

November 1, 2021

President Karen Fann
kfann@azleg.gov
Speaker Rusty Bowers
rbowers@azleg.gov
1700 West Washington Street
Phoenix, AZ 85007

Dear President Fann and Speaker Bowers,

Pursuant to sections 32-3104 and 32-3106, Arizona Revised Statutes, the Arizona Pharmacy Association (AzPA) in conjunction with the Arizona Community Pharmacy Committee (ACPC) hereby submits the attached report requesting an explanation of the scope of practice for the profession of pharmacy.

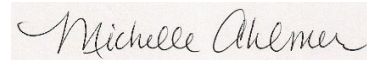
The proposal would in most part modify current law to make permanent the flexibilities that have been granted to pharmacists during the COVID-19 Pandemic.

The Arizona Pharmacy Association will begin meeting with stakeholders on this proposal to address questions and concerns prior to the introduction of legislation.

Sincerely,



Kelly Fine, RPh, FAzPA
Executive Director
Arizona Pharmacy Association



Michelle Ahlmer
Executive Director
Arizona Retailers Association



BACKGROUND

On January 31, 2020, a public health emergency was declared in the United States pursuant to section 319 of the Public Health Services (PHS) Act to aid in the response of the nation's health care community to the COVID-19 outbreak. The declaration has been subsequently renewed every 90 days: April 21, 2020, July 23, 2020, October 2, 2020, January 7, 2021, April 15, 2021, July 19, 2021, and most recently October 15, 2021.¹

In addition, pursuant to section 319F-3 of the PHS Act the Public Readiness and Emergency Preparedness Act (PREP Act) authorizes the HHS Secretary to issue a PREP Act declaration which provides liability immunity (except for willful misconduct) to certain individuals and entities for claims of loss caused, arising out of, relating to, or resulting from administration or use of medical countermeasures to diseases, threats, and conditions. This declaration is subject to amendment as circumstances warrant.

Through the PREP Act Declaration and subsequent Amendments² pharmacists have been called upon during this pandemic and are currently providing the following services to patients in Arizona and across the country:

1. Order any vaccine that the ACIP recommends to persons ages three and older³.
2. Order COVID-19 tests, including serology tests authorized, approved, or licensed by the U.S. Food and Drug Administration (FDA).⁴
3. Order COVID-19 vaccines⁵ and therapeutics⁶ subcutaneously, intramuscularly, or orally as authorized, approved, or licensed by the U.S. Food and Drug Administration (FDA).

In addition, on April 2, 2020, Governor Ducey issued *Executive Order 2020-20: Expanding Access to Pharmacies*⁷ which relaxed several pharmacy regulations in addition to the ones listed below that:

1. Allowed pharmacists to utilize their professional judgment to dispense emergency refills of maintenance medications for up to 90 days.
2. Removed hospital prescribing labeling restrictions for multidose medications.

We would like to make the above mentioned COVID-19 flexibilities permanent as to not cause a disruption in care once the state of emergency is rescinded.

Lastly, we would like to add the following complimentary authorities to our scope of practice request:

1. Allow pharmacists to order CLIA-waived influenza tests and any antiviral drug approved by the FDA that is indicated for influenza.
2. Develop a statutory mechanism for the utilization of pharmacists to respond to emerging and existing public health threats identified by our Public Health Department in areas such as

¹ <https://www.phe.gov/emergency/news/healthactions/phe/Pages/default.aspx>

² <https://www.phe.gov/Preparedness/legal/prepact/Pages/default.aspx>

³ <https://www.govinfo.gov/content/pkg/FR-2020-08-24/pdf/2020-18542.pdf>

⁴ HHS Advisory opinion on the public readiness and emergency preparedness act and the secretary's declaration under the act may 19, 2020 <https://www.hhs.gov/guidance/sites/default/files/hhs-guidance-documents/advisory-opinion-20-02-hhs-ogc-prep-act.pdf>

⁵ <https://www.govinfo.gov/content/pkg/FR-2021-03-16/pdf/2021-05401.pdf>

⁶ <https://www.govinfo.gov/content/pkg/FR-2021-09-14/pdf/2021-19790.pdf>

⁷ https://azgovernor.gov/sites/default/files/eo_2020-20_expanding_pharmacies.pdf

preventive health, mental health, substance use disorders, and infectious disease prevention and control.

Pharmacists have risen to the challenges posed by COVID-19 pandemic, and it is imperative that pharmacist scope of practice policies reflect the critical role that pharmacists play on the health care team. Eliminating the current pharmacy practice limitations and barriers that are not based in evidence will help to reduce health disparities and bridge the gap for those who live in rural and medically underserved areas and allow pharmacists to continue these valuable services and practice according to their current training and expertise.

INCREASED SCOPE FACTORS PURSUANT TO A.R.S. 32-3106

Why an increased scope of practice is beneficial, including the extent to which health care consumers need and will benefit from safe, quality care from practitioners with this scope of practice.

