

This Issue

- 1 Recent Findings: Vaccines Do Not Cause Autism Spectrum Disorders
- 3 Informal Caregiving: Implications for Primary Care Physicians
- 3 Resources on the Web Available to Caregivers
- 4 Effective Promotion of Strength Training: A Resource for Physicians
- 6 New-Vaccine Updates and Recommendations

Recent Findings: Vaccines Do Not Cause Autism Spectrum Disorders

By Julia Heinzerling, MPH

The Centers for Disease Control and Prevention (CDC), the Institute of Medicine, World Health Organization, American Academy of Family Physicians, and American Academy of Pediatrics strongly endorse vaccines as a safe, effective, and critical preventive measure against diseases that can be serious, and even deadly. While these experts and most physicians and parents are confident in the safety of vaccines, unsubstantiated claims that the measles-mumps-rubella (MMR) vaccine and/or vaccines that contain the preservative thimerosal may cause Autism Spectrum Disorders (ASD) have led some parents to decline vaccines for their children. The decision not to vaccinate places their children at risk for vaccine-preventable diseases and increases the risk of disease outbreaks. Recent legal rulings and a formal retraction of the study that first posited a link between autism and vaccines add to a strong body of evidence that vaccines do *not* cause autism. By taking the time to share these findings with parents, openly listen to their concerns, and dispel their misperceptions, physicians can build confidence in vaccines and help parents make well-informed decisions about them.

Possible Causes of Autism

Autism Spectrum Disorders are a group of disorders that affect behavior, social skills, and communication skills. Over the past decade, the number of diagnosed ASD cases in California and the United States has been increasing. The causes of ASD have yet to be found, but some research suggests that autism may be linked to genetics, abnormal brain growth, an environmental trigger, or premature birth.¹

Some of the increase in cases may relate to earlier diagnoses, as well as changing interpretations of diagnostic criteria. Because ASD is frequently diagnosed around the same time children are vaccinated, some have raised concern about a possible link between vaccines and autism.

U.S. Vaccine Court Ruling

On March 12, 2010, three legal rulings were issued by the U.S. Court of Federal Claims that support the conclusion that vaccines do not cause autism.

The U.S. Court of Federal Claims determines whether it is plausible that an individual who has filed a claim with the National Vaccine Injury Compensation Program has been injured by a vaccine and is, thus, entitled to receive compensation under this program. The Court reviewed three families' claims that vaccines containing the preservative

continued on page 2 >

The Science Behind the Findings

The following resources summarize key research findings related to MMR vaccine, thimerosal-containing vaccine, and other vaccine safety issues.

- "Immunization Safety Review: Vaccines and Autism," Institute of Medicine www.iom.edu/Reports/2004/Immunization-Safety-Review-Vaccines-and-Autism.aspx
- "Selected References on Vaccine Safety," California Immunization Coalition www.immunizeca.org/documents/UsefulVaccineResources-v7.pdf
- "MMR Vaccine Does Not Cause Autism: Examine the Evidence," Immunization Action Coalition www.immunize.org/catg.d/p4026.pdf



thimerosal caused their children to develop autism. In all three cases, the courts ruled that the claim that the thimerosal-containing vaccines caused autism was not supported by the epidemiologic and scientific evidence. In 2009, the Court also found that there was insufficient evidence to support claims that the combination of a thimerosal-containing vaccine along with MMR vaccine can cause autism.

Wakefield Study Retraction

The concerns about vaccine causing ASD date largely to the 1998 study “Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children” published in the *Lancet*. Study authors Andrew J. Wakefield and colleagues theorized that MMR vaccine may cause chronic enterocolitis in children, which in turn may lead to neuropsychiatric dysfunction and ASD.

