

**JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION  
OF THE VIRGINIA GENERAL ASSEMBLY**

**EVALUATION OF PROPOSED  
MANDATED HEALTH INSURANCE BENEFITS**

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**Evaluation of House Bill 2191  
and Senate Bill 1458:  
Mandated Coverage of  
Telehealth Services**

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**June 2009**

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JLARC provides evaluations of proposed health insurance mandates in accordance with Sections 2.2-2503 and 30-58.1 of the *Code of Virginia*.

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## Evaluation of House Bill 2191 and Senate Bill 1458: Mandated Coverage of Telehealth Services

### JLARC SUMMARY

House Bill 2191 and Senate Bill 1458 of the 2009 General Assembly Session would mandate coverage for telehealth services. In particular, the bills indicate that, for those services appropriately provided through telehealth, insurers cannot exclude a service for coverage solely because the service is provided through telehealth and not through a face-to-face consultation or contact between a health care provider and a patient. This report draws a distinction between the terms ‘telemedicine’ and ‘telehealth’ because of the range of services that they entail. Telemedicine typically refers to direct patient care provided using telecommunications technology whereas telehealth includes the direct patient care aspect of telemedicine but also can include activities that are not directly related to the clinical care of a patient, such as transfer of medical data and medical education. Proponents of the proposed mandate indicate that they are most interested in gaining coverage for telemedicine, and similar mandates in other states have typically focused on telemedicine. Therefore, this report concentrates on telemedicine services rather than the broader definition of telehealth.

### MEDICAL EFFICACY AND EFFECTIVENESS

A wide body of literature assessing the medical efficacy and effectiveness of telemedicine exists. While concerns have been raised regarding the quality of existing research, staff at the federal Office for the Advancement for Telehealth (OAT), the federal Agency for Healthcare Research Quality (AHRQ), and medical experts at two Virginia medical schools as-

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sert that the research sufficiently supports telemedicine and any research limitations should not prevent its expansion as a mode of care. Further, the Virginia Board of Medicine reports very few complaints related to patient care delivered using telemedicine.

## **SOCIAL IMPACT**

Utilization of telemedicine services appears generally low in Virginia and elsewhere. Medicare and Medicaid both provide limited coverage of telemedicine services. However, private insurance coverage appears minimal with approximately 25 percent of health insurers reporting that they provide any coverage of telemedicine services. The State employee health plan also does not provide coverage of these services. Medical experts and staff at the Virginia Department of Health (VDH) indicate that there are positive public health impacts associated with telemedicine through increased access to care in underserved areas. However, without insurance coverage, patients may receive inappropriate care, experience delayed access to specialty care or fail to receive specialty care at all, and/or end up in the emergency department of their local hospital.

## **FINANCIAL IMPACT**

The proposed mandate is not expected to significantly increase utilization of telemedicine because lack of reimbursement is not the only barrier preventing increased use of these services. Other barriers include an unwillingness of practitioners to participate in telemedicine and technology issues. Concerns over whether the mandate would require coverage of out-of-state health care providers does not appear founded. However, a valid concern may be that the mandate's current definition of telehealth could require coverage of services that are not traditionally reimbursed by health insurance. The premium costs associated with mandated coverage of telemedicine services is expected to be low and less than that of many existing mandates, and telemedicine appears to have the potential to reduce overall health care costs.

## **BALANCING MEDICAL, SOCIAL, AND FINANCIAL CONSIDERATIONS**

There is significant support from the medical community, VDH, OAT, and AHRQ for the expansion of telemedicine services. Telemedicine increases access in underserved areas and can bring significant positive public health impacts. A mandate requiring coverage for telemedicine services is not expected to significantly increase the utilization of telemedicine, but it would remove one of the barriers faced and is expected to have only a minimal impact on premiums. Focusing the mandate on coverage of telemedicine services, rather than the broader definition of telehealth, would help ensure that the scope of medical services for which coverage is required would not be a change from the types of services typically covered by health insurance.



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# Evaluation of House Bill 2191 and Senate Bill 1458: Mandated Coverage of Telehealth Services

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House Bill 2191 and Senate Bill 1458 of the 2009 General Assembly Session would mandate coverage for telehealth services. In particular, the bills indicate that insurers shall not exclude a service for coverage solely because the service is provided through telehealth and is not provided through face-to-face consultation or contact between a health care provider and a patient for services appropriately provided through telehealth. The bills define telehealth services as the use of interactive audio, video, or other telecommunications technology by a health care provider to deliver health care services within the scope of the provider's practice at a site other than the site where the patient is located. They also define telehealth services to include the use of electronic media for consultation relating to the health care diagnosis or treatment of the patient, transfer of medical data, and medical education, which could include activities such as continuing physician education. The proposed mandates stipulate that telehealth services do not include an audio-only telephone conversation, electronic mail message, or facsimile transmission between a health care provider and a patient. Because HB 2191 and SB 1458 are identical, hereafter they are referred to as the 'bill' or the 'proposed mandate.'

## BACKGROUND

*Telemedicine has the potential to improve health care by bridging time and distance barriers, giving patients in rural and other underserved areas greater access to a broad range of clinical expertise, and reducing delivery costs.*

The terms telemedicine and telehealth are often used interchangeably. However, this report draws a distinction between the terms because of the range of services that they can entail. Telemedicine typically refers to services directly related to patient care whereas telehealth can refer to a broader range of services that includes the transfer of medical data and medical education. Proponents of the proposed mandate indicate that they are most interested in gaining insurance coverage for telemedicine services, and similar mandates in other states are typically focused on telemedicine. Therefore, the analysis in this report concentrates more on telemedicine and the issues surrounding mandated coverage of these services rather than the broader definition of telehealth, though telehealth is also addressed to some extent.

### a. Description of Medical Condition and Proposed Treatment

Since its emergence in the early 1970s, the primary purpose of telehealth has been to address problems related to access and cost of health services, particularly in geographically disadvantaged areas. Supporters indicate that the widespread adoption of telehealth can link diverse aspects of the health care system; increase patients' access to all types of care, including specialty and tertiary care; enable services to be provided where they are needed most; and ameliorate the shortage of primary care physicians and specialists in certain geographic areas. Telehealth also makes subspecialty decision support readily available to primary care physicians who would otherwise lack it, allows clinicians to improve productivity by supervising nurses and interns remotely, and has the potential to reduce health care costs. In addition, supporters indicate that telehealth helps avoid unnecessary transfers of patients, and improves the evaluation and treatment of those patients who do require transfer.

**Telemedicine** typically refers to medical services that are provided using telecommunications technology and are directly related to patient care. Common telemedicine services may include patient diagnosis, consultation, or monitoring.

**Telehealth** includes the direct patient care aspects of telemedicine but also can include activities that are not directly related to the clinical care of a patient, such as the transfer of medical data and education for medical residents or practicing physicians.

Many different definitions of telehealth exist which vary in scope. For example, the Virginia Telehealth Network, a Virginia-based organization devoted to advancing telehealth in the Commonwealth, defines telehealth as the utilization of information and telecommunications technologies to electronically distribute health care services and health care data between health care providers, or between health care providers and patients. The federal Health Resources and Services Administration (HRSA) defines telehealth as the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration. The Center for Telehealth and E-Health Law (CTel), a leading national telehealth advocacy organization, further defines telehealth as the provision of health care, health information, and health education across a distance using telecommunications technology and specially adapted equipment. The proposed mandate includes a definition for telehealth that is similar to those of the HRSA and CTel and defines telehealth to include the use of electronic media for consultation relating to the health care diagnosis or treatment of the patient, transfer of medical data, and medical education.

Table 1 provides examples of the types of services that could be included in the proposed mandate's definition of telehealth. Consultation relating to patient diagnosis and treatment is the most common use of telehealth and is often referred to as telemedicine. Telemedicine generally follows three usage models: real-time, store and forward (asynchronous), and home health.

#### Example of Real Time Telemedicine

A man living in a sparsely populated area of southwest Virginia has a stroke. His physician knows that treatment must occur within three hours of the stroke or the man will suffer long-term disability or even death. The physician contacts a stroke expert in a different location who examines the patient via interactive video, reviews the CAT scan via digital radiology, and prescribes a clot dissolving drug that must be administered within the three hour window, thus reducing the likelihood of disability or death.

Source: Based on example from Center for Telehealth and E-Law.

**Table 1: Types of Telehealth Services**

Examples of Services	
<b>Consultation Relating to Patient Diagnosis or Treatment (Telemedicine)</b>	
	<ul style="list-style-type: none"> <li>• Real-time patient consultation</li> <li>• Store &amp; forward transfer of patient information</li> <li>• Home health</li> </ul>
<b>Transfer of Medical Data</b>	
	<ul style="list-style-type: none"> <li>• Support store &amp; forward telemedicine</li> <li>• Administrative purposes or health data management</li> </ul>
<b>Medical Education</b>	
	<ul style="list-style-type: none"> <li>• Provided as part of a telemedicine consultation</li> <li>• Preventive care classes for patients, e.g. diabetes</li> <li>• Continuing education for practicing physicians or education for medical residents</li> </ul>

Source: Telemedicine.com, Virginia medical experts.

Real-time is the most common use of telemedicine and allows the local provider, patient, and specialist to communicate together simultaneously on a patient's diagnosis or treatment. In a typical example, a medical specialist is not available locally for a patient. However, the local provider has a relationship with a specialist located at a hub site, such as a university medical school, and refers the patient to the specialist. Rather than physically traveling to the specialist, the patient can be seen via videoconferencing technologies over broadband communications services. The encounter is usually staffed by a local licensed provider (for example, a registered nurse, nurse practitioner, physician's assistant, or doctor) at the origination site and a specialist provider at the hub site. Medical experts indicate that real-time telemedicine consultations and follow-up care may be provided in more than 50 specialties and subspecialties.

Store-and-forward, or asynchronous, telemedicine is used when the local provider and specialist are not available or needed at the same time. With asynchronous telemedicine, the local provider electronically supplies information on the patient's history, such as text, pictures, video, or radiology images to the specialist. The specialist then provides his diagnosis and treatment plan to the local provider. Teleradiology is a frequently used form of store-and-forward telemedicine.

Home health is the third telemedicine usage model and allows the remote observation and care of a patient. Home health telemedicine can use equipment to capture a patient's vital signs, video conference with the patient, and provide patient statistics and information in real time so that the physician or hospital can be alerted if the patient needs immediate attention. Home health



telemedicine is most often used with post-hospital care, chronic disease management such as diabetes and congestive heart failure, high risk pregnancy monitoring, and assisted living.

The two other categories of telehealth included in Table 1, transfer of medical data and medical education, may or may not relate directly to the clinical care of a patient. For example, transfer of medical data could refer to the transfer of data in support of telemedicine activities. However, it could also refer to transfer of data for health data management or administrative purposes. Similarly, medical education could refer to education a physician would provide to a patient as part of a telemedicine consultation. However, it could also refer to medical education for groups of patients with similar diseases, such as diabetes, or continuing medical education for practicing physicians or residents. For instance, telehealth can be particularly helpful in assisting rural physicians in meeting their continuing medical education needs.

A variety of technologies are used in providing telemedicine and telehealth services. More sophisticated technologies include videoconferencing, store-and-forward data imaging, streaming media, interactive video, virtual reality, and telerobotics. However, telephone, fax, and email are also technologies that are used to provide these services.

Telehealth is currently practiced across many different specialties and settings. Generally speaking, the top three specialties making use of telemedicine are radiology, dermatology, and psychiatry. Radiology and dermatology lend themselves to telemedicine because they are both very visual in nature. Dermatologists do not need to see the patient in person if they have high quality images available, and the nature of radiology is based on the evaluation of images rather than face-to-face contact with the patient. Telepsychiatry lends itself to telemedicine because it can be effectively carried out through videoconferencing. Additionally, some patients prefer the anonymity that telepsychiatry provides. In addition to these three specialties, telemedicine is utilized across many other specialties including cardiology, ophthalmology, high risk pregnancies, and critical care and emergency settings, such as acute stroke.

## **b. History of Proposed Mandate**

Since 1995, at least ten states have enacted mandates requiring health insurers to cover telehealth and/or telemedicine services (Appendix E). These states include California, Colorado, Georgia, Hawaii, Kentucky, Louisiana, Maine, Oklahoma, Oregon, and Texas. Most state mandates require coverage of telemedicine and appear to focus on the direct care provided to patients. This con-



trasts with the proposed mandate in Virginia which would require coverage of the broader definition of telehealth services. The impetus behind the mandates in several states appears to be improving access to services in rural areas. For example, the Colorado mandate only applies to individuals living in counties with 150,000 or fewer residents. As with the proposed Virginia mandate, most state mandates do not require coverage for consultations provided by telephone or facsimile, and in some cases email. Staff at the federal Office for the Advancement of Telehealth (OAT) indicate that they expect a large increase in the number of states with telemedicine mandates over the next five years.

### **c. Proponents and Opponents of Proposed Mandate**

Proponents and opponents of the proposed mandate will have the opportunity to express their views at the Special Advisory Commission on Mandated Health Insurance Benefits public hearing on June 29, 2009. Proponents of a mandate for telemedicine services appear to be medical centers that provide specialty care through telemedicine, and providers and patients in rural areas of the Commonwealth that do not have access to specialists. Staff at the Virginia Department of Health (VDH) also expressed support for efforts to expand the availability of telemedicine services. Proponents indicate that their objective is to obtain coverage for telemedicine activities directly related to patient care rather than the potentially broader list of activities that could be encompassed by the bill's definition of telehealth. Proponents further stated that their aim is not to require insurers to increase the scope of medical services or providers that they cover, but to ensure that coverage cannot be denied for those services and providers that are already covered solely because services are provided through telemedicine.

In general, there is not strong opposition to telemedicine as a means to delivering health care services. Health insurers have indicated that they support the service but that a health insurance mandate is not the best way to go about increasing coverage for it. Insurers have also expressed concern that the current mandate for telehealth services is too broad and could require them to cover activities that are not currently reimbursed through health insurance.

### **MEDICAL EFFICACY AND EFFECTIVENESS**

A wide body of literature assessing the medical efficacy and effectiveness of telemedicine exists. While concerns have been raised as late as 2006 regarding the quality of existing research, staff at the federal Office for the Advancement for Telehealth, the federal Agency for Healthcare Research Quality, and medical experts at two

Virginia medical schools assert that the research sufficiently supports telemedicine in general and any research limitations should not prevent its expansion as a mode of care. Further, the Virginia Board of Medicine reports very few complaints related to patient care delivered using telemedicine.

#### **a. Medical Efficacy of Benefit**

##### **Medical Efficacy**

Assessments of medical efficacy are typically based on clinical research, particularly randomized clinical trials, demonstrating the efficacy of a particular treatment compared to alternative treatments or no treatment.

There is a large amount of literature assessing the medical efficacy and effectiveness of telemedicine services, and studies are readily found supporting its efficacy and effectiveness across different specialty areas. For example, two recent 2009 reviews of the research for stroke telemedicine found that well-designed studies have shown that telestroke as a consultative modality is valid, accurate, and reliable and recommended the use of telestroke for a variety of stroke-related procedures across different clinical settings.

Research has also supported the use of telemental health services. For instance, a 2004 randomized, controlled trial of 119 depressed veterans found that remote treatment of depression using telepsychiatry and in-person treatment have comparable outcomes and equivalent levels of patient adherence, patient satisfaction, and health care cost. More recently, a 2008 review of the existing telemental health research found that evidence of the benefit from telemental health applications is encouraging, though more good-quality research is needed.

Research supports the use of telemedicine in a consultative capacity in other areas as well. A 2001 non-randomized study of 100 new consultant referrals in the area of rheumatology found that, while telephone consultations were often unsatisfactory, televisual consultations were highly accurate (97 percent) and acceptable to patients, general practitioners, and specialists. And, a 2003 study of 76 pediatric patients found that telephonic stethoscopes can accurately distinguish between functional and organic heart murmurs and thus can detect heart disease in pediatric patients.

In addition to research supporting the use of telemedicine for consultations, there are studies supporting its use in a home health monitoring environment. For example, a 2003 study of the use of telemedicine for homecare monitoring of congestive heart failure patients found that the readmission charges for patients receiving home telecare were 80 percent lower than groups receiving conventional care, and that the home telecare patients had significantly fewer emergency visits. Similarly, a 2007 study of homebound patients receiving telewound care found that telewound patients had fewer emergency department visits and fewer hospitalizations than the control group.

Despite research supporting the efficacy and effectiveness of telemedicine across different specialties, since 2000 there have been a number of published assessments of the telemedicine literature which have found that the existing research is inconclusive in terms of telemedicine's efficacy in delivering care. These assessments found that many existing studies were too small, methodologically limited, or their results not sufficiently generalizable to the larger field of telemedicine. Several of these reviews were prepared for the U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality (AHRQ). The most recent review prepared for the AHRQ was in 2006 and updated a prior study assessing telemedicine for the Medicare population. The 2006 study concluded that there are "still significant gaps in the evidence base between where telemedicine is used and where its use is supported by high-quality evidence. Further well-designed targeted research that provide high-quality data will provide a strong contribution to understanding how best to deploy technological resources in health care." As discussed below, medical experts and experts at two federal agencies, including the AHRQ, indicate that sufficient research does currently exist to support the expansion of telemedicine.

#### **b. Medical Effectiveness of Benefit**

##### **Medical Effectiveness**

Medical effectiveness refers to the effectiveness of a particular treatment in a normal clinical setting as opposed to ideal or laboratory conditions.

Two federal agencies and medical experts at two Virginia medical schools were consulted on a number of issues for this study, including the extent to which existing research supports telemedicine. All of those consulted indicated that the existing body of research is generally supportive of telemedicine and supports its expansion as a mode of delivering health care.

Staff at the U.S. Department of Health and Human Services, Office for the Advancement of Telehealth (OAT) and staff at the AHRQ were familiar with the various assessments discussing the limitations of the existing telemedicine research, including the 2006 report prepared for the AHRQ. The OAT and AHRQ staff indicated that, while randomized, controlled trials would be ideal, the 2006 report inappropriately discounted the wide range of small, non-randomized studies supporting telemedicine. Staff at both agencies also pointed out that more recent studies completed since 2006 continue to support the efficacy and effectiveness of telemedicine and address some of the concerns in the prior literature assessments.

Medical experts consulted at two Virginia medical schools also indicated that the overall body of research has been and continues to be very supportive of telemedicine. In addition, one expert suggested that there can be medical ethics concerns related to con-

trolled trials of a treatment if they involve restricting access to specialists for one population involved in the trial.

Further evidence that research of sufficient quality exists, particularly in the area of telestroke care, is that the American Heart Association recently released general policy recommendations for the implementation of telestroke care. One of the recommendations includes that:

*Whenever local or on-site acute stroke expertise or resources are insufficient to provide around the clock coverage for a health-care facility, telestroke systems should be deployed to supplement resources at participating sites.*

The Virginia Board of Medicine provides added support that telemedicine does not compromise quality of care based on patients' satisfaction with the care they receive via telemedicine. A 2006 report from the Board of Medicine states that "the Executive Director cannot recall any complaints on Virginia licensees for telehealth practiced within the Commonwealth." In 2009, staff at the Board of Health indicated that this continues to be true and that the Board receives very few complaints regarding in-state telemedicine.

## **SOCIAL IMPACT**

Utilization of telemedicine services is generally low in Virginia and elsewhere based on the experience of other states and Virginia Medicaid. Medicare and Medicaid both provide limited coverage of real-time telemedicine services, though the State employee health plan does not provide coverage of telemedicine. The availability of coverage in the fully insured private market is minimal. Approximately 25 percent of health insurers report providing any coverage of telemedicine services, and none appear to provide the level of coverage required by the proposed mandate. Medical experts and staff at VDH indicate that there are positive public health impacts associated with telemedicine by increasing access to necessary and appropriate specialty care in underserved areas. However, it appears that without insurance coverage, patients are likely to receive care from their local practitioners who may or may not have the expertise to deal with their condition, experience delayed access to specialty care or fail to receive specialty care at all, and/or end up in the emergency department of their local hospital.

### **a. Utilization of Treatment**

Although telemedicine has been available in various forms for several decades, it has not become a common fixture in the American health care system and its utilization tends to be low. In addition,

the use of telemedicine services is probably underreported to some extent. If the individuals responsible for reporting medical claims do not code telemedicine claims as such, it is impossible to know that services were provided via telemedicine rather than in the conventional manner. Also, large medical systems may be practicing telemedicine within their system, but may not identify it as such.

Utilization of telemedicine services is not tracked at the State level in Virginia. However, several sources can provide insight on the utilization of telemedicine services. Medicaid in Virginia has been covering telemedicine services since 1995. The Department of Medical Assistance Services (DMAS) reports that, in 2008, 458 telemedicine encounters took place. This is a tiny fraction of the overall medical encounters covered by Medicaid in Virginia.

Similarly, utilization of telemedicine services in other states has been low - even in those states with mandates requiring coverage of telemedicine. For instance, a 2008 report by the California HealthCare Foundation indicates that only three percent of California consumers said they had participated in a telemedicine session within the previous 12 months. Also, a recent report by the Texas Department of Insurance shows that claims for telemedicine services were less than one one-hundredth of a percent of the total claims paid by fully insured group benefit plans in 2005 and 2006. In some states, the primary use of telemedicine has been for education rather than clinical encounters. A 2008 report by the Kentucky TeleHealth Network (KTHN) showed that the network conducted over 5,000 clinical encounters and 30,000 contact hours of educational programming for the 2007-2008 fiscal year. Staff associated with the KTHN indicated that the educational programming hours were largely provided to medical students or physicians to meet continuing education requirements.

Data provided by DMAS, the University of Virginia (UVA), and Virginia Commonwealth University (VCU) give insight on the medical specialty areas where telemedicine has been used in Virginia. For Medicaid, the predominant telemedicine service received by patients has been psychiatric consultations, in particular pharmacological management. For 2008, there were few, if any, Medicaid telemedicine consultations that were not psychiatric in nature. Based on the local provider location where Medicaid recipients received telemedicine services, Medicaid recipients do not appear to live in low population density areas. This contrasts with the expectation that patients using telemedicine are more likely to live in rural areas. DMAS staff indicate that, due to the very low level of utilization of telemedicine by Medicaid patients, utilization data may be skewed by a few participating local providers.

UVA and VCU are the two hub sites providing the majority of telemedicine care in Virginia. Since 1995 when the UVA Telemedicine Center opened, UVA has provided nearly 15,000 telemedicine consultations to patients (Table 2). The top areas in which UVA specialists have provided telemedicine consultations have been psychiatry, pediatric echocardiography, hepatology, infectious disease care, and dermatology. UVA reports that most patients participating in the UVA telemedicine program are located in rural parts of the Commonwealth.

**Table 2: UVA Consultations by Specialty Since the Opening of the UVA Telemedicine Center (1995-May 2009)**

Specialty	# of Consultations
Psychiatry	4,407
Pediatric Echocardiography	3,380
Hepatology	2,015
Infectious Disease	1,822
Dermatology	1,392
Neurology	379
Retinopathy	333
Endocrinology	239
Nephrology	229
Other	752
Total Consultations	14,948

Source: UVA.

VCU also started a telemedicine program in 1995 and reports that since 2003 it has provided a total of nearly 11,000 telemedicine consultations. There has been significant growth in the number of telemedicine consultations at VCU over the past five years - from 191 consultations in 2003 to 3,091 consultations in 2008. VCU reports that its telemedicine program mainly consists of consultations provided to prisoners in the Department of Corrections system, largely for HIV care. However, VCU has started providing telemedicine services to patients in rural localities as well and reported seeing 32 patients in 2008 through its Outreach Telemedicine program. In addition to HIV care, VCU provides telemedicine services in the following specialty areas: infectious disease, cardiology, neurosurgery, oral surgery, cardiothoracic surgery, rheumatology, neurology, anesthesiology assessment, oncology, nephrology, and podiatry.

The utilization data in this section pertains to telemedicine services used to provide clinical care to patients. However, as indicated previously, language in the proposed mandate could be construed to cover a broader definition of telehealth to include transfer of various forms of medical data and medical education. With the exception of the medical education utilization information

provided by Kentucky, utilization of the broader definition of telehealth services is unknown.

## **b. Availability of Coverage**

Based on a Bureau of Insurance (BOI) survey of the top health insurance providers in Virginia, the majority of health insurers do not report providing any coverage of telemedicine services. Twenty-seven of 36 companies (approximately 75 percent) responding to the survey reported that they do not provide coverage of any of the basic forms of telemedicine. (An additional three companies indicated that State mandates do not apply to them so are not part of the estimates in this section.)

Only one of 33 companies responding to the survey reported providing coverage of telehealth services as required by the proposed mandate. However, even this company likely does not cover the full breadth of services that the bill could be construed to require, such as transfer of medical administrative data and physician education. This company does report covering the three basic forms of telemedicine—real time, store and forward, and home health—as part of its standard benefit. However, its coverage policy also appears to be based on Medicare’s coverage of telemedicine, so store-and-forward and home health benefits may be in support of real time patient care (the only type of telemedicine currently covered by Medicare). Two companies responding to the survey reported providing coverage of telehealth services, as defined in the bill, as an optional benefit for group plans.

Six insurers (17 percent of those responding to the survey) reported providing some coverage for telemedicine services, though it appears that they do not provide the full range of coverage required by the proposed mandates even in terms of telemedicine services. For instance, none of the plans reported providing coverage of all three forms of telemedicine. The plans did not report any stipulations on coverage based on patient diagnosis, procedure performed, or region where the patient is located.

## **c. Availability of Treatment/ Benefit**

As with the utilization of telemedicine services, telemedicine providers are not officially tracked in Virginia. Therefore, it is difficult to know how many locations around the state use telemedicine to provide patient care. However, in 2004 the Virginia Telehealth Network (VTN) collected information on the locations in the State that have the capacity to provide telehealth services. As of 2004, there were 237 sites with telehealth capacity around the Commonwealth. These 237 sites are likely using telehealth in some form, but it may or may not be to provide clinical care to patients.



For example, some sites may use telehealth to provide physician or staff training and education. A map with the locations of the providers with telehealth capacity is provided in Appendix F. The number of sites with telehealth capacity has likely increased since 2004. However, the VTN has not had the staffing resources to update this data.

The two hub sites in the state providing the majority of specialist care to patients through telemedicine are the University of Virginia (UVA) and Virginia Commonwealth University (VCU), although other large medical centers may also be providing telemedicine access to specialists. UVA is the largest provider of telemedicine to rural patients, and its network consists of 60 sites, including hospitals, clinics, health department sites, prisons, and school clinics. VCU is the largest provider of telemedicine services for the prison system serving approximately 500 inmates at 25 facilities. VCU has also started providing some services to rural patients through its rural outreach program.

The 200 plus local sites with telehealth capacity around the State include, but are not limited to, physician offices, local VDH sites, Department of Corrections facilities, and Community Service Boards. The Northern Neck Middle Peninsula Telehealth Consortium and the Southwest Virginia Community Health System are two regionally based entities that help coordinate patient access to telehealth services in their regions. In addition, the Edward Via Virginia College of Osteopathic Medicine is a telehealth center focused on education and preparing osteopathic primary care physicians to serve the rural and medically underserved areas of the Commonwealth.

#### **d. Availability of Treatment Without Coverage**

It would seem that the ability of patients without health insurance coverage to access telemedicine services would depend on the cost of the treatment. As discussed below in *Financial Hardship*, the cost of telemedicine services varies depending on the type and frequency of the service. In some cases, such as for a single consultation with a specialist, the cost does not seem prohibitively high to prevent a patient from paying out of pocket for the service. However, in practice it appears that very few patients pay for telemedicine services out of pocket. For example, a 2008 study of telemedicine conducted by the California HealthCare Foundation found no examples of patients self-paying for teledermatology services in California—one of the more common types of telemedicine. Also, a regional consortium of local telemedicine providers in Virginia reports that it has never had a patient pay out of pocket for telemedicine services. This has been, in part, because funding from other sources such as grants has been available to cover patient

costs thus far. However, one explanation for the absence of patients paying for services out of pocket may be that some patients may have difficulty finding local providers to refer them for a telemedicine consultation, as discussed under *Effect on Providers*.

A possibility for some rural Virginia patients without insurance coverage to receive services is participation in telemedicine pilot programs funded through grants from Anthem Blue Cross/Blue Shield with UVA and VCU. The UVA grant, established in 2002 up to a maximum of \$250,000, is intended to support the provision of telemedicine services to rural citizens in designated, underserved geographies and has been used for both clinical services and equipment enhancement. Patients do not need to be covered by Anthem to receive care through the pilot. In addition, in late 2006 Anthem provided the VCU Health System with \$238,000 to assist in developing its Rural Outreach Telemedicine Project to increase the availability of telemedicine in rural areas.

However, for those patients that are unable to participate in the UVA and VCU pilot programs and do not qualify for Medicare or Medicaid, the alternatives to receiving care via telemedicine include delayed access to specialty services, long distance travel for care, no access to specialty care, or care received in the local emergency department.

#### **e. Financial Hardship**

The financial hardship for a patient paying for telemedicine services out of pocket would depend on the service the patient receives and the frequency with which they receive it. The proposed mandate does not specify services to be covered. However, some frequently utilized services through telemedicine include consultations, individual psychotherapy, and medication management. Medicare provides insight into the potential out-of-pocket costs for these services, though Medicare rates are typically below health provider charges (which patients without insurance coverage could be required to pay). The 2009 Medicare Physician Fee Schedule indicates the following approximate reimbursement levels for these three services in Virginia:

- \$30 to \$220 for consultations, depending on the length and type of the consultation
- \$55 to \$145 for individual psychotherapy, depending on the length and type of the psychotherapy session
- \$45 to \$55 for medication management

***Most payers, including Medicare and Medicaid, provide the same reimbursement to specialists for services provided through telemedicine as when they are provided face to face.***

The costs for these services would not create a large financial hardship for most people if utilized one time. Based on estimated 2009 median household income in Virginia of \$59,064, all of the costs above would be less than one percent of median household income. However, several issues may increase the financial burden on individuals and their families. Most notably, patients may need services, such as individual psychotherapy, multiple times. This could quickly drive up the financial hardship faced by individuals and their families. In addition, patients may be required to pay a small fee to local providers for the use of their facility. Further, some types of telemedicine, such as telesurgery, could be significantly more expensive than the examples given above.

#### **Prevalence**

Prevalence is defined as the total number of cases of the condition in the population at a specific time.

### **f. Prevalence/ Incidence of Condition**

Due to the wide range of medical conditions that can be treated using telemedicine, it is difficult to determine comprehensive prevalence or incidence rates. Prevalence rates are available for some of the medical areas for which telemedicine is most commonly used, such as telepsychiatry, or is an emerging practice, such as stroke care. For example, the National Institute of Mental Health indicates that approximately one in four Americans ages 18 and older suffer from a diagnosable mental disorder in a given year and about six percent suffer from a serious mental illness. Also, the Centers for Disease Control and Prevention reports that, in 2005, approximately 2.6 percent of noninstitutionalized U.S. adults had a history of stroke. However, as indicated in *Utilization*, only a very small proportion of individuals with these conditions receive treatment via telemedicine.

### **g. Demand for Proposed Coverage**

It is difficult to estimate the demand for the proposed coverage due to the wide range of patients that could potentially make use of telemedicine services. Demand would likely be strongest in rural areas that do not have access to specialists and for those specialty areas with a shortage of practitioners. For example, the American Heart Association reports that there are approximately four neurologists per 100,000 persons in the U.S. to provide stroke care, and there are many parts of the U.S. that are without access to a neurologist entirely.

### **h. Labor Union Coverage**

Unions do not appear to have advocated specifically for the inclusion of telehealth services in their health benefit packages. Typically, unions advocate for broader benefits rather than benefits as specific as coverage for telehealth.

## **i. State Agency Findings**

Since 1996, there have been at least nine different studies conducted by State entities regarding telehealth and telemedicine. In addition, various VDH reports addressing the health care workforce and access to health care comment on the status of telehealth activity around the State. Findings and recommendations from some of the key telehealth reports produced within the past ten years are summarized below. VDH staff indicate that many of the recommendations in these reports were implemented, though some were not due to budget constraints and others have become out of date.

In 2002, the Center for Health Policy, Research, and Ethics at George Mason University provided a *Report to the Virginia Department of Health on Improvements Needed in Current Telemedicine Initiatives and Opportunities to Enhance Access and Quality*. The report recommended that Virginia (1) implement a statewide telehealth infrastructure strategic planning process, (2) establish specific roles for State agencies and other State entities regarding infrastructure, (3) ensure interoperability among various entities with responsibility for health data, (4) coordinate processes for data management, and (5) create a framework for the evaluation of future telehealth activities.

VDH submitted two reports to the General Assembly in 2000 and 2001 on telemedicine in response to Senate Bill 1214 (1999) and Item 333j of the 1999 Appropriation Act. The 2000 *Telemedicine Study* provided a brief background on telemedicine and discussed the methods that would be used for the 2001 VDH study. VDH's 2001 *Report on Telemedicine Initiatives* provided uniform study instruments to collect detailed data on telemedicine programs throughout the State, including program expenditures, utilization, quality assessment, and patient satisfaction. The report also found that a sufficient volume of medical procedures was not available at that time to evaluate cost effectiveness of telemedicine in Virginia and that the four primary barriers confronting telemedicine were lack of adequate reimbursement and financing, technology integration needs, operational design, and physician acceptance of telemedicine. To address these barriers and improve the evaluation process, the report recommended (1) the use of the report's recommended evaluation instruments to assess telemedicine programs, (2) continuation of the Telemedicine Program Working Group at VDH, (3) the use of a technology integrator for VDH telemedicine sites, and (4) community involvement, especially local physicians, in the development of telemedicine programs.

In 1999, the Department of Technology Planning and the Secretary of Health and Human Resources conducted *A Joint Study to*

*Establish Guidelines for Ensuring Compatibility Among Telemedicine Equipment.* The study found that existing standards were sufficient to provide the compatibility and connectivity between hardware and software necessary to support the practice of telemedicine in the Commonwealth. However, applications standards, such as the minimum bandwidth necessary to support specific uses of telemedicine like teleradiology and telemental health, were missing. The study concluded that further efforts in telemedicine standardization should be focused on such applications standards.

Also in 1999, the Joint Commission on Health Care released the *Study of Reimbursement and Quality of Care Issues Regarding Telemedicine Pursuant to HJR 210*. The study concluded that limited third party reimbursement is one obstacle to the growth of telemedicine, but that third party payers are willing to pay for telemedicine when it is cost-effective and can be used to provide quality care. The study also found that the Commonwealth could encourage third party reimbursement by using its own telemedicine projects to demonstrate cost effectiveness and quality of care. It further determined that a need for coordination existed to ensure telemedicine equipment purchases by state agencies were compatible, and that the Commissioner of Health should monitor the State's progress in telemedicine initiatives.

#### **j. Public Payer Coverage**

Medicare and Medicaid in Virginia provide coverage for telemedicine services in certain situations. The coverage for both programs is largely restricted to real-time telemedicine services, although Medicare includes certain store-and-forward services. Both programs follow a similar reimbursement model in which the originating site where the patient is located receives a telehealth facility fee and the specialist at the hub site receives reimbursement based on the medical procedure code that would have been used in a traditional, non-telemedicine setting. In contrast to Medicare and Medicaid, the State employee health plan does not provide coverage of telemedicine services.

**Medicare.** Medicare coverage for telemedicine is limited to rural settings. To receive coverage through Medicare, beneficiaries must reside in or utilize a telemedicine system in a federally designated rural Health Professional Shortage Area in a county that is not included in a Metropolitan Statistical Area, or they must receive services from an entity that participates in a federal telemedicine demonstration project. Medicare requires that the patient be present and the encounter involve interactive audio and video telecommunications that provide real-time communication between the provider and the beneficiary.

If the above conditions are met, Medicare provides reimbursement for the following types of telemedicine services:

- Consultations
- Office or other outpatient visits
- Psychiatric diagnostic interview examination
- Individual psychotherapy
- Pharmacologic management
- Individual medical nutrition therapy
- End Stage Renal Disease related services
- Neurobehavioral status exam

Medicare also covers x-rays, diagnostic ultrasound, electrocardiogram, electroencephalogram, and cardiac pacemaker analysis regardless of the above criteria because these services do not normally require in-person interaction between the provider and patient.

**Medicaid.** Virginia was one of the first states to allow reimbursement of telemedicine services through Medicaid and has had a Medicaid telemedicine pilot project in place since 1995. Currently, there are at least 27 states, including Virginia, that provide reimbursement for telemedicine services through Medicaid. According to the DMAS, the objectives for covering telemedicine through Medicaid are (1) improved recipient access to health care services; (2) improved recipient compliance with treatment plans; (3) medical services rendered at an earlier stage of disease, thereby improving long-term patient outcomes; and (4) reduced costs for covered services such as hospitalizations and transportation.

Virginia Medicaid currently covers telemedicine for real-time or near real-time exchange of information for diagnosing and treating medical conditions. It does not cover telemedicine when used in the store-and-forward or home health monitoring capacity, though DMAS is currently assessing whether to expand coverage to these forms of telemedicine. There are also limitations on the types of providers and procedures that are covered when provided through telemedicine. DMAS indicates that physicians, nurse practitioners, nurse midwives, clinical nurse specialists, clinical psychologists, clinical social workers, Community Service Boards, and licensed professional counselors may utilize telemedicine for the delivery of



covered services. The telemedicine procedures that are covered by Medicaid include the following:

- Consultations
- Office visits
- Individual psychotherapy
- Pharmacologic management
- Colposcopy
- Obstetric ultrasound
- Echocardiography, fetal
- Cardiography interpretation and report only
- Echocardiography

#### **k. Public Health Impact**

Medical experts consulted for this review and staff at VDH stated that there are positive public health impacts associated with the proposed mandate related to improving access to care, especially in rural areas. In particular, medical experts indicated that telemedicine could help with disease management in these areas. For example, experts stated that there are significant problems with diabetes and hypertension in the far southwestern region of the State. Diabetes has reached epidemic proportions in Appalachian Virginia, and it is difficult to find specialists to treat patients. Telemedicine has been deployed to assist with the management of diabetes in these areas by improving patient access to endocrinologists specializing in diabetes treatment.

##### **Public Health**

The role of public health is to protect and improve the health of a community through preventive medicine, health education, and control of communicable diseases.

Staff at VDH indicated that telemedicine is a large part of the State's Rural Health Plan for addressing access issues, and the 2005-2006 *VDH Primary Care Workforce and Health Access Initiatives Annual Report* provides an example of how telemedicine can play a role in controlling infectious diseases in areas without access to specialty care. The report found that it was not uncommon for tuberculosis (TB) patients to find that their primary care physicians were hesitant or even unwilling to provide care for them after their diagnoses. The report indicated that this was because primary care providers are often ill equipped to deal with TB in their practices, do not have adequate experience in the management of the disease, and do not have easy access to specialty care consultative services. In this example, access to a telemedicine



consultation with a pulmonology or infectious disease specialist can help ensure that TB patients receive appropriate care and increase local practitioners' comfort with administering that care.

## **FINANCIAL IMPACT**

The proposed mandate is not expected to significantly increase utilization of telemedicine because lack of reimbursement is not the only barrier preventing increased use of these services. Other barriers include an unwillingness to participate in telemedicine by both specialists and local providers for reasons other than reimbursement and technology considerations. Concerns over whether the mandate would require coverage of out-of-state health care providers does not appear founded because the mandate does not require insurers to change the providers that they cover; they just could not exclude coverage for services *solely* because they are provided via telemedicine. However, a valid concern may be that the mandate's current definition of telehealth could be construed to require coverage of services that are not traditionally reimbursed by health insurance. The premium costs associated with mandated coverage of telemedicine services are expected to be low and less than that of many existing mandates. Also, telemedicine appears to have the potential to reduce health care costs by ensuring that patients get the proper diagnosis and appropriate care when needed, and there is evidence that home telemedicine can be cost effective.

### **a. Effect on Cost of Treatment**

The proposed mandate is not expected to have a significant impact on the cost of the treatments provided. It may have an impact on the overall cost of health, as discussed under *Total Cost of Healthcare*. However, most payers, such as Medicare and Medicaid, reimburse specialists the same amount for a service that is provided through telemedicine as when it is provided face to face. There may be an increase in costs to both local and specialist providers for additional equipment required to conduct telemedicine encounters. However, federal grants are available to help cover technical and equipment costs (though grant funding may not necessarily cover ongoing maintenance costs). There may also be a slight increase in cost for a given procedure as a result of the reimbursement the local provider receives for conducting a telemedicine encounter. However, the reimbursement to local providers is typically quite small; Medicaid data show local reimbursements to range from \$10 to \$20 per encounter. In some cases, any additional costs experienced by private insurers may be offset in the long term by the savings that may result from increased use of telemedicine (discussed under *Total Cost of Healthcare*).

**Mercer, Inc.**

Mercer is a global company providing human resource and related financial advice, products, and services. Mercer Health and Benefits LLC, a division of Mercer, provides health and benefits advice, strategic solutions, and brokerage services. JLARC staff consulted with Mercer Health and Benefits regarding the premium impact of HB 2191/ SB 1458.

## b. Change in Utilization

The proposed telehealth mandate is not expected to significantly increase the utilization of telemedicine services in Virginia. Several states that have already adopted mandates for telemedicine services were contacted for this review to determine how the mandate impacted utilization in their states. Although Georgia reported increased utilization after passage of a mandate, most other states, including Kentucky, Hawaii, Louisiana, and Oklahoma, reported that utilization did not increase or increased very little. Mercer Health and Benefits LLC, which was retained to assist with the premium estimates for this review, also determined that utilization would likely remain low, at least initially, if the mandate were enacted.

The primary reason why utilization has not increased with the adoption of state mandates is that lack of reimbursement is only one of the barriers preventing more widespread use of telemedicine. As explained by staff from the Kentucky Telehealth Network, reimbursement has not been the only issue that has kept telemedicine from significantly expanding and fixing reimbursement alone will not solve telemedicine's problems with respect to utilization

One of the largest barriers to increased use of telemedicine is that many specialists and local practitioners are unwilling or uninterested in becoming involved with it. Specialists are already very busy with their regular patient caseload, and many do not feel they have the time to devote to telemedicine which can take slightly longer per patient and is less convenient from the specialists' standpoint. As indicated by staff from the Kentucky Telehealth Network, if there is a shortage of specialists, that shortage remains even with telemedicine.

Local practitioners may also be unwilling to engage in telemedicine for a variety of reasons. It may be a culture change from delivering care in the conventional face-to-face manner. They may not be comfortable with the telemedicine equipment. In addition, local providers may be unwilling to refer patients for care outside the area instead preferring to rely on local specialists, or they may not realize that telemedicine is an option.

In addition to reimbursement and physician acceptance, the California HelathCare Foundation recently reported that technology issues can also be a barrier to widespread adoption of telemedicine. Technology can be a barrier both in terms of the cost of the telemedicine equipment (though federal grant funding has assisted with equipment costs in Virginia) and slow data transmission in rural areas.

Another factor affecting the proposed mandate's impact on utilization is that State mandates only affect a portion of the population—those covered by individual and fully insured health plans. Approximately 30 percent of Virginians are estimated to be covered by these types of plans. However, legislation passed by the 2009 General Assembly allows insurers to sell policies to employers with 50 or fewer employees that do not include State mandates. As a result, some portion less than 30 percent of Virginia's population would gain coverage for telemedicine services through a mandate. Moreover, rural areas, which stand to benefit most from telemedicine, may have higher rates of uninsured individuals or individuals on Medicaid, both of who would not benefit from a mandate.

One concern raised by insurance companies is whether the proposed mandate would require them to cover out-of-state practitioners and the licensure issues that could ensue. This does not appear to be a valid concern, at least as a result of the mandate. The proposed mandate requires that insurers not exclude a service for coverage *solely* because the service is provided through telehealth and is not provided through face-to-face consultation or contact between a health care provider and patient. Therefore, it does not appear to require insurers to change which health care providers they cover; it just requires that they cannot exclude a covered benefit or provider solely on the grounds that the service is provided via telemedicine.

Virginia's licensure regulations do not specifically address telemedicine. However, a 2006 report by the Virginia Board of Medicine stated that providers practicing telehealth must be licensed and are under the jurisdiction of the Board. The Board also indicated that it follows the Federation of State Medical Boards' Model Guidelines for the Appropriate Use of the Internet in Medical Practice (2002) which state that "treatment and consultation recommendations made in an online setting, including issuing a prescription via electronic means, will be held to the same standards of appropriate practice as those in traditional (face-to-face) settings." The Board further said that it has taken the stance that practice occurs in the state where the patient is located. This requires that an out-of-state physician providing an evaluation, consultation, or treatment to a patient in Virginia needs to be licensed in Virginia to be practicing medicine lawfully. Virginia does have a consultant exemption which allows patients to consult with out-of-state doctors as long as a Virginia doctor takes responsibility for the patient. However, staff at the Board of Medicine stated that Virginia does not seem to have a great need for telemedicine access from outside the state, so cross-state physician licensure issues have not been a large problem.

While the proposed mandate would not create particular licensure issues, a valid concern is that the bill could be construed to require coverage of services that are not typically covered by health insurance. The definition of telehealth services in the bill includes the use of “electronic media for consultation relating to the health care diagnosis or treatment of the patient, transfer of medical data, and medical education.” As indicated previously, transfer of medical data and medical education could be interpreted to include activities not typically covered by insurance, such as transfer of administrative data and continuing medical education for physicians. Revising the bill language so that it only covers the clinical care provided to patients, such as requiring coverage of telemedicine services rather than the broader definition of telehealth, would help ensure that the mandate does not expand the scope of services covered by insurance, just the way services are delivered.

### **c. Serves as an Alternative**

According to medical experts and information from other states, the alternative to a patient not accessing care from a specialist via telemedicine may be to not receive specialist care in a timely fashion or to forgo specialty care altogether. This may result in an individual receiving an incorrect diagnosis from a local practitioner and/or delays in accessing proper medical care. Incorrect diagnoses or delays in treatment may ultimately lead to worsened health outcomes. In time sensitive cases, such as stroke or a high risk pregnancy, the delay of proper care for even a few minutes or hours can result in vastly different health outcomes. For example, in ischemic stroke, thrombolytic therapy must be delivered within three hours to improve outcomes. Failure to receive appropriate care in a high risk pregnancy may result in a premature birth (estimated to cost \$51,600 per birth in 2005, according to the CDC), and a lifetime of costly medical issues and developmental delay for the child. However, even in cases that are not as time sensitive, medical experts indicate that delaying the proper treatment can ultimately be more costly. Further, patients who do not receive timely and appropriate care are more likely to receive care in an emergency room.

There have also been studies supporting improved health outcomes and reduced costs as a result of telehome care compared to conventional means of delivering care. For example, studies of telewoundcare provided to homebound patients and home monitoring of congestive heart failure patients found that those patients receiving home care via telemedicine had fewer emergency department visits, fewer hospital readmissions, and shorter lengths of stay than patients receiving conventional care and monitoring. A recent report in the *New England Journal of Medicine* indicated that approximately 20 percent of Medicare beneficiaries are read-

mitted within 30 days, costing Medicare billions of dollars. Chronic disease management via telemedicine has been shown to reduce readmission, and potentially the associated costs.

#### **d. Effect on Providers**

As indicated in *Change in Utilization*, reimbursement is not the only reason providers are unwilling to participate in telemedicine. Therefore, while mandated health insurance coverage may increase participation by providers to some extent, it is not expected to have a large impact on the number of telemedicine providers in the Virginia. However, one potential concern is how to ensure uniformity of care for services provided through telemedicine, particularly if the State requires insurance coverage of such services. Another consideration is whether there is a need to require adherence to technical or practice standards, guidelines, or certifications to be eligible for coverage by a mandate. Differing schools of thought exist on this topic.

