Survey of States Providing Coverage for In-Home Telemonitoring Services

In-home telemonitoring (also called remote patient monitoring) involves the deployment of easy-to-use digital technologies to help patients track their vital signs at home. The information is relayed securely to health care providers for assessment and recommendations. Telemonitoring has been proven to reduce medical expenses and improve patient outcomes, with particularly dramatic effects among patients with chronic diseases such as diabetes and heart failure. Given the significant burden of chronic disease in Kentucky (see Chronic Disease in

Chronic Disease in Kentucky

- Ranked 50th in the nation in Preventable Hospitalizations and Cancer Deaths
- Ranked 49th in Smoking, 46th in Adult Obesity, 43rd in Cardiovascular Deaths
- 10.6% of Kentuckians have diabetes and 8.5% have pre-diabetes
- 2nd highest death rate from COPD
- 3rd highest obesity rate
- 4th highest in adult asthma

Kentucky),^{i,ii} it is imperative that state leaders take steps to broaden Medicaid coverage for this lifechanging, cost-saving technology in the upcoming legislative session.

As evidence regarding the dramatic benefits of in-home telemonitoring on patient health and costs continues to grow, states across the nation are quickly moving to expand Medicaid coverage for telemonitoring.

In 2011, for example, California Governor Jerry Brown signed into law the *Telehealth Advancement Act*. The measure allows coverage of telehealth regardless of where it takes place, including programs that employ in-home telemonitoring devices.ⁱⁱⁱ

A cost analysis commissioned during consideration of the bill examined potential savings that would accrue to California's Medicaid program (Medi-Cal) if telehealth provisions were adopted for in-home monitoring of heart failure and diabetes patients. The analysis yielded the following results:

- In-home telemonitoring for heart failure patients could save \$929 million annually for Medi-Cal (\$8,600 per beneficiary per year); and
- In-home telemonitoring for diabetics could save \$417 million annually for Medi-Cal (\$939 per beneficiary per year).^{iv}

These savings assumed telemonitoring would be deployed and utilized to the fullest extent allowed under the law. Researchers concluded that savings increase proportionally to the total amount of telemonitoring deployed. However, even if telemonitoring interventions were limited to only a quarter of the eligible population, annual general fund savings would exceed \$102 million per year.^v

The authors write: "The analysis of published research findings presented here suggests that broad application of telehealth in the area of home monitoring for congestive heart failure and diabetes has the potential to produce substantial savings for the State of California. In addition, telehealth has the potential to reduce health care costs in many other areas, such as by reducing medical transportation costs, reducing home health care costs, or increasing access to cost-effective treatments such as retinopathy screening or more timely care for stroke patients."^{vi}

States electing to provide coverage for in-home telemonitoring services can do so in a number of ways. They can apply to the Centers for Medicare and Medicaid Services (CMS) for a federal home and community-based services (HCBS) waiver. Alternatively, states may provide coverage via statute, regulation, or through a pilot.

Currently, 16 state Medicaid programs cover telemonitoring services, which is an increase of six states since 2013. Two additional states, Pennsylvania and South Dakota, provide coverage for telemonitoring services through their respective Departments of Aging Services (see map below).

Map of States Providing Coverage for In-Home Telemonitoring (TM)



List of States Providing Coverage for In-Home Telemonitoring (TM) Services			
Statutory Coverage of TM	Regulatory Coverage of TM	CMS Waiver Coverage of TM	Dept. of Aging Services Coverage of TM
Colorado Illinois Indiana Mississippi New York Texas Vermont	Alabama Alaska Kansas Utah Washington Maine	Louisiana Minnesota South Carolina	Pennsylvania South Dakota

National Telemonitoring Landscape

The following provides an overview of reimbursement policies for in-home telemonitoring services in selected states.

Alaska

a. Medicaid

Alaska Medicaid reimburses for telemedicine services that are also covered under "traditional, nontelemedicine" methods, including patient self-monitoring via telemedicine applications.^{vii} However, the program has a number of exclusions for which it will not reimburse, including HCBS waiver services, as well as the use of telemedicine equipment and systems. Alaska Medicaid requires the service be provided by a telemedicine application based in the recipient's home with the provider only indirectly involved in the provision of the service.^{viii}

b. Pilot

Beginning in 2007, the Alaska Federal Health Care Partnership (AFHCP), a formalized partnership of federal health care agencies, implemented the award-winning^{ix} home telemonitoring (HTM) program to mitigate substantial geographic barriers to care access in the largely rural state. The HTM program deploys in-home telemonitoring devices to the homes of federal beneficiaries across the state, through which daily vital signs are transmitted electronically to trained reviewers.

In the first six years of the program, patient reporting of vital signs to their health care providers increased from 23% to 65%.^x Over that same period, annual cost of care for program participants fell \$634,365 (from \$676,782 to \$42,417 per year) through reductions in Medivacs, emergency room visits, and hospital readmissions (a return on investment of nearly 1,500%).^{xi} Participant vital signs also improved significantly as a result of the program. Between 2009 and 2013, participant glucose levels dropped 15 points, A1C levels decreased 0.7 points, and participants lost weight.^{xii}

Colorado

a. Medicaid

In 2010, Colorado's Medicaid program began reimbursing for "the remote monitoring of clinical data through electronic information processing technologies"^{xiii} when the following requirements are met:

- The patient is receiving services from a home health provider for at least one of the following:
 - congestive heart failure;
 - o chronic obstructive pulmonary disease;
 - \circ asthma; or
 - \circ diabetes.
- The patient requires monitoring at least five times weekly to manage the disease, as ordered by a physician or podiatrist;

- The patient has been hospitalized two or more times in the last 12 months for conditions related to the disease;
- The patient or caregiver misses no more than five monitoring events in a 30-day period;
- The patient's home has space for all program equipment and full transmission capability.^{xiv}

The fiscal note affixed to the authorizing legislation estimated in-home telemonitoring would save Colorado Medicaid by reducing hospitalizations 10% and keeping Coloradans out of the emergency room.^{xv} The law specifies that any cost savings derived from the use of home telehealth "shall be considered for use in paying for home- and community-based services…community-based long-term care, and home health services."^{xvi} The law also permits the use of gifts, grants, and donations to pay the State's share of program costs.

b. Pilot

In 2013, the Commonwealth Fund published its findings from year-long case study of Colorado's Centura Health at Home (CHAH) pilot.^{xvii} The CHAH pilot integrated a clinical call center with inhome telemonitoring, including daily reporting of vital health signs to health care professionals. As a result of the pilot, 30-day re-hospitalizations related to congestive heart failure, chronic obstructive pulmonary disease, and diabetes fell 62%. Re-hospitalization rates for program participants dropped to 6.3%, while re-hospitalizations for patients receiving traditional homecare remained around 18%. Visits to the emergency room also decreased, from 283 visits in the year before the pilot to 21 visits during the year-long study.

Indiana

a. Medicaid

The Indiana Code requires Medicaid to reimburse licensed home health agencies for "the use of telecommunications and information technology to provide access to health assessment, diagnosis, intervention, consultation, supervision, and information across a distance."^{xviii} Patients must have one of three chronic conditions (chronic obstructive pulmonary disease, congestive heart failure, or diabetes) and must have had two or more emergency room visits or inpatient hospitalization stays in the last twelve months. The law also requires that transmitted health information be monitored and interpreted by a licensed registered nurse.^{xix}

b. Pilot

From 2011-2012, Indianapolis-based St. Vincent Health carried out a one-year clinical trial to reduce hospital readmissions using in-home telemonitoring and videoconferencing technology. As part of the study, doctors and nurses monitored 200 patients with congestive heart failure and chronic obstructive pulmonary disease for 30 days immediately following a stay in the hospital. St. Vincent Health utilized in-home telemonitoring technology daily to screen patients' vital signs and monitor for "red flags and opportunities for personalized education."^{xx} Results from the study revealed a 60-70% reduction in hospital readmissions compared to the national average. Researchers also found a statistically significant increase in the level of patient engagement for study participants.

Kansas

a. Medicaid

Kansas Medicaid reimburses for "real-time, interactive, audio/video telecommunication equipment to monitor beneficiaries in the home setting."^{xxi} The Medicaid Provider Manual further states: "This technology may be used to monitor the beneficiary for significant changes in health status, provide timely assessment of chronic conditions, and provide other skilled nursing services."^{xxii} To be eligible for reimbursement, home telehealth must be:

- A skilled nursing service;
- Prescribed by a physician;
- Considered medically necessary;
- Authorized by beneficiary signed consent;
- Limited to two visits per week for non-HCBS patients.
- b. Medicaid HCBS Waiver

The Kansas HCBS for the Frail Elderly (FE) waiver program covers home telehealth services for participants who have had two or more hospitalizations within the previous year for one or more diseases, and who require disease management services. The Kansas HCBS FE Provider Manual defines the service as a "daily monitoring of the customer's vital sign measurements from the customer's home setting to prevent a crisis episode."^{xxiii} The manual further states: "Home telehealth automates disease management activities, and engages customers with personalized daily interactions and education to build or expand the customer's self-management behaviors. The service will enable telehealth providers, after determining the customer's progress, to motivate behavior changes through user-friendly technology, helping customers meet goals for improved compliance with diet, exercise, medication, medical treatments, and self-monitoring of conditions to lower healthcare costs."^{xxiv}

c. Pilot

In 2010, the Center for Telemedicine & Telehealth at the University of Kansas Medical Center published the results from a three-year study tracking outcomes, costs, and utilization associated with in-home telemonitoring services purchased through the Kansas HCBS FE waiver. The results demonstrated the use of in-home telemonitoring reduced the rate of emergency room visits, inpatient hospitalizations, nursing facility placements, and associated health care costs for HCBS FE clients. The authors of the study concluded that the **cost savings from reduced hospitalizations alone (\$26,298 per patient per year) dwarfed the cost of equipment (\$816 per patient per year).**^{XXV}

Louisiana

a. Medicaid HCBS Waiver

Under Louisiana's Community Choices Waiver, Louisiana Medicaid reimburses providers for installing and maintaining "telecare" technology in the home. This includes activity and sensory monitoring, health status check-ins, and medication dispensing and tracking. Health status monitoring under the waiver includes the transmission of health-related data to providers to help monitor a patient's health condition and provide education and consultation. Billing for this service

includes a one-time fee that covers the cost of equipment installation and removal. A monthly maintenance fee is provided for a face-to-face visit by a registered nurse when transmitted data warrants a visit. Providers of assistive devices and medical equipment must be licensed home health agencies.^{xxvi}

b. Pilot

In a 2013 letter addressed to the House and Senate Health and Welfare Committee chairmen, the Louisiana Department of Health and Hospitals had this to say about the benefits of telehealth:

Research cites three methods telehealth can produce an economic benefit. The first is patients can avoid hospital transfers by receiving telehealth consultation services, therefore reducing transportation expenses. In emergency situations, like stroke care, telehealth can provide guidance to physicians to administer life-saving drug therapy. **The second method is home monitoring of patients with chronic diseases which can result in decreased hospitalizations.** Finally, telehealth can enhance the marketability of rural health facilities and keep more health care dollars in the local economy...**In addition to telehealth economic benefits, results in patient health outcomes have been optimal. Recent studies have found that new telehealth applications, such as remote patient monitoring, have reduced overall costs, and improved health outcomes for target populations.^{xxvii}**

In addition to the research presented above, the Department cited a study conducted by the Louisiana State University Health Care Services Division on in-home telemonitoring of congestive heart failure patients. The study revealed the group receiving in-home telemonitoring had less than half as many inpatient stays and inpatient days as the control group.^{xxviii}

Maine

a. Medicaid

Maine's Medicaid program covers "Assistive Technology-Remote Monitoring," which is defined as, "real time remote support monitoring of the participant with electronic devices to assist them to remain safely in their homes."^{xxix} Remote monitoring services may include a range of technological options, including in-home computers, sensors, and video cameras linked to health care providers and enabling 24/7 monitoring and/or contact as necessary.

Final approval of "Assistive Technology-Remote Monitoring" services is reserved for the Maine Department of Health, Office of Aging and Disability Services, upon recommendation by the Assessing Services Agency (ASA) or Service Coordination Agency (SCA). In making a recommendation, the ASA or SCA is required to consider:

- a) The number of hospitalizations in the past year;
- b) The number of emergency room visits in the past year;
- c) If there is a history of falls in the last six months resulting in injury;
- d) If the member lives alone or remains at home alone frequently;
- e) Service access challenges and reasons for those challenges;
- f) If there is a history of behavior indicating a risk of wandering; and
- g) Other relevant information for the request.

Mississippi

a. Medicaid, Private Pay, and Employee Benefit Plans

In Mississippi, all health insurers and employee benefit plans in the state must provide coverage of telemedicine services to the same extent that services would be provided through an in-person consultation. Plans may implement the same enrollee cost sharing structures as applicable for inperson services, and may limit coverage to health care providers in a telemedicine network approved by the plan. The language of the controlling statute instructs Mississippi Medicaid to reimburse for in-home telemonitoring services "to allow more people to remain at home... and to improve the quality and cost of their care, including prevention of more costly care."^{xxx}

To qualify for in-home telemonitoring services, patients must meet the following criteria:

- Patient is diagnosed with one or more chronic diseases (including mental health, asthma, diabetes, and heart disease) in the last 18 months;
- Patient has a recent documented history of high-cost service utilization due to one or more chronic conditions, including two or more hospitalizations or emergency room visits in the last 12 months; and
- The patient's health care provider recommends disease management services via in-home telemonitoring.

The detailed legislation requires providers of in-home telemonitoring services to satisfy certain minimum criteria to participate. Providers must be based in Mississippi and are required to establish the following protocols that address a host of service requirements, including: setting a standard for acceptable client clinical parameters; creating a mechanism for monitoring, tracking, and responding to changes in a patient's clinical condition; and installing a process for notifying the prescribing physician of significant changes in a patient's vital signs and symptoms. The legislation also sets requirements for telemedicine equipment and wireless networks to qualify for reimbursement. The payment structure includes a one-time installation fee for in-home telemonitoring services with a maximum of two installation and/or training fees per calendar year.

b. Pilot

In 2014, the University of Mississippi Medical Center (UMMC) partnered with the North Sunflower Medical Center, GE Healthcare, Intel-GE Care Innovations, C Spire, and Mississippi Governor Phil Bryant to develop an in-home telemonitoring program known as the "Diabetes Telehealth Network." The program gives tablets to diabetes patients in rural parts of the state, thereby enabling health care providers to remotely manage these conditions. Each day, patients share with clinicians their physical, psychological, and emotional status thorough listening sessions, and important vital signs (e.g., weight, blood pressure, glucose levels, etc.) are automatically transmitted to providers via wireless networks. Although the program is still relatively new (recruitment began in August 2014), early results are promising.

In her April 2015 testimony before the United States Senate Committee on Commerce, Science, and Transportation, Dr. Kristi Henderson, Chief Telehealth and Innovation Officer at UMMC, offered the following reflections on the program:

Of the 85 patients currently enrolled in the pilot, all report that their disease is under control for the first time and that they have lost weight and are feeling **better**. While our goal was for 75% of patients to reduce their hemoglobin A1C levels by 1% in the first year, **study results show that after only six months, the average reduction in A1C levels among participants is almost 2%. In addition, with the exception of one patient who needed to be hospitalized at the time of enrollment, none of our participants have gone to the ER or been admitted to the hospital for their diabetes.^{xxxi}**

New York

a. Medicaid and Private Insurance

Effective January 1, 2016, private payers in New York may, but are not required to, reimburse for in-home telemonitoring services. However, the statute provides: "An insurer shall not exclude from coverage a service that is otherwise covered under a policy that provides comprehensive coverage for hospital, medical or surgical care because the service is delivered via telehealth."^{xxxii}

New York Medicaid may also reimburse for "telemedicine, store and forward technology, or remote patient monitoring."^{xxxiii} Remote patient monitoring is defined by statute as "the use of synchronous or asynchronous electronic information and communication technologies to collect personal health information and medical data from a patient at an originating site that is transmitted to a telehealth provider at a distant site for use in the treatment and management of medical conditions that require frequent monitoring."^{xxxiv} Such medical conditions include, but are not limited to: chronic heart failure, diabetes, chronic obstructive pulmonary disease, wound care, polypharmacy, mental or behavioral problems, and certain types of technology-dependent care such as continuous oxygen and ventilator care.

b. Pilot

In 2010, the New York Eddy Visiting Nurse Association (VNA) completed a one-year pilot study of 53 patients with two or more hospitalizations or emergency room visits in the last 12 months. The Eddy VNA installed telehealth units in the homes of participants and monitored their vital signs each day for one year.

