Pharmacists as Immunizers

Mary S. Hayney, PharmD, MPH
Professor of Pharmacy
University of Wisconsin School of Pharmacy
- Speakers’ bureau for Sanofi-Pasteur Vaccines
- Research funding from National Institutes of Health
Learning objectives

- Legal requirements
- Process of pharmacy-based immunization
- Niches that are and can be filled
Learning Objectives

- Understand the training and education of pharmacists
- Recognize the limits on immunization activities
- Develop strategies for partnerships among community immunizers
States are also authorizing pharmacists to take a greater role in screening, recommending, and prescribing vaccines.
Pharmacist Education

- 2-4+ years undergraduate studies
  - Chemistry, organic chemistry, biology, physics, calculus, statistics, communication

- 4 years of pharmacy school
  - Classroom and clerkship experiences

- Post graduate training
  - Residency
Wisconsin Act 68

- Allows pharmacists to immunize individuals ≥6 years of age
- Must complete twelve hour course
- Have liability insurance
- Have a protocol that is in effect for ≤ 2 years
Immunization Education

• For students: In curriculum
  – Incorporated into courses
  – Separate course
  – Elective or required

• For pharmacists: Continuing education course
Required by Wisconsin Act 68

- Twelve hour course of study covering vaccine storage, protocols, administration technique, emergency procedures, record keeping
Pharmacy-Based Immunization Course

- Vaccine-preventable diseases
- Bioterrorism
- Special populations
- Adverse events and emergencies
- Vaccine information resources
  - News of the week
- Travel medicine
- Record keeping, history, screening
- Immunization cases
- Safety
- Vaccine hesitancy
- Implementing pharmacy-based immunization services
- Reimbursement
- Vaccine storage and handling
- Vaccine administration
Liability Insurance

- Liability insurance covering the pharmacist for $1 million per occurrence and $2 million per year
Protocol

- Written protocol agreed to by a physician and a pharmacist that establishes procedures and record-keeping and reporting requirements for the administration of a vaccine by a pharmacist for a period that may not exceed 2 years.
Standards of Practice

○ Basic life support
○ Immunization registry use
○ Personal immunization records
○ Notification of primary care provider
Immunization Log

- Pen and paper
- Software options
  - Spreadsheet
  - Pharmacy profiling software
  - Clinic Assessment Software Application (CoCASA), free from CDC
Immunization Records

- Maintain record in pharmacy
- Report to primary-care provider
  - Include “Entered in WIR”
- Personal immunization record
- Report any adverse events to primary-care provider and VAERS
- Document patient education provided
- Wisconsin Immunization Registry
Bring this record with you each time a vaccine is given.

- State law requires written evidence of immunization prior to day care or school entrance.
- Keep this record up-to-date. It will serve as a lifetime immunization history.
- Check with your physician or public health department for recommended childhood and adult vaccines.

Wisconsin Department of Health and Family Services
Division of Public Health, PO Box 2659, Madison, WI 53701-2659
DPH 4257 (Rev 05/00)
Wisconsin Immunization Registry

- Web-based
- Lifetime record
  - Birth records automatically entered
  - EMR interface
- Current focus on childhood records
- Participation by adult immunization providers welcomed
  - Training session required
  - [http://www.dhs.wisconsin.gov/immunization/WIR.htm](http://www.dhs.wisconsin.gov/immunization/WIR.htm)
  - Contact: WIR Helpdesk at (608) 266-9691
Children <6 yr in IIS

Percentage of children aged < 6 years participating in an immunization information system -- United States, five cities§, and D.C., 2014

National Participation: 88% (excluding Territories)
Source: CY2014 IISAR

§ Chicago, IL, Houston, TX, New York City, NY, Philadelphia, PA, San Antonio, TX.
Adolescents in IIS

Percentage of adolescents aged 11 – 17 years participating in an immunization information system -- United States, five cities§, and D.C., 2015

National Participation: 72% (excluding Territories)
Source: CY2015 IISSAR

§ Chicago, IL; Houston, TX; New York City, NY; Philadelphia, PA; San Antonio, TX.
Adults in IIS

Percentage of adults aged ≥19 years participating in an immunization information system -- United States, five cities§, and D.C., 2014

National Participation: 53% (excluding Territories)
Source: CY2014 IISAR

§ Chicago, IL; Houston, TX; New York City, NY; Philadelphia, PA; San Antonio, TX.
Residence of Immunized in Dane County
Identify the Partners

- Patients
  - Elderly
  - High risk conditions
  - Contacts
  - Workplaces

- Other immunization providers
  - Physician offices
  - Public health clinics
  - Visiting nurses
Advantage of Pharmacies

