HEALTH CARE TRANSFORMATION
OPPORTUNITIES FOR A HEALTHIER VIRGINIA

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Executive Summary

The American health care system is in a period of what many call transformational change, impacting the vast majority of individuals who seek health care services, as well as consuming nearly 18% of the nation’s economic resources.¹ More than 19 million Americans in the U.S. health care workforce are affected as well.²³ While some view the uncertainties of such sweeping changes with alarm, others embrace the overhaul as providing an opportunity. In fact, this may be the best opportunity in decades to offer higher quality care to more Americans at a reasonable cost. The health of Americans as well as billions of dollars is at stake in this transformation.

Virginia has already taken important steps to improve health and access while limiting increases in expenditures. This paper will provide an overview of how the health care system is being altered and suggest several opportunities to increase access, improve quality, and curtail increases in costs. The recommendations will not only help those needing care, but also serve to constrain the rate of growth in health costs for businesses, leading to an improved business climate in Virginia.

The three areas of opportunity addressed in this report are:

1. Improving access and efficiency by allowing health professionals, such as nurse practitioners, (NPs), physician assistants (PAs), pharmacists and dental hygienists to practice in a manner consistent with their educational preparation and skills through removal of unnecessary statutory and regulatory barriers;
2. Promoting the further development and implementation of telemedicine to improve access in rural and underserved areas, leverage high tech expertise in Virginia, creating new business opportunities; and
3. Strengthening behavioral and mental health and substance abuse services to address the current service gaps contributing significantly to health care costs and suffering.

The George Washington University would welcome the opportunity to work with Virginia businesses on all of these issues. The School of Nursing (SON) is prepared to help advance the Commonwealth’s pioneering efforts in health technology, both in education and training.

² Note: This includes all workers employed in health facilities and organizations as well as health professionals working independently.
The Changing Health Care System

This is an exciting time for those with the insight and creativity to innovate, particularly those who also understand the critical role of optimal health in ensuring that Americans live productive lives, free of functional limitations that cause pain or limit independence. The impact of the transformation of health care is widespread — it affects the interactions of individual consumers with the clinicians who provide their care and who are likely to more frequently be non-physicians and who rely far more on technology; it modifies the arrangement by which providers of care are organized and paid; and it influences the size, organization and financing of clinical providers, hospitals and insurers.

For decades, policy analysts and politicians have warned that the annual rate of increase in health care expenditures was unsustainable, whether those expenditures were for Medicare, for states bearing the burden of Medicaid, for businesses, or for families and individuals. Simultaneously driving the demand for more of the nation’s fiscal resources was a rapidly growing and aging population, along with medical advances to lengthen lifespan and higher consumer expectations for longer, healthier lives. The United States already spends far more on health care than any other nation, with mediocre results, at best. How can we afford to provide health care coverage for more people while ensuring more and better services? A likely outcome of this clash between these two very powerful forces — the demand/need for more services on one hand and limited resources on the other — is to do things differently, redesign services, and make better use of the resources we have.

The goals of this transformation are three-fold:

• Improving the health of populations;
• Reducing the per capita cost of health care; and
• Improving the patient experience of care.

These are generally referred to as the Triple Aim. While the federal government plays an important role, states, insurers, employers and health care organizations all share the responsibility and the opportunity. The Affordable Care Act (ACA) is an enormous step forward. It includes support and incentives to expand coverage and access, innovation and redesign, and quality improvement. In order to achieve the Triple Aim, however, we need states, insurers, employers, health care providers, and others to step up and carry out the transformation on the ground with communities and individuals.

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New mechanisms for delivering care have emerged to meet the needs of individuals and families where both parents work full time or where costs of emergency room care have become prohibitive. These include convenience care clinics which have sprung up across the country, including in Virginia. Their popularity is tied to community-based day and evening, seven-day-per-week availability. Convenience care clinics can be freestanding clinics or within retail establishments, and can be staffed by physicians, nurse practitioners, physician assistants or sometimes all three. While established medical practices protested this innovation, citing lack of continuity and less qualified personnel, the reality is that such clinics dramatically increase access and provide greater affordability than other options. This disruptive innovation has proven cost effective in reducing more expensive emergency department visits.6

There are other encouraging signs that quality can be improved, that health care delivery models can make a difference, and that the health professional workforce can wield a positive impact. As reported by Blumenthal in May 2015, thirty-day readmission rates for Medicare enrollees have declined nationally from more than 19% to less than 18.5% in 2012 and to 17.5% in 2013 — equivalent to 150,000 fewer readmissions between January 2012 and December 2013. The first ever decline in hospital composite rates of hospital acquired conditions (HACs) national decreased from 2010 to 2013, with estimates that this prevented roughly 50,000 deaths and saved $12 billion. The overall 9% decline in the incidence of hospital acquired conditions from 2010-2012 includes 560,000 fewer HACs in just 2 years, with the prevention of 15,000 deaths due to reductions in adverse events, falls, and infections, and a savings of $3.2 billion in 2012 alone. In addition, through the end of 2013, falls and trauma decreased by nearly 15%, pressure ulcers decreased by 25%, ventilator-associated pneumonias decrease by over 50% and venous blood clotting complications decreased by 13%.7 Under the right conditions health care quality is being improved.