The Wakefield study did not prove, but raised the possibility, of a link between MMR vaccine and ASD. Based on this concern a growing number of parents have refused vaccination for their children. In LA County, while the percentage of parents refusing one or more vaccinations for their children due to personal beliefs remains modest, it is of concern because this rate increased at an average of almost 10% per year between 1999 and 2008.²

From the time it was published, the Wakefield study’s validity has been questioned. In 2004, Dr. Richard Horton, Editor of the *Lancet*, described the study as “fatally flawed.”³ In 2004, 10 of the study’s 12 original authors formally retracted the interpretation of the study’s findings noting: “We wish to make it clear that in the [1998] paper no causal link was established between MMR vaccine and autism, as the data were insufficient.”⁴ Other researchers have been unable to replicate study results. For instance, a 2008 CDC, Massachusetts General Hospital, and Columbia University study that replicated core Wakefield study components found no evidence that the MMR vaccine caused ASD.⁵

Finally, on February 2, 2010, the *Lancet* fully retracted the Wakefield study from the published record noting that several elements of the study are incorrect.⁶ The retraction followed a judgment of the United Kingdom General Medical Council that there was a “biased selection of [study subjects]” and that Dr. Wakefield’s conduct was “dishonest” and “misleading.”⁷ As the CDC noted, the retraction of the Wakefield study “builds on the overwhelming body of research by the world’s leading scientists that concludes there is no link between MMR vaccine and autism.”⁸

Responding to Parents’ Concerns

In busy clinics and offices, it can be a challenge to find the time to discuss vaccines with parents. However, openly discussing parents’ concerns and dispelling misperceptions in a nonjudgmental way can help parents feel comfortable in their choice to vaccinate their children.


Key messages

- We have the safest and most effective vaccine supply in history.

- There is no evidence that vaccines cause autism.
- Thimerosal has been removed from all routinely used childhood vaccines with the exception of some brands of influenza vaccines.
- Alternative vaccination schedules are not based on good science. The ACIP immunization schedule is designed to protect children at the age they are most vulnerable to each disease.
- Choosing to vaccinate on time is a choice to protect your children from preventable diseases that can lead to serious illness and even death.

A variety of resources are available to help clinicians and staff respond quickly and effectively to parents’ concerns about vaccine safety at www.immunizeca.org and www.cdc.gov/vaccines/spec-grps/hcp/conversations.htm.

Conclusion

The March rulings by the federal vaccine court and retraction of the Wakefield study are the most recent in a series of findings that refute the claim that MMR or thimerosal-containing vaccines cause Autism Spectrum Disorders. While the causes of ASD are not yet known, health care providers can be confident in communicating to parents that MMR and thimerosal-containing vaccines do not cause autism and that vaccines remain the best way to protect against diseases that continue to pose a risk to children, families, and communities. 

Julia Heinzerling, MPH, is a policy and advocacy specialist, Immunization Program, Los Angeles County Department of Public Health.

REFERENCES

1. Brown, Ari. “Clear Answers & Smart Advice About Your Baby’s Shots.” In *Baby 411: Clear Answers & Smart Advice for Your Baby’s First Year*, Boulder: Windsor Peak Press, 2008.
2. Los Angeles County Department of Public Health. *2008 Annual School Immunization Assessment Preschool and Kindergarten* 2009; 1-26
3. Sonnenmeier, R. Expert Comments on Lancet Retracting Major Autism Study. *Medical News Today* (February 4, 2010), www.medicalnewstoday.com/articles/178117.php
4. Murch, SH, Anthony, A, et al. Retraction of an interpretation. *Lancet*. 2004; 363:750
5. Hornig, M, Briesse, T, et al. Lack of association between measles virus vaccine and autism with enteropathy: a case-control study. *PLoS One* 2008; 3(9): e3140.
6. Editors. Retraction—Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children. *Lancet*. 2010; 375: 445
7. United Kingdom General Medical Council. Fitness to Practice Panel Hearing—Determination on Findings of Fact. (January 28, 2010), www.gmc-uk.org/concerns/hearings_and_decisions/data/5614.asp
8. U.S. Court of Federal Claims. Autism Decisions and Background Information. (March 12, 2010), www.uscfc.uscourts.gov/node/5026

Informal Caregiving: Implications for Primary Care Physicians

Informal caregiving refers to the help and support family members and friends provide daily to individuals who are either temporarily or permanently unable to function independently. Caregiving involves a range of activities, such as assisting with personal hygiene, helping with medication and doctors' visits, managing finances, acting as a patient advocate, and providing emotional support. A variety of factors—including shorter hospital stays, increased usage of outpatient procedures, and an aging U.S. population—have shifted increasing responsibility toward informal caregivers. In 2004, an estimated 44.4 million Americans age 18 or older provided unpaid care to another adult in the preceding 12 months. Of note, informal caregivers provide about 80% of all long-term care services in the country.

