Agenda
August 18, 2017
9:00am – 4:00pm

Location: Orlando Health Regional Medical Center
52 W. Underwood Street
Orlando, Florida 32806

Teleconference: 877-309-2071
Attendee Access Code: 206-176-086
Webinar: Webinar Registration Link

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 – 9:05</td>
<td>Welcome &amp; Introductions, Roll Call, Review &amp; Approval of Minutes</td>
<td>Chair Senior</td>
</tr>
<tr>
<td>9:15 – 9:45</td>
<td>Member Discussion – Telehealth Definition</td>
<td>Council Members</td>
</tr>
<tr>
<td>9:45 – 10:45</td>
<td>Member Discussion – Licensure and Telehealth</td>
<td>Council Members</td>
</tr>
<tr>
<td>10:45 – 11:00</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>11:00 – 12:00</td>
<td>Member Discussion – Patient Protection</td>
<td>Council Members</td>
</tr>
<tr>
<td>12:00 – 1:00</td>
<td>Lunch Break</td>
<td></td>
</tr>
<tr>
<td>1:00 – 1:30</td>
<td>Member Discussion – Technology Issues</td>
<td>Council Members</td>
</tr>
<tr>
<td>1:30 – 2:30</td>
<td>Member Discussion - Coverage &amp; Reimbursement</td>
<td>Council Members</td>
</tr>
<tr>
<td>2:30 – 2:45</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>2:45 – 3:15</td>
<td>Public Comments</td>
<td>Chair Senior</td>
</tr>
<tr>
<td>3:15 – 3:45</td>
<td>Member General Discussion</td>
<td>Council Members</td>
</tr>
<tr>
<td>3:45 – 4:00</td>
<td>Wrap Up &amp; Closing</td>
<td>Chair Senior</td>
</tr>
</tbody>
</table>

Meeting Materials and Information will be available at: www.AHCA.myflorida.com/Telehealth
Additional comments and information may also be sent to: Telehealth@ahca.myflorida.com
Clarification of June Minutes

Issue:

After review of the June meeting discussion, staff could not discern where a vote was taken on limited payment parity as noted by Dr. Bertha at the July meeting.

Action Needed:

Staff needs clarification from the Council on the if they support “payment parity” or “limited time payment parity”

References:

Excerpt from July’s Minutes regarding correction to June 20, 2017 Telehealth Advisory Council meeting minutes

Review and Approval of the May and June Minutes

The Council reviewed the May 2017 and June 2017 meeting minutes. Dr. Bertha noted an error in June’s minutes and requested staff correct the error. Specifically, he noted voting in favor of recommending the legislature consider implementing regulations requiring “limited time payment parity”. Dr. Bertha also shared the need to indicate Council votes had no impact on current regulations. Mr. Senior reiterated votes taken by the Council were to ensure consensus in order to develop an accurate reporting of the Council recommendations and they do not modify any Florida regulations.

Excerpt June 20, 2017 Meeting minutes regarding payment parity (with corrected vote)

Member Discussion and Next Steps

The Council discussed what they think should be included in the recommendations to the legislature. After much discussion regarding insurance coverage and reimbursement parity recommendations, there was a consensus to vote on the issues of coverage and reimbursement parity separately. There was also a consensus to include a minority viewpoint in the recommendation to the legislature on issues where there was not a unanimous vote.

After additional discussion, Mr. Manzie moved to include a recommendation for parity of insurance coverage on services provided by telehealth. The motion was seconded and carried unanimously.

After further discussion on the benefits and detractions of payment parity, Mr. Manzie moved to include a recommendation for parity of insurance reimbursement on services provided by telehealth. The motion was seconded and carried with Chair Senior and Ms. Miller opposed.

After much discussion regarding potential recommendations to be included in their report, the Council concluded their discussions. The consensus of the Council was to have staff develop the language regarding their parity recommendations for review at the need meeting.
Draft Minutes
June 20, 2017
Telehealth Advisory Council
WellCare
8328 Florida Ave.
Tampa, FL 32604

Members Present
Justin M. Senior, Chair
Dr. Celeste Philip
Dr. Ernest Bertha
Dr. Anne Burdick
Leslee Gross
Darren Hay
Dr. Kim Landry
William Manzie
Elizabeth Miller
Dr. Steven Selznick (virtual)
Matthew Stanton
Monica Stynchula
Dr. Sarvam Terkonda

Members Absent
Mike Smith

Staff Present
Nikole Helvey
Pam King
Dana Watson

Others Present
Interested Parties (Attachment A)

Call to Order
Chair Senior called the meeting to order at 9:00 a.m.

Roll Call
Chair Senior welcomed the group. Ms. Helvey called the roll and announced that a quorum was present.

Review and Approval of the Minutes
The Council will vote on the May 2017 meeting minutes at the July meeting.

Welcome from Wellcare
Wellcare’s CEO, Mr. Burdick, welcomed the Telehealth Advisory Council to Wellcare’s new facility. He gave a brief history of Wellcare and ensured the Council Wellcare is expanding their coverage of telehealth.

BayCare – Publix Collaboration
Vice President and Chief Medical Information Officer of BayCare Health System, Dr. Greg Hindahl, spoke about BayCare’s telehealth use in the past and future opportunities. He began by sharing information about BayCare’s large network of facilities and providers. He explained BayCare’s care continuum through a community-based model and elaborated on their inclusion of telehealth in this mode. He noted benefits of telehealth use as improved access, experience and convenience for patients and their families, and reducing hospital readmissions from both homecare and skilled nursing facilities.
Dr. Hindahl shared BayCare invested $21.5 million, using $20.5 million for eICU/TeleSNF and $1 million for other telehealth initiatives. The projected annual cost of these initiatives is $8.6 million. To date, Medicaid has reimbursed BayCare for limited pediatric behavioral health services $27,400. As part of the investment, they also developed “BayCare Anywhere,” which is a telehealth application for cellphones. This service provides round the clock coverage for patients with minor illness and conditions.

The use of telehealth at BayCare currently improves access to specialists in psychology, endocrinology, neurology and wound care. They also looking to the future and plan to use telehealth for post-trans catheter aortic valve replacement follow-up, as well as improving care for patients with abnormal mammograms. Dr. Hindahl reported that the use of telehealth in skilled nursing facilities has prevented over 120 readmissions since the program went live in August 2016. BayCare is also using telehealth in a home monitoring program for patients who are at a medium or high risk for readmission.

Dr. Hindahl shared that BayCare and Publix announced a partnership on March 17, 2017, extending health care option in Pinellas, Hillsborough, Polk and Pasco counties. Publix plans to construct telehealth rooms for private encounters. Publix will use FDA-approved stations to provide a convenient mechanism to collect a patient’s vitals, providing medically reliable data for care related to hypertension and congestive heart failure. An after visit summary and other information will be added to the patient’s electronic medical record.

In closing, Dr. Hindahl shared his belief that the lack of reimbursement by health plans is the single largest barrier to expanded use of telehealth. He suggested health plans must cover and reimburse for health care services appropriately provided via telehealth to the same extent as an in-person visit.

The Council asked Dr. Hindahl about staffing, reimbursement, and barriers regarding the BayCare/Publix telehealth locations. Dr. Hindahl reiterated his stance that the biggest barrier to the use of BayCare/Publix telehealth locations is the lack of reimbursements from Health Plans. The Council discussed the barriers as well as the advantages to using telehealth.

**Triple Care**

Dr. Mary Jo Gorman spoke to the Council for Dr. Chess, representing TripleCare, an “after-hour” telehealth provider. Dr. Gorman told the Council it is Triplecare’s mission to provide excellent, respectful, thoughtful medical care to patients on site. Their goal is to transform nursing facilities to a medical model by catalyzing a clinical and financial paradigm shift and integrating with facility clinical and payer staff. She opined that TripleCare has the most experienced providers of after-hours telemedicine care in nursing facilities in the country, operating in eleven states.

Dr. Gorman said their challenge is to keep nursing home residents out of the hospital. She reported that TripleCare provides highly trained physicians who provide excellent patient care to nursing home residents at the bedside via telemedicine. Through their model, TripleCare treated over 80% of their nursing home patients in place, reducing hospital readmissions and increasing nursing home revenue. Additionally, the use of after hour telehealth services appears to improve atmosphere in the skilled nursing facility through the elevation of nursing skills and morale, decreasing turnover and improving job satisfaction. The improvement of clinical outcomes helps
brand facility to key stakeholders, increases attractiveness to the community and referring physicians, and has high patient and family satisfaction.

She told the Council that their physician group includes a highly curated team of dedicated expert physicians, such as internists, geriatricians, hospitalists and family practitioners. She reported that each physician has a licensed in the state where the patient resides. Dr. Gorman, also shared information about TripleCare’s telemedicine unit. She described it as a video camera, monitor, and speakers mounted on a traditional medical cart. The unit includes a digital stethoscope, a pillow speaker and privacy phone.

Dr. Gorman shared three case studies with the Council and answered the questions of the Council members. The Council members discussed the payment model for TripleCare. They discussed how TripleCare’s after-hours availability reduces hospital readmissions by treating the skilled nursing facility or nursing home patient on site.

**Tallahassee Memorial Healthcare and Nemours**

Representatives from Tallahassee Memorial Healthcare (TMH) and Nemours Children’s Health System (Nemours) participated in a panel discussion regarding hospital implementation of telehealth services. Ms. Lauren Faison, from TMH reported that they are a not-for-profit hospital system with 31 physician practices and three (3) residency programs. The hospital system includes an acute care hospital, a psychiatric hospital and multi-specialty care centers, which share 772 beds. She noted TMH provides care for 17 counties, in Florida and Georgia, and has several partnerships with rural hospitals in those areas.

Ms. Faison advised TMH plans to increase patient access to primary and specialty care using telehealth. They currently use telehealth to promote successful transitions from in hospital care to post-acute facilities; high-risk follow-ups, nurse-to-nurse hand-offs, and transfers within the hospital. She shared that their current telehealth system was simplistic and low cost. TMH uses a secure, cloud-based model that can be used with any hand held telecommunication device. She advised that the telehealth budget was less than $50,000 per year.

Ms. Faison told the Council that the use of telehealth increases efficiencies within the health system, saving costs on transportation, duplication of tests and labs, shorter patient wait times, less physician time and lower cost of care. Reduced readmissions and unnecessary visits to the emergency room are other results of using telehealth for monitoring, post-acute visits, outpatient availability and increased communication. The result of using telehealth is the improved health and overall quality of life for patients.

Dr. Shayan Vyas, Medical Director of Telehealth for Nemours Florida reported to the Council that Nemours Children’s Health Systems has two (2) freestanding children’s hospitals and 86 CARE locations in communities across six states. He noted Nemours is able to deliver high-quality pediatric care to children at a distance through the use of simple telehealth platforms; resulting in increased access to pediatric expertise across state lines, improved care and outcomes, improved value to partners and reduces costs.

He shared that CareConnect is Nemours comprehensive telehealth program. Using CareConnect, Nemours has completed over 3,400 telehealth visits since 2014. Dr. Vyas provided some examples of CareConnect’s uses, such as communications from clinician-to-
clinician, from clinician-to-family, on-demand, and store and forward. He noted that there is integration for specialty care with the EHR. The physicians must maintain a bi-directional flow between EHR and telehealth platform, and the physician’s EHR does all of the scheduling.

Dr. Vyas shared that in their experience, parents are most willing to use telehealth services for common childhood ailments including cold and flu, pink eye, rash, and well-child visits. Well over half of the CareConnect users said they avoided a trip to the emergency department because of their online visit.

Dr. Vyas briefly discussed Nemours’ KidsHealth website. KidsHealth provides electronic instructional and educational brochures to help parents with practical guidance in plain language. The electronic brochures contain simple instructions and informative illustrations. The brochures are exclusively for pediatric patients and distributed by the clinicians via their EHR. More than 250 million parents, kids and teens visited KidsHealth.org in 2016, looking for advice and comfort on topics ranging from birth and development to emotions and behavior and relationships and bullying. Dr. Vyas also spoke briefly, about Nemour’s pilot remote monitoring program for children called TytoCare.

Dr. Vyas described store and forward telehealth opportunities in radiology, EKGs, and EEGs. He said that with 30 pediatric radiologist on-staff, Nemours employs one of the largest groups of pediatric radiologists in the U.S. Nemours radiologists completed approximately 285,000 reads in 2016 within the average time of less than 30 minutes.

Dr. Vyas closed with a prediction that social forces, including the mobility of the nuclear family, the aging of populations, and the rapid adoption of technology will expand the use of telehealth visits.

The Council asked if there were electronic medical record integration issues. Dr. Vyas responded that they do not have integration issues because Nemours has a bi-directional flow of information with its physicians.

The Council inquired how Nemours paid for their telehealth equipment. Dr. Vyas responded that they had received a $500,000 telehealth grant, which helped the physicians purchase their equipment.

Public Comment

Mr. Michael T. Smith distributed informational packets to the Council about PSYPACT. PSYPACT is an interstate licensure compact that facilitates the psychology licensure process. He noted the compact allows treatment of patient across state using telecommunication technologies and/or temporary, face-to-face psychological practice. He reminded the Council how PSYPACT works, as well as its benefits.

Mr. John Whitman spoke to the Council about efficiencies of the use of telehealth in nursing homes. He said with telehealth, a physician could see a nursing home patient and determine the necessary treatment on site, rather than an expensive readmission to a hospital.

Mr. Ronnie Cosse, representing the Florida Physical Therapy Association spoke to the Council about the advantages of using telehealth with physical therapy. He told the Council that before
he turned 25, he had been a pilot in the Marines when he hurt his back. He shared that he could have used telehealth for his therapy sessions.

Dr. Gardner, representing Gardner Audiology told the Council that he has seven offices in the Tampa Bay area, where he uses telehealth in his practice. He noted some the efficiency of using telehealth in rural communities. Dr. Gardner expressed concern with the lack of statutory authority for the regulatory boards to develop rules related to telehealth. Dr. Philip advised the Department of Health was working with the regulatory boards to provide guidance on development of telehealth regulations where possible. Chair Senior note the Council recommendations would include language that would optimize the use of telehealth by an array of health care providers.

**Smart Phone Accessibility by Medicaid Population**

Chair Senior directed the Council to information provided by the Medicaid Quality Bureau regarding cell phone access for Medicaid participants. He highlighted data provided by the Lifeline Emergency Phone Program. Lifeline as provided 750,000 phones to eligible participants, noting Medicaid participation as a means for qualification. The greatest mobile phone eligibility program is food assistance. In addition to the information provided by Lifeline, Medicaid Managed Care plans were asked if they provide information about the Lifeline program to their members. Chair Senior said that due to the decrease in the costs in technology, the Lifeline Programs was providing smart phones to the participants, allowing greater access to healthcare provided via telehealth.

**Member Discussion and Next Steps**

The Council discussed what they think should be included in the recommendations to the legislature. After much discussion regarding insurance coverage and reimbursement parity recommendations, there was a consensus to vote on the issues of coverage and reimbursement parity separately. There was also a consensus to include a minority viewpoint in the recommendation to the legislature on issues where there was not a unanimous vote.

After additional discussion, Mr. Manzie moved to include a recommendation for parity of insurance coverage on services provided by telehealth. The motion was seconded and carried unanimously.

After further discussion on the benefits and detractions of payment parity, Mr. Manzie moved to include a recommendation for parity of insurance reimbursement on services provided by telehealth. The motion was seconded and carried with Chair Senior, Dr. Bertha, and Ms. Miller opposed.

There was additional discussion about offering several reimbursement parity options to the legislature. These options include supporting parity for state plans like state employees, CHIP, and Medicaid.
Drs. Bertha and Philips suggested an option of limited time payment parity between 3 – 5 years. Mr. Manzie questioned which of the options would be included in the report and Mr. Senior suggested all of them would be included unless there was objection.

Ms. Miller suggested also including a recommendation on allowing providers offering services via telehealth to be included to meet insurers network adequacy. Ms. Miller and Chair Senior clarified the term network adequacy and how it was determined. After additional discussion about how telehealth providers would be included, Ms. Miller suggested using the language developed by the National Association of Insurance Commissioners (NAIC) presented earlier in the year. There was a consensus of the Council to include this recommendation in the report.

There was much discussion regarding potential recommendations to be included in their report.

**Patient Consumer Protection** - There was consensus to include a recommendation that the practitioner boards rules should not inhibit the use of telehealth.

**State Licensure** - Additionally the Council suggested a recommendation to encourage the use of licensure compacts when available and appropriate, with an alternative to consider temporary licensure for specialists in emergency situations or when there were limited specialists. Chair Senior noted the main goal in the recommendation is to streamline the process for becoming licensed in Florida for the purpose of telehealth increasing the use of telehealth. Ms. Miller suggested the report highlight the available licensure compacts. The final consensus of the Council was to recommend the legislature explore the feasibility of using licensure compacts when available and appropriate.

**Prescribing Requirements** – After much discussion, the consensus of the Council was to reject any requirement that would require a face-to-face visit. The Council noted the validity of the current Board of Medicine telehealth rule regarding prescribing.

**Consent** – After much discussion, the consensus of the Council was no additional consents for treatment are needed when offering care through telehealth, the language in a consent should be inclusive all risks for treatment. Including an additional consent could be a barrier to advancing telehealth. Chair Senior noted patients should have the option to choose whether they be seen via telehealth or in-person.

**Site and Transmission Fees** – There was discussion on site and transmission fees, the consensus of the Council was to not make any recommendation on transmission fees. There was additional discussion on Medicare coverage for services provided through telehealth. There was a conversation about inviting someone from Medicare to discussion the Council’s concerns regarding telehealth regulation at a federal level, including limitations associated with geography and patient location.

**Liability** – There was some discussion about if there was a concern among providers regarding malpractice coverage.

**Education** – There was some discussion around education of telehealth.
The Council concluded their discussions. The consensus of the Council was to have staff develop the language regarding their parity recommendations for review at the need meeting.

**Adjournment**

There being no further discussion, the Telehealth Advisory Council adjourned at 4:05 p.m.
Attachment A

Interested Parties in attendance at the June 20, 2017
Telehealth Advisory Council Meeting

Anna Baznik, IMPOWER; Amy Blakely, IMPOWER; Jan Borowski, Pediatrics in Brevard; Owen Cook, BayCare; Joanne Conter, Gardner Audiology; Ronnie Cosse, Direct DPT; Lauren Faison, Tallahassee Memorial Hospital; Daniel P. Gardner, Gardner Audiology; Carolyn Grant, Cardinal Health; Joni Higgins, BayCare; Greg Hindahl, BayCare; Doug Howse, BayCare; Aneel Irfan, Trapollo; Douglas Manning, Dentaquest; Debbie Sapp, Pediatrics in Brevard; Al Smith, WellCare/Staywell; Michael T. Smith, Florida Psychology Association; John Whitman, Wharton; and Angela Zeringue, Trapollo.
Draft Minutes
July 18, 2017
Telehealth Advisory Council
Boca Raton Regional Hospital
Women’s Institute
800 Meadows Road
Boca Raton, Florida 33486

Members Present
Justin M. Senior, Chair
Dr. Celeste Philip
Dr. Ernest Bertha
Dr. Anne Burdick
Leslee Gross
Darren Hay
Dr. Kim Landry
William Manzie
Elizabeth Miller
Dr. Steven Selznick (virtual)
Mike Smith
Matthew Stanton (virtual)
Monica Stynchula (virtual)
Dr. Sarvam Terkonda

Staff Present
Nikole Helvey
Pam King
Dana Watson

Others Present
Interested Parties (Attachment A)

Call to Order
Chair Senior called the meeting to order at 9:00 a.m.

Roll Call
Chair Senior welcomed the group. Ms. Nikole Helvey called the roll and announced that a quorum was present.

Review and Approval of the Minutes
The Council reviewed the May 2017 and June 2017 meeting minutes. Dr. Bertha noted an error in June’s minutes and requested staff correct the error. Specifically, he noted voting in favor of recommending the legislature consider implementing regulations requiring “limited time payment parity.” Dr. Bertha also advised there be an indicator noting Council votes had no impact on current regulations. Chair Senior reiterated votes taken by the Council were to ensure consensus in order to develop accurate reporting of the Council recommendations and they do not modify any Florida regulations.

After additional conversation and review, Dr. Terkonda made the motion to approve the May 2017 minutes. Mr. Smith seconded the motion, which carried unanimously.

After review, Dr. Burdick made the motion to approve the June 2017 minutes as corrected by Dr. Bertha. Dr. Landry seconded the motion, which carried unanimously.
Welcome from Boca Raton Regional Hospital Women’s Institute

Ms. Maureen Mann, Executive Director of the Boca Raton Regional Hospital Women’s Institute, welcomed the Council. She gave a brief history of the hospital and noted the hospital just turned 100 years old. She reported the hospital consists of 400 beds and they use technology throughout. She said they have five outpatient facilities serving approximately 3,600 patients. The Women’s Institute is an all-inclusive facility, hosting new Mom and new Dad classes as well as breast feeding classes. Ms. Gross asked if the hospital used telehealth. Ms. Mann responded that the hospital is currently using telehealth technology for stroke consultations.

Member Discussion – Coverage and Reimbursement

Ms. Helvey presented a draft of the Coverage and Reimbursement section of the report based on the Council input from the June meeting. She shared the Agency’s intent to bring additional draft sections of the report to the August meeting depending on the input from the current meeting. She was hopeful an initial draft of the report would be completed by the August meeting for the members edit as a group.

Chair Senior asked the Council to provide input on the draft provided by staff on coverage and reimbursement. The Council advised staff to divide the section into coverage parity and reimbursement parity as well as define the two terms in order to clarify the differences.

The Council members also discussed the need to make recommendations regarding changes needed at the federal level around Medicare coverage and reimbursement. There was much discussion around the current proposed changes to Medicare’s telehealth regulations. It was noted the status of Medicare provisions and any potential changes should be included in the Council’s report. The Council discussed the benefits of using telehealth when Medicare offered bundled payments. The Council requested Agency staff to gather more information on Medicare’s bundled payment policies. The consensus of the Council was to support changes to Medicare telehealth regulations, which would expand provider types, include various telehealth modalities, and eliminate location restrictions.

The Council reaffirmed their recommendation of modification to the Medicaid fee-for-service rule to include coverage of store and forward and remote patient monitoring modalities in addition to live video conferencing. They also reaffirmed the recommendation for the Agency to work with the Statewide Medicaid Managed Care plans to promote the expansion of telehealth utilization statewide. site-fee.

The Council discussed what policy suggestions they want be included in the report. Mr. Stanton voiced his desire for the report to be very specific in regards to private payer coverage and reimbursement parity. Chair Senior reiterated his stance regarding the ability for health plans to negotiate rates for all services for all physicians. There was additional discussion around providers being locked-in to fee-for-service contracts. Chair Senior noted there is no empirical evidence that parity improves access. Thirteen states have parity and thirty-three states have Medicaid and CHIP to cover telehealth services.

There was discussion on including a comparison between costs associated with using telehealth and costs reimbursed in the report. It was noted, besides Medicaid and Medicare, grants and
self-pay are the methods typically used for telehealth service payment throughout the state. The Council briefly discussed the opportunity to reduce costs for chronic care management with telehealth and referred to the New Hampshire example of a Medical Home model.

The Council also discussed the lack of sufficient reimbursement from Medicaid, Medicare, and commercial insurers being a barrier to provider adoption.

The topic of fraud and abuse for service reimbursement although related to insurance should be included in the patient protection and licensure sections of the report. It was noted fraud and abuse in healthcare is prosecuted the same whether the patient is in the room or is treated using telehealth technology.

**Break - 10:28-10:48**

**Member Discussion - Patient and Consumer Protection**

Chair Senior suggested standard of care for providers be included in the Licensure section of the report, rather than patient protection, noted although closely related it would flow better in the report. Dr. Philip shared the Department was working with Boards and Council to ensure there were no provisions precluding practitioners from offering services via telehealth, as long as they met the acceptable standard of care within the scope of their license. *(See Licensure Section)*

**Patient-Provider Relationship & Prescribing**

The Council suggested the report reject any requirements for a face-to-face meeting, prior to using telehealth to treat and prescribe medications to patients. The Council discussed the current Medical Boards’ rules on telehealth – which prohibits the prescribing of opioids without a face to face visit – with the exception of psychiatrists and emergency doctors. The consensus of the Council was to suggest the Florida Boards of Medicine and Osteopathic Medicine look at the rules regarding emergency opioid prescriptions to consider allowing other physicians to prescribe opioids using telehealth.

**Patient-Provider Relationship & Informed Consent**

The Council briefly discussed consent and consent forms for telehealth, the consensus of the Council was no additional consents are needed for treatment via telehealth. The Council, however, iterated the need to ensure patents have a right to choose whether they receive in-person or telehealth care, which Medicaid currently allows.

They agreed that efforts to share information with the patient as well as the patient’s medical home should be necessary. The continuity of care is important and the health care system should avoid individual silo type healthcare. The telehealth specialist should provide the patient records to the patient’s primary care provider.

**Patient-Provider & Continuity of Care**

The Council raised the concerned that in some cases, like direct to patient telehealth models, there was the potential of creating additional health care silos. The consensus of the Council was to add in a section regarding Continuity of Care and the need to ensure care coordination between providers treating patient and their primary care providers.
Lunch 11:27 – 12:36

Public Comment

Dr. Helen Ackerman, representing Psychologist asked the Council how the psychologists providing care through telehealth technology, could share information about reimbursement and other telehealth issues. Chair Senior responded that the Agency, the Department of Health, and the Office of Insurance Regulation sent telehealth surveys to their licensee to assess the use of telehealth and the barriers to telehealth in Florida. Chair Senior inquired if she had taken the Agency’s telehealth survey in the spring. She had not and asked for a copy of the survey.

Dr. Landry asked about the technology Dr. Ackerman uses. She responded that her office uses Direct-2-Points using Breakthrough.com, a Magellan product.

Mr. Aneel Irfan spoke to the group regarding a Palm Beach County Telehealth study and focus groups his former company completed for Quantum Foundation. He reported the study conducted site visits to observe how telehealth is being used and made recommendations for improvements. He said Palm Beach County is a very diverse area and is a great place to study telehealth usage. He noted gaps in specialty coverage and the Federal regulations regarding the originating site for reimbursement.

Mr. Smith asked if Palm Beach County schools were included in the study. Mr. Irfan indicated they were focusing on provider acceptance and usage initially and then they will look at going into the schools.

Mr. Randy Scheid, representing the Quantum Foundation told the Council that Quantum is a hospital diversion group. Quantum provides healthcare for the uninsured and underinsured in the Palm Beach area. He stated that Quantum wants to be a resource in the expansion of the use of telehealth. Chair Senior asked if Quantum would be willing to share the results of their study with the Council. Mr. Scheid indicated he would work to try to provide the report to the Council for their next meeting.

Member Discussion – Licensure Issues

Standard of Care Issues (see Patient Projection section of the minutes)

The Council reiterated their desire to include recommendations about standard of care in the licensure section of the report. Mr. Manzie shared that by virtue of the Board of Medicine having a specific telehealth rule, it creates confusion among other provider types, such as Advanced Registered Nurse Practitioners, on their ability to provide services via telehealth. The Council suggested the Department of Health continue their efforts clarify misunderstandings, and telehealth myths, which become barriers to providers in offer services via telehealth. There was additional discussion on avenues for educating providers on the use of telehealth.

Mr. Smith inquired if there would be issues surrounding Baker Acts. Dr. Bertha noted lifting the Baker Act could become an issue.
The Council agreed that any health care provider could use telehealth within their scope of practice. There was consensus that Florida licensure should be required when treating Florida patients via telehealth.

The Council discussed including the telehealth training in medical and nursing schools. Mr. Smith suggested sharing with the Florida Council School of Deans the need to share telehealth best practices.

**Licensure and Licensure Portability Issues**

After much discussion, the consensus of the Council was to recommend practitioners be licensed in the state if they are treating Florida patients. They further recommended utilization of interstate compacts where appropriate to expedite the licensure process.

**Telehealth Definition**

Chair Senior, next, guided the Council to discuss the Telehealth definition to be included in the report. Dr. Selznik suggested a clarifying statement listing the telehealth services not allowed. He indicated his belief there should be no requirements for initial in-person visit, use of the hub and spoke model, or limit on the location of the provider.

After much discussion, the Mr. Smith moved to recommend the legislature define telehealth in statute broadly, in order to ensure the definition itself does not become a barrier. He noted the definition should be inclusive of delivering health care and public health services, synchronous and asynchronous modalities, and there should be no limitation on geographical or site locations. Additionally, the definition should note providers treating Florida patients must be appropriately licensed in the state and those providers must treat within the scope of their practice. Mr. Manzie seconded the motion, which carried unanimously.

The Council suggested the following definition as an example of what they recommend:

*Telehealth means the mode of providing health care and public health services through, synchronous and asynchronous, information and communication technology, by a Florida license practitioner, within the scope of their practice, who is located at a site other than the site where a recipient (patient or licensed practitioner) is located.*

**Break 1:48 – 2:05**

**Member General Discussion**

The Council briefly discussed patient acceptance of telehealth technology used in their treatment, adding that Medicaid patients can request a face-to-face appointment if they are not comfortable with the use of telehealth.

They want the report to include a summary of the current telehealth landscape in other States, as well as their use cases. The use cases should include the savings from the lack of transportation costs, as well as the other cost saving methods used.
The Council next discussed the network adequacy of the providers in Florida. Chair Senior ensured that new procurement for the Statewide Medicaid Managed Care vendor would include the requirement of a large network and would include the use of telehealth services.

The Council members discussed “access” versus “costs.” In regards to the long-term totality of care, the initial costs will provide the patients with a short-term increase in care and a long-term reduction in the patient’s health care needs.

The Council members contemplated why full-risk providers are slow to adopt telehealth. Chair Senior responded that ACOs are just beginning to utilize telehealth as their providers adopt the technology.

**Public Comment**

Ms. Molly Ferguson, representing Florida Community Health Centers and Federally Qualified Health Centers (FQHC) told the Council that there are six counties in Florida experiencing low broadband access. She reported that FQHCs face barriers caused by Federal liability regulations.

**Next Steps**

Agency staff will compose a draft of the telehealth report and provide it to the Council for review and comments prior to the next meeting.

**Adjournment**

There being no further discussion, the Telehealth Advisory Council adjourned at 3:00 p.m.
Interested Parties in attendance at the July 18, 2017
Telehealth Advisory Council Meeting

Helen Ackerman, Dr. Helen Ackerman, PA; Molly Ferguson, Florida Community Health Centers; Carolyn Grant, Cardinal Health; Joni Higgins, BayCare; Aneel Irfan, Trapollo; Randy Scheid, Quantum Foundation; Vanessa Ziccard, Florida Physical Therapy Association; and Susan (last name unreadable), Florida Health Care Law Firm.
Telehealth Definition
The Council heard testimony from numerous stakeholders on the broad array of telehealth applications. The use of telehealth crosses most health service disciplines including, but not limited to, primary medical care, specialty care, chronic disease management, behavioral counseling, physical therapy, speech therapy, pharmacy, and home health. There are as many definitions of telehealth or telemedicine as there are use cases and applications.

The American Telemedicine Association uses the terms telemedicine and telehealth interchangeably. Other entities use the term telemedicine as a specific reference to the practice of medicine and telehealth as an encompassing term inclusive of the broader scope of health care. Experts and stakeholders expressed the need for a clear definition of telehealth. Providers indicated the need for a definition to clarify the use of technological modalities is a viable way to treat patients within their scope of practice. Health plans noted the need for clarity in the allowable modes of telehealth for coverage and reimbursement purposes.

Recommendation(s):
There are several definitions for “telemedicine” in Florida regulations, but none for “telehealth”. These definitions for telemedicine do include the broader language associated with the term “telehealth”. In order to provide clarity, the Council recommends that a definition of telehealth be included in statutes. Although many entities use the term telemedicine and telehealth interchangeably, the term telehealth denotes the depth and range of the uses and modalities. The Council determined the need for a broad definition of telehealth in order to provide lucidity on acceptable uses of current technology for treating patients, without becoming a barrier to technological innovations in the future.