First, Arizona pharmacists have been ordering and administering immunizations for more than 15 years and have administered well over 7 million doses of vaccine as of December 2020⁸ which clearly demonstrates the impact and extent to which this service has provided a beneficial service to our community. (Refer to Appendix B)

On May 8, 2020, CDC reported, “**The identified declines in routine pediatric vaccine ordering and doses administered might indicate that U.S. children and their communities face increased risks for outbreaks of vaccine preventable diseases.**”⁹ Furthermore, on July 10, 2020, CDC reported its findings of a survey it conducted to assess the capacity of pediatric health care practices to provide immunization services to children. The survey found that 15% of Northeast pediatric practices were closed, 12.5% of Midwest practices were closed, 6.2% of practices in the South were closed, and 10% of practices in the West were closed. Most practices had reduced office hours for in-person visits. When asked whether their practices would likely be able to accommodate new patients for immunization services, 418 practices (21.3%) either responded that this was not likely or the practice was permanently closed or not resuming immunization services for all patients, and 380 (19.6%) responded that they were unsure.¹⁰ (Refer to Appendix F)

Many states already allow pharmacists to administer vaccines to children of any age¹¹ and throughout this pandemic have been administering vaccines to this patient population in great numbers due to regulatory barriers being lifted. **It has been established that pharmacists are well positioned to increase access to vaccinations**, particularly in certain areas or for certain populations that have too few pediatricians and other primary-care providers, or that are otherwise medically underserved. As of October 29, 2021,

⁸ Compiled by Karen Lewis, MD Nov 09-Dec 20; Arizona Department of Health Services, Arizona Immunization Program Office

⁹ Jeanne M. Santoli et al., *Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Ordering and Administration—United States, 2020*, 69 *MMWR* 591, 592 (2020), <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6919e2-H.pdf> see also Melissa Jenco, *AAP urges vaccination as rates drop due to COVID-19*, *AAP News* (May 8, 2020) <https://www.aappublications.org/news/2020/05/08/covid19vaccinations050820>

¹⁰ Tara M. Vogt, *Provision of Pediatric Immunization Services During the COVID-19 Pandemic: An Assessment of Capacity Among Pediatric Immunization Providers Participating in the Vaccines for Children Program—United States, May 2020*, 69 *MMWR* 859, 859–61 <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6927a2-H.pdf>

¹¹ AL, AK, CA, CO, DE, GA, ID, IN, IA, KY, LA, MI, MS, MO, NE, NV, NH, NM, OK, OR, SC, SD, TN, TX, UT, VA, WA, WI—refer to Footnote 8: <https://www.govinfo.gov/content/pkg/FR-2020-08-24/pdf/2020-18542.pdf>

Arizona has 236 designated Health Professional Shortage Areas (HPSAs) which account for over 3,000,000 people which equates to only 37% of the primary care needs in those areas being met¹². (Refer to Appendix E)

The curriculum and immunization training requirements in place for pharmacists have continued to cover all of the routine childhood and adult vaccines despite our state law not allowing pharmacists to utilize this skill set which so many other health care providers are permitted to do in this state without such rigorous training and continuing education requirements. (Refer to Appendix G)

Second, nearly 91% of Americans live within five miles of a community pharmacy¹³. Pharmacists are among the most accessible health care professionals in the country and are available to patients without scheduling appointments and generally have longer business hours, are available on the weekends, and have shorter wait times than many other health care professionals. Additionally, pharmacists tend to have more regular contact with their patients, seeing many of them every few weeks, which makes providing preventative health services such as immunizations, point of care testing, and treatment more accessible and the detection and early treatment of COVID and Influenza more likely.

There are currently 587 CLIA Waived pharmacies in Arizona that already have the capability of offering a variety of different Point of Care testing services.¹⁴ (Refer to Appendix C) “Giving pharmacists the authorization to order and administer COVID-19 tests to their patients means easier access to testing for Americans who need it. Pharmacists play a vital role in delivering convenient access to important public health services and information. “The accessibility and distribution of retail and independent community-based pharmacies make pharmacists the first point of contact with a healthcare professional for many Americans. This will further expand testing for Americans, particularly our healthcare workers and first responders who are working around the clock to provide care, compassion and safety to others.”⁴ **This accessibility is also vital for those in our community who work non-traditional hours, those who do not have the flexibility or capability to take time off of work, those who do not have reliable transportation, insurance, or a primary care provider.**

Lastly, according to HHS Secretary “Pharmacists are well positioned to increase access to therapeutics and have played a critical role in this pandemic in overseeing COVID–19 testing and vaccine administration. Given their skill set and training, as well as looming provider shortages, pharmacists will quickly expand access to COVID–19 therapeutics.”

Therefore, increasing the accessibility of vaccinations for those who chose to be vaccinated in addition to offering early testing and treatment options for those who need it are important services that pharmacists are prepared and trained to offer to help address the health disparities and gaps in care we see across the state.

¹² Bureau of Health Workforce, Health Resources and Services Administration (HRSA), U.S. Department of Health & Human Services, Designated Health Professional Shortage Areas Statistics: Designated HPSA Quarterly Summary, as of October 29, 2021 available at: <https://data.hrsa.gov/topics/health-workforce/shortage-areas>

¹³ Get to Know Your Pharmacist, CDC, <https://www.cdc.gov/features/pharmacist-month/index.html>

¹⁴ CDC-CLIA Laboratory Search: <https://www.cdc.gov/clia/LabSearch.html#>

2. Whether those health professionals seeking an increased scope of practice currently have or will be required to have didactic and clinical education from accredited professional schools or training from recognized programs that prepare them to perform the proposed scope of practice, and details on what that education or training includes for that proposed scope of practice.

