



American Telemedicine Association

State Medicaid Best Practice
Remote Patient Monitoring
and Home Video Visits
July 2013

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State Medicaid Best Practice
Remote Patient Monitoring and Home Video Visits:

Telemedicine can be used to deliver care to patients regardless of their physical location or ability. Research has shown that patients who receive such care are more likely to have better health outcomes and less likely to be admitted (or readmitted) to the hospital, resulting in huge cost savings.¹⁻⁴

One well-proven form of telemedicine is remote patient monitoring. Remote patient monitoring may include two-way video consultations with a health provider, ongoing remote measurement of vital signs or automated or phone-based check-ups of physical and mental well-being. The approach used for each patient should be tailored to the patient's needs and coordinated with the patient's care plan.

The Use of Telehealth and Remote Patient Monitoring in Medicaid

Policies for telehealth in Medicaid vary in each state according to service coverage, payment methodology, distance requirements, eligible patient populations and health care providers, authorized technologies, and patient consent. Some states follow Medicare's restrictions, which does not recognize the home as an originating site, nor does it reimburse for remote monitoring. State policy decisions can also be driven by budget constraints, public health needs, available infrastructure or provider readiness.

Medicaid plans have several options to cover remote patient monitoring, which include enacting legislation, issuing administrative regulatory changes, applying for a federal waiver (such as for home and community-based services under Social Security Act section 1915(c)) or a new "health home" option for chronic care (section 1945). The federal waivers allow states to implement more flexible reimbursement models and expanded coverage of home telehealth and remote monitoring services. Some states include specific provisions for home video visits while others cover remote data monitoring.

States may also apply for federal demonstration programs such as "Money Follows the Person" (MFP), which allocates federal funding for transitioning Medicaid beneficiaries from institutions to the community. Originally authorized under the 2009 American Recovery and Reinvestment Act (ARRA), the MFP demonstration program strengthens a state's Medicaid program to provide home and community based services to people who choose to transition out of institutions such as hospitals and nursing homes.

Seventeen states have used at least one of the aforementioned options to provide some form of home telehealth under their Medicaid plans: Alabama, Alaska, Arizona, Colorado, Indiana, Kansas, Kentucky, Minnesota, New Mexico, New York, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Washington, and Wisconsin.

State	Video Conferencing	Remote Monitoring
Alabama		✓
Alaska		✓
Arizona	✓	
Colorado		✓
Indiana	✓(authorized)*	
Kansas	✓	✓
Kentucky	✓	
Minnesota	✓	✓(equipment rental only)
New Mexico	✓	
New York	✓	✓
Pennsylvania		✓
South Carolina		✓
South Dakota		✓
Texas		✓(authorized)*
Utah	✓	
Washington	✓	✓
Wisconsin	✓	

*Source: IN Code, 12-15-5-11. TX Government Code, Sec. 531.02161 and 531.02164.

Rules are under development.

Created by the Affordable Care Act (ACA), the health home option was created to better coordinate primary, acute, behavioral, and long-term and social service needs for high-need, high-cost beneficiaries. This option is for Medicaid recipients who have at least--

- 2 chronic conditions
- 1 chronic condition and is at risk of having a second chronic condition; or
- 1 serious and persistent mental health condition.

The chronic conditions include mental health, substance use disorder, asthma, diabetes, heart disease, overweight (body mass index over 25), and other conditions that the Centers for Medicare and Medicaid Services (CMS) may specify.

Eleven states have taken advantage of the health home program: Alabama, Idaho, Iowa, Maine, Missouri, New York, North Carolina, Ohio, Oregon, Rhode Island, and Wisconsin. Ten other states have plan amendments pending at CMS: Iowa, Illinois, Maryland, Massachusetts, New York (Phase II), Oklahoma, South Dakota, Vermont, Washington, and West Virginia.²

According to CMS guidance each state’s plan must include “a proposal for use of health information technology in providing health home services under this section and improving service delivery and coordination across the care continuum (including the use of wireless patient technology to improve coordination and management of care and patient adherence to recommendations made by their provider).” Further, state proposals must “demonstrate a capacity to use health information technology to link services, facilitate communication among team members and between the health team and individual and family caregivers, and provide feedback to practices, as feasible and appropriate.”³

Home Telehealth and mHealth

The use of mobile health (mHealth) applications and devices among home and community-based providers and patients is not a new phenomenon. Home health providers rely on the regular use of smartphones, tablets, and cellphones at the point of care to record and manage patient health information, and coordinate care.⁴

In July 2011, the Food and Drug Administration (FDA) released draft guidance on the regulation of mobile health applications. The FDA identifies three types of mHealth apps that would require regulatory oversight: an application that is used as an extension of a medical device, an accessory or attachment that transforms a mobile platform into a medical device, and apps designed to support clinical decision making by analyzing, interpreting, or processing medical device data.⁵ As of June 2013, the FDA has not released final guidance on the regulation of mobile health apps.

Mobile devices offer a variety of features. Although most state Medicaid plans do not consider telephone calls as a component of telehealth and will not reimburse for the service, there are no state laws which prohibit the use of smartphones, tablets or other phone-enabling mobile devices to facilitate video-conferencing or remote patient monitoring.

State Policy Best Practices

ATA has analyzed state telehealth policies and highlighted those respective states with the best policy models for telehealth services. These best practice models can be used as benchmarks for other states considering new or revising existing telehealth policies.

To identify the states' best practices for home video visits and remote patient monitoring, ATA has examined enacted laws, published fiscal notes and bill reports, published regulations, and Medicaid provider manual guides for the 15 states with Medicaid coverage in those areas. ATA also reviewed state-issued reports and clinical programs demonstrating quality and cost-effective telehealth deployment and utilization. The criteria used to identify states with model policies regarding home telehealth and remote monitoring include:

- Inclusive definitions of technology with little to no restrictions on the types of technology approved for use in a clinical service
- Geographic area served
- Site of care
- Provider eligibility
- Reimbursement methodology
- Level of coverage and affected health care plans.

The following information identifies notable policies from four states: Colorado, Kansas, New York and Washington.

Colorado

In 2010, Colorado enacted reimbursement of at-home telemedicine services under Medicaid. An earlier state law paved the way for Medicaid reimbursement by removing restrictions which required providers to have in-person contact when providing Medicaid services.

The 2010 reform was made on the premise that technology-enabled care, in lieu of in-person care, would save the state money. The fiscal note for the new law estimated a 10% reduction in hospital visits and \$8,779/per month total savings as a result of home telehealth services delivered over 12 months. An additional projection in annual reduced emergency room visits (80 visits) and savings (\$2,293) were also attributed to home telehealth utilization.⁶

The law offers specific guidelines on the use of any cost savings that may be derived from the use of home telehealth:

- (a) The reimbursement rate for home health care or home- and community-based services delivered through telemedicine that are otherwise eligible for reimbursement under the medical assistance program shall be set by rule of the state board and shall be:*
- (b) Any cost savings identified pursuant to this section shall be made available considered for use in paying for home- and community-based services under part 6 of this article, community-based long-term care, and home health services.⁷*

Colorado officials have defined the authorized service of home health telehealth as “the remote monitoring of clinical data through electronic information processing technologies”, thus excluding video conferencing capabilities. Home health agencies must receive prior authorization and make an in-person home health skilled nursing visit every 14 days while the patient is using the home telehealth service.⁸

Copayments are not required but patient must meet all of the following criteria:

- Receiving home health services;
- Diagnosed with one or more chronic illness: congestive heart failure, chronic obstructive pulmonary disease (COPD), asthma, or diabetes;
- Hospitalized at least twice in the last 12 months for conditions related to their diagnosis, or at least once in the last 3 months if they were receiving home health services at the time;
- Require at a minimum 5 monitoring encounters per week, and must not miss more than 5 monitoring data transmissions between the home health agency; and
- Home environment with the necessary space and connections to install the Monitoring equipment and transmit data to the home health agency.⁸

Home health agencies may bill for telehealth services at a rate of \$9.45 per unit/day each month, not to exceed 31 units/days per month. Although acute and long term telehealth services are billed at the same rate, they are assigned different billing codes. Medicaid will also reimburse a one-time telehealth installation fee of \$50 per patient.⁸

Kansas

Home interactive video conferencing and monitoring are covered and reimbursable services under Kansas Medicaid. Coverage and reimbursement for home monitoring was made possible due to federal funding from the Money Follows the Person (MFP) demonstration.

The Kansas Frail Elderly MFP waiver program offers home monitoring, helping beneficiaries effectively manage their chronic illness and recognize early signs of problematic issues so intervention can occur before their health declines. Beneficiaries in assisted living, residential health care, or home-plus facilities (i.e. long-term care facilities which assist no more than 8 individuals diagnosed with functional impairments) are not eligible for home monitoring under this waiver program.⁹

Adults 65 years of age and older qualify for home monitoring if they also meet the following criteria:

- Diagnosed with one or more qualifying chronic illness;
- Have had two or more hospitalizations, including ER visits, within the last year;
- Enrolled in the MFP waiver program to transition from a nursing facility back into the community;
- Need disease management consultation and education;
- Have a landline or wireless connection;
- Perform daily monitoring for at least seven consecutive days.

Prior authorization is not required. Registered nurses (RNs) and licensed practical nurses (LPNs) with RN supervision are eligible to set up, supervise, and provide patient home monitoring. At a minimum, home monitoring equipment should be capable of monitoring daily heart rate, blood pressure, mean arterial pressure, weight, oxygen saturation, and temperature.

Home health agencies and county health departments may bill for telehealth services based on the rate of \$6 per unit/day each month. Medicaid will also reimburse a telehealth installation and training fee at a maximum rate of \$70 per patient, up to 2 per patient per calendar year.

The program also allows a separate reimbursement for medication reminder services at a rate of \$15.91 per unit per patient. This service is defined as a “scheduled reminder to a beneficiary when it’s time for him or her to take medications...may be a phone call, automated recording, or automated alarm depending on the provider’s system.” Qualifying beneficiaries are those who live alone, or are alone a significant portion of the day and have no regular caretaker. Any company providing medication reminder services is eligible to enroll, except for adult care homes.

Unlike other Medicaid programs that reimburse for home monitoring services, Kansas is the one state with explicit guidance regarding the linguistic competency of both the provider and equipment delivering monitoring services. The provider and equipment must have needed language options such as Spanish, Russian, or Vietnamese.

New York

To address the burgeoning Medicaid costs for the state's most chronically ill residents, New York enacted a demonstration project to deliver care via home remote monitoring in 2007.

Due to the success of the demonstration, New York enacted legislation covering home telehealth services. Home telehealth services are covered when provided by a certified home health agency, long-term health care program or AIDS home care programs. The agency and its specific technology must be pre-approved by the Department of Health. An in-person risk-assessment, conducted by the telehealth provider and physician's approval, are required before the initiation of services.

Patient eligibility is determined by "conditions or clinical circumstances including but not limited to congestive heart failure, diabetes, chronic pulmonary obstructive disease, wound care, polypharmacy, mental or behavioral problems limiting self-management, and technology-dependent care such as continuous oxygen, ventilator care, total parenteral nutrition or enteral feeding."¹⁰

Services are reimbursed based on a tiered-pricing system determined by the technology's level of interoperability:

Tier Definitions:

- A. Tier 1 – Class 2 Medical Device that is FDA cleared with interoperability.*
- B. Tier 2 – Tier 1, plus a standard interconnection with a home care point of care system.*
- C. Tier 3 – Tier 2, plus a standard interconnection with electronic health record and statewide health information network for New York.*

Covered services include: monitoring of patient vital signs; patient education; medication management; equipment management; review of patient trends and/or other changes in patient condition necessitating professional intervention; and other activities deemed necessary and appropriate according to the plan of care.

New York State is restructuring their Medicaid program and transitioning all Medicaid beneficiaries to managed care plans in phases. Adults with Medicare and Medicaid residing in New York City, Nassau, Suffolk and Westchester counties must enroll in the state's managed long term care plan. The state has contracted with the Medicaid managed care and managed long term care plans to cover home telehealth, but prior authorization is required. Home health agencies will now receive a bundled payment for the home health visit, and the base rate includes home telehealth and equipment installation.

Washington

Washington state has developed an important model that allows for both remote data monitoring and interactive video conferencing. Policymakers have adopted a cost-effective alternative to in-person care with minimal barriers. They permit the use of telemedicine in lieu of a skilled nursing in-person home health visit and impose no restrictions on the types of technology that

can be used during a remote visit. Interactive video conferencing and remote vital sign monitoring are both reimbursable services under their Medicaid program. There are no geographic restrictions placed on the delivery of telemedicine services in the home.

"Telemedicine" - For the purposes of WAC 388-551-2000 through 388-551-2220, means the use of monitoring to enhance the delivery of certain home health skilled nursing services through:

- (1) The collection of clinical data and the transmission of such data between a patient at a distant location and the home health provider through electronic processing technologies. Objective clinical data that may be transmitted includes, but is not limited to, weight, blood pressure, pulse, respirations, blood glucose, and pulse oximetry; or*
- (2) The provision of certain education related to health care services using audio, video, or data communication instead of a face-to-face visit.¹¹*

Washington does not require in-person contact or prior authorization from a physician for home health services that are delivered via telemedicine. The state pays for one telemedicine interaction per eligible client, per day, based on the ordering licensed practitioner's home health plan of care.¹²

Despite the authorization of this robust home telehealth policy, there is a lack of parity in the reimbursement for telemedicine versus face-to-face visits. The reimbursement rate for home health telemedicine services is \$77 per visit as compared to the \$87 rate for an in-person visit. Equipment costs and costs associated with the operation of telemedicine equipment are not reimbursable expenses.

Reimbursement is impacted by specific patient criteria. Home health agencies may be reimbursed for telemedicine encounters specifically involving patients diagnosed with an unstable condition, and at risk of hospitalization or transition to a costlier level of care:

Home health services--Delivered through telemedicine. (1) The department covers the delivery of home health services through telemedicine for clients who have been diagnosed with an unstable condition who may be at risk for hospitalization or a more costly level of care. The client must have a diagnosis(es) where there is a high risk of sudden change in clinical status which could compromise health outcomes.

(3) To receive payment for the delivery of home health services through telemedicine, the services must involve:

- (a) An assessment, problem identification, and evaluation which includes:*
 - (i) Assessment and monitoring of clinical data including, but not limited to, vital signs, pain levels and other biometric measures specified in the plan of care. Also includes assessment of response to previous changes in the plan of care; and*
 - (ii) Detection of condition changes based on the telemedicine encounter that may indicate the need for a change in the plan of care; and*
- (b) Implementation of a management plan through one or more of the following:*

- (i) Teaching regarding medication management as appropriate based on the telemedicine findings for that encounter;*
- (ii) Teaching regarding other interventions as appropriate to both the patient and the caregiver;*
- (iii) Management and evaluation of the plan of care including changes in visit frequency or addition of other skilled services;*
- (iv) Coordination of care with the ordering licensed practitioner regarding telemedicine findings;*
- (v) Coordination and referral to other medical providers as needed; and*
- (vi) Referral to the emergency room as needed.¹²*

Evidenced-based Outcomes for Home Telehealth and Remote Monitoring

Snapshots of four demonstrations involving successful applications of home telehealth and remote monitoring are provided below.