The study reported the following results:

- 55% drop in the number of hospitalizations, from 178 to 80;
- 29% reduction in emergency visits, from 137 to 97;
- 42% drop in medical costs, from \$3 million to \$1.7 million.xxxv

South Carolina

a. Medicaid

Beginning in 2015, South Carolina Medicaid began reimbursing for "medical telemonitoring" of body weight, blood pressure, oxygen saturation, blood glucose levels, and basic heart rate information through a Medicaid waiver.

Medicaid enrollees participating in the South Carolina Community Choices waiver may receive inhome telemonitoring services when the following criteria are satisfied:

- The enrollee must have a primary diagnosis of insulin dependent diabetes mellitus, hypertension, chronic obstructive pulmonary disease, or chronic heart failure;
- The enrollee must have a history of at least two hospitalizations and/or emergency room visits in the past 12 months;
- The enrollee must have a primary care physician that approves the use of telemonitoring service and is solely responsible for receiving and acting upon the information transmitted via the in-home telemonitoring device; and
- The enrollee must be capable of using the telemonitoring equipment and transmitting the necessary data or have an individual who is available to do so.^{xxxvi}

Per South Carolina's Community Long Term Care Provider Manual, the daily reimbursement for in-home telemonitoring services includes monitoring and charting data, follow up home visits and calls with participants and caregivers, calls to primary care physicians, in-home installation of equipment, and training on use of equipment. In addition, providers may be reimbursed for equipment removal when services are no longer needed.

Each day, a designated registered nurse or physician monitors medical telemonitoring data. If the physiological data remains within normal limits, participants are provided with at least a quarterly summary of data. At a minimum, clinicians are required to call patients once a month to determine whether the equipment is being utilized and operating properly. The Provider Manual also includes minimum requirements for telemonitoring equipment. For example, medical devices used must be FDA Class II hospital grade, which includes a computer or monitor that is programmable for a variety of disease states.

Texas

a. Medicaid

The Texas Medicaid Program provides reimbursement for "scheduled remote monitoring of data related to a patient's health and transmission of the data to a licensed home health agency or a hospital."^{xxxvii} Further, in-home telemonitoring services are reserved: (1) for Medicaid clients who are diagnosed with diabetes, hypertension, or "other conditions," including, but not limited to, chronic obstructive pulmonary disease, cancer, asthma, and congestive heart failure; (2) when it is determined by the Texas Health and Human Services Commission (HHSC) to be cost effective and feasible; and (3) when Medicaid clients exhibit two or more risk factors, including, but not limited to, two or more hospitalizations in the last 12-month period, frequent or recurring emergency room admissions, a documented history of poor adherence to ordered medication regimens, and a documented history of falls in the last six-month period. Providers of telemonitoring services must be enrolled in and approved for participation by Texas Medicaid and must share clinical information gathered with a patient's physician.

In the fiscal note authorizing Medicaid coverage of in-home telemonitoring services, HHSC Deputy Executive Commissioner for Financial Services determined that during the first five year period the rule would result in cost savings "as the addition of telemonitoring as a Medicaid benefit is anticipated to result in fewer hospital readmissions and emergency room visits."^{xxxviii} Although HHSC was unable to identify exact savings that would accrue to the state under the new policy, the report unequivocally states the policy would result in anticipated cost savings.

Vermont

a. Medicaid

In May 2014, Vermont enacted legislation that requires Medicaid to cover in-home telemonitoring services performed by home health agencies or other qualified providers for clients with serious or chronic medical conditions that can result in frequent or recurrent hospitalizations and emergency room admissions. Individuals eligible for the benefit are those with primary Medicaid or non-homebound dual-eligibles. Qualified providers are home health agencies enrolled with Vermont Medicaid. Patient data can be reviewed by a registered nurse, nurse practitioner, clinical nurse specialist, licensed practice nurse (under the supervision of an RN), or a physician assistant.^{xxxix}

The law directs the Agency of Human Services to provide Medicaid coverage for in-home telemonitoring when there are one or more chronic conditions or risk factors for which it determines, using reliable data, that home telemonitoring services are appropriate and that coverage will be budget-neutral. Individuals receiving Medicaid telemonitoring must have congestive heart failure, be clinically eligible for home health services, and have a physician's plan of care with an order for telemonitoring services.