The Accreditation Council of Pharmacy Education (ACPE) is recognized by the US Department of Education (USDE) for the accreditation and pre-accreditation of professional degree programs in pharmacy leading to the degree of Doctor of Pharmacy within the United States. Pharmacists receive more in-depth pharmacology training (23 units on average) than any other health care provider. For that reason, pharmacists are considered the drug expert. Pharmacists unique training and skill set allow them to assess patients and make decisions about the appropriate course of treatment based upon the patient presentation and medical history, while applying evidence-based guidelines.

All pharmacists in the United States graduate from an ACPE accredited school that is required to comply with the same standards. All pharmacists take the same national exam (NAPLEX) prior to entry into practice. But not all pharmacists are given the ability to practice to the top of their license. We have a patchwork of state laws across the country that determine how much of a pharmacists' training can be utilized in their practices. Pharmacy practice should be determined by our training and education and not based upon what state you live in.

Below you will find a sample of one section of the ACPE standards our Colleges of Pharmacy are required to comply with. *Note: There are 25 standards in total and only covering the one standard that is most closely tied to the scope of practice described in this application.*

ACPE STANDARD 2: ESSENTIALS FOR PRACTICE AND CARE¹⁵

The program imparts to the graduate the knowledge, skills, abilities, behaviors, and attitudes necessary to provide patient-centered care, manage medication use systems, promote health and wellness, and describe the influence of population-based care on patient-centered care.

Key Elements:

- 2.1. Patient-centered care – The graduate can provide patient-centered care as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor, and adjust plans, and document activities).
 - 2.1.1. Collect subjective and objective evidence related to patient, medications, allergies/adverse reactions, and disease, by performing patient assessment (including physical assessment) from chart/electronic health records, pharmacist records and patient/family interviews.
 - 2.1.2. Interpret evidence and patient data.
 - 2.1.3. Prioritize patient needs.
 - 2.1.4. Formulate evidence-based care plans, assessments, and recommendations.
 - 2.1.5. Implement patient care plans.
 - 2.1.6. Monitor the patient and adjust care plan as needed.
 - 2.1.7. Document patient care related activities.

¹⁵ Center for the Advancement of Pharmacy Education 2013 Educational Outcomes:
<https://www.ajpe.org/content/77/8/162#sec-3>

- 2.2. Medication use systems management – The graduate can manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems.
- 2.3. Health and wellness – The graduate is able to design prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness.
 - 2.3.1. Describe systematic preventive care, using risk assessment, risk reduction, screening, education, and immunizations.
 - 2.3.2. Provide prevention, intervention, and educational strategies for individuals and communities to improve health and wellness.
 - 2.3.3. Participate with interprofessional healthcare team members in the management of, and health promotion for, all patients.
 - 2.3.4. Evaluate personal, social, economic, and environmental conditions to maximize health and wellness
- 2.4. Population-based care – The graduate can describe how population-based care influences patient-centered care and the development of practice guidelines and evidence-based best practices.
 - 2.4.1. Assess the healthcare status and needs of a targeted patient population.
 - 2.4.2. Develop and provide an evidence-based approach that considers the cost, care, access, and satisfaction needs of a targeted patient population.
 - 2.4.3. Participate in population health management by evaluating and adjusting interventions to maximize health.

3. Whether the subject matter of the proposed increased scope of practice is currently tested by nationally recognized and accepted examinations for applicants for professional licensure and the details of the examination relating to the increased scope of practice.

All pharmacists nationwide must pass the North American Pharmacist Licensure Examination (NAPLEX) to become licensed. Additionally, the Arizona Board of Pharmacy requires pharmacists pass an exam concerning Arizona’s pharmacy laws. The NAPLEX Competency Areas pharmacists are tested on as it applies to this scope of practice are summarized below: (*Refer to Appendix A*)

AREA 1: OBTAIN, INTERPRET, OR ASSESS DATA, MEDICAL, OR PATIENT INFORMATION

- 1.1 – From instruments, screening tools, laboratory, genomic or genetic information, or diagnostic findings
- 1.2 – From patients: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background
- 1.5 – Signs or symptoms of medical conditions, healthy physiology, etiology of diseases, or pathophysiology

AREA 2: IDENTIFY DRUG CHARACTERISTICS

- 2.1 – Pharmacology, mechanism of action, or therapeutic class

AREA 3: DEVELOP OR MANAGE TREATMENT PLANS

- 3.1 – Triage or medical referral
- 3.3 – Medication reconciliation; indication or therapeutic uses; lack of indication; inappropriate indication; duplication of therapy; omissions

- 3.4; 3.6-3.10 – Drug dosing or dosing adjustments; duration of therapy; Drug contraindications, allergies, or precautions; Adverse drug effects, toxicology, or overdose; Drug interactions; Therapeutic monitoring parameters, monitoring techniques, monitoring tools, or monitoring frequency; Drug pharmacokinetics or pharmacodynamics

AREA 4: PERFORM CALCULATIONS:

- 4.1 – Patient parameters or laboratory measures
- 4.2 – Quantities of drugs to be dispensed or administered

Area 5: Compound, Dispense, or Administer Drugs, or Manage Delivery Systems:

- 5.5 – Instructions or techniques for drug administration

Area 6: Develop or Manage Practice or Medication-Use Systems to Ensure Safety and Quality

- 6.3 – Disease prevention or screening programs

4. The extent to which the proposed increased scope of practice will impact the practice of those who are currently licensed in this state or the entry into practice of those individuals who have relocated from other states with substantially equivalent requirements for registration, certification, or licensure as this state.

