



Pharmacists in Public Health

Lessons Learned, Learning, and Have Yet to Learn

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Disclosure of Relevant Financial Relationships

- ▶ I have no financial conflicts of interest to disclose.
- ▶ This activity was prepared by the speaker as a subject matter expert. Any opinions expressed are the speaker's own and do not necessarily reflect the views of RASHP, its employees, staff, officers, Board of Directors or Affiliates.

Learning Objectives

- ▶ Recognize how pharmacy training prepares pharmacists for public health work
- ▶ List areas in a local public health department that can utilize a pharmacist
- ▶ Compare how public health work may look in different pharmacy models (eg, community, hospital, ambulatory)
- ▶ Explore ways you can incorporate public health efforts into your work and/or how you can become involved with public health departments/organizations around you

My Journey

Undergraduate Education

- RIT
 - Biochemistry
 - Deaf Cultural Studies and Business

Pharmacy Residency

- Wegmans School of Pharmacy and Wegmans Pharmacy

Public Health Position

- Chief Pharmacist
- Monroe County Department of Public Health

Pharmacy School

- Wegmans School of Pharmacy
 - Phi Delta Chi
 - Medical Mission Trips
 - Volunteer Service

Public Health Fellowship & Master of Public Health

- Wegmans School of Pharmacy, Monroe County Department of Public Health, Anthony Jordan Health
- MRC

Google public health pharmacist

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https://www.usphs.gov › professions › pharmacist

Pharmacist | Commissioned Corps of the U.S. Public Health ...

Pharmacists in the USPHS Commissioned Corps go beyond routine pharmaceutical care, reviewing, approving, and monitoring new drugs, conducting groundbreaking ...

Benefits · Where We Work · Where We Serve

See results about

-  The Pharmacist in Public Health: ... Book >
-  The Public Health Pharmacist Po... Dr. Christina Madison PharmD is the Public Health Pharmacist. ... >

People also ask

- What does a public health pharmacist do? ▾
 - How do pharmacists promote public health? ▾
- Feedback

https://www.thepublichealthpharmacist.com

The Public Health Pharmacist

Prioritizing **Pharmacists in Public Health**. "Spreading knowledge about **public health** to create better communities". Featured On. Emily Kirkwold, PharmD, BCPS.

https://www.apha.org › policy-database › 2014/07/07

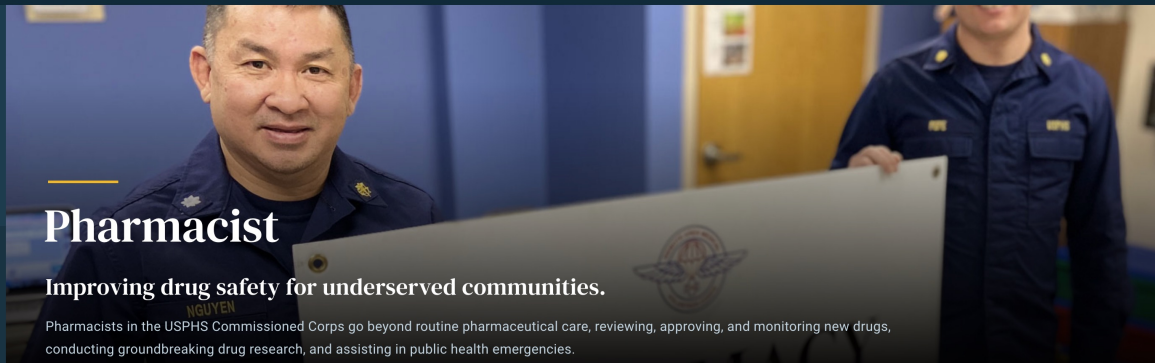
The Role of the Pharmacist in Public Health

Pharmacists are in a prominent position to provide background data, legislative content and exposition to local, state and federal governments. As medication- ...

https://www.apha.org › public-health-and-pharmacy



COMMISSIONED CORPS OF THE U.S. PUBLIC HEALTH SERVICE



Pharmacist

Improving drug safety for underserved communities.

Pharmacists in the USPHS Commissioned Corps go beyond routine pharmaceutical care, reviewing, approving, and monitoring new drugs, conducting groundbreaking drug research, and assisting in public health emergencies.