Employers footing the bill for their employees’ health care coverage have also sought to initiate innovative approaches to reduce costs. About three-quarters of employers offer wellness programs and over 50% offer disease management programs of one sort or another. For most employers, the five biggest challenges posed by employees’ health-related behaviors have included stress, obesity, and lack of physical activity, poor nutrition and tobacco use. In an attempt to mitigate these behaviors, many incentivize employees around enrollment in health lifestyle activities. While health risk appraisals have been available for decades, technology has led to advances in biometric screening. Lifestyle behavior coaching programs as well as tobacco cessation, exercise and weight management are also strategies that continue to be utilized.

The Federal Role in Health Care Delivery Transformation: While most of the public discussion around the Affordable Care Act has been about the expansion of insurance coverage, several studies have estimated that the impact of expanded coverage will only add 2% to 3% to the demand for health services. With a national population of 320 million people, expanding coverage to 15 to 20 million or even 30 million Americans, while absolutely critical to those gaining coverage, will have only a marginal impact on overall demand for care. Consider also that many of the newly covered are younger, healthier Americans and that the seriously ill without insurance already receive charitable care when in the hospital or at the emergency room.

Receiving far less attention have been the many provisions of the ACA designed to encourage health systems redesign. Literally billions of dollars are going to encourage change and innovation. This includes programs like Accountable Care Organizations (ACOs), Patient Centered Medical Homes (PCMHs), State Innovation Models (SIMs), bundled payments, and incentives to reduce readmissions. These investments and innovations have the potential to impact the whole delivery system for all those who use health care. Figure 1 depicts the location of demonstrations supported by the Federal Center for Medicare and Medicaid Innovation (CMMI) in Virginia and demonstrates the incredible activity to transform health care. The federal government also plays an important role in overseeing Medicare and Medicaid. Policies on who will be paid for what and under what conditions have an enormous impact on health care and the workforce.

The State’s Role in Health Care Delivery Transformation: States have a number of responsibilities, including the regulatory authority to impact health care delivery models and the healthcare workforce. These include: regulation and licensure of health professionals that impacts their scopes of practice; regulatory oversight of health facilities; oversight of state universities and colleges that educate and prepare health professionals; decision-making and administration of Medicaid policies that determine the number of individuals covered; authorization of state employee health insurance; data collection and analysis. States play a very important role in establishing an environment that encourages or discourages innovation.
Examples of Shared Federal-State Health Initiatives in Virginia

Virginia Center for Health Innovation: The Virginia Center is promoting innovation which includes the development of a Virginia Health Innovation Plan. The Virginia Center is the recipient of a recent CMMI award under the State Innovation Models (SIMs) program on behalf of the Commonwealth of Virginia. Under the SIMs grant, Virginia will design a multi-payer health system and encourage the transformation of health care.\(^\text{11}\)

Heart of Virginia Healthcare: Recently, the Federal Agency for Health Research and Quality (AHRQ) awarded Virginia an EvidenceNow: Advancing Heart Health in Primary Care grant for a state cooperative to improve the quality of care provided by small-to-medium sized practices. Virginia is one of seven state-level cooperatives to be funded.\(^\text{12}\)

Virginia Health Workforce Development Authority: Virginia was the only state to receive an implementation award from the federal government under the ACA-
authorized program of State Heath Workforce Development Awards. With this funding, Virginia established the Health Workforce Development Authority which collects and analyzes data on the supply, distribution and demand for health workers, identifies high need communities and helps to build an educational pipeline for health workers.

What stands out with these and other initiatives is not only the national leadership role of health organizations in Virginia, but also the fact that so many organizations in Virginia can work together so effectively. This willingness to share and collaborate has served Virginia well and puts the Commonwealth in a good position as it faces future challenges. While Virginia’s success is supporting progress in many areas, there are three additional opportunities that cannot be overlooked.