Arizona pharmacists already have the authority in state law to administer immunizations, medications, and CLIA waived tests and due to the fact pharmacists are already being trained and nationally tested prior to licensure on these skills means this will not impact those already licensed or relocating to our state. The scope of practice request will allow pharmacists, already offering or wanting to offer these services, to continue to do so while also adding complimentary services that allow pharmacists to be better utilized to address gaps in care, provider shortages, and the public health needs of our community as we continue to fight this pandemic and combat the changing landscape of health care post pandemic.

- Number of pharmacists who are immunization certified: 5800
- Number of Pharmacies licensed and CLIA Waived laboratories: 587

Therefore, pharmacists currently practicing, entering the profession, and those relocating will have the same opportunity to provide these services.

In addition to the comprehensive training and education pharmacists receive obtaining their degree, ARS 32-1974 requires pharmacists to complete an accredited training course before administering vaccines as well as continuing education each renewal cycle. With respect to the ordering therapeutics the training requirement and continuing education requirements will mimic the current standard of practice that exists for pharmacists currently performing these services.

5. The extent to which implementing the proposed increased scope of practice may result in savings or a cost to this state and to the public.

The impact of this scope expansion on health care costs generally is difficult to calculate, as there are a variety of facets to consider. For instance, immunizations are widely accepted as cost-effective by the health insurance and public health communities in their ability to deter future costs associated with vaccine preventable diseases, which include direct costs associated with outbreaks and hospitalizations and indirect costs including losses in productivity and premature mortality. Since pharmacist services are typically more accessible and available even in health care provider shortage areas this can reduce costs to patients by reducing travel expenses, reducing the loss of wages from taking time off work, and prevent

unnecessary delays in care and treatment. There are many studies available that site the ROI and cost saving associated with pharmacist provided care.^{16,17,18}

According to the CDC the overall burden of influenza for the 2019-2020 was an estimated 35 million flu-related illnesses, 16 million flu-related medical visits, 380,000 flu-related hospitalizations, and 20,000 flu-related deaths. In addition, the CDC estimates that influenza vaccination prevented an estimated 7.52 million illnesses, 3.69 million medical visits, 105,000 hospitalizations, and 6,300 deaths during the 2019-2020 season. According to the CDC the overall burden of COVID-19 from February 2020-May 2021 was an estimated 120.2 million infections, 101.8 million systematic cases, 6.2 million hospitalizations and 760,000 deaths.

Increasing the accessibility of vaccinations for those who chose to be vaccinated and also offering early treatment options for those who need it are both important roles pharmacists can play in helping to decrease this burden.

6. The relevant health profession licensure laws, if any, in this or other states.

N/A

7. Recommendations, if any, from the applicable regulatory entity or entities, from the department of health services and from accredited educational or training programs.

The evidence and recommendations sited above were obtained from the Centers for Disease Control and the U.S. department of Health and Human Services.

¹⁶ *Role of the pharmacist in reducing healthcare costs*<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5774321/citedby/>

¹⁷ *Pharmacist Avoidance or Reductions in Medical Costs in Patients Presenting the Emergency Department: PHARM-EM Study*
https://journals.lww.com/ccejournal/fulltext/2021/04000/pharmacist_avoidance_or_reductions_in_medical.25.aspx

¹⁸ *How pharmacists can play a role in curtailing the rising cost of drug therapy:* <https://www.hfma.org/topics/financial-sustainability/article/how-pharmacists-can-play-a-role-in-curtailing-the-rising-cost-of.html>

APPENDIX A: NAPLEX COMPETENCY STATEMENTS

The North American Pharmacist Licensure Examination® (NAPLEX®) is designed to evaluate general practice knowledge and is taken by recent college of pharmacy graduates shortly after they receive their degree.

Area 1 – Obtain, Interpret, or Assess Data, Medical, or Patient Information (~18% of Test)

- 1.1 – From instruments, screening tools, laboratory, genomic or genetic information, or diagnostic findings
- 1.2 – From patients: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background
- 1.3 – From practitioners: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background
- 1.4 – From medical records: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background
- 1.5 – Signs or symptoms of medical conditions, healthy physiology, etiology of diseases, or pathophysiology
- 1.6 – Risk factors or maintenance of health and wellness
- 1.7 – Evidence-based literature or studies using primary, secondary, and tertiary references

Area 2 – Identify Drug Characteristics (~ 14% of Test)

- 2.1 – Pharmacology, mechanism of action, or therapeutic class
- 2.2 – Commercial availability; prescription or non-prescription status; brand, generic, or biosimilar names; physical descriptions; or how supplied
- 2.3 – Boxed warnings or REMS
- 2.4 – Pregnancy or lactation

Area 3 – Develop or Manage Treatment Plans (~ 35% of Test)