Eligible providers may bill once every 30 days for telemonitoring of patients in their homes, including all necessary equipment, computer systems, connections, software, maintenance, patient education, and support. A separate code may be billed every seven days for ongoing assessment and management of telemonitoring data.^{xl}

The law requires the Department of Vermont Health Access and home health agencies to maximize opportunities for grant funding to offset start-up, equipment, technology, maintenance, and other costs related to home telemonitoring. The Vermont Legislative Joint Fiscal Office scored the bill as costing the state \$137,214, based on a \$350 per member per month cost with an estimated utilization of approximately 75 individuals per month. The Fiscal Office was unable to predict exactly how much the state would save by implementing the measure, but they reported in their fiscal note that **"research [on potential cost savings] is promising, specifically for the potential of reducing the length of stays in hospitals."**^{xli} The fiscal note also indicates Vermont's State Innovation Model (SIM) Grant can provide funding for telemonitoring/ telemedicine. "So while this bill is specific to Medicaid coverage for these services, it is worth noting that there may be another potential funding source for telemonitoring" to support startup costs, with the expectation that there will be "cost-savings in the long-term."^{xlii}

Footnotes

ⁱ Kentucky Cabinet for Health and Family Services, Office of Health Policy, "SIM Design Stakeholder Kickoff Meeting Presentation." Mar. 17, 2015, citing United Health Foundation, "America's Health Rankings 2014."
http://www.americashealthrankings.org/KY.
ⁱⁱ Data from the Kentucky Cabinet for Health and Family Services publications: Unbridled Health: A Plan for Coordinated
Chronic Disease Prevention and Health Promotion (November 2013) and 2015: Kentucky Diabetes Report (January 2015).
ⁱⁱⁱ See http://www.leginfo.ca.gov/pub/11-12/bill/asm/ab_0401-0450/ab_415_bill_20111007_chaptered.html.
^{iv} Blue Sky Consulting Group, prepared for the Center for Connected Health Policy, Fiscal Impact of AB 415: Potential Cost
Savings from Expansion of Telehealth. Aug. 31,
2011. <u>http://static1.1.sqspcdn.com/static/f/675504/16013878/1326417733040/AB+415+Impact+Report+20110831.pdf?token=YT</u>
GDOFCQ5WLeAS%2BdleQoHz609Ag%3D.
^v Blue Sky Consulting Group, prepared for the Center for Connected Health Policy, <i>Fiscal Impact of AB 415: Potential Cost</i>
Savings from Expansion of Telehealth. Aug. 31,
2011. <u>http://static1.1.sqspcdn.com/static/f/675504/16013878/1326417733040/AB+415+Impact+Report+20110831.pdf?token=YT</u>
GDOFCQ5WLeAS%2BdleQoHz609Ag%3D.
^{vi} Blue Sky Consulting Group, prepared for the Center for Connected Health Policy, <i>Fiscal Impact of AB 415: Potential Cost</i>
Savings from Expansion of Telehealth. Aug. 31,
2011. <u>http://static1.1.sqspcdn.com/static/f/675504/16013878/1326417733040/AB+415+Impact+Report+20110831.pdf?token=YT</u>
GDOFCQ5WLeAS%2BdleQoHz609Ag%3D.
^{vii} See Alaska Department of Health and Social Services, <i>Alaska Medical Assistance Provider Billing Manual</i> , Section1:
Physician, Advance Nurse Practitioner, Physician Assistant: Services, Policies and Procedures.
http://manuals.medicaidalaska.com/physician/physician.htm.
^{viii} Alaska Administrative Code, Title 7, 110.625(a) (2012). See
http://dhss.alaska.gov/dph/HealthPlanning/Pages/telehealth/regsandstatutes.aspx.