Where we work



Agency for Healthcare Research and Quality

Agency for Toxic Substances and Disease Registry

Centers for Disease Control and Prevention

Food and Drug Administration

Centers for Medicare and Medicaid Services

Indian Health Service

National Institutes of Health

Health Resources and Services Administration

Office of the Assistant Secretary of Health

Office of the Secretary

Program Support Center

Substance Abuse and Mental Health Services Administration

Office of the Assistant Secretary for Preparedness and Response

Environmental Protection Agency

Federal Bureau of Prisons

National Oceanic and Atmospheric Administration

National Park Service

U.S. Department of Agriculture

U.S. Department of Defense

U.S. Department of Homeland Security

Division of Immigration Health Services

U.S. Coast Guard

U.S. Marshals Service

Lessons I've Learned

Pharmacists are Prepared

Audience Participation Question

- ▶ Public health and population health are the same thing and are terms that should be used interchangeably
 - ▶ True
 - ▶ False

Public Health

The science of protecting the safety and improving the health of communities through education, policy making and research for disease and injury prevention.

Promotes and protects the health of people and the communities where they live, learn, work and play.

What we as a society do collectively to assure the conditions in which people can be healthy.

Population Health

The health outcomes of a group of individuals, including the distribution of such outcomes within the group.

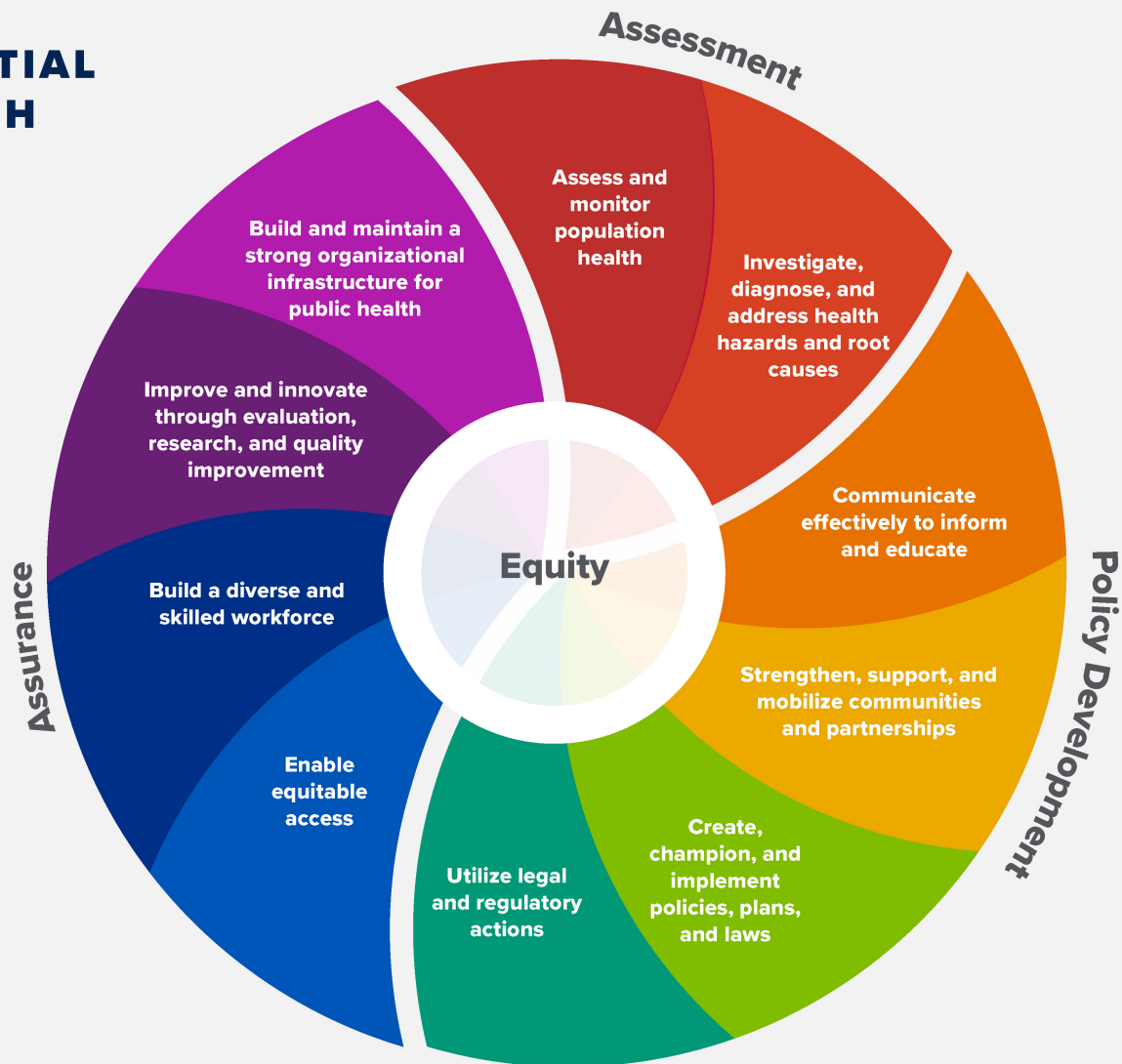
A focus on understanding the conditions and factors that influence the health of populations over lifetimes.

