The first study to suggest a link between vaccines and autism has been retracted fully by *The Lancet*, the distinguished British medical journal that originally published it. *The Lancet*’s retraction came less than a week after the United Kingdom’s General Medical Council, the regulator of medical practice, ruled that British doctor Andrew Wakefield, the author of the study, had acted “dishonestly and irresponsibly” by failing to disclose financial conflicts of interest. It also was stated that he had shown “callous disregard” to the patients in the study by subjecting them to unnecessary invasive procedures.

Wakefield’s study, published in 1998, has done irreparable damage by causing skepticism of the safety of vaccines. This has resulted in lower vaccination rates, both in Europe and the United States, and an increase in infectious diseases that previously had become rare.

*The Lancet*’s brief retraction article states: “several elements of the 1998 paper by Wakefield et al are incorrect.” Ten of the 13 authors of the original paper had partially retracted the paper in 2004, but Wakefield did not. He continues to push the view that the measles, mumps and rubella (MMR) vaccine causes autism. Following the findings of the medical council and the retraction by *The Lancet*, Wakefield issued a statement saying: ”The allegations against me and against my colleagues are both unfounded and unjust and I invite anyone to examine the contents of these proceedings and come to their own conclusion.”

While the retraction supports the scientific evidence that vaccinations do not cause autism, it is not likely to persuade the advocacy groups that believe in the link. It is very important to continue to educate parents about the safety of vaccines.
High-Dose Fluzone Licensed

The U.S. Food and Drug Administration (FDA) has approved Sanofi Pasteur’s Fluzone® High-Dose influenza vaccine. The new vaccine for adults 65 and older will be available to healthcare providers this fall in preparation for the 2010-2011 influenza season.

Fluzone® High-Dose vaccine was designed specifically to generate a more robust immune response in people 65 and older. Typically, this age group does not respond as well to the standard dose of influenza virus vaccines as younger individuals because of their weakened immune systems.

Compared to younger adults, people 65 and older suffer disproportionately from seasonal influenza and its complications, including severe illness and death.

Fluzone® High-Dose vaccine contains 60 mcg of hemagglutinin per strain of influenza virus, compared to 15 mcg of hemagglutinin per strain of influenza virus in the standard-dose influenza vaccine. The new Fluzone® High-Dose vaccine is produced in the same production facility as Fluzone® vaccine and is supplied as a single-dose, preservative-free, prefilled syringe.

In the clinical trial, Fluzone® High-Dose was shown to have a clinically comparable safety profile to Fluzone® vaccine.

Save the Date: North Dakota’s First Statewide Immunization Conference

Mark your calendars! The North Dakota Immunization Program will be hosting its first statewide immunization conference Aug. 24-25, 2010, at the Seven Seas in Mandan, N.D.

We are excited to be welcoming Donna Weaver, RN, MN, from the Centers for Disease Control and Prevention (CDC). Ms. Weaver is the nurse educator for the Education, Information and Partnership Branch of the CDC’s National Immunization Program.

Continuing education credits will be available for nurses, physicians and pharmacists. Registration information will be coming soon!

ProQuad® (MMRV) Release Delayed

Due to new and unanticipated circumstances, Merck is delaying the re-launch of ProQuad®. ProQuad® — the measles, mumps, rubella, varicella combination vaccine — previously had been expected to be available for order beginning in late February.

Merck has communicated that ProQuad® will be available sometime in 2010, but the timing of the availability is currently unknown.

The purpose of the delay is to prioritize the supply of Varivax® and Zostavax®. Supplies of MMR-II® and Varivax® are currently sufficient to meet demand.
2009 AFIX Awards

AFIX (Assessment, Feedback, Incentive, and eXchange) is a continuous quality improvement tool that consists of (1) assessment of the health-care provider’s vaccination coverage levels and immunization practices; (2) feedback of the results to the provider, along with recommended strategies to improve coverage levels; (3) motivating the provider through incentives to improve vaccination coverage levels; and (4) exchanging health-care information and resources necessary to facilitate improvement. The North Dakota Department of Health began conducting AFIX visits in 2000. Each year, the NDDoH visits about 100 childhood immunization providers in North Dakota. This year, because of a shortage of Hib-containing vaccines, rates were assessed excluding Hib vaccine.

