Agenda
July 18, 2017
9:00am – 4:00pm

Location: Boca Raton Regional Hospital
800 Meadows Rd.
Boca Raton, FL 33486

Teleconference: 1-866-952-8437
Attendee Access Code: 680-589-250
Webinar: GoToWebinar

9:00 – 9:05
Welcome & Introductions, Roll Call, Review & Approval of May & June Minutes
Chair Senior

9:05 – 9:10
Welcome

9:10 – 9:40
Public Comments
Chair Senior

9:40 – 10:10
Member Discussion - Coverage & Reimbursement
Council Members

10:10 – 10:20
Break

10:20 – 11:20
Member Discussion – Patient Protection Issues
Council Members

11:20 – 12:30
Lunch Break

12:30 – 1:00
Public Comments
Chair Senior

1:00 – 1:30
Member Discussion – Licensure Issues
Council Members

1:30 – 1:45
Member Discussion – Telehealth Definition
Council Members

1:45 – 2:00
Break

2:00 – 3:45
Member General Discussion
Council Members

3:45 – 4:00
Wrap Up & Closing
Chair Senior

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
Draft Minutes  
May 16, 2017  
Telehealth Advisory Council  
Agency for Health Care Administration  
Miami Medicaid Area Office  
8333 N.W. 53rd St.  
Doral, FL 33166

Members Present  
Justin M. Senior, Chair  
Dr. Celeste Philip  
Dr. Ernest Bertha  
Dr. Anne Burdick  
Leslee Gross  
Darren Hay (arrived at 9:10 a.m.)  
Dr. Kim Landry  
William Manzie  
Elizabeth Miller  
Dr. Steven Selznick (virtual)  
Mike Smith  
Matthew Stanton  
Monica Stynchula  
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 and directed Ms. Helvey to call the roll. A quorum was present.

Review and Approval of the Minutes  
After review, Dr. Terkonda moved to approve the minutes. The motion was seconded by Dr. Bertha and carried unanimously.

Pediatric Associates Presentation  
Dr. Rocky Slonaker, Chief Medical Officer, Pediatric Associates, gave a presentation on his organizations’ telehealth program. He advised that the current implementation was telephonic only. He noted Pediatric Associates decided to implement telehealth to increase patient access to their medical home; to be an innovative pioneer in the field of medical home based pediatric healthcare; to reduce overall utilization of emergency room or urgent care facilities for minor illnesses; and to provide alternative routes for high quality/high value patient care with improved patient satisfaction.
Dr. Sloanaker reviewed the barriers to Pediatric Associates implementation. He said it was difficult to get other physicians to buy-in to using telehealth, as they were uncertain about the process. He said there were concerns about continuing to provide the highest quality of care through telehealth; concerns about medical liability and malpractice issues, and concerns about reimbursement policies of third party payers.

Dr. Slonaker discussed the implementation stages of their telehealth programs and shared data reflecting the growth of the practice since the adoption in July 2016. They intend to add the use of video conferencing by June 1, 2017.

The Council questioned Dr. Slonaker about different situations where physicians could use telehealth. Dr. Slonaker acknowledged their input and noted Pediatric Associates current focus is primary care. He shared they hope to connect to specialists in the future.

**Speech Language Pathologists & Audiologists Presentation**

Panelists from the Florida Association of Speech-Language Pathologists and Audiologists (FLASHA) gave a presentation regarding the use of telehealth by speech and hearing practitioners. The presenters were Dr. Robert C. Fifer, Associate Professor and Directory of Audiology, and Speech Pathology at the Mailman Center for Child Development, Department of Pediatrics, at the University of Miami, Miller School of Medicine; Marcus W. Rose, SLP-CCC School Partnership, Director and previously Senior Clinical Consultant for PresenceLearning; and Cynthia W. Bowen, SLP-CCC owner of Bowen Speech-Language Therapy, LLCand Program Site Coordinator and STARS Program Coordinator for Voices of Hope for Aphasia, Inc.