An opportunity for health care systems, agencies, and organizations to work together in order to improve the health outcomes of the communities they serve.

THE 10 ESSENTIAL PUBLIC HEALTH SERVICES

To protect and promote the health of all people in all communities

The 10 Essential Public Health Services provide a framework for public health to protect and promote the health of all people in all communities. To achieve optimal health for all, the Essential Public Health Services actively promote policies, systems, and services that enable good health and seek to remove obstacles and systemic and structural barriers, such as poverty, racism, gender discrimination, and other forms of oppression, that have resulted in health inequities. Everyone should have a fair and just opportunity to achieve good health and well-being.



Created 2020.

CDC. Public Health Professionals Gateway. 2021.

Levels of Public Health Services

Macro

Planning

Focus on the well-being of the population as a whole and emphasize the assessment and prioritization of a community's health-related needs as well as planning to address those needs.

Examples

- working with community representatives in identifying health-related community problems
- setting community health priorities
- formulating community health programs and policies
- managing, administering, and evaluating community health promotion programs
- educating the community in ways that promote public health
- researching, presenting, and publishing information about public health activities

Micro

Implementation

Usually performed on a provider-to-patient or a program-to-population basis, usually with a specific health related outcome in mind.

Examples

- disease screening
- Immunization
- counseling for at-risk populations
- tobacco-cessation programs

Audience Participation Question

Have you ever...

- ▶ Counseled patients and/or their families on medications?
- ▶ Decreased the use of broad-spectrum antibiotics?
- ▶ Talked with your patients about smoking cessation?
- ▶ Given Vaccines?
- ▶ Talked with your patients about their diseases and how to manage them?
- ▶ Helped your patients find cost effective drugs for their diagnoses?
- ▶ Called your patients post-hospital discharge to review their medication list to decrease their chance of hospital readmission?
- ▶ Lobbied for better health policies or expansion of services?

YES

NO

“It will be argued here that some, but not nearly enough, pharmacists are now engaged in public health activities. Furthermore, both the public and the profession of pharmacy benefit from public health pharmacists, but pharmacy education has failed to recognize the potential for pharmacists in public health as well as to acquaint pharmacy students and practitioners with role models in public health.”

“Although “bits and pieces” of the elements required for training in pharmacy public health are present in most curricula, they are not recognized or presented as such. Just as the role of public health pharmacy gets lost in a set of roles, training in public health pharmacy gets lost in the traditional elements of the pharmacy curriculum.”

What can pharmacy educators do to remedy the situation? **First**, they should recognize that there are two levels where pharmacists need to participate in public health, and that having pharmacists at the macro level may be critical to having them perform public health activities at the micro level. **Second**, develop competency-based curricula in public health. **Third**, support publication of a text that addresses the pharmacist's role in public health and the organization of health care. **Fourth**, modernize public health courses, *e.g.*, students need to learn about Medicaid, HMOs, formularies, *etc.*, far more than they need to learn about yellow fever epidemics and arthropod-borne diseases. **Fifth**, provide exposure of students to adequate role models, *i.e.*, real-world pharmacists working at both levels in public health. **Sixth**, explore innovative programs to obtain these goals, and share experiences; *e.g.*, the Philadelphia College of Pharmacy and Science has offered a course in which "role models" are brought to the campus to discuss the opportunities in their fields, and recently the Virginia Commonwealth University School of Pharmacy has arranged an externship for a student at a PSRO. **Seventh**, strongly encourage an increase in the number of pharmacists who obtain the Masters Degree in Public Health so they can: (i) act as role models at the macro level and (ii) develop logical roles for public health pharmacists at both the micro and macro levels.

Audience Participation Question

- ▶ An ACPE accredited pharmacy school curriculum now...
 - ▶ Contains no courses that will prepare a pharmacist for public health
 - ▶ Contains only a few courses that will prepare a pharmacist for public health
 - ▶ Has many courses that will prepare a pharmacist for public health