^{ix} The HTM program has received numerous awards for achievement, including: "Outstanding Rural Health Program" from the
National Rural Health Association; the "Award for Regional Impact" from the Indian Health Board; and the Disease
Management Association "Award for Outstanding Government Program."
^x Care Plan Solutions, <i>Case Study – Alaska Federal Health Care Partnership</i> (2013). See
http://www.cstcareplansolutions.com/files/2013/11/cst-case-study-alaska-federal-health-care-partnership.pdf.
^{xi} Care Plan Solutions, <i>Case Study – Alaska Federal Health Care Partnership</i> (2013). See
http://www.cstcareplansolutions.com/files/2013/11/cst-case-study-alaska-federal-health-care-partnership.pdf.
x^{ii} Care Plan Solutions, Case Study – Alaska Federal Health Care Partnership (2013). See
http://www.cstcareplansolutions.com/files/2013/11/cst-case-study-alaska-federal-health-care-partnership.pdf.
xiii Title 10 Colorado Code of Regulation 2505-10 8.524. <i>See</i>
http://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=5999&fileName=10%20CCR%202505-10%208.500.
xiv Title 10 Colorado Code of Regulation 2505-10 8.525. See
http://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=5999&fileName=10%20CCR%202505-10%208.500.
^{xv} Colorado Legislative Council Staff Fiscal Note, <i>State Revised Conditional Fiscal Impact</i> . "Concerning Home Health Care
Through Telemedicine Pursuant to the 'Colorado Medical Assistance Act,'' SB07-196. April 19, 2010. See
http://www.leg.state.co.us/clics/clics/2010a/csl.nsf/billcontainers/3F24B90F9C022E75872576A80027DD4B/\$FILE/HB1005_r1.p
df
^{xvi} Colorado Revised Statutes 25.5-5-320. See
http://tornado.state.co.us/gov_dir/leg_dir/olls/2013TitlePrintouts/CRS%20Title%2025.5%20%282013%29.pdf.
^{xvii} The Commonwealth Fund, <i>Case Studies in Telehealth Adoption</i> . "Centura Health at Home: Home Telehealth as the Standard
of Care." January 2013. See <u>http://www.commonwealthfund.org/~/media/files/publications/case-</u>
study/2013/jan/1655 broderick telehealth adoption centura case study.pdf.
^{xviii} Indiana Code, 12-15-5-11. See <u>http://www.in.gov/legislative/bills/2013/SE/SE0554.1.html</u> .
xix Indiana Administrative Code, Title 405, 5-38-1 (2012); Sec. 7, 5-16-3.1. See www.in.gov/legislative/iac/T04050/A00050.PDF.
^{xx} Alan Snell, "The Role of Remote Care Management in Population Health." <i>Health Affairs</i> . April 4, 2014. <i>See</i>
http://healthaffairs.org/blog/2014/04/04/the-role-of-remote-care-management-in-population-health/.
^{xxi} Department of Health and Environment, <i>Kansas Medical Assistance Program</i> , "Provider Manual, Home Health." July 2015,
pg. 33. See https://www.kmap-state-ks.us/Documents/Content/Provider%20Manuals/Home%20Health_12112014_14177.pdf.
xxii Department of Health and Environment, Kansas Medical Assistance Program, "Provider Manual, Home Health." July 2015,
Department of realth and Environment, Kansas meancal Assistance Frogram, Frovider Manual, nome realth. July 2015,

pg. 33. *See* <u>https://www.kmap-state-ks.us/Documents/Content/Provider%20Manuals/Home%20Health_12112014_14177.pdf</u>. xxiii Kansas Medical Assistance Program, HCBS FE Provider Manual, Home Telehealth, Benefits & Limitations, September

2011. See https://www.kmap-state-ks.us/Documents/Content/Provider%20Manuals/HCBS%20FE%2009302011_11084.pdf.

xxiv Kansas Medical Assistance Program, HCBS FE Provider Manual, Home Telehealth, Benefits & Limitations, September 2011. *See* https://www.kmap-state-ks.us/Documents/Content/Provider%20Manuals/HCBS%20FE%2009302011_11084.pdf.