The 2007 Los Angeles County Health Survey (LACHS) inquired about adult caregiving and discovered the following:

- An estimated 16.3% of adults, or 1.2 million people living in Los Angeles County, reported being informal caregivers.
- The percentage of adults who reported caregiving was higher among those 40-64 years compared to those 18-39 years and 65 years or over.
- Asians/Pacific Islanders reported the highest rates of being a caregiver (19.9%), followed by African Americans (17.3%), whites (16.3%), and Latinos (14.7%).

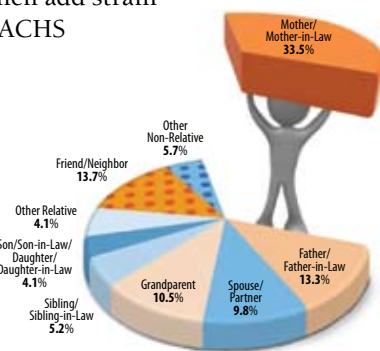
Primary care physicians can play an important role in recognizing and addressing the needs of the caregivers of

their patients as well as patients who may be serving as caregivers to others.

Caregiving is an important health issue because of the “caregiver burden,” which is defined as the state of physical, emotional, and mental exhaustion that results from the intense demands of caregiving. A major contributor to the toll of caregiving is that many caregivers do not identify themselves as such, and do not seek assistance. This can lead to isolation, frustration, and fatigue, which add strain to their health. The 2007 LACHS found these health-related results:

- A higher percentage of caregivers (53.1%) reported having one or more of the following chronic conditions than non-caregivers (48.6%): hypertension, high cholesterol, diabetes, heart disease, and depression.

- Caregivers reported more unhealthy days in the past month (6.3) compared to non-caregivers (5.2).



Carereceiver's Relationship to Caregiver, 2007

continued on page 5 >

Resources on the Web Available to Caregivers

Partners in Care Foundation is a nonprofit center of innovation whose mission is to change the shape of health care. The Foundation pursues its mission through programs such as the Family Care Partnership, a network of experts working together, focusing on addressing the complex challenges faced by caregivers, seniors, veterans and adults with disabilities. www.picf.org

The Los Angeles Caregiver Resource Center (LACRC) is part of a statewide system established by the California Department of Mental Health, and consists of 11 nonprofit CRCs all dedicated to the assistance and support of caregivers and their families. www.losangelescrc.org; www.cacrc.org

The National Family Caregivers Association (NFCA) is a grassroots organization that empowers family caregivers to take actions that will improve their life and the life of the recipient by providing them with education, support, and a public voice. www.thefamilycaregiver.org

The mission of the **City of Los Angeles Department of Aging** is to improve the older population's quality of life, independence, health and dignity by managing community-based senior programs that are comprehensive, coordinated and accessible, and to advocate for the needs of older citizens. <http://aging.lacity.org/caregivers/family.cfm>

The **Los Angeles County Department of Community and Senior Services** provides a variety of resources through many diverse programs, from Family Caregiver to Community Centers, Elder Care, and Legal Services. <http://css.lacounty.gov/Aaa/Eldercare.html>

The **Alzheimer's Association** has information and resources for choosing caregivers. www.alz.org/living_with_alzheimers_choosing_care_providers.asp

Established in 1996, the **National Alliance for Caregiving (NAC)** is a nonprofit coalition of nearly 40 national organizations that was created to conduct research and policy analysis, develop national programs for caregivers, and increase public awareness of caregiving issues. www.caregiving.org

Effective Promotion of Strength Training: A Resource for Physicians

Susan Lesser, MPH

Kim Harrison Eowan, MPH, CHES

Most of the leading causes of death and disability across the nation are related to lifestyle. In Los Angeles County, epidemics of obesity and diabetes underscore the need for effective prevention by means of proper nutrition and physical activity.¹ While improving the health of Angelenos requires a broad range of tactics, one essential strategy involves individual-level counseling and health education in clinical settings. Improving clinicians' communication skills can improve the efficacy of patient counseling and health education messaging.