Example of Pharmacy Training Requirements and Application to Public Health

Pharmaceutics	How medications are developed, expirations, stability
Pharmacology	Mechanisms of action and adverse drug actions, interactions, therapeutic decisions
Epidemiology	Disease incidence, cause-and-effect patterns
Health Care Delivery	Triple Aim, reimbursement models, patient-centered care
Diversity	Understanding of the population around us
Law	Regulations, policies, diversion control
Communications	Patient and provider communication strategies, communication tools
Population Based Health Care	Pharmacoeconomics, value-based care, social determinants of health
Evaluation of Medical Literature	Statistics, critical evaluation, building and communicating conclusions
Management	Pharmacy operations, communication techniques
Ethics	Critical thinking, resolving dilemmas in patient care
Electives	Teaching, Research, Oncology, Emergency Medicine, Preparedness, Spanish, ASL
Clinical Experiences	Community, LTCF, hospital, ambulatory care, specialties, managed care, medical missions

Lessons I'm Learning

Integration is Key

Monroe County Department of Public Health

- ▶ Administration
- ▶ Addiction Services
- ▶ Early Intervention
- ▶ Environmental Health
- ▶ Epidemiology and Disease Control
- ▶ Maternal and Child Health
 - ▶ Nurse Family Partnership, WIC, Foster Care, Children with Special Health Care Needs
- ▶ Medical Examiner
- ▶ Nursing Services
 - ▶ Immunizations, STD/HIV, Tuberculosis
- ▶ Preparedness



Current Functions and Projects

COVID-19 Efforts

- Vaccination Clinics and Vaccine Redistribution
- Testing

Opioid Epidemic

- Maisie's Law
- IMPACT (Addiction Services)

Education

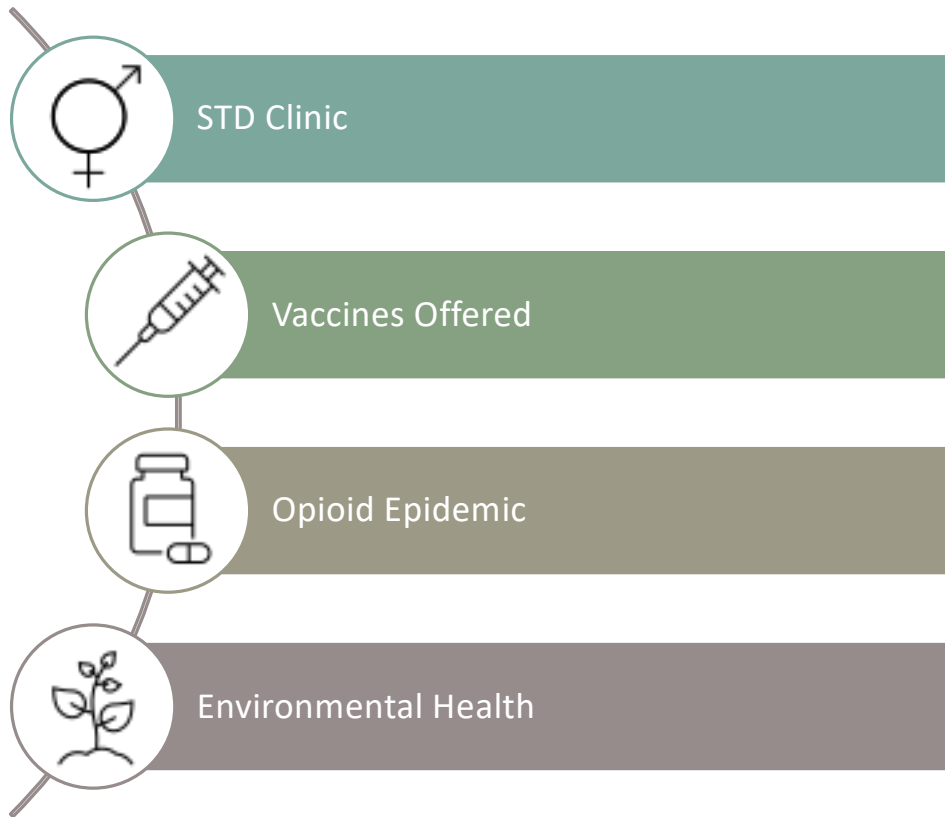
- Fellowship
- Preceptor

Pharmacy Liaison

Management

Pharmacy Reference

Ideas for the Future



Lessons I Have Yet to Learn

A Call to Action

ASHP Statement on the Role of Health-System Pharmacists in Public Health

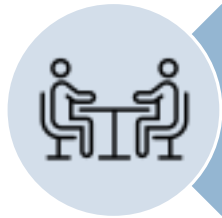
- ▶ The American Society of Health-System Pharmacists (ASHP) believes that all health-system pharmacists have a responsibility to participate in global, national, state, regional, and institutional efforts to promote public health and to integrate the goals of those initiatives into their practices. Furthermore, health-system pharmacists have a responsibility to work with public health planners to ensure their involvement in public health policy decision-making and in the planning, development, and implementation of public health efforts.
- ▶ The primary objectives of this statement are to:
 - ▶ increase awareness of health-system pharmacists' contributions to public health,
 - ▶ educate pharmacists about public health and their role in promoting public health,
 - ▶ describe the role of health-system pharmacists in public health planning and promotion, and
 - ▶ identify new opportunities for health-system pharmacists' involvement in future public health initiatives.

American Public Health Association (APHA)

▶ The Role of the Pharmacist in Public Health

- ▶ “There are many functions of public health that can benefit from pharmacists' unique expertise that may include pharmacotherapy, access to care, and prevention services. Apart from dispensing medicine, pharmacists have proven to be an accessible resource for health and medication information. The pharmacist's centralized placement in the community and clinical expertise are invaluable.”
- ▶ “The expertise of the pharmacist is not isolated to the education of the immediate community, but can also be utilized to inform laws and regulations.”

NACCHO - Local Health Department and Pharmacy Partnerships for Enhancing Medication Dispensing during Emergencies



Leverage existing community partnerships

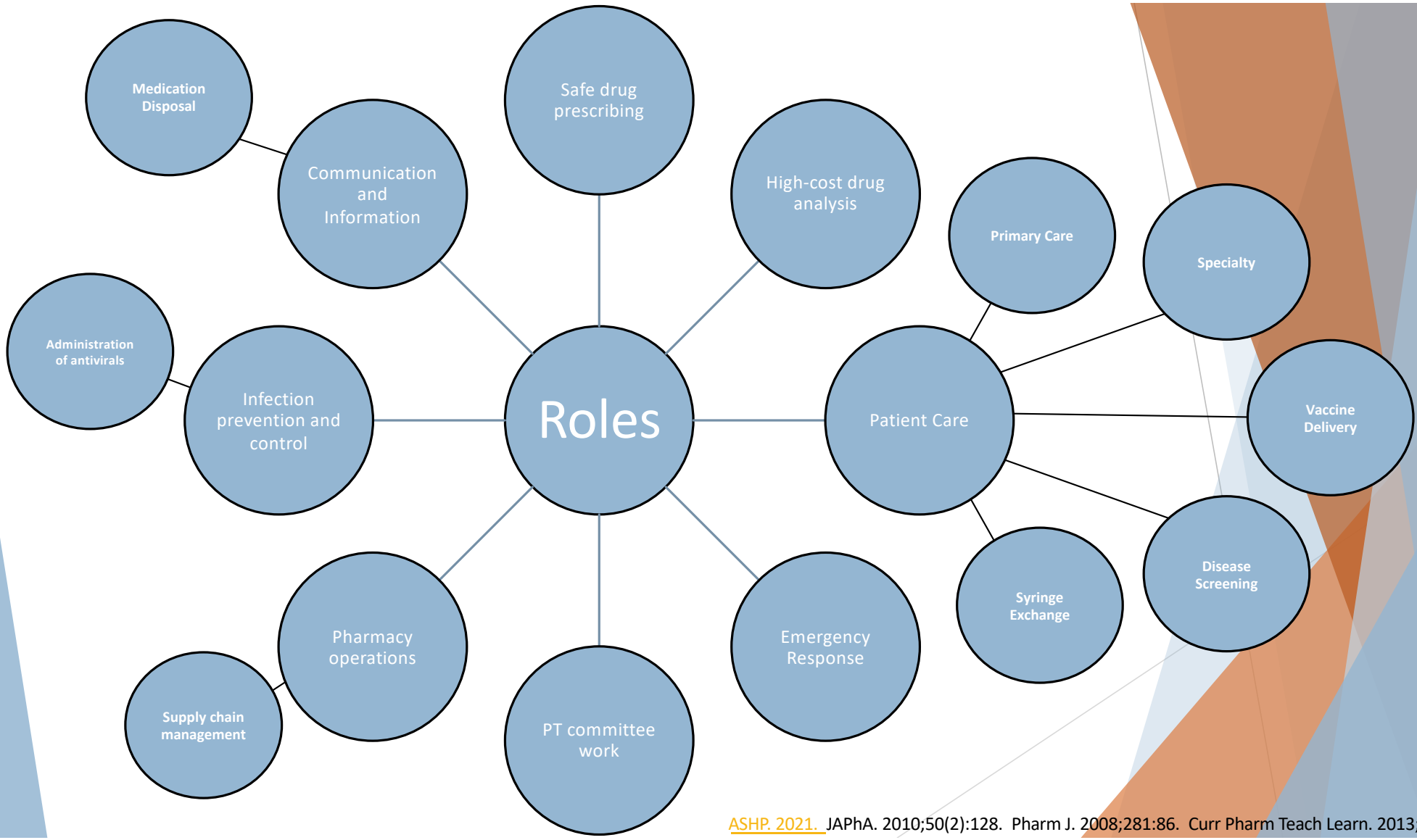


Build mutually beneficial partnerships



Understand the legal frameworks





[ASHP. 2021.](#) JAPhA. 2010;50(2):128. Pharm J. 2008;281:86. Curr Pharm Teach Learn. 2013;5:477.