Dr. Fifer discussed the barriers that audiologist and speech-language pathologists face when trying to offer telehealth services. He identified Medicare requirements for reimbursement, training remote assistants, insuring a secure data link, patient status and equipment monitoring, and interstate licensure as potential barriers. He advised the National Council of State Boards of Examiners for Speech-Language Pathology and Audiology (NCSB) has been working on a compact with many states.

Dr. Fifer shared examples of several telehealth initiatives used to treat audiology patients. The examples included mobile medical offices, newborn screening, and neuro intra-operative monitoring. Dr. Fifer closed with a brief discussion about early intervention services for speech/language development. He said it is cost efficient for the practice, as well as for the families, especially in urban areas. Expressing his opinion that the appointments have the same quality as the face-to-face and gives the provider an opportunity to encourage parental involvement, which increases probability of treatment success.

Mr. Rose reported that the most common challenges for treatment of speech and hearing disorders are delayed timelines, travel time, hospital/homebound patients, dismissal assessments, therapy/assessment balance, remote school locations, small caseload sites, the digital divide, and differentiated learning. In contrast, he mentioned the benefits of online assessment as access to high quality, credentialed clinicians selected from a national recruiting pool, on-demand capacity to fill in practitioner vacancies, post-recruiting clinician management, support, technical, clinical, and professional development. He shared a few examples of the simple worksheets and test
available to assess and treat patients virtually. He identified improved collaborative care for children in schools as a telehealth benefit.

Ms. Bowen spoke about the use of telehealth to treat aphasia, articulation and motor speech issues, voice problems and dysphagia in adult patients. She discussed the skilled services speech language pathologists can provide with telehealth. Those services are education, assessment, training, functional re-assessments, and goal modification.

She referred the Council to the many assessment applications providers can use to assist with diagnosis and treatment. Ms. Bowen discussed the benefits of telehealth for adult patients. She noted the increase in accessibility, which mitigates mobility barriers to treatment and it reduces travel fatigue in patients with chronic conditions.

She noted small speech-language pathology businesses must consider the costs of the equipment versus the reimbursement, as well as the suitability for the patients and clinicians in the service model when determining if they will use telehealth.

In closing, Ms. Bowen remarked that telehealth is an effective, compatible, alternative service delivery model for speech-language pathologists and audiologists.

The Council questioned the presenters on the barriers and benefits as identified in their presentation.

**Neurologist ALS Project**

Dr. Björn Oskarsson, co-director of the ALS clinic at the Mayo Clinic in Florida, spoke to the Council about the use of telehealth in treating Florida’s ALS patients. He provided information on the complexity of the multi-disciplinary care needed for these patients; identifying eight different types of health practitioner needed for ongoing care. He explained the typical patient in-person medical care visit is about four hours long. He noted the same visit done via telehealth is typically about two hours. Dr. Oskarsson informed the Council there are three “certified” ALS centers in the state of Florida the University of Miami, the University of South Florida and the Mayo Clinic. There are also two “recognized” centers at UF Jacksonville and Lee Memorial in Ft. Meyers and two “new” centers at the University of Florida, Gainesville and Pensacola via telehealth. Dr. Oskarsson shared examples providers using telehealth to diagnose, renew prescriptions, order tests, and order new equipment for their patients with ALS.

Dr. Oskarsson said that the greatest challenge is that there are not enough ALS patients in Florida to make trials effective. He reported that there are approximately 40 patients with ALS west of Tallahassee, of which 50% have not gone to Mayo for treatment, 15% go to Mayo for treatment, often participating in research, and 20% are homebound and must receive treatment in their home.

**Lunch Break**

**Behavioral Health Providers – IMPOWER**

Ms. Anna M. Baznik, President and CEO of IMPOWER Behavioral Health and Amy-Erin Blakely, Vice President of IMPOWER Behavioral Health gave a presentation about providing mental health services using telehealth technