varicella (Figure 1).

All susceptible employees who decline vaccination must sign a declination form.

Health care personnel should also be familiar with the Cal/OSHA Bloodborne Pathogen Standard that has been in existence since 1993. It requires all employees exposed to blood or other potentially infectious materials to be offered hepatitis B vaccination. It also requires the use of declination forms for those who decline vaccination.

Failure to comply with these Cal/OSHA standards can lead to citations during health facility audits and also set the stage for legal action by affected parties.

Regulatory Requirements and Accreditation Standards

Separate and distinct from the Cal/OSHA ATD Standard, California Senate Bill 739, enacted in 2006, also requires at-risk hospital employees to be offered flu vaccine and requires the use of declination forms to track those who refuse to be vaccinated. In 2007, a similar flu vaccination requirement became a new standard for The Joint Commission.

Finally, Los Angeles County Health Officer and Public Health Director, Jonathan E. Fielding, MD, MPH, has issued an order mandating that health care personnel in each licensed acute care hospital, skilled nursing facility, and intermediate care facility in Los Angeles County receive an annual vaccination against influenza, or wear a protective mask.

The order applies to all individuals working in these settings who have direct patient contact or work in patient care areas and defines the flu season as November 1 through March 31. The order excludes facilities in the cities of Long Beach and Pasadena, which are separate health jurisdictions. Information regarding this order can be found at www.publichealth.lacounty.gov/ip/flu_order.htm. (Also see “Vaccinating Health Care Personnel Against Influenza: Frequently Asked Questions About the Health Officer Order,” page 1.)

---

**Figure 1. Cal/OSHA Aerosol-Transmissible Disease Standard, Required Vaccinations for Susceptible Health Care Personnel**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza</td>
<td>1 dose annually</td>
</tr>
<tr>
<td>Measles</td>
<td>2 doses</td>
</tr>
<tr>
<td>Mumps</td>
<td>2 doses</td>
</tr>
<tr>
<td>Rubella</td>
<td>1 dose</td>
</tr>
<tr>
<td>Tetanus, Diphtheria, and Acellular Pertussis (Tdap)</td>
<td>1 dose, booster as recommended</td>
</tr>
<tr>
<td>Varicella-zoster (VZV)</td>
<td>2 doses</td>
</tr>
</tbody>
</table>
Recent Measles Case Investigations Underscore the Need for Health Care Personnel Vaccinations

Two recent measles cases in Los Angeles County serve as important reminders to health care personnel about the importance of vaccination. In the first instance, a Los Angeles resident returned from a trip with measles and exposed personnel at multiple locations: a doctor’s office, an outpatient radiology center, and a hospital. In the second instance, an international traveler with measles exposed a physician and staff in a doctor’s office.

Many exposed personnel could not show proof of vaccination or immunity and required immunity testing after the exposure. One staff member could not produce a record of vaccination or immunity and was found to be non-immune after testing and was taken off work during the measles incubation period. Another unvaccinated radiology center staff member was infected with measles and required hospital care on two separate days, due to severe illness.

These cases are not unique. Each year, health care personnel in LA County are exposed to measles and other vaccine-preventable diseases. If you or your staff were exposed, could you easily provide proof of vaccination or immunity? Be prepared. Helpful resources are posted at www.apic.org/Resource_/TinyMceFileManager/Practice_Guidance/HCW_Immunization_Toolkit_122012.pdf.

Conclusion
In summary, vaccinated/immune health care personnel must be considered an integral part of any health facility’s communicable disease control and prevention plan. Health care personnel can directly help to create and maintain safe environments for their patients and reduce their personal risks for acquiring a communicable disease by becoming familiar with and accepting the vaccination and immunity screening recommendations discussed in this article.

A. Nelson El Amin, MD, MPH, is Medical Director, Immunization Program, Los Angeles County Department of Public Health.

Updated Review from the Cochrane Collaboration

Topic: Exercise programs for people with dementia

Key Issue Examined: Do exercise programs improve cognition, activities of daily living (ADLs), behavior, depression, and mortality in older people with dementia or benefit family caregivers?

Evidence Reviewed: (Update to a 2008 review) Results from 16 randomized controlled trials and 937 participants.

Major Findings: The review found promising evidence that exercise programs can significantly improve the ability to perform ADLs and possibly improve cognition in people with dementia. There was no significant impact found on depression or behavior, and little or no evidence to examine other outcomes.

Other Findings: There was a large amount of unexplained variation between trials, indicating a need for caution in interpreting the findings.