Opportunities for further improvement in Virginia

1. The Health Professional Workforce: Scopes of Practice

Health care professionals are not only impacted by the efforts at transformation, they are a central and critical element to the process of transformation itself. Without an adequate supply and distribution of well-prepared health professionals, the Triple Aim cannot be achieved. For example, access cannot be assured if there are shortages of health professionals in rural and underserved areas of the Commonwealth. New technologies cannot be effectively introduced unless the workforce knows how to use that technology. Further, making better use of the workforce involves allowing health professionals to practice to the fullest extent of their education and competence. This is critical to achieving the Triple Aim.

Over the past several decades, several new health professions have emerged and other professions have modified educational curricula and requirements in response to the advances in medicine and in health care delivery. These developments offer tremendous opportunity to assist in meeting current and future health care needs in terms of the increased numbers and through the advanced knowledge and skills these professionals bring to health and health care.

Nurses have been identified as health care providers for more than a century, but as health science has become increasingly more sophisticated, so have the educational requirements to become a nurse. Although title-protected, the word “nurse” is used to describe a variety of health workers that provide varying care activities in a range of healthcare settings. Consumers of healthcare may hear the word “nurse” be applied to any of the following healthcare providers:

http://www.vhwda.org/
Figure 2: Healthcare Workers Potentially Referred to as a “Nurse”

<table>
<thead>
<tr>
<th>Actual Title</th>
<th>Licensure/Certification</th>
<th>Education/Training</th>
<th>Credentials</th>
<th>Scope of Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Health Aid, Personal Care Assistant</td>
<td>None</td>
<td>None High School Diploma Not Required</td>
<td>None</td>
<td>Bathing, dressing, help with meals</td>
</tr>
<tr>
<td>Medical Assistant</td>
<td>Certification optional</td>
<td>High School plus non/academic or academic training to sit for certification exam</td>
<td>MA, CMA, RMA</td>
<td>Complete medical and administrative tasks in office or outpatient settings</td>
</tr>
<tr>
<td>Certified Nursing Assistant</td>
<td>Certification</td>
<td>High School plus completion of state-approved program</td>
<td>CNA</td>
<td>Basic care activities under the supervision of an RN</td>
</tr>
<tr>
<td>Licensed Practical Nurse</td>
<td>Licensure required</td>
<td>High School plus completion of state approved program</td>
<td>LPN, LVN</td>
<td>Provide basic nursing care, works under the supervision of a Registered Nurse</td>
</tr>
<tr>
<td>Registered Nurse</td>
<td>Licensure required</td>
<td>Minimum of Associate degree. By the year 2020, 80% of all Registered Nurses will be required to have a Bachelor’s degree</td>
<td>RN</td>
<td>Provide and coordinate care, educate patients, families and the public, provide emotional support to patients and families</td>
</tr>
<tr>
<td>Nurse Practitioner (NP) Advanced Practice Registered Nurse (APRN)</td>
<td>Licensure and Board Certification required</td>
<td>Minimum of a Master’s Degree and 1000 hours of supervised clinical practice</td>
<td>Examples: FNP-C APRN-BC</td>
<td>Assess, diagnose and treat health conditions; perform physical exams, procedures; prescribe medication</td>
</tr>
</tbody>
</table>


In terms of numbers, nationally, from 2003 to 2014, the number of NPs graduating each year has risen from 6,611 to 18,484, an increase of 180%, the number of newly certified PAs has risen from 4,337 to 7,578, an increase of 74%; and the number of new pharmacists graduating each year has grown from 7,488 to 13,838.

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an increase of 85%. The numbers of new registered nurses, physical therapists, occupational therapists, community health workers and other providers of care have also grown rapidly. These clinicians can not only help expand access, they can also improve the efficiency of care. Individuals have a wide range of needs. Some of these needs require the advanced skills of physicians with their 11-to-15 years of post high-school education. Other needs can be met by health professionals with 7-to-10 years of education-specific skill sets. The development of teams and inter-professional practice partnerships facilitates the effective use of many categories of health professionals and other workers.

The National Governors Association recently produced four briefs comparing how states’ regulate nurse practitioners, physician assistants, pharmacists and dental hygienists. As pointed out in these publications, there is significant variation across the states and many do not permit these practitioners to work at the levels for which they are educationally prepared.16, 17, 18, 19 Clearly, Virginia can do more to allow these professionals to help meet the needs of Virginians. In regards to NPs, the American Academy of Nurse Practitioners (AANP) compares states on the level of openness or restrictiveness of state statutes and regulations on scope of practice. As indicated in Figure 3 (on page 10), Virginia is considered among the states with more restrictive requirements.

