



2020

INDIANA PHARMACIST WORKFORCE BRIEF

Bowen Center for Health Workforce Research and Policy // August 2021



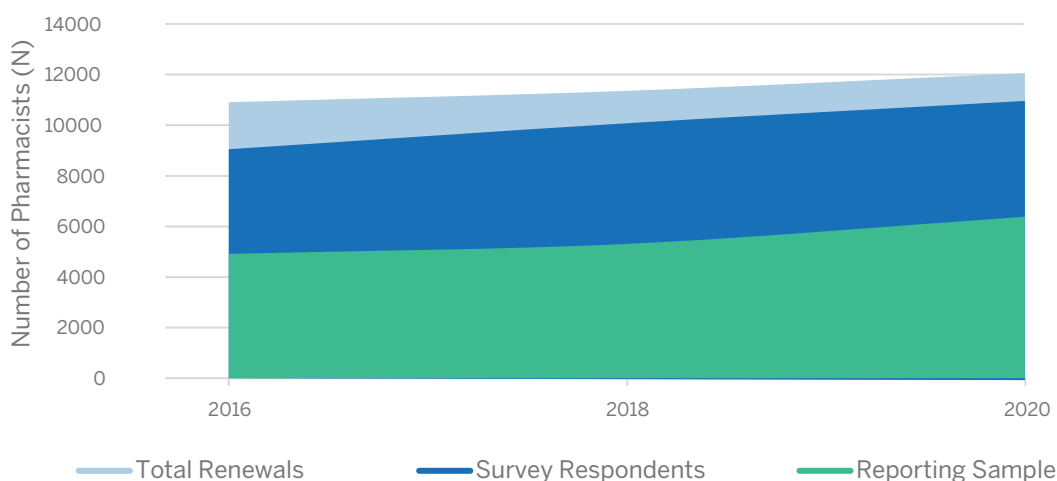
SCHOOL OF MEDICINE

BOWEN CENTER FOR HEALTH
WORKFORCE RESEARCH & POLICY

INDIANA PHARMACIST WORKFORCE THROUGHOUT THE YEARS

Indiana is fortunate to have a robust mechanism to identify, quantify, and describe the pharmacy. Indiana pharmacists are licensed and regulated by the Indiana State Board of Pharmacy, which resides under the Indiana Professional Licensing Agency (PLA). The agency is responsible for administering numerous health professions licenses. Since 2004, Indiana pharmacists have provided information on their demographic, education, and practice characteristics through a series of supplemental questions asked during license renewal. In 2018, a law was enacted that requires all pharmacist licensees (and other selected health professions) who were completing license renewal online to provide key information in order to inform State policy and planning (Senate Enrolled Act/SEA 223-2018¹). This law went into effect for pharmacists for their 2020 license renewals.²

Pharmacist Workforce Throughout the Years



WHO IS INCLUDED IN THE REPORTING SAMPLE?

- Active pharmacists who renewed their license online
- Actively practicing in pharmacy
- Practice located in Indiana or provide telepharmacy to Hoosiers

WHO IS NOT INCLUDED IN THE REPORTING SAMPLE?

- Pharmacists who renewed offline (paper renewals)
- Those with inactive licenses
- Not actively practicing in pharmacy
- Located out-of-state and not providing services to Hoosiers

OTHER PHARMACY PERSONNEL

PHARMACY TECHNICIANS

Licensed pharmacy technicians work under the direct supervision of licensed pharmacists and assist pharmacists in activities such as insurance processing, select immunization administration and other duties not requiring the professional judgement of a pharmacist.³

16,205 pharmacy technician licenses were renewed in 2020. There are approximately 1.3 pharmacy technicians to every 1 pharmacist.

PHARMACIST INTERNS

Pharmacist interns are generally individuals who are enrolled in pharmacy school.⁴ These individuals may engage in the practice of pharmacy, under the direct supervision of a pharmacist. Pharmacists must review the prescription drug order and dispensed product before it is provided to a patient.

1,889 pharmacist intern licenses were renewed in 2020. There are approximately 6.4 pharmacists to every 1 pharmacist intern.