- 3.1 – Triage or medical referral
- 3.2 – Therapeutic goals or outcomes and clinical endpoints
- 3.3 – Medication reconciliation; indication or therapeutic uses; lack of indication; inappropriate indication; duplication of therapy; omissions
- 3.4 – Drug dosing or dosing adjustments; duration of therapy
- 3.5 – Drug route of administration, dosage forms, or delivery systems
- 3.6 – Drug contraindications, allergies, or precautions
- 3.7 – Adverse drug effects, toxicology, or overdose
- 3.8 – Drug interactions
- 3.9 – Therapeutic monitoring parameters, monitoring techniques, monitoring tools, or monitoring frequency
- 3.10 – Drug pharmacokinetics or pharmacodynamics
- 3.11 – Evidence-based practice
- 3.12 – Non-drug therapy: lifestyle, self-care, first-aid, complementary and alternative medicine, or medical equipment

Area 4 – Perform Calculations (~ 14% of Test)

- 4.1 – Patient parameters or laboratory measures
- 4.2 – Quantities of drugs to be dispensed or administered
- 4.3 – Rates of administration
- 4.4 – Dose conversions
- 4.5 – Drug concentrations, ratio strengths, osmolarity, osmolality, or extent of ionization
- 4.6 – Quantities of drugs or ingredients to be compounded
- 4.7 – Nutritional needs and the content of nutrient sources
- 4.8 – Biostatistics, epidemiological, or pharmaco-economic measures
- 4.9 – Pharmacokinetic parameters

Area 5 – Compound, Dispense, or Administer Drugs, or Manage Delivery Systems (~ 11% of Test)

- 5.1 – Physicochemical properties of drug products affecting compatibility, stability, delivery, absorption, onset, duration, distribution, metabolism, or elimination
- 5.2 – Techniques, procedures, or equipment for hazardous or non-hazardous sterile products
- 5.3 – Techniques, procedures, or equipment for hazardous or non-hazardous non-sterile products
- 5.4 – Equipment or delivery systems
- 5.5 – Instructions or techniques for drug administration
- 5.6 – Packaging, storage, handling, or disposal

Area 6 – Develop or Manage Practice or Medication-Use Systems to Ensure Safety and Quality (~ 7% of Test)

- 6.1 – Interdisciplinary practice, collaborative practice, or expanded practice responsibilities
- 6.2 – Continuity of care or transitions of care
- 6.3 – Disease prevention or screening programs; or stewardship
- 6.4 – Vulnerable populations, special populations, or risk prevention programs
- 6.5 – Pharmacy informatics

<https://nabp.pharmacy/programs/examinations/naplex/competency-statements-2021/>

APPENDIX B-PHARMACIST ADMINSTERED VACCINES IN AZ

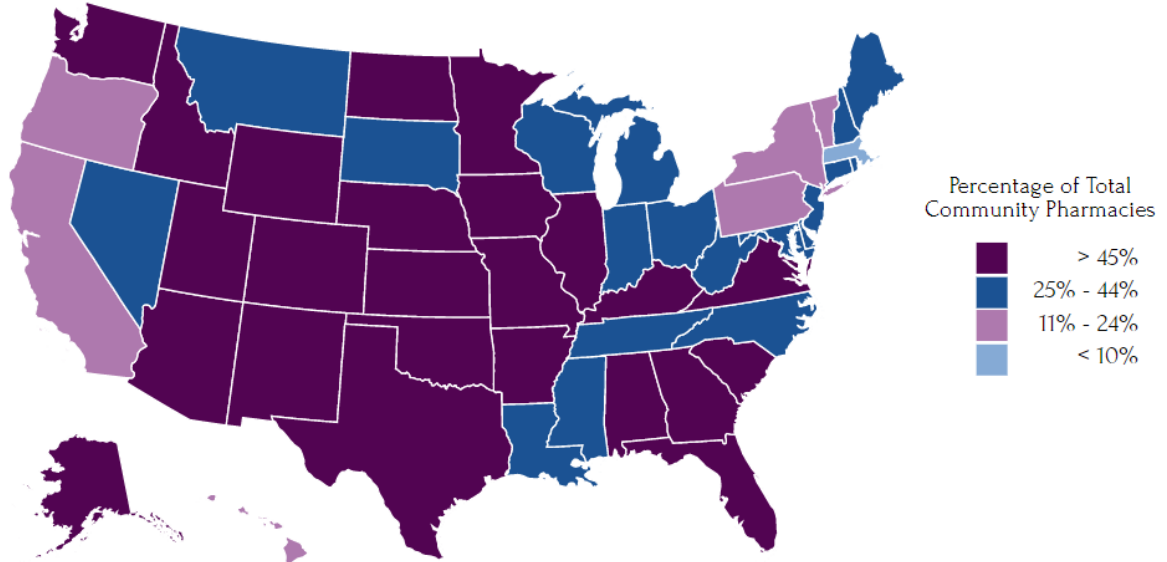
	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Cholera oral	0	0	0	0	0	0	0	8	13	19	2
COVID-19 mRNA Moderna	0	0	0	0	0	0	0	0	0	0	3878
DTaP	0	0	0	7	68	20	1	78	22	13	6
DTaP/IPV	206	26	61	1	0	1	0	0	0	2	5
4vHPV	107	110	221	525	593	505	320	123	10	6	3
9vHPV					1	37	683	1905	1626	2625	2447
Hep A	89	282	553	1907	1491	1479	2045	3411	3753	5159	1776
HepA/HepB	159	162	417	781	699	1247	1940	2380	2906	4638	2889
Hep B	512	839	1321	3665	2437	2682	3450	5238	5735	5647	3646
HepB CpG adjuvanted										317	709
Hib	1	4	12	13	10	9	8	13	7	10	9
IPV	15	22	52	95	128	117	92	319	179	274	192
Seasonal influenza	229115	180170	230916	482571	232361	391186	496757	539084	672424	788392	1037287
Influenza H1N1	53059	0	0	0	0	0	0	0	0	0	0
Japanese encephalitis	1	4	15	27	37	50	65	77	90	129	26
MMR	334	972	1243	1506	1729	3357	3347	3822	3723	9266	3495
MMR-VZ					4	9	4	1	1	0	0
Men B Bexsero						1	46	83	140	235	276
Men B Trumenba					1	6	90	212	309	339	171
Men ACYW	381	710	414	1223	2052	1506	2133	3155	2114	2107	769
PCV13	0	4	1	54	4554	55377	57324	45231	42456	44506	34983
PPSV23	7136	8973	13342	15596	10972	21428	17493	26252	30853	35191	44738
Rabies	56	13	18	12	50	50	74	107	100	115	94
Tdap	1966	3742	15494	16852	16104	23218	29908	38582	38681	46504	37290
Td adult	651	869	491	456	470	490	500	770	917	813	459
Typhoid ViCPs	50	60	116	172	386	613	859	1454	1066	967	217
Typhoid oral	370	732	747	416	273	126	237	463	751	1183	293
Varicella	87	275	417	666	971	1098	1232	1582	1874	1963	1096
Yellow fever	79	65	135	306	407	489	602	592	4	0	0
Zoster live	14921	21019	39603	35921	24711	29277	25430	20016	986	20	5
Zoster recombinant	0	0	0	0	0	0	0	3	92976	222126	187984
TOTAL	309295	219053	305589	562772	300509	534378	644640	694961	903716	1172566	1364745

GRAND TOTAL = 7,012,224

DOSES ADMINISTERED THROUGH 2020-DOES NOT INCLUDE ANY VACCINES ADMINISTEED IN 2021

APPENDIX C-CLIA WAIVED LABORATORIES IN AZ PHARMACIES

CLIA-WAIVED PHARMACIES



State	# CLIA Labs	State	# CLIA Labs	State	# CLIA Labs
Alabama	616	Louisiana	497	Oklahoma	410
Alaska	57	Maine	120	Oregon	149
Arizona	587	Maryland	318	Pennsylvania	318
Arkansas	384	Massachusetts	72	Puerto Rico	77
California	981	Michigan	987	Rhode Island	89
Colorado	561	Minnesota	504	Saipan	3
Connecticut	243	Mississippi	303	South Carolina	543
Delaware	79	Missouri	662	South Dakota	55
DC	54	Montana	91	Tennessee	729
Florida	2,510	Nebraska	204	Texas	2,538
Georgia	1,017	Nevada	174	Utah	295
Hawaii	28	New Hampshire	87	Vermont	26
Idaho	202	New Jersey	523	Virginia	798
Illinois	1,060	New Mexico	183	Virgin Islands	1
Indiana	542	New York	422	Washington	771
Iowa	418	North Carolina	911	West Virginia	246
Kansas	341	North Dakota	82	Wisconsin	401
Kentucky	580	Ohio	940	Wyoming	65

National Total = 24,854

<https://qcor.cms.gov/main.jsp>

APPENDIX D-UNIVERSITY OF ARIZONA COLLEGE OF PHARMACY CURRICULUM

First Professional Year (34 Units)	
First Semester	Units
PCOL 832 - Biomolecular Basis of Pharmacotherapy	4
PCOL 838a - Clinical Pathophysiology I	2
PHPR 804 - Communication Skills & Human Behavior	2
PHPR 806a - Compounding and Dispensing	1
PHPR 809 - Pharmacy Practice	3
PHPR 814 - Public Health & Prevention	2
PHPR 816a - Patient Assessment	3
Second Semester	Units
PCOL 821 - Case Studies in Pharmacology	1
PCOL 824 -Introduction to Pharmacology & Medicinal Chemistry	3
PCOL 838b - Clinical Pathophysiology II	2
PHPR 801e - IPPE: Perspectives in Aging	3
PHPR 810 - Calculations, Compounding and Dispensing	2
PHPR 812 - Self-Care Pharmacotherapeutics	2
PHPR 860a - Pharmacotherapeutics I	2
PHPR 861a - Literature Evaluation - Statistical Methods	2
Second Professional Year (34 Units)	
First Semester	Units
PCOL 825a - Pharmacology	2
PCOL 826a - Medicinal Chemistry	2
PHPR 802 - Pharmaceutics/Biopharmaceutics	3
PHPR 860b - Pharmacotherapeutics II	4
PHPR 861b - Literature Eval - Research Design Considerations	2
PHPR 863a - Quality and Safety	2
Electives	2
Second Semester	Units
PCOL 825b - Pharmacology	2
PCOL 826b - Medicinal Chemistry	2
PHPR 801b - IPPE	2
PHPR 813 - Medical Microbiology	1
PHPR 845a - Medication Use in the U.S.	2
PHPR 860c - Pharmacotherapeutics III	3
PHPR 861c - Literature Evaluation - Applications	2
PHPR 863b - Quality and Safety Lab	1
Electives	2

