Pharmacy's Potential to Improve Immunization Rates in North Carolina

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Pharmacists as Immunizers

- Pharmacists have a rich history with immunizations
- Pharmacists complete a rigorous training program to become immunizers
- All schools of pharmacy in North Carolina include immunization training in their curricula

Hogue MD, et al. *J Am Pharm Assoc* 2006;46(2):168-182; http://www.pharmacist.com/education.

Support from the American College of Physicians (ACP)

"ACP supports the use of the pharmacist as
immunization information source,
host of immunization sites,
and immunizer,
as appropriate and allowed by state law.

ACP will work with pharmacy organizations to increase immunization awareness."

Ann Intern Med 2002;136:79-85.

Benefits of Pharmacists

- Increased public demand for immunizations
- Increased immunization rates for all providers
- Cost-effective vaccination site
- Convenient vaccination sites, including access to immunizations for those without a medical home

Debrovner D. *Am Druggist.* 1994;(Dec):22-3; Grabenstein J et al. *J Am Pharm Assoc.* 2001;41:46-52; Grabenstein J et al. *Medical Care.* 2001;39:340-8; Grabenstein J et al. *J Clin Epidemiol.* 2001;55:279-84; Steyer TE et al. *Vaccine* 2004;22:1001-1006; Prosser LA. *Pharmacoeconomics* 2008;26(2):163-78.

Impact of Influenza and Pneumococcal Disease

- 8th leading cause of death in the United States (52,847 deaths in 2007)

- Of those patients who die from influenza:
  - 1/2 to 2/3 were hospitalized in previous 5 years, but were not vaccinated
  - 2/3 saw physicians as outpatients in previous year, but were not vaccinated

National Center for Health Statistics. National Vital Statistics Reports. Deaths: preliminary data for 2007.

Vaccination Rates in Adults

	Vaccination Rate (%)
Influenza (50-64 years)	38.7
Influenza (≥65 years)	66.6
Pneumococcal (≥65 years)	60.0
Tetanus in past 10 years (19-49 years)	63.6
Tetanus in past 10 years (50-64 years)	62.4
Tetanus in past 10 years (≥65 years)	51.9
Zoster vaccine (≥60 years)	6.7

National Health Interview Survey, 2008.

Vaccination Rates in Adolescents

	Vaccination Rate (%)
TdaP vaccine (13-17 years)	30.4
Td or TdaP vaccine (1 dose, ≥10 years)	72
Meningococcal vaccine (13-17 years)	32.4
HPV vaccine (started series, ≥9 years)	25.1
Hepatitis B vaccine (3 doses, 13-15 years)	89
MMR vaccine (2 doses, 13-15 years)	69
Varicella vaccine (1 dose, 13-15 years)	80

MMWR Morb Mortal Wkly Rep 2008;57(40):1100-03.

Current Law in North Carolina

- To become an immunizing pharmacist, the individual must complete:
  - Immunization training program
  - Training in Basic Life Support (BLS) from the American Red Cross or American Heart Association
  - Bloodborne pathogens training
  - Immunization-related continuing education (CE)

Current Law in North Carolina

- Trained pharmacists may administer:
  - Influenza vaccine
  - Pneumococcal vaccine
  - Herpes zoster (shingles) vaccine
  - To patients ≥18 years

- Must follow written order, standing medical order, or other protocol under licensed physician (MD or DO)

http://www.ncbop.org.

"Standing orders
have been found to
reduce missed opportunities and
increase vaccination rates more
than any other strategy"

Centers for Disease Control and Prevention.

Current Law in North Carolina

- Must consult with patient's primary care provider (PCP) prior to administering pneumococcal or herpes zoster vaccine

- Must report all vaccines administered to the patient's PCP and report all vaccines administered to all entities as required by law