Healthy People 2030 Objectives and Measures



Healthy People 2030 Objectives and Measures

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Healthy People 2030 Leading Health Indicators (LHIs)

LHIs by life stage

All ages*

Children, adolescents, and adults who use the oral health care system (2+ years)
Consumption of calories from added sugars by persons aged 2 years and over (2+ years)
Drug overdose deaths
Exposure to unhealthy air
Homicides
Household food insecurity and hunger
Persons who are vaccinated annually against seasonal influenza
Persons who know their HIV status (13+ years)
Persons with medical insurance (<65 years)
Suicides

*Except where otherwise noted

Infants

Infant deaths

Children and adolescents

4th grade students whose reading skills are at or above the proficient achievement level for their grade
Adolescents with major depressive episodes (MDEs) who receive treatment
Children and adolescents with obesity
Current use of any tobacco products among adolescents

Adults and older adults

Adults engaging in binge drinking of alcoholic beverages during the past 30 days
Adults who meet current minimum guidelines for aerobic physical activity and muscle-strengthening activity
Adults who receive a colorectal cancer screening based on the most recent guidelines
Adults with hypertension whose blood pressure is under control
Cigarette smoking in adults
Employment among the working-age population
Maternal deaths
New cases of diagnosed diabetes in the population





Audience Participation Question





- ▶ When talking about my local Medical Reserve Corps (MRC)...
 - ▶ I know what the MRC is
 - ▶ I know what the MRC is and I am involved in my local region
 - ▶ I have no idea what the MRC is
 - ▶ I have no idea what the MRC is but please tell me more!

INFOGRAPHIC: A TIMELINE OF THE MRC

It's All About Service: A brief history



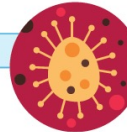
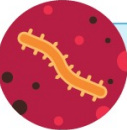





of the Medical Reserve Corps









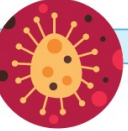
<p>2002</p>  <p>Office of the Surgeon General (OSG) announces the MRC as a demonstration project; MRC is defined as a program for medical, public health, and other volunteers interested in public health preparedness.</p>	<p>2002</p>  <p>42 MRC community-based units established to uphold the principles of the MRC project, as defined by OSG.</p>	<p>2006</p>  <p>Congress passes the Pandemic and All-Hazards Preparedness Act (PAHPA), which formally authorizes the MRC and its network to support emergency response at all levels, Local, State, Tribal, Territorial, and Federal.</p>	<p>2006</p>  <p>500 MRC units established nationwide, including Washington, DC, Guam, Puerto Rico, and US Virgin Islands. MRC Program Office joins forces with NACCHO through a cooperative agreement to build capacity within the MRC network.</p>
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<p>2010</p>  <p>The MRC and the American National Red Cross issue a joint memorandum of understanding (MOU) to improve organizational coordination and cooperation to prepare communities for disasters.</p>	<p>2013</p>  <p>Congress passes the Pandemic and All-Hazards Preparedness Reauthorization Act (PAHPRA), which continues authorization for MRC, but moves authority and responsibility to the HHS Assistant Secretary for Preparedness and Response (ASPR).</p>	<p>2017</p>  <p>A Formal Letter of Agreement between the American National Red Cross and the MRC Program reauthorizes the collaboration between the two organizations to better prepare communities to withstand and recover from disasters.</p>	<p>TODAY</p>  <p>Nearly 200,000 volunteers among almost 800 units, including Washington, DC, American Samoa, Federal States of Micronesia, Guam, Northern Mariana Islands, Republic of Marshall Islands, Puerto Rico, and U.S. Virgin Islands.</p>
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Rising to the occasion

Over the last five years, MRC units throughout the nation have been called upon to serve their communities during an increasing number of severe public health emergencies and disasters. MRC volunteers have risen to the occasion, assisting in a variety of natural disasters and communicable disease outbreaks, as well as ongoing public health emergencies such as the opioid epidemic.