Review Group: Cochrane Collaboration • Published Online: December 4, 2013

Compiled by Margaret Shih, MD, PhD, Director, Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health
Latest Mortality Report Shows Leading Causes of Death on the Decline

The number of deaths among residents of Los Angeles County continues to decline. During the 10-year period from 2001 through 2010, the death rate in the county decreased 19%. During the same time period, the United States death rate decreased only 13%, according to “Mortality in Los Angeles County, 2010: Leading causes of death and premature death with trends for 2001-2010.”

This report from the LA County Department of Public Health also showed that in 2010, the age-adjusted death rate in the county was 615 deaths per 100,000 population, which was substantially below the U.S. rate of 747 deaths per 100,000 population.

Notable declines in the death rate from many of the leading causes of death contributed to the overall decline. For example, from 2001 through 2010, there was a 37% decrease in the death rate from coronary heart disease, a 35% decrease in the death rate from stroke, and a 22% decrease in the death rate from lung cancer.

While some death rates decreased, the death rate from Alzheimer’s disease continued to increase, and there has been little improvement in recent years in the death rates from preventable injuries such as drug overdoses and suicide. Violence, particularly gun violence, is a leading cause of premature death (defined as death before the age of 75) especially for black and Hispanic men and disproportionately affects communities of lower socioeconomic status.

This 72-page report also includes an at-a-glance section for each leading cause of death and suggests both community and individual opportunities for prevention.

Data highlights for 2010 (rates are age-adjusted)

- Overall, whites and Asian/Pacific Islanders lived longer than blacks and Hispanics. The median age at death was 81 years for whites, 80 years for Asians/Pacific Islanders, and 70 years for both blacks and Hispanics.
- Overall, 44% of the deaths were among persons less than 75 years of age.

Trend data highlights for 2001-2010 (rates are age-adjusted)

- There was a notable decrease (37%) in the death rate from coronary heart disease—the leading cause of death and premature death—from 220 deaths per 100,000 in 2001 to 138 in 2010.
- Coronary heart disease was the leading cause of death and premature death every year for the decade 2001-2010. Stroke was the second-leading cause of death every year for the same time period.
- From 2001-2010, the four leading causes of death have remained unchanged: coronary heart disease, stroke, lung cancer, and emphysema/COPD.
- Since 2001, the number of deaths from Alzheimer’s disease has more than doubled, from 905 in 2001 to 2,242 in 2010.
- Drug overdose has been one of the leading causes of premature death every year for the decade 2001-2010. In recent years, the death rate has remained unchanged.

For a printed copy of the report, call (213) 240-7785. Download or view the report online at www.publichealth.lacounty.gov/dca/dcareportspubs.htm.

New Report Summarizes Annual Morbidity and Special Studies in LA County

The LA County Department of Public Health has released its “Annual Morbidity and Special Studies Report, 2012.” This 350-page report, published this month, contains surveillance data of notifiable diseases and disease summaries with trends, highlights, graphs, maps and tables of disease incidence rates compared to previous years.

Data-rich summaries are provided for 31 diseases, including amebiasis, legionellosis, listeriosis, malaria, mumps, pertussis, salmonellosis, shigellosis, vibriosis, and West Nile virus. The report also features disease outbreak summaries for community-acquired diseases, foodborne illness, and health care-associated illnesses.

This annual report is compiled to summarize morbidity trends of many communicable diseases occurring in LA County, identify patterns of disease as a means of directing future disease prevention efforts, identify limitations of and means of improving data, and serve as a resource for health care providers, public health officials, and others seeking communicable disease data and surveillance information.
Public Health and Yelp Collaborate to Provide Restaurant Inspection Scores with Restaurant Reviews

Diners can now begin to see inspection grades for their favorite Los Angeles area eateries on Yelp, thanks to a collaborative effort between the review site and Public Health. Although restaurant inspection scores have been available on the Public Health website since the inception of the grading program in the 1990s, this will be the first time consumers will be able to see the LA County data in conjunction with photos and reviews.

“Los Angeles County is home to a vast and exciting culinary culture, and this collaboration will provide residents and visitors to LA County with better information about the restaurants they want to explore,” said Jonathan E. Fielding, MD, MPH, Director of Public Health and Health Officer.

“Our research has shown that the posting of restaurant letter grade cards was associated with a reduction in foodborne illness hospitalizations in LA County. Publishing inspection scores online in conjunction with consumer-written reviews of restaurants is the logical next step in providing the public with immediate and easy access to information to help make informed restaurant choices.”