Many individuals within the telemedicine community believe that tying such guidelines or requirements to a mandate is not needed and would only hinder the advancement of telemedicine. These include some medical experts consulted for this review, the federal Office for the Advancement of Telemedicine (OAT), and many of the states that already have telemedicine mandates in place. As indicated by staff at the OAT, physicians must meet the clinical guidelines designated for their specialty area. If telemedicine technology does not allow them to meet their clinical guidelines, clinicians will not render care, in large part, due to the liability issues involved. No states with existing telemedicine mandates were identified as having designated guidelines or requirements that telemedicine providers must adhere to, though Colorado reports it is in the process of developing patient care guidelines

Other medical experts consulted for this review, staff at DMAS, and a minority of states with telemedicine mandates indicated some level of guidelines or certification could be useful in establishing a uniform level of care. Required adherence to existing guidelines or a state telemedicine certification could increase the comfort level of physicians and insurers with telemedicine. Further, DMAS staff report that they have turned away a few practitioners requesting to become Medicaid telemedicine providers because DMAS determined that their equipment, which was for the consumer market, was not adequate for conducting telemedicine services.

If the State were to link a uniformity of care requirement with mandated coverage of telemedicine services, several options exist. First, the Board of Medicine could require a special certification for

health care providers wishing to practice telemedicine based on receiving a required level of training in telemedicine (for example, a set number of training units). Medical experts indicated that the State medical schools would likely develop the needed coursework to support such a certification. Another option would be to require providers to adhere to existing telemedicine guidelines, where they exist, to be eligible for coverage under the mandate. The national professional organizations for certain specialties, particularly those making the most use of telemedicine such as dermatology, radiology, and psychiatry, have developed practice guidelines for telemedicine. In many cases, these guidelines address the technology that should be in place and how care should be delivered to achieve the best results. In addition, the American Telemedicine Association released core standards for telemedicine operations in 2008. There is a general consensus, even among those supporting the consideration of uniformity of care guidelines, that any requirements should not impede the advancement of telemedicine but rather help ensure that those physicians practicing telemedicine are well-trained in the technology and utilizing best practices.

#### **e. Administrative and Premium Costs**

The administrative expenses for insurance companies resulting from the proposed mandate are expected to be negligible. Similarly, the premium impact of the proposed mandates is expected to be low and less than that of many existing mandates. A primary reason for the initial low premium impact is low expected utilization of telemedicine benefits. However, the premium impact could increase over time as the telemedicine industry grows. Also, the current version of the proposed mandate could include activities that are typically outside the scope of health insurance, such as the transfer of administrative data or physician education, which could also increase the premium impact.

***Administrative Expenses of Insurance Companies.*** The administrative expenses for insurance companies would likely be negligible and less than that of other State mandates. Insurance companies do not provide estimates on the administrative expenses of proposed mandates in their responses to an annual BOI survey on the premium impacts of proposed mandates. However, the proposed mandate would not require insurers to revise their coverage policies or modify their networks in terms of the types of medical services and providers that they cover. A negligible administrative expense is also consistent with information provided in a recent Texas Department of Insurance report which indicated that the administrative costs for the telemedicine mandate in Texas were less than one one-hundredth of a percent of total claims paid.



### Average Individual Insurance Premiums

In October 2008, the Virginia Bureau of Insurance reported an average annual health insurance premium (with current mandated benefits) for an individual contract, single coverage, of \$4,124.07 or approximately \$344 per month.

### Impact of Premiums on Employers' Decisions to Offer Health Insurance

"Elasticity of offer" indicates how sensitive employers are to changes in premiums in their decisions to offer health insurance. The Congressional Budget Office and others have reported an elasticity of offer of approximately -0.25 across all employers, meaning that a ten percent increase in the average premium is predicted to decrease the likelihood of an employer offering health insurance by about 2.5 percent. Small employers are more sensitive to price and have a higher elasticity of offer. In addition to premiums, other factors affect employer decisions to offer health insurance including the availability of public coverage, such as Medicaid, nongroup coverage alternatives for employees, the type of industry, and the employer's location.

**Premium and Administrative Expenses of Policyholders.** JLARC retained Mercer to provide an independent evaluation of the potential premium impact of the proposed mandate (Appendix G). As shown in Table 3, Mercer estimates the monthly premium cost per policy to be \$0.83 for both individual and group policies when coverage is provided as a standard benefit. If provided as an optional benefit, the monthly premium estimates increase to \$2.00 for individual policies and \$1.67 for group policies.

**Table 3: Independent Monthly Premium Estimates Per Policy for HB 2191/SB 1458**

Type of Coverage	Standard Benefit	Optional Benefit
Individual Policyholders	\$0.83	\$2.00
Group Policyholders	\$0.83	\$1.67

Source: Mercer estimates of annual premium impact.

A premium increase of \$0.83 for individual standard coverage would result in a monthly premium increase of 0.24 percent based on the estimated average monthly premium cost for a single coverage, individual contract, as defined in BOI's 2008 report on the financial impact of mandated health insurance benefits. This is within the range of existing Virginia mandates, but less expensive than many mandates according to the BOI report. The report indicates that existing Virginia mandates make up anywhere from .09 percent to 1.91 percent of the overall premium for single coverage, individual contracts. Data is not available on the monthly premium estimate for group plans, so it is not possible to calculate the percent increase in premium costs for group plans resulting from the mandate. However, the cost should be less than for individual plans given the larger insurance pool that allows for spreading costs among a large number of plan members.

As indicated, BOI annually surveys the top Virginia health insurers on the premium impact of proposed health insurance mandates. Two companies provided estimates of the premium impact for individual policies and nine companies provided estimates for the impact for group policies. The estimates reported by these companies were largely in the range of those developed by Mercer, though several companies providing estimates for group policies submitted estimates that were substantially higher than Mercer. For individual policies, estimates ranged from \$0.00 to \$1.00 per month for standard coverage and \$0.00 to \$3.00 per month for optional coverage. For group policies, estimates ranges from \$0.00 to \$9.07 per month for standard coverage and \$0.00 to \$6.05 per month for optional coverage. (Survey responses provided on a per member per month basis were converted to per policy per month for comparison purposes based on an estimate of 2.4 enrollees per



policy. Those estimates at the top of the range for group policies were initially provided as per member per month estimates.)

Mercer indicates that the relatively low cost associated with coverage of telemedicine is largely due to the low utilization of telemedicine services. However, the expected initial low cost of adding telemedicine services could become more substantial over time as the telemedicine industry grows. Further, the premium estimates developed by Mercer are based on utilization of telehealth services provided for direct patient care, in other words, telemedicine. If the broader definition of telehealth services were included, the premium cost could increase.

#### **f. Total Cost of Health Care**

In general, it appears that telemedicine could reduce the total cost of health care, or at least would not significantly increase health care costs. Medical experts assert that savings would occur through decreased misdiagnoses and earlier provision of appropriate care. Most of the literature found addressing telemedicine's impact on health care costs relates to savings from improved monitoring through the use of home telemedicine. For example, a 2008 study of patients receiving care through the Veterans Health Administration's home telehealth program showed a 25 percent reduction in the number of bed days of care and a 19 percent reduction in numbers of hospital admissions. Other examples include a 2003 study of patients with congestive heart failure which found that the national cost for congestive heart failure hospitalizations could be cut in half with increased use of home telemedicine care, and a 2001 study of high-risk pregnancies which found that the average cost for patients receiving home telemedicine care to monitor their pregnancy was only a third of that of the control group.

However, there have been a number of studies since 2001, most recently by the California Telemedicine and eHealth Center in 2009, which have reviewed the literature addressing the cost effectiveness of telemedicine and determined that the literature is not conclusive to demonstrate its cost-effectiveness. In general, the conclusion in these studies has been that existing cost effectiveness studies are not of sufficient quality or generalizable enough to confirm the cost effectiveness of telemedicine. In most cases, they have not directly challenged the premise that telemedicine could reduce health care costs. Medical experts and staff at DMAS indicate that, cost effectiveness considerations aside, the primary impetus behind telemedicine is increased access to care.

## **BALANCING MEDICAL, SOCIAL, AND FINANCIAL CONSIDERATIONS**

There is significant support from the medical community, VDH, the federal Office for the Advancement of Telehealth, and the federal Agency for Healthcare Research Quality for the expansion of telemedicine services. Telemedicine increases access in underserved areas and can bring significant positive public health impacts. A mandate requiring coverage for telemedicine services is not expected to significantly increase the utilization of telemedicine, but it would remove one of the barriers faced by telemedicine and is expected to have only a minimal impact on premiums. Focusing the mandate on coverage of telemedicine services, rather than the broader definition of telehealth, would ensure that the scope of medical services for which coverage is required would not be a change from the services typically covered by health insurance.

### **a. Social Need/ Consistent With Role of Insurance**

Based on the premise that the role of health insurance is to promote public health, encourage the use of preventive care, and provide protection from excessive financial expenses from unexpected illness, it is unclear whether the current version of the proposed mandate is consistent with insurance due to some of the activities that could be interpreted to be included in the bill's definition of telehealth. However, limiting the bill to cover telemedicine services would be consistent with the role of health insurance because it would not change the providers or services covered by insurance, just how these services are delivered. Medicare and Medicaid also provide reimbursement for telemedicine services further confirming their legitimacy as a covered service.

Medical experts consulted for this review and VDH stated that there are significant positive public health impacts associated with telemedicine by increasing access to medical services. Indeed, the primary impetus behind telemedicine is generally to increase access to needed and appropriate health care services in rural or underserved areas. Without appropriate access to specialists, patients may receive delayed or incorrect diagnoses, inappropriate treatments, and in some cases may end up in local emergency departments.

### **b. Need Versus Cost**

The expected premium impact of mandating coverage of telemedicine services is low. In addition, telemedicine is not expected to significantly increase overall health care costs, and there is evidence to show that it may even decrease costs. While mandating

coverage alone would probably not have a large impact in increasing utilization because of the other barriers faced by telemedicine, such as physician acceptance, it would remove one of the hurdles faced by telemedicine. Medical experts consulted for this review, VDH, and staff at the federal OAT and AHRQ were, without exception, supportive of efforts to increase the utilization and acceptance of telemedicine in the long run.

One action that could help address some of the concerns of local physicians and insurers surrounding telemedicine would be to implement uniformity of care guidelines or regulations. However, there is not a consensus as to whether such guidelines or recommendations would be useful. While some experts and states thought efforts to address uniformity of care could help ensure best practices are followed, other medical experts, staff at the federal OAT, and a number of states with mandates suggested that such guidelines or recommendations are not needed and would only serve to hinder the advancement of telemedicine.

### **c. Mandated Offer**

#### **Mandated Offer**

A mandated offer requires health insurers to offer for purchase the coverage described in the mandate for an additional fee.

A mandated offer could be appropriate for telemedicine services because individuals know whether they live in medically underserved areas and, therefore, would likely make use of the benefit. However, a mandated offer would result in higher premiums, which could impact the take-up rate of the benefit.

### **ACKNOWLEDGMENTS**

JLARC staff would like to acknowledge the expertise, assistance, and information provided by staff at Virginia Commonwealth University and the University of Virginia Health System. JLARC staff would also like to thank Mercer for developing an independent premium estimate and the research provided supporting the estimate. In addition, JLARC would like to thank the Virginia State Corporation Commission Bureau of Insurance, the Virginia Association of Health Plans, the Department of Health, the Board of Medicine, and the Department of Medical Assistance Services.

## Statutory Authority for JLARC Evaluation of Proposed Mandated Health Insurance Benefits

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§ [2.2-2503](#). Special Advisory Commission on Mandated Health Insurance Benefits; membership; terms; meetings; compensation and expenses; staff; chairman's executive summary.

A. The Special Advisory Commission on Mandated Health Insurance Benefits (the Commission) is established as an advisory commission within the meaning of § [2.2-2100](#), in the executive branch of state government. The purpose of the Commission shall be to advise the Governor and the General Assembly on the social and financial impact of current and proposed mandated benefits and providers, in the manner set forth in this article.

B. The Commission shall consist of 18 members that include six legislative members, 10 nonlegislative citizen members, and two ex officio members as follows: one member of the Senate Committee on Education and Health and one member of the Senate Committee on Commerce and Labor appointed by the Senate Committee on Rules; two members of the House Committee on Health, Welfare and Institutions and two members of the House Committee on Commerce and Labor appointed by the Speaker of the House of Delegates in accordance with the principles of proportional representation contained in the Rules of the House of Delegates; 10 nonlegislative citizen members appointed by the Governor that include one physician, one chief executive officer of a general acute care hospital, one allied health professional, one representative of small business, one representative of a major industry, one expert in the field of medical ethics, two representatives of the accident and health insurance industry, and two nonlegislative citizen members; and the State Commissioner of Health and the State Commissioner of Insurance, or their designees, who shall serve as ex officio nonvoting members.