Third Professional Year (35 Units)	
First Semester	Units
PHPR 801c - IPPE	2
PHPR 818 - Pharmacokinetics	5
PHPR 842 - Professional Practice Management	3
PHPR 860d - Pharmacotherapeutics IV	5
PHPR 895b - Preparation for Rotations	1
Electives	2
Second Semester	Units
PHPR 811 - Advanced Patient Care	3
PHPR 843 - Pharmacy Laws	2
PHPR 860e - Pharmacotherapeutics V	5
PHPR 862 - Writing a Research Proposal	2
PHPR 887 - Applied Pharmacogenetics and Precision Medicine	3
Electives	2
Summer Session	Units
PHPR 803 - Advanced Pharmacy Practice Experience	10
Fourth Professional Year (34 Units)	
First Semester	Units
PHPR 803 - Advanced Pharmacy Practice Experience	15
PHPR 896a - Research Project	2
Second Semester	Units
PHPR 803 - Advanced Pharmacy Practice Experience	15
PHPR 896b - Research Project	2

APPENDIX E-HPSA DESIGNATED HEALTH PROFESSIONAL SHORTAGE AREAS STATISTICS

Primary Care Health Professional Shortage Areas, by State, as of September 30, 2021

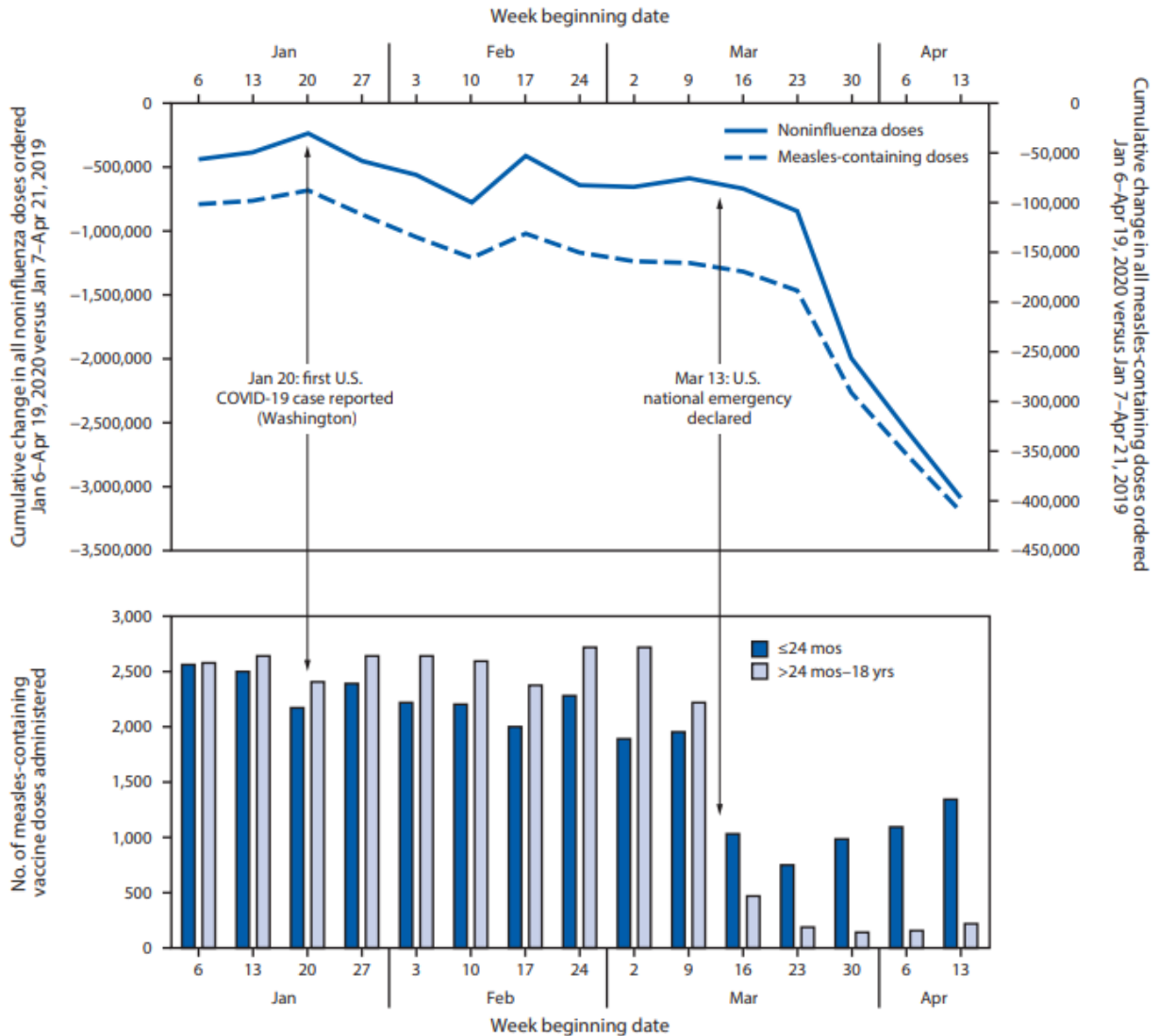
Primary Care	Total Designations ⁽¹⁾	Geographic Area	Population Group	Facility	Population of Designated HPSAs	Percent of Need Met ⁽³⁾	Practitioners Needed to Remove Designations ⁽⁶⁾
Region 5	1,096	207	264	625	12,103,384	55.71 %	1,734
Illinois	263	42	85	136	3,303,633	49.57 %	534
Indiana	115	34	30	51	2,093,311	71.77 %	193
Michigan	269	22	62	185	2,948,989	50.71 %	482
Minnesota	181	43	33	105	845,244	55.73 %	116
Ohio	158	42	26	90	1,781,457	54.60 %	258
Wisconsin	110	24	28	58	1,130,750	58.75 %	151
Region 6	965	257	264	444	12,822,438	55.04 %	1,858
Arkansas	98	18	43	37	659,587	54.28 %	105
Louisiana	160	45	27	88	2,381,360	66.45 %	256
New Mexico	100	26	9	65	1,046,481	29.21 %	239
Oklahoma	183	15	71	97	1,416,305	39.90 %	289
Texas	424	153	114	157	7,318,705	58.19 %	969
Region 7	728	61	194	473	3,107,638	28.50 %	725
Iowa	132	25	30	77	638,024	48.85 %	104
Kansas	184	18	66	100	780,837	51.99 %	121
Missouri	327	8	98	221	1,644,535	10.00 %	491
Nebraska	85	10	0	75	44,242	28.49 %	9
Region 8	561	174	114	273	3,039,397	43.57 %	569
Colorado	120	26	41	53	1,137,825	36.05 %	260
Montana	142	27	31	84	422,166	41.73 %	78
North Dakota	91	46	4	41	224,217	29.94 %	49
South Dakota	100	41	19	40	295,847	37.03 %	55
Utah	62	15	14	33	774,928	60.17 %	101
Wyoming	46	19	5	22	184,414	54.50 %	26
Region 9	1,001	195	165	641	12,805,587	42.57 %	2,417
Arizona	236	53	54	129	3,185,244	37.20 %	653
California	643	115	96	432	7,800,038	45.63 %	1,402
Hawaii	31	4	0	27	519,059	43.50 %	87