1. Indiana Senate Enrolled Act 223-2018. Available at: <http://iga.in.gov/legislative/2018/bills/senate/223#document-b0603ddf>

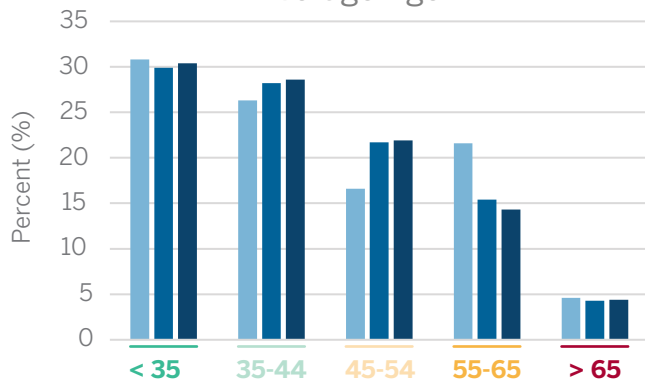
2. Questions administered to pharmacists can be found at: <https://scholarworks.iupui.edu/handle/1805/22412>

3. Indiana Code 25-26-19. Available at: <http://iga.in.gov/legislative/laws/2021/ic/titles/025#25-26-19>

4. Other criteria may apply. Full applicant requirements available at IC 25-26-13-10. <http://iga.in.gov/legislative/laws/2021/ic/titles/025#25-26-13-9>

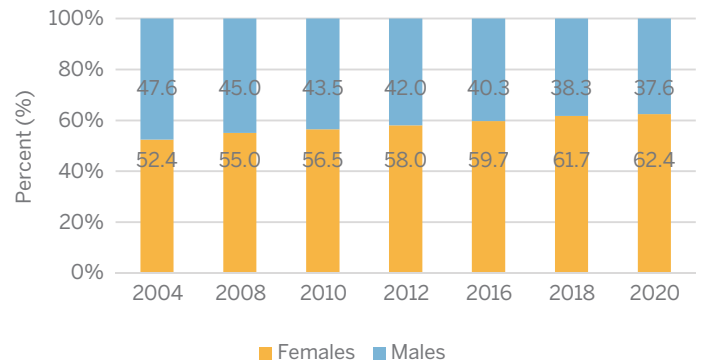
DEMOGRAPHIC CHARACTERISTICS

Average Age



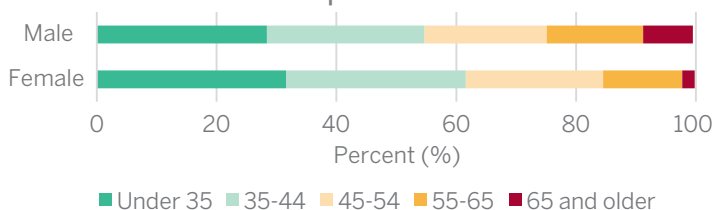
Note: Variations in data collection, analysis, and reporting result in challenges with historical trending of this data point before 2012.

What is the sex composition of the Indiana pharmacist workforce over time?



Females Males

What is the age comparison between male and female pharmacists?

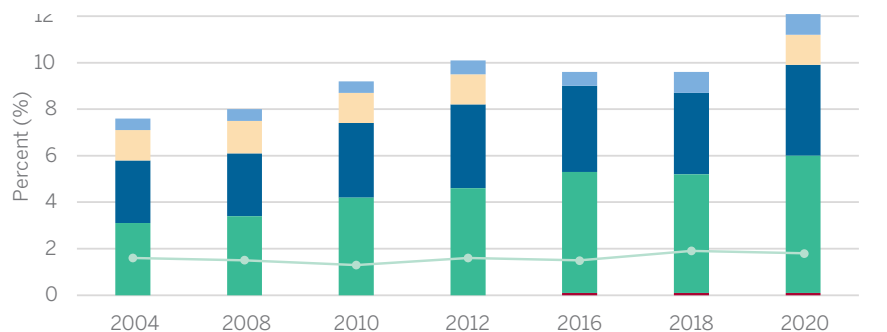


Under 35 35-44 45-54 55-65 65 and older

Average Age of an Indiana Pharmacist

43.1

What are trends in pharmacist racial and ethnic diversity over time?