14 National Governors Association; The Role of Nurse Practitioners in Meeting Increasing Demand for Primary Care, December 2012; http://www.nga.org/cms/home/nga-center-for-best-practices/center-publications/page-health-publications/col2-content/main-content-list/the-role-of-nurse-practitioners.html
Figure 3: 2015 Nurse Practitioner State Practice Environment

Full Practice
State practice and licensure law provides for nurse practitioners to evaluate patients, diagnose, order and interpret diagnostic tests, initiate and manage treatments—including prescribing medications—under the exclusive licensure authority of the state board of nursing. This is the model recommended by the Institute of Medicine and National Council of State Boards of Nursing.

Reduced Practice
State practice and licensure law reduces the ability of nurse practitioners to engage in at least one element of NP practice. State requires a regulated collaborative agreement with an outside health discipline in order for the NP to provide patient care.

Restricted Practice
State practice and licensure law restricts the ability of a nurse practitioner to engage in at least one element of NP practice. State requires supervision, delegation, or team-management by an outside health discipline in order for the NP to provide patient care.

Facilitate Access to Health Careers for Veterans: There are over 781,388 Veterans living in Virginia who represent 9.4% of the entire population.\(^2\) There has been tremendous support from public and private programs in the Commonwealth to focus on employment and support services for veterans and their families, but gaps remain in helping veterans transition to civilian life. One significant gap has been the chasm between military training and service and the equivalency of that training and service to credit in higher education. In 2013 and 2014, three universities in Virginia, including the GW School of Nursing, became recipients of HRSA grant funding from the Department of Health and Human Services to help veterans transition to the workforce as Bachelor’s-prepared Registered Nurses. Virginia received more of these awards than any state in the nation. The goal of these awards is to acknowledge the valuable contribution of military training to the workforce as a whole and to create and disseminate best practices for working with veteran students and evaluating and granting credit for service.\(^2\)

2. Opportunities in Telemedicine

The American Telemedicine Association states: “Formally defined, telemedicine is the use of medical information exchanged from one site to another via electronic communications to improve a patient’s clinical health status. Telemedicine includes a growing variety of applications and services using two-way video, email, smart phones, wireless tools and other forms of telecommunications technology.”\(^2\)

With the incredible growth in new technologies over the past 20 years, the use of telemedicine is just emerging. The developing mobile health technology is another innovation that has begun to increase access and change perceptions of quality. Technology that ranges from greater web information about symptoms, diseases and treatments to in-home monitoring devices that can read and directly report vital information about patients’ current blood glucose levels or blood pressures can increase the timeliness of interventions while providing greater feedback to individual consumers. Health provider-generated web portals give email access to patients who are seeking information about their own health needs, information to which they can refer back as often as needed. Portals can also improve and support patients’ timely access to providers between visits. Such access is causing a shift from a physician/provider-based model of care to one that is far more patient-centric, allowing the patient to determine when and what they want or need to learn.

Remote patient monitoring improves care for patients in rural and underserved areas, while continuing medical education for health professionals and special

\(^2\)www.HRSA.gov
\(^2\)http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.Va0J2_IhVuA
medical education seminars for groups in remote locations reduces the cost of keeping professionals up to date with best practices. In urban areas telemedicine can improve the monitoring of people with chronic conditions and make it easier for people with limited mobility to stay in touch with their health care providers.

The spread of tele-health can be encouraged by supportive state policies which give full parity between telemedicine and in-person coverage in private insurance and Medicaid, and by pressing for policy changes in Medicare, which currently limits the use of telemedicine. Virginia is one of the nation’s leaders in this field as one of 5 states and D.C. which were rated “A” by the American Telemedicine Association for telemedicine, limited only by lack of coverage for the home health benefit (Figure 4). Virginia’s progress can be extended further by the development of mobile apps that would add tools for Virginians to address more of their health needs. George Washington University’s contribution to telemedicine has been to prepare nurses using online technology and using simulations to gain new knowledge and acquire new skills. The GW School of Nursing would welcome the opportunity to work with Virginia business in the Commonwealth’s pioneering efforts, both in education and training, and in development of mobile applications.

Figure 4: State Ratings on Telemedicine, 2015

3. Mental Health and Substance Abuse Services

Depression and substance abuse have a significant impact on workforce health and productivity. Nationally, 10.8 million full-time employees have a substance use disorder and over 200 million work days are lost annually due to depression (CDC, 2013). The majority of individuals with mental and behavioral health issues receive treatment in the communities where they live and work. Prevention is the best outcome for any condition followed by early intervention when symptoms appear.

Behavioral conditions are best treated by specialists trained in the area of diagnostics and treatment. Psychiatrists and psychiatric nurse practitioners are board-certified to diagnose medical and psychiatric illnesses, prescribe medication and provide various modalities of therapy. Clinical psychologists, licensed clinical social workers and licensed professional counselors can provide therapy or counseling but are not licensed to prescribe medication.

In the Commonwealth of Virginia, there is one psychiatrist for every 10,000 residents, compared to one for 8,500 nationally. There is also one psychiatric nurse practitioner for every 57,000 Virginians. These ratios however are not consistent across the state. Many more providers are located in the northern part of the state. Virginia reported 50 mental health-specific health professional shortage areas (HPSAs) in 2013. In that same year, Virginia met only 61% of the state’s reported mental health needs. In addition to a deficit in meeting the needs of mental health treatment, the cost of mental health services was excessive. The state spent $28 million on residential care for patients who were ready to be discharged to care in the community.

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23 www.e-psychiatry.com
25 www.jhc.virginia.gov
A recent spike in deaths due to heroin overdose has mobilized the Virginia legislature, Department of Health and the business community to provide citizens with health information and treatment options for substance abuse.

Source: Virginia Department of Behavioral Health and Developmental Services, 2014
This spike in heroin deaths is a part of the larger issue of opioid abuse in Virginia:

Figure 7: Prescription Opioid Deaths 2006-13

Nurses can play a significant role in the identification and treatment of substance abuse disorders. People who become addicted to medications often have improperly treated pain or undiagnosed psychiatric conditions. RNs who are certified in mental health nursing can assess and refer those suffering from addiction to nurse practitioners, psychiatrists or treatment centers.

Additionally, expanding the number and scope of practice for psychiatric nurse practitioners is an affordable and effective way to meet mental health care needs. Virginia is one of the 12 most restrictive states in the nation for nurse practitioner practice. Removing current barriers to NP practice to allow autonomous practice can improve mental health outcomes.

Telepsychiatry is a successful and cost effective method of delivering mental health care to patients in all areas with all types of behavioral needs. Telepsychiatry is vital for patients in rural areas and those who experience behavioral symptoms that make it difficult for them to travel to appointments. Patient outcomes and patient satisfaction in Telepsychiatry specifically and Telemedicine as a whole are favorable, cost effective and time saving for patients and providers. Billing structures and legal guidance for this treatment modality have precedence.

26 www.dbhds.virginia.gov
**Additional Comments**

Two additional strategies to improve the health of Virginians and the Virginia economy are worth considering. These include:

- **Expanding Medicaid eligibility**: It is well documented that the lack of insurance coverage is a major barrier to obtaining needed health care. Providing basic coverage would lead to improved health for thousands of Virginians. It would also assist the health providers that work with the underserved and it would bring in significant federal dollars to the state. Since the implementation of expanded coverage through the ACA, it has been identified that between Quarter 1 2013 and Quarter 2 2014 nationally among all adults, those lacking health insurance coverage decreased by 3.6%. In Medicaid expansion states, uncovered adults decreased by 4.7% while in Medicaid non-expansion states, uncovered adults decreased by 2.5%.27

- **Take additional steps to reduce the use of tobacco**: Tobacco is a leading cause of death and poor health and contributes to the high cost of care. Virginia trails behind most of the nation in efforts to reduce the use of tobacco.28 Other states have demonstrated that state actions can reduce the use of tobacco and improve the health of the population. Virginia needs to implement new policies to reduce smoking such as funding for prevention and cessation services and establishing expanded smoke free air policies.

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28 American Lung Association; http://www.stateoftobaccocontrol.org/state-grades/virginia/
Closing Comments

There is much that can be done — and should be done — to improve the health of Virginians and to constrain the rate of increase of expenditures. Given the importance of the professional healthcare workforce in this transformation, greater collaboration between the health services and education sectors will be important. Educational programs need to prepare workers for the jobs of the future, not the jobs of the past. The GW School of Nursing is well positioned and prepared to work with Virginia health care providers to ensure that graduates of its programs are prepared to meet the needs of the Commonwealth of Virginia. We share a mutual goal, to assure that every individual gets the high quality care they need from a well-educated workforce at a reasonable price.

Nationally, the health care delivery system is in transition. This is an opportunity for the business community as well as educators. Working together we can capitalize on this period of transition to better serve the Commonwealth of Virginia and the nation. The three areas identified: removing barriers to the effective use of health professionals; further building the technology and environment for telemedicine, and supporting a more robust mental and behavioral health and substance abuse workforce, can build on the good work already underway in Virginia and improve the health of Virginians.