Fewer than half of U.S. adults get the amount of physical activity recommended by the CDC.² In Los Angeles County, only 39% of the population meet recommended criteria, and even fewer report engaging in strength training on a regular basis.³

Although it's often overlooked by both patients and clinicians, regular strength training is an essential component of any individual's physical activity plan, and the benefits are significant for patients across the life span. Research has repeatedly shown that muscle-strengthening activities help adults to maintain muscle mass, cultivate bone health, and prevent injury—and this is particularly important as patients age.

Guidelines

Strength training can be defined as any exercises that work to strengthen muscles and connective tissues. While this most often consists of resistance training or lifting weights, other activities such as heavy gardening and yoga can offer the same benefits.⁴

Muscle-strengthening activities have three components:

1. **Intensity:** How much weight or force is used relative to how much a person is able to lift
2. **Frequency:** How often a person does muscle strengthening activity
3. **Repetitions:** How many times a person lifts a weight/completes a movement.

Patients should be encouraged to engage in activities to the point where another repetition without help is a challenge. Also, muscle-strengthening activities should involve all of the seven major muscle groups (legs, hips, back, abdomen, chest, shoulders and arms). Recommended frequencies of muscle-strengthening activities per the 2008 Physical Activity Guidelines for Americans are at least two days per week for adults and older adults, and at least three days per week for children, as part of the recommended 60 or more minutes per day of activity (see box).⁵



Muscle Strengthening Activity Recommendations

Work legs, hips, back, abdomen, chest, shoulders and arms

Children: At least 3 days per week (Part of the recommended 60 or more minutes per day of activity)

Adults: At least 2 days per week

Older Adults: At least 2 days per week

Communication Strategies

The CDC reports that 9 in 10 adults have difficulty using the everyday health information that is available in health care facilities, retail outlets, media and communities.⁶ And even in the best of circumstances, most clinicians face substantial barriers when communicating health guidance to patients. Time limitations, language differences, varying education levels, and individual patient health literacy skills all influence clinician success in transmitting vital health information.

The American Medical Association Foundation and the AMA suggest six steps clinicians can take to improve communication with their patients:⁷

1. **Slow down.** By speaking more slowly and allowing the patient even a modest amount of increased time during the visit, clinicians can increase patient comprehension of health guidance and perception that needs have been met.
2. **Use plain, non-medical language.** Clinicians should make an effort to use the simplest language possible. When discussing strength training, phrases like “bone health” and “muscle mass” can be replaced with “strong bones” and “strong muscles.”
3. **Show or draw pictures.** Simple pictures or illustrations often communicate a health condition or particular guidance more effectively than a verbal communication.
4. **Limit the amount of information provided, and repeat it.** Most patients only need to know the most important key points of their health condition or suggested guidance, especially in an initial visit. The more clinicians can distill key points from their body of knowledge, the more patients will retain the information and adhere to the suggested guidance. For example, instead of providing detailed information about the seven major muscle groups,


STRENGTH TRAINING *from page 4*

clinicians could provide four simple exercises for their patient to practice.

5. **Use the “teach-back” technique.** This technique, which basically involves the patient explaining the course of treatment or health topic back to the clinician, ensures that clinicians have successfully communicated with their patients. If a patient is unable to articulate back to the clinician, the burden is on the clinician to identify a clearer message for maximum comprehension.
6. **Create a shame-free environment: Encourage questions.** Patients benefit from an environment where they feel comfortable asking their clinician questions about their condition or a suggested guidance. Clinicians can foster this level of comfort and increased understanding by simply encouraging questions, by suggesting the presence of a friend or family member, or by implementing the Ask-Me-3 program. This program activates patients to ask three key questions to expand their understanding:
 - What is my main problem? (e.g., What are my health issues?)
 - What do I need to do? (e.g., What exercises should I do?)
 - Why is it important for me to do this? (e.g., Why do I need to exercise?)

Conclusion

Time and again, the evidence shows that regular physical activity is one of the most important steps that all Americans

—and all Angelenos—can take to improve their health. It is incumbent upon health care providers to emphasize the importance of strength training as an essential ingredient of any personal physical activity program. The proven-effective communication techniques listed above can increase adherence to suggested behavior modifications. 