To ensure clarity, the Council believes a telehealth definition should be inclusive of six key components:

1. Telehealth can be used for providing health care and public health services
2. Telehealth includes synchronous and asynchronous modalities
3. Providers treating Florida patients must be appropriately licensed in Florida
4. Providers must treat within the scope of their practice
5. Telehealth can be provider to provider or provider to patient
6. There should be no limitations on geographical or site locations

The Council suggests the following language as a clear definition of telehealth for Florida:

*Telehealth means the mode of providing health care and public health services through, synchronous and asynchronous, information and communication technology, by a Florida license practitioner, within the scope of their practice, who is located at a site other than the site where a recipient (patient or licensed practitioner) is located.*
Health Practitioner Licensure and Telehealth

The ability for technology to bring health care to the patient irrespective of location expands the reach of health care providers in Florida. This expansion of health care access also allows Florida patients to receive care from health practitioners in other states and countries. In order to protect patients and ensure accountability of health care providers, stakeholders provided strong testimony to the Council for requiring state licensure when treating a Florida patient with appropriate standards for care.

Interstate Licensure

To ensure patient protection and health practitioner accountability, the Council supports the need for practitioners to be licensed in the state in which the patient resides. There is an opportunity to increase access to care from practitioners residing in other states through interstate licensure compacts. Nine (9) licensed health care professions currently have or are developing interstate compacts (Attachment 3), including Florida’s current licensure compact for nursing, which the Florida legislature adopted in 2016. Compacts form when a certain number of states enact the same legislation. Joining a compact is voluntary on the part of the provider and the state maintains jurisdiction over the practitioners providing care to patients within its borders. Compact provisions vary from profession to profession. The Federation of State Medical Boards’ (FSMB) Interstate Medical Licensing Compact creates an expedited process for eligible physicians to apply for licensure in compact states. The intent is to provide a less onerous process for physicians seeking licenses in multiple states. The Nurse Licensure Compact creates a multi-state license similar to a driver’s license, where the initial licensing state and other compact participating states all recognize the license.

Recommendation(s):

The Council recommends the continued requirement of Florida licensure for health practitioners treating patients residing in Florida. This recommendation requires no change to current regulations and does not inhibit the use of telehealth to treat patients.

The Council also recognizes that time and expense to attain licensure in multiple states can be a barrier to expanding practitioner’s use of telehealth. In order to facilitate a more expedient licensure process in multiple states, the Council recommends that the State of Florida consider participation in health care professional licensure compacts when available and applicable. Participation in the compacts will also provide opportunities for Florida licensees to treat patients residing outside the state.

Telehealth Standards for Licensees

The Florida Department of Health (Department) has informed the Council that current health care professional licensure requirements do not preclude the ability of Florida licensed practitioners to use telehealth as long as it is within their authorized scope of practice and adheres to established Standards of Care. The Department is working to ensure licensees are aware the current law does not preclude them from offering services via telehealth. The Council recognizes Telehealth as a modality for providing health services as opposed to a separate service; therefore, the established standards of care for each health profession still apply. Some stakeholders (i.e. Physical Therapists, Occupational Therapists, Audiologists, Speech-Language Pathologists, etc.) have indicated a need for specific statutory authority to develop telehealth practice standards related to telehealth, similar to the Boards of Medicine and
Osteopathic Medicine. Other stakeholders deem the use of the general standard of care provisions in regulation sufficient for practitioner oversight.

Recommendation(s):
The Council suggests the practitioner regulatory boards with the assistance of the Department of Health continue to educate licensees on the use of telehealth modalities to treat their patients when appropriate.

i Florida House Bill 1061. 2016.
iv Board of Medicine Rule 64B8-9.0141 Standards for Telemedicine, Florida Administrative Code and Board of Osteopathic Medicine Rule 64B15-14.0081, Florida Administrative Code
Patient/Consumer Protection

Patients should have confidence in the health care services they receive, whether delivered in-person or through telehealth. It is essential that patients understand they have a right to choose whether they receive in-person or telehealth care. No matter what delivery model, they should expect competent, confidential care and trust their providers will provide the necessary information for the patient to make informed decisions. The health care providers’ ethical responsibility to the patient is the same no matter to modality of care.

There is also an ethical responsibility by health practitioners to avoid fraud and abuse of services delivered through telehealth. Stakeholders acknowledge the ability for fraud and abuse to be monitored within telehealth programs in the same ways as in-person health care services. The risk of provider abuse or fraud in telehealth may not necessarily be higher than any other mechanism of care. A provider, who bills for a disproportionate amount of services, may warrant an audit, no matter if the services are provide through telehealth or a more traditional mode of care.

Patient-Provider & Continuity of Care

The use of telehealth does not diminish issues related to patient care, including care coordination. Ideally, when a patient receives care, information from the episode is integrated into coordinated systems and services. There is some concern among providers and payers, who are being increasingly held financially accountable for patient care outcomes, about fragmented care from different providers or duplication of services when patients seek or receive care outside of established provider networks. Similar to urgent care visits, direct to patient telehealth services could deliver episodic care without the information ever being shared with the patient’s primary care providers; thus creating health care silos. Although the Council recognizes the ability for healthcare providers and patients to establish a relationship through telehealth, they also note the need to ensure a patient’s care is coordinated among treating providers.

Recommendation(s):

The Council recommends that Florida providers and policymakers seek out methods to ensure a patient’s care is coordinated among their treating providers. Chapter 2009-172, Laws of Florida, provides standards for the exchange of data between health care providers. (See also “Interoperability” under the Technology section of this report.)

The Council supports initiation of provider-patient relationships through telehealth technology; and discourages the adoption of policies that would require patients to first be seen by a specific provider in-person before telehealth services can be offered. The Council members acknowledge the additional burden that may be imposed on patients who may not have the ability to seek in-person treatment from a certain provider.

Patient-Provider Relationship & Consent

Prior to providing any health care services, practitioners are required to ensure that the patient (or legal guardian) is aware of the benefits, risks, and alternative courses of action they may take for their care. This information is provided through an informed consent. Informed consent also relates to providers’ liability and legal exposure. In the case of telehealth, it may be particularly beneficial for patients to
know the potential risks, and to understand that a condition or treatment may require a provider to defer to in-person services. Section 766.103, Florida Statutes, governs the providing of medical consent for treatment. The Florida provisions apply when treating patients through any delivery mechanism.

**Recommendation(s)**
Although some states require an additional consent for treating patients using telehealth, the Council recommends adhering to the current consent laws already in place in Florida. The Council notes that additional consent requirements may add unnecessary barriers to offering telehealth services.

**Physician-Patient Relationship & Prescribing**
Many medical conditions and procedures require prescription medications as an integral component of the treatment plan. The *Ryan Haight Act* is a federal regulation regarding the prescribing of controlled substances through the internet. The Ryan Haight Act does clearly recognize telehealth as a viable means of creating a treating relationship.\(^i\) This federal regulation prohibits the prescribing of a controlled substance based solely on answering a questionnaire. At the state level, the Florida Medical Boards’ rules on telehealth prohibits the prescribing of opioids without a face-to-face visit – with the exception of psychiatrists and emergency doctors.\(^\text{ii}\) This provision also specifies requirements needed to ensure a complete record for any prescriptions. Although other health practitioners who prescribe do not have specific standard of care provisions, the Ryan Haight Act and scope of practice laws do provide boundaries for prescribing controlled substances when delivering care.

**Recommendation(s)**
Noting an exception for controlled substances, the Council recommends rejecting any provision that would require an in-person examination prior to treating and prescribing medication via telehealth.


\(^{\text{iii}}\) Board of Medicine Rule 64B8-9.0141 Standards for Telemedicine, Florida Administrative Code and Board of Osteopathic Medicine Rule 64B15-14.0081, Florida Administrative Code
Technology
The technology used to provide telehealth services is well established; it has existed for more than 40 years. Innovations in this technology are creating greater accessibility to different telehealth modalities. There are several overarching technological concerns, however, noted as barriers to implementing and expanding the use of telehealth for treating patients. Primary issues in the current market include limited access to technology and system networks (internet connectivity) in isolated communities, equipment costs, and challenges related to interoperability with other health care technologies and documentation systems.

Access to Technology
Nationally, stakeholders have identified limitations in access to computers or mobile devices and broadband connectivity as barriers to telehealth expansion, especially among rural, geographically isolated, or otherwise underserved communities. Although the technology exists and is available, the challenges faced by vulnerable populations in some areas in accessing these technologies are viewed as impediments to telehealth expansion.

Accessibility
While it is noted that some populations are less likely to have access to computers in a way that would enable them to be used for telehealth, Council members also noted that many health services can be provided virtually through less expensive mobile devices such as smartphones. A vast majority of the United States population now have a cellphone of some kind, including 92% of adults with an income of less than $30,000 a year. A portion of this population, typically younger adults, non-whites, and lower income population are dependent on their smartphones for internet access.

The Florida Public Service Commission operates and administers the federal LIFELINE program in Florida, which provides free or discounted mobile phones to individuals who are eligible and enrolled in certain social services programs. For example, recipients of federal Social Security benefits, Medicaid beneficiaries, and persons eligible and enrolled in Supplemental Nutrition Assistance Programs (SNAP) are automatically deemed eligible for a phone through this program. Initial implementation of the program did not include “smartphones”, but the more modern phones currently offered through the program are enabled with video and internet capabilities. Only about 50% of qualifying individuals participate in the LIFELINE program. Several of Florida’s Medicaid Managed Care plans promote LIFELINE services to their members in order to support health care management.

Connectivity
The adoption of traditional broadband service has slowed in recent years, as a growing share of Americans now use smartphones and/or similar hand held devices as their primary means of online access at home. Today just over one-in-ten American adults are “smartphone-only” internet users – meaning they own a smartphone and do not have traditional broadband service at home. This growing independence from in-home broadband services, however, does not diminish the need for a strong broadband network in order for telehealth services to expand.

Florida has been very successful in implementing broadband connections throughout the state and is considered one of the top ten “most connected states” by Broadband Now, a national organization that
compiles data from the Federal Communications Commission (FCC), the U.S. Census Bureau, broadband providers, resellers, IP-verified customers and other sources. In 2009 the National Telecommunications & Information Administration (NTIA) within the U.S. Department of Commerce launched the State Broadband Initiative (SBI) program to implement the joint purposes of the Recovery Act and the Broadband Data Improvement Act. Florida’s broadband initiative administered through the Department of Management Services awarded more than $8.8 million in federal grants to expand coverage since 2011. Currently, over 97% of Floridians have access to wireline services and 100% have access to mobile broadband services. A small segment of the population in Florida, about 500,000 individuals, have access to the internet through mobile broadband only. Mobile broadband allows individuals to access the internet from their mobile devices. Telephone and data service providers, however, typically set limits on the amount of data a user can consume. These limits can inhibit some individuals from using their devices to receive health services via telehealth due to the additional costs imposed by telephone and data service providers for exceeding data limits.

**Recommendation(s):**
The Council recognizes the need for patient access to technological devices in order to expand telehealth use among the state’s more vulnerable populations. Council members recommend continued and increased support and promotion of existing programs, such as LIFELINE, that provide access to these devices to eligible individuals and families.

Broadband networks are the backbone of internet access, thus a fundamental requirement for expanding telehealth services. The Council applauds the significant accomplishments achieved by Florida in expanding and implementing broadband access throughout all regions and communities. The Council recommends supporting ongoing efforts to support broadband service coverage.

**Equipment Costs**
Florida health care providers specifically identified the cost of equipment needed to treat patients using telehealth as a barrier. The growing telehealth market and continually innovative technological landscape, however, are indicative of price point reductions. Further research and stakeholder input suggests the availability of technology at varying price points. There are also federal grant funding programs available to implement telehealth programs. Information about the availability of funding and resources to assist providers are available through federally funded Regional Telehealth Resource Centers. The Southeastern Telehealth Resource Center provides resources and guidance to providers in Florida on implementing and expanding telehealth services at varying price points.

**Recommendation(s):**
Increased knowledge and awareness among providers related to currently available resources and funding is needed in order to promote greater adoption of telehealth technology. The Council recommends promotion and support of existing programs and services among practitioner associations and others to assist their providers in taking advantage of these valuable opportunities.

**Interoperability**
A common challenge among health care facilities and practitioners both nationally and in Florida is pertains to gaps in interoperability between various technology vendors. Florida health care facilities have indicated the lack of interoperability between providers is a significant barrier to implementing telehealth. A bipartisan focus group brought together by Health Affairs and the Bipartisan Policy Center
identified the lack of interoperability between electronic health record systems and medical devices as a barrier to telehealth expansion. The participants noted that the lack of interoperability is both a technical and human issue. In some instances, the technical capability in place limits sharing of data; however, in some cases technology vendors, individual practitioners, or health facilities express an unwillingness to share information with other health care providers. In addition to interoperability between health care provider data systems, there is also a lack of interoperability between telehealth technology and electronic health record (EHR) platforms. Without interoperability between systems, communication gaps increase and hinder the continuity of patient care.

Technology vendors and health care organizations are working to improve systems interoperability through national organizations that support data exchange, such as the national eHealthExchange. The eHealthExchange is a group of federal agencies and non-federal organizations that came together under a common mission and purpose to improve patient care, streamline disability benefit claims, and improve public health reporting through secure, trusted, and interoperable health information exchange. In Florida, the Agency for Health Care Administration (Agency) supports and provides information about data sharing within communities. The Agency provides governance for the statewide Heath Information Exchange (HIE) program, which offers services that allow sharing of patient information between healthcare providers when needed. The Agency is currently preparing to launch an in-depth environmental scan of interoperability in Florida. The information from the scan will help identify interoperability gaps and recommendations on how to assist health care providers with data sharing.

Recommendation(s):
The Council recommends promoting existing programs and services available to assist healthcare providers in taking advantage of interoperability opportunities.

---


Health Insurance and Telehealth

A large proportion of Florida health care stakeholders identify issues surrounding coverage and reimbursement as primary policy concerns influencing the delivery and growth of telehealth services. Health care facilities and professionals have reported through surveys and testimony to the Council that there is a lack of adequate coverage and reimbursement for health care services provided using telehealth technologies. Some stakeholders have expressed hesitancy to invest in telehealth programs, citing that without sufficient reimbursement they are unable to generate sufficient Return-On-Investment (ROI). Confirming these reports from providers, a majority of Florida’s licensed health insurers and Health Maintenance Organizations (HMOs) indicated in their response to the state’s Telehealth Utilization and Accessibility survey that they offer only limited coverage, if any, for telehealth services. Among Florida insurers that do cover telehealth, coverage is typically limited to specific circumstances and methodologies or require special coding.

Executive leaders from the American Telemedicine Association and the Center for Connected Health Policy, the nation’s federally funded national telehealth policy resource center, presented information to the Council demonstrating that thirty-four (34) states and the District of Columbia have established health insurance parity regulations to address gaps in coverage and reimbursement for telehealth services. The Council has acknowledged a clear distinction between telehealth insurance coverage parity and reimbursement parity. Coverage and reimbursement parity laws apply varyingly to private and public payer plans in each state where they exist.

Policies governing the nation’s primary public health care programs, Medicare and Medicaid, also play a key role in shaping Florida’s telehealth landscape. These Federal programs strongly influence how states are able to serve senior and vulnerable populations, including patients who are dually eligible for both Medicare and Medicaid. There are efforts underway among members of Congress to modify current Medicare payment guidelines to support the expanded use of telehealth services nationally. States, including Florida, have greater flexibility to develop policy for their Medicaid programs, and enjoy full authority to establish guidelines for coverage of employees through state employee group health insurance programs, worker’s compensation, and similar state-sponsored programs.

The national paradigm shift among private and public payers toward quality and performance-based payment models serves as another driver to increase telehealth utilization. These value-based payment arrangements incentivize providers to achieve the highest possible quality of care while minimizing costs. The thoughtful integration of telehealth modalities into provider workflows can strongly support practitioners in meeting these goals.

Telehealth Insurance Coverage

A number of health care facilities and licensed health professionals have implemented successful telehealth programs and have reported real benefits in terms of cost savings, quality outcomes, and customer satisfaction. Others have been more reluctant to move toward the use of innovative technologies without stronger assurance that a return on their investment is achievable. One approach taken by some states to provide such assurance is through regulations requiring telehealth coverage parity. Telehealth coverage parity is recognized by the Council as a requirement of health plans to include benefits for services provided via telehealth, when possible and appropriate, to the same extent the plan already covers the same services if provided in-person, but is silent regarding the amount of
payment for those services. Coverage parity does not require health plans to provide any new service lines or specialties, and is intended to ensure that patients have options for how they may be seen by health care providers, including in-person or virtually. iv

Coverage of telehealth services, whether voluntary or required, has also led to new discussions around network adequacy requirements among health insurers and their stakeholders. The National Association of Insurance Commissioners (NAIC) has developed a Managed Care Network Adequacy Model Act as a guide for state lawmakers for evaluating insurers’ provider networks. This model includes potential uses for telehealth in meeting a state’s network adequacy requirements. If adopted, these measures offer a valuable benefit and incentive for health plans to cover telehealth services.

Recommendation(s):
The Council recommends that Florida’s legislature consider regulations requiring Florida-licensed health insurance plans and Health Maintenance Organizations (HMOs) to provide coverage parity for health care services provided via telehealth.

Telehealth Insurance Reimbursement
Telehealth reimbursement parity is recognized by the Council as a requirement of health plans to pay providers for covered telehealth services at an equivalent rate as the in-person reimbursement for the same service. v The Council received a great deal of input from providers, payers, and stakeholders through research findings, survey data, and direct testimony regarding reimbursement for telehealth services. Reimbursement parity is a complex issue that must be considered from a variety of perspectives. A majority of providers, for example, offer that adequate funding of telehealth through reimbursement will serve to stimulate greater adoption of telehealth, which would increase access to care and reduce overall health care spending over time. Conversely, some payers and researchers predict that enhanced access through telehealth will increase utilization, which would result in increased spending under traditional fee-for-service payment models. State policymakers must also consider whether forced payment parity stifles individual providers’ ability to competitively promote their telehealth programs to payers and other stakeholders separately from their in-person services.

The Council recognizes that the current and evolving national paradigm shift toward quality and performance-based health care payment models has significant potential to drive greater market use of telehealth regardless of whether or not payment parity is mandated. The U.S. Center for Medicare and Medicaid Services (CMS) is a primary driver of health care policy nationally and has launched a variety of value-based programs over recent years designed to reward providers for more favorable outcomes and restrict reimbursement for services resulting in less favorable outcomes and/or higher costs. Those CMS programs include:

- Hospital Value-Based Purchasing Program (HVBP)
- Hospital Readmission Reduction Program (HRR)
- Value Modifier Program (aka: Physician Value-Based Modifier or PVBM)
- Hospital Acquired Conditions Program (HAC)
- End-State Renal Disease Quality Initiative Program (ESRD)
- Skilled Nursing Facility Value-Based Program (SNFVBP)
- Home Health Value Based Program (HHVBP)
An increasing number of private and commercial health plans have adopted similar strategies to contain costs and improve care outcomes among their provider networks. Council members acknowledge that thoughtful planning and implementation of integrated telehealth strategies can assist providers in more efficiently and effectively meeting the goals of these types of programs. Given the potential of value and performance based purchasing to drive the market toward greater use of telehealth over time, a majority of members have expressed support for the concept of telehealth reimbursement parity for only a limited amount of time while these greater market forces continue to evolve and grow.

Recommendation(s):
The Council recommends that the Florida Legislature consider time-limited regulations requiring equivalent health plan reimbursement for covered health care services provided to members and enrollees whether provided in-person or using telehealth.

Medicare
Although Medicare is a federal program, Medicare regulations often influence how states are able to serve vulnerable populations, including patients who are dually eligible under both the Medicare and Medicaid programs. There are many caveats governing telehealth coverage under current Medicare payment guidelines, including strict requirements for the geographical location and care setting of patients, and limitation to specific technological modalities. The United States Congress is currently considering several bills that would expand or modify the Medicare telehealth policy. One example is the Medicare Telehealth Parity Act, a bipartisan effort that would incrementally expand Medicare coverage to include allied health providers such as physical therapists, occupational therapists, audiologists, speak-language pathologists, and others; would allow a wider variety of telehealth modalities to be covered; and would expand the list of qualifying geographical locations. The Council finds the current Medicare policies related to telehealth coverage and reimbursement to be a significantly limiting factor to growth and innovation, and supports congressional efforts to expand coverage and reimbursement of telehealth in Medicare.

Recommendation(s):
It is the consensus of the Council that the State of Florida support modifications to Medicare telehealth regulations that would expand coverage to include remote patient monitoring as well as store and forward modalities; expand of the types of providers covered; and revise or eliminate the existing geographical and place of service requirements.

Medicaid
The Florida Medicaid fee-for-service rules were updated in June 2016 to expand the availability of telehealth reimbursement to a broader array of licensed health care practitioners. Similar to Medicare, Medicaid coverage in Florida is currently limited to live video conferencing, and pays the practitioner that provides the diagnosis only. With the vast majority of Florida Medicaid beneficiaries enrolled in managed care, Florida’s Medicaid Managed Care plans are authorized to cover telehealth services with greater flexibility, although there is no state mandate for coverage. Based on survey responses from Florida licensed health plans and HMOs, coverage for telehealth is currently greatest among Florida Medicaid Managed Care plans and Affordable Care Act Exchange Plans.
Recommendation(s):  
The Council praises Florida Medicaid for its support of the expanded use of telehealth within the Statewide Medicaid Managed Care program, as well as its continued efforts to modify administrative rules governing the Medicaid Fee-for-Service program to support the use of telehealth. The Council recommends the Agency consider modifications to the Medicaid telehealth fee-for-service rule to include coverage of store and forward and remote patient monitoring modalities in addition to live video conferencing. The Council also recommends the Agency work with the Medicaid Managed Care plans to promote the expansion of telehealth utilization statewide.

Insurance Network Adequacy  
The National Association of Insurance Commissioners (NAIC) defines network adequacy as “a health plan’s ability to deliver the benefits promised by providing reasonable access to a sufficient number of in-network primary care and specialty physicians, as well as all health care services included under the terms of the contract”. Network adequacy minimum requirements are established to ensure consumers have access to needed care without unreasonable delay. The NAIC has developed a Model Network Adequacy Act for use by states in developing regulations around this issue. The Act includes provisions allowing providers who offer services via telehealth to be factored for purposes of network adequacy.\textsuperscript{ix} Colorado was the first state to allow insurers to count available telehealth services in meeting network adequacy requirements for certain specialties.\textsuperscript{x}

Recommendations(s):  
The Council supports the NAIC provisions related to telehealth as a means to ensure network adequacy among health plans and HMOs.

\textsuperscript{iii} State Telehealth Laws and Medicaid Program Policies. Center for Connected Health Policies. April 2017  
\textsuperscript{v} Lacktman, N. Telehealth Coverage vs. Payment Parity. Aug. 11. 2015  
\textsuperscript{vii} § 59G-1.057, Florida Administrative Code. Print.  
\textsuperscript{viii} Florida Report on Telehealth Utilization and Accessibility. Agency for Health Care Administration. December 31, 2016  
Reference Materials:

Email from Assistant Attorney General re: Board of Medicine’s Telehealth rule in response to question by Mr. Stanton

Email Correspondence from Cameron Kilberg to the Council regarding professional licensing and telemedicine

Link to National Broadband Health Map

Link to Florida FirstNet submitted by Dr. Landry – Information on Florida’s Public Safety Broadband Network

Correspondence from Richard P. Long, Ph.D., LMFT regarding licensure portability

Link to A. Nicole Clowers, Managing Director, Health Care to US House of Representatives Subcommittee on Health and Technology submitted by Ms. Stynchula

Article: New Jersey’s Telemedicine Law: What Providers need to Know by Nate Lacktman, submitted by Ms. Gross

Summary of Pending Federal Legislation CHRONIC Care Act of 2017 submitted by Mr. Hay

Link to Article: Is Telemedicine Change Coming to Congress? The Medicare Telehealth Parity Act of 2017 Among Several New Federal Bills by Nate Lackman & Thomas Ferrante submitted by Mr. Manzie

List of 2017-2018 Congressional Legislation re: Telehealth


National Quality Forum: Draft Report for Comment “Creating a Framework to Support Measure Development for Telehealth” June1. Submitted by Mr. Smith and Dr. Burdick
Email from Assistant Attorney General re: Board of Medicine’s Telehealth rule in response to question by Mr. Stanton

Subject: Florida Telehealth administrative code BOM 64B8-9.0141.doc

Hello, I was reading over the attached code from the board of medicine and I didn’t recall having a detailed discussion about paragraph 6.a. highlighted here at our previous meetings. Forgive me if we did and I’m not recalling it, but I have a question about the intent and letter of this code, and I would like to see if we could discuss it at our next meeting. Maybe you could ask others to read it in advance and come with their thoughts. My lawyers are reading this code and saying that without a physical examination required in 6.a., that we cannot provide treatment recommendations as stated in 6. My lawyers interpret this to mean that a physical exam which would normally in person involve touching, manipulating, feeling, listening, etc, is required and therefore one may not provide treatment of any kind by telemedicine. I tend to think this is not the intent, however, I do think that it is worth discussing. Let me know what you think.
Thanks,
Matt

Pam King Request for Inform from AHCA Staff to AAG:

Does the Board of Medicine’s telehealth rule require a doctor to have an in-person examination prior to the doctor offering telehealth services? Or is that specifically for prescribing controlled substances (exception permitting – I realize the controlled substance part does not apply to psychiatry and emergency medicine)?

Ed Tellechea Assistant Attorney General Response

No. It does not require an in-person examination. It just requires a physical evaluation that can be conducted via telehealth technology. As for controlled substances prescribing, that’s a different story. You cannot prescribe controlled substances via telemed unless you are treating psychiatric disorders.
Email Correspondence from Cameron Kilberg to the Council regarding professional licensing and telemedicine

Telehealth Advisory Council
Agency for Health Care Administration
telehealth@ahca.myflorida.com

Mr. Senior, on behalf of the full Council:
In response to the Council’s last meeting on July 18, 2017 PresenceLearning would like to provide feedback and comments on the issue of professional licensing and telemedicine.

PresenceLearning considers Florida a leader in telemedicine, and applauded Florida Medicaid’s June 2016 regulatory rule change to include coverage for telemedicine services. However, to ensure that Florida remains a leader in telemedicine, licensing for providers must not be inhibited.

In addition to the Council’s interest in licensing compacts, the Council should consider the following:

An expedited process for those practicing telemedicine. The council should consider the promotion amongst boards of both short-term and limited practice licenses for providers while a formal license is pending and the use of specific telemedicine license for those who will not be practicing physically in the state.

Universal background checks. We understand the importance of, and believe in, strong background checks for practicing clinicians, however, a statewide process that is accepted would be beneficial. This would ensure a provider does not have to go through the same process numerous times when working with various state agencies and instead could submit one, up to date, state accepted, background check as required.

No telemedicine registry. A state telemedicine registry only inhibits providers and creates another bureaucratic hoop for them to jump through in order to practice. The licensing boards should continue to have primary oversight of their practice area.

WHO IS PRESENCELEARNING: PresenceLearning was founded on a simple, powerful idea: putting live experts exactly where and when they are needed to serve kids with special needs. Since 2009, we have delivered over one million live, online therapy sessions, and helped thousands of students with special needs or behavior challenges to achieve their goals. PresenceLearning is the leading provider of online speech and occupational therapy, behavioral and mental health services, and assessments for K-12 districts and families of children with special needs. PresenceLearning’s nationwide network of online professionals and telehealth providers includes hundreds of highly qualified speech language pathologists (SLPs), occupational therapists (OTs), and behavioral and mental health professionals. We have worked with the following Florida school districts:

- Sumter County School District;
- Taylor County School District;
- Duval County School District;
- Okeechobee School District;
- Hendry County School District;
- Broward County School District;
- Palm Beach County School District;
• DeSoto County School District;
• Brevard County School District;
• Osceola County School District;
• Point of Grace Christian School;
• Florida Cyber Charter Academy; and
• Palm Harbor Academy.

Thank you for your time and consideration. We are happy to discuss this important issue further with you all if you have any questions or concerns.

Sincerely,
Cameron Kilberg

1 PresenceLearning.com
**Mapping Broadband Health in America 2017** is an interactive mapping platform created by the Connect2Health task force. It allows users to visualize, overlay and analyze broadband and health data at the national, state and county levels. By using the mapping tool as a starting point for looking at the broadband and health sectors, you can see the path to a more connected, healthier country.

https://www.fcc.gov/reports-research/maps/connect2health/#I1=40,-95&z=4&t=insights&inb=in_bb_rural_access&inh=in_pcp_access&dmf=none&inc=none&slb=0,50&slh=0.0008&zlt=county

---

**Florida FirstNet – Florida’s Public Safety Broadband Network**

FirstNet is working to establish a broadband network specifically for first responders.

http://www.floridanet.gov/firstnet
Correspondence from Richard P. Long, Ph.D., LMFT regarding licensure portability

From: Richard Long [mailto:rlong540@gmail.com]
Sent: Thursday, July 20, 2017 7:56 AM
To: TELEHEALTH <TELEHEALTH@ahca.myflorida.com>
Subject: Comment/Testimony

As an interested party (and former Composite Board member in GA), there are three comments I will make with regard to the Licensure Issues topic addressed on the July 18, 2017 agenda. First, licensure portability is critical to the success of tele (mental) health care, particularly in FL with its seasonal change in potential consumers. National professional organizations such as the American Mental Health (AMHCA), the American Association of State Counseling Boards(AASCB), and the Association for Counselor Education and Supervision (ACES), have all proposed a model to establish portability of counseling licensure. The Association of Marriage and Family Therapy (AAMFT) have included portability in its Strategic Plan over the next 10-years. Second, parity in pricing telehealth and in-person delivery of services is critical to the success of the delivery of telehealth. Several states in collaboration with their state insurance commissioners are requiring providers to offer services regardless of the delivery method at the same rate. Consumers pay for gasoline to go to their doctor's offices and pay internet fees to use their computers, why should a telehealth fee be added to an internet fee already being paid? Finally, I agree with the person who pointed out that universities should update their curriculum to include telehealth instruction and continuing education that will needed to be provided in an ongoing manner for those who plan to deliver mental health content. Thank-you for allowing me to comment on the proceedings.

Richard P. Long, Ph.D., LMFT

Naples, FL
Link to A. Nicole Clowers, Managing Director, Health Care to US House of Representatives Subcommittee on Health and Technology submitted by Ms. Stynchula

https://smallbusiness.house.gov/uploadedfiles/7-20-17_clowers_testimony.pdf
New Jersey’s Telemedicine Law: What Providers Need to Know

Posted By Nathaniel M. Lacktman on 7 August 2017 Posted in Regulatory Developments; Telemedicine

New Jersey has a new telemedicine law, recently signed by Governor Chris Christie. The law cements the validity of telehealth services in the Garden State, establishes telemedicine practice standards, and imposes telehealth coverage requirements for New Jersey Medicaid, Medicaid managed care, commercial health plans, and other State-funded health insurance. After a year of debate in the New Jersey Legislature, the bill (SB 291 now P.L.2017, c.117) unanimously passed both the House and Senate before going to the Governor’s Office. The law is effective July 21, 2017.

The new law is quite lengthy, but we have summarized and explained the essential provisions below:

**Key Definitions**

- **Telemedicine** is broadly defined as the delivery of a health care service using electronic communications, information technology, or other electronic or technological means to bridge the gap between a health care provider who is located at a distant site and a patient who is located at an originating site. The term does not include “the use, in isolation, of audio-only telephone conversation, electronic mail, instant messaging, phone text, or facsimile transmission.”

- **Telehealth** is defined as the use of information and communications technologies, including telephones, remote patient monitoring devices, or other electronic means, to support clinical health care, provider consultation, patient and professional health-related education, public health, health administration, and other services.

- **Asynchronous Store-and-Forward** is defined as the acquisition and transmission of images, diagnostics, data, and medical information either to, or from, an originating site or to, or from, the health care provider at a distant site, which allows for the patient to be evaluated without being physically present.