Colorado – Centura Health at Home¹³

Scope

- Remote monitoring and 24/7 call center to provide care coordination for chronically ill patients (e.g., congestive heart failure, chronic obstructive pulmonary disease, hypertension, diabetes) covered by Medicare, Medicare Advantage and Medicaid
- Data collected over the course of 12 months
- 200 patients

Outcomes

- A 62% reduction in 30-day rehospitalizations related to congestive heart failure, chronic obstructive pulmonary failure, and diabetes
- Lowered rehospitalization rates for telehealth patients, 6.3% compared to 18% for those receiving traditional home care.
- Emergency department use decreased from 283 visits in the year preceding the study to 21 visits in the study year.
- Cut by 7 percentage points hospitalizations, from 25% to 18%
- RN visits were reduced from 2 to 3 visits per week over a 60-day episode of care to approximately 3 visits over the entire 60-day telehealth care management period. The resulting cost savings is between \$1,000 and \$1,500 of total costs per patient.

Kansas - Windsor Place Home Health¹⁴

Scope

- Telehome care intervention for chronically ill Medicaid patients
- Data collected over 3 years

Outcomes

- For 25 patients in 2007-2008, there were no health care costs (specifically no hospital readmissions, emergency room visits, and nursing home admissions). As a result, hospital and emergency room cost savings totaled \$1,350,332.
- With the pilot expanded to 61 patients in 2009, hospitalization rates were reduced by 38% with annual cost savings of \$26,298 per patient. Nursing home deferral rates were 6.1% compared to a control group at 7.7%;
- Cost of the telehealth intervention was \$6/client/day

New York - Home Care Association of New York State¹⁵

Scope

- Studied programs of home care providers, including home telehealth programs.
- Four of the agencies developed and used specific assessment tools, care paths, or protocols for their programs, and included patient education as a key component of their telehealth programs. The agencies also used a multi-discipline approach in developing the program and providing patient care.

Outcomes

- Identified telehealth care management as a critical component of successful transitions programs. Found that use of home telehealth for high-risk patients at four agencies alone led to savings of over \$1 million in averted hospitalizations.
 - Oneonta-based At Home Care, Inc. – For 900 patients enrolled annually, a 7% decrease in hospital readmissions and annual savings of \$466,200.
 - Patchogue-based Brookhaven Memorial Hospital Home Health Agency – For 181 COPD patients annually, a 19% reduction in hospital readmissions and annual savings of \$254,486. For 92 pneumonia patients enrolled annually, a 26% reduction in hospital readmissions and annual savings of \$177,008.
 - New York City-based Metropolitan Jewish Health System Home Care – For 300 patients annually; a 4% decrease in hospital readmissions and annual savings of \$88,800.
 - Albany-based St. Peter’s Home Care – For 213 patients annually enrolled a 6.5% reduction in hospital readmissions and annual savings of \$102,453.

Washington – Community Home Health and Hospice¹⁶

Scope

- Remote monitoring intervention for chronically ill Medicaid patients
- Data collected over the course of 24 months

Outcomes

- \$1,726,276 savings from reduced hospital admissions, going from 25% to 18%.
- \$86,480 savings from reduced emergent care usage, going from 17% to 12%.

Model Medicaid Policy Considerations

The general goal of parity between telehealth and traditional in-person coverage is of limited value with regard to setting home telehealth policy because many aspects do not really have an in-person and key technologies, such as sensors, are rapidly evolving. Accordingly, it is important that policies are not fixed on the technology of the day.

Based on state best practices, ATA suggests some basic provisions for policymakers and health care stakeholders to start from in developing home telehealth policies to fit their needs.

PURPOSE: The purposes of providing home telehealth services are to allow more people to remain at home or other residential setting and to improve the quality and cost of their care, including prevention of more costly care.