Susan Lesser, MPH, is health communications specialist/deputy wellness manager, and **Kim Harrison Eowan**, MPH, CHES, is deputy director/wellness manager, for Health Education Administration, Los Angeles County Department of Public Health.

REFERENCES

1. Los Angeles County Department of Public Health, Office of Health Assessment and Epidemiology. Mortality in Los Angeles County 2006: Leading causes of death and premature death with trends for 1997-2006. September 2009.
2. Retrieved from <http://www.thecommunityguide.org/pa/index.html>
3. Retrieved from http://publichealth.lacounty.gov/ha/reports/habriefs/v3i2_phys/physact.pdf
4. Retrieved from <http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html#Musclestrengthening>
5. Retrieved from <http://www.health.gov/paguidelines/default.aspx>
6. Retrieved from <http://www.cdc.gov/healthmarketing/healthliteracy/>
7. American Medical Association Foundation and American Medical Association. “Health literacy and patient safety: Help patients understand.” Retrieved from <http://www.ama-assn.org/ama1/pub/upload/mm/367/healthlitclinicians.pdf>

INFORMAL CAREGIVING *from page 3*


- Employed caregivers reported nearly 1.5 times the number of unhealthy days in the past month (5.2) compared to employed noncaregivers (3.7).
- Caregivers who provided 40 or more hours of care per week were much more likely to report fair or poor self-perceived health (29.7%) than did caregivers who provided less than 10 hours of care per week (15.3%).

According to a 2004 report by the National Alliance for Caregiving and the AARP, the most frequently reported unmet needs of caregivers in the U.S. were finding time for themselves (35%), managing emotional and physical stress (29%), and balancing work and family responsibilities (29%). About 3 in 10 caregivers reported they needed help keeping the person they care for safe (30%) and finding easy activities to do with the person they care for (27%).

One in five caregivers said they needed help talking with doctors and other health care professionals (22%) or making end-of-life decisions (20%). Recognizing the impact of caregiving, being open to solutions, understanding that seeking help is reasonable, and that there are others also in similar predicaments (i.e., that the caregiver is not alone), can ease the burden on the caregiver. Some caregivers may take solace in knowing that many others share their situation.

Physicians can be helpful to caregivers in a variety of ways. First among these is recognizing their patients or patients’ family members who are serving as caregivers and acknowledging the importance of this role. Specific tips doctors can provide to caregivers are as follows:

- Take care of yourself.
- Do not be afraid to ask for help (see the box for available resources).
- Participate in support groups.
- Obtain further caregiving training.
- Call your local senior center or Area Agency on Aging to assist in locating respite care services in your area.
- Take advantage of community resources, such as Meals on Wheels and adult day care programs.
- Get help with financial and legal planning to assure the care recipient has a designated Power of Attorney for health care and Durable Power of Attorney for finances.

For more information about caregivers, see the full *LA Health* document, created by the Office of Health Assessment and Epidemiology, Los Angeles County Department of Public Health, at <http://publichealth.lacounty.gov/ha/> 

New-Vaccine Updates and Recommendations

A. Nelson El Amin, MD, MPH

Cathy Schellhase, RN, PHN

In the past several months, many new vaccines have been licensed by the Food and Drug Administration (FDA) and reviewed by the Advisory Committee on Immunization Practices (ACIP). The following are ACIP's recommendations for use of these new vaccine products.

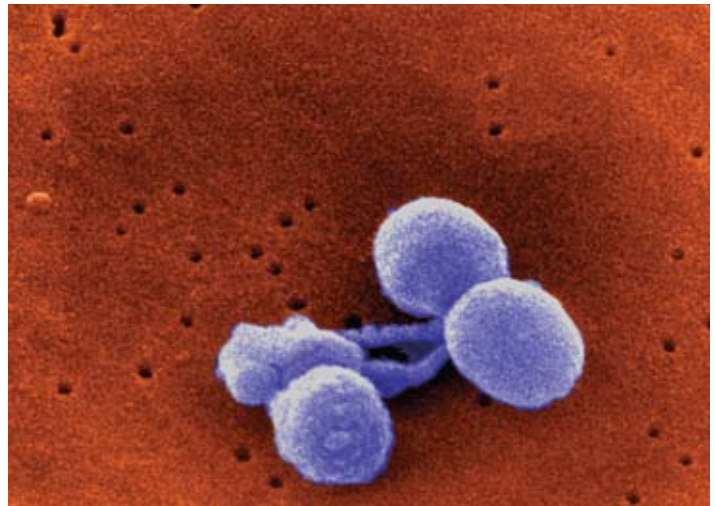
Pneumococcal Conjugate Vaccine (PCV13)