- **Health Care Provider** is broadly defined as an individual who provides a health care service to a patient, which includes, but is not limited to, a licensed physician, nurse, nurse practitioner, psychologist, psychiatrist, psychoanalyst, clinical social worker, physician assistant, professional counselor, respiratory therapist, speech pathologist, audiologist, optometrist, or any other health care professional acting within the scope of a valid license or certification issued pursuant to Title 45 of the New Jersey Statutes.

**Telemedicine Communication Modalities**

- The law also states that telemedicine services must be provided “using interactive, real-time, two-way communication technologies” (a requirement that interestingly does not appear to extend to “telehealth services” under the statute itself). Synchronous audio-video is not mandated except for Schedule II prescribing.

- **Interactive Audio with Store-and-Forward.** A provider engaging in telemedicine or telehealth may use asynchronous store-and-forward technology to allow for the electronic transmission of images, diagnostics, data, and medical information; except that the provider may use interactive, real-time, two-way audio in combination with asynchronous store-and-forward
technology, without video capabilities, if, after accessing and reviewing the patient’s medical records, the provider determines that the provider is able to meet the same standard of care as if the health care services were being provided in person.

- **Audio-Only or Text-Based Communications.** The law excludes from the definition of telemedicine consultations provided by “the use, in isolation, of audio-only telephone conversation, electronic mail, instant messaging, phone text, or facsimile transmission.”

### Telemedicine Practice Standards

- **Provider-Patient Relationship.** A valid provider-patient relationship may be established via telemedicine or telehealth without an in-person exam. Moreover, New Jersey licensing boards are prohibited from passing regulations that would require an in-person exam as a prerequisite to delivering telemedicine or telehealth services. A valid provider-patient relationship must include, at a minimum, the following:
  - Properly identifying the patient using, at a minimum, the patient’s name, date of birth, phone number, and address. The provider may additionally use the patient’s assigned identification number, social security number, photo, health insurance policy number, or other appropriate patient identifier associated directly with the patient.
  - Disclosing and validating the provider’s identity and credentials, such as the provider’s license, title, and, if applicable, specialty and board certifications.
  - For an initial consult with a new patient, the provider must review the patient’s medical history and any available medical records before initiating the telemedicine consult. (For telehealth consults conducted in connection with a pre-existing provider-patient relationship, the provider may review the information with the patient contemporaneously during the consult.)
  - The provider must determine whether or not he/she will be able to meet the standard of care. This determination must be done prior to each unique patient consult.

- A health care provider delivering services via telemedicine or telehealth must adhere to the following practice standards.
  - The provider’s identity, professional credentials, and contact must be made available to the patient during and after the provision of services. The contact information must enable the patient to contact the provider (or a substitute provider authorized to act on behalf of the provider who provided services) for at least 72 hours following the provision of services.
  - The provider must review the patient’s medical history and any available medical records.
  - After the consult, the patient’s medical information must be made available to the patient upon his/her request. If the patient consents/requests, the information must be forwarded directly to the patient’s primary care provider or health care provider(s) of record.
  - If a patient has no health care provider of record, the telemedicine or telehealth provider is allowed to advise the patient to contact a primary care provider, and, upon request by the patient, may assist the patient with locating a primary care provider or other in-person medical assistance that, to the extent possible, is located within reasonable proximity to the patient.
The telemedicine or telehealth provider must refer the patient to appropriate follow up care where necessary, including making appropriate referrals for emergency or complimentary care, if needed.

- **Standard of Care.** Diagnosis, treatment, and consultation recommendations, including discussions regarding the risk and benefits of the patient’s treatment options, made via telemedicine or telehealth, including the issuance of a prescription based on a telemedicine or telehealth consult, are held to the same standard of care or practice standards as are applicable to in-person settings. If telemedicine or telehealth services are not consistent with this standard of care, the provider must direct the patient to seek in-person care.

- **Telemedicine Prescribing.** A provider may prescribe medications via telemedicine only after establishing a valid provider-patient relationship.

  - Unless the provider has established a valid provider-patient relationship, a provider shall not issue a prescription to a patient based solely on the responses provided in an online questionnaire.

  - With regard to prescribing controlled substances via telemedicine, the law does not prohibit the activity except for Schedule II drugs. A provider may prescribe Schedule II controlled substances via telemedicine only after conducting an initial in-person examination of the patient. Moreover, subsequent in-person exams are required every three months for the duration of time that the patient is being prescribed the Schedule II controlled dangerous substance. Note: despite the New Jersey law, providers must still comply with the prescribing requirements under the federal Ryan Haight Act.

  - The New Jersey in-person exam requirement does not apply to prescriptions for Schedule II controlled stimulant drugs for use by a patient under the age of 18 if: 1) the provider uses interactive, real-time, two-way audio and video technologies; and 2) has obtained written consent from the minor patient’s parent or guardian to waive the in-person exam.

- **Patient Consent.** The law does not require patient informed consent to telehealth services (although New Jersey Medicaid requires it for certain specialties). However, to the extent the provider must obtain patient consent for certain activities (e.g., recommending a primary care referral, clinical procedures), the patient’s consent may be oral, written, or digital in nature, provided that the chosen method of consent is deemed appropriate under the standard of care.

- **Originating site.** There are no geographic or facility restrictions on originating sites, which are simply defined as “a site at which a patient is located at the time that health care services are provided to the patient by means of telemedicine or telehealth.”

- **Patient-Site Telepresenter.** There is no requirement to use a patient-site telepresenter, unless otherwise needed by medical standard of care expectations.

- **Medical Records; HIPAA.** Providers must maintain a complete record of the patient’s care and comply with all applicable State and federal statutes and regulations for recordkeeping, confidentiality, and disclosure of the patient’s medical record.

Other unique and notable highlights of the New Jersey law include:

- **Business Registration for Telemedicine or Telehealth Organizations.** The law requires each telemedicine or telehealth organization operating in New Jersey to annually register with the Department of Health and submit annual reports on activity and encounter data. The content of the reports will be specified further in forthcoming regulations, but we know the reports will include, at least, for each consult: the patient’s race and ethnicity; the diagnostic codes; the evaluation management codes; and the source of payment for the consult. The Department of
Health will compile the information into a statewide database. A “Telemedicine or telehealth organization” is a corporation, sole proprietorship, partnership, or limited liability company that is organized for the primary purpose of administering services in the furtherance of telemedicine or telehealth.

- **Telemedicine and Telehealth Review Commission.** The law creates a seven-member New Jersey Telemedicine and Telehealth Review Commission. The Commission will review the information reported by telemedicine and telehealth organizations and make recommendations for policy and law changes to promote and improve the quality, efficiency, and effectiveness of telemedicine and telehealth services in New Jersey.

- **Exceptions to Provider-Patient Relationship.** Telemedicine or telehealth may be practiced without a proper provider-patient relationship in the following circumstances:
  - During informal consultations performed by a provider outside the context of a contractual relationship, or on an irregular or infrequent basis, without the expectation or exchange of direct or indirect compensation.
  - During episodic consultations by a medical specialist located in another jurisdiction who provides consultation services, upon request, to a properly licensed or certified health care provider in New Jersey.
  - When a provider furnishes medical assistance in response to an emergency or disaster, provided that there is no charge for the medical assistance.
  - When a substitute provider, who is acting on behalf of an absent provider in the same specialty, provides health care services on an on-call or cross-coverage basis, provided that the absent provider has designated the substitute provider as an on-call provider or cross-coverage service provider.

- Mental health screeners, screening services, and screening psychiatrists subject to the provisions of P.L.1987, c.116 (C.30:4-27.1 et seq.) are not required to obtain a separate authorization in order to engage in telemedicine or telehealth for mental health screening purposes, and are not required to request and obtain a waiver from existing regulations prior to engaging in telemedicine or telehealth.

**New Jersey Telemedicine and Telehealth Insurance Coverage**

The law establishes fairly broad coverage of telemedicine and telehealth services, both under New Jersey Medicaid and commercial health insurance plans. However, the law does not explicitly impose a payment parity requirement (i.e., mandating that reimbursement for telemedicine and telehealth services be equal to reimbursement rates for identical in-person services). Instead the law sets the in-person reimbursement rate as the maximum ceiling for telemedicine and telehealth reimbursement rates.

- With regard to Medicaid and Medicaid managed care, the law states that the State Medicaid Program and NJ FamilyCare Program “shall provide coverage and payment for health care services delivered to a benefits recipient through telemedicine or telehealth, on the same basis as, and at a provider reimbursement rate that does not exceed the provider reimbursement rate that is applicable, when the services are delivered through in-person contact and consultation in New Jersey.”
  - Reimbursement payments may be provided either to the individual practitioner who delivered the reimbursable services, or to the agency, facility, or organization that employs the individual practitioner who delivered the reimbursable services, as appropriate.
- The programs may limit coverage to services that are delivered by participating health care providers, but may not charge any deductible, copayment, or coinsurance for a health care service, delivered through telemedicine or telehealth, in an amount that exceeds the deductible, copayment, or coinsurance amount that is applicable to an in-person consultation.

- With regard to commercial health insurance plans, the law states that “a carrier that offers a health benefits plan in [New Jersey] shall provide coverage and payment for health care services delivered to a covered person through telemedicine or telehealth, on the same basis as, and at a provider reimbursement rate that does not exceed the provider reimbursement rate that is applicable, when the services are delivered through in-person contact and consultation in New Jersey.”

- Reimbursement payments may be provided either to the individual practitioner who delivered the reimbursable services, or to the agency, facility, or organization that employs the individual practitioner who delivered the reimbursable services, as appropriate.

- A carrier may limit coverage to services that are delivered by health care providers in the health benefits plan’s network, but may not charge any deductible, copayment, or coinsurance for a health care service, delivered through telemedicine or telehealth, in an amount that exceeds the deductible, copayment, or coinsurance amount that is applicable to an in-person consultation.

- The law establishes similar telemedicine and telehealth coverage requirements for contracts purchased through the New Jersey State Health Benefits Commission and the New Jersey School Employees’ Health Benefits Commission.

Passage of this new legislation is welcome news for telemedicine companies and health care providers looking to offer telemedicine services in New Jersey. We will continue to monitor New Jersey for any rule changes that affect or improve telemedicine opportunities in the state.

For more information on telemedicine, telehealth, virtual care, and other health innovations, including the team, publications, and other materials, visit Foley’s Telemedicine and Virtual Care practice.
The Creating High-Quality Results and Outcomes Necessary to Improve Chronic (CHRONIC) Care Act of 2017

Section-By-Section Summary

TITLE I – RECEIVING HIGH QUALITY CARE IN THE HOME

Section 101. Extending the Independence at Home Model of Care

The Patient Protection and Affordable Care Act (ACA, P.L. 111-148) created the Independence at Home (IAH) demonstration under the Medicare program to test a payment incentive and service delivery model that uses physician and nurse practitioner-directed home-based primary care teams designed to reduce expenditures and improve health outcomes in the provision of items and services to applicable Medicare beneficiaries with multiple chronic illnesses. Medical practice staff are required to make in-home visits and to be available 24 hours per day, seven days per week to implement care plans tailored to the individual beneficiary’s chronic conditions. Under the IAH demonstration, qualifying medical practices continue to receive traditional Medicare fee-for-service payments for services furnished but are eligible for incentive payments, subject to meeting performance standards on quality measures, if actual annual expenditures for applicable beneficiaries are less than the estimated spending target for the year. In the first performance year, 17 participating practices served more than 8,400 Medicare beneficiaries. In the second year, 15 practices served over 10,000 beneficiaries. The demonstration began on June 1, 2012, and will end on September 30, 2017.

This section would extend the promising IAH demonstration to provide a broader base of experience to inform future legislative efforts. Specifically, it would extend the demonstration’s expiration date by two years—until September 30, 2019, increase the cap on the total number of participating beneficiaries from 10,000 to 15,000, and give practices three years to receive a shared savings payment. Currently practices are to be terminated if they do not receive such an incentive payment in two consecutive years.

Section 102. Expanding Access to Home Dialysis Therapy

Medicare requires that a beneficiary receiving dialysis treatment in his or her home receive a monthly clinical assessment with their clinician, often a nephrologist, to review lab work, check for complications, answer questions, and discuss the effectiveness of treatment. Beneficiaries can utilize telehealth to receive this visit only if it occurs in a) an authorized originating site (including a physician office and hospital-based dialysis facility) and b) the site is located in in a rural Health Professional Shortage Area (HPSA) or area county outside a Metropolitan Statistical Area (MSA).

This section would expand the ability of beneficiaries on home dialysis to receive required monthly clinical assessments to monitor their condition using telehealth, beginning in 2019. Specifically, it expands the number of originating sites from which the beneficiary can have a telehealth assessment with the nephrologist to include freestanding dialysis facilities and the patient’s home; and enables these telehealth visits to be conducted from the expanded list of sites without geographic restriction. A beneficiary would be required to have a face-to-face assessment with a nephrologist at least once every three months strengthen the physician-patient relationship. Medicare would not provide a separate payment for the originating site fee if the service is furnished in the home.

TITLE II – ADVANCING TEAM BASED CARE

Section 201. Providing Continued Access to Medicare Advantage Special Needs Plans for Vulnerable Populations

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA; P.L. 108-173) established a new Medicare Advantage (MA) coordinated care plan to provide services for individuals with special needs. Special needs plans (SNPs) are permitted to target enrollment to one or more types
of special needs individuals, including those who are (1) institutionalized, (2) dually eligible for both Medicare and Medicaid, or (3) living with severe or disabling chronic conditions. Among other changes, the Affordable Care Act extended SNP authority through December 31, 2013, and temporarily extended authority through the end of 2012 for dual eligible SNPs without contracts with state Medicaid programs to continue to operate, but in their current service areas. After 2012, dual eligible SNPs, new and renewing, were required to have contracts with state Medicaid agencies. Several subsequent laws have extended SNP authority without interruption; most recently, the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA, P.L. 114-10) extended SNP authority through December 31, 2018. In this section, the Medicare-Medicaid Coordination Office would be directed to serve as a dedicated point of contact for states to assist with Medicare and Medicaid integration efforts, and the Secretary would be required to work through this office to establish a unified grievances and appeals process for individuals enrolled in a D-SNP. This section would permanently authorize the I-SNP, D-SNP and C-SNP, if certain requirements are met. By 2021, a D-SNP contract would be required to have a unified grievances and appeals procedure in place, and by 2022, a D-SNP would be required to integrate Medicare and Medicaid long-term services and supports and/or behavioral health services by meeting one of three requirements. Beginning in 2020, a C-SNP would be required to meet additional requirements to improve care management for the beneficiaries with severe or disabling chronic conditions enrolled in the plan. By January 1, 2022, and every five years thereafter, the Secretary would be required to update the list of chronic conditions eligible for participation in a C-SNP based on the health needs of the condition, providers and models of care required, and the prevalence of the chronic condition in the general Medicare population. The Secretary may consider implementing the quality star rating system at the plan level for SNPs and all MA plans.

TITLE III – EXPANDING INNOVATION AND TECHNOLOGY

Section 301. Adapting Benefits to Meet the Needs of Chronically Ill Medicare Advantage Enrollees

Under Medicare Advantage (MA) private health plans are paid a per-person monthly amount to provide all Medicare-covered benefits (except hospice) to beneficiaries who enroll. Unlike original Medicare, where providers are paid for each item or service provided to a beneficiary, an MA plan receives the same capitated monthly payment regardless of how many or few services a beneficiary actually uses. The plan is at-risk if aggregate costs for its enrollees exceed program payments and beneficiary cost sharing; conversely, in general, the plan can retain savings if aggregate enrollee costs are less than program payments and cost sharing. Currently, an MA plan must offer the same benefit package to all of its enrollees. The Centers for Medicare and Medicaid Innovations (CMMI) is currently testing a model to allow greater flexibility for an MA plan to meet the needs of chronically ill enrollees. This section would expand the testing of the CMMI Value-Based Insurance Design (VBID) Model to allow an MA plan in any state to participate in the model by 2020 (during the testing phase) to determine whether savings are achieved without negatively impacting quality.

Section 302. Expanding Supplemental Benefits to Meet the Needs of Chronically Ill Medicare Advantage Enrollees

All Medicare Advantage (MA) plans must offer required Medicare benefits (except hospice) and may offer additional or supplemental benefits. Mandatory supplemental benefits are covered by the MA plan for every person enrolled in the plan and are paid for either through plan rebates, a beneficiary premium, or cost sharing. Optional supplemental benefits must be offered to all plan enrollees, but the enrollee may choose to pay an additional amount to receive coverage of the optional benefit; optional benefits cannot be financed through plan rebates. An MA plan must adhere to specific rules regarding the supplemental benefits that it can offer. First, the MA plan cannot design a benefit plan that is likely to substantially discourage enrollment by certain MA eligible individuals. Further, supplemental benefits (a) may not be Medicare Part A or Part B required
services, (b) must be primarily health related with the primary purpose to prevent, cure, or diminish an illness or injury, and (c) the plan must incur a cost when providing the benefit. Items that are primarily for comfort or are considered social services would not qualify as supplemental benefits. Examples of supplemental benefits include the following: (a) Additional inpatient hospital days in an acute care or psychiatric facility, (b) Acupuncture or alternative therapies, (c) Counseling services, (d) Fitness benefit, (e) Enhanced disease management, and (f) Remote Access Technologies (including Web/Phone based technologies).

This section would allow an MA plan to offer a wider array of supplemental benefits to chronically ill enrollees beginning in 2020. These supplemental benefits would be required to have a reasonable expectation of improving or maintaining the health or overall function of the chronically-ill enrollee and would not be limited to primarily health related services. The section would allow an MA plan the flexibility to provide targeted supplemental benefits to specific chronically ill enrollees.

Section 303. Increasing Convenience for Medicare Advantage Enrollees through Telehealth

Telehealth is the use of electronic information and telecommunications technologies to support remote clinical health care, patient and professional health-related education, and other health care delivery functions. While Medicare beneficiaries may receive telehealth services in a variety of settings, under current law (SSA Section 1834(m)), the Medicare program recognizes and pays for only certain Part B telehealth services. These services must be either (1) remote patient and physician/professional face-to-face services delivered via a telecommunications system (e.g., live video conferencing), or (2) non face-to-face services that can be conducted either through live video conferencing or via store and forward telecommunication services in the case of any Federal telemedicine demonstration program in Alaska or Hawaii. Typically, Medicare coverage for remote face-to-face services includes payments (1) to physicians or other professionals (at the distant site) for the telehealth consultation, and (2) to the facility where the patient is located (the originating site).

An MA plan may provide basic telehealth benefits as part of the standard benefit; for example, telemonitoring and web-based and phone technologies can be used to provide telehealth services. Medicare Advantage Prescription Drug (MAPD) may choose to include telehealth services as part of their plan benefits, for instance, in providing medication therapy management (MTM). However, while there is nothing to preclude Medicare Advantage (MA) from providing telemedicine or other technologies that they believe promote efficiencies beyond what is covered in the traditional Medicare program, those services and technologies are not separately paid for by Medicare and plans must use their rebate dollars to pay for those services as a supplemental benefit.

This section would allow an MA plan to offer additional, clinically appropriate, telehealth benefits in its annual bid amount beyond the services that currently receive payment under Part B beginning in 2020. The Secretary would be required to solicit comments on what types of telehealth services offered as supplemental benefits should be considered to be additional telehealth benefits. The use of these technologies would not be a substitute for meeting network adequacy requirements, and the beneficiary would have the ability to decide whether or not to receive the service via telehealth.

Section 304. Providing Accountable Care Organizations the Ability to Expand Use of Telehealth

While Medicare beneficiaries may receive telehealth services in a variety of settings, under current law (SSA Section 1834(m)), the Medicare program restricts telehealth payments by the type of services provided, the geographic location where the services are delivered, the type of institution delivering the services, and the type of health provider. While there is nothing to preclude ACOs from providing telemedicine or other technologies that they believe promote efficiencies, those services and technologies are not separately paid for by Medicare. Traditionally telehealth has been viewed as a tool to improve access to services, but interest is growing to see if telehealth has the potential to reduce health care costs. Telehealth may have the potential to replace some face-to-face office visits, reduce
emergency room visits, and prevent hospitalizations. Telehealth may also keep beneficiaries in closer, more consistent contact with providers.

This section would apply the Next Generation ACO telehealth waiver criterion to the Medicare Shared Savings Program (MSSP) Track II (only if an ACO chooses prospective attribution and remains at two-sided risk), MSSP Track III, and the Pioneer ACO program. This provision would (1) eliminate the geographic component of the originating site requirement, (2) allow beneficiaries assigned to the approved MSSP and ACO programs to receive currently allowable telehealth services in the home, and (3) ensure that MSSP and ACO providers are only allowed to furnish telehealth services as currently specified under Medicare’s physician fee schedule, with limited exceptions. To be eligible for Medicare payment, the beneficiary must be located at an originating site that is either (1) one of the approved sites listed in Section 1834(m)(4)(C)(ii) of the Social Security Act, or (2) the beneficiary’s place of residence. Medicare would not provide a separate payment for the originating site fee if the service is furnished in the home.

Section 305. Expanding Use of Telehealth for Individuals with Stroke

Currently, Medicare pays for physician services involved in stroke treatment under the Physician Fee Schedule, with the hospital being paid under the Hospital Outpatient Prospective Payment System and Inpatient Prospective Payment System. While many of these physician services are furnished on-site when the beneficiary presents symptoms of stroke at the hospital emergency department, Medicare will pay a physician, at a distant site, for consulting on a patient experiencing acute stroke symptoms via telehealth if the originating site hospital, where the beneficiary presents, is in a rural HPSA or a county outside an MSA.

This section would expand the ability of patients presenting with stroke symptoms to receive a timely consultation to determine the best course of treatment through telehealth, beginning in 2019. Specifically, it would eliminate the geographic restriction as to permit payment to a physician furnishing the telehealth consultation service in all areas of the country. The hospital at which the patient is present and the telehealth consultation is initiated would not receive a separate, originating site payment.

TITLE IV – IDENTIFYING THE CHRONICALLY ILL POPULATION

Section 401. Providing Flexibility for Beneficiaries to Be Part of an Accountable Care Organization

Medicare fee-for-service beneficiaries are assigned to ACOs based on their utilization of primary care services provided by a physician who is an ACO provider and/or supplier. Beneficiaries currently do not have the option of choosing to participate directly in an ACO (aside from seeking care from a particular provider), but are notified if their primary care provider is an ACO participant. Beneficiaries who receive at least one primary care service from a primary care physician within the ACO may be assigned to that ACO if the beneficiary receives the plurality of his or her primary care services from primary care physicians within the ACO. Beneficiaries who have not had a primary care service furnished by any primary care physician either inside or outside the ACO, but who receive at least one primary care service from any physician within the ACO, are assigned to that ACO if the beneficiary receives a plurality of his or her primary care services from specialist physicians.

The manner in which Medicare fee-for-service beneficiaries are assigned to an ACO affects how the ACO can tailor care for its beneficiaries and how the ACO is evaluated. Under current Centers for Medicare & Medicaid (CMS) rules, Medicare determines the method of beneficiary attribution, rather than giving ACOs the option to choose the assignment methodology that best fits their model of care. Medicare fee-for-service beneficiaries can be assigned to an ACO either retrospectively or prospectively depending on the ACO’s track. Prospective assignment allows ACOs to identify beneficiaries for whom they will be held accountable and proactively take steps to connect these beneficiaries to appropriate care, but also holds ACOs accountable for the spending for these beneficiaries even if the ACO providers do not provide the care. Retrospective assignment ensures that
ACOs are held accountable for the spending only of those beneficiaries who receive most of their primary care services from ACO providers, but they may not know who those beneficiaries are until the end of the year.

This section would amend Section 1899(c) of the Social Security Act to give ACOs in the MSSP the choice to have their beneficiaries assigned prospectively at the beginning of a performance year. Additionally, this provision would give a beneficiary the option to voluntarily align to the MSSP ACO in which the beneficiary’s main primary care provider is participating. The Secretary of HHS would establish a process by which beneficiaries are notified of their ability to make such an election as well as the process by which they may change such election. The beneficiary would retain their freedom of choice to see any provider.

**TITLE V – EMPOWERING INDIVIDUALS AND CAREGIVERS IN CARE DELIVERY**

Section 501. Eliminating Barriers to Care Coordination under Accountable Care Organizations

ACOs are collaborations that integrate groups of providers, such as physicians (particularly primary care physicians), hospitals, federally qualified health centers, rural health clinics, and others. In the Medicare Shared Savings Program (MSSP) specifically, ACOs are designed to provide incentives to providers to manage care across the continuum by reducing health care costs while meeting quality performance standards. The ACO mission is to ensure that patients, especially the chronically ill, receive the right care at the right time in the right care setting, while avoiding unnecessary duplication of services and preventing medical errors. Delaying or forgoing preventive care – especially care related to chronic disease management – may lead to increased costs and poor health outcomes. ACOs are accountable for the health outcomes and overall costs of their attributed beneficiaries. As a result, ACO aligned beneficiaries could be encouraged to seek out preventive care or chronic disease management if the cost to access those services is manageable.

This section would establish the ACO Beneficiary Incentive Program. This new program would create a process that allows ACOs to make incentive payments to all assigned beneficiaries that receive qualifying primary care services. ACOs would be allowed to offer a flat payment, of up to $20 per qualifying service, directly to the beneficiary. This program is voluntary. Eligible ACOs would not be provided additional Medicare reimbursement to cover the primary care incentive payment costs. Permitting this option under a two-sided risk model would give ACOs an additional tool to achieve better health outcomes for beneficiaries – as well as produce cost savings for both the ACO and the Medicare program. President Obama’s Fiscal Year (FY) 2017 budget contained a similar policy proposal. Additionally, this section requires HHS conduct an evaluation of the Beneficiary Incentive Program. The report must include an analysis of the impact of this program’s implementation on expenditures and beneficiary health outcomes. A report to Congress is due no later October 1, 2023.

Section 502. GAO Study on Serious or Life Threatening Illness

Diagnoses of serious or life-threatening illnesses—such as Alzheimer’s/dementia, cancer, neuromuscular disease—are devastating to Medicare beneficiaries and their families. Some of these illnesses do not have a predictable disease progression, do not have an arsenal of treatment options that
can be immediately deployed, and symptoms may not manifest for years. These circumstances make it imperative that a discussion between the patient and their doctor occurs upon diagnosis. This section would direct Government Accountability Office (GAO) to submit a report to Congress within eighteen months of the date of enactment to inform the development of a payment code describing the formulation of a comprehensive plan of longitudinal care for a Medicare beneficiary diagnosed with a serious or life-threatening illness. Specifically, GAO would identify the extent to which such a comprehensive longitudinal care planning service is provided to beneficiaries, whether there would be any duplication in payment for such service with billing codes for which Medicare currently pays, and barriers to hospitals, skilled nursing facilities, hospice programs, home health agencies, and other providers working with a Medicare beneficiary to engage in the care planning process. It would also identify any barriers to providers accessing the care plan and options for promoting adherence to it. In addition, GAO would also assess the need to develop quality metrics related to care planning, the characteristics of Medicare beneficiaries who would be most appropriate to receive a longitudinal planning services, and the providers best suited to furnish the service as a part of a multi-disciplinary team.

**TITLE VI – OTHER POLICIES TO IMPROVE CARE FOR THE CHRONICALLY ILL**

Section 601. GAO Study and Report on Improving Medication Synchronization

In April 2012, the Centers for Medicare & Medicaid Services (CMS) finalized a rule requiring daily cost-sharing requirements for Medicare Part D prescription drugs. Beginning in 2014, CMS requires that Part D sponsors establish and apply a daily cost sharing rate whenever a prescription is dispensed by a network pharmacy for less than 30 days’ supply, unless the drug is exempted by regulation. This rule applies regardless of the setting in which the applicable drugs are dispensed. The daily cost-sharing rule does not address how pharmacy dispensing fees are to be negotiated, calculated, or paid and the rule does not require the proration of pharmacy dispensing fees. Individuals with chronic diseases often take multiple prescriptions that are prescribed by different clinicians. Because most prescriptions have a standard length (i.e., 30-days) and are prescribed on different days, the individual is required to pick up prescriptions at various times during the month. Alignment of dispensing could improve medication adherence by individuals living with chronic diseases.

This section would direct the Government Accountability Office to submit a report to Congress within eighteen months of the date of enactment that would provide information on the prevalence and effectiveness of Medicare and other payer medication synchronization programs. Specifically, GAO would identify common characteristics of programs and assess their impact on medication adherence, patient outcomes, and patient satisfaction. GAO would also assess the extent to which Medicare rules support medication synchronization and whether there are barriers to such programs in Medicare.

Section 602. GAO Study and Report on Impact of Obesity Drugs on Patient Health and Spending

Obesity is a serious problem that is often directly related to or exacerbates chronic diseases. Prescription drug treatments may be an effective policy intervention, but more information is needed to better understand the impact on quality and overall costs to the Medicare program. Historically, Medicare Part D has not covered drugs used for weight loss or gain, or for cosmetic
purposes. Some Medicare Advantage prescription drug plans (MA-PDs) are permitted to cover these drugs as a supplemental benefit.

This section would direct the Government Accountability Office to submit a report to Congress within eighteen months of the date of enactment that would provide information on the impact of the use of obesity drugs on patient health and spending. Specifically, GAO would look at obesity drug utilization in Medicare and other payer programs, identify physician prescribing attitudes, assess drug adherence, and maintain weight loss. GAO would also identify the impact of obesity drugs on patient health outcomes, on other services furnished, and health spending.
Link to Article: Is Telemedicine Change Coming to Congress? The Medicare Telehealth Parity Act of 2017 Among Several New Federal Bills by Nate lackman & Thomas Ferrante submitted by Mr. Manzie

From: Manzie, William [mailto:wmanzie@mhs.net]
Sent: Tuesday, July 18, 2017 9:38 AM
To: King, Pamela <Pamela.King@ahca.myflorida.com>
Subject: Link to share

List of 2017-2018 Congressional Legislation re: Telehealth

H.R.2556 - CONNECT for Health Act of 2017

**H.R.2556 — 115th Congress (2017-2018)**

Related Bills:

<table>
<thead>
<tr>
<th>Bill</th>
<th>Latest Title</th>
<th>Relationships to H.R.2556</th>
<th>Relationships Identified by</th>
<th>Latest Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.431</td>
<td>Furthering Access to Stroke Telemedicine Act</td>
<td>Related bill</td>
<td>CRS</td>
<td>02/16/2017 Read twice and referred to the Committee on Finance.</td>
</tr>
<tr>
<td>S.1016</td>
<td>CONNECT for Health Act of 2017</td>
<td>Identical bill</td>
<td>CRS</td>
<td>05/03/2017 Read twice and referred to the Committee on Finance.</td>
</tr>
</tbody>
</table>

**Other TELEMEDICINE/TELEHEALTH BILLS IN THE 115TH CONGRESS** (as of July 2, 2017)

The following information is from www.congress.gov searching on telemedicine and telehealth.

**S. 19**
MOBILE NOW
Act to provide opportunities for broadband investment.
Sponsor- Sen. Thune, John [R-SD] (Introduced 01/03/2017)

**S. 108** (see also H.R. 184)
Medical Device Access and Innovation Protection Act to repeal the excise tax on medical devices
Sponsor - Sen. Hatch, Orrin G. [R-UT] (Introduced 01/12/2017)

**S. 356** (see also H.R. 1027)
Hallways to Health Act to amend title XXI of the Social Security Act to improve access to, and the delivery of, children’s health services through school-based health centers.
Sponsor - Sen. Stabenow, Debbie [D-MI] (Introduced 02/13/2017)

**S. 431** (see also H.R. 1148)
Furthering Access to Stroke Telemedicine (FAST) Act to expand access to telehealth-eligible stroke program.
Sponsor - Sen. Thune, John [R-SD] (Introduced 02/16/2017)
S. 475 (see also H.R. 1255)
CCM-CARE Act to increase research, education, and treatment for cerebral cavernous malformations.
Sponsor - Sen. Udall, Tom [D-NM] (Introduced 02/28/2017)

S. 787
To require the Center for Medicare and Medicaid Innovation to test the effect of including telehealth services in Medicare health care delivery reform models.
Sponsor - Sen. Gardner, Cory [R-CO] (Introduced 03/30/2017)

S. 870
CHRONIC Care Act to implement Medicare payment policies designed to improve management of chronic disease, streamline care coordination, and improve quality outcomes without adding to the deficit.
Sponsor - Sen. Hatch, Orrin G. [R-UT] (Introduced 04/06/2017)

S. 925 (see also H.R. 2123)
VETS Act to improve the ability of health care professionals to treat veterans with telemedicine.
Sponsor - Sen. Ernst, Joni [R-IA] (Introduced 04/25/2017)

S. 1016 (see also H.R. 2556)
Creating Opportunities Now for Necessary and Effective Care Technologies (CONNECT) for Health Act to amend Medicare to expand access to telehealth services.
Sponsor - Sen. Schatz, Brian [D-HI] (Introduced 05/03/2017)

S. 1377
A bill to remove the limitation on certain amounts for which large non-rural hospitals may be reimbursed under the Healthcare Connect Fund of the Federal Communications Commission.
Sponsor - Sen. Wicker, Roger F. [R-MS] (Introduced 06/19/2017)

H.R. 184 (see also S. 108)
Protect Medical Innovation Act to repeal the excise tax on medical devices.
Sponsor - Rep. Paulsen, Erik [R-MN-3] (Introduced 01/03/2017)

H.R. 766
To establish a Medicare pilot program to expand telehealth options for individuals residing in public housing located in health professional shortage areas.

