



*North Carolina Association of Pharmacists
Advancing Pharmacy. Improving Health.*

Expanding the Role of the Pharmacist

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Six in ten adults in the US have a chronic disease and **four in ten adults** have two or more.



HEART
DISEASE



CANCER



CHRONIC LUNG
DISEASE



STROKE



ALZHEIMER'S
DISEASE



DIABETES



CHRONIC
KIDNEY DISEASE

Chronic diseases are defined broadly as conditions that last 1 year or more and require ongoing medical attention or limit activities of daily living or both. Chronic diseases such as [heart disease](#), [cancer](#), and [diabetes](#) are the leading causes of death and disability in the United States. They are also leading drivers of the nation's \$3.3 trillion in annual [health care costs](#).

Source: <https://www.cdc.gov/chronicdisease/about/index.htm>



Rapidly Increasing
Chronic Disease Burden
&
Steadily Increasing
Costs for Health Care

NC to have 2nd largest
nursing shortage by
2025

Current
State of
Health
Care

US Dept HHS projected
physician shortage by
2020

Source: <http://www.newsobserver.com/opinion/op-ed/article202356594.html>

Source: <https://bhw.hrsa.gov/health-workforce-analysis/primary-care-2020>

1,902,580 NC Residents
live in Health
Professional Shortage
Areas

Source: HRSA, US DHHS, Designated health professional shortage areas statistics: Designated HPSA Quarterly Summary, 12/31/2017.



Given the rising burden of chronic disease, increasing health care costs, and primary care and nursing shortages.....

Given the need for healthcare system transformation (Improved access, quality & cost of care; and a shift from fee-for-service to performance-based care, quality metrics, and value-based, patient-centric care)....

Given the positive evidence supporting integrated, team-based care (In today's healthcare arena, no one person can carry the entire burden)....

These organizations have all been:

- **Recommending greater utilization of pharmacists in patient care;**
- **Advocating for physician-pharmacist collaborative care as an efficient and effective means of caring for patients with chronic diseases; and**
- **Calling for pharmacists to practice to the fullest of their degree**



Pharmacists

- Well educated
 - Since 2000, all pharmacists must have earned their Doctor of Pharmacy degree before being eligible to sit for licensure.
 - Annual professional development requirements
- Highly accessible
 - 89% of Americans live within 5 miles of a pharmacy
- Proven value
 - Building patient rapport, improving patient outcomes, improving patient satisfaction, and improving physician satisfaction & resiliency

Source: National Association of Chain Drug Stores 2018 Pharmacy Opinion Research. Access: <https://accessagenda.nacds.org>

Highly Underutilized Resource



But, pharmacists are becoming more involved in and increasingly needed for direct patient care.

Particularly for chronic disease management.

The standard of care for the vast majority of chronic illnesses involves one or more medications.

Pharmacists are taking on a greater role and accountability for drug therapy:

- Appropriateness
- Effectiveness
- Safety
- Adherence (to medicine & lifestyle changes)

More than just dispensers of medications, but helping physicians, help their patients, reach treatment goals.

Mostly pharmacists are known for and thought of as dispensers of medications and drug information.

Asheville Project

The **Asheville Project**, launched in 1997 by the City of **Asheville**, North Carolina, provided education and personal oversight for city employees with chronic health problems such as diabetes, asthma, hypertension and high cholesterol. ... Unlike other experiments, the **Asheville** model was payer-driven and patient-centered.

The Asheville Project: Diabetes

Outcome Measure	Baseline	1 st follow-up	2 nd follow-up
Patients with Hemoglobin A1c <7.0% (optimal)	38.2%	62.5%*	66.7%*
Mean Hemoglobin A1c	7.9%	6.8%	6.7%
Patients with LDL <100 mg/dL (optimal)	36.1%	38.5%	44.2%

- Direct medical costs decreased \$672/year
- Sick days decreased every year for one employer (decreases of 6.6, 4.1, 5.3, 4.9, 6.2 days PPPY)
- Estimated productivity increase of \$18,000/year

• * Statistically significant from baseline

Cranor CW et al. *J Am Pharm Assoc (Wash)*. Mar-Apr 2003;43(2):173-184

The Asheville Project: Cardiovascular

Outcome Measure	Pre-Intervention	Post-Intervention
Patients at BP goal	40.2%	67.4%
Patients at LDL Goal	49.9%	74.6%
Cardiovascular (CV) Event Rate	77 per 1000 person-years	38 per 1000 person-years
Mean Cost per CV Event	\$14,343	\$9,931

- 46.5% decrease in CV medical costs
- Risk of CV event decreased 53%
- Risk in CV ED/hospital visit decreased 50%

Bunting BA et al. *J Am Pharm Assoc (2003)*. Jan-Feb 2008;48(1):23-31.

It has been two decades since the Asheville Project was launched, and during this time, the scientific literature has gained numerous articles demonstrating the value of pharmacists in patient care.



What Does the Physician-Pharmacist Collaborative Care Literature Reveal?

- Pharmacists helping improve the health of populations with chronic illnesses
 - Helping manage patients with diabetes, hypertension, dyslipidemia, heart failure, asthma, COPD, and pain
 - Helping with mental/behavioral health needs (egs., anxiety, depression and substance use disorders)
 - Helping reduce risk in vulnerable populations (egs., pediatric and geriatric patients)
 - Helping with lifestyle and behavioral changes (egs., tobacco cessation and adherence with medications, diet, exercise, physician appointments)



What Else Does the Literature Reveal?

- Pharmacists help improve:
 - Access to care
 - When pharmacists help manage chronic disease or provide maintenance care, physicians are able to dedicate more time to patients that are acutely ill, complex or brittle.
 - Quality of care
 - Both patient satisfaction and physician satisfaction scores are higher with pharmacist intervention
 - Patient outcomes
 - Fewer medication-related problems
 - Improved primary outcome measures (eg. blood pressure, blood sugar)
 - Fewer ED visits and hospital readmissions
 - Lower cost of care (direct) Benefit: Cost ratio > 10:1 (For every dollar spent, > \$10 savings generated)

<http://m.ncmedicaljournal.com/content/78/3/181.abstract>

<https://www.ashp.org/-/media/assets/ambulatory-care-pract>

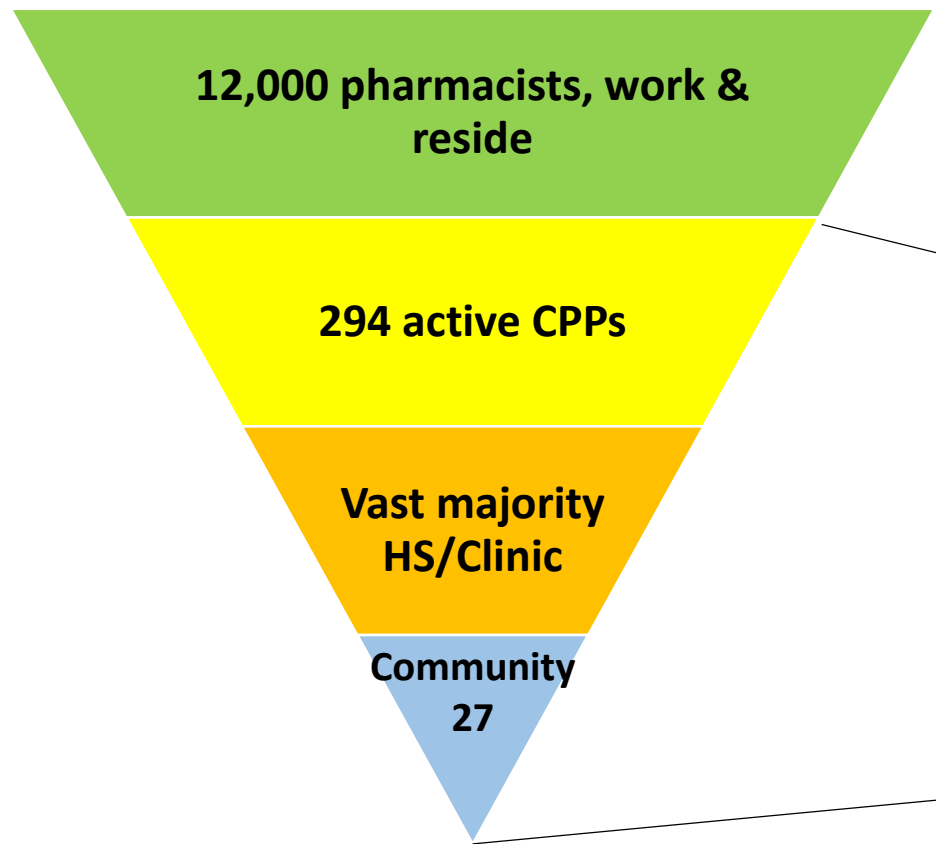
<https://www.pcpcc.org/sites/default/files/media/medmanagement.pdf>



What is the State of Physician-Pharmacist Collaborative Care in North Carolina?

- North Carolina is one of three states that championed and pioneered collaborative care.
- Collaborative care = physician delegates / authorizes certain patient care acts (eg. Initiate, modify, or discontinue a medication)
- In North Carolina we conduct collaborative care under our “Clinical Pharmacist Practitioner” statute (enacted 1998). G.S. 90-18.4; 21NCAC 46.3101
- Today, all but one state has enacted collaborative care
- Today, compared to other states, North Carolina has one of the most restrictive and difficult to implement collaborative care acts

What is the State of CPP Utilization in NC?



- Vast majority of CPPs are in urban areas
 - Closely aligns w/ health systems
- Few are located:
 - East of Wake County
 - Rural areas of the State



What are Some of the Limitations of Our Collaborative Practice Authority?

CURRENTLY: Gives certain pharmacists ability to engage in collaborative practice in which physicians can authorize the pharmacist to perform drug therapy management which includes
--implementation of predetermined drug therapy
--modification of prescribed drug dosages, dosage forms, and dosage schedules; and
--ordering tests
pursuant to a "physician, pharmacist, patient and disease specific" written agreement.

33 States allow any licensed pharmacist in any practice setting to collaborate

Language is restrictive and makes it very difficult and impossible in some cases for a physician-pharmacist to craft an agreement: particularly for today's complex patient care needs (eg. Transitions of care)

Our statute is specific to "physician", whereas 28 other states allow for other prescribers such as nurse practitioner and physician assistants to collaborate



National Governor's Association Recommendation

- In 2015, the NGA specifically recommended that collaborative practice authority for pharmacists be facilitated by:
 - Removing unnecessary barriers to implementing collaborative practice agreements;
 - Granting provider recognition in state laws and regulations that enable compensation for pharmacists' direct patient care services; and
 - Improving access to health IT systems
- "The critical role that medication management plays in treating chronic diseases suggests that the integration of pharmacists into chronic-care delivery teams has the potential to improve health outcomes."

Source: <http://www.nga.org/files/live/sites/NGA/files/pdf/2015/1501TheExpandingRoleOfPharmacists.pdf>



“I firmly believe that one of the most evidence-based and cost-effective decisions we can make as a nation is to maximize the expertise and scope of pharmacists, and minimize expansion barriers to successful health care delivery models as the right thing to do for our patients”

-- Rear Admiral Scott Giberson US Public Health Service

https://www.accp.com/docs/positions/misc/improving_patient_and_health_system_outcomes.pdf



North Carolina Association of Pharmacists

- Providing education and training programs for pharmacists to help them be able to provide
 - Various disease management and collaborative care services--
 - Newest programs include tobacco cessation counseling, harm reduction strategies around the opioid epidemic and medication assisted treatment for opioid addiction
- Leading the way in building awareness among healthcare stakeholders regarding the benefits pharmacist-provided services
- Advocating for change toward eliminating barriers to and improving the utilization of collaborative care in NC



QUESTIONS?

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