The following providers have been recognized as “Immunization Leaders” by achieving immunization rates of 85 percent and higher by 24 months of age for the 4:3:1:3:3:1:4 (4 DTaP:3 HepB:1 MMR:3 Hib:3 IPV:1 varicella:4 PCV7) series in 2009:

**Private Providers:**
- Hettinger Clinic — Hettinger
- Center for Family Medicine — Bismarck
- Southeast Medical Center — Oakes
- Altru Clinic Pediatrics — Grand Forks
- Meritcare Broadway Children’s Southwest — Fargo
- Q&R Family Practice — Bismarck

**Public Provider:**
- Cavalier County Health Department — Langdon

The following providers are receiving the “Most Improved Immunization Rates” award. The following clinics increased their rates by 10 percent or more since their last documented AFIX visit:

**Private Providers:**
- Center for Family Medicine — Bismarck
- Innovis Health — Jamestown
- Meritcare Clinic — Hillsboro
- Johnson Clinic — Dunseith
- Great Plains Clinic — Dickinson

**Public Providers:**
- City County Health Department — Valley City
- Spirit Lake Health Center — Fort Totten

The following providers are receiving the “Immunizations: Tradition of Excellence” award for achieving rates of 85 percent or higher in three out of the last five years:
- Altru Clinic Pediatrics — Grand Forks
- Meritcare Broadway Children’s Southwest — Fargo

*Not all providers are assessed each year. The above providers were assessed in 2009.*
Traveling to another country can be an experience of a lifetime. To keep healthy in a foreign location, it is important for travelers to be vaccinated against preventable diseases. All travelers, regardless of age or destination, should be up-to-date on the routinely recommended immunizations. These include:

- Diphtheria, tetanus and pertussis.
- Measles, mumps and rubella.
- Hepatitis B.
- Polio.
- *Haemophilus influenzae* type B.
- Pneumococcal disease.
- Hepatitis A.
- Varicella.
- Influenza.
- Meningococcal disease.

Depending on the destination and purpose for travel, some travelers may need additional vaccines for diseases that are not vaccinated against routinely in the United States. These include:

- Yellow fever.
- Typhoid.
- Rabies.
- Japanese encephalitis.

Yellow fever vaccination currently is required by International Health Regulations (IHR) for travel to 20 countries in sub-Saharan Africa and tropical South America. Meningococcal vaccination is required by the government of Saudi Arabia for annual travel during the Hajj.

There are seven certified yellow fever vaccination clinics in North Dakota. The people of North Dakota would benefit from more! If your practice is interested in becoming a certified provider of yellow fever vaccine, please contact Abbi Pierce at 701.328.3324 or toll-free at 800.472.4180.

For questions regarding vaccinations for travelers, visit the CDC’s travel website at [http://wwwnc.cdc.gov/travel/content/vaccinations.aspx](http://wwwnc.cdc.gov/travel/content/vaccinations.aspx) or contact the Immunization Program at 701.328.3386 or toll-free at 800.472.4180.

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**NEW Immunization Activity Books**

The North Dakota Immunization Program has a new children’s activity book available at no cost to providers! The activity book, which features Ollie the Owl and his friends, is a fun way for kids to learn about vaccines.

The book was designed by Tracy K. Miller, MPH, of the Division of Disease Control. To preview the book and print an updated order form, visit our website at [www.ndhealth.gov/Immunize](http://www.ndhealth.gov/Immunize).
2010 Immunization Schedules Now Available

The CDC has published the 2010 childhood, adolescent and adult immunization schedules. There are some important changes to note:

**Combination Vaccines**
The statement in the introductory paragraph has been changed to express the preference of the Advisory Committee on Immunization Practices (ACIP) for the use of combination vaccines.

**Polio**
The last dose in the IPV series is to be given after the age of 4 and at least six months after the previous dose. If four doses are given before the age of 4, an additional (fifth) dose should be given between the ages of 4 and 6.

**Hepatitis A**
The footnote was revised to allow the vaccination of children older than 23 months for whom hepatitis A immunity is desired.

**Meningococcal Conjugate**
Revaccination with meningococcal conjugate vaccine (MCV-4) is recommended for children who remain at increased risk for meningococcal disease after three years (if the first dose was administered between 2 and 6 years of age) or after five years (if the first dose was administered at age 7 or older).

**College Freshmen & Menactra®: Revaccinate?**
Confusion exists regarding whether or not college freshmen should be revaccinated with meningococcal conjugate vaccine (MCV-4, Menactra®). **College freshmen should only be revaccinated with MCV-4 if:**

- They were vaccinated with MPSV-4 (Menomune®) five or more years previously, OR
- They are at increased risk of meningococcal disease because of one of the three criteria (see box at right).

**Pneumovax® & Zostavax® — Simultaneous Administration**
Communication recently has been distributed by Merck Corporation indicating a decreased effectiveness of pneumococcal polysaccharide vaccine (Pneumovax®) when administered simultaneously with zoster vaccine (Zostavax®). The CDC has not changed its recommendation. **Pneumovax and Zostavax may be administered simultaneously.** Generally, the CDC recommends simultaneous administration of vaccines to increase the likelihood of being up-to-date on immunizations.
In-School Influenza Vaccination Pilot Project

For the 2010-2011 influenza season, 19 public health units in North Dakota will be participating in the school influenza vaccination project. In an attempt to ease the burden for all providers during the notoriously difficult influenza season, the participating health units are taking on the task of offering influenza vaccine to children in schools. The vaccine will be provided to insured and VFC-eligible children.