H.R. 800
New Deal Rural Broadband Act to establish the Office of Rural Broadband Initiatives within the Department of Agriculture and to preserve open Internet requirements.
Sponsor - Rep. Huffman, Jared [D-CA-2] (Introduced 02/01/2017)
H.R. **1027** (see also S. 356)
Hallways to Health Act to amend title XXI of the Social Security Act to improve access to, and the delivery of, children’s health services through school-based health centers.

H.R. **1148** (see also S. 431)
Furthering Access to Stroke Telemedicine (FAST) Act to expand access to telehealth-eligible stroke services under the Medicare program.

H.R. **1152**
Care Veterans Deserve Act to eliminate the sunset date for the Veterans Choice Program of the Department of Veterans Affairs, to expand eligibility for such program, and to extend certain operating hours for pharmacies and medical facilities of the Department, and for other purposes.

H.R. **1255** (see also S. 475)
CCM-CARE Act to increase research, education, and treatment for cerebral cavernous malformations.

H.R. **1369**
Indian Healthcare Improvement Act

H.R. **1995**
V-BID for Better Care Act to provide for national testing of a model of Medicare Advantage value based insurance design to meet the needs of chronically ill Medicare Advantage enrollees.

H.R. **2123** (see also S. 925)
VETS Act to improve the ability of health care professionals to treat veterans with telemedicine.

H.R. **2144**
To amend the Federal Food, Drug, and Cosmetic Act to provide for the appropriate, risk-based classification of device accessories based on their intended uses.

H.R. **2291**
Helping Expand Access to Rural Telehealth (HEART) Act to expand the coverage of telehealth services under the Medicare program, to provide coverage for home-based monitoring for congestive heart failure and chronic obstructive pulmonary disease under such program, and for other purposes.
Sponsor - Rep. Duffy, Sean P. [R-WI-7] (Introduced 05/02/2017)
**H.R. 2337**
To provide for a State Medicaid option to enhance administrative matching funds to support statewide behavioral health access program activities for children under 21 years of age, and for other purposes.  
Sponsor - Rep. Loebsack, David [D-IA-2] (Introduced 05/03/2017)

**H.R. 2550**
Medicare Telehealth Parity Act to provide for an incremental expansion of telehealth coverage under Medicare.  
Sponsor - Rep. Thompson, Mike [D-CA-5] (Introduced 05/19/2017)

**H.R. 2556** (see also S. 1016)
Creating Opportunities Now for Necessary and Effective Care Technologies (CONNECT) for Health Act to amend Medicare to expand access to telehealth services.  

**H.R. 2644**
Chronic Kidney Disease Improvement in Research and Treatment Act to improve the understanding of, and promote access to treatment for, chronic kidney disease.  
Sponsor - Rep. Marino, Tom [R-PA-10] (Introduced 05/24/2017)
Report from the TRECS Institute and the Leonard Davis Institute of Health Economics titled: "The Future of America's Nursing Home Industry."
The Future of America’s Nursing Home Industry

The goal of this Summit was to serve as a "Call to Action" to highlight some of the major concerns, issues and challenges facing America’s long-term industry in this rapidly changing environment. What better way to lead the charge than to bring together in one room over 50 of the most passionate professionals involved in every aspect of today's nursing home industry. The comments and discussions generated from this group along with extensive follow up discussions resulted in the creation of a list of eight recommendations. These recommendations are offered as a solid starting point to begin the process of changing and improving our nursing home industry.

Anyone familiar with the current state of our long-term care industry would agree that change is desperately needed and needed now. Given the complexities of the issues discussed during the Summit, it is clear that to take this process to the next level will require an organization or organizations intimately familiar with our nation's health care system, experienced with researching and developing solutions for complex health care challenges, and known for its capability to effectively analysis large data sets and coordinate multiple studies running simultaneously. This organization must have a track record that provides a level of credibility that is beyond challenge.

The TRECS Institute is advocating that The Leonard Davis Institute of Health Economics (LDI) be selected as the organization to oversee, coordinate and follow through on the recommendations presented with this report. Because health care is a highly emotional and politically charged topic and suggesting industry change is often accompanied by a high degree of political resistance, TRECS is also recommending that both Leading Age and The American Health Care Association play an active part throughout the entire research process with LDI.

While the cost savings potential of many of the recommendations presented in this report are difficult to estimate, they are inherently positive. There are however at least two recommendations that carry immediate quality of care improvements for seniors and costs savings for CMS with little or no cost to implement. The recommendation to expand telemedicine services to reduce avoidable SNF to hospital transfers for example has been proven to be effective with estimates savings exceeding $1 billion dollars a year with just 25% of our nation's 15,000+ nursing facilities participating. The cost of this service is paid directly by the participating SNFs from added revenues they generate when their residents are treated in the SNF and not unnecessary sent to a hospital. While this program can be implemented with no cost to CMS, developing some form of shared savings opportunity with qualified SNFs is recommended because it would result in a faster adoption rate of this program and generate greater savings for CMS in a shorter time frame.
The second program with immediate cost savings potential is offering medically appropriate blood transfusions for Medicaid long-term care residents at the bedside in the SNF instead of following the current practice of admitting these vulnerable seniors to the hospital. By admitting these residents to an acute care setting, they convert from a Medicaid resident to a Medicare patient and their hospital stay and the blood transfusion is paid for by Medicare at a cost of approximately $14,000. Providing that same service at the bedside in the SNF would cost approximately $2,500 and would save these vulnerable seniors from being unnecessarily admitted to the hospital. By changing the reimbursement regulations to allow Medicare to pay for these medically necessary transfusions at the bedside could generate savings for the Medicare Program of more than $500 million dollars a year.

In addition to generating real and significant savings for CMS, these programs would both increase quality of care and quality of life for residents by preventing the unnecessary hospital admission. The negative outcomes of admitting a vulnerable senior to the hospital when not medically necessary is well documented and includes increased confusion, delirium, incontinence, skin breakdown, additional medications and exposure to hospital acquired infections.

Given the significant savings potential from these two programs alone, The TRECS Institute is recommending that CMS fund the full set of recommendations presented in this report. It is further recommended that a significant portion of the savings from the telemedicine program and the blood transfusion initiative, along with savings generated from the other recommendations be largely channeled back to state Medicaid programs to help reduce and hopefully eliminate the current deficiency between the actual cost of caring for Medicaid residents and the current level of reimbursement being provided.

The TRECS Institute wishes to thank all those who attended and contributed to the Summit itself as well as the Summit’s sponsors including The Princeton Area Community Foundation, The Leonard Davis Institute of Health Economics and Duane Morris.

Respectfully submitted

John Whitman, MBA, NHA
Executive Director
National Summit on the Future of America’s Nursing Home Industry

A Report of the TRECS Institute and the Leonard Davis Institute

June 2017
Executive Summary

On February 27th, 2017, the TRECS INSTITUTE and the Leonard Davis Institute of Health Economics (LDI), hosted a National Summit titled: The Future of America’s Nursing Home Industry at The Leonard Davis Institute at the University of Pennsylvania’s Wharton School. The primary goal of the Summit was to highlight the significant changes occurring within the long-term care industry as a direct result of the bundled payment reimbursement strategies and the positive and negative implications of those changes.

The Summit was by “invitation only” and attended by over sixty professionals representing the key clinical, operational, regulatory and reimbursement aspects of America’s nursing home industry. Representatives from many national, state and local organizations also attended including the Center for Medicare and Medicaid Innovation (CMMI), The American Health Care Association, The Pennsylvania Health Care Association, Leading Age, Leading Age Pennsylvania, the National Association of Directors of Nursing Administration Long Term Care (NADONA), The American Society of Consultant Pharmacists, Philadelphia Corporation of Aging and the Center for Advocacy for the Rights and Interests of the Elderly (CARIE). Third party payers, including Medicaid and several large managed care companies, were also in attendance along with owners and nursing home operators representing both large chains (Genesis, Manor Care and Kindred) as well as smaller operators. In addition, clinical experts representing geriatric physicians, nurse practitioners,
pharmacists, home health care and IT entrepreneurial firms added their firsthand experience to the discussions of the day.

The following recommendations were generated from this National Summit and will be shared with CMS:

**#1. Identify new approach(s) to conduct the annual Skilled Nursing Facility (SNF) survey:**

Create and fund several multiyear studies in various states across the country to redefine and restructure the nursing home survey process with the goal of improving the process more effective, more educational, less costly, and more consistent while continuing to assure quality of care and resident safety. Initially begin in the state of Pennsylvania by selecting one facility in the east and one in the west to function as pilot sites. It is further recommended that this process be overseen by an experienced health care organization and include direct participation from CMS, the state department of health, current surveyors, clinical experts, administrators, directors of nursing and other professions as needed.

**#2. Identify and evaluate opportunities to close the gap between the actual cost of providing care per day and the reimbursement paid per day by state Medicaid programs:**

Thirty-five of the fifty state Medicaid programs reimburse significantly less than the allowable Medicaid costs. In 2014, unreimbursed allowable costs nationally were projected to exceed $6.7 billion or $21.20 less than the actual cost of providing care per day. For the average size nursing facility, this represents an annual shortfall of just under $500,000.

The potential of securing the needed increase in reimbursement to close the gap at the state and federal level is just not realistic. However, an opportunity exists for the nursing home industry to actively participate in developing a successful solution. Our nation’s skilled nursing facilities (SNF) can serve as the
catalyst to identify and help effectively change current and historical operational and reimbursement practices that are not in the resident’s best interest and simultaneously add unnecessary costs to our health care system. The savings generated from these changes, while predominantly saving Medicare expenditures could be shared with state Medicaid programs specifically to help close the current gap in reimbursement while helping to improve care for residents.

Several examples discussed at the Summit included:

- **Utilizing virtual physician services within SNFs during evenings, nights, weekends and holidays to reduce avoidable SNF to hospital admissions.**
  Results of a recent study at a large New York nursing facility, utilizing virtual physician services, were used to estimate the potential annual impact virtual services had on Medicare. If 25% of our nation’s nursing facilities implemented such a program to provide off-hour coverage, an estimated annual savings of $1.29 billion to Medicare could be generated. At the same time, preventing an avoidable SNF to hospital admission for a vulnerable nursing facility resident would remove the risk for the many proven negative outcomes and added costs that often incur when a senior is admitted to the hospital.

- **Implementing mandatory comprehensive medication reconciliation reviews prior to discharging any nursing facility resident to the community.**
  Because medication issues are recognized as the number one reason for ER visits and readmissions to the hospital, implementing a mandatory comprehensive medication reconciliation review prior to discharge is recommended across the long-term care industry. This recommendation also includes a review of the senior’s medications in the home.
• Expanding virtual physician services to include specialty consults offered within the SNF in a more-timely manner, thereby eliminating long delays and the cost for transportation.

In many markets, finding a specialist willing to visit residents within the SNF is extremely difficult. This often results in delays in being seen as well as requiring that the resident be transported to the specialist’s office. Providing this service virtually would allow for the initial consults to happen sooner and prevent delays in care. In addition, virtual visits would eliminate the cost of transporting the resident to and from the physician’s office as well as the confusion and negative impact trips of this nature can have on the resident.

• Expand dental care services for long term nursing facility residents based on the proven link between poor oral and dental care and downstream medical expenses.

Providing quality dental care services within long term care facilities has historically been very challenging for operators. Yet, the link between poor oral and dental care and downstream medical expenses has been proven. It is recommended that a study be conducted to determine the most cost effective solutions to assure that needed dental care services are provided to all nursing facility residents.

• Change current reimbursement regulations to allow for blood transfusions for long term care residents, when medically appropriate, to be administered at the bedside instead of the current requirement of admitting that resident to the hospital as a Medicare patient and reimbursed as such.

A recent white paper discussion on blood transfusions for nursing facility residents recommended the administration of blood transfusions at the bedside for medically appropriate residents instead of the current practice of admitting that resident to the hospital. Estimated savings to the Medicare program in excess of $100 million a year were identified with
this single change. This original regulation for payment of blood transfusions was administered in 1965, when Medicare was established. At that time the hospital was the appropriate site for this form of care. In 2017, our practices have advanced to a time where this is no longer necessary. However, historical regulations still mandate this practice.

**Note:** These examples represent just a few of many opportunities to improve care and reduce unnecessary spending within our health care system. While the savings potential from changes like those listed above are significant, two important factors must be addressed to assure that the impact they can generate is realized and made available to help close the reimbursement gap. The first factor is decreasing the time required to bring change. The second factor is that the majority of savings from the changes recommended would most often be realized by Medicare and not Medicaid. Therefore, for this strategy to be successful, Medicare savings generated from these efforts must be shared with the Medicaid program. An evaluation of current policy and identification of any potential future changes in policy, to allow for the shared savings to flow between Medicare and individual state Medicaid programs should be undertaken.

**#3. Streamline the process at CMS for making needed changes to outdated and ineffective policies that are clearly not in the best interest of the resident and result in unnecessary and avoidable spending:**

Identify opportunities to dramatically reduce the time required to change outdated reimbursement and regulatory requirements that are clearly not in the best interest of the resident and result in poor care, increase risk to residents and add significant and unnecessary health care spending. The current process to successfully change historical regulatory requirements can often take years, even when the needed change is so obviously appropriate. (CMS was recently approached requesting a change in Medicare reimbursement that would allow Medicare to pay for a bedside blood transfusion for a Medicaid SNF resident
rather than requiring that resident to be admitted to the hospital as a Medicare patient before payment could be made. The estimated time frame identified by CMS to make such a change was over three years).

#4. Identify opportunities to increase the availability of low-income senior housing:

Participants at the Summit recognized the undeniable relationship between the availability of low-income senior housing with the nursing home industry. The lack of low-income housing, which is becoming a national problem, results in premature nursing home admissions and the inability to discharge short stay seniors back to the community.

It is recommended that a national study be initiated and charged with:

- Identify and disseminate “best practices” in the provision of home and community based services that would allow seniors to remain in affordable housing longer thereby delaying the need for nursing home care.
- Identifying existing low-income senior housing models that have replication potential in multiple markets; and
- Identify new opportunities to partner with organizations that would see other benefits by participating in a low-income senior housing program (i.e., a university with programs in: nursing, social service, healthcare and entrepreneurial business development).

#5. Identify opportunities to improve pharmaceutical services provided to nursing facilities that will result in improved care for residents while reducing costs for the system:

Medication related issues are the number one cause for emergency room visits and hospitalizations of seniors. This recommendation calls for the creation
of a study to identify new opportunities to improve the pharmaceutical process within nursing facilities and to also include the transition from the nursing facility to the community. This study will be charged with integrating best geriatric medicine practices directly related to polypharmacy issues (i.e. dosage), as well as identifying existing clinical and reimbursement regulatory requirements that are not in the best interest of the resident from a care standpoint or our healthcare system from a cost standpoint.

#6. Identify opportunities to expand the use of technology within nursing facilities as well as for the transition of the resident from the SNF to home:

The use of technology is an effective way to expand capabilities within the nursing facility as well as help assure a safe and effective transition home. This also includes ongoing home monitoring of high-risk seniors. Given the rapidly expanding senior population, expanding the use of technology to serve the senior market is not an option, but a necessity.

It is recommended that a study be commissioned and designed to evaluate how technology can be effectively used within the nursing facility, during the transition from SNF to home and continuing into the home. In addition to the goal of reducing avoidable emergency room visits and hospitalizations, the study should:

- Develop a systematic process to put innovation to work to implement personalized patient relationship management solutions;
- Review ways to integrate health records with care provided and social services to deliver a fully connected and synergistic network; and
- Review current trends in providing in-home support in both the medical and non-medical services required by seniors in the community.
#7. Initiate a study to identify opportunities for those SNFs not selected as preferred providers, given the realities of changing reimbursement systems and simultaneously the creation of “preferred provider networks”, to continue to provide quality care in a financially viable manner.

With the creation of preferred provider networks, those nursing facilities not selected will likely become high Medicaid census facilities. In most states, the financial realities of being a Medicaid only facility does not lead to financial sustainability. To continue providing quality care and survive financially in this new world, these non-preferred providers will need to reduce costs and/or develop new service opportunities.

It is recommended that a study be commissioned to look at the viability of reducing costs for these non-preferred providers as well as other opportunities to expand services and or generate additional revenue.

#8. Take the details from the special session at the Summit on “The Ideal Future Skilled Nursing Facility” as a starting point and commission a study to more completely develop and test the ideal skilled nursing facility of the future.

The session on creating the ideal nursing home of the future generated five specific areas for review and further development:

1. A more focused patient-centered and acuity-based system for staffing pattern and for reimbursement;
2. Further implementation of technology in SNF’s for better information leading to more directed and focused personalized care;
3. Changing the adversarial relationship between the regulators and providers from one that is punitive to one that emphasizes teaching;
4. Specific training programs that enhance staff proficiencies and benefit the patient through improved personal services and programs; and

5. Development of a data analytics process which would provide information to help enhance care not only within the nursing facility but also useful in the primary and acute care setting.

It is recommended that a study take these five areas and expand them to create a more detailed model that can be developed and construction as a pilot facility for further evaluation.

These recommendations were developed following intense discussion and consensus of the participants at the Summit. They assume an openness on the part of CMS and each state to improve our nation’s nursing home industry and as such, an openness to make timely changes and refinements to historical regulatory and reimbursement practices that are no longer acceptable in today’s rapidly changing health care system.

Our current process for change requires too much time resulting in continuation of practices that are not in the best interest of the seniors we are responsible for caring for while adding billions of dollars of unnecessary spending to our health care system. Streamlining the current process and making needed changes in historical regulatory and reimbursement policies is essential to achieve success with these programs.
The following represents a general report overview of the National Summit on Future of America’s Nursing Home Industry.

John Whitman, a national long-term care expert, Executive Director of the TRECS Institute, and adjunct professor at the Wharton School was the keynote speaker and presented the opening remarks on the current state of the long-term care industry across America.

Our Industry is in an unprecedented period of change. It is characterized by a matrix of traditional assumptions, regulatory rules, reimbursement changes, clinical practices, and misaligned financial incentives that are plagued by out-of-data policies creating barriers to both fiscal viability and quality care.

In 2011, the first baby boomers turned 65. In 2031, those same individuals will be turning 85. This represents a 50% increase in the 85-age cohort, the greatest users of health care services. At the same time, the number of 100 year olds will triple. Older Americans are going to account for more than 20 percent of the U.S. population in a little over a decade.

Simultaneously, the number of nursing homes is decreasing. From 2000 to 2009, the number of nursing homes dropped by 9%. Skilled nursing facilities have remained stagnant at approximately 15,400 for the past decade and by 2021 it is projected that figure could decrease by 20%. Why the decrease in facilities? Many skilled nursing facilities constructed under Lyndon Johnson’s Great Society programs in the 1960s have closed due to physical plant conditions and often no longer meet safety regulations. Recessions have made it difficult to obtain construction funding for new facilities. Many nursing facilities, especially those with high Medicaid occupancy, are in a constant financial struggle. In 2015, a study completed by Eljay, LLC & Hansen Hunter & Company, PC for American Health Care found that 35 of the state’s Medicaid
Programs paid less than the average cost per day for Medicaid residents. The average shortfall was projected to be $21.20 per day totaling over $6.7 billion nationally.

This is all part of what many term the “new financial math of healthcare”, which includes decreasing reimbursement, increasing life spans, more complex patients and increased competition as a result of multiple alternatives to skilled facilities.

Will the elder of the future look much different from the past generation? Older and sicker demographics are another industry concern. As life expectancy increases the prevalence of chronic illnesses like Alzheimer’s disease, cancer and diabetes will also increase. Conditions that affect the elderly will occur in combination, thereby complicating the ability to provide care. Advancing age is a high risk factor for cancer, with persons over 65 accounting for 60% of newly diagnosed malignancies and 70% of all cancer deaths. According to an article published by the Trans Am Clinical and Climatological Association, the incidence of cancer in those over 65 is 10 times greater than in those younger than 65 and the cancer death rate is 16 times greater in patients over 65 compared to younger patients. More than 70% of the mortality associated with many cancers including prostate, bladder, colon, uterus, pancreas, stomach, rectum and lung occur in patients 65 and older.

Alzheimer’s disease is the sixth leading cause of death in America. According to the Alzheimer’s Association more than 5 million Americans are living with Alzheimer’s and by 2050 this number could reach 16 million. In addition, by 2025 the number of those over 65 with diabetes is expected to double to over 10 million.

The second school of thought is that the future elder will be a healthier, the byproduct of diet, exercise, improved medical advances in treating top chronic conditions such as, heart disease, diabetes and cancer. However, as the age expectancy increases so does the frailty and a life with chronic afflictions requiring constant management and monitoring. In addition, isolation due to the loss of extended families and the accompanying advance age of children makes family care less practical. As “old age” is now set further in the life expectancy timeline, skilled care increases proportionately. This makes the projected skilled facility resident older and sicker. The average stay at a skilled facility has dropped dramatically. Average current
length of stay is 90 to 100 days instead of 2.5 years from just a decade ago. This means more patient turn over, greater staffing needs and increased marketing costs.

The increased acuity level of patients, the increase in competitive alternatives to skilled nursing facilities, the constant struggle with regulatory compliance, the decrease in the average length of stay for nursing facility residents and trend at both the federal and state level to decrease funding for skilled nursing facilities, strongly suggests that the financial viability of the traditional nursing home model is in serious jeopardy. At last projections, Medicaid and Medicare account for upwards of 90% or nursing home revenues; the rest coming from private pay, long-term insurance and a variety of “other” sources such as the VA. In addition, private insurers are increasing long-term care premiums, decreasing periods of coverage or are exiting the market due to lower profits as seniors live longer.

Medicare and Medicaid, and the remaining insurers, have reached a consensus that it is more cost efficient to care for this population in their homes or community settings rather than in a skilled nursing facility. Whereas, consumers and their families may prefer the newest state of the art continuing retirement centers with eventual skilled care services when needed, the private equity markets are aggressively focusing their investments on assisted living and home-based technologies. This leaves nursing facilities floundering while assisted living and home care hubs appear to be the current wave of the future.

The skilled nursing industry faces unprecedented levels of competition. It is coming from every direction. The push from both federal and state agencies to keep seniors at home, the Affordable Care Act, Life Care and Continuing Care Retirement Communities, PACE programs, assisted living centers, increased IT at home management and monitoring capabilities and changing hospital discharge practices all impact the nursing home economic.

With the introduction of the Affordable Care Act and bundled payments, hospitals began selecting a small network of “Preferred SNF Providers”. These facilities were selected for their quality, high Medicare Star rating, strength, and stability of their management team, medical director involvement, current readmission rate,
geographical location and a mirad of other characteristics established by the local hospital.

Achieving “Preferred Provider” status is the goal of every skilled nursing facility because it guarantees them a future stream of Medicare and Medicare Managed Care residents. For seniors, preferred providers offer the best level of quality available with regular interactions from their physician and the local hospital.

For those skilled nursing facilities not selected as preferred providers, the future is much dimmer. In fact, one of the prime reasons for hosting the Summit was to discuss the future of these “non-preferred providers.” With the lion’s share of all Medicare and Medicare Managed Care patients going to the preferred providers the remaining nursing facilities are likely to become high occupancy Medicaid facilities. Because, the Medicaid Program in 35 of 50 states pays significantly below the actual cost of providing care, these non-preferred facilities face serious difficulty surviving. With reduced or no Medicare census, these facilities will start admitting even more Medicaid residents to fill their beds.

Historically, when a skilled nursing facility becomes a high Medicaid provider, they begin a path known as the “Downward Spiral”. During this two to three year process, the facility sees increasing difficulty in hiring and retaining staff. As a result, staff turnover increases and simultaneously, quality decreases. At the same time, in order to meet minimum-staffing requirements set by state regulations, these facilities are forced to use high cost staffing agencies adding further cost to the financial difficulties of the facility. Ultimately, many of these facilities will reach a point of financial insolvency resulting in closure.

Recruiting and retaining staff, even at the best facilities, can be difficult. For facilities with reduced revenue, the struggle to recruit and retain staff is even more challenging. Studies have shown that even at the nurse’s aide level, each time an employee leaves, it costs a facility between $2,000 and $10,000 to replace them. According to the latest data from nursing homes the turnover rate in 2016 reached 52 percent. High turnover among direct care workers has been a major issue for decades. When a nursing facility is short staffed, it places both the residents and staff at risk. As a result, staff turnover increases and simultaneously quality decreases. This makes it
even more difficult to find staff necessary to meet minimum state staffing requirements. The result is the utilization of outside agencies again adding further costs.

Another factor creating a real issue for some nursing facilities is the Medicare 5 Star Rating System. Most hospitals, in looking to establish a preferred provider network require a Five Star Rating of no less than 3. Launched in 2008, the national rating system was designed for consumers to compare nursing homes. It uses information collected from health care surveys, quality measures and staffing patterns to rate a nursing home for 1 to 5 stars. The current system however is thought by many to inaccurately reflect a facilities true standing for several reasons:

- It is based on the findings of a short on-site survey over just a few days and therefore does not represent a true picture of a facility

- The process by which certain quality measurements are calculated are flawed (If a facility is good at caring for wounds and therefore receives many referrals of patients with wounds, their percentage of wound care patients will exceed the standard, and negatively impact that facilities quality rating)

- If a deficiency is identified, it can take 9 quarters to eliminate that negative finding from the facilities overall score.

In the greater Philadelphia market there are 178 nursing facilities with the following Medicare Star breakdown: 25.8% = 5 Star, 23.5% = 4 Star, 19.6% = 3 Star, 17.4% = 2 Star, 12.9% = 1 Star. In the Philadelphia market, 30.3% of all skilled care facilities would not be eligible to apply for “Preferred Provider Status” because of their low Medicare Star rating. These are the facilities most at risk of becoming Medicaid only facilities.

Another area of deep concern is the future availability of aides to care for the elderly and disabled. Nurse aides are low salaried positions yet work in a highly physical and emotional arena. Some thrive in this environment but for most its difficult work environment and accounts for one of the leading causes for high staff turnover. With the growing aging population however, the demand for nurse aides will continue to grow yet
the availability is likely to create significant issues in the future for nursing facilities, home health agencies and other home care services.

It is inevitable that not all nursing homes will survive. As America ages, a huge paradox of uncertainty exists for both the elderly and the skilled facilities historically designed to serve them.

Specific areas reviewed during the Summit included:

1. Reimbursement Models (Shifting to quality and outcomes)
   - Bundled Payment for Care Improvement (BPCI) Initiative
   - ACOs
   - Medicare & Medicaid Managed Care

   The future of our Medicaid funding faces its greatest threat in years. Congress is considering reforms that would further challenge our ability to provide quality care to our poorest residents. These proposals could dramatically reduce funding to the states and eliminate supplemental funding mechanisms. Nationwide Alert: Tell Congress to Protect Medicaid: AHCA/NCAL 2-16-17
   - Reimbursement levels
   - Decreasing state and federal reimbursement
   - Decreasing levels of private pay (Cost per year can now exceed $100,000)
   - Higher competition for Medicare and Medicare Managed Care Patients (LOS)
   - Increasing percentages of Medicaid
   - The reality of block grants

2. Changing Characteristics of the Resident
   - Being admitted older and with greater care needs
   - Staying for shorter LOS
   - Baby Boomers – “The Age Wave”

   Additional Change Factors:
   - Competition
   - People staying home longer before entering a nursing facility
• Bundled Payment Program encourages “bypassing” SNFs
• Home and Community Based Programs
• Assisted Living Facilities
  o Taking residents that historically went to SNFs
  o Keeping residents longer
  o Staffing
  o Recruiting and keeping quality staff
  o CNA language barriers
  o High turnover rates
  o Retention of NHAs and DONs

3. High Volume of Sales to Health Care Reits
• SNFs sold at high values
• Operators took on high lease levels
• Decreasing census and reimbursement makes leases challenging

4. Regulatory Oversight
• Overly burdensome
• Multiple inspections (local, state, federal)
• Punitive in nature but should be constructive

5. CMS Five Star Rating System
• Many provider concerns with process
• There are 178 SNFs in the Philadelphia market. Based on a
 CMS 5 Star Rating: 46 or 25.8% achieved 5 Stars; 42 or 23.5% achieved
 4 Stars; 35 or 19.6% achieved 3 stars; 31 or 17.4% achieved 2 stars and
 23 or 12.9% received 1 star.

6. What does the future look like for America’s Nursing Facilities?
• One Realistic Scenario:
• The “Ying and Yang” of Bundle Payments
• The Ying:
• Care coordination over 90 days
• Creation of “Preferred Provider SNF Networks” leads to improved care for
  seniors”
• Shared savings
• The Yang
• “Non-Preferred” likely to become high occupancy Medicaid

7. In 35 states the Medicaid rate is on average $23/day below cost of providing care

The downward spiral could begin and lead to decreasing quality of care and ultimate closures - What is the “Downward Spiral?”

• As Medicaid census increases, financial losses grow
• Limited Medicare and Medicare Managed Care to offset Medicaid
• Staffing becomes harder to retain
• Recruiting becomes more and more difficult
• Agency time increases to meet minimum staffing requirements
• Annual surveys begin to deteriorate
• CMS Star Rating declines even further
• The quality of care received by residents continuously drops
• Placed on fast track for closure after two to three years of decline

8. Based on hospital trends in selecting preferred provider networks, it is not unrealistic to estimate 30% or more of our nation’s 15,400 nursing facilities will fall into this downward spiral.

What are the real ramifications of this scenario?

• Continued decline in the quality of care provided to the seniors in those facilities
• What happens to the 100+ residents when a facility closes?
• What happens to the workforce?
• 30% of 15,400 facilities = 4,620 x 120 beds = 554,400 beds and conservatively 400,000 workers displaced
• Given the current occupancy levels in most states, this level of closure would exceed the industries ability to absorb all the displaced residents.

Perhaps this should be seen as an opportunity to take excess bed capacity out of the system, allowing remaining facilities to operate at a higher census with improved performance? However, as the baby boomers approach the age where nursing home care is more needed, will our system have sufficient beds?
9. How can the Nursing Home Industry survive these realities?
   - Find opportunities to improve care and save money
   - Go for the “No Brainers”
   - Preventing avoidable SNF to hospital transfers
   - Use of telemedicine
   - Improve communication and care coordination
   - Stronger patient monitoring
   - Increase patient/family engagement
   - Change historic reimbursement regulations to allow Medicaid LTC residents in need of transfusions to receive that service at the bedside in the SNF instead of transporting them to the hospital where they convert to Medicare … and Medicare pays for the service
   - Consider overhauling the nursing home inspection process that once were considered politically “untouchable

Final Comments:
   - The Nursing Home Industry in America is at risk!
   - Risk is coming from a multitude of directions
   - Our system contains many opportunities to improve care and save money at the same time – We MUST pursue them now!
   - Identify those “No Brainers” and make change happen
   - The savings implications for the system are tremendous and the potential for the nursing home industry to share in those savings is not “Peter Pan” thinking!