Consumers who visit Yelp will be able to see the restaurant’s latest inspection letter grade and any violations and/or corrections. Grades below a C (69 out of 100 points or below) will appear as a numerical score. The A, B, and/or C letter grades are already familiar to LA County restaurant patrons and seen on food facility windows and doors throughout the county.

Restaurant inspection data on Yelp is currently available for any inspections completed after July 1, 2013. Information for inspections completed prior to July 1 may be found on Public Health’s website, under Environmental Health’s webpages.

Inspection information for mobile food facilities, such as food trucks and hot dog carts, is not available online at this time, but it will be added in the future.

For more information on food safety and restaurant grading, including restaurant inspection information prior to July 1, 2013, and dating back to two years, visit the Public Health website at www.publichealth.lacounty.gov/eh.

All Markers of Influenza Activity Are Up

Influenza activity in Los Angeles County is widespread with multiple surveillance measures showing increased numbers, according to the January 17 issue of Influenza Watch, an online newsletter published by the LA County Department of Public Health during influenza season.

Percent positive testing from sentinel labs are at 25.7%, with 11 total influenza-associated deaths reported, 1 pediatric. All adult fatal cases had underlying medical conditions or past medical history that put them at higher risk for complications from influenza illness. One common and often overlooked risk factor for severe influenza illness is being overweight or obese, which was identified in 42% of fatal flu cases from the last influenza season. Hypertension and heart disease rounded out the top three comorbidities.

Flu A H1N1 2009 has been a regular seasonal strain for the past four years. H1N1 affects individuals indiscriminately across the age spectrum. Often the disease is seen in younger adults who are otherwise healthy as well as those more typically affected (the very young, the very old, and those with underlying medical conditions). The young adult age group is least likely to be vaccinated even though H1N1 is and has been included in the seasonal influenza vaccine for the last three seasons.

To read the full newsletter, go to www.publichealth.lacounty.gov/FluSurveillance.htm.

Health Care Reform Multilingual Brochures Available

What is health care reform?

“I don’t have health insurance. What are the new options available for me in 2014?” “I already have health coverage. How will health reform impact me?”

The answers to these questions are provided through easy-to-understand multilingual brochures posted on the LA County Department of Public Health website. The “Health Care Reform and YOU...” brochures are available in English, Spanish, Armenian, Chinese, and Tagalog.

To download the brochures and for more information, go to www.publichealth.lacounty.gov/plan/Highlights/HCR/Health_Care_Reform.htm.
Index of Disease Reporting Forms

All case reporting forms from the LA County Department of Public Health are available by telephone or Internet.

Reportable Diseases & Conditions
Confidential Morbidity Report
Morbidity Unit (888) 397-3993
Acute Communicable Disease Control
(213) 240-7941

Sexually Transmitted Disease
Confidential Morbidity Report
(213) 744-3070
www.publichealth.lacounty.gov/dhsp/ReportCase.htm

Adult HIV/AIDS Case Report Form
For patients over 13 years of age at time of diagnosis
Division of HIV and STD Programs
(213) 351-8196
www.publichealth.lacounty.gov/dhsp/ReportCase.htm

Pediatric AIDS Surveillance Program
(213) 351-8153
Must first call program before reporting
www.publichealth.lacounty.gov/dhsp/ReportCase.htm

Tuberculosis Suspects & Cases
Confidential Morbidity Report
Tuberculosis Control (213) 745-0800
www.publichealth.lacounty.gov/tb/forms/cmr.pdf

Lead Reporting
No reporting form. Reports are taken over the phone.
Lead Program (323) 869-7195

Animal Bite Report Form
Veterinary Public Health (877) 747-2243
www.publichealth.lacounty.gov/vet/biteintro.htm

Animal Diseases and Syndrome Report Form
Veterinary Public Health (877) 747-2243
www.publichealth.lacounty.gov/vet/disintro.htm

Pediatric HIV/AIDS Case Report Form
For patients less than 13 years of age at time of diagnosis

Use of trade names and commercial sources in Rx for Prevention is for identification only and does not imply endorsement by the Los Angeles County Department of Public Health (LACDPH). References to non-LACDPH sites on the Internet are provided as a service to Rx for Prevention readers and do not constitute or imply endorsement of these organizations or their programs by LACDPH. The Los Angeles County Department of Public Health is not responsible for the content of these sites. URL addresses listed in Rx for Prevention were current as of the date of publication.