In February 2010, ACIP voted to recommend transitioning from PCV 7 (Prevnar, Wyeth) to the newly licensed PCV13 (Prevnar13, Wyeth) for the prevention of invasive pneumococcal disease (IPD) in infants and young children. PCV13 adds 6 new pneumococcal serotypes to the 7 serotypes in PCV7. PCV13 should be given to all children 2 through 59 months of age and to children 60 through 71 months of age who have underlying medical conditions that increase their risk of pneumococcal disease or complications.¹ The new recommendations, which were published in the *CDC Morbidity and Mortality Weekly Report (MMWR)* on March 12, 2010, (MMWR 2010; 59:9; 258-261), are as follows:

- Children 2 through 59 months who have not previously been vaccinated with PCV7 should be vaccinated with PCV13, using the same immunization schedule that was used for PCV7. Children who have received 1 or more doses of PCV7 should complete the immunization series with PCV13.
- Children 14 through 59 months of age who have already completed the 4-dose PCV7 series (or other age-appropriate complete PCV7 schedule) should receive 1 supplemental dose of PCV13 at the next medical visit that is at least 8 weeks after the last PCV7 dose.
- Children 59 through 71 months of age who have underlying medical conditions¹ and have received 4 doses of PCV7 (or other age-appropriate complete PCV7 schedule) should receive 1 supplemental PCV13 dose at least 8 weeks after the last PCV7 dose. This includes children who have previously received 23-valent pneumococcal polysaccharide vaccine (PPSV23).
- Unvaccinated healthy children 24 through 59 months of age should receive a single dose of PCV13. Unvaccinated children 24 through 71 months of age with underlying medical conditions¹ should receive 2 doses of PCV13 with an interval of at least 8 weeks between doses.
- A single dose of PCV13 may be administered to children 6 through 18 years of age who are at increased risk for IPD

FOOTNOTE

1. Underlying medical conditions that are indications for pneumococcal immunization among children include heart disease, lung disease, diabetes, cerebrospinal fluid leaks, cochlear implant, sickle cell disease and other hemoglobinopathies, congenital or acquired asplenia, or splenic dysfunction, immunocompromised persons.



Scanning electron micrograph of *Streptococcus pneumoniae*.

CDC/ Dr. Richard Facklam

because of sickle cell disease, HIV infection, or other immunocompromising condition, regardless of whether they have previously received PCV7 or PPSV23.

Haemophilus influenzae Type b Conjugate Vaccine

In August 2009, the FDA licensed Hiberix (GlaxoSmithKline), a *Haemophilus influenzae* type b (Hib) conjugate vaccine. Hiberix is licensed for use as the booster (final) dose of the Hib vaccine series for children aged 15 months through 4 years (before the fifth birthday) who have previously received the primary series of Hib vaccination. ACIP recommends Hib booster vaccination for children at ages 12 through 15 months and states that Hiberix, as well as the other Hib conjugate vaccines, can be administered as early as age 12 months. Because of the shortage of Hib vaccines in 2009, many children had their booster dose deferred and therefore now require catch-up vaccination.

In September 2009, ACIP recommended that providers begin to recall children who needed the Hib booster as vaccine became available. At this time, the following monovalent Hib vaccines are available for the booster dose: ActHIB (Sanofi Pasteur), Hiberix (GSK), and PedvaxHIB (Merck). The combination vaccine Pentacel (DTaP-IPV/Hib vaccine, Sanofi Pasteur) is also available. See the September 18, 2009, *MMWR* (MMWR 2009; 58-36; 1008-1008) for more information on Hiberix and ACIP's recommendation to start recalling children for missed Hib booster doses.

Also, since many of the children who require the catch-up Hib booster are the same children who need the supplemental dose of PCV13, there is an opportunity to provide both doses at the same visit.