<p>2005</p>  <p>More than 6,000 MRC volunteers from 150+ MRC units participate in Hurricane Katrina, Rita, and Wilma response and recovery efforts.</p>	<p>2008</p>  <p>More than 1,500 MRC volunteers from 63 MRC units across 14 states volunteer over 30,000 hours in response to Hurricanes Ike and Gustav and Tropical Storm Hanna.</p>	<p>2009</p>  <p>Almost 50,000 MRC volunteers across 600 units respond to H1N1 outbreak. Over 2,500 separate immunization, flu prevention, and flu care activities reported.</p>
<p>2014</p>  <p>During the domestic Ebola response, 169 units donate more than 14,000 hours across 180 activities (e.g., suspect-case screening support, health education, call centers, and providing general surveillance support).</p>	<p>2012</p>  <p>New York's and New Jersey's health department call on the MRC in the wake of Hurricane Sandy. MRC volunteers serve more than 36,000 hours in response.</p>	<p>2012</p>  <p>The Waldo Canyon Fire, one of the most destructive in Colorado history, burns for a month. The MRC of El Paso County donated 1,644 hours of volunteer service.</p>
<p>2015</p>  <p>More than 300 MRC volunteers from 20 units supported local efforts during the Papal Visit. These volunteers provided medical care and other assistance at aid stations, tents, and other venues.</p>	<p>2016</p>  <p>MRC units prepare for and support Zika response. Puerto Rico declared a public health emergency and over 140 MRC volunteers helped in community education efforts, reaching about 17,000 individuals.</p>	<p>2016-2017</p>  <p>Opioid Crisis: MRC units around the country engaged in prevention activities, training, HD support, and Harm Reduction programs to inform and aid communities affected by opioid abuse.</p>

<p>2017</p>  <p>Over 100 units responded to Hurricanes Harvey, Irma, and Maria, providing 100,000+ volunteer hours at an estimated economic value of almost \$4 million.</p>	<p>2018</p>  <p>Total of 889 MRC units nationwide with 188,200 volunteers participated in 17,396 total activities: 410,000 volunteer hours.</p>	<p>2018</p>  <p>MRC volunteers in the West contributed more than 15,000 service hours responding to wildfires by providing medical support, psychological first aid, and animal rescue and care efforts.</p>
<p>2019</p>  <p>848 total MRC units nationwide with 179,000 volunteers participated in 15,506 total activities contributed 47,250 volunteer hours.</p>	<p>2018</p>  <p>More than 200 MRC volunteers from states across the country responded to Hurricanes Lane and Florence in August and September.</p>	<p>2018</p>  <p>More than 100 MRC units engaged in training and prevention activities to inform and aid communities in response to the increase in opioid abuse across the country.</p>
<p>2019</p>  <p>Alabama and Mississippi MRC volunteers devoted more than 2,000 hours in response to tornadoes.</p>	<p>2020</p>  <p>MRC units nationwide participated in 16,584 total activities, totaling 820,000 volunteer hours. 650,000 of those hours were dedicated to COVID-19 response efforts.</p>	<p>2021</p>  <p>MRC units and volunteers nationwide continue to bolster local emergency response capabilities and serve as critical medical and public health response assets during the COVID-19 pandemic.</p>

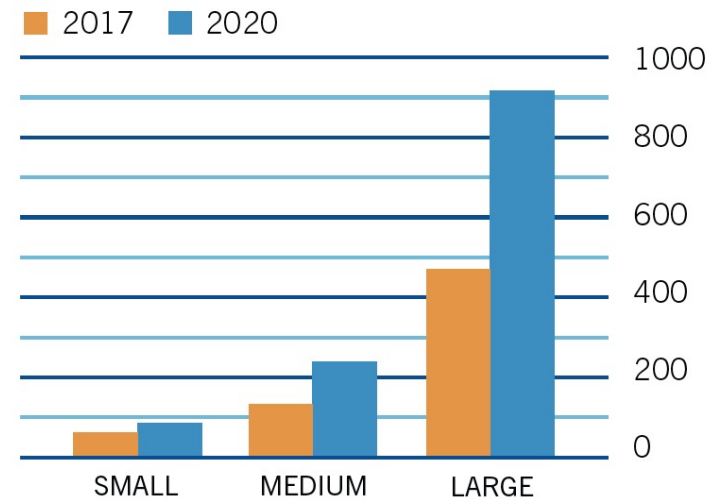
COMMUNITIES SERVED BY MRC UNITS:



- 43%** **SMALL**
serving fewer than 100,000
- 19%** **MEDIUM**
serving 100,000–250,000
- 38%** **LARGE**
serving more than 250,000



AVERAGE NUMBER OF VOLUNTEERS:



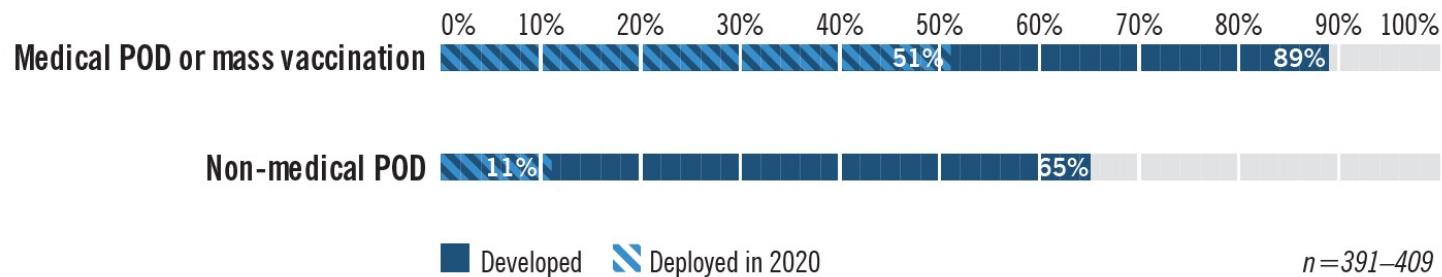
RESPONDED TO COVID-19 DURING THE PAST YEAR:



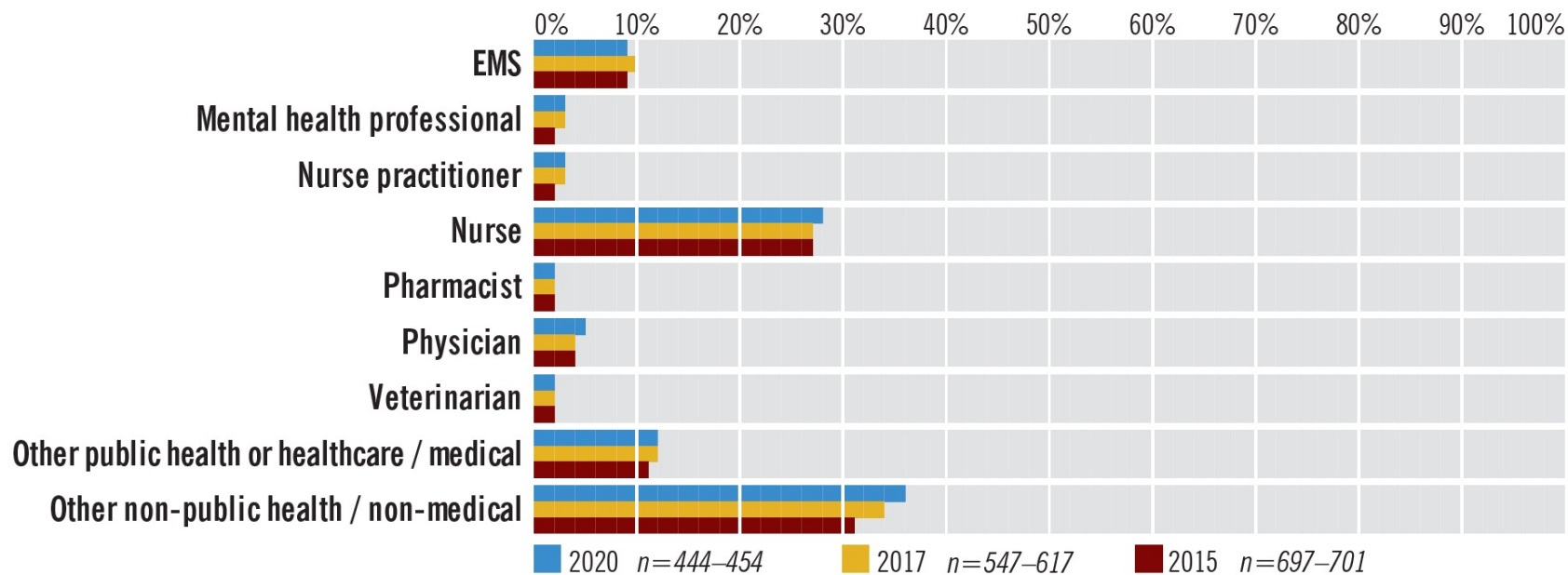
84% of units overall:

- SMALL 76%**
- MEDIUM 89%**
- LARGE 91%**

Emergency mass dispensing unit support



Disciplines held by unit volunteers



Take Away

- ▶ Pharmacists are prepared for public health work.
- ▶ Pharmacists are already doing public health work!
- ▶ What activities or roles can you focus on to continue to expand your public health offerings?

Thank you!

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