One of the intended outcomes of this Summit was a unified effort across the industry to identify opportunities to improve care and simultaneously save health care dollars.

The second half of the Summit was based on round table discussions with findings presented in an open forum discussion on “The Ideal Future Skilled Nursing Facility”.

The preceding section described the current situation for the skilled nursing facility. Our Summit participants of industry experts, regulators, consultants and direct
care providers spent several hours describing what could be included in the ideal facility of the future. Five themes emerged from their group work. These themes couldn’t be viewed as all-inclusive given the brevity of time, but there certainly is a foundation for constructing a facility that would enhance satisfaction for all effected groups and for our society as a whole. These themes include:

1. A more focused patient-centered and acuity-based system for staffing patterns and for reimbursement.
2. Further implementation of technology in SNF’s for better information leading to more directed and focused personalized care.
3. Changing the adversarial relationship between the regulators and providers from one that is punitive to one that emphasizes teaching.
4. Specific training programs that enhance staff proficiencies and benefit the patient through improved personal services and programs.
5. More Detailed and Systematic Use of Data.

These themes also are inter-related. Improvement in one area has the likelihood of having a positive impact on other areas. Conversely, ignoring an area has the potential of at least minimizing the possible outcomes in other important areas. More detailed comments of these themes demonstrate their inter-relationships.

**Patient-Centered and Acuity-Based System for Staffing and Reimbursement**

The advantages of becoming more patient centric and acuity-based would mean that moving from mandated staffing ratios to an acuity-based system for both staffing a unit and paying for the services provided would make the care provided more tailored to the individual patient and not to the nursing unit as a whole.

Facility design could also be made more efficient when reimbursement becomes based upon acuities. For example, ground floors could have 30-bed memory care units. Second floors could be divided into 30 bed short-term stay units on one side of the building while the other side could include a 30-bed long-term care unit. It is likely that the short-term unit would have many patients there for rehabilitation therapies after a major surgery. The longer-term unit would most likely have patients who are more permanent and dealing with chronic conditions. Each unit would have its own staffing pattern. A building’s third floor could have therapy sections, public areas as well as
rooms for dining, activities and a beauty parlor/spa. Where today’s buildings usually have a small number of private rooms, the ideal facility could have as many as 10% of the rooms given over to private.

This approach to staffing and reimbursement would require specific training for the staff of each unit. Establishing academic practice partnerships would enable the staff to interact with instructors who are both researching and advancing the latest in care procedures for the elderly. As successive generations move into their senior years, their individual wishes and cognitive skills will change. Academic partnered facilities would be better prepared to accommodate and adapt to generational changes.

These academic partnerships could also be a resource for student internships, research and future hires for the facilities.

Technology Usage

The skilled nursing business has always been one of “high touch/low tech”. It must remain a “high touch” health care segment. Its staff migrates to it because they have a genuine concern for the elderly and the infirm. But, its long-term viability as an important segment of health care depends upon a greater use of technology in a variety of ways. We foresee that:

Technology is an integral part of how the ideal SNF operates. It is the glue that enables the facility to operate efficiently. It is the backbone of the administrative system providing knowledge, which matches revenues to costs.

Technology systems track patient movements, improves the nurse call system, provides 3-way medications communications, uses robotics to support CNA work, helps to minimize and track falls; and, provides robust telemedicine to physicians and local hospitals so that patient conditions can be addresses quickly even in off hours and on weekends.

Greater use of technology enhances training through self-directed and self-paced web classes for all labor groups in the facility. Skype and iChat use will enable
SNF staff and hospital staff to converse regarding patient conditions in “live time” in a more personal manner than mere phone conversations allow today. In addition, PDA’s and iPads also enable faster and more accurate bedside documentations. Better data collection enables the facility staff to personalize care for each patient and establish research information to help provide answers to questions that arise throughout the shift and workday.

More detailed data collection allows for more factual and current conversations with family members which improves family knowledge as to what is being done and occurring with their loved ones living in a SNF.

Greater use of technology also increases the knowledge that care providers have across the different health care segments which promotes more cooperation and collaboration. The ultimate result of this is improved patient care and outcomes.

**Changing Survey Relationships**

The surveyor-facility relationship changes from one of adversary to one of teaching. This results in improved patient care with each side feeling a shared responsibility for patient care. Surveyors become purveyors of best practices within the skilled facility settings. Surveyors become a resource for the practitioners, helping the facilities improve their patient care instead of merely meting out punishments for service gaps. Surveyor training emphasizes their role as teacher/tutor and provides them with leading edge knowledge so that they can pass this along to facility staffs.

Reimbursements are based upon patient outcomes and compensation includes sufficient moneys to reinvest in the physical plants, which allows for the use of state-of-the-art equipment and technology.

Regulations that do not impact patient care directly are reduced or eliminated. This allows the operators to become more creative in ways that address patient care needs. They manage to the needs of the patient/residents as opposed to regulations that can have an inhibiting affect on developing new and perhaps better ways of providing care.
Telemedicine is reimbursed in ways that allows for its implementation and recognizes the positive contributions that it can make to the facility operation and to the care of the patient.

**Data Collection**

Greater technology usage will improve patient care and facility operation through the following ways:

- Enables more detailed data collection and thus know individual patient needs better.
- Allows for systematic and more frequent patient reviews for improving individual patient care.
- Faster, more accurate collection of patient information allows for swifter responses to patient needs, which improves patient outcomes.
- More detailed data also removes much of the subjectivity that exists in the current survey process.
- Collected facts will enable the survey team to better understand exactly what care the patient has been receiving and steps that have been taken to address individual patient needs.

More detailed patient information across the industry also leads to consistent standards, measurable outcomes and better tracking of patient conditions such as pressure sores, falls and infections. Specific information regarding facility events such as falls could lead to a better understanding of avoidable versus unavoidable events perhaps reducing the number of avoidable incidents. Data details also provide more specific information regarding staff competencies with respect to patient care by matching nursing experience with patient needs.

More detailed data allows the staff to track different therapy methods (i.e. restorative versus maintenance practices), which again has the potential for improving patient outcomes. It also enables staff training to be more specific and targeted for the types of patients who are typically residing in a particular facility.

These thoughts are merely the beginning of a process that needs attention. The baby boomer generation is arriving to their senior years with specific demands and expectations that today’s nursing facilities cannot meet. Instead of
moving towards irrelevance, the nursing facility can change but to do so will take an industry-wide, a government and a societal commitment to make change. The ideal skilled nursing facility in the future can be attained, but it will require a commitment to the following:

1. Adequate and “fair” patient care reimbursement,
2. A reduction in unnecessary regulations that do not improve patient care,
3. Greater staff training,
4. More patient data collection,

Further explorations as to how technology can improve care and services; and, a focus on personalized patient care.

We urge the formation of a work group to design and implement what could be a future nursing facility. This work group should include current operators, DONs, state inspectors, physicians and NPs, RNs, LPNs and CNAs along with other professions actively working in the skilled nursing facility space. A working pilot program testing ideas could lead to a new model that better meets both society’s and future patient needs.

On behalf of the Leonard Davis Institute and The TRECS Institute, we wish to thank all of the attendees at the Summit for their active participation and contributions.
**Recommendation #1:** Identify new approach(s) to conduct the annual skilled nursing facility (SNF) Survey

**Anticipated Outcome:** A process that is more educational, supportive, less expensive and leads to more consistency across all SNFs while continuing to assure the highest quality of care and resident and staff safety

**Potential Approach:** Commission a study group in Pennsylvania with representation from CMS, Leading Age, American Health Care Association, and the PA Department of Health. Appropriate specialties including; Directors of Nursing, Medical Directors, NFAs, and other SNF staff and outside experts.

This group will mutually agree upon an approach that is designed to assure quality of care, resident and staff safety, increased educational benefits of the survey process, reduced unnecessary paperwork, and increased consistency.

Implement this new approach in several "Volunteer Pilot Facilities" and evaluate the results. Refine model as needed. After multiple surveys, present final approach to CMS and the state.

**Time Frame Required:**

*Total project time frame is estimated to be three (3) years based on the following schedule:*

**Year 1:** Identification of organization or individual to lead the study, select key members of the study group and begin review of current survey approach and creation of a refined approach that would meet the design goals of the project.

**Year 2:** Apply new approach over multiple volunteer facilities and with each evaluate and refine the process as needed.

**Year 3:** Continue to apply the new approach, refining with each new survey culminating in presenting the final recommended survey approach to CMS and the Pennsylvania Department of Health.

**Cost Estimate:** $500,000

To maximize the ability of this project, it is recommended that an individual be identified to lead the group and be compensated for the time required over this three-year study. In addition, it is further recommended that members of the study group, along with carefully selected existing surveyors, current NHAs, DONs and others industry leaders be invited to participate in conducting surveys using the new survey process, conduct a detailed review after each to identifying needed refinements and improvements to the new survey process.

---

**Note:** The cost estimates identified in this document are broad estimates offered strictly to provide an idea of the potential cost of implementing each recommendation. Obviously, these estimates could change dramatically depending on the actual implementation strategy selected.
Recommendation #2
Identify and evaluate opportunities to close the gap between the actual cost of providing care per day and the current reimbursement paid per day by state Medicaid Programs.

Top Priority

Anticipated Outcome(s)
Identify and change existing operational, reimbursement and regulatory practices that result in reductions in quality of care for residents and unnecessary spending within health care system.

Consider the two programs below to start this effort because, as they currently exist, it is painfully obvious that they are not in the best interest of the resident and they add millions of dollars a year to our health care system.

#1: To pay for the costs of addressing the eight recommendations presented in this report;

#2: Share savings with state Medicaid Programs allowing for increased reimbursement with the goal of narrowing or eliminating the current gap between the cost of caring for Medicaid residents and the current level of payments.

Potential Approach
Identify a highly credible organization to evaluate the two specific services identified in this report and continue to identify additional opportunities to improve care while reducing spending.

#1: Expanding the use of Telemedicine in SNFs to prevent avoidable SNF to hospital admissions and readmissions. The ability of this service to improve care and save money has been proven. If just 25% of our nation’s SNFs used this service, the savings to Medicare are estimated at $1.2 billion dollars a year.

#2: Authorize Medicare payment for needed blood transfusions for LTC Medicaid residents at the bedside in the SNF.
Current industry wide practice admits the resident to a hospital so Medicare pays for the service. Bed side services offered in the SNF are safe and proven and could save Medicare over $500,000 a year.

Time Frame Required
Total project time frame is estimated to be (1) year for the two areas below.

Telemedicine:
Expanding the use of Telemedicine in SNFs should be encouraged immediately. There are no regulatory changes required. To help assure rapid expansion thereby generating greater savings sooner, it is recommended that CMS authorize some form of “Shared Savings” with all participating SNFs.

Blood Transfusions in SNF
This will require changes in the current reimbursement process. CMS would need to authorize payment for blood transfusions at the bedside in the SNF for Medicaid LTC residents thereby avoiding that resident being admitted to a hospital as a Medicare patient. This would also avoiding the high cost of hospitalization as well as the many risks to the resident from an unnecessary admission.

Cost Estimate:
No cost unless shared savings opportunity selected to expedite implementation

Expanding the virtual physician service across America could be achieved at no cost by working with the industry’s professional associations. However, to expedite the acceptance level and fast track the actual savings this program can generate, creating a “Shared Savings” program with participating SNFs is highly recommended.

For the Blood Transfusion Program, a change in Medicare reimbursement regulations would be required. Under CMS’s current process, this could take several years. It is highly recommended that CMS identify a expedited process for situations like this were more rapid change is in the residents and CMS best interest. A shared savings program with Medicaid may offer some Potential and should be considered.
Recommendation #3:

Streamline the process at CMS for making needed changes to outdated and ineffective policies that are clearly not in the best interest of the senior and result in unnecessary and avoidable spending:

Top Priority

Anticipated Outcome(s)
A new process at CMS that would allow for an expedited review and change from current and historical practices that are clearly not in the best interest of the resident and adding unnecessary and avoidable costs to America’s health care System.

Potential Approach
Work with CMS and Medicaid to create a process that would allow Medicaid LTC residents in need of medically necessary transfusions to receive those transfusions at their bedside in the SNF instead of being admitted to a local hospital.

If the time required to officially change current regulations is too long, it is recommended that CMS consider a shared savings arrangement with Medicare, state Medicaid programs and SNFs.

This shared savings option may be the fastest and the most effective way to assure that Medicaid LTC residents in need of medically appropriate blood transfusions can safely receive them in the SNF preventing an avoidable hospital admission and saving Medicare an estimated $500 million a year.

Time Frame Required
Total project time frame is estimated to be (1) year.

In 1965 when Medicare and Medicaid were passed the only place to safely provide a blood transfusion was in a hospital setting. Medicare regulations therefore would only pay for blood transfusions administered in a hospital setting. Unfortunately, in 2017 when these same blood transfusions can be safely and effectively be administered at the patient’s bed side, avoid an unnecessary hospitalization and saving the Medicare an estimated $500,000 million dollars a year.

If changing antiquated reimbursement regulations requires a multiyear effort, it is recommended that CMS consider developing a shared savings arrangement with both Medicaid and interested in Participating SNFs.

Cost Estimate:
No Cost if change made to current reimbursement regulations.

If a shared savings model is developed a percent of the savings would be shared with the participating SNFs. This process however would also expedite acceptance and fast track the realization of savings to Medicare.
<table>
<thead>
<tr>
<th>Recommendation #4: Identify opportunities to increase the availability of low-income senior housing</th>
<th>Anticipated Outcome(s)</th>
<th>Potential Approach</th>
<th>Time Frame Required</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Priority</strong></td>
<td>Identify “best practices” of successful low-income senior housing projects across the country and research new and creative opportunities to meet this growing national need. This could include active partnering with colleges and universities but also options like revitalizing shopping malls with mix uses that would include various levels of senior housing including low income along with a range of senior services.</td>
<td>Host a national Summit specifically evaluating the current realities of low-income senior housing across America and use the Summit as a catalyst to heighten awareness of the issue and begin identifying a range of possible solutions. Invite the best minds in the business to actively participate in this Summit followed by the formation of a national work group tasks with the identifying multiple opportunities to help address this critical need across America.</td>
<td><strong>Total project time frame is estimated to be (18) months.</strong></td>
<td><strong>$200,000</strong></td>
</tr>
</tbody>
</table>

To effectively plan the National Summit on Low-Income Senior Housing will require approximately 6-8 months. The national work group tasks with identifying various options to address the rapidly growing need for low-income senior housing would require approximately 8-10 months to effectively research and develop realistic and actionable models worthy of implementation.

This amount would include approximately $50,000 for hosting the Summit and $150,000 for the national work group to complete the study.
**Recommendation #5:**

**Identify opportunities to improve pharmaceutical services provided to nursing facilities that will result in improved care for residents while reducing costs to our health care system.**

*High Priority*

<table>
<thead>
<tr>
<th>Anticipated Outcome(s)</th>
<th>Potential Approach</th>
<th>Time Frame Required</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on input from professionals in medical, operational, pharma and financial aspects of pharmaceutical services provided to SNF residents while at the facility and prior to their returning to the community, identify changes that will result in improved care, reduced readmissions and saved costs for pharmaceutical services.</td>
<td>Host several regional Summits across the country and invite key professionals from the SNF industry, representing medical, pharmaceutical, operations, and financial services and brainstorm opportunities to improve care for residents and reduce costs for facilities and for our health care system. Costs savings could come in the form of reductions in the cost of the actual medications or volume of medications prescribed, reduction in admissions or readmission directly related to issues caused by medications. The recommendations generated from these regional Summits should be combined and further evaluated by a special panel of experts identified by Leading Age, the American Health Care Association, the American Society of Consultant Pharmacists and CMS to select the ideas with the greatest merit for further evaluation through pilot studies.</td>
<td><em>Total project time frame is estimated to be (24) months.</em> One year has been allocated host a series of 4 regional Summits to generate ideas and recommendations. The special panel will then have three months to review, combine and evaluate the findings from the regional meetings with the goal of identifying opportunities that can be tested at several pilot sites across the country to confirm, refine or reject those ideas for their ability to improve resident care and reduce costs. After six months of pilot testing, the panel will have three months to review the success of each idea and those that have proven to improve care and reduce cost will be recommended for system wide implementation.</td>
<td>$400,000 This estimate is based on four (4) regional Summits at $50,000 each and an additional $200,000 for creating and overseeing, and evaluating the impact of the pilot studies.</td>
</tr>
</tbody>
</table>
**Recommendation #6:**

**Identify opportunities to expand the use of technology within nursing facilities as well as for the transition of the resident from the SNF to home.**

**Anticipated Outcome(s):**

Identify new technologies that can help improve care, increase effective monitoring, help in data collection and analysis all with the goal of improving care, preventing avoidable hospital admissions and readmissions and reducing costs.

**Potential Approach:**

Two approaches are being recommended:

**First Approach:**
Convene a national Summit of experts representing all areas of expertise within the nursing home industry along with IT and technology experts to discuss and identify specific areas within the day to day operations of nursing facilities where the use of technology could help improve care and reduce costs.

**Second Approach:**
Sponsor through the Leading Age and the American Health Care Association a contest using the specific areas identified through the Summit to entrepreneurs and senior focused companies both here in America and internationally to identify technologies that respond directly to the needs identified by the Summit.

The winner(s) will be given the opportunity to pilot their technology in a number of volunteer facilities selected by the Associations.

**Time Frame Required:**

*Total project time frame is estimated to be (12-14) months.*

The Summit will require approximately 6-8 months and the contest another 6 months to sponsor and coordinate.

**Cost Estimate:**

$250,000

This estimate includes $50,000 for the Summit and $200,000 for the contest. Of the $200,000 a portion would go to Leading Age and the American Health Care Association for their efforts in coordinate n marketing the contest and a portion towards the “prizes” for the winners of the contest.
**Recommendation #7:**

Initiate a study to identify opportunities for those SNFs not selected to be “preferred providers” to reduce costs and help identify new revenue sources with the goal of preventing the likely decline in quality of care for residents within these facilities because of the high Medicaid census they are most likely to experience.

Helping avoid this likely decline in quality will also help

<table>
<thead>
<tr>
<th>Anticipated Outcome(s)</th>
<th>Potential Approach</th>
<th>Time Frame Required</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify opportunities for those SNFs not selected as “preferred providers” to reduce costs and help identify new revenue sources with the goal of preventing the likely decline in quality of care for residents within these facilities because of the high Medicaid census they are most likely to experience.</td>
<td>Convene a national Summit of experts in all aspects of long term care to collectively brainstorm potential opportunities for non-preferred SNFs to reinvent themselves, add new programs and services, think outside the traditional LTC business model to identify possible revenue producing opportunities allowing them to continue serving their long-term care residents with quality care services. This Summit should also address the issue of when the potential reality of closing a facility may indeed be the best option.</td>
<td><em>Total project time frame is estimated to be (8) months to plan and host a national Summit and to develop a final report with specific findings and recommendations ready for distribution.</em></td>
<td>$50,000</td>
</tr>
</tbody>
</table>

The cost to plan, coordinate and host a national summit of this magnitude and take the Findings and recommendations from that gathering to create a guide book for SNFs to review and follow will carry of cost of approximately $50,000.
**Recommendation #8:**

*Take the details from the special session at the Summit on the “Ideal Future Skilled Nursing Facility” as a starting point and commission a study more completely develop and test what could be the ideal skilled nursing facility of the future.*

**Anticipated Outcome(s)**

Based on the research and findings of the study group, one or more models of what could be a more efficient, more caring and more cost effective skilled nursing home model would be brought forward for testing in multiple locations around the country. These test sites would be carefully monitored and as needed refinements and changes made to the model.

**Potential Approach**

Commission a study group with representation from both national nursing home associations, the national association of medical directors and DONs along with representation from rehab, pharmacy, social services and others familiar with the industry. This study group would start with materials develop at the special session at the Summit on the Future of America’s Nursing Home Industry looking at the ideal future nursing home. With additional research and brainstorming, this group would develop one or more models, designed to improve care and reduce costs. Given the diversity of the senior population, it is likely that multiple models will emerge from this process. Ideally, these models can be tested and refined resulting in specific models that have replication potential.

**Time Frame Required**

*Total project time frame is estimated to be (12) months to review past material, conduct new research and interviews and create one or more models worthy of testing.*

Creating and implementing actual test sites is not included on this time estimate. Until the findings of this study group are seen and the number and diversity of models reviewed, it is impossible to estimate the time or cost involved in testing these recommended models.

**Cost Estimate:**

$100,000

This study should have a paid chairperson to assure the project is effectively developed and timely.

The budget also includes dollars for the study group to bring in others considered to be experts in various aspects of the LTC industry who can help contribute to the ultimate Success of the project.

Finally, because of the time and dedication that will be required by the members of the study group, a small honorarium as well as travel expenses are included in the budget.
# National Summit on the Future of America's Nursing Home Industry

**Friday, February 17, 2017 at the Leonard Davis Institute (LDI)**

## Attendees Contact Information

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Title</th>
<th>Organization</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahnru</td>
<td>Vikram</td>
<td>Chief Executive Officer - CEO</td>
<td>First Opinion Medical Services</td>
<td><a href="mailto:vik@firstopinionmed.com">vik@firstopinionmed.com</a></td>
</tr>
<tr>
<td>Barretto</td>
<td>Abigail</td>
<td>Senior Director, Public Affairs</td>
<td>American Health Care Association</td>
<td><a href="mailto:abarretto@aha.org">abarretto@aha.org</a></td>
</tr>
<tr>
<td>Bavaria</td>
<td>Judee M.</td>
<td>President &amp; CEO</td>
<td>Presby's Inspired Life</td>
<td><a href="mailto:Judee.Bavaria@presbyspinspiredlife.org">Judee.Bavaria@presbyspinspiredlife.org</a></td>
</tr>
<tr>
<td>Bellomy</td>
<td>Greg</td>
<td>Chief Strategic Growth Officer</td>
<td>BAYADA Home Health Care</td>
<td><a href="mailto:gbellomy@bayada.com">gbellomy@bayada.com</a></td>
</tr>
<tr>
<td>Rosa</td>
<td>Jill</td>
<td>Chief Operating Officer - COO</td>
<td>Kindred Healthcare</td>
<td><a href="mailto:Jill.Rosa@kindred.com">Jill.Rosa@kindred.com</a></td>
</tr>
<tr>
<td>Chess</td>
<td>David</td>
<td>Founder &amp; Chief Medical Officer</td>
<td>TripleCare</td>
<td><a href="mailto:dchess@triplecare.com">dchess@triplecare.com</a></td>
</tr>
<tr>
<td>Clark</td>
<td>Lisa W.</td>
<td>Esquire</td>
<td>Duane Morris LLP</td>
<td><a href="mailto:lclark@duanemorris.com">lclark@duanemorris.com</a></td>
</tr>
<tr>
<td>Dornberger</td>
<td>Sherrie</td>
<td>Executive Director</td>
<td>NADONA/LTC</td>
<td><a href="mailto:sherrie@nadona.org">sherrie@nadona.org</a>, <a href="mailto:bzynurse1@aol.com">bzynurse1@aol.com</a></td>
</tr>
<tr>
<td>Drake</td>
<td>Dan</td>
<td>Vice President of Continuing Care</td>
<td>St Mary's Hospital</td>
<td><a href="mailto:DDrake@stmaryshcare.org">DDrake@stmaryshcare.org</a>,</td>
</tr>
<tr>
<td>Durso</td>
<td>John</td>
<td>Senior Counsel</td>
<td>Nixon Peabody</td>
<td><a href="mailto:jdurso@nixonpeabody.com">jdurso@nixonpeabody.com</a></td>
</tr>
<tr>
<td>Faherty</td>
<td>Chris</td>
<td>Operations and Strategic Initiatives</td>
<td>Call9</td>
<td><a href="mailto:chris@call9.com">chris@call9.com</a></td>
</tr>
<tr>
<td>Feng</td>
<td>Susan</td>
<td>Doctor</td>
<td>Purdue University</td>
<td><a href="mailto:luf428@purdue.edu">luf428@purdue.edu</a></td>
</tr>
<tr>
<td>Ferguson</td>
<td>Jeff</td>
<td>Partner</td>
<td>Ferguson Management Services</td>
<td><a href="mailto:jaferguson35@gmail.com">jaferguson35@gmail.com</a></td>
</tr>
<tr>
<td>Fessler</td>
<td>Dan</td>
<td>Administrator</td>
<td>Manor Care Health Services at Mercy Fitzgerald</td>
<td><a href="mailto:Daniel.Fessler@hcr-manorcare.com">Daniel.Fessler@hcr-manorcare.com</a></td>
</tr>
<tr>
<td>Freeman</td>
<td>D.</td>
<td>Administrator</td>
<td>Mid-Atlantic Health Care</td>
<td><a href="mailto:DFreeman@mid-atlanticcitic.com">DFreeman@mid-atlanticcitic.com</a></td>
</tr>
<tr>
<td>Garibaldi</td>
<td>Andrew</td>
<td>Managing Director</td>
<td>L.E.K. Consulting</td>
<td><a href="mailto:a.garibaldi@lek.com">a.garibaldi@lek.com</a></td>
</tr>
<tr>
<td>Gariffo</td>
<td>Steven</td>
<td>VP/SM Marketing Operations</td>
<td>NovHealth</td>
<td><a href="mailto:gariffo703@comcast.net">gariffo703@comcast.net</a></td>
</tr>
<tr>
<td>George</td>
<td>John</td>
<td>Senior Reporter</td>
<td>Philadelphia Business Journal</td>
<td><a href="mailto:jgeorge@bjournal.com">jgeorge@bjournal.com</a></td>
</tr>
<tr>
<td>Grosso</td>
<td>Frank</td>
<td>President</td>
<td>American Society of Pharmacy Consultants</td>
<td><a href="mailto:fgrosso@ascp.com">fgrosso@ascp.com</a></td>
</tr>
<tr>
<td>Grosso</td>
<td>Marylee B.</td>
<td>Managing Partner</td>
<td>American Society of Pharmacy Consultants</td>
<td><a href="mailto:marylee.groso@gmail.com">marylee.groso@gmail.com</a></td>
</tr>
<tr>
<td>Haimm</td>
<td>Ethan</td>
<td>MBA Candidate</td>
<td>Wharton MBA Health Care Program</td>
<td><a href="mailto:haimme@wharton.upenn.edu">haimme@wharton.upenn.edu</a></td>
</tr>
<tr>
<td>Hamowitz</td>
<td>Dan</td>
<td>Medical Director</td>
<td>Private practice/multi-facility medical director</td>
<td><a href="mailto:gerid10@comcast.net">gerid10@comcast.net</a></td>
</tr>
<tr>
<td>Hartman</td>
<td>Theresa</td>
<td>Director of Care Transitions and Strategic Network Partnerships</td>
<td>Atricare Health Services</td>
<td><a href="mailto:thartman@aristacare.com">thartman@aristacare.com</a></td>
</tr>
<tr>
<td>Hughes</td>
<td>Fran</td>
<td>Executive Director of Quality Initiatives</td>
<td>Guardian Elder Care</td>
<td><a href="mailto:fran.hughes@guardianeldercare.net">fran.hughes@guardianeldercare.net</a>,</td>
</tr>
<tr>
<td>Johnson</td>
<td>Joseph</td>
<td>Managing Director</td>
<td>L.E.K. Consulting</td>
<td><a href="mailto:jjohnson@lek.com">jjohnson@lek.com</a></td>
</tr>
<tr>
<td>Kayser</td>
<td>Susan</td>
<td>Partner</td>
<td>Duane Morris LLP</td>
<td><a href="mailto:skayser@duanemorris.com">skayser@duanemorris.com</a></td>
</tr>
<tr>
<td>Kramer</td>
<td>Bob</td>
<td>Chief Executive Officer - CEO</td>
<td>National Investment Center for Seniors Housing &amp; Care (NIC)</td>
<td><a href="mailto:rkramer@nic.org">rkramer@nic.org</a></td>
</tr>
<tr>
<td>Laberge</td>
<td>Alex</td>
<td>Support</td>
<td>Centers For Medicare and Medicaid Innovation</td>
<td><a href="mailto:Alexandre.Laberge@oms.hhs.gov">Alexandre.Laberge@oms.hhs.gov</a></td>
</tr>
<tr>
<td>Lange</td>
<td>Holly</td>
<td>President &amp; CEO</td>
<td>Philadelphia Cooperation for Aging</td>
<td><a href="mailto:lhlange@PCPCHL.org">lhlange@PCPCHL.org</a></td>
</tr>
<tr>
<td>Long</td>
<td>Troy</td>
<td>Regional Director of Operations</td>
<td>Guardian Elder Care</td>
<td><a href="mailto:troy.long@guardianeldercare.net">troy.long@guardianeldercare.net</a></td>
</tr>
<tr>
<td>Lurie</td>
<td>Beth</td>
<td>Director of Innovation</td>
<td>WellCare Florida</td>
<td><a href="mailto:Beth.Lurie@wellcare.com">Beth.Lurie@wellcare.com</a></td>
</tr>
<tr>
<td>McDaid, M.H.A.</td>
<td>W. Russell</td>
<td>President &amp; CEO</td>
<td>LeadingAge</td>
<td><a href="mailto:Ron@leadingagea.org">Ron@leadingagea.org</a>,</td>
</tr>
<tr>
<td>Menio</td>
<td>Diane</td>
<td>Executive Director</td>
<td>Center for Advocacy for the Rights and Interests of the Elderly (CARIE)</td>
<td><a href="mailto:menio@carie.org">menio@carie.org</a></td>
</tr>
<tr>
<td>Merryweather-Arge</td>
<td>Patricia</td>
<td>Executive Director</td>
<td>Project Patient Care</td>
<td><a href="mailto:pmerryweather@p4ps.net">pmerryweather@p4ps.net</a></td>
</tr>
<tr>
<td>Miller</td>
<td>Liza</td>
<td>President</td>
<td>Wellcare Florida</td>
<td><a href="mailto:Elizabeth.Miller@wellcare.com">Elizabeth.Miller@wellcare.com</a>,</td>
</tr>
<tr>
<td>Mor</td>
<td>Vincent</td>
<td>Professor</td>
<td>Brown University</td>
<td><a href="mailto:Vincent_Mor@brown.edu">Vincent_Mor@brown.edu</a>,</td>
</tr>
<tr>
<td>Morrey</td>
<td>Sue</td>
<td>Regional Vice President</td>
<td>Manor Care</td>
<td><a href="mailto:SMorrey@hcr-manorcare.com">SMorrey@hcr-manorcare.com</a>,</td>
</tr>
<tr>
<td>Moses</td>
<td>Stephen A.</td>
<td>President</td>
<td>Center for Long-Term Care Reform</td>
<td><a href="mailto:smoses@centericf.org">smoses@centericf.org</a></td>
</tr>
<tr>
<td>Negron, Jr.</td>
<td>Victor</td>
<td>VP Public Affairs and Marketing</td>
<td>AmeriHealth</td>
<td><a href="mailto:VNegron@amerihealthcartas.com">VNegron@amerihealthcartas.com</a></td>
</tr>
<tr>
<td>Niles</td>
<td>Nathan B.</td>
<td>CEO</td>
<td>Reliant Senior Care Management</td>
<td><a href="mailto:Nathan.Niles@reliantc.com">Nathan.Niles@reliantc.com</a></td>
</tr>
<tr>
<td>Phillips, MD</td>
<td>Cherry</td>
<td>Senior Vice President, Public Policy &amp; Health Services</td>
<td>LeadingAge</td>
<td><a href="mailto:cphillips@leadingage.org">cphillips@leadingage.org</a></td>
</tr>
<tr>
<td>Piszar</td>
<td>Stephen M.</td>
<td>Principal</td>
<td>Progressive Healthcare Consultants</td>
<td><a href="mailto:stevpiszar@gmail.com">stevpiszar@gmail.com</a></td>
</tr>
<tr>
<td>Polsky</td>
<td>Dan</td>
<td>Executive Director</td>
<td>The Leonard Davis Institute</td>
<td><a href="mailto:polsky@wharton.penn.edu">polsky@wharton.penn.edu</a></td>
</tr>
<tr>
<td>Ryckina, MD, MS</td>
<td>Kira</td>
<td>Assistant Professor</td>
<td>University of Pennsylvania</td>
<td><a href="mailto:ryckina@mail.upenn.edu">ryckina@mail.upenn.edu</a></td>
</tr>
<tr>
<td>Sargent</td>
<td>Susan</td>
<td>President</td>
<td>Sargent Healthcare Management Advisors, LLC</td>
<td><a href="mailto:susan@sargenthealth.com">susan@sargenthealth.com</a></td>
</tr>
<tr>
<td>Sehgal</td>
<td>Amrita</td>
<td>MBA Candidate</td>
<td>Wharton MBA Health Care Program</td>
<td><a href="mailto:asehgal@wharton.upenn.edu">asehgal@wharton.upenn.edu</a></td>
</tr>
<tr>
<td>Smith</td>
<td>Katie</td>
<td>President &amp; CEO</td>
<td>LeadingAge</td>
<td><a href="mailto:kmsmith-clan@leadingage.org">kmsmith-clan@leadingage.org</a></td>
</tr>
<tr>
<td>Stefancic</td>
<td>Richard G.</td>
<td>Physician, researcher and educator</td>
<td>Jefferson Health</td>
<td><a href="mailto:Richard.Stefancic@jefferson.edu">Richard.Stefancic@jefferson.edu</a></td>
</tr>
<tr>
<td>Tuchman</td>
<td>Danny</td>
<td>Chief Operating Officer - COO</td>
<td>Cobbie Hill Lifecare</td>
<td><a href="mailto:dtuchman@cobbiehill.org">dtuchman@cobbiehill.org</a></td>
</tr>
<tr>
<td>Vasishtha</td>
<td>Dhruv</td>
<td>MBA Candidate</td>
<td>Wharton MBA Health Care Program</td>
<td><a href="mailto:dva@wharton.upenn.edu">dva@wharton.upenn.edu</a></td>
</tr>
<tr>
<td>Weil</td>
<td>Seth</td>
<td>Operations and Strategic Initiatives</td>
<td>Call9</td>
<td><a href="mailto:seth@call9.com">seth@call9.com</a></td>
</tr>
<tr>
<td>Werner</td>
<td>Rachel</td>
<td>Professor</td>
<td>University of Pennsylvania</td>
<td><a href="mailto:rweiner@upenn.edu">rweiner@upenn.edu</a></td>
</tr>
<tr>
<td>Whitman, John</td>
<td>Linda</td>
<td>Director of Research</td>
<td>The TREVCS Institute and Wharton MBA Health Care</td>
<td><a href="mailto:dwhitman@wharton.upenn.edu">dwhitman@wharton.upenn.edu</a></td>
</tr>
<tr>
<td>Whitman, PhD.</td>
<td>Linda</td>
<td>Director of Research</td>
<td>The TREVCS Institute</td>
<td><a href="mailto:Linda.Whitman7@gmail.com">Linda.Whitman7@gmail.com</a></td>
</tr>
<tr>
<td>Wolfson</td>
<td>Michael</td>
<td>COO Founder &amp; CEO</td>
<td>OnSet Health</td>
<td><a href="mailto:mewolfson@onsethealth.com">mewolfson@onsethealth.com</a></td>
</tr>
<tr>
<td>Wu</td>
<td>Bingxiao</td>
<td>Assistant Professor</td>
<td>Rutgers University</td>
<td><a href="mailto:bwu@econ.rutgers.edu">bwu@econ.rutgers.edu</a></td>
</tr>
<tr>
<td>Wylie</td>
<td>Michael</td>
<td>Vice President, Development</td>
<td>Genesis HealthCare Corporation</td>
<td><a href="mailto:Michael.Wylie@geneishcc.com">Michael.Wylie@geneishcc.com</a></td>
</tr>
</tbody>
</table>