Meningococcal Conjugate Vaccine

Menveo (Novartis Vaccines and Diagnostics) is a new quadrivalent meningococcal conjugate vaccine licensed for the

prevention of invasive meningococcal disease caused by *Neisseria meningitidis* serogroups A, C, Y and W-135. It is licensed as a single dose for use in persons aged 11 through 55 years. The serotypes found in Menveo are the same ones found in the previously licensed meningococcal conjugate vaccine (Menactra, Sanofi Pasteur). Information on Menveo was published in the March 12, 2010, MMWR (MMWR 2010; 59:9; 273).

ACIP recommends quadrivalent meningococcal conjugate vaccine for all persons 11 through 18 years and for persons 2 through 55 years of age who are at increased risk for meningococcal disease (e.g., travelers to hyperendemic or epidemic areas).

- Either Menveo or Menactra may be used in persons 11 through 55 years, and are preferred to quadrivalent meningococcal polysaccharide vaccine (Menomune, Sanofi Pasteur).
- Persons aged 2 through 10 years who are recommended to receive a meningococcal vaccine should receive Menactra (Menveo is not licensed for children younger than 11 years of age).
- Persons 56 years of age and older needing meningococcal vaccine should receive the polysaccharide vaccine (Menomune).

Human Papillomavirus Vaccine

In October 2009, ACIP updated its recommendations for use of human papillomavirus (HPV) vaccine, including the bivalent HPV (types 16 and 18) vaccine (Cervarix, GSK; HPV2) for females and the quadrivalent HPV (types 6, 11, 16 and 18) vaccine (Gardasil, Merck; HPV4) for females and males. The updated ACIP recommendations have been incorporated into the Recommended Immunization Schedules for Persons Aged 0 Through 18 Years – United States, 2010 (MMWR 2010 / Vol. 58 / No. 51 & 52) and in the Recommended Adult Immunization Schedule – United States, 2010 (MMWR 2010 / Vol. 59 / No. 1). The ACIP's provisional recommendation may be viewed at www.cdc.gov/vaccines/recs/provisional/downloads/hpv-vac-dec2009-508.pdf.

ACIP recommends routine vaccination of females aged 11 or 12 years with 3 doses of HPV vaccine. The vaccination series can be started beginning at age 9 years. HPV vaccination also is recommended for females aged 13 through 26 years who have not been vaccinated or who did not complete the full vaccination series.

ACIP also recommends vaccination with:

- HPV4 for prevention of genital warts and cervical, vaginal and vulvar cancers and pre-cancers in females.
- HPV2 vaccine or HPV4 for prevention of cervical cancers and pre-cancers.
- Although ACIP has not made a recommendation for routine vaccination of males, it advises that HPV4 may be given to males aged 9 through 26 years as a 3-dose series to reduce their likelihood of acquiring genital warts.

Ideally, HPV vaccine should be administered before potential exposure to HPV through sexual contact.

Influenza Vaccines and Universal Influenza Vaccination

In February 2010, ACIP voted to recommend influenza vaccination of all adults beginning in the 2010-11 influenza season. Therefore, all people age 6 months and older should be vaccinated annually for influenza. The tentative date for publication of the new influenza recommendations in the MMWR is in June 2010. The provisional recommendations can be viewed at <http://www.cdc.gov/vaccines/recs/provisional/downloads/flu-vac-mar-2010-508.pdf>.


The 2010-2011 trivalent vaccines will contain A/California/7/2009 (H1N1)-like, A/Perth/16/2009 (H3N2)-like, and B/Brisbane/60/2008-like antigens. The influenza A (H1N1) and A (H3N2) strains are changed from those in the 2009-2010 influenza vaccine. The A/California/7/2009 (H1N1)-like strain is the same strain that was included in the pandemic influenza A (H1N1) 2009 monovalent vaccines.

Several inactivated influenza vaccines have recently been licensed or had their license modified. (See Table 1.)

Table 1. License Status of Inactivated Influenza Vaccines

Vaccine/Manufacturer	Licensure
Fluzone High-Dose (Sanofi Pasteur)	Licensed in December 2009 for persons aged 65 years and older. (ACIP has not expressed a preference for Fluzone High-Dose or any other licensed inactivated influenza vaccine for use in people age 65 and older.)
Agriflu (Novartis)	Licensed in November 2009 for persons aged 18 years and older.
Afluria (CSL)	License modified in November 2009. Vaccine now licensed for persons aged 6 months and older.
Fluarix (GlaxoSmithKline)	License modified in October 2009. Vaccine now licensed for persons aged 3 years and older.