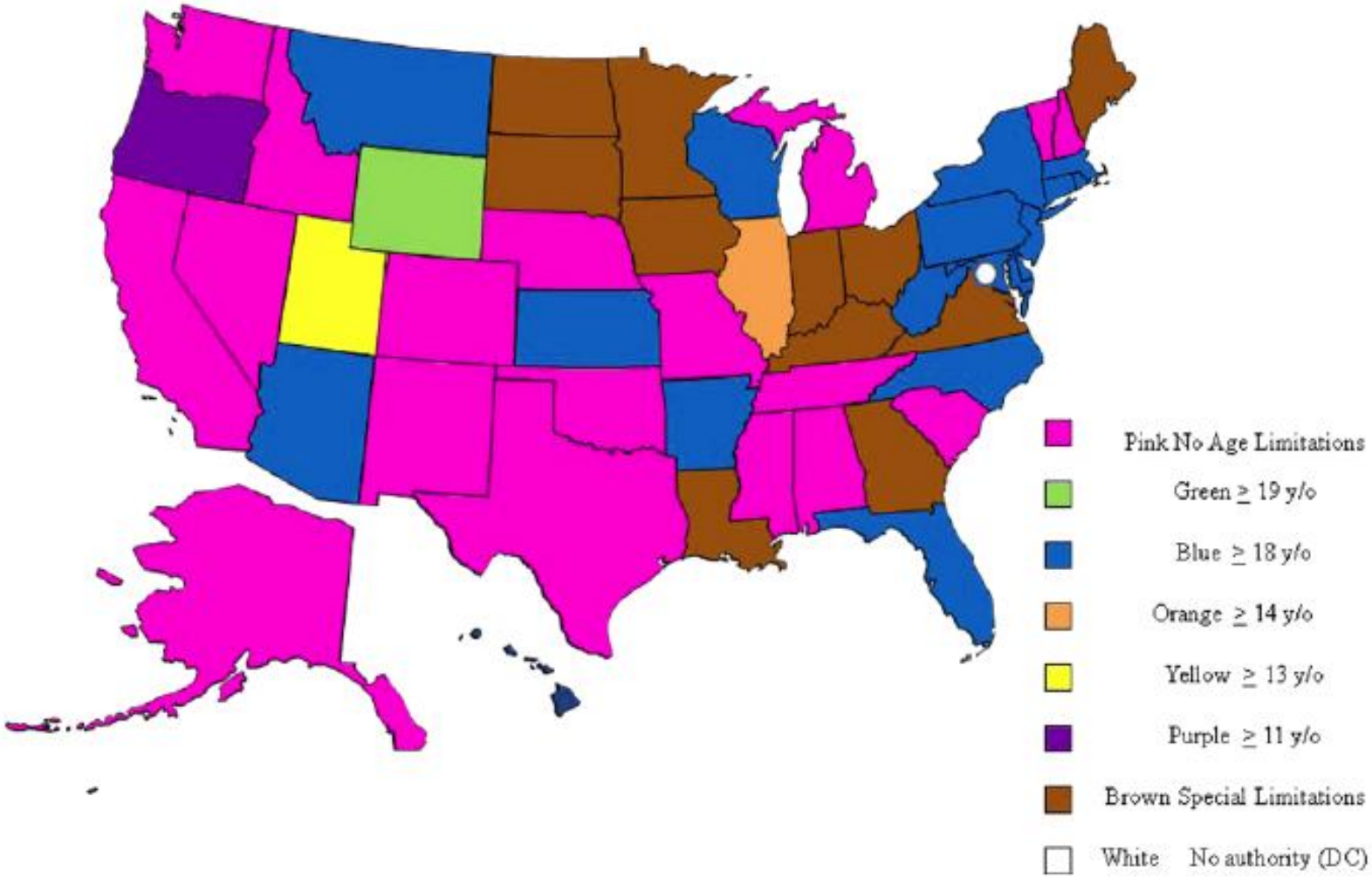
http://www.ncbop.org.

Opportunities for North Carolina

1. Broaden the **scope** of vaccines pharmacists can administer
   - 17 states allow pharmacists to administer any vaccine via any route of administration

2. Lower the **age** at which pharmacists can administer vaccines
   - 17 states have no age restrictions
   - 12 states have varied age restrictions <18 years

Pharmacist Authority to Administer Influenza Vaccine



American Pharmacists Association, September 2009.

Pharmacists Have Experience with Administering Vaccine to <18 Years

- From October 9, 2009 through July 31, 2010, immunizing pharmacists in North Carolina could administer:
  - Seasonal influenza vaccine
  - H1N1 influenza vaccine
  - To patients ≥14 years

Support from the American Academy of Pediatrics (AAP)

"If sufficient pediatric medical homes are not available, additional venues could include public health department clinics, WIC program offices, child care centers, school-based health clinics, and in those states that allow it, pharmacies."

Pediatrics 2010;125(6):1295-1304.

Example: Pharmacist Administration of Immunizations in Virginia

1. Via a valid order or prescription
   - Any vaccine to any person of any age

2. Via Department of Health guidelines
   - Influenza vaccine (including H1N1) to minors who do not present a prescription

3. Via a protocol authorized by a prescriber
   - Any vaccine to adults who do not present a prescription

http://www.dhp.virginia.gov/pharmacy/newsletters/VA122009.pdf

In Conclusion

- Pharmacists are highly trained and in regular contact with individuals who need vaccination
- Pharmacies are convenient and cost-effective vaccination sites
- Pharmacists communicate with the medical home when an immunization is given but we can also reach patients without a medical home
- Pharmacists are a largely untapped, ready, and willing workforce; we want to partner to protect the public health