A National Summit Presented by The TRECS Institute and the Leonard Davis Institute (LDI)
National Quality Forum: Draft Report for Comment “Creating a Framework to Support Measure Development for Telehealth” June 1. Submitted by Mr. Smith and Dr. Burdick
Creating a Framework to Support Measure Development for Telehealth

*DRAFT REPORT FOR COMMENT*

*June 1, 2017*

*This report is funded by the Department of Health and Human Services under contract HHSM-500-2012-00091 Task Order HHSM-500-T0022.*
# Contents

Executive Summary

Introduction

Methodology

Development of the Measurement Framework

Prioritizing the Measure Concepts

Travel

Timeliness of Care

Actionable Information

Added Value of Telehealth to Provide Evidence-Based Best Practices

Patient Empowerment

Care Coordination

Case Studies Illustrate Proposed Measure Concepts

One: Managing Mild to Moderate Heart Failure Symptoms

Two: Resuscitation and Transfer

Three: Knee Surgery and Related Health Encounters

Impact of MACRA on the Telehealth Framework

Initial Measure Selection

Relationship to Other NQF Projects

Future Considerations for the Development of the Framework

Appendix A: Methodology

Appendix B: Environmental Scan Findings

Appendix C: Initial Measure Concepts

Appendix D: Initial Measures
Executive Summary

Telehealth offers tremendous potential to transform the healthcare delivery system by overcoming geographical distance, enhancing access to care, and building efficiencies. The Health Resources and Services Administration (HRSA) defines telehealth as “the use of electronic information and telecommunications technologies to support and promote long-distance clinical healthcare, patient and professional health-related education, public health and health administration.” Although no standard definition exists for this important area of health information technology (health IT) across both the private and public sectors, there is general consensus that telehealth supports a range of clinical activities, including:

- Enhance interactions among providers to improve patient care (e.g., consultation with distant specialists by the direct care provider);
- Support provider-to-provider training;
- Enhance service capacity and quality (for example, small rural hospital emergency departments and pharmacy services);
- Enable direct patient-provider interaction (such as follow-up for diabetes or hypertension; or urgent care services);
- Manage patients with multiple chronic conditions from a distance; and
- Monitor patient health and activities (for example, home monitoring equipment linked to a distant provider).

The U.S. Department of Health and Human Services (HHS) called upon the National Quality Forum (NQF) to convene a multistakeholder Telehealth Committee to recommend various methods to measure the use telehealth as a means of providing care. The Committee was charged to develop a measurement framework that identifies measures and measure concepts and serves as a conceptual foundation for new measures, where needed, to assess the quality of care provided using telehealth modalities.

This report and the conceptual framework herein serve as the foundation for future efforts by measure developers, researchers, analysts, and others in the healthcare community to advance quality measurement for telehealth. By identifying some of the highest-priority areas for measurement, this report may support the development of measures that incorporate into a telehealth environment as part of an iterative development process. Measurement based on iterative and continuous learning will successfully inform future telehealth quality improvement efforts, including emerging areas such as patient empowerment and care coordination.
Introduction

Telehealth offers tremendous potential to transform the healthcare delivery system by overcoming geographical distance, enhancing access to care, and building efficiencies. Telehealth is a different method of healthcare delivery that provides similar or supplemental services to in-person encounters. The Health Resources and Services Administration (HRSA) defines telehealth as “the use of electronic information and telecommunications technologies to support and promote long-distance clinical healthcare, patient and professional health-related education, public health and health administration.”

Although no standard definition exists for this important area of health information technology (health IT) across both the private and public sectors, there is general consensus that telehealth supports a range of clinical activities, including:

- Enhance interactions among providers to improve patient care (e.g., consultation with distant specialists by the direct care provider);
- Support provider-to-provider training
- Enhance service capacity and quality (for example, small rural hospital emergency departments and pharmacy services);
- Enable direct patient-provider interaction (such as follow-up for diabetes or hypertension); or urgent care services);
- Manage patients with multiple chronic conditions from a distance; and
- Monitor patient health and activities (for example, home monitoring equipment linked to a distant provider).

These activities are especially useful in communities where access to appropriate healthcare services is limited. Compared to residents of urban communities, residents of rural and frontier communities are more likely to be older and to have more risk factors associated with their health conditions. The supply of healthcare professionals to treat these conditions can be scarce in many of these areas, and existing providers may have more limited training in specialized areas of care. To address these challenges, some rural hospitals and other healthcare settings have adopted telehealth, including video communication between providers and the sharing of information, such as radiological and imaging reports. Similar strategies adopted in urban and suburban settings, especially for specialties where there are significant workforce shortages and/or maldistribution (e.g., dermatology, neurology, clinical genetics, and psychiatry) or long delays to schedule new patient appointments show improvement in these areas.

Telehealth can provide needed services in a variety of settings, including home and community-based settings, schools, hospitals, post-acute and long-term care settings, office-based settings, and community health centers. The most significant needs in home and community-based care relate to chronic care management. Traditionally, chronic diseases managed through an episodic, office-based approach require frequent patient contact and regular physiologic measurement. The use of telehealth for chronic disease care management has been associated with reductions in hospitalizations, readmissions, and lengths of stay, as well as improvements in some physiologic measures such as pulmonary function or body temperature. Incorporating telehealth into a care management program that offers remote monitoring and feedback at home by a chronic care management team (like one program instituted by the Department of Veterans Affairs (VA) over a decade ago) shows improvements
in chronic disease management. This includes the management of hypertension, congestive heart failure, and diabetes.\textsuperscript{13}

The types of care delivery that are facilitated via telehealth continue to expand, and Medicare currently reimburses for a number of telehealth-provided services in rural settings, such as consultations, office or other outpatient visits, and diabetes self-management training and individual psychotherapy, among others.\textsuperscript{14} However, while the use of telehealth in the Medicare program has grown rapidly in recent years, particularly in rural areas, its overall use by Medicare providers in the treatment and management of their patients remains relatively low. In part, this is due to restrictions in how telehealth is reimbursable.\textsuperscript{15} The Medicaid program allows states to reimburse providers for telehealth as long as the service satisfies federal requirements for efficiency, economy, and quality of care. States have more flexibility to use their own laws, rules, regulations, and policies to reimburse for telehealth as appropriate.\textsuperscript{16}

This report is a project initiated by the U.S. Department of Health and Human Services (HHS) for the National Quality Forum (NQF) to convene a multistakeholder Committee to recommend various methods to measure the use telehealth as a means of providing care. The Committee was charged to develop a measurement framework that identifies measures and measure concepts and serves as a conceptual foundation for new measures, where needed, to assess the quality of care provided using telehealth modalities. This project followed previous work completed by the Agency for Healthcare Research and Quality (AHRQ) described in, \textit{Telehealth: Mapping the Evidence for Patient Outcomes from Systematic Reviews}.\textsuperscript{17} This AHRQ report created an evidence map of systematic reviews that assess and examine the impact of telehealth on clinical outcomes, utilization, and cost. The report summarized the distribution and diversity of findings on telehealth by clinical area and telehealth modality. This NQF report describes a measurement framework that should inform future evaluation work on the impact of telehealth on cost and quality of care, as well as create a foundation for the measurement of outcomes attributable to the use of telehealth.

**Methodology**

NQF conducted a comprehensive environmental scan to inform the development of the telehealth framework. The primary purpose of the environmental scan was to identify existing measures and potential measure concepts related to telehealth. Information was gathered through a multitude of sources such as PubMed, JSTOR, and Academic Search Premier. Grey literature and web searches through Google identified reports, white papers, and other documentation related to telehealth. These include documents published by operating divisions within HHS and other federal departments, such as the VA and Department of Defense (DoD). These also include vendor-based white papers and reports issued by nonprofit organizations such as the American Telemedicine Association (ATA), the National Association for Community Health Centers, the National Association of Rural Health Providers (NARHP), and the Health Information Management and Systems Society (HIMSS). Papers reviewed from various divisions of HHS, such as the Assistant Secretary for Planning and Evaluation (ASPE), AHRQ, HRSA, and the Office of the National Coordinator for Health Information Technology (ONC) as lead agencies for telehealth published documents, such as ASPE’s 2016 Report to Congress on eHealth and Telemedicine
and the 2016 Federal Telehealth Compendium appear in the report. NQF reviewed over 390 titles and abstracts from an electronic search, as well as other briefings and reports from the grey literature. NQF identified and used 68 studies on the impact of the various modalities of telehealth (e.g., mobile health, remote monitoring, store-and-forward telehealth, and videoconferencing) on specific clinical areas.

The environmental scan included an assessment of specific telehealth modalities and their impact on access, cost, and quality. The four modalities of telehealth NQF examined are:

- Store-and-forward (SFT) (asynchronous): Transmission of videos and digital images through a secure electronic communications system.
- Remote patient monitoring (RPM): Personal health and medical data from an individual in one location, transmitted to a provider in a different location.
- Mobile health (mHealth): Smartphone apps designed to foster health and well-being.

After a thorough review, NQF classified the varying types of information gathered in the environmental scan into five domains listed in Table 1.

Table 1. Classification Areas of Information for the Environmental Scan

<table>
<thead>
<tr>
<th>Domains</th>
<th>Potential Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Care</td>
<td>Timely receipt of health services; access to health services for those living in rural and urban communities; access to health services for those living in medically underserved areas; access to appropriate health specialists based on the need of the patient; increased provider capacity; access to patients that need specialized healthcare services.</td>
</tr>
<tr>
<td>Cost</td>
<td>The costs of telehealth for public and private payers; efficient use of services for the patient; difference in cost per service and/or episode of care.</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>Effect of telehealth on patient self-management; reduction in medical errors; reduction in overuse of services; cost savings to patient, family, and caregivers related to travel and time away from work.</td>
</tr>
<tr>
<td>Patient Experience</td>
<td>Appropriateness of services; increase in patient’s knowledge of care; patient compliance with care regimens; difference in morbidity/mortality among specific clinical areas; shared decision making; whether the care provided is safe, effective, patient-centered, timely, efficient, and equitable.</td>
</tr>
<tr>
<td>Clinician Experience</td>
<td>Diagnostic accuracy of telehealth applications; ability to obtain actionable information (enough to inform decision making); comfort with telehealth applications and procedures; quality of communications with patients; satisfaction with delivery method; impact on practice patterns.</td>
</tr>
</tbody>
</table>

NQF classified each study it reviewed by the type of telehealth modality and domain of information. Appendix A includes a full description of the methodology NQF used, including the scoring rubric and criteria for selecting articles to include in the report. Appendix B includes the environmental scan findings.
Development of the Measurement Framework

The breadth of the literature, which covered numerous randomized studies and use cases in the areas of mental and behavioral health, dermatology, care coordination, stroke, intensive care, chronic disease management, and other conditions, provided a foundation to develop the framework. The framework is a conceptual model for organizing ideas that provides high-level guidance and direction on priorities for what is important to measure in telehealth and how measurement should take place in order to assess its impact on healthcare delivery and outcomes. The Committee developed this conceptual framework beginning with three distinct categories:

- **Domains** – a categorization/grouping of high-level ideas and measure concepts that further describes the measurement framework;
- **Subdomains** – a smaller categorization/grouping within a domain; and
- **Measurement Concepts** – an idea for a measure that includes a description of the measure, including planned target and population.

The measurement concepts identified in this report are intended to inform future work that all health IT stakeholders may undertake.

The Committee reached consensus that a four-domain model provided the best combination of utility, simplicity, and accuracy in identifying and covering the main components of telehealth. This model framed the Committee’s thoughts and ideas about the measurement and evaluation of key telehealth elements.

The central organizing principle of the framework developed by the Committee was that the use of various telehealth modalities provides healthcare services to those who may not otherwise receive it in a timely, effective manner. The use of telehealth does not represent a different type of healthcare, but rather a different method of healthcare delivery that provides services that are either similar in both scope and outcome or supplemental to those provided during an in-person encounter. Continual assessment of access to clinical services, the effectiveness of the telehealth technology, the overall experience of receiving care through a mediated electronic environment, and the financial impact and cost of telehealth services ensures that various modalities of telehealth provide effective, efficient, and essential care. Encounters between a patient or family member and a provider or care team member through telehealth potentially enables the integration of telehealth services into a healthcare setting in a way that minimizes impact on workflow. Quality of care appears in each of the framework’s domains and subdomains, as each of these affect the quality of a health outcome or process. For example, an individual who is unable to receive healthcare services because of geographical constraints would have a poor quality outcome. Table 2 summarizes the domains and subdomains determined by the Committee.

**Table 2. Domains and Subdomains of the Telehealth Measurement Framework**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Subdomain(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Care</td>
<td>• Access for patient, family, and/or caregiver</td>
</tr>
<tr>
<td></td>
<td>• Access for care team</td>
</tr>
<tr>
<td></td>
<td>• Access to information</td>
</tr>
</tbody>
</table>
### Domain 1: Access to Care

The first domain of the framework addresses access to care: it addresses whether the use of telehealth services allows remote individuals to obtain clinical services effectively and whether remote hospitals can provide specialized services such as emergency and intensive care. The Committee stated that the domain itself as well as the proposed subdomains should consider five components:

1. **Affordability** – Are both patients and members of the care team willing to accept the potential costs of telehealth as opposed to the alternative of not receiving or delivering traditional care at all, or receiving delayed care? For providers, what is the cost of providing telehealth services, and what is its effect on other practices?
2. **Availability** – Does a telehealth modality provide expanded access to a provider that specializes in the type of care required by the patient, when it is required or desired by the patient?
3. **Accessibility** – Is the technology necessary for a telehealth consultation accessed and used by members of the care team?
4. **Accommodation** – Do the various modalities of telehealth accommodate the diverse needs of patients? Are patients able to access members of the care team through telehealth when requested?
5. **Acceptability** – Do both patients and members of the care team accept the use of telehealth as a means of care delivery?

With these overarching guidelines, the Committee developed three subdomains for ‘access to care,’ including access for patient, family, and/or caregiver, access for care team, and access to information:

- **Access for the patient, family, and/or caregiver** refers to the ability of patients to receive services from providers they could not access otherwise because of geographical barriers and other logistical difficulties (such as transportation and travel costs). These limitations lead to potential underutilization of necessary services and attrition among those patients who do not have enough visits with an appropriate provider or do not initiate treatment at all.
- **Access for the care team** means that the providers and other clinical staff have appropriate access to telehealth technologies to provide treatment when needed. For example, in specialties such as behavioral health, the access to a modality such as video-teleconferencing provides a method for the care team to assess and provide specific treatment to patients with conditions...
such as post-traumatic stress disorder (PTSD). Access to information refers to both patient and the care team having access to information pertaining to care. For patients, it means access to clinical information which allows them to be active and informed in their care, and for the care team, it means access to sufficient “actionable information” to aid them in decision making and management, such as images of specific skin conditions, electronic health records (EHRs), health information exchanges (HIEs), and direct secure messaging (DSM). Through this subdomain, the care team uses the information they receive or other relevant data to diagnose a patient and develop a treatment protocol.

**Domain 2: Financial Impact/Cost**

The second domain of the framework addresses the financial impact/cost of telehealth services. While the literature base on telehealth overall has grown over the last few years, the amount of specific research on financial impacts/costs is still sparse. Therefore, the Committee divided this domain into four distinct subdomains: financial impact to patient, family, and/or caregiver; financial impact to care team; financial impact to health system or payer; and financial impact to society.

- The financial impact to a patient, family, and/or caregiver accounts for the potential cost savings and benefits of telehealth such as less travel time to see a provider, less time lost at work, and less out-of-pocket cost, as well as the financial costs such as investment in specialized equipment and internet access if the patient does not have it.
- The financial impact to the care team and individual providers includes the opportunity costs as well as the direct and indirect costs associated with providing care using a telehealth modality.
- The financial impact to payers and health systems is the net financial impact including cost avoidance and opportunity costs. The financial impact to society includes the impact of telehealth on healthcare workforce shortages, the impact on hospitals because of services provided at a distance, the overall health status of a community, economic productivity, patient-provider convenience, and averted care.

**Domain 3: Experience**

The third domain focuses on the experience of telehealth, which represents the usability and effect of telehealth on patients, care team members, and the community at large, and whether the use of telehealth resulted in a level of care that individuals and providers expected. The Committee divided this domain into three separate subdomains: patient, family, and/or caregiver experience; care team member experience; and community experience.

- For patients, family, and/or caregivers, experience refers to their ability to use the technology, the provision of a mechanism to connect with their providers, and whether the care delivered through various telehealth modalities is comparable to the quality of the care services they would receive during an in-person encounter.
- The care team subdomain reflects the use of telehealth services to facilitate teamwork and the ongoing care of a patient, as well as the utility of the technology to provide necessary information to assist in the provision of care.
• For the community at large, the acceptance and consistent use of telehealth as provided to patients and their families, administrators, and executive leaders is critical to its ongoing use.

Domain 4: Effectiveness
The fourth domain focuses on effectiveness, which represents the system, clinical, operational, and technical aspects of telehealth.

• System effectiveness refers to the ability of a telehealth modality and the overall system to assist in the coordination of care across various healthcare settings; to assist providers in reaching targets for population-based care; and to facilitate the sharing of information between providers to aid in decision making.
• Clinical effectiveness refers to the impact of telehealth on health outcomes or process measures of quality (e.g., confirmed diagnosis of melanoma or improved control of anxiety or depression using cognitive behavioral therapy through telehealth) as well as the comparative effectiveness to in-person provision of services.
• Operational effectiveness revolves around how clinically integrated telehealth is within a hospital, provider practice, community health center, or other care settings.
• Technical effectiveness refers to the ability of the telehealth system to record and transmit images, data, and other information accurately to patients and members of the care team, as well as the system’s ability to exchange information between stakeholders seamlessly.

Because of the complex interactions between the implementation and use of various telehealth modalities, multiple aspects of this framework likely apply to multiple issues around telehealth. The assessment, evaluation, and effectiveness of telehealth is multidimensional, and thus quality measurement of telehealth requires multidimensional approaches. For example, the assessment of a measure concept regarding travel time saved per patient by using telehealth services likely affects multiple domains, including access to and availability of care to a patient, financial impact to the patient, and system effectiveness of the telehealth modality to meet the patient’s needs.

Prioritizing the Measure Concepts
A measure concept describes the idea for a measure, including the planned target and population. The Telehealth Committee engaged in a process of identifying and then prioritizing measure concepts over a two-day in-person meeting in Washington DC, as well as through several conference calls and webinars, which also included opportunities for public comments.

The in-person meeting to delineate domains, subdomains, and measure concepts was held on March 7-8, 2017 and included a presentation of the environmental scan, a general discussion of the significant concepts around telehealth, and a discussion of how to translate those ideas into specific measure concepts. The Committee discussed how the measurement framework could assist in both the development and categorization of measure concepts, which would ultimately serve as the foundation for the development of measures objectively assessing telehealth. The Committee engaged in a brainstorming exercise to identify potential measure concepts. This process yielded 67 initial measure
concepts, which NQF refined and combined where appropriate, to yield a list of 53 final measure concepts (included in Appendix C).

The Committee worked collectively to identify measure concepts that aligned to each of the domains and subdomains they created as part of the framework. Through consolidation, refinement, and modification of the concepts under consideration, the Committee initially identified 10 key measurement areas, each of which included several measure concepts that could reflect performance in those areas. Each Committee member identified the measure concepts they judged were of the highest priority and provided additional feedback about measurement issues and challenges for each area. NQF staff reviewed this information along with additional written comments provided by the Committee and consolidated the measure concepts into a final list of six key areas for measurement:

1. Travel
2. Timeliness of Care
3. Actionable Information
4. Added Value of Telehealth to Provide Evidence-Based Best Practices
5. Patient Empowerment
6. Care Coordination

The Committee recommends these six areas as having the highest priority overall for measurement in telehealth, but the Committee does not suggest that the order of presentation implies a ranking of importance. Details of the Committee’s discussion of each area are included below. At the end of each section, tables demonstrate the domains and subdomains that each key area would fall under, as well as some potential measure concepts that may provide the foundation for future measure development related to this area.

**Travel**

The Committee stated that one of the primary benefits of telehealth is avoiding travel by patients, their caregivers, and members of their care team because of geographical distance. The Committee also expressed that the use of telehealth can reduce the cost and time of any travel required; reduce the amount of time taken off from work, school, or other commitments; and lead to faster delivery of medical services. A team of researchers at the University Of California Davis, Division of Pediatric Critical Care Medicine, looked at data from the years when the organization has offered telehealth options for specialty care. Its telehealth program offers services across 30 specialties, with centers in 150 locations in 56 of California’s 58 counties. For individual patients who received care through these services, the use of telehealth resulted in an average 278 fewer miles travelled and $156 in travel cost savings per individual patient.19

The element of patient preferences is an important consideration in measurement. Assessing decreases in travel time and overall cost savings would need to take account the type of care provided through telehealth and the availability of specialty services. For example, synchronous video communication between a patient and a provider measures and evaluates peak flow and spirometry readings. The results of these readings may indicate that the patient is not experiencing an acute asthma
exacerbation, and therefore existing medications would provide enough control; alternatively, the readings may indicate that the asthma is severe enough that an in-person visit is essential. Measures should provide a basis on which a patient and care team can make informed decisions.

Finally, the Committee emphasized that measurement of travel should not be considered as just an accrued benefit for cost savings and convenience, but also be used to determine if the use of telehealth led to the correct diagnosis and appropriate follow-up care, which mitigated the need for further travel. The time that the patient saves on the initial visit is measured, but should factor in the results, as a negative diagnosis would eliminate the need for an in-person second visit.

| Primary Framework Domains | • Effectiveness  
<table>
<thead>
<tr>
<th></th>
<th>• Financial Impact/Cost</th>
</tr>
</thead>
</table>
| Applicable Framework Subdomains | • System effectiveness  
|                             | • Financial impact to health systems or payers |
| Measure Concepts | • The duration of the visit through telehealth compared to in-person care  
|                           | • The amount of time for a patient to check in for a visit |

**Timeliness of Care**

Numerous studies demonstrate the association between timely care and health outcomes. Some of the factors that lead to worse survival rates with conditions such as cancer included delayed diagnosis and treatment, missed abnormalities that showed on a screening, and patients with correctly identified abnormalities who did not attend a follow-up with a physician. Furthermore, delayed diagnosis after an initial screening leads to worse survival rates among patients with specific types of cancer (e.g., lung cancer) and complications because of chronic disease. One study focused on efforts to improve communication between specialists and thoracic surgeons with respect to the care of cancer patients by using multidisciplinary meetings via videoconferencing. This led to a significant improvement in timeliness for both diagnosis and interventions.

Because reducing the time between an initial request for care and a consultation is an important area for telehealth, the Committee agreed that timeliness of care is an important area for measurement. In the past, NQF has also recognized this as a crucial concept, having endorsed measures that discuss the need for timeliness of care in the areas of neonatal care, stroke, heart failure, and chronic disease.

The Committee suggested that the measure concepts focus on timeliness for appropriate decision making in that the use of telehealth services may provide a quicker diagnosis, which leads to faster delivery of interventions and better outcomes. One example provided was that of stroke, comparing telestroke patients in their likelihood of timely access to an expert assessment of the need for tissue plasminogen activator (tPA), the delivery of which may help to avoid a poor outcome.
**Primary Framework Domains**
- Access
- Effectiveness
- Experience
- Financial Impact/Cost

**Applicable Framework Subdomains**
- Access for patient, family, and/or caregiver
- System effectiveness
- Experience of patient, family, and/or caregiver
- Cost to patients, families, and/or caregivers

**Measure Concepts**
- What is the availability of information delivered using telehealth for those specialty providers that consult with the primary care provider?
- What is the overall amount of a patient’s time spent during a telehealth consultation not directly related to care?

**Actionable Information**
The use of telehealth technologies must provide actionable information for members of the care team to use during an initial encounter. This information may include data that allow a provider to diagnose and treat the patient, as well as provide any needed follow-up care. Furthermore, the Committee pointed out that understanding this area may assist in redefining a visit through telehealth. Current quality measures assess structure, process, or outcomes based on an in-person encounter. This encounter constitutes a visit, as a member of the care team can obtain and view information to provide a diagnosis and treatment. If a telehealth visit provides actionable information through a specific modality, then the care team member can still ascertain the health status of the patient and provide a diagnosis and treatment, which would then also constitute a visit. Therefore, for each of the quality measures that may pertain to a clinical area that employs telehealth services, there is little need to modify the measure if a telehealth modality provides the same actionable information gathered through an in-person visit.

<table>
<thead>
<tr>
<th>Primary Framework Domain</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable Framework Subdomains</td>
<td>Clinical effectiveness</td>
</tr>
<tr>
<td>Measure Concepts</td>
<td>The instructions for care were clear to the patient</td>
</tr>
</tbody>
</table>
Comparative effectiveness of telehealth vs. in-person provision of care

**Added Value of Telehealth to Provide Evidence-Based Best Practices**

For some telehealth modalities, the patient uses the equipment to both self-monitor and maintain consistent communication with providers. This active collaboration may enhance active management of symptoms and possible reduction in emergency department visits and hospitalizations. Specifically, the use of telehealth demonstrates the ability to reduce costs, hospitalizations, and readmission rates in the area of chronic disease. For example, heart failure is one of the most prevalent chronic illnesses; it affects more than six million Americans and costs approximately $39.2 billion annually in the United States, with hospitalization accounting for 70 percent of those costs. Readmission rates at 30 days for heart failure patients are 24 percent nationwide and rise to 50 percent by 90 days, though half of those may be preventable. One systematic review to assess the effectiveness of telehealth in managing patients with chronic heart disease found that the use of telehealth led to reductions in hospitalizations and readmissions, and improvements in mortality and cost-effectiveness.

Using telehealth devices within the home allows more visits by nurses or other members of the care team, and increases patient access to care through remote monitoring, and working with patients to transmit data on a regular basis. A study conducted by the University of Pennsylvania School of Nursing showed that patients using telehealth at home to allow nurses to monitor their conditions remotely and to have patients send in consistent data were readmitted to the hospital 3 percent less often than usual care patients. After 60 days, the overall readmission rate was 6 percent less for telehealth patients. Cost estimates based on these findings showed that decreasing readmissions by just 5 percent could save Medicare over $5 billion annually. Among heart failure patients, the use of telehealth monitoring decreased the rate of readmission from 46 to 21 percent.

The Committee determined that one of the major measures of telehealth should be the ability to access healthcare services, through one or more telehealth modalities, compared to the inability to receive needed care. Other related significant areas for measurement include the use of telehealth services to deliver appropriate and needed care at the time of the encounter and the avoidance of adverse outcomes.

| Primary Framework Domains | • Effectiveness  
<table>
<thead>
<tr>
<th></th>
<th>• Financial Impact/Cost</th>
</tr>
</thead>
</table>
| Applicable Framework Subdomains | • Clinical effectiveness  
|                           | • Financial impact to patients, families, and/or caregivers  
|                           | • Financial impact to health systems or payers |
| Measure Concepts | • Decrease in the length of stay in the hospital |
Patient Empowerment

As the telehealth field expands across the healthcare spectrum, it can potentially affect patient engagement. Patients can track their medical conditions, outcomes, and overall wellness through a variety of tools, and remain in contact with their physicians to engage more fully with their medical status. The Committee articulated that the use of telehealth, particularly specific modalities such as remote monitoring, assists with adult learning and cognitive behavioral theories to promote patient self-efficacy with disease management. Patients can empower themselves to learn about improving health-related behaviors, and providers can learn how to use these technologies to improve communication with their patients as well as their patients’ overall satisfaction with care.

As an example of efforts to improve communication and disease management, Banner Health, an Accountable Care Organization in Arizona, allows patients to use telehealth to connect to a series of providers and to view their own data.25 The ability of the care team to interact with patients to communicate their diagnosis and treatment plans helps improve compliance and overall outcomes.

In addition, a recent study of hip and knee replacement patients at a hospital in Virginia found that the patients who participated in the telehealth program experienced improved benefits. This included shorter hospital stays, discharging directly to their home, and responses to post-discharge surveys at a higher rate (79 percent as opposed to 18 percent) as compared to those who did not participate in the program. Additionally, there were no hospital readmissions of the telehealth program participants within 30 days of their surgeries, and 90 percent stated that telehealth improved their episode-of-care experiences, assisted them in better understanding their care and setting their expectations, and improved their satisfaction with the care they received.26
Care Coordination

The Committee viewed the coordination of care for patients with complex care needs (e.g., patients with multiple chronic conditions, patients in need of rehabilitative services, and patients in need of specialty care) as a vital component of care. Telehealth may facilitate communication, information sharing, and joint decision making in the transition of care from the outpatient to inpatient setting, from the inpatient setting to a long-term nursing facility, and between other clinical settings. An objective assessment of telehealth’s ability to facilitate such coordination would be a precursor to determine the success of a telehealth program and its impact on health outcomes.

