



Telehealth Technology- Enabled Patient Care Teams:

A Pilot Program to Expand Access
and Improve Coordination and
Quality of Health Care Services in
Rural and Underserved Areas of
Virginia

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Kathy H. Wibberly, PhD

*Director, Mid-Atlantic Telehealth
Resource Center*

UVA Center for Telehealth



UNIVERSITY
of VIRGINIA
HEALTH SYSTEM



VIRGINIA ACTS OF ASSEMBLY -- 2016 RECONVENED SESSION

CHAPTER 763

An Act to establish a telehealth pilot program to expand access to and improve coordination and quality of health care services in rural and medically underserved areas of the Commonwealth.

- To be established by the Center for Telehealth at the University of Virginia in partnership with the Virginia Telehealth Network
- Two year pilot period: July 1, 2016 – July 1, 2018
 - \$200,000 authorized for Year 1
 - \$190,000 authorized for Year 2



- Evaluate the success of patient care teams in improving access to care and coordination of care through evaluation of established clinical evidence.
- Report on the results of the pilot program to the Governor and General Assembly by October 15, 2017
- Following is a Progress Update following the 1st year of the pilot.

Core Element 1



- The Center for Telehealth shall consult all appropriate stakeholders, including but not limited to:

<ul style="list-style-type: none">• Medical Society of Virginia	<ul style="list-style-type: none">• Virginia Hospital and Healthcare Association
<ul style="list-style-type: none">• Virginia Council of Nurse Practitioners	<ul style="list-style-type: none">• Virginia Community Healthcare Association
<ul style="list-style-type: none">• Virginia Academy of Family Physicians	<ul style="list-style-type: none">• Virginia Chapter of the American Academy of Pediatrics
<ul style="list-style-type: none">• Public and Private Institutions of Higher Education Located in the Commonwealth that Award Medical Degrees	



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Dorrie Fontaine	UVA School of Nursing
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- Include one or more patient care team physicians and one or more licensed nurse practitioners who presently practice in or who relocate to rural or medically underserved areas of the Commonwealth
- Provide technology, training and protocols to participating patient care teams to assist such teams in the delivery of telemedicine services in accordance with the goals of the pilot program



Phase 1 Objective: To begin implementation of a telehealth enabled patient care team at a minimum of four clinical care sites/settings

Enrolled Phase 1 Pilot Sites	Site Type	Status
Blue Ridge Medical Center	FQHC	Active
Adams Compassionate Healthcare Network	Free Clinic	Active
Harrisburg Community Health Center (began as Elkton Family and Children's Medical Clinic)	FQHC (Nurse Managed Clinic)	Active
Everhart Primary Care	Nurse Managed Clinic	Inactive – Internal Issues
Free Clinic of Pulaski	Free Clinic	Active
Integrative Health Care LLC	Nurse Managed Clinic	Active, but no Collaborating Physician
VCU Health - Center for Advanced Health Management	Hospital Based Clinic	Inactive – NP Left Practice



Lessons Learned

- It is not about the technology, but the people and processes. Deploying the technology and technology training staff was relatively easy.
- For some, the lack of technology was the only barrier. Once they had the technology, they hit the ground running.
- For others, having the technology and training was insufficient to drive utilization. Barriers included things like fear of change, skepticism from board members, and reticence to try something new. In these cases, more intensive personal interaction to get the buy-in and overcome fears was needed.



Creative Use Cases and Emerging Success Stories From This Pilot

- One clinic is expanding its reach by using the technology to connect its current clinic location with new satellite location
- One clinic is using hot spotting for its most at-risk patients to reduce complications from uncontrolled chronic disease and prevent ED visits. Patients are now connecting to providers from home and in conjunction with home visits by APRN/MSW students.
- One clinic is delivering diabetes self management education using the technology.



Creative Use Cases and Emerging Success Stories From This Pilot

- One clinic has three practice sites, two of which are staffed by NPs. The collaborating physician is being pulled away from clinical practice to travel to the satellite clinic sites. Being able to connect to the NPs using the technology will allow the physician to resume seeing patients in clinic.

Barriers to utilization of telehealth vary. Affordability and access to technology and training are real barriers...but removing those barriers are not always sufficient. A personal investment of time and energy is often needed to drive utilization. When funding telehealth efforts, it is important not to focus only on technology and overlook the necessity of investing in people and processes. Once barriers to utilization are identified and addressed, success stories abound!



In Process

PHASE 2 Objective: To begin implementation of a telehealth enabled specialty and subspecialty care model at Phase 1 clinic sites

PHASE 3 Objective: Test the scalability of the pilot through expansion of a minimum of 5 additional sites



- Include a process for assisting nurse practitioners who seek to participate in the pilot program with identifying and developing a written or electronic practice agreement with a patient care team physician who will provide the required leadership of the patient care team through the use of telemedicine
- Include developing and maintaining a list of physicians who are ready to serve as patient care team physicians and making such a list available to nurse practitioners seeking physicians to serve as a patient care team physician in order to participate in the pilot program and make such a list available on the UVA Center for Telehealth, Virginia Telehealth Network and Department of Health Professions websites.



NP Practice Agreement Template Developed With Input from Both MSV and VCNP

NP PRACTICE AGREEMENT TEMPLATE

1. As a member of the patient care team, the nurse practitioner will provide an appropriate level of care for patients in accordance with:

- a. Educational preparation and specialty-specific national certification
- b. Applicable state and federal regulations related to advanced practice nursing
- c. The rights and privileges granted through licensure by the Joint Nursing and Medical Boards of Virginia
- d. Institution-specific medical staff bylaws and regulation (Optional)

2. As a member of a patient care team, the NP will provide nurse practitioner services in the following hospital department or office, clinic, facility, retail clinic, home care or other practice setting listed below:

3. As a member of a patient care team, the nurse practitioner will maintain a current collaborative and consultative practice agreement with at least one patient care team physician. Within this practice agreement care will be provided to [patient population, such as "adult patients" or "pediatric patients"]. Care will typically include but not be limited to: [change a. - k. below to suit your clinical situation and competencies]:

- a. Evaluation and management of patients with acute/chronic conditions
- b. Emergency care [if practicing in an Emergency Department]
- c. Histories and physicals, episodic visits, treatment plan
- d. Prescribing of medications, ordering of diagnostic tests and medical devices
- e. Ordering of treatments, including but not limited to physical therapy
- f. Episodic and daily care of interventional patients pre & post-procedure
- g. Counseling and coordination of care
- h. Admitting of patients
- i. Discharge of patients
- j. Writing "Do Not Resuscitate" orders
- k. Procedures

4. The nurse practitioner may sign any orders, certifications, stamps, verifications, affidavits or endorsements as are in accordance with the license of the nurse practitioner, within the scope of practice of the patient care team physician, permitted by applicable sections of the Code of Virginia and not in conflict with federal law or regulation.

5. Collaboration and consultation may be accomplished through the use of telemedicine.

6. A joint review of patient records will occur periodically in a frequency or manner mutually determined by the patient care team and will include records reflecting evaluation by the nurse practitioner. The review may occur electronically. Joint review may involve periodic visits to the practice site where health care is delivered but site visits are not required by law. The patient care team may determine the frequency and nature of any such visits.

7. In accordance with the rights and privileges granted through licensure by the Joint Boards of Nursing and Medicine, the NP may order medical devices, and prescribe and/or dispense medications in Schedules II - VI. [Any exceptions to prescriptive authority desired by the team may be identified.]

8. The nurse practitioner will utilize professional judgment and seek consultation with the collaborating physician or referal to an appropriate consultant should a patient's condition be determined to fall outside of APRN scope of practice or if the NP determines such consultation is indicated. When a patient is in need of emergency care the nurse practitioner shall follow standard hospital/facility/office protocols for emergency situations, and communicate subsequently with the team care physician as appropriate.

9. The collaborating physician or a physician designee will be available to consult with the nurse practitioner, either in person or via electronic means. The collaborating physician will communicate peer coverage arrangements to the nurse practitioner in advance of his or her absence from the practice.

10. Clinical references may be used as guidelines to prescriptive and nurse practitioner practice. This may include, but not be limited to electronic media, specialty standards of care, evidence-based research.

11. The nurse practitioner shall revise this agreement to reflect any changes to the scope of practice or prescriptive authority described in this agreement.

12. This agreement shall be reviewed at least every two years as part of the credentials reappointment process or as determined by the patient care team members or institutional policy.

The members of the patient care team whose signatures appear below have agreed to the terms of this agreement on the date stated.

Nurse practitioner signature _____ Date: _____

Collaborating physician(s) signature _____ Date: _____

Department Chair or CNO signature (if applicable) _____ Date: _____



Nurse Practitioners
Having Problems
Finding Physician
Collaborators, Creating
a Barrier to Access to
Care

Physicians Are Afraid
to Collaborate with
Nurse Practitioners
Because They Have
Liability Concerns

There Are Unclear
Processes for Finding a
Collaborator



- Is there a problem?
- How widespread is the problem?
- What is causing the problem?





- VCNP Membership Survey (Email)
- June 21 – July 7, 2017
- 357 Responses



- MSV Membership Survey (Email)
- July 13 – August 16, 2017
- 73 Responses



About the NPs

1. What type of NP were you certified/trained as? (check all that apply)

	Response Ratio
Family	65.7%
Pediatric	2.5%
Adult	17.6%
Geriatric	6.7%
Women's Health	4.4%
Neonatal	<1%
Acute Care	12.6%
Occupational Health	<1%
Psychiatric/Mental Health	4.7%
Other	1.9%

Close to 25% of NPs work in rural practice sites compared to only 11% of the nation's physicians!

(<http://www.ncsl.org/research/health/meeting-the-primary-care-needs-of-rural-america.aspx>)

2. What type of services are you providing?

	Response Ratio
Primary Care	50.2%
Specialty Care	44.0%
Mental Health	6.2%
Not applicable	4.5%
Total	100%

5. Is your practice site(s) considered: (Check all that apply)

	Response Ratio
Rural	24.2%
Suburban	48.1%
Urban	30.1%
Not applicable	4.2%
Other	2.8%



In What Setting(s) Do You Practice?



Hospital/health system	43.9%
FQHC	4.7%
Private practice	29.9%
Nurse managed clinic	2.2%
Public health	4.2%
NP owned practice	3.3%
None, I am retired or otherwise not working by choice	2.5%
None, I am actively seeking employment	<1%
Other	20.7%
Total Respondents	357

Hospital or Health System	52.17%
FQHC	1.45%
Private Practice - Primary Care	20.29%
Private Practice - Specialty Care	40.58%
Public Health	1.45%
Free Clinic	1.45%
Total Respondents: 69	



Do You Currently Have A Collaborative Agreement



With a collaborating physician?

Response Ratio

Yes	91.0%
No	3.9%
Not applicable	4.7%
No Responses	<1%

With an NP as a collaborating physician?

Yes, with someone in my practice	38.89%
Yes, with someone outside of my practice	5.56%
No	55.56%

Only 5.5% of respondents serve as a collaborating physician with an NP who is not in their practice and over 55% of physicians are not in a collaborative relationship with an NP (though some may be collaborating with PAs, nurse midwives, etc.)!



How Was the Collaborative Relationship Established?



My practice assigned a collaborator to me	79.5%
I was responsible for finding a collaborator	11.4%
Not applicable	5.1%
Other	7.2%

It is a requirement of my employment contract	21.43%
I was approached by an NP who requested a collaborator	3.57%
I hired an NP to work in my practice by choice	71.43%
I was asked to assist by a professional organization	10.71%

11.4% of NPs are responsible for finding their own collaborating physician, but only 3.6% of physicians report being approached by an NP to be a collaborator



In An Average Month, How Much Time Do You Engage...



With your collaborating physician
regarding patient care?

Almost never	20.1%
Less than an hour	27.1%
1 hour-5 hours	23.8%
More than 5 hours	22.6%
Not applicable	6.1%
No Responses	0.0%



With your collaborating NP
regarding patient care?

Less than 1 hour	6.25%
1 - 5 hours	43.75%
5 - 10 hours	25.00%
More than 10 hours	25.00%

Not Sure What To Make Of This Discrepancy!



Where Is Your Collaborating Physician Located?

In the same facility as I am located (or within walking distance)	70.5%
Within a 30 minute drive	11.2%
Within an hour drive	7.8%
More than one hour's drive away	2.8%
Not applicable	7.2%
No Responses	<1%

How Likely Are You to be Looking for a New Collaborating Physician in the Upcoming Year?

I'm certain I will	3.6%
Very likely	3.9%
Somewhat likely	8.4%
Not too likely	42.2%
Definitely will not	40.8%
No Responses	<1%

Over 16% of NPs are likely to be looking for a new collaborating physician in the upcoming year!



Barriers – Perceived or Real?

10. Since obtaining your NP license, has there ever been a time where you felt limited in your ability to work with patients because you were unable to find a collaborating physician?

	Number of Response(s)	Response Ratio
Yes	67	18.7%
No	290	81.2%
No Responses	0	0.0%
Total	357	100%

12. In the past 12 months, did you have a period of time where you felt limited in your ability to work with patients because you were unable to find a collaborating physician?

	Number of Response(s)	Response Ratio
No	286	80.1%
Yes, but only for a few days	11	3.0%
Yes, for a few weeks	5	1.4%
Yes, for a month or longer	17	4.7%
Not applicable	37	10.3%
No Responses	1	<1%
Total	357	100%

Close to 19% of NPs experienced difficulty finding a collaborating physician, and over 9% experienced this problem in the past 12 months



Challenges/Barriers



Access and Proximity to Physician Collaborators

29. If you were to need a new collaborating physician in the upcoming year, how confident are you that you could find one within 30 days?

	Response Ratio
I know I could do that	25.4%
I think I could do that	26.6%
I'm uncertain if I could do that	28.5%
I'm pretty sure it would take longer than 30 days	10.0%
I know it would take a lot longer than 30 days	8.1%
No Responses	1.1%

“I had wanted to open my own practice in an underserved area. I was unable to find a collaborating physician who was willing to work with me at the time. I ended up working further from home in an area that was less needy.”

“I was running a free diabetes clinic with a collaborating physician until the corporation bought the hospital and practices and the providers became affiliated with the health care organization. There then became a lack of ... independent providers in the area that could collaborate with me for the clinic and it had to close”



Challenges/Barriers



Misconceptions and
Misperceptions
About Liability and
Responsibilities

“Restrictions placed on my clinical privileges regarding the requirement for direct physician supervision for all procedures – even those for which I have been specifically educated and trained, per my specialty, to perform.”

“My collaborating physician is required to see all patients I see face to face in a hospital setting... follow up patients included... has led to much duplication of time and services.”

“...some are unwilling to sign off on papers that are required by Medicare because they perceive a shared liability.”



Challenges/Barriers



“We are willing to add more NPs to our practice, but the legal issues in collaborating with someone far away are too much of a risk for us to take under current laws”

“Many nurse practitioners are working beyond their scope of expertise.”

“NPs do not have the same training as physicians. They are not interchangeable.”



Challenges/Barriers



High
Costs/Financial
Strains



“[As] I am ... looking at opening my own practice in an underserved area, my greatest struggle is the cost I will incur in order to pay someone to be my collaborating physician. Sometimes, it seems that being a collaborating physician is just a way for the physician to make more money.”

Do You Get Paid for Your Time as a Collaborating Physician?

No	83.33%
Yes, on a fee for service basis (e.g., I was paid based on time he/she spent with me)	3.33%
Yes, I am/was paid a flat monthly or annual fee	13.33%

Annual **Actual** Reported Fees Ranged
\$0 - \$12,000 per year



Challenges/Barriers



15. If you have ever had to find your own collaborating physician, what mechanism(s) did you use?

	Response Ratio
I asked a physician that was already affiliated with my practice	14.6%
I contacted a physician with whom I already had a personal/professional relationship	13.5%
I asked for referrals from colleagues	3.4%
I was hired to work for the collaborating physician in his/her practice	16.0%
I requested assistance from a professional organization such as VCNP, MSV, AAFP, etc.	<1%
Not applicable	61.6%
Other	3.4%

Unclear Mechanism for Finding A Collaborator

- Less than 1% requested assistance from a professional organization
- Overall, NPs required to find their own collaborating physician rely largely on those they personally know



Opportunities

“NP quality that I have come across so far has been excellent”



“The NPs I work with are extremely valuable members of our team and embrace the collaborative relationship”

Would You Be Willing to Collaborate with more NPs in Addition to Your Current Collaborative Relationship(s)?

Yes	40.63%
No	37.50%
Not sure	21.88%

“I employ an NP as an extender and am very impressed with her work and what she has brought to our practice. I think NPs are underutilized in Virginia and could be an important component of reducing health care costs in our state.”

Reach out to those who have had good existing relationships with NPs to become champions to their peers and to potentially collaborate with more NPs



Opportunities



Would You Be Interested in Establishing an Agreement with an NP as a Collaborating Physician?

Yes, I would be interested	10.53%
No	52.63%
Not sure	36.84%

How would the ability to collaborate with an NP using telehealth impact your willingness to become a collaborating physician?

I would be more willing	20.51%
No change	48.72%
I would be less willing	30.77%

Identify and reach out to those that are willing and the subset who would be more willing with telehealth



Opportunities



MEDICAL SOCIETY OF VIRGINIA



Frequently Asked Questions about Scope of Practice and Nurse Practitioners

How many categories of nurse practitioners are there?
10. See 18 VAC 90-30-70.

What are relationships for nurse practitioners in these categories?
For nurse practitioners in the category of CRNA, they must practice under the supervision of a physician, but does not have to have a practice agreement. For nurse practitioners in the category of Certified Nurse Midwives, they must practice in "consultation" with a physician, and have a practice agreement. Finally, for all other categories of nurse practitioners, they have to collaborate and consult with a patient care team physician as evidenced in a practice agreement.

What is required to be contained in a practice agreement between a patient care team physician and a nurse practitioner?
The requirements for what must be contained in a practice agreement are set forth in 18 VAC 90-30-120 (D). This regulation requires the written or electronic practice agreement to include provisions for

- * 1. The periodic review of patient charts or electronic patient records by patient care team physician and may include provisions for visits to the site where health care is delivered in a manner and the frequency determined by the patient care team;
2. Appropriate physician input in complex clinical cases and patient emergencies and for referrals; and
3. The nurse practitioner's authority for signatures, certifications, stamps, verifications, affidavits, and endorsements provided, it is:
 - a) In accordance with the specialty license of the Nurse Practitioner and within the scope of practice of the patient care team physician;
 - b) Permitted by Sect. 54.1-2957.02 or applicable Sections of the Code of Virginia; and
 - c) not in conflict with Federal law or regulation.

Is a patient care team physician required to practice at the same location as the nurse practitioner?
No. A patient care team physician may choose to visit or practice at the same site as the nurse practitioner, but there is no statutory or regulatory requirement that the physician must do so. It is discretionary between the physician and the nurse practitioner.

Does a practice agreement have to be in writing?
A practice agreement may be maintained in writing or electronically.

Does a practice agreement have to be filed with the Board of Nursing or the Board of Medicine?
No. Pursuant to 18 VAC 90-30-120(E), practice agreement shall be maintained by the Nurse Practitioner and made available to the Board or their representatives upon request.

Does a practice agreement have to be signed by the patient care team physician?
No. The physician's name may be clearly stated or may be signed by the physician. 54.1-2957.01

Are there any special provisions for practice agreements when care is provided in a hospital or within a healthcare system?
Yes. 18 VAC 90-30-120 permits nurse practitioners providing care to patients within a hospital or healthcare system to have the practice agreement included as part of the documents delineating the nurse practitioner's clinical privileges or the electronic or written delineation of duties and responsibilities.

May telemedicine be used on a patient care team between physicians and nurse practitioners?
Yes. Va Code Sect. 54.1-2957(c) requires nurse practitioners, as part of a patient care team to maintain the appropriate collaboration and consultation with at least one patient care team physician. Further, that Section specifies, "collaboration and consultation among nurse practitioners and patient care team physicians may be provided through telemedicine as described in Sect. 38.2-3418.6"

How is the issue of professional liability addressed?
Patient care team physicians most often are covered by a professional liability insurance policy. A physician wishing to become a patient care team physician should confirm with his insurance agent that coverage is provided for his work on a patient care team. In some instances, the policy may need to have an endorsement added, specifically stating that coverage is available.

As to nurse practitioners, professional liability insurance coverage is often purchased directly by the nurse practitioner, but the nurse practitioner may also be on the same policy with the patient care team physician.

The only statutory comment regarding professional liability insurance for patient care team members is found in 54.1-2957(c) which provides "physicians on a patient care team may require that a nurse practitioner be covered a professional liability insurance policy with limits equal to the current limitation on damages as set forth in Sect. 8.01-581.15 and [The Medical Malpractice Act]."

Is there a limitation on the number of nurse practitioners that a patient care team physician may serve at any given time?
Yes. For nurse practitioners, who have prescriptive authority under 54.1-2957.01(e)(2), "physicians may not serve as a patient care team physician on a patient care team at any one time to more than six nurse practitioners."

Is there any limitation on how many nurse practitioners a physician can serve as a patient care team physician if the nurse practitioner does not have prescriptive authority?
No, there is no limitation.

How has the limitation of six been interpreted for nurse practitioners who have prescriptive authority?

The Boards have interpreted the limitation of six nurse practitioners at any one time to mean that a physician may serve as a patient care team physician for six nurse practitioners in the office at 9am, go to a different office in the afternoon, have six different nurse practitioners and then go to a free clinic at night and work with six nurse practitioners who are different from the first two settings. In other words, there is no limitation on the total number of nurse practitioners a physician can participate with through multiple practice agreements in any given day, rather the limitation is there can be no more than six nurse practitioners partnering with a patient care team physician, at any one time.

May a patient care team physician be compensated or charge a fee for serving on a patient care team?
There are no statutes or regulations prohibiting or addressing compensation of patient care team physicians. Some patient care team physicians serve on a patient care team as part of their regular duties. Other patient care team physicians negotiate compensation with nurse practitioners or health systems.

Clarify misconceptions and misperceptions

In Conclusion



- **Barriers to establishing and maintaining relationships with collaborative physicians is a real barrier to practice, limiting the ability to practice for almost 20% of NPs at some point during their career and 9% of NPs in any given year.**
- **There are physicians willing to collaborate with NPs, and these individuals need to be pro-actively identified.**
- **A clear mechanism for identifying NPs in need of a collaborator and physicians who are willing to serve as collaborating physicians is needed. However, this may not be sufficient if cost as a barrier to establishing collaborative relationships is not also addressed.**



- **One of the greater needs for collaborative care is related to specialty and subspecialty collaborations. This may prove to be an even greater challenge, as has been the case for psychiatry.**
- **Affordability and access to telehealth technology and training are real barriers...but removing those barriers are not always sufficient. It is important not to focus only on funding and deploying technology and training, but understanding the necessity to make available human resources.**
- **Once barriers to utilization of telehealth are identified and addressed, we begin to immediately see success stories related to improving access to care coordination and quality of care in rural and underserved populations.**