Race:

Multiracial
Black or African American
American Indian or Alaska Native

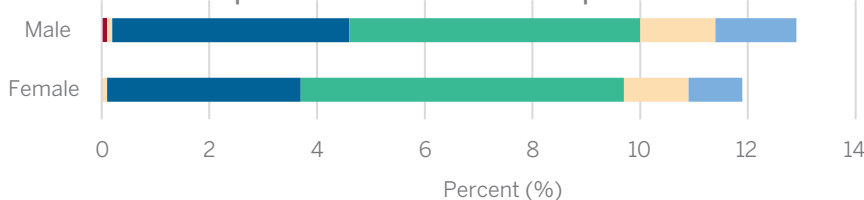
Other
Asian/Native Hawaiian/Pacific Islander

Ethnicity:

INCREASE IN DIVERSITY OF PHARMACISTS

Overall racial diversity in the pharmacist workforce has increased over time, while ethnicity has remained steady.

What is the racial composition of male pharmacists vs. female pharmacists?



Race:

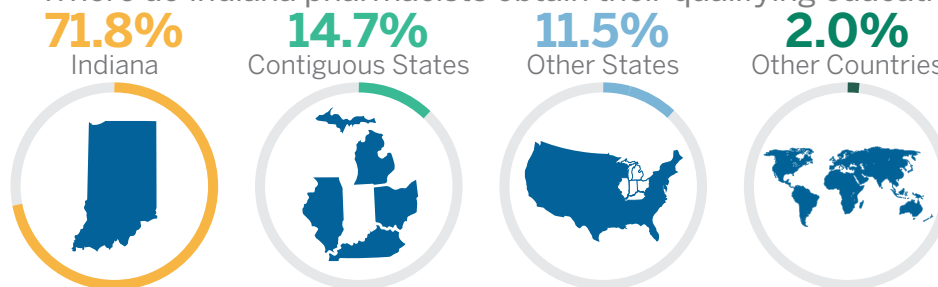
Multiracial
Black or African American
American Indian or Alaska Native
Other
Asian
Native Hawaiian/Pacific Islander

DIFFERENCES IN DIVERSITY BETWEEN GENDERS

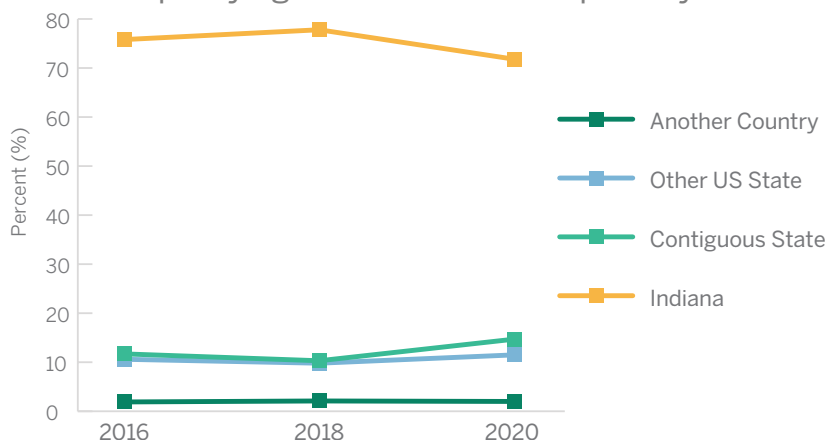
Male pharmacists are slightly more racially diverse than their female colleagues.

EDUCATION CHARACTERISTICS

Where do Indiana pharmacists obtain their qualifying education?



Where have Indiana pharmacists reported receiving their qualifying education over the past 6 years?