As articulated in the literature review, the VA uses telehealth services and leverages a variety of tools to coordinate care among different healthcare providers.27 One of the areas in which the VA uses telehealth to strengthen care coordination is with traumatic brain injury (TBI) patients. With this population, there is ongoing and consistent communication among families, caregivers, patients, and medical experts. The use of telehealth modalities to support telerehabilitation involves TBI screening, assessment, consultation, and care to patients and remote military medical centers, as well as sites in which demand for specialized care fluctuates with mobilizations. Additionally, the use of video and remote monitoring technologies assists in identifying TBI through electronic cognitive assessment systems; provides real-time video visits with family members; shares information among clinical care teams to collaborate on TBI care; and provides interactive video programs and web-based courses to train medics, physician assistants, nurses, and other providers in both civilian and military settings.28

| Primary Framework Domains | • Experience  
<table>
<thead>
<tr>
<th></th>
<th>• Effectiveness</th>
</tr>
</thead>
</table>
| Applicable Framework Subdomains | • Patient, family, and/or caregiver experience  
|                            | • Care team member experience  
|                             | • Patient, family, and/or caregiver effectiveness  
|                               | • Community effectiveness  
|                                | • Clinical effectiveness |

| Measure Concepts | • The amount of care coordination needed due to the use of telehealth services  
|                 | • Overall number of multidisciplinary visits  
|                 | • Overall improvement in quality of life because services are received at home via telehealth |

Case Studies Illustrate Proposed Measure Concepts

One of the points that the Committee wanted to emphasize within the framework was the usefulness of case studies to help provide context for the proposed measure concepts, and demonstrate how to turn these into measures in the future. In this manner, the patient’s journey using telehealth incorporates the ability to discern whether the use of telehealth services differs markedly from that of an in-person...
patient encounter. The Committee put forth the following case studies to illustrate the use of telehealth for both provider-to-patient interactions, as well as provider-to-provider interactions.

**One: Managing Mild to Moderate Heart Failure Symptoms**

Frances is a 63-year-old retired teacher with mild to moderate heart failure. She notices one morning that she is a little more winded than usual and texts her doctor’s office. The office responds with a text link to 10 different time slots for a video visit later that day. She selects one and later that day has a 10-minute video chat with her doctor, who suggests some alterations to her medications. She feels reassured and goes to bed, but awakens in the middle of the night with shortness of breath. She gets frightened, and uses a mobile health application on her phone where she connects with an emergency physician within minutes. The emergency physician assesses her respiratory rate and recommends that she take an additional dose of diuretic. The on-demand doctor schedules an early-morning visit by the community paramedicine team who check her blood pressure, heart rate, oxygenation, and weight. She then participates in a 5-minute check-in to review her medication plan with her primary care physician (PCP). They leave her a Bluetooth-enabled scale that communicates with the office of her PCP, and they discuss a plan for diuresis to achieve a 5-pound weight loss over the next few days.

**Primary Framework Domains**

- Experience
- Effectiveness
- Access
- Financial Impact/Cost

**Applicable Framework Subdomains**

- Patient, family, and/or caregiver experience
- Clinical effectiveness
- Technical effectiveness
- Access for patients, families, and/or caregivers
- Financial impact to health plans or payers

**Potential Measure Concepts**

- Patients demonstrated increased understanding of care plan
- Technologies were in a satisfying condition for providers to do their job
- The instructions for care were clear to the patient
- Able to provide care without admission into the ER

**Two: Resuscitation and Transfer**

Bill presents as hypotensive and febrile when he arrives at a community emergency department (ED) where he meets an emergency physician who recognizes that Bill is septic. The physician orders several tests including laboratory blood tests, blood cultures, and a chest x-ray; establishes large-bore intravenous access; orders a fluid bolus and antibiotics; and then asks the nurse to have the virtual
resuscitation service engaged so that they can maximize Bill’s resuscitation while the single coverage provider maintains control over the rest of the busy department. After about an hour, Bill’s condition worsens despite aggressive resuscitation, and he starts on vasopressors ordered by the resuscitation service. The resuscitation expert and the ED doctor agree on a plan to intubate Bill and transfer him to the referral center. The resuscitation expert travels virtually with Bill and smoothly transitions his care into the intensive care unit at the receiving hospital by giving a virtual face-to-face report to the receiving team.

| Primary Framework Domains | • Effectiveness  
| • Access  
| • Financial Impact/Cost  
| • Experience |
| Applicable Framework Subdomains | • System effectiveness  
| • Clinical effectiveness  
| • Financial impact to patients, families, and/or caregivers  
| • Access for patient, family, and/or caregiver  
| • Access for care team members  
| • Financial impact to health system or payer  
| • Financial impact to society  
| • Patient, family, and/or caregiver experience  
| • Care team member experience |
| Potential Measure Concepts | • Telehealth services allowed urgent or emergency care to be delivered to a patient  
| • The system was able to effectively provide the care that was recommended  
| • Avoidance of an adverse outcome and subsequent medical malpractice lawsuit |

Three: Knee Surgery and Related Health Encounters
After suffering from chronic knee pain for years, Mike decides to have the bilateral knee replacement his doctor recommended. Because of his comorbid conditions, the local providers suggest that the orthopedic team at the downtown referral center should perform the procedure. Mike is reluctant to travel downtown but calls the orthopedic team to ask about logistics. They report that his primary medical doctor can do the blood and stress tests, that the anesthesia team will interview him using a video chat, and that he can have a virtual postoperative visit from his home. Going to the referral facility only once for the surgery itself makes it easy for him to move forward with the surgery at the more appropriate site of care.

| Primary Framework Domains | • Effectiveness  
| • Access |
### Impact of MACRA on the Telehealth Framework

Each of the case studies above demonstrates the use of various modalities of telehealth in healthcare delivery and the potential ways in which it may be measured. This is significant as the Medicare Access and CHIP Reauthorization Act (MACRA) represents a new mechanism of reimbursement for telehealth services for Medicare providers. The repeal of the sustainable growth rate (SGR) led to the streamlining of multiple quality reporting programs into the new Merit-based Incentive Payment System (MIPS), which is part of the overall Quality Payment Program (QPP). A major component of MIPS is an improvement activity (IA), defined as improving clinical practice or care delivery.

The proposed activities for each IA divide into nine subcategories corresponding to CMS’ stated goals:

1. Expanded practice access: IAs include expanded practice hours, telehealth services, and participation in models designed to improve access to services.
2. Population Management: IAs include participation in chronic care management programs, participation in rural and Indian Health Services programs, participation in community programs with other stakeholders to address population health, and use of a Qualified Clinical Data Registry (QCDR) to track population outcomes.
3. Care coordination: IAs include use of a QCDR to share information, timely communication and follow-up, participation in various CMS models designed to improve care coordination,
implementation of care coordination training, implementation of plans to handle transitions of care, and active referral management.

4. **Beneficiary engagement:** IAs include use of EHR to document patient reported outcomes, providing enhanced patient portals, participation in a QCDR that promotes the use of patient engagement tools, and use of QCDR patient experience data to inform efforts to improve beneficiary engagement.

5. **Patient safety and practice assessment:** IAs include use of QCDR data for ongoing practice assessments and patient safety improvements and use of tools such as the Surgical Risk Calculator.

6. **Participation in an alternative payment model (APM) including a Medical Home Model:** An APM can be an innovative payment model, a Medicare Shared Savings Program under an Accountable Care Organization (ACO), or a Medicare Demonstration Model. In all three cases, providers are eligible for bonus payments as long as they use quality measures under MIPS, use certified EHR technology, and assume more than a “nominal financial risk” or they are a medical home expanded under the Center for Medicare and Medicaid Innovation (CMMI). Only certain APMs qualify for full credits, whereas certain other APMs only give half credit.

7. **Achieving health equity:** IAs include seeing new and follow-up Medicare patients in a timely manner and use of QCDR for demonstrating performance of processes for screening for social determinants.

8. **Emergency response and preparedness:** IAs include participation in disaster medical teams or participation in domestic or international humanitarian volunteer work.

9. **Integrated behavioral and mental health:** IAs include tobacco intervention and smoking cessation efforts, and integration with mental health services.

The statute requires the incorporation of telehealth in coordinating patient care and includes telehealth use in scoring for MIPS. The MIPS score determines payment adjustments to clinicians based on performance. By statutory definition, telehealth encompasses “professional consultations, office visits, and office psychiatry services” and any additional service specified by the Secretary of HHS. Telehealth was included in the final rule in two ways:

1. **Expanded practice access:** The use of telehealth services and data analysis for quality improvement, such as participation in remote specialty care consults or teleaudiology pilots. The weight of this subcategory in the MIPS overall score lists as “Medium.”

2. **Population management:** MIPS eligible clinicians prescribing warfarin must attest that 60 percent or more of their ambulatory care patients receiving the medication are managed by one or more clinical practice IAs. One of these activities will be telehealth that involves systematic and coordinated care for rural or remote beneficiaries. The weight of this subcategory in the MIPS overall score lists as “High.”

Additionally, the use of APMs also facilitates the use of telehealth through new models such as Next Generation ACO. These models will have the flexibility to waive “originating site” coverage restrictions as well as the requirement that beneficiaries be located in a rural area for telehealth services. For example, Medicare’s originating site restrictions require that beneficiaries be located at specific settings,
such as a rural health center, critical access hospital, or a physician’s office, when receiving telehealth services. The telehealth waiver gives Next Generation ACOs the flexibility to allow patients to be at other settings, including their home. For the Medicare beneficiary, this opens up new ways of engaging with his/her care team that would not require travel. Furthermore, another APM model is the Medicare Shared Savings Program (MSSP), which recognizes telehealth services as a clinical practice improvement activity (CPIA) and allows physicians who provide patients with equipment for remote patient monitoring to be eligible for fraud and abuse waivers.34

**Initial Measure Selection**

The Committee examined a list of initial measures include in the framework, including ones identified in the literature that demonstrate a positive effect on a specific clinical condition with the use of telehealth, as well as ones that could potentially be used in CPIAs under the MIPS regulation and potentially an APM. The scan reviewed measures from the AHRQ National Quality Measures Clearinghouse (NQMC), the NQF Quality Positioning System (QPS), and those proposed measures used to evaluate physicians under MIPS. Table 3 identifies the total number of measures per clinical area identified in the environmental scan.

**Table 3. Total Number of Quality Measures per Clinical Area**

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental and behavioral health</td>
<td>13</td>
</tr>
<tr>
<td>Dermatology</td>
<td>2</td>
</tr>
<tr>
<td>Chronic disease</td>
<td>26</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>15</td>
</tr>
<tr>
<td>Care coordination</td>
<td>17</td>
</tr>
</tbody>
</table>

The Committee determined that the initial selection of measures for inclusion into the framework should be limited to NQF-endorsed measures. This ensures that each measure has gone through a rigorous evaluation process, has a strong evidence base indicating its need, and has been independently assessed by a committee of experts in that clinical area to be feasible, reliable, and valid. Appendix D shows the initial measures that the Committee chose.

**Relationship to Other NQF Projects**

NQF also reviewed two prior projects related to providing care to both adults and children across clinical specialties. These projects highlight the potential use of telehealth to capture individuals’ and providers’ goals, preferences, and desired outcomes.

In *Essential Attributes of a High-Quality System of Care: How Communities Approach Quality Measurement*, NQF examined methods used by communities to ensure a high-quality healthcare system
for adults with complex care needs. This project developed case studies based upon a SCAN Foundation report, *What Matters Most: Essential Attributes of a High-Quality System of Care for Adults with Complex Needs*, which described the four essential attributes of a well-functioning system of care. In this system, individuals are able to live their lives with services and support reflecting their values and preferences in the least restrictive, most independent setting possible. The four essential attributes are:

1. Each individual has identified a range of needs and goals, both medical and nonmedical, as well as for family/caregivers, that drive care plans while undergoing consistent review and evaluation.

2. Each individual’s needs characterize a compassionate, meaningful, and person-focused method and incorporate into a care plan that is tailored, safe, and timely.

3. Individuals have a cohesive, easily navigable delivery system so that they can get the services and information they want by themselves or with support when needed, and avoid the services they do not need or want.

4. Individuals and their family/caregivers continually inform the structure of the delivery system to ensure that it is addressing their needs and providing resources tailored to them.

These attributes align with the benefits of telehealth, particularly in the area of care coordination, as telehealth provides a means of delivering care to individuals where access to specific services may not be readily available. In addition, family members and/or other caregivers can be included to document the appropriate medical information and patient preferences and ensure that they inform the prescribed care plan.

NQF’s report *Performance Measurement for Rural Low-Volume Providers* highlights the challenges that rural providers face when delivering care and engaging in performance measurement. The report states that geographically isolated areas have fewer healthcare settings and providers than less isolated areas, and patients in these very rural areas may experience difficulties accessing care due to lack of transportation and lack of information technology capabilities. Furthermore, the report shows that rural areas have a disproportionate number of vulnerable residents and often do not have enough patients to participate in performance improvement activities. As the literature review highlights, the use of telehealth has increased access to care for individuals living in rural or underserved areas. Each one of the modalities of telehealth effectively provides services and treatment for a variety of conditions and helps coordinate care between providers. The use of telehealth can potentially increase the number of patients seen and included within specific quality measures. This can improve performance and quality improvement activities within rural communities and improve individual health.

**Future Considerations for the Development of the Framework**

It is important to consider the following points as the development and identification of measures related to telehealth commences.
1. **The use of various telehealth modalities demonstrates a positive effect on quality health outcomes, processes, and costs.** The use of telehealth (across a variety of clinical conditions) may have a positive impact on quality outcomes and processes of care; can lead to increased access to services; may provide a cost-effective means of delivering care; and has generally been well-received by both providers and individuals.

2. **Existing quality measures to evaluate the effectiveness and benefits of telehealth must be widely accepted and impactful.** While a number of measures identified by AHRQ, NQF, and CMS relate to telehealth, it is difficult to ascertain which measures would suffice to assess whether telehealth is comparable to, or an improvement over, in-person care. Additionally, the use of existing measures to assess telehealth should not add any additional burden to the collection and reporting of data from providers, and should contain data that match the specifications of the measure.

3. **Consistent definitions through proposed measure concepts and existing measures.** Consensus to define terms and measures for proposed measure concepts or existing measures for which there are no common definitions remains essential. Without a standard, uniform definition for measures, it will be difficult to synthesize findings and assess telehealth’s impact.
References


Appendix A: Methodology

The primary purpose of the environmental scan was to identify issues applicable to telehealth through literature to facilitate consideration of what measure concepts should be included in the measure framework, and how to classify telehealth through specific domains. NQF used resources such as PubMed, JSTOR, and Academic Search Premier, as well as grey literature and web searches through Google to identify reports, white papers, and other documentation related to telehealth.

Additionally, NQF constructed the environmental scan to use the following literature and information to inform pertinent stakeholders:

- Reports issued from the AHRQ (such as the Evidence Map, a 2016 Report to Congress issued by the Department of Health and Human Services on E-Health and Telemedicine) and reports from HRSA.

- Reports developed by organizations such as the American Telemedicine Association (ATA) and the NARHP to provide information on different facets of telehealth and its benefits to those in rural health areas, medically underserved areas, and general patient populations.

- Published studies by researchers who have examined the utility and benefits of telehealth on outcomes of care. These reports focus on the use of various delivery methods of telehealth and their effect on clinical processes and outcomes.

- A review of reports published by NQF on rural health, care coordination, population health, home and community-based services, and health and well-being to discuss how telehealth can intersect in both the measurement framework and measures considered for endorsement.

- A review of the legislation and proposed rules under the Medicare and Children’s Health Insurance Program Reauthorization Act (MACRA) and the parameters that define a clinical practice improvement activity so that a multistakeholder Telehealth Committee can determine how telehealth could fit within the framework.

- An analysis of the Merit Incentive Payment System (MIPS) to examine those activities as compared to those of Alternative Payment Models (APMs) and APMs in general, given that telehealth is included in these models by statute.

NQF used an initial set of key search words that were both general and specific to a modality of telehealth such as telehealth, telemedicine, mobile health (mHealth), electronic health (eHealth), telepathology, teleradiology, telstroke, eICU, telepsychiatry, teledermatology, teleophthalmology, telemental health, quality of care, home health monitoring, telecommunications, rural health, and others. NQF formulated the aforementioned key terms into simple queries to generate the largest number of results, such as “telehealth” and “quality of care.” Given the need to keep the information as current as possible, NQF excluded all articles older than the year 2000. NQF reviewed the titles, keywords, and abstracts of the identified articles to determine if the information aligned with the key
domains listed above. Numerical scoring assisted in the classification and ranking of the papers using the following criteria:

1. The content of the paper aligned with one of the domains listed in Table 1.

2. Results followed from vigorous and scientifically sound methodologies with a strong evidence base that generated the analysis. (i.e., statistical analysis, case studies, interviews with experts, randomized controlled studies, mixed method analysis). Studies that were descriptions of telehealth in general, broad descriptions of telehealth modalities, or telehealth studies not yet concluded were not included.

3. The degree to which the study helped address one of the aforementioned research questions.

4. The paper had a well-articulated scientific method and well-defined research scope and did not broadly discuss telehealth or undertake any study to determine its impact on outcomes.

5. The published results validated the research study.

If the research study completely satisfied an identified criterion, NQF gave a score of 2; semi-satisfactory agreement with criteria incurred a score of 1; absence of study content meeting criteria led to a score of 0. All papers that had a score below 7 were excluded from this study. The results were documented in a chart similar to the one in Table A1.

Table A1. An Example of the NQF Scoring Matrix for Evaluating Telehealth Literature

<table>
<thead>
<tr>
<th>Domain</th>
<th>Paper</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Care</td>
<td>A Review of Telehealth in Rural Areas</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Daigle, Azara, et al. (2008)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the selected papers, NQF extracted general data such as the title, authors, publication year, keywords, and other publication criteria. NQF abstracted any other information that assisted in rating the study by quality assessment metrics such as research methodology definition, contributions of the

---

a Semi-satisfactory results were those that met most of the criteria, but not did not fully satisfy each of the objectives (e.g., the study had articulated a comprehensive research method, but their research scope was perhaps too broad).
study, research questions, and the overall discussion. NQF staff reviewed and scored each of the papers, with a second review from the project senior director.

Because of the variability in modalities of telehealth, outcomes, and the clinical setting in which telehealth was assessed, NQF determined that a meta-analysis was inappropriate. Instead, an evidence table displayed the study characteristics and the outcomes, and how they aligned to both the appropriate research question, the telehealth modality, the nature of the intervention, and the primary/secondary outcomes for each study. NQF summarized findings for each modality to determine general themes or ideas to incorporate into the measure framework, as well as guide the initial selection of existing quality measures. This varied slightly from the AHRQ Evidence Map, which developed a guiding framework that focused on the current research on the effectiveness of telehealth interventions, as well as current gaps in the research. The information gathered for the NQF report did not focus on the breadth and detail of the research, but rather on how each individual study informed the development of measure concepts to assess telehealth on outcomes of care.

NQF reviewed over 390 titles and abstracts from the electronic search, as well as other briefings and reports from the grey literature. From this, NQF identified 180 papers that scored a seven or above based on the scoring model and alignment with the research criteria and telehealth modalities. It was possible for a paper to address more than one criterion or apply to more than one modality. All of the papers NQF reviewed focused on the use of telehealth and its relationship to patient’s outcomes with an emphasis on specific study types, such as randomized controlled trials (RCTs), in order to understand the relationship between telehealth and patient care. Further review of the articles after scoring indicated that some articles were not appropriate for inclusion in this report because:

- Some discussed the methodology for the initiation of studies that had not been concluded;
- Several did not present enough conclusive evidence to appropriately evaluate the effectiveness of telehealth on a clinical condition;
- A few articles did not discuss a specific modality of telehealth; or
- The articles presented a general discussion of telehealth that provided limited value to this report.

As a comparison, the AHRQ Evidence Map identified 1,494 citations of which 58 met their inclusion criteria for the study.
Appendix B: Environmental Scan Findings

The environmental scan focused on several different telehealth modalities including mobile health (mHealth), remote monitoring, store-and-forward communication, and videoconferencing/Internet-based technologies. Further, the scan examined the impact of each of the modalities on the process and outcomes of care, access to care, cost efficiencies and the experience of care for both patients and clinicians. NQF focused on the type of study conducted, the results of the study, and how it could inform the development of concepts for use in measure development.

Access to Care

Three studies examined the impact of mHealth on patients’ increased access to healthcare services through mobile technology to monitor, self-assess, and report their findings back to providers. One six-month study recruited patients with moderate to severe psoriasis to use mobile monitoring to increase compliance with psoriasis therapy. All of the 155 adverse events to therapy reported by patients came through feedback text messages or with an additional phone call. More than 88 percent of patients assessed this system as a “very good idea” and would use their own mobile phones for this procedure in the future. Another one-year study involved children and adults with atopic dermatitis receiving care in medically underserved areas, outpatient clinics, and the general community. Through a randomized controlled trial (RCT), patients would receive either in-person care or direct-access care using an online model. The investigator found the online model resulted in improvements in clinical outcomes equivalent to in-person care. Other advantages to this approach included direct and expedient clinical interactions as well as removing the need to travel to a facility.

Researchers at the Children’s University Hospital in Dublin, Ireland, developed a smartphone application to address adolescent obesity. Children participating in the 12-month study that were between 12 and 17 years of age with a body mass index (BMI) greater than the 98th percentile. Those in the mHealth group had a smartphone application that incorporated evidence-based behavioral change tools such as self-monitoring, goal setting, and peer support. Patients were also encouraged to set daily goals and monitor their progress. The study results demonstrated improvements in self-management habits using mHealth.

Six studies described the use and impact of remote monitoring on increasing access to care for cancer, diabetes, asthma, and stroke. Three of the six studies described the use of remote monitoring among United States veterans. One study examined the utility of the VA’s inpatient and outpatient Care Coordination/Home-Telehealth (CCHT) program to provide remote management of symptoms using home-telehealth technologies. The CCHT consisted of 43 patients, while the control group that received regular in-person treatment consisted of 82 patients. After a six-month period, patients in the CCHT had significantly fewer preventable complications, bed days of care for hospitalization (all-cause), chemotherapy-related hospitalizations, and bed days of care for chemotherapy. The program demonstrated successful management of complex cancer symptoms in the CCHT without using in-person inpatient or outpatient services. A study of CCHT to support veterans with chronic conditions conducted over a four-year period showed a 25 percent reduction in bed days of care and a 19 percent reduction in the number of hospital admissions. A final study of the CCHT program examined 400
veterans with type 2 diabetes mellitus (DM) who were at high risk for multiple inpatient and outpatient visits. The CCHT group employed a messaging device wherein nurse care coordinators answered patients’ questions about DM; if needed, the nurse coordinators would arrange for an additional 15- to 30-minute phone call with a physician. After a two-year period, the analysis demonstrated a statistically significant reduction in the likelihood of all-cause and DM hospitalizations and a lower likelihood of having care-coordinator initiated primary care clinic visits.

Researchers at the University of Edinburgh developed a telemetric monitoring program to assess glycemic control, blood pressure, and weight among individuals with poor diabetes control. Individuals with type 2 DM and a confirmed HbA1c >7.5 percent used wireless technology to transmit blood glucose results, blood pressure readings, and weight to a remote server. Advanced practice nurses accessed these data to develop customized care plans for patients and determine if an in-person visit to a physician or hospital was necessary. Similarly, a telehealth program developed in Australia known as Management of Asthma with Supportive Telehealth of Respiratory Function in Pregnancy (MASTERY) used a mobile application (Breathe-easy) to monitor lung function twice daily and record asthma symptoms and medication usage on a weekly basis. This intervention allowed for earlier identification of worsening asthma and prevented exacerbations.

Researchers from the University of Pennsylvania and the Philadelphia Department of Public Health examined the use of store-and-forward teledermatology for outpatient diagnosis and management and its impact on access to dermatologic care in a resource-poor primary care setting. A prospective study of 11 underserved clinics in Philadelphia occurred for a period of 10 months in 2013. During the study period, primary care physicians (PCPs) used a mobile store-and-forward platform to send more than 190 consults covering more than 206 dermatologic conditions to dermatologists at the University of Pennsylvania. The results showed the median time to consult completion was 14 hours, and 77 percent of all consults occurred by teledermatology alone. The overall conclusion was that this form of teledermatology was impactful in delivering care to resource-poor primary care settings.

The VA Puget Sound Healthcare System implemented a three-year project using store-and-forward technology for dermatology care and tracked completion of recommendations from dermatologists. Twenty-seven rural outpatient clinics and centers in the Pacific Northwest that did not have access to a full-time dermatologist participated. More than 5,000 veterans participated with an evaluation of approximately 370 major dermatologic cases. The initial consultation involved the PCP taking photographic images and sending them to a teledermatologist at the Teledermatology Coordinating Center (TCC) in Seattle, Washington, who made an evaluation and alerted the PCP to the recommended treatment plan for the patient. Despite the difficulties in effectively using store-and-forward as a means of tracking follow-up procedures, the pilot study eventually led to better patient care and greater quality assurance because of the tracking features of the TCC.

Ophthalmologists at the Albert Einstein Medical Center studied the impact of store-and-forward telehealth, including the quality of imaging, on the accuracy and reliability of a diagnosis of retinopathy of prematurity (ROP). This team of doctors examined 67 infants over a one-year period. Initially, a trained neonatal nurse used wide-angle retinal imaging on infants between 31 to 37 weeks
postmenstrual age (PMA). A web-based telemedicine system uploaded the data as three retinal experts examined it to determine the risk and/or presence of ROP and to prescribe treatment. The researchers concluded that the diagnostic accuracy using telehealth for infants between 35 and 37 weeks PMA was consistent with the diagnostic accuracy of an in-person assessment, and the reliability of the ROP diagnosis for infants between 35 and 37 weeks PMA was 89 percent.¹¹

Several articles identified during the environmental scan illustrate the impact of videoconferencing on access to services for hepatitis C, COPD, mental health, stroke, and HIV/AIDS. The University of New Mexico (UNM) created the Extension for Community Health Outcome (ECHO) model to improve care for underserved populations with health problems such as hepatitis C virus (HCV) infection.¹² Despite the advances in treatment and improvements in cure rates, the number of patients receiving needed treatment or medications has been decreasing since 2002. The ECHO program assisted in training remote providers to treat complex diseases. Using a prospective cohort study, researchers compared treatment for HCV infection at 21 ECHO sites in rural areas and prisons against treatment provided at a UNM HCV clinic. The study cohort included 407 patients who had received no previous treatment. The major outcome measure was a sustained virologic response. At the end of the study, 58.2 percent of patients who received treatment at the ECHO sites saw a sustained viral response, and only 6.9 percent of the patients had an adverse event.

Patients in rural areas continue to face significant barriers in accessing appropriate and needed mental health treatment.¹³ Individuals who present to critical access hospital emergency departments (EDs) with mental health conditions often do not receive timely evaluations and are, at times, unnecessarily admitted for observation or discharged before a trained professional is able to see them. Researchers at the University of Indiana conducted retrospective data collection to study patients presenting in the ED for 212 days prior to telemedicine interventions and for 184 days after. The intervention was the use of interactive videoconferencing between nurses at the hospital and trained mental health staff in community health centers. After a 13-month study period, the use of telehealth led to significant reductions in length of stay and time to initial consultation.

Another study at the Oregon Health and Sciences University used Skype videoconferencing to deliver behavioral health services to rural adolescents who had poorly controlled type 1 DM. Seventy-one patients received up to 10 sessions of a family-based behavioral health intervention through Skype, and the results demonstrated overall adherence to DM regimens. Additionally, the therapeutic relationship between the patient and the therapist was similar to that of in-person care.¹⁴

The VA Medical Center in Charleston, South Carolina, used telehealth to reach veterans in rural areas suffering from post-traumatic stress disorder (PTSD). The concept was to use videoconferencing as a modality for evidence-based psychotherapy (EBS), which has been shown to be an effective treatment for PTSD. After studying 59 combat veterans over an eight-week period in which they received EBS, their symptoms of both PTSD and depression decreased significantly.¹⁵ A similar VA study in the Pacific Islands

¹ Postmenstrual age – gestational age plus chronological age.
Healthcare System used videoconferencing to deliver cognitive processing therapy—cognitive only version (CPT-C)—to a group of rural veterans with PTSD. Over a period of four years, 62 veterans each received 12 sessions of CPT-C with assessments taken at baseline, mid-treatment, immediately after post-treatment, and at three- and six-month intervals. Clinical and process outcomes demonstrated no noticeable differences to in-person treatment, while reductions in PTSD symptoms occurred immediately after post-treatment.

Thrombolytic therapy for patients with stroke can be effective in reducing stroke disability if there is rapid and appropriate use of the therapy. One study evaluated whether telehealth assisted with quicker decision making in the use of thrombolytics in the time-pressured circumstances of acute stroke. Over a three-year period, a randomized distribution 234 patients occurred—stratified to either a telehealth program or a telephone consultation—to assess suitability for thrombolytics. The telehealth group more often experienced a higher incidence of correct decisions, and patient data were more complete. Additionally, those in the telehealth group had a lower rate of intracerebral hemorrhage, low technical complications, and favorable time requirements to support the efficacy of making treatment decisions.

The delivery of comprehensive care for individuals with HIV infection in rural and low prevalence settings has consistently posed a challenge. Researchers at the Veterans Rural Health Resource Center in Iowa developed a telehealth collaborative care (TCC) program for persons with HIV in a rural area. This program integrated videoconferencing with specialists for the provision of HIV care by primary care providers in seven Community Based Outpatient Clinics serving rural areas. The design of the TCC was to delineate roles between specialists and generalists in the care of the patient; to create processes to improve care coordination between specialty and primary care teams; and to use a patient registry for population management across sites. The performance measures used for this study were care for HIV infection and common comorbidities, patient travel time to obtain care, and patient satisfaction. Among the 24 patients who used the TCC program within a one-year period, 90 percent of all patients met each of the performance measures. Travel time decreased from 320 minutes per patient on average to 170 minutes, and there were high satisfaction rates among participants. Additionally, researchers from the University of Minnesota found that the use of videoconferencing could help develop a model of care coordination for children with chronic conditions who also have medical complexity. This model included family-centered care with high use of telehealth services to coordinate care with children across providers and caregivers.

Cost/Cost-Effectiveness
Two studies demonstrated the value of mobile technology by showing overall reductions in transportation costs and reducing the number of in-person visits to a physician. One study conducted by the Medical University of Graz in Austria examined the feasibility and acceptance of teledermatology for wound management among home care patients with leg ulcers. Specifically, the focus was on evaluating the reduction of costs and the acceptance of the technology by both patients and home care nurses. Sixteen patients submitted weekly digital images to a secure website that included 45 leg ulcers including images of the wound and surrounding skin. Expert physicians then made an assessment and provided therapeutic recommendations. At the conclusion of the study, more than 89 percent of the images graded as excellent or sufficient with enough data and information for experts to provide
recommendations. Additionally, there was a reduction of 46 percent in transportation costs for both insurance companies and patients due to a significant decrease in the number of visits to general physicians or wound care centers.

Another study examined the real-time use of teledermatology through mobile phones for the diagnosis and management of skin conditions in the emergency department (ED).\textsuperscript{21} Over a two-year period, physicians in the ED used mobile phones to take images of more than 100 patients transmitted to a dermatologist through a secure text. The ED physician would make an initial recommendation, and the dermatologist would review and call the physician to determine the appropriate course of action. This type of videoconferencing improved the diagnostic performance in more than 68 percent of the cases seen, and the remote expertise of the dermatologists invalidated, enhanced, or clarified the ED physician’s original diagnosis in 75 out of 110 cases. Given that the smartphones came with videoconferencing hardware installed, there was a reduction in overall costs and general practitioner investment time.