C. All nonlegislative citizen members shall be appointed for terms of four years. Legislative and ex officio members shall serve terms coincident with their terms of office. All members may be reappointed. However, no House member shall serve more than four consecutive two-year terms, no Senate member shall serve more than two consecutive four-year terms, and no nonlegislative citizen member shall serve more than two consecutive four-year terms. Vacancies occurring other than by expiration of a term shall be filled for the unexpired term. Vacancies shall be filled in the manner as the original appointments. The remainder of any term to which a member is appointed to fill a vacancy shall not constitute a term in determining the member's eligibility for reappointment.

D. The Commission shall meet at the request of the chairman, the majority of the voting members or the Governor. The Commission shall elect a chairman and a vice-chairman, as determined by the membership. A majority of the members of the Commission shall constitute a quorum.

E. Legislative members of the Commission shall receive such compensation as provided in § [30-19.12](#), and nonlegislative citizen members shall receive such compensation for the performance of their duties as provided in § [2.2-2813](#). All members shall be reimbursed for all reasonable and

necessary expenses incurred in the performance of their duties as provided in §§ [2.2-2813](#) and [2.2-2825](#). Funding for the compensation and costs of expenses of the members shall be provided by the State Corporation Commission.

F. The Bureau of Insurance, the State Health Department, and the Joint Legislative Audit and Review Commission and such other state agencies as may be considered appropriate by the Commission shall provide staff assistance to the Commission. The Joint Legislative Audit and Review Commission shall conduct assessments, analyses, and evaluations of proposed mandated health insurance benefits and mandated providers as provided in subsection D of § [30-58.1](#), and report its findings with respect to the proposed mandates to the Commission.

G. The chairman of the Commission shall submit to the Governor and the General Assembly an annual executive summary of the interim activity and work of the Commission no later than the first day of each regular session of the General Assembly. The executive summary shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.

§ [30-58.1](#). Powers and duties of Commission.

The Commission shall have the following powers and duties:

A. Make performance reviews of operations of state agencies to ascertain that sums appropriated have been, or are being expended for the purposes for which such appropriations were made and to evaluate the effectiveness of programs in accomplishing legislative intent;

B. Study on a continuing basis the operations, practices and duties of state agencies, as they relate to efficiency in the utilization of space, personnel, equipment and facilities;

C. Make such special studies and reports of the operations and functions of state agencies as it deems appropriate and as may be requested by the General Assembly;

D. Assess, analyze, and evaluate the social and economic costs and benefits of any proposed mandated health insurance benefit or mandated provider, including, but not limited to, the mandate's predicted effect on health care coverage premiums and related costs, net costs or savings to the health care system, and other relevant issues, and report its findings with respect to the proposed mandate to the Special Advisory Commission on Mandated Health Insurance Benefits; and

E. Make such reports on its findings and recommendations at such time and in such manner as the Commission deems proper submitting same to the agencies concerned, to the Governor and to the General Assembly. Such reports as are submitted shall relate to the following matters:

1. Ways in which the agencies may operate more economically and efficiently;

2. Ways in which agencies can provide better services to the Commonwealth and to the people; and

3. Areas in which functions of state agencies are duplicative, overlapping, or failing to accomplish legislative objectives or for any other reason should be redefined or redistributed.

## Proposed Mandated Benefit Requiring Coverage for Telehealth Services

### HOUSE BILL NO. 2191

Offered January 14, 2009

Prefiled January 14, 2009

*A BILL to amend and reenact § [38.2-4319](#) of the Code of Virginia and to amend the Code of Virginia by adding a section numbered [38.2-3418.15](#), relating to health insurance coverage for telehealth services.*

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Patron-- Phillips

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Referred to Committee on Commerce and Labor

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Be it enacted by the General Assembly of Virginia:

1. That § [38.2-4319](#) of the Code of Virginia is amended and reenacted and that the Code of Virginia is amended by adding a section numbered [38.2-3418.15](#) as follows:

§ [38.2-3418.15](#). *Coverage for telehealth services.*

*A. Notwithstanding the provisions of § [38.2-3419](#), each insurer proposing to issue individual or group accident and sickness insurance policies providing hospital, medical and surgical, or major medical coverage on an expense-incurred basis; each corporation providing individual or group accident and sickness subscription contracts; and each health maintenance organization providing a health care plan for health care services shall provide coverage for the cost of telehealth services, as provided in this section.*

*B. As used in this section: "telehealth services" means the use of interactive audio, video, or other telecommunications technology by a health care provider to deliver health care services within the scope of the provider's practice at a site other than the site where the patient is located, including the use of electronic media for consultation relating to the health care diagnosis or treatment of the patient, transfer of medical data, and medical education. "Telehealth services" do not include an audio-only telephone conversation, electronic mail message, or facsimile transmission between a health care provider and a patient.*

*C. An insurer, corporation, or health maintenance organization shall not exclude a service for coverage solely because the service is provided through telehealth and is not provided through face-to-face consultation or contact between a health care provider and a patient for services appropriately provided through telehealth services.*



*D. No insurer, corporation, or health maintenance organization shall impose any annual or lifetime dollar maximum on coverage for telehealth services other than an annual or lifetime dollar maximum that applies in the aggregate to all items and services covered under the policy, or impose upon any person receiving benefits pursuant to this section any copayment, coinsurance, or deductible amounts, or any policy year, calendar year, lifetime, or other durational benefit limitation or maximum for benefits or services, that is not equally imposed upon all terms and services covered under the policy, contract, or plan.*

*E. The requirements of this section shall apply to all insurance policies, contracts, and plans delivered, issued for delivery, reissued, or extended in the Commonwealth on and after January 1, 2010, or at any time thereafter when any term of the policy, contract, or plan is changed or any premium adjustment is made.*

*F. This section shall not apply to short-term travel, accident-only, limited or specified disease, or individual conversion policies or contracts, nor to policies or contracts designed for issuance to persons eligible for coverage under Title XVIII of the Social Security Act, known as Medicare, or any other similar coverage under state or federal governmental plans.*

§ [38.2-4319](#). Statutory construction and relationship to other laws.

A. No provisions of this title except this chapter and, insofar as they are not inconsistent with this chapter, §§ [38.2-100](#), [38.2-136](#), [38.2-200](#), [38.2-203](#), [38.2-209](#) through [38.2-213](#), [38.2-216](#), [38.2-218](#) through [38.2-225](#), [38.2-229](#), [38.2-232](#), [38.2-305](#), [38.2-316](#), [38.2-322](#), [38.2-400](#), [38.2-402](#) through [38.2-413](#), [38.2-500](#) through [38.2-515](#), [38.2-600](#) through [38.2-620](#), Chapter 9 (§ [38.2-900](#) et seq.), §§ [38.2-1016.1](#) through [38.2-1023](#), [38.2-1057](#), Article 2 (§ [38.2-1306.2](#) et seq.), § [38.2-1306.1](#), § [38.2-1315.1](#), Articles 3.1 (§ [38.2-1316.1](#) et seq.), 4 (§ [38.2-1317](#) et seq.) and 5 (§ [38.2-1322](#) et seq.) of Chapter 13, Articles 1 (§ [38.2-1400](#) et seq.) and 2 (§ [38.2-1412](#) et seq.) of Chapter 14, §§ [38.2-1800](#) through [38.2-1836](#), [38.2-3401](#), [38.2-3405](#), [38.2-3405.1](#), [38.2-3407.2](#) through [38.2-3407.6:1](#), [38.2-3407.9](#) through [38.2-3407.16](#), [38.2-3411.2](#), [38.2-3411.3](#), [38.2-3411.4](#), [38.2-3412.1:01](#), [38.2-3414.1](#), [38.2-3418.1](#) through ~~[38.2-3418.14](#)~~ [38.2-3418.15](#), [38.2-3419.1](#), [38.2-3430.1](#) through [38.2-3437](#), [38.2-3500](#), subdivision 13 of § [38.2-3503](#), subdivision 8 of § [38.2-3504](#), §§ [38.2-3514.1](#), [38.2-3514.2](#), [38.2-3522.1](#) through [38.2-3523.4](#), [38.2-3525](#), [38.2-3540.1](#), [38.2-3542](#), [38.2-3543.2](#), Article 5 (§ [38.2-3551](#) et seq.) of Chapter 35, Chapter 52 (§ [38.2-5200](#) et seq.), Chapter 55 (§ [38.2-5500](#) et seq.), Chapter 58 (§ [38.2-5800](#) et seq.) and § [38.2-5903](#) of this title shall be applicable to any health maintenance organization granted a license under this chapter. This chapter shall not apply to an insurer or health services plan licensed and regulated in conformance with the insurance laws or Chapter 42 (§ [38.2-4200](#) et seq.) of this title except with respect to the activities of its health maintenance organization.

B. For plans administered by the Department of Medical Assistance Services that provide benefits pursuant to Title XIX or Title XXI of the Social Security Act, as amended, no provisions of this title except this chapter and, insofar as they are not inconsistent with this chapter, §§ [38.2-100](#), [38.2-136](#), [38.2-200](#), [38.2-203](#), [38.2-209](#) through [38.2-213](#), [38.2-216](#), [38.2-218](#) through [38.2-225](#), [38.2-229](#), [38.2-232](#), [38.2-322](#), [38.2-400](#), [38.2-402](#) through [38.2-413](#), [38.2-500](#) through [38.2-515](#), [38.2-600](#) through [38.2-620](#), Chapter 9 (§ [38.2-900](#) et seq.), §§ [38.2-1016.1](#) through [38.2-1023](#), [38.2-1057](#), § [38.2-1306.1](#), Article 2 (§ [38.2-1306.2](#) et seq.), § [38.2-1315.1](#), Articles 3.1 (§ [38.2-1316.1](#) et seq.), 4 (§ [38.2-1317](#) et seq.) and 5 (§ [38.2-1322](#) et seq.) of Chapter 13, Articles 1 (§ [38.2-1400](#) et seq.) and 2 (§ [38.2-1412](#) et seq.) of Chapter 14, §§ [38.2-3401](#), [38.2-3405](#), [38.2-](#)



[3407.2](#) through [38.2-3407.5](#), [38.2-3407.6](#) and [38.2-3407.6:1](#), [38.2-3407.9](#), [38.2-3407.9:01](#), and [38.2-3407.9:02](#), subdivisions 1, 2, and 3 of subsection F of § [38.2-3407.10](#), [38.2-3407.11](#), [38.2-3407.11:3](#), [38.2-3407.13](#), [38.2-3407.13:1](#), and [38.2-3407.14](#), [38.2-3411.2](#), [38.2-3418.1](#), [38.2-3418.2](#), [38.2-3419.1](#), [38.2-3430.1](#) through [38.2-3437](#), [38.2-3500](#), subdivision 13 of § [38.2-3503](#), subdivision 8 of § [38.2-3504](#), §§ [38.2-3514.1](#), [38.2-3514.2](#), [38.2-3522.1](#) through [38.2-3523.4](#), [38.2-3525](#), [38.2-3540.1](#), [38.2-3542](#), [38.2-3543.2](#), Chapter 52 (§ [38.2-5200](#) et seq.), Chapter 55 (§ [38.2-5500](#) et seq.), Chapter 58 (§ [38.2-5800](#) et seq.) and § [38.2-5903](#) shall be applicable to any health maintenance organization granted a license under this chapter. This chapter shall not apply to an insurer or health services plan licensed and regulated in conformance with the insurance laws or Chapter 42 (§ [38.2-4200](#) et seq.) of this title except with respect to the activities of its health maintenance organization.

C. Solicitation of enrollees by a licensed health maintenance organization or by its representatives shall not be construed to violate any provisions of law relating to solicitation or advertising by health professionals.

D. A licensed health maintenance organization shall not be deemed to be engaged in the unlawful practice of medicine. All health care providers associated with a health maintenance organization shall be subject to all provisions of law.

E. Notwithstanding the definition of an eligible employee as set forth in § [38.2-3431](#), a health maintenance organization providing health care plans pursuant to § [38.2-3431](#) shall not be required to offer coverage to or accept applications from an employee who does not reside within the health maintenance organization's service area.