DEFINITION: "Home telehealth" means the delivery of home health services using telecommunications technology to enhance the delivery of home health care, including--

- *Interactive video conferencing or recorded video*
- *Monitoring of clinical patient data such as weight, blood pressure, pulse, pulse oximetry and other condition-specific data, such as blood glucose*
- *Digital images and other clinical information using asynchronous transmissions*
- *Medication adherence monitoring*
- *Online patient engagement tools and condition-specific information.*

PATIENTS: Patient criteria are key to cost-effective use of home telehealth, including—

- *At-risk for more costly care or a recent history of costly service use due to one or more chronic conditions.*
- *Capable and willing to use home telehealth and maintains performance of needed tasks.*
- *The availability of informal caregivers to help with home telehealth.*

PROVIDERS: Eligibility should be open-ended to those who can meet performance criteria. An important aspect would be reporting of performance, outcomes and patient satisfaction.

EQUIPMENT: Home telehealth products should meet the following requirements:

- *Comply with applicable standards of the U.S. Food and Drug Administration*
- *Be interoperable with common home telehealth products*

- *Telehealth equipment is maintained in good repair and free from safety hazards*
- *New or sanitized before it is installation*
- *Accommodate non-English language options.*

REIMBURSEMENT: Home telehealth shall be eligible for Medicaid reimbursement, particularly under managed care, medical homes, accountable care organizations and other service and payment innovations.

¹ Baker LC, Johnson SJ, Macaulay D, and Birnbaum H. Strategies To Cut Costs: Integrated Telehealth And Care Management Program For Medicare Beneficiaries With Chronic Disease Linked To Savings. Health Affairs. September 2011; 30(9):1689-1697.

² Medicaid.gov, 2013. (<http://www.medicaid.gov/State-Resource-Center/Medicaid-State-Technical-Assistance/Health-Homes-Technical-Assistance/Approved-Health-Home-State-Plan-Amendments.html>)

³ Health Homes for Enrollees with Chronic Conditions Memo, CMS, November 2010.

(<http://downloads.cms.gov/cmsgov/archived-downloads/SMDL/downloads/SMD10024.pdf>)

⁴ Philips national study on the future of technology and telehealth in home care. 2008. Available from: (<http://www.medical.philips.com/resources/hsg/docs/en-us/custom/PhilipsNationalStudyFullReport.pdf>).

⁵ Draft guidance for Industry and Food and Drug Administration Staff – Mobile Medical Applications (<http://www.fda.gov/medical-devices/deviceregulationandguidance/guidancedocuments/ucm263280.htm>).

⁶ HB10-1005 Legislative Fiscal Note, Colorado General Assembly, June 2010.

([http://www.leg.state.co.us/clics/clics2010a/csl.nsf/billcontainers/3F24B90F9C022E75872576A80027DD4B/\\$FILE/HB1005_r1.pdf](http://www.leg.state.co.us/clics/clics2010a/csl.nsf/billcontainers/3F24B90F9C022E75872576A80027DD4B/$FILE/HB1005_r1.pdf))

⁷ Colorado Revised Statutes 25.5-5-321 (2012).

⁸ 10 Colorado Code of Regulation 2505-10.

⁹ Dept. of Health and Environment, Kansas Medical Assistance Program, Provider Manual, Home Health Agency, p. 33 (Jan. 2013).

¹⁰ New York Consolidated Law Service Public Health Sec. 3614.

¹¹ Washington Administrative Code Sec. 182-551-2010.

¹² Ibid. Sec. 182-551-2125.

¹³ A. Broderick and V. Steinmetz, Centura Health at Home: Home Telehealth as the Standard of Care, The Commonwealth Fund, January 2013.

¹⁴ Medicaid HCBS/FE Home Telehealth Pilot Report, Kansas Health Institute, 2010.

(http://media.khi.org/news/documents/2011/04/26/Telehealth_evaluation.pdf)

¹⁵ Federal Briefing Document: Home Telehealth: Enhancing Care, Saving Costs, Home Care Association of New York State, March 23, 2012. (<http://www.hca-nys.org/TelehealthBriefingDoc.pdf>)

¹⁶ Community Home Health and Hospice Final Report. Grant received from Office of Health Information Technology, Health Resources and Services Administration, DHHS. 2010.