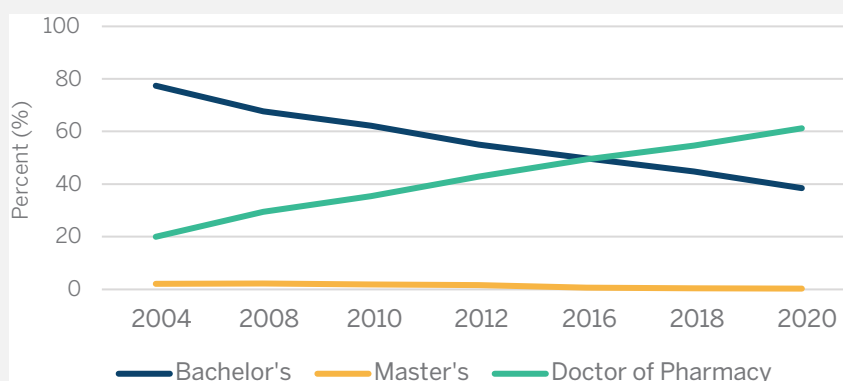
TRENDS IN PHARMACY EDUCATION: LOCATION OF TRAINING PROGRAM

Most Indiana pharmacists reported completing their qualifying education in Indiana. Recently, the number of pharmacists completing their education in contiguous states or other U.S. states has increased compared to what pharmacists have reported in previous license renewal cycles.

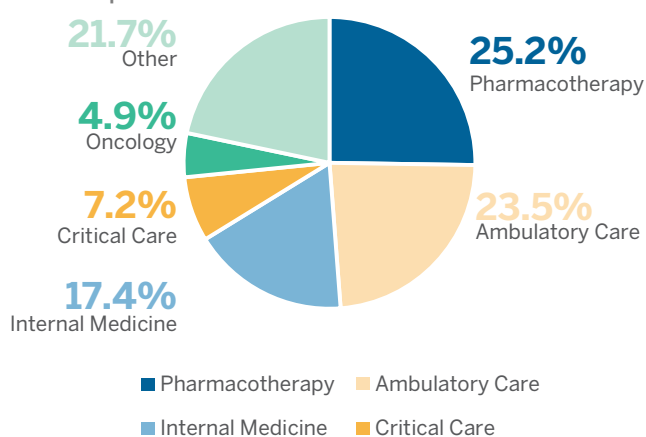
TRENDS IN PHARMACY EDUCATION: QUALIFYING DEGREE

The entry-level educational requirement for individuals seeking licensure as a pharmacist changed in 2000 from a bachelor's degree to a doctoral degree.¹ Indiana has seen a gradual increase in the proportion of doctorally-trained pharmacists. 2018 was the first year that the majority of Indiana's pharmacists reported qualifying for their Indiana pharmacist license with a doctoral degree.

What degree do Indiana pharmacists report as their qualifying degree? (2004-2020)



Top 5 Residencies for Pharmacists



PHARMACIST ADVANCED EDUCATION: RESIDENCIES AND FELLOWSHIPS

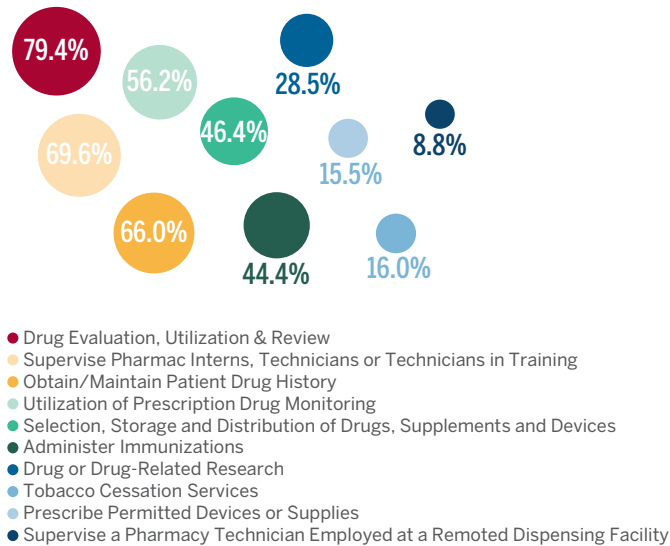
Pharmacists, unlike physicians, are not required to complete either a residency or a fellowship before beginning to practice. Only 820 pharmacists (12.8% of the total reporting sample) reported completing a residency. Only 142 pharmacists (2.2% of the total reporting sample) reported completing a fellowship. The graph to the right looks only at the 820 pharmacists that reported completing a residency and breaks down their residency by specialty.

1. Kreling DH, Doucette WR, Chang EH, Gaither CA, Mott DA, Schommer JC. Practice characteristics of bachelor of science and doctor of pharmacy degreed pharmacists based on the 2009 National Workforce Survey. Am J Pharm Educ. 2010;74(9):159.

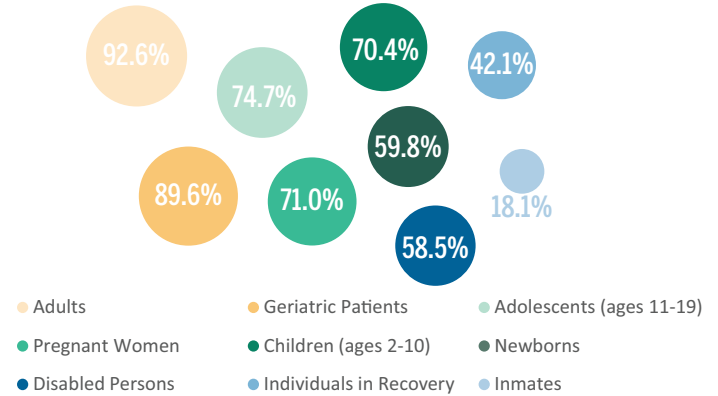
EMPLOYMENT CHARACTERISTICS

The pharmacist role has expanded from a focus on medication dispensing to include direct patient care services.¹ The percentage of Indiana pharmacists reporting delivering patient care services has increased since 2016. Pharmacists reporting patient care services as their primary field have generally received their licenses more recently than those reporting other primary fields (12.3 years since license issuance vs others seen below.)

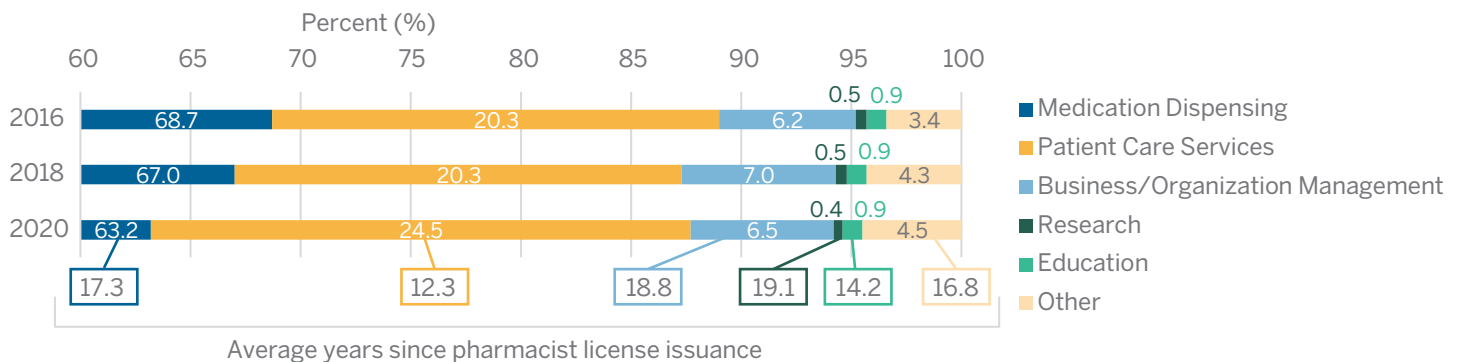
Pharmacist Provided Services



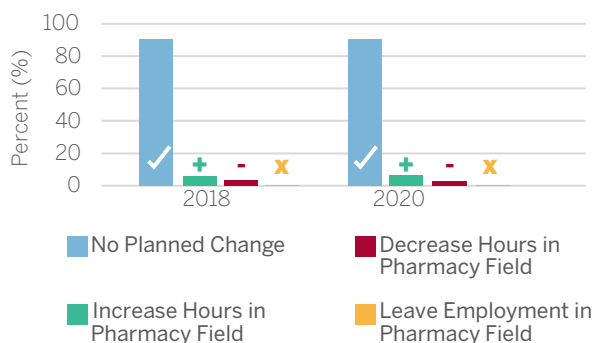
Populations Served by Pharmacists



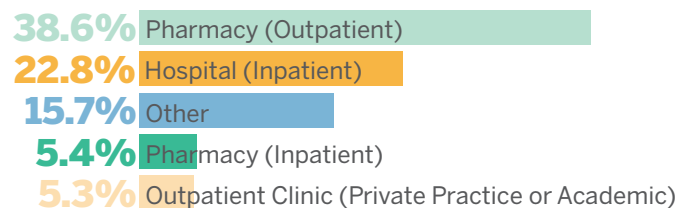
In what fields do pharmacists practice?



Pharmacist Workforce Market Indicators



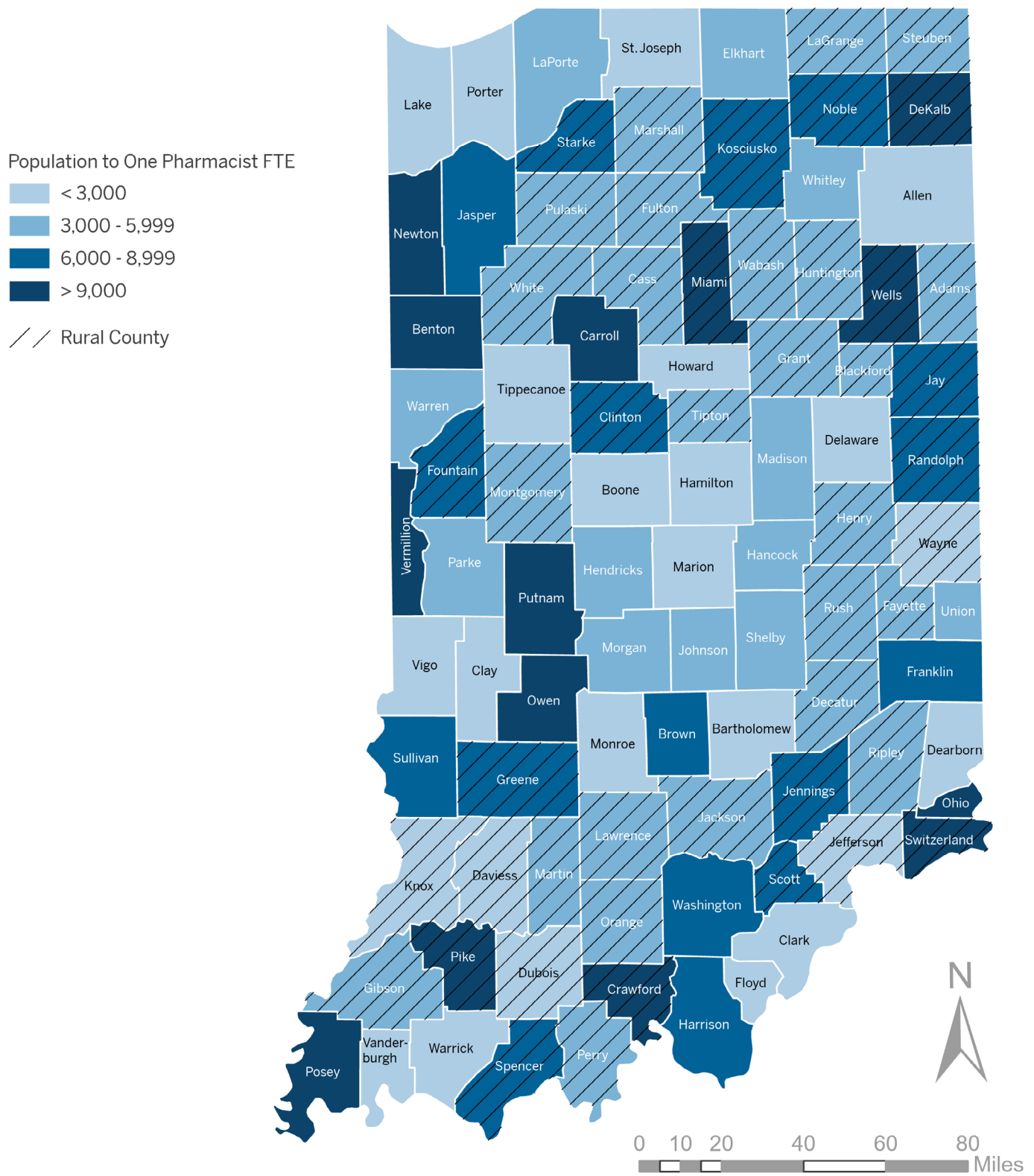
Top 5 Pharmacist Practice Specialties



Pharmacists reporting a desire to increase their hours obtained their license more recently than those that reported they do not desire any employment changes in the next few years.