<https://data.hrsa.gov/Default/GenerateHPSAQuarterlyReport>

APPENDIX F

Morbidity and Mortality Weekly Report

FIGURE. Weekly changes in Vaccines for Children Program (VFC) provider orders* and Vaccine Safety Datalink (VSD) doses administered† for routine pediatric vaccines — United States, January 6–April 19, 2020



* VFC data represent the difference in cumulative doses of VFC-funded noninfluenza and measles-containing vaccines ordered by health care providers at weekly intervals between Jan 7–Apr 21, 2019, and Jan 6–Apr 19, 2020.

† VSD data depict weekly measles-containing vaccine doses administered by age group (age ≤24 mos and >24 mos–18 yrs).

APPENDIX G-PHARMACIST IMMUNIZATION TRAINING COURSE REQUIREMENTS

State Board Requirements: A.R.S. 32-1974/ A.A.C. R4-23-411

The statutes require that a pharmacist who wishes to administer immunizations must be certified by the Arizona Board of Pharmacy to do so. To receive this certification, the Board requires proof of completion of a training program and a current certificate in basic cardiopulmonary resuscitation. Additionally, certificate holders are required to complete a minimum of two hours of ACPE-approved immunization-related CE for each license renewal. Current immunization course syllabus for the course offered in Arizona which provides 23 hours of CPE.

Initial Training Course-Learning Objectives:

1. For the following diseases: diphtheria, tetanus, pertussis, hib, pneumococcal, measles, mumps, rubella, varicella, zoster, hepatitis A & B, influenza, meningococcal, HPV, polio, rotavirus, and SARS-CoV2
 - Describe the disease, including the causative agent
 - Describe the characteristics of the available vaccine preparations
 - Identify the groups at highest risk for each disease
 - Identify those for whom routine immunization is recommended
 - Identify those for whom routine immunization is contraindicated
 - Describe considerations for the timing and spacing of vaccine doses
2. Evaluate a patient's medical and immunization history to determine if the patient falls into the target groups for each vaccine based on the ACIP recommendations using the appropriate CDC immunization schedule.
3. List the federal and state specific laws pertaining to vaccine administration.
4. For dealing with responding to adverse reactions to vaccination:
 - Describe the difference between localized, systemic, and allergic reaction
 - List the signs and symptoms of a localized, systemic, and allergic reaction
 - Describe the steps necessary to respond to a patient experiencing syncope
 - Describe the steps necessary to respond to a patient experiencing a systemic reaction
 - Describe the steps necessary to respond to an allergic anaphylactic reaction
 - Demonstrate the proper use of an Epi-Pen
5. Describe and demonstrate proper intramuscular and subcutaneous injection technique for both children and adults.

Continuing Education: Pharmacists are required to obtain a minimum of 2 hours of continuing education on immunization each renewal cycle.

HHS Order Requirements

- The licensed pharmacist must complete a practical training program of at least 20 hours that is approved by the Accreditation Council for Pharmacy Education (ACPE). This training program must include hands-on injection technique, clinical evaluation of indications and contraindications of vaccines, and the recognition and treatment of emergency reactions to vaccines.
- The licensed pharmacist and licensed must have a current certificate in basic cardiopulmonary resuscitation.
- The licensed pharmacist must complete a minimum of two hours of ACPE-approved, immunization-related continuing pharmacy education during each State licensing period.