F. For purposes of applying this section, "insurer" when used in a section cited in subsections A and B of this section shall be construed to mean and include "health maintenance organizations" unless the section cited clearly applies to health maintenance organizations without such construction.

**SENATE BILL NO. 1458**

Offered January 20, 2009

*A BILL to amend and reenact § [38.2-4319](#) of the Code of Virginia and to amend the Code of Virginia by adding a section numbered [38.2-3418.15](#), relating to health insurance coverage for telehealth services.*

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Patron-- Wampler  
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Referred to Committee on Commerce and Labor  
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Be it enacted by the General Assembly of Virginia:

1. That § [38.2-4319](#) of the Code of Virginia is amended and reenacted and that the Code of Virginia is amended by adding a section numbered [38.2-3418.15](#) as follows:

§ [38.2-3418.15](#). *Coverage for telehealth services.*

*A. Notwithstanding the provisions of § [38.2-3419](#), each insurer proposing to issue individual or group accident and sickness insurance policies providing hospital, medical and surgical, or major medical coverage on an expense-incurred basis; each corporation providing individual or group accident and sickness subscription contracts; and each health maintenance organization providing a health care plan for health care services shall provide coverage for the cost of telehealth services, as provided in this section.*

*B. As used in this section: "telehealth services" means the use of interactive audio, video, or other telecommunications technology by a health care provider to deliver health care services within the scope of the provider's practice at a site other than the site where the patient is located, including the use of electronic media for consultation relating to the health care diagnosis or treatment of the patient, transfer of medical data, and medical education. "Telehealth services" do not include an audio-only telephone conversation, electronic mail message, or facsimile transmission between a health care provider and a patient.*

*C. An insurer, corporation, or health maintenance organization shall not exclude a service for coverage solely because the service is provided through telehealth and is not provided through face-to-face consultation or contact between a health care provider and a patient for services appropriately provided through telehealth services.*

*D. No insurer, corporation, or health maintenance organization shall impose any annual or lifetime dollar maximum on coverage for telehealth services other than an annual or lifetime dollar maximum that applies in the aggregate to all items and services covered under the policy, or impose upon any person receiving benefits pursuant to this section any copayment, coinsurance, or deductible amounts, or any policy year, calendar year, lifetime, or other durational benefit limitation or maximum for benefits or services, that is not equally imposed upon all terms and services covered under the policy, contract, or plan.*

*E. The requirements of this section shall apply to all insurance policies, contracts, and plans delivered, issued for delivery, reissued, or extended in the Commonwealth on and after January 1,*

2010, or at any time thereafter when any term of the policy, contract, or plan is changed or any premium adjustment is made.

*F. This section shall not apply to short-term travel, accident-only, or limited or specified disease policies or contracts, nor to policies or contracts designed for issuance to persons eligible for coverage under Title XVIII of the Social Security Act, known as Medicare, or any other similar coverage under state or federal governmental plans.*

§ [38.2-4319](#). Statutory construction and relationship to other laws.

A. No provisions of this title except this chapter and, insofar as they are not inconsistent with this chapter, §§ [38.2-100](#), [38.2-136](#), [38.2-200](#), [38.2-203](#), [38.2-209](#) through [38.2-213](#), [38.2-216](#), [38.2-218](#) through [38.2-225](#), [38.2-229](#), [38.2-232](#), [38.2-305](#), [38.2-316](#), [38.2-322](#), [38.2-400](#), [38.2-402](#) through [38.2-413](#), [38.2-500](#) through [38.2-515](#), [38.2-600](#) through [38.2-620](#), Chapter 9 (§ [38.2-900](#) et seq.), §§ [38.2-1016.1](#) through [38.2-1023](#), [38.2-1057](#), Article 2 (§ [38.2-1306.2](#) et seq.), § [38.2-1306.1](#), § [38.2-1315.1](#), Articles 3.1 (§ [38.2-1316.1](#) et seq.), 4 (§ [38.2-1317](#) et seq.) and 5 (§ [38.2-1322](#) et seq.) of Chapter 13, Articles 1 (§ [38.2-1400](#) et seq.) and 2 (§ [38.2-1412](#) et seq.) of Chapter 14, §§ [38.2-1800](#) through [38.2-1836](#), [38.2-3401](#), [38.2-3405](#), [38.2-3405.1](#), [38.2-3407.2](#) through [38.2-3407.6:1](#), [38.2-3407.9](#) through [38.2-3407.16](#), [38.2-3411.2](#), [38.2-3411.3](#), [38.2-3411.4](#), [38.2-3412.1:01](#), [38.2-3414.1](#), [38.2-3418.1](#) through ~~[38.2-3418.14](#)~~ [38.2-3418.15](#), [38.2-3419.1](#), [38.2-3430.1](#) through [38.2-3437](#), [38.2-3500](#), subdivision 13 of § [38.2-3503](#), subdivision 8 of § [38.2-3504](#), §§ [38.2-3514.1](#), [38.2-3514.2](#), [38.2-3522.1](#) through [38.2-3523.4](#), [38.2-3525](#), [38.2-3540.1](#), [38.2-3542](#), [38.2-3543.2](#), Article 5 (§ [38.2-3551](#) et seq.) of Chapter 35, Chapter 52 (§ [38.2-5200](#) et seq.), Chapter 55 (§ [38.2-5500](#) et seq.), Chapter 58 (§ [38.2-5800](#) et seq.) and § [38.2-5903](#) of this title shall be applicable to any health maintenance organization granted a license under this chapter. This chapter shall not apply to an insurer or health services plan licensed and regulated in conformance with the insurance laws or Chapter 42 (§ [38.2-4200](#) et seq.) of this title except with respect to the activities of its health maintenance organization.

B. For plans administered by the Department of Medical Assistance Services that provide benefits pursuant to Title XIX or Title XXI of the Social Security Act, as amended, no provisions of this title except this chapter and, insofar as they are not inconsistent with this chapter, §§ [38.2-100](#), [38.2-136](#), [38.2-200](#), [38.2-203](#), [38.2-209](#) through [38.2-213](#), [38.2-216](#), [38.2-218](#) through [38.2-225](#), [38.2-229](#), [38.2-232](#), [38.2-322](#), [38.2-400](#), [38.2-402](#) through [38.2-413](#), [38.2-500](#) through [38.2-515](#), [38.2-600](#) through [38.2-620](#), Chapter 9 (§ [38.2-900](#) et seq.), §§ [38.2-1016.1](#) through [38.2-1023](#), [38.2-1057](#), § [38.2-1306.1](#), Article 2 (§ [38.2-1306.2](#) et seq.), § [38.2-1315.1](#), Articles 3.1 (§ [38.2-1316.1](#) et seq.), 4 (§ [38.2-1317](#) et seq.) and 5 (§ [38.2-1322](#) et seq.) of Chapter 13, Articles 1 (§ [38.2-1400](#) et seq.) and 2 (§ [38.2-1412](#) et seq.) of Chapter 14, §§ [38.2-3401](#), [38.2-3405](#), [38.2-3407.2](#) through [38.2-3407.5](#), [38.2-3407.6](#) and [38.2-3407.6:1](#), [38.2-3407.9](#), [38.2-3407.9:01](#), and [38.2-3407.9:02](#), subdivisions 1, 2, and 3 of subsection F of § [38.2-3407.10](#), [38.2-3407.11](#), [38.2-3407.11:3](#), [38.2-3407.13](#), [38.2-3407.13:1](#), and [38.2-3407.14](#), [38.2-3411.2](#), [38.2-3418.1](#), [38.2-3418.2](#), [38.2-3419.1](#), [38.2-3430.1](#) through [38.2-3437](#), [38.2-3500](#), subdivision 13 of § [38.2-3503](#), subdivision 8 of § [38.2-3504](#), §§ [38.2-3514.1](#), [38.2-3514.2](#), [38.2-3522.1](#) through [38.2-3523.4](#), [38.2-3525](#), [38.2-3540.1](#), [38.2-3542](#), [38.2-3543.2](#), Chapter 52 (§ [38.2-5200](#) et seq.), Chapter 55 (§ [38.2-5500](#) et seq.), Chapter 58 (§ [38.2-5800](#) et seq.) and § [38.2-5903](#) shall be applicable to any health maintenance organization granted a license under this chapter. This chapter shall not apply to an insurer or health services plan licensed and regulated in conformance with the insurance

laws or Chapter 42 (§ [38.2-4200](#) et seq.) of this title except with respect to the activities of its health maintenance organization.

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D. A licensed health maintenance organization shall not be deemed to be engaged in the unlawful practice of medicine. All health care providers associated with a health maintenance organization shall be subject to all provisions of law.

E. Notwithstanding the definition of an eligible employee as set forth in § [38.2-3431](#), a health maintenance organization providing health care plans pursuant to § [38.2-3431](#) shall not be required to offer coverage to or accept applications from an employee who does not reside within the health maintenance organization's service area.

F. For purposes of applying this section, "insurer" when used in a section cited in subsections A and B of this section shall be construed to mean and include "health maintenance organizations" unless the section cited clearly applies to health maintenance organizations without such construction.

# Appendix C

## Evaluation Topic Areas and Criteria for Assessing Proposed Mandated Health Insurance Benefits

Topic Area	Criteria
<b>1. Medical Efficacy</b>	
a. Medical Efficacy of Benefit	The contribution of the benefit to the quality of patient care and the health status of the population, including the results of any clinical research, especially randomized clinical trials, demonstrating the medical efficacy of the treatment or service compared to alternatives or not providing the treatment or service.
b. Medical Effectiveness of Benefit <i>JLARC Criteria*</i>	The contribution of the benefit to patient health based on how well the intervention works under the usual conditions of clinical practice. Medical effectiveness is not based on testing in a rigid, optimal protocol, but rather a more flexible intervention that is often used in broader populations.
c. Medical Efficacy of Provider	If the legislation seeks to mandate coverage of an additional class of practitioners:  1) The results of any professionally acceptable research, especially randomized clinical trials, demonstrating the medical results achieved by the additional class of practitioners relative to those already covered.  2) The methods of the appropriate professional organization to assure clinical proficiency.
d. Medical Effectiveness of Provider <i>JLARC Criteria*</i>	The contribution of the practitioner to patient health based on how well the practitioner's interventions work under the usual conditions of clinical practice. Medical effectiveness is not based on testing in a rigid, optimal protocol, but rather more flexible interventions that are often used in broader populations.
<b>2. Social Impact</b>	
a. Utilization of Treatment	The extent to which the treatment or service is generally utilized by a significant portion of the population.
b. Availability of Coverage	The extent to which insurance coverage for the treatment or service is already generally available.
c. Availability of Treatment <i>JLARC Criteria*</i>	The extent to which the treatment or service is generally available to residents throughout the state.
d. Availability of Treatment Without Coverage	If coverage is not generally available, the extent to which the lack of coverage results in persons being unable to obtain necessary health care treatments.
e. Financial Hardship	If the coverage is not generally available, the extent to which the lack of coverage results in unreasonable financial hardship on those persons needing treatment.
f. Prevalence/Incidence of Condition	The level of public demand for the treatment or service.
g. Demand for Coverage	The level of public demand and the level of demand from providers for individual or group insurance coverage of the treatment or service.

h. Labor Union Coverage	The level of interest of collective bargaining organizations in negotiating privately for inclusion of this coverage in group contracts.
i. State Agency Findings	Any relevant findings of the state health planning agency or the appropriate health system agency relating to the social impact of the mandated benefit.
j. Public Payer Coverage <i>JLARC Criteria*</i>	The extent to which the benefit is covered by public payers, in particular Medicaid and Medicare.
k. Public Health Impact <i>JLARC Criteria*</i>	Potential public health impacts of mandating the benefit.
<b>3. Financial Impact</b>	
a. Effect on Cost of Treatment	The extent to which the proposed insurance coverage would increase or decrease the cost of treatment of service over the next five years.
b. Change in Utilization	The extent to which the proposed insurance coverage might increase the appropriate or inappropriate use of the treatment or service.
c. Serves as an Alternative	The extent to which the mandated treatment or service might serve as an alternative for more expensive or less expensive treatment or service.
d. Impact on Providers	The extent to which the insurance coverage may affect the number and types of providers of the mandated treatment or service over the next five years.
e. Administrative and Premium Costs	The extent to which insurance coverage might be expected to increase or decrease the administrative expenses of insurance companies and the premium and administrative expenses of policyholders.
f. Total Cost of Health Care	The impact of coverage on the total cost of health care.
<b>4. Effects of Balancing Medical, Social, and Financial Considerations</b>	
a. Social Need/Consistent with Role of Insurance	The extent to which the benefit addresses a medical or a broader social need and whether it is consistent with the role of health insurance.
b. Need Versus Cost	The extent to which the need for coverage outweighs the costs of mandating the benefit for all policyholders.
c. Mandated Option	The extent to which the need for coverage may be solved by mandating the availability of the coverage as an option for policy holders.