To find out if your county is participating or to offer assistance to this beneficial program, contact your local public health unit.

H1N1 Vaccine Available

The NDDoH still has H1N1 influenza vaccine available. To place an order, download the H1N1 Vaccine Order Form from the following website: www.ndflu.com/Vaccine/VaccineInformation.aspx.

If your practice has expired vaccine, remember to dispose of it according to the guidelines below.

Hazardous Waste Disposal Guidelines

Proper disposal of expired and wasted vaccines is everyone’s responsibility to protect our environment. To dispose of vaccines appropriately, you need to know if they are either hazardous waste or infectious waste, both, or neither. Those that are neither are considered industrial solid waste (normal trash).

**Hazardous Waste:**

Unused or expired vaccines are considered hazardous if they contain mercury (such as thimerosal) or cresol-based preservatives. These most commonly are found in multi-dose vials and some pre-filled syringes. Any vial that is not empty and contains vaccine with a mercury or cresol-based preservative must be managed as hazardous waste per North Dakota’s Pharmaceutical Waste Guidance (www.ndhealth.gov/wm/Publications/NorthDakotaPharmaceuticalWasteGuidance.pdf). For information about vaccines that contain thimerosal, visit www.vaccinesafety.edu/thimerosal.htm.

Hazardous waste should be kept separate and should be disposed of properly. A list of hazardous waste disposal companies can be found at www.ndhealth.gov/WM/Publications/HazardousWasteManagementCompanies.pdf. Most health systems already have policies and procedures for handling hazardous waste.

You can assume that preservative-free vaccines (most commonly single-use vials) and single-dose pre-filled syringes are not hazardous.

**Infectious waste:**

You can assume that an empty vial that contained vaccine is not infectious. However, that vial is considered infectious waste if combined with a used sharp, such as an injection syringe, broken contaminated glass or lancet.
New ACIP Recommendations

At the February meeting of the ACIP, the committee voted to expand the recommendations for influenza vaccination to include healthy adults. As a result, everyone older than 6 months is recommended to receive seasonal influenza vaccine. H1N1 will be included in the trivalent seasonal vaccine for the 2010-2011 influenza season.

The ACIP also made recommendations for the use of Prevnar 13® (PCV13), the new pneumococcal conjugate vaccine replacing Prevnar® (PCV7).

Recommendations for infants and children 2 through 59 months who previously have not received any doses of PCV7 or PCV13 are the same as the previous recommendations for PCV7, with PCV13 replacing PCV7 for all doses.

Children who are vaccinated incompletely with PCV7 or PCV13 should complete the series with PCV13. A single dose of PCV13 is recommended for all healthy children 24 through 59 months with any incomplete schedule. For children 24 through 71 months with underlying medical conditions who have received any incomplete schedule of less than three doses of PCV7 or PCV13, two doses of PCV13 are recommended. Children with underlying medical conditions who have received three doses of PCV7 or PCV13 are recommended to receive a single dose of PCV13 through 71 months.

Many children have already completed the PCV7 series. A single dose of PCV13 is recommended for all children 14 through 59 months who have received an age-appropriate, complete PCV7 schedule. For children with underlying medical conditions, a single PCV13 dose is recommended through 71 months.

A single dose of PCV13 may be administered to children 6 through 18 years who are at increased risk for invasive pneumococcal disease because of sickle cell disease, HIV infection or other immunocompromising condition, cochlear implant or cerebrospinal fluid leaks, regardless of whether they previously received PCV7 or pneumococcal polysaccharide vaccine (PPSV23).

The provisional recommendations are available at www.cdc.gov/vaccines/recs/provisional.

Providers’ Choice Awards

Immunization rates in North Dakota could use improvement. We are looking for ideas from the people closest to all the action — you! Was your Hib recall successful? Does your well child checkup schedule promote good immunization opportunities? What has worked best for you in educating parents about vaccine safety?

If you know of an individual, business or organization with a system in place to achieve and/or maintain high immunization rates, please let us know. We would like to recognize these best practices at our immunization conference in August and publish them in future editions of the newsletter. The nomination form is on our website at www.ndhealth.gov/Immunize. We look forward to hearing from you!
Ask the Experts: General Vaccine Questions

Q: Is it okay for a child to receive three live vaccines in one visit (for example: varicella, MMR and LAIV)?
A: Yes, a child of the appropriate age can receive three live vaccines at the same visit. If they are not given at the same visit, live vaccines must be separated by at least four weeks.

Q: If two live vaccines are given less than two weeks apart, what should be done?
A: The live vaccine given second is invalid. A repeat dose should be given at least four weeks after the invalid dose.

Q: What is the maximum number of vaccines that can be administered at the same visit?
A: All vaccines can be administered at the same visit. There is no limit on the number of injections that can be given at a single visit.