Three studies identified cost-benefits as well as the cost-effectiveness of remote monitoring by ensuring both the provision of appropriate services to patients and the reduction of inpatient visits and/or hospitalizations. The Health Buddy Program was a care coordination approach that integrated a telehealth tool to provide care management for chronically ill Medicare beneficiaries.\textsuperscript{22} A cohort of high-risk, high-cost patients with COPD, congestive heart failure, and DM who received care at two clinics in the Northwestern U.S. participated in a two-year study. The Health Buddy Device was a handheld device with four buttons and a high-resolution color screen located in a patient’s home and linked via telephone to a case manager. On a daily basis, patients received questions tailored to their diagnosis that asked about symptoms, vital signs, knowledge, and health behavior. Patient responses were uploaded to a web-based application that risk-stratified responses to identify those who had deteriorating vital signs and symptoms. Patients at high risk were contacted by care managers to ensure they received appropriate services. Upon the conclusion of the study, there were significant savings per beneficiary for those who used the Health Buddy Program. Spending decreased between 7.7 and 13.2 percent per quarter ($312 to $542) per beneficiary.

In another study, researchers at the London School of Economics implemented a remote monitoring telecare program for individuals with social care needs. More than 550 participants obtained a telecare system that included personalized sensors, home environment sensors, and other stand-alone devices for monitoring. The primary outcome was reduced incremental cost of services provided per quality-adjusted life year, with secondary outcomes including improved physical and mental health status, psychological well-being, and state-trait anxiety. The conclusion of the study indicated that the overall outcomes in care increased and that the cost-effectiveness of the telehealth intervention did not vary from traditional health and social care services.\textsuperscript{23}

Another study conducted by the VA examined the CCHT program’s impact on preventable hospitalizations for veterans with DM at four VA medical centers.\textsuperscript{24} Using a matched-treatment control design, the researchers reviewed ambulatory-care sensitive conditions by applying criteria from the AHRQ to inpatient databases from the VA to determine preventable hospitalization. Patients in the CCHT program procured a home telehealth device in which they answered scripted questions about
their symptoms and health status. During the study, patients in the CCHT program were less at risk for a preventable hospitalization than their nonenrollee counterparts.

Several studies described the cost savings and cost-effectiveness of store-and-forward technology by describing the use of the technology in increasing productivity, removing the need for in-person referrals, and reducing travel costs. A study by the Department of Defense (DoD)\textsuperscript{25} examined cost minimization of store-and-forward teledermatology as compared to a conventional dermatology referral process. By focusing on healthcare utilization over a four-month period, the researchers examined variables such as clinic visits, teledermatology visits, laboratories, preparations, procedures, radiological tests, and medications. They estimated the direct medical care costs by combining utilization data with Medicare reimbursement rates and wholesale drug prices, and factored in productivity loss for seeking treatment as an indirect cost. Teledermatology patients incurred greater than $103,000 in total direct costs as compared to usual care patients, who incurred just over $98,000 in total direct costs. However, the indirect costs were much more significant. Teledermatology patients incurred $16,359 in lost productivity costs, while usual care patients cost almost twice as much ($30,788). The DoD concluded that the store-and-forward teledermatology was a cost-saving strategy for care delivery when it accounted for productivity loss. A case study from King’s College in Canada described the encounter of a PCP with a Caucasian male in his fifties who had an enlarged nevus on his chest.\textsuperscript{26} The PCP used store-and-forward teledermatology to send several images to a specialist who determined that the nevus was benign and required no further treatment. Given that the patient lived in a remote area, the use of the technology removed the need for a logistically difficult and expensive in-person referral.

Researchers at both the Alaska Native Medical Center and the Alaska Native Tribal Health Consortium conducted a study using store-and-forward electronic consultations with an otolaryngologist.\textsuperscript{27} An audiologist traveled to remote parts of Alaska and took images of the appropriate parts of the otolaryngology exam to create telemedicine case studies. These studies included clinical histories, images, audiograms, tympanograms, optoacoustic emission testing and/or other documents. The otolaryngology consultants received these case studies, and made treatment and triage recommendations. Within a -period of almost five years, the study generated 1,458 patient encounters. Approximately 26 percent of the cases were referred for surgery or special diagnostic testing, 23 percent were referred for monitoring, 15 percent were referred to a regional ear/nose/throat clinic (ENT), and 27 percent did not need to see an otolaryngologist and were triaged out of the specialty clinic. Because of this technology, 85 percent of the encounters required no travel for the patient, resulting in a cost avoidance of $496,420.

A retrospective, noncomparative consecutive case series conducted by researchers at the University of Alberta evaluated the clinical outcomes of a teleophthalmology program linking optometrists to retina specialists in Alberta, Canada.\textsuperscript{28} Over a two-year period, more than 170 patients underwent stereoscopic, mydriatic digital photography in which a secure web server captured digital images to transfer over to a retinal specialist. The study period included 190 patients in which the wait time between a telehealth referral and a teleophthalmology review of the images was 1.9 days, as opposed to the wait time between a telehealth referral and an in-person evaluation, which was 25.1 days. This
One study discussed depression as a common and significant health problem among older adults, with few of them accessing treatment, which affects their long-term health and adds cost to the healthcare system. Researchers at Macquarie University conducted an RCT to examine the efficacy, long-term outcomes, and cost-effectiveness of Internet-based cognitive behavioral therapy. Within a cohort of 54 patients aged 60 or older with symptoms of depression, 27 patients used Internet therapy, while others formed the control group. Over an eight-week period, with five sessions of Internet therapy and weekly contact with a clinical psychologist, the participants in the Internet group had significantly lower scores on the Patient’s Health Questionnaire 9-item (PHQ-9), a measure of symptoms and severity of depression. The scores maintained consistency at both three months and 12 months after treatment. The researchers concluded that the treatment was cost-effective according to the commonly used willingness-to-pay threshold of $50,000 in Australia for improved quality of life.

Patient/Provider Experience

Researchers at the Prince Charles Hospital in Australia integrated mobile phones and web services into a comprehensive home-based care model for outpatient cardiac rehabilitation. Sensors would measure physical exercise and an accessible web-based wellness diary collected information on a patient’s physiological risk factors and other health information. The built-in video and teleconference features of the phone allowed “mentors” to talk to patients about behavior modifications and to develop weekly and monthly goals. Patients also viewed educational multimedia content on cardiac rehabilitation on demand.

Investigators designed a pilot study in which there was sharing of medical data between a patient and a health professional for use in treatment during chemotherapy for skin cancer. Specifically, the focus was on patients with cancer receiving chemotherapy at infusion centers in the metropolitan area of New York City. An offsite center provided easier access for patients and allowed them to reduce commuting time to the city, as well as avoid parking fees. Staff implemented an information system designed with a wireless telemedicine cart that placed at the offsite center. In particular, the study looked at patients who had a dermatologic condition resulting from chemotherapy or biotherapy identified during a pre-chemotherapy nursing assessment. Nursing staff submitted images of these skin assessments to the main center in New York City, where a dermatologist was able to see the images of the affected area in real time and recommend treatment. Overall, both patients and clinicians were very satisfied with the use of the technology; all of them agreed that it made it easier to get medical care, and they would not have received better care in person at the dermatologist’s office.

Researchers at Maastricht University in the Netherlands developed the It’s LiFe feedback and monitoring tool as part of a self-management support program (SSP) to stimulate physical activity in people with COPD or type 2 DM. Random placement of 24 family practices using a three-armed cluster randomized trial included those that used the tool and the SSP, used the SSP only, or received care as usual. The tool consisted of a three-dimensional activity monitor, a mobile application, and a web application. Patients wore the activity monitor on a daily basis so that they could see their progress on the web or mobile.
application and measure it against a personal goal. Patients participated in “diary sessions,” and answered questions on a dialogue session built into the mobile application. Participants received regular feedback messages and tailored recommendations through the web and mobile application. After nine months, the group that used the tool plus the SSP had higher levels of physical activity directly after the intervention, and that increased level of physical activity remained consistent at three months after the intervention concluded.

An additional study discussed the satisfaction of providers with the use of store-and-forward telehealth in the area of dermatology. Researchers in Spain conducted a three-year study to determine the level of provider satisfaction with store-and-forward telehealth by comparing the concordance rates for the use of the technology and in-person consultations to ascertain a diagnosis. Dermatologists performed more than 120 teleconsultations during the study period, with concordance rates of 76 percent for pediatric patients with inflammatory dermatoses and 75 percent for adults with infections and infestations. Overall, physicians were very satisfied with the high degree of diagnostic accuracy with the use of store-and-forward telehealth, as well as the ability to filter patients for necessary dermatological referrals.

A similar study occurred over a four-year period in California, with 17 teledermatology participants from a variety of practices. More than 47 percent of the providers served at least one Federally Qualified Health Center (FQHC), and more than 75 percent of the patients seen during the study were at or below the 200 percent federal poverty level and lived in rural regions without dermatologist access. While providers varied in their views on image quality of the store-and-forward system as well as the system’s ability to obtain a detailed medical history of the patient, most agreed that it increased access to specialty care for those patients.

Several studies discussed patient satisfaction with mental health services provided through video, a greater motivation for self-management and engaging in healthier behaviors, and increased satisfaction with the quality of services. The Northern Regional Behavioral Health Authority (NARBH) conducted a satisfaction survey of telepsychiatry patients at a rural community mental health clinic that had been providing these services through telehealth for 10 years. The survey focused on individuals who had been using the services over multiple sessions with an emphasis on the quality of the services. Over a four-month period, 230 patients were surveyed and 76 responded (33 percent return rate). Among respondents, satisfaction was very high with the belief that mental health services mediated through telehealth were no different from services provided in person. Another study out of Arizona examined the effectiveness and satisfaction rate of telepsychiatry among underserved Hispanics. Patients reported a significant improvement in depression symptoms and stated that the technology helped close the gap in access to linguistically and culturally congruent specialists.

Finally, both physicians and researchers view comprehensive multidisciplinary pulmonary rehabilitation as vital in the management of COPD. A barrier to participating in this type of rehabilitation is the distance from the patient’s home to a rehabilitation center and the lack of transportation. One study evaluated patients’ acceptance of a home-based online and videoconferencing program for patients who have less severe COPD, but still need of comprehensive rehabilitation services. Ten participants enrolled in a nine-week program, with five patients engaged in exercises and an online self-management
program that included online consultations. The results indicated that the patients using the online platform felt that the program provided an environment that facilitated health-enhancing behaviors and social interactions among similar individuals. Another 14-month study from the North Florida/South Georgia Veterans Health System examined functional outcomes, health-related quality of life, and satisfaction in a group of 26 veterans who received physical therapy via an in-home video telerehabilitation program, the Rural Veterans Telerehabilitation Initiative (RVTRI). Assessment of the veterans occurred through a variety of standardized instruments, including the Functional Independence Measure (FIM), the Montreal Cognitive Assessment (MoCA), and the two-minute walk test. Upon conclusion of the study, the veterans’ functional independence and cognitive abilities significantly improved, and they noted increased satisfaction due to the avoidance of travel time and easier access to trained specialists.38

Identification of Clinical Areas for Potential Inclusion in the Framework

The literature provided a significant amount of information about how various modalities of telehealth intersect with clinical outcomes or processes of care. Closer examination of the evidence indicates the effect of telehealth on specific clinical areas and functions and provides insight into determining the impact of telehealth on both patient populations and providers. In developing a framework for using and creating measures to assess telehealth, it is important to understand the clinical areas in which the use of this technology has affected outcomes in a positive manner. This understanding informs guidance for selecting current quality measures and identifying the gaps for the future development of measures to evaluate the use of telehealth on a particular clinical area. During the review of the literature, NQF identified the modalities of telehealth and their relationships to different clinical areas, as well as the number of studies found within each clinical area to identify those areas in which telehealth may have had the most significant impact. Based on this analysis, the top five areas in which there was a preponderance of literature as well as a high number of patients studied were:

- Dermatology
- Mental health
- Rehabilitation
- Care coordination
- Chronic diseases (includes asthma, COPD, obesity, hypertension, diabetes, and congestive heart failure)

The next step in determining potential measures to include within the framework was to evaluate the impact of the telehealth intervention on the clinical outcome. For those outcomes associated with a positive impact, the quality measures that correspond to these clinical areas would be under consideration for potential inclusion in the framework. Each study pertaining to the five clinical areas referenced above determines the effect of the telehealth intervention on the outcome. In addition, a multistakeholder Telehealth Committee developed a framework to organize the proposed measure concepts around domains and subdomains that classify the concepts into specific categories; these categories serve as a reference within telehealth for future measure development.
Endnotes


Appendix C: Initial Measure Concepts

The measure concept tables are arranged based on the proposed domain(s) and subdomain(s).

- **Domain** – A categorization/grouping of high-level ideas developed by the Committee that further describes the measurement framework
- **Subdomain** – a smaller categorization/grouping within a domain
- **Measure Concept** – an idea for a measure that was proposed by the Committee that includes a description, a planned target, and population

<table>
<thead>
<tr>
<th>Domain</th>
<th>Subdomain</th>
<th>Measure Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience</td>
<td>Patient, family, and/or caregiver</td>
<td>Patient demonstrated increased confidence in care plan</td>
</tr>
<tr>
<td>Experience</td>
<td>Patient, family, and/or caregiver</td>
<td>Patient demonstrated increased understanding of care plan</td>
</tr>
<tr>
<td>Experience</td>
<td>Patient, family, and/or caregiver</td>
<td>Patient demonstrated compliance with their care plan</td>
</tr>
<tr>
<td>Experience</td>
<td>Care team member including clinical provider</td>
<td>Technologies were in a satisfying condition for providers to do their job</td>
</tr>
<tr>
<td>Experience</td>
<td>Care team member including clinical provider</td>
<td>Technologies were in a satisfying condition for providers to do their job</td>
</tr>
<tr>
<td>Experience</td>
<td>Operational effectiveness</td>
<td>Patients can conduct visits on their own using a specific telehealth modality</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>System effectiveness</td>
<td>Connectivity is clear and timely for both the provider and patient</td>
</tr>
<tr>
<td>Experience</td>
<td>Technical Effectiveness</td>
<td>Connectivity is clear and timely for both the provider and patient</td>
</tr>
<tr>
<td>Experience</td>
<td>Patient, family, and/or caregiver and Care team member including clinical provider</td>
<td>Connectivity is clear and timely for both the provider and patient</td>
</tr>
<tr>
<td>Financial Impact/Cost</td>
<td>Financial Impact to health system or payer</td>
<td>The duration of the visit is measured versus in-home care</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>System effectiveness</td>
<td>The instructions for care were clear to the patient</td>
</tr>
<tr>
<td>Access</td>
<td>Patient, Family, and/or Caregiver</td>
<td>Satisfactory visit for both the patient and provider</td>
</tr>
<tr>
<td>Experience</td>
<td>Patient, family, and/or caregiver/care team member</td>
<td>Satisfactory visit for both the patient and provider</td>
</tr>
<tr>
<td>Access</td>
<td>Technical Effectiveness</td>
<td>Increased likelihood for a patient to access the telehealth modality for an encounter</td>
</tr>
<tr>
<td>Domain</td>
<td>Subdomain</td>
<td>Measure Concept</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>System effectiveness</td>
<td>The amount of time it takes to schedule a visit</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>System effectiveness</td>
<td>The amount of time to check-in for a visit</td>
</tr>
<tr>
<td>Financial Impact/Cost</td>
<td>Financial Impact to health system or payer</td>
<td>Increased use of services</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Technical Effectiveness Patient, family, and/or caregiver</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>Patient, family, and/or caregiver</td>
<td>Repeat use of services because of satisfaction with the services providers</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>System effectiveness</td>
<td>How closely the system meets the scheduled time of the appointment versus the actual appointment time.</td>
</tr>
<tr>
<td>Access</td>
<td>Access for patients or families</td>
<td>Able to provide care without admission into the ER</td>
</tr>
<tr>
<td>Financial Impact/ Cost</td>
<td>Financial Impact to patient, family, and/or caregiver</td>
<td></td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Clinical Effectiveness</td>
<td>Relationship of the telehealth modality to the therapeutic need of the patient</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Clinical Effectiveness</td>
<td>Decrease in the length of stay in the hospital</td>
</tr>
<tr>
<td>Financial Impact/ Cost</td>
<td>Clinical Effectiveness</td>
<td>In-person visit was agreed to after a telehealth consultation</td>
</tr>
<tr>
<td>Access</td>
<td>Access for care team</td>
<td>Telehealth services facilitated transitions of care</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Operational effectiveness System effectiveness</td>
<td>Percentage of patients enrolled in a telehealth program for at least three months</td>
</tr>
<tr>
<td>Access</td>
<td>Access for patients or families</td>
<td>Satisfaction in telehealth capturing the appropriate clinical variable</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>System and Technical effectiveness Patient, family, and/or caregiver</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>Care team member System effectiveness</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>Subdomain</td>
<td>Measure Concept</td>
</tr>
<tr>
<td>--------------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>System effectiveness</td>
<td>How many store-and-forward touches were in the technology</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Clinical effectiveness</td>
<td>Telehealth services prevented an elevated amount of care to a patient</td>
</tr>
<tr>
<td>Financial Impact/Cost</td>
<td>Clinical effectiveness</td>
<td>The system was able to effectively provide the care that was recommended</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>System and Technical effectiveness</td>
<td>Amount of time it took to log off of the visit</td>
</tr>
<tr>
<td>Financial Impact</td>
<td>Financial Impact to Society</td>
<td>The lack of telehealth led to a delayed diagnosis</td>
</tr>
<tr>
<td>Access</td>
<td>Access for care team</td>
<td>Are providers able to see complex patients more efficiently</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Operational effectiveness</td>
<td>Can telehealth offer the same quality of services across a population of similar patients?</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Operational effectiveness</td>
<td>A defined and specific process flow per diagnosis?</td>
</tr>
<tr>
<td>Financial Impact</td>
<td>Financial Impact to care team</td>
<td>Decrease in no-show rate</td>
</tr>
<tr>
<td>Access</td>
<td>Access to information</td>
<td>What is the data access in telehealth for those who treat the patient?</td>
</tr>
<tr>
<td>Access</td>
<td>Access to information</td>
<td>What is the data access in telehealth for those who consult to the primary care provider?</td>
</tr>
<tr>
<td>Domain</td>
<td>Subdomain</td>
<td>Measure Concept</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Access</td>
<td>Experience</td>
<td>Was travel eliminated for a specific patient encounter because of telehealth services?</td>
</tr>
<tr>
<td></td>
<td>Financial Impact/Cost</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial impact to society</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial impact to patients, family, and/or caregiver</td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td>Access for patients or families</td>
<td>Was there any travel to a medical facility because of a telehealth diagnosis?</td>
</tr>
<tr>
<td></td>
<td>Financial Impact/Cost</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Access for patients or families</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost to patients, family, and/or caregiver</td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td>Access for care team</td>
<td>Removing geographic limitations increased the volume of specialty providers</td>
</tr>
<tr>
<td></td>
<td>Access to patient, family, and/or caregiver</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience for members of care team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clinical effectiveness</td>
<td></td>
</tr>
<tr>
<td>Financial Impact</td>
<td>Financial Impact to society</td>
<td>Increase in diabetic exams with retinal screens</td>
</tr>
<tr>
<td></td>
<td>Effectiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clinical effectiveness</td>
<td></td>
</tr>
<tr>
<td>Financial Impact</td>
<td>Financial Impact to society</td>
<td>Increase in preventive visits</td>
</tr>
<tr>
<td></td>
<td>Effectiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clinical effectiveness</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>Patient, Family, and/or caregiver</td>
<td>Patients are able to interpret diagnosis and treatment instructions through the telehealth modality</td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>The amount of care coordination needed due to the use of telehealth services</td>
</tr>
<tr>
<td></td>
<td>Clinical effectiveness</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>Effectiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technical effectiveness</td>
<td>Initial visit is connected to the appropriate provider</td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>System effectiveness</td>
<td>Amount of patient’s time used during a telehealth consultation</td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial Impact/Cost</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operational effectiveness</td>
<td>Amount of provider’s time used during a telehealth consultation</td>
</tr>
<tr>
<td></td>
<td>System effectiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost to patient, family, and/or caregiver</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>Subdomain</td>
<td>Measure Concept</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Experience</td>
<td>Patient, family, and/or caregiver</td>
<td>Decrease in wait times for patients</td>
</tr>
<tr>
<td>Access</td>
<td>Access to care team and to patient, family, and/or caregiver</td>
<td>Overall number of multidisciplinary visits</td>
</tr>
<tr>
<td>Access</td>
<td>Access for care team</td>
<td>Frequency of remote visits a provider imports</td>
</tr>
<tr>
<td>Experience</td>
<td>Community, care team and patient, family, and/or caregiver</td>
<td>Impact of telehealth services on the workforce shortage</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Operational effectiveness</td>
<td>Time interval from when information is received to when it is acted upon</td>
</tr>
<tr>
<td>Experience</td>
<td>Patient, family, and/or caregiver</td>
<td>Overall improvement in quality of life because services are received at home</td>
</tr>
<tr>
<td>Financial Impact</td>
<td>Financial impact to health system or payer</td>
<td>Increase in medication adherence</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Clinical effectiveness</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>Patient, family, and/or caregiver; and community</td>
<td>Reduction in diagnostic errors and avoidance of an adverse outcome because of</td>
</tr>
<tr>
<td></td>
<td>Care team member including clinical provider</td>
<td>telehealth</td>
</tr>
<tr>
<td></td>
<td>Clinical effectiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost avoidance</td>
<td></td>
</tr>
</tbody>
</table>
Appendix D: Initial Measures

The table below presents the initial measures chosen by the Committee to assess the use of telehealth as a means of care delivery and its impact on quality of care. The table is broken down into the following components:

- **NQF Number** (only NQF endorsed measures were considered)
- **Measure Name** – Name of the measure
- **Measure Description** – Description of the measure including intended target and population
- **NQS Domain** – Applicable domain from the National Quality Strategy
- **Measure Type** – Outcome, Process, or Structural
- **Data Submission Methods** – Claims, Registry, EHR, CMS Web Interface
- **Primary Measure Steward** – Organization responsible for the endorsement and maintenance of the measure

<table>
<thead>
<tr>
<th>NQF #</th>
<th>Measure Name</th>
<th>Measure Description</th>
<th>NQS Domain</th>
<th>Measure Type</th>
<th>Data Submission Method</th>
<th>Primary Measure Steward</th>
</tr>
</thead>
<tbody>
<tr>
<td>0102</td>
<td>Chronic Obstructive Pulmonary Disease (COPD): Long-Acting Inhaled Bronchodilator Therapy</td>
<td>Percentage of patients aged 18 years and older with a diagnosis of COPD (FEV1/FVC &lt; 70%) and who have an FEV1 less than 60% predicted and have symptoms who were prescribed an long-acting inhaled bronchodilator</td>
<td>Effective Clinical Care</td>
<td>Process</td>
<td>Claims, Registry</td>
<td>American Thoracic Society</td>
</tr>
<tr>
<td>0091</td>
<td>Chronic Obstructive Pulmonary Disease (COPD): Spirometry Evaluation</td>
<td>Percentage of patients aged 18 years and older with a diagnosis of COPD who had spirometry results documented</td>
<td>Effective Clinical Care</td>
<td>Process</td>
<td>Claims, Registry</td>
<td>American Thoracic Society</td>
</tr>
<tr>
<td>0018</td>
<td>Controlling High Blood Pressure</td>
<td>Percentage of patients 18-85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (&lt;140/90mmHg) during the measurement period</td>
<td>Effective Clinical Care</td>
<td>Intermediate Outcome</td>
<td>Claims, CMS Web Interface, EHR, Registry</td>
<td>National Committee for Quality Assurance</td>
</tr>
<tr>
<td>NQF #</td>
<td>Measure Name</td>
<td>Measure Description</td>
<td>NQS Domain</td>
<td>Measure Type</td>
<td>Data Submission Method</td>
<td>Primary Measure Steward</td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>--------------</td>
<td>------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>0066</td>
<td>Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF &lt; 40%)</td>
<td>Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have diabetes OR a current or prior Left Ventricular Ejection Fraction (LVEF) &lt; 40% who were prescribed ACE inhibitor or ARB therapy</td>
<td>Effective Clinical Care</td>
<td>Process</td>
<td>Registry</td>
<td>American Heart Association</td>
</tr>
<tr>
<td>0089</td>
<td>Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care</td>
<td>Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the ongoing care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months</td>
<td>Communication and Care Coordination</td>
<td>Process</td>
<td>Claims, EHR, Registry</td>
<td>Physician Consortium for Performance Improvement</td>
</tr>
<tr>
<td>0576</td>
<td>Follow-Up After Hospitalization for Mental Illness (FUH)</td>
<td>The percentage of discharges for patients 6 years of age and older who were hospitalized for treatment of selected mental illness diagnoses and who had an outpatient visit, an intensive outpatient encounter or partial hospitalization with a mental health practitioner. Two rates are reported: The percentage of discharges for which the patient received follow-up within 30 days of discharge. The percentage of discharges for which the patient received follow-up within 7 days of discharge</td>
<td>Communication and Care Coordination</td>
<td>Process</td>
<td>Registry</td>
<td>National Committee for Quality Assurance</td>
</tr>
<tr>
<td>NQF #</td>
<td>Measure Name</td>
<td>Measure Description</td>
<td>NQS Domain</td>
<td>Measure Type</td>
<td>Data Submission Method</td>
<td>Primary Measure Steward</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>--------------</td>
<td>------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>2624</td>
<td>Functional Outcome Assessment</td>
<td>Percentage of visits for patients aged 18 years and older with documentation of a current functional outcome assessment using a standardized functional outcome assessment tool on the date of the encounter AND documentation of a care plan based on identified functional outcome deficiencies on the date of the identified deficiencies</td>
<td>Communication and Care Coordination</td>
<td>Process</td>
<td>Claims, Registry</td>
<td>Centers for Medicare &amp; Medicaid Services</td>
</tr>
<tr>
<td>0427</td>
<td>Functional Status Change for Patients with Elbow, Wrist or Hand Impairments</td>
<td>A self-report outcome measure of functional status (FS) for patients 14 years+ with elbow, wrist or hand impairments. The change in FS assessed using FOTO (elbow, wrist and hand) PROM (patient reported outcomes measure) is adjusted to patient characteristics known to be associated with FS outcomes (risk adjusted) and used as a performance measure at the patient level, at the individual clinician, and at the clinic level to assess quality</td>
<td>Communication and Care Coordination</td>
<td>Outcome</td>
<td>Registry</td>
<td>Focus on Therapeutic Outcomes, Inc.</td>
</tr>
<tr>
<td>NQF #</td>
<td>Measure Name</td>
<td>Measure Description</td>
<td>NQS Domain</td>
<td>Measure Type</td>
<td>Data Submission Method</td>
<td>Primary Measure Steward</td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
<td>---------------------</td>
<td>------------</td>
<td>--------------</td>
<td>------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>0424</td>
<td>Functional Status Change for Patients with Foot or Ankle Impairments</td>
<td>A self-report measure of change in functional status (FS) for patients 14 years+ with foot and ankle impairments. The change in functional status (FS) assessed using FOTO’s (foot and ankle) PROM (patient reported outcomes measure) is adjusted to patient characteristics known to be associated with FS outcomes (risk adjusted) and used as a performance measure at the patient level, at the individual clinician, and at the clinic level to assess quality</td>
<td>Communication and Care Coordination</td>
<td>Outcome</td>
<td>Registry</td>
<td>Focus on Therapeutic Outcomes, Inc.</td>
</tr>
<tr>
<td>0428</td>
<td>Functional Status Change for Patients with General Orthopaedic Impairments</td>
<td>A self-report outcome measure of functional status (FS) for patients 14 years+ with general orthopaedic impairments (neck, cranium, mandible, thoracic spine, ribs or other general orthopaedic impairment). The change in FS assessed using FOTO (general orthopaedic) PROM (patient reported outcomes measure) is adjusted to patient characteristics known to be associated with FS outcomes (risk adjusted) and used as a performance measure at the patient level, at the individual clinician, and at the clinic level to assess quality</td>
<td>Communication and Care Coordination</td>
<td>Outcome</td>
<td>Registry</td>
<td>Focus on Therapeutic Outcomes, Inc.</td>
</tr>
<tr>
<td>NQF #</td>
<td>Measure Name</td>
<td>Measure Description</td>
<td>NQS Domain</td>
<td>Measure Type</td>
<td>Data Submission Method</td>
<td>Primary Measure Steward</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>--------------</td>
<td>------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>0423</td>
<td>Functional Status Change for Patients with Hip Impairments</td>
<td>A self-report measure of change in functional status (FS) for patients 14 years+ with hip impairments. The change in functional status (FS) assessed using FOTO’s (hip) PROM (patient-reported outcomes measure) is adjusted to patient characteristics known to be associated with FS outcomes (risk adjusted) and used as a performance measure at the patient level, at the individual clinician, and at the clinic level to assess quality</td>
<td>Communication and Care Coordination</td>
<td>Outcome</td>
<td>Registry</td>
<td>Focus on Therapeutic Outcomes, Inc.</td>
</tr>
<tr>
<td>0422</td>
<td>Functional Status Change for Patients with Knee Impairments</td>
<td>A self-report measure of change in functional status for patients 14 year+ with knee impairments. The change in functional status (FS) assessed using FOTO’s (knee) PROM (patient-reported outcomes measure) is adjusted to patient characteristics known to be associated with FS outcomes (risk adjusted) and used as a performance measure at the patient level, at the individual clinician, and at the clinic level to assess quality</td>
<td>Communication and Care Coordination</td>
<td>Outcome</td>
<td>Registry</td>
<td>Focus on Therapeutic Outcomes, Inc.</td>
</tr>
<tr>
<td>NQF #</td>
<td>Measure Name</td>
<td>Measure Description</td>
<td>NQS Domain</td>
<td>Measure Type</td>
<td>Data Submission Method</td>
<td>Primary Measure Steward</td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------</td>
<td>--------------</td>
<td>------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>0425</td>
<td>Functional Status Change for Patients with Lumbar Impairments</td>
<td>A self-report outcome measure of change in functional status for patients 14 years+ with lumbar impairments. The change in functional status (FS) assessed using FOTO (lumbar) PROM (patient reported outcome measure) is adjusted to patient characteristics known to be associated with FS outcomes (risk adjusted) and used as a performance measure at the patient level, at the individual clinician, and at the clinic level to assess quality.</td>
<td>Communication and Care Coordination</td>
<td>Outcome</td>
<td>Registry</td>
<td>Focus on Therapeutic Outcomes, Inc.</td>
</tr>
<tr>
<td>0426</td>
<td>Functional Status Change for Patients with Shoulder Impairments</td>
<td>A self-report outcome measure of change in functional status (FS) for patients 14 years+ with shoulder impairments. The change in functional status (FS) assessed using FOTO's (shoulder) PROM (patient reported outcomes measure) is adjusted to patient characteristics known to be associated with FS outcomes (risk adjusted) and used as a performance measure at the patient level, at the individual clinician, and at the clinic level to assess quality.</td>
<td>Communication and Care Coordination</td>
<td>Outcome</td>
<td>Registry</td>
<td>Focus on Therapeutic Outcomes, Inc.</td>
</tr>
<tr>
<td>NQF #</td>
<td>Measure Name</td>
<td>Measure Description</td>
<td>NQS Domain</td>
<td>Measure Type</td>
<td>Data Submission Method</td>
<td>Primary Measure Steward</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------</td>
<td>--------------</td>
<td>------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>0650</td>
<td>Melanoma: Continuity of Care - Recall System</td>
<td>Percentage of patients, regardless of age, with a current diagnosis of melanoma or a history of melanoma whose information was entered, at least once within a 12 month period, into a recall system that includes: A target date for the next complete physical skin exam, AND A process to follow up with patients who either did not make an appointment within the specified timeframe or who missed a scheduled appointment</td>
<td>Communication and Care Coordination</td>
<td>Structure</td>
<td>Registry</td>
<td>American Academy of Dermatology</td>
</tr>
<tr>
<td>0028</td>
<td>Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention</td>
<td>Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user</td>
<td>Community/ Population Health</td>
<td>Process</td>
<td>Claims, CMS Web Interface, EHR, Registry</td>
<td>Physician Consortium for Performance Improvement</td>
</tr>
</tbody>
</table>