^{xxv} Ryan Spaulding, PhD, Center for Telemedicine & Telehealth, University of Kansas Medical Center, "Medicaid HCBS/FE Home Telehealth Pilot: Final Report for Study Years 1-3," September 2007 – June 2010. *See*

http://www.healthcare.philips.com/main/shared/pdfs/KDOA%20Pilot%20Final%20Report.pdf.

^{xxvii} Legislative Report from the Louisiana Department of Health and Hospitals, Office of the Secretary, to the Joint House and Senate Committees on Health and Welfare, January 30, 2013. *See <u>http://dhh.louisiana.gov/assets/docs/LegisReports/HCR96-</u>2013.pdf.*

^{xxviii} Legislative Report from the Louisiana Department of Health and Hospitals, Office of the Secretary, to the Joint House and Senate Committees on Health and Welfare, January 30, 2013. *See <u>http://dhh.louisiana.gov/assets/docs/LegisReports/HCR96-</u> 2013.pdf.*

xxix MaineCare Benefits Manual, Chapter 2, Section 19. Last updated December, 15, 2014. *See* <u>http://www.maine.gov/sos/cec/rules/10/144/ch101/c2s019.docx.</u>

xxx Mississippi Code Section 83-9-353. See <u>http://law.justia.com/codes/mississippi/2014/title-83/chapter-9/coverage-for-</u> telemedicine-services/section-83-9-353.

xxxi Dr. Kristi Henderson, DNP, NP-BC, FAEN, Chief Telehealth and Innovation Officer, University of Mississippi Medical Center, Testimony before the United States Senate Committee on Commerce, Science and Transportation, April 21, 2015.
xxxii New York Insurance Law Section 3217-H (2014). See <u>http://law.justia.com/codes/new-york/2014/isc/article-32/3217-h</u>.
xxxiii New York Public Health Law Section 2999-CC (2014). See <u>http://law.justia.com/codes/new-york/2014/pbh/article-29-</u>g/2999-cc/.

xxxiv New York Public Health Law Section 2999-CC (2014). See <u>http://law.justia.com/codes/new-york/2014/pbh/article-29-g/2999-cc/</u>.

^{xxxv} Home Care Association of New York State, "Home Telehealth: Enhancing Care, Saving Costs: How remote-monitoring technology is changing the landscape of home care delivery by reducing hospitalizations and health care expenses." *See* <u>http://htcare.com/assets/Home-Telehealth-Enhancing-Care-Saving-Costs.pdf.</u>

xxxvi South Carolina Healthy Connections Provider Manual: Community Long Term Care, updated September 1, 2015. *See* <u>https://www.scdhhs.gov/internet/pdf/manuals/cltc/Manual.pdf.</u>

xxx^{vii} Texas Administrative Code, Rule 354.1434 "Home Telemonitoring Benefits and Limitations." *See* <u>http://texreg.sos.state.tx.us/public/readtac\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=1 &pt=15&ch=354&rl=1434.</u>

xxxviii Laurie Vanhoose, Texas Health and Human Service Commission. Subject: Medicaid Home Telemonitoring Services, June 12, 2013. *See <u>www.hhsc.state.tx.us/news/meetings/past/2013/mcac/061213/12.pdf.</u>*

xxxix Code of Vermont Rules Section 13-170-770.

^{xl} Vermont Agency of Human Services Department of Vermont Health Access. *Green Mountain Care—Provider Manual*, January 1, 2015. *See*

http://www.vtmedicaid.com/Downloads/manuals/New%20Consolidated%20Manual/ProvManual%20Consolidated%201-1-15.pdf

^{xli} Vermont Legislative Joint Fiscal Note, S. 234—An Act Relating to Medicaid Coverage for Home Telemonitoring Services, February 28, 2014. *See* <u>http://www.leg.state.vt.us/jfo/fiscal_notes/2014_S_234_Telemontioring.pdf.</u>

^{xlii} Vermont Legislative Joint Fiscal Note, S. 234—An Act Relating to Medicaid Coverage for Home Telemonitoring Services, February 28, 2014. *See* <u>http://www.leg.state.vt.us/jfo/fiscal_notes/2014_S_234_Telemonitoring.pdf.</u>

^{xxvi} Louisiana Department of Health and Hospitals, Community Choices Waiver Provider Manual, Chapter Seven of the Medicaid Services Manual.