Additional Information

For information about any of the vaccine products that are currently recommended for children and adults, please visit CDC's website at www.cdc.gov/vaccines or the Los Angeles County Department of Public Health website at www.publichealth.lacounty.gov/ip. 

A. Nelson El Amin, MD, MPH, is medical director, and **Cathy Schellhase**, RN, PHN, is a nurse consultant, for the Immunization Program, Los Angeles County Department of Public Health.

Rx for Prevention is published 10 times a year by the Los Angeles County Department of Public Health. If you would like to receive this newsletter by e-mail, go to www.publichealth.lacounty.gov and subscribe to the ListServ for *Rx for Prevention*.

Rx for Prevention

Promoting health through prevention in Los Angeles County

Upcoming Training

Immunization Training Resources for Clinicians

The Los Angeles County Department of Public Health Immunization Program, the California Department of Public Health, the CDC and other entities offer a variety of web-based and in-person immunization training programs for clinicians and staff. Some programs offer CMEs and CEUs at no charge.

Visit www.ph.lacounty.gov/ip/trainconf.htm for a list of upcoming trainings



Office of the Medical Director
241 N. Figueroa St., Suite 275
Los Angeles, CA 90012

PRESORTED
STANDARD
U.S. POSTAGE
PAID
PERMIT NO. 2053
LOS ANGELES, CA

LOS ANGELES COUNTY BOARD OF SUPERVISORS

Gloria Molina, First District
Mark Ridley-Thomas, Second District
Zev Yaroslavsky, Third District
Don Knabe, Fourth District
Michael D. Antonovich, Fifth District

DEPARTMENT OF PUBLIC HEALTH

Jonathan E. Fielding, MD, MPH
Director and Health Officer

Jonathan Freedman
Chief Deputy, Public Health

Jeffrey D. Gunzenhauser, MD, MPH
Medical Director of Public Health

Steven Teutsch, MD, MPH
Chief Science Officer

EDITORS IN CHIEF

Jeffrey D. Gunzenhauser, MD, MPH
jgunzenhauser@ph.lacounty.gov

Steven Teutsch, MD, MPH
steutsch@ph.lacounty.gov

EDITORIAL BOARD

Melanie Barr, RN, MSN
Trista Bingham, MPH, PhD
James DeCarli, MPH, MPA, CHES
Kevin Donovan, MPH
Marsha Epstein, MD, MPH
Kim Harrison Eowan, MPH, CHES
Julia Heinzerling, MPH
David Meyer, MPH
Sadina Reynaldo, PhD
Ben Techagaiciyawanis, MPH, CHES

Summer Nagano, Managing Editor
Alan Albert & Kathleen Pittman, Graphic Designers
Maria Ojeda, Administration

Index of Disease Reporting Forms

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

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

Adult HIV/AIDS Case Report Form

For patients over 13 years of age at time of diagnosis
HIV Epidemiology Program
(213) 351-8196
www.publichealth.lacounty.gov/HIV/hivreporting.htm

Pediatric HIV/AIDS Case Report Form

For patients less than 13 years of age at time of diagnosis
Pediatric AIDS Surveillance Program
(213) 351-8153
Must first call program before reporting
www.publichealth.lacounty.gov/HIV/hivreporting.htm

Confidential Morbidity Report of Tuberculosis (TB) Suspects & Cases
Tuberculosis Control (213) 744-6160
www.publichealth.lacounty.gov/tb/forms/cmr.pdf

Lead Reporting

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

Reportable Diseases & Conditions Confidential Morbidity Report
Morbidity Unit (888) 397-3993
Acute Communicable Disease Control (213) 240-7941
www.publichealth.lacounty.gov/acd/reports/CMR-H-794.pdf

Sexually Transmitted Disease Confidential Morbidity Report
(213) 744-3070
www.publichealth.lacounty.gov/std/providers.htm (web page)
www.publichealth.lacounty.gov/std/docs/H1911A.pdf (form)