1. Ponushis, A. & Gandhi, N. The Future of Community Pharmacy: Direct Patient Care. Available at: <https://www.aacp.org/article/future-community-pharmacy-direct-patient-care>

Geographic Distribution of Indiana Pharmacists Workforce Capacity



Source: 2020 Pharmacist License and Supplemental Survey Data ; Annual Estimates of the Resident Population of Counties in Indiana: April 1, 2010 to July 1, 2019 (CO-EST2019-ANNRES-18). US Department of Agriculture, Rural-Urban Continuum codes, 2019.

PHARMACIST WORKFORCE POLICY HIGHLIGHTS

ADMINISTERING COVID-19 VACCINES

HEA 1468-2021¹ allows pharmacists and pharmacy technicians to administer immunizations for coronavirus disease and increases the number of pharmacy interns a pharmacist can supervise to eight at a time. This change allowed pharmacists and technicians to participate in the vaccination effort and engage in the emergency response to the COVID-19 pandemic.

Pharmacists may engage in a number of tele-services, which includes telehealth (broadly) and telepharmacy services.

TELE-SERVICES PROVIDED BY PHARMACISTS

Telehealth: Recently, Indiana updated the definition of telehealth to a “specific method of delivery of services, including medical exams and consultations and behavioral health evaluations and treatment, including those for substance abuse, using technology allowed under IC 25-1-9.5-6 to allow a provider to render an examination or other service to a patient at a distant location” (SEA 3-2021).²

Telepharmacy: Indiana Code also defines telepharmacy, “to provide patient care by a pharmacy and pharmacist licensed under IC 25-26 through the use of telecommunications or other technology: (1) to a patient or the patient’s representative who is at a distance and located in a state or jurisdiction of the United States; and (2) where the pharmacy and pharmacist is located in Indiana.” (IC 25-26-13.5-4). However, the term “telepharmacy” does not include patient care by pharmacists located in certain settings (hospitals, ambulatory outpatient surgical centers, or health facilities). Telecommunications services provided under those auspices would be considered “telehealth.” Examples of telepharmacy services can be found below³:

- Remote dispensing facilities: A “facility or an automated dispensing system where prescription drugs are prepared or dispensed without the requirement of the use of an onsite pharmacist and where pharmacist supervision may be provided remotely.” (IC 25-26-13.5-3)⁴
- Medication therapy management
- Transitions of Care
- Etc.

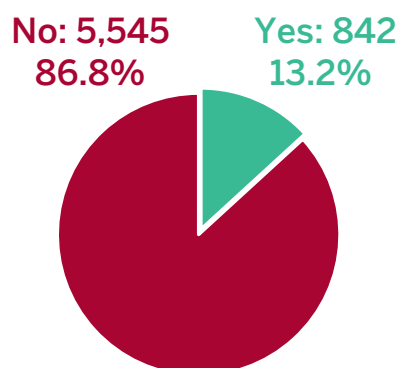
IMMUNIZATION ADMINISTRATION

Under Indiana Code⁵, pharmacists may administer specified vaccines under an order, prescription or protocol approved by a physician for individual’s who are at least 11 years of age. Authorized Immunizations include:

- Influenza
- Shingles (herpes zoster)
- Pneumonia (individuals 50 years of age or older)
- Tetanus, diphtheria, and acellular pertussis (whooping cough)
- Human papillomavirus (HPV) infection
- Meningitis
- Measles, mumps, and rubella
- Varicella
- Hepatitis A and Hepatitis B
- Haemophilus influenza type B (Hib)
- Coronavirus Disease



Pharmacists who report providing telepharmacy services



1. House Enrolled Act 1468 (2021). Available at: <http://iga.in.gov/legislative/2021/bills/house/1468>

2. Senate Enrolled Act 3 (2021). Available at: <http://iga.in.gov/legislative/2021/bills/senate/3>

3. Telehealth. American Pharmacists Association. Available at: <https://www.pharmacist.com/Practice/Practice-Resources/Telehealth>

4. IC 25-26-13.5-3. Available at: <http://iga.in.gov/legislative/laws/2021/ic/titles/025#25-26-13.5>

5. Authorization of immunizations for Pharmacist. Available at: <http://iga.in.gov/legislative/laws/2020/ic/titles/025#25-26-13-31.2>