\*Denotes additional criteria added by JLARC staff to criteria adopted by the Special Advisory Commission on Mandated Health Insurance Benefits.

Source: Special Advisory Commission on Mandated Health Insurance Benefits and JLARC staff analysis.

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# Appendix E

## State Telehealth/Telemedicine Health Insurance Mandates

State	Year Enacted	Covered Benefit	Coverage Limitations	Other Provisions *
California	1996	Shall not require face-to-face contact for services appropriately provided through telemedicine.	Coverage not required for consultation provided by telephone or facsimile.	
Colorado	2001	For individuals in a county with 150,000 or fewer residents, may not require face-to-face contact for services appropriately provided through telemedicine.	Coverage not required for consultation provided by telephone or facsimile.	Any benefits provided through telemedicine shall meet the same standard of care as for in-person care.
Georgia	2005	Payment must be provided for services that are covered under the health benefit policy and appropriately provided through telemedicine.	Standard telephone, facsimile transmissions, unsecured electronic mail, or a combination thereof do not constitute telemedicine.	
Hawaii	1999, 2009	Shall not require face-to-face contact between a health care provider and a patient for services appropriately provided through telehealth.	Standard telephone, facsimile transmissions, or email text, in combination or by itself, does not constitute telehealth.	<p>Treatment recommendations made via telemedicine shall be held to the same standards of appropriate practice as those in traditional physician-patient settings that do not include a face to face visit but in which prescribing is appropriate, including on-call telephone encounters.</p> <p>Physician must have a Hawaii license to use telemedicine to establish a physician-patient relationship. Once relationship is established, the patient or physician may use telemedicine for any purpose, including consultation with an out-of-state provider.</p>

State	Year Enacted	Covered Benefit	Coverage Limitations	Other Provisions*
Kentucky	2000	Shall not exclude a service from coverage solely because the service is provided through telehealth and not provided through a face-to-face consultation if the consultation is provided through the telehealth network established by the state Telehealth Board.	A telehealth consultation shall not be reimbursable if it is provided through the use of an audio-only telephone, facsimile machine, or electronic mail.	Deductibles, copayments, or coinsurance for services provided through telehealth shall not exceed those required by the health benefit plan for the same services provided through face-to-face consultation.
Louisiana	1995	Whenever reimbursement is provided for any health care service and such health care service is performed via transmitted electronic imaging or telemedicine, reimbursement shall not be denied to a licensed physician conducting or participating in the transmission at the originating health care facility who is physically present with the patient and is contemporaneously communicating and interacting with a licensed physician at the receiving terminus of the transmission.		<p>Reimbursement to the physician at the originating facility shall not be less than 75% of the payment which that licensed physician receives for an intermediate visit.</p> <p>Any health care service performed via transmitted electronic imaging or telemedicine shall be subject to the applicable utilization review criteria and requirements of the insurer.</p> <p>Terminology in a policy that either discriminates against or prohibits transmitted electronic imaging or telemedicine shall be against the public policy of providing the highest quality health care to the citizens of the state.</p>
Maine	2009	Must provide coverage for health care services provided through telemedicine if the service would be covered were it provided through in-person consultation between the covered person and a health care provider.	Telemedicine does not include the use of audio-only telephone, facsimile machine or e-mail.	<p>Insurers may limit coverage to those health care providers in a telemedicine network approved by the insurer.</p> <p>Contracts may contain a deductible, copayment or coinsurance for services provided through telemedicine as long as it does not exceed the deductible, copayment, or coinsurance applicable to an in-person consultation.</p>

State	Year Enacted	Covered Benefit	Coverage Limitations	Other Provisions*
Oklahoma	1997	For services that a health care practitioner determines to be appropriately provided by means of telemedicine, shall not require person-to-person contact between a health care practitioner and a patient shall not be required.	Telemedicine is not a consultation provided by telephone or facsimile.	<p>Telemedicine means the practice of health care delivery, diagnosis, consultation, treatment, transfer of medical data, or exchange of medical education information.</p> <p>The health care practitioner in physical contact with the patient shall have authority over the care of the patient &amp; shall obtain informed consent for telemedicine from the patient.</p>
Oregon	2009	<p>Must provide coverage of telemedical health services if:</p> <ul style="list-style-type: none"> <li>(a) the plan provides coverage of the service when provided in person;</li> <li>(b) the service is medically necessary &amp; supported by evidence-based medical criteria; and</li> <li>(c) the service does not duplicate or supplant a health service that is available to the patient in person.</li> </ul>		<p>Health plans may not distinguish between originating sites that are rural and urban in providing coverage.</p> <p>Plans may subject coverage of telemedical services to all terms of the plan, including but not limited to deductible, copayment or coinsurance requirements that are applicable to coverage of a comparable service provided in person.</p>
Texas	2003	May not exclude a telemedicine medical service or a telehealth service from coverage under the plan solely because the service is not provided through a face-to-face consultation.		Any deductible, copayment, or coinsurance for telemedicine or telehealth services may not exceed that which is required for a comparable medical service provided through a face-to-face consultation.

\* Note: Does not include all 'other' provisions in the various state laws.

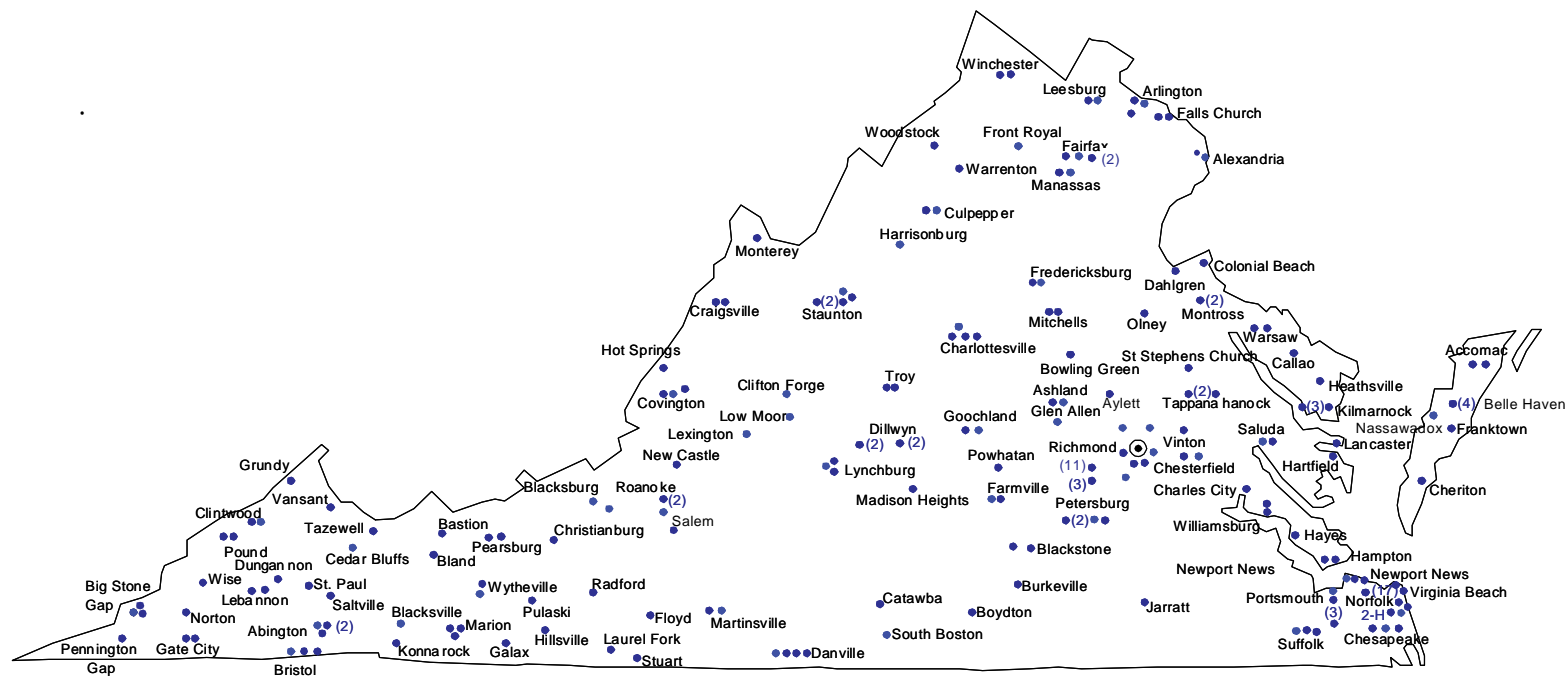
Source: Applicable state laws.







## Virginia Sites With Telehealth Capacity (2004)



Source: Modified from Virginia Telehealth Network Infrastructure Work Group White Paper: May 26, 2005.



# Appendix G

## Mercer Premium Estimate

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Attached is a May 29, 2009 letter from Bruce A. Richards of Mercer that contains Mercer's evaluation of the potential impact of House Bill 2191.



# MERCER



MARSH MERCER KROLL  
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May 29, 2009

Ms. Kimberly Sarte  
Principal Fiscal Analyst  
Joint Legislative Audit and Review Commission (JLARC)  
Suite 1100  
General Assembly Building  
Capitol Square  
Richmond, VA 23219

**Subject:** Telehealth Services - House Bill No. 2191

Dear Kimberly:

JLARC has retained Mercer to provide an independent evaluation and review of the potential impact of House Bill No. 2191.

House Bill No. 2191 proposes that “each individual insurer proposing to issue individual or group accident and sickness insurance policies providing hospital, medical and surgical, or major medical coverage on an expense-incurred basis.....shall provide coverage for the cost of telehealth services, as provided in this section.”

As defined in the Bill, “telehealth services” means the use of interactive audio, video or other telecommunications technology by a health care provider to deliver health care services within the scope of the provider’s practice at a site other than the site where the patient is located, .....

In performing our analysis, Mercer has made the following assumptions:

1. The term health care provider includes only licensed providers
2. Telehealth services exclude any equipment (computers, telephones, monitoring, devices) necessary for the provider to perform electronic media consultation

Mercer has reviewed literature and programs which are currently available in other states (TX, CA, KY, NC). Our research indicates that where telehealth services are currently available, utilization of such services has been low. Low utilization of telehealth services has been attributed to the more common reimbursement models in the commercial sector that pay either for increments of care (fee-for-service) or risk-adjusted care for a population (Medicare

# MERCER



MARSH MERCER KROLL  
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May 29, 2009  
Ms. Kimberly Sarte  
Joint Legislative Audit and Review Commission (JLARC)

Advantage). Additionally, a review of California primary care doctors who have practice patterns and relationships established with local specialists indicated that they were not interested in relationships with remote specialists.

Where telehealth services have generally been acceptable is in rural areas where there is a lack of physicians in close proximity to potential patients. It is our opinion that should Virginia enact House Bill No. 2191, a potential \$10 - \$24 annual cost for health care coverage would occur.

The expected initial low cost of adding telehealth services could however become more substantial over time as the telehealth industry grows.

It is noteworthy that appropriate claims coding of telehealth services has been problematic. This is likely due to the following:

- Providers not using telemedicine billing modifiers on claims submissions
- Telemedicine services are a part of bundled services (i.e., post-operative care)
- Contracts for services with hospitals/clinics do not break such services out separately

We have reviewed data from other programs and applicable claims data and have determined the approximate annual incremental cost of adding telehealth services to be as follows:

	All Policies		Optional Rider Only
Group Insurance	\$10	-	\$20
Individual Insurance	\$10	-	\$24

If you have any questions about our research or expected cost, please let me know.

Sincerely,

Bruce A. Richards, FSA, MAAA, FCA  
Principal







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