- Accessibility
  - Hours
  - No appointment
  - Location

- Trust

- Identify those with indications based on medications

- Decreased cost compared to most other sources
Quality Provided

- High adherence to ACIP guidelines
- High adherence to travel medicine guidelines (including immunization)
Place of influenza vaccination among children and adults, early 2012-13 flu season, National Immunization Survey and National Internet Flu Survey

- Doctor's Office: 34.5% (Adults), 64.8% (Children)
- Other Medically-Related Place: 21.5% (Adults), 25.3% (Children)
- Pharmacy or Store: 2.9% (Adults), 18.4% (Children)
- Workplace: 0.4% (Adults), 17% (Children)
- School: 2.4% (Adults), 5.5% (Children)
- Other Non-Medical Place: 1% (Adults), 6.3% (Children)

† Other medically-related place includes hospital, clinic or health center, local health department, and other unspecified medically-related place.
Pharmacy or store includes pharmacy or drug store and local supermarket or grocery store.
§ Other non-medical place includes senior center, military-related place, other school, such as college or trade school, home and other unspecified non-medical place.

### Populations Immunized in Pharmacies

#### 2012-13 Season

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<tr>
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<th>18-49 yo</th>
<th>50-64 yo</th>
<th>65 yo and older</th>
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<tbody>
<tr>
<td>Total</td>
<td>21%</td>
<td>15%</td>
<td>19%</td>
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http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6204a1.htm?s_cid=ss6204a1_e
Immunization activities provided by pharmacists

- Administer vaccines: 75% (2011), 80% (2012)
- Educate public: 60% (2011), 60% (2012)
- Immunization coalition participation: 27% (2011), 29% (2012)
- Refer to physician: 25% (2011), 28% (2012)
- Part of emergency preparedness: 24% (2011), 23% (2012)
- Educate policymakers on pharmacist-provided vaccines: 24% (2011), 25% (2012)
- Advocate/educate policymakers about immunizations: 22% (2011), 22% (2012)
- Refer to immunizing pharmacists: 21% (2011), 24% (2012)
- Refer to public health department: 19% (2011), 21% (2012)
- Refer to in-store clinic practitioner: 13% (2011), 17% (2012)

Overall mean of total (across all practice settings)

Sources: 2011 and 2012 APhA immunization survey
Rates of Influenza Vaccination in Wisconsin by Age Group and Location, 2014-15 Influenza Season, Based on Doses Reported to the Wisconsin Immunization Registry (WIR)

* Numerator: Number of persons recorded in the WIR as having received at least one dose of seasonal influenza vaccine by age group and vaccination location (commercial pharmacy vs. all else). For 2014-2015, doses administered between 8/1/14 to 3/12/15, assessed on 3/13/15. Denominator source: 2013 Wisconsin Interactive Statistics on Health (WISH) population estimates, by age group.

Wisconsin Immunization Program
Vaccines Administered by Pharmacists

- Influenza vaccines
  - Adults
  - Children
- Pneumococcal vaccines
- Zoster vaccine
- Tdap vaccine
- Others including travel, hepatitis A, hepatitis B, HPV
“Work sites and pharmacies are major sources of vaccination for adults, with more than a third of vaccines being given [there].”

CDC Director Thomas Frieden, MD, MPH, regarding influenza vaccination activity for the current season

Read more: www.cdc.gov/media/releases/2012/t1203_influenza_activity.html
Reimbursement

- Medicare Part B
  - Influenza and pneumococcal vaccines

- Medicare Part D
  - Zoster and Tdap

- Medicaid: influenza only; VFC

- Some private health insurance

- Patient assistance programs
Zoster Vaccine Rates
Immunizing the Community

- Working together
- Local competition
Right Now at UW-Madison

- Public health emergency
- MenB vaccines recommended for all undergraduates
- POD (Point of Dispensing) activated
- More than 20,000 undergraduates received dose #1
Pharmacy Students Instrumental

- Many served as greeters, screeners and vaccinators
- Interprofessional experience
- Gained experience with emergency response
- Promote profession
Immunization Coalitions

- Bring together community’s vaccine providers
  - Include community organizations
- Promote immunization
  - Press releases
  - Community-wide promotion events
- Response to disease outbreak
- Cooperation when vaccine shortage
Immunization Coalitions

A rising tide lifts all boats.
I gave a shot to a man in Reno, just to watch him develop immunities.

DOCTORS OF THE OLD WEST
Share Success

- Continuous quality improvement
- Collaborating physician
- State and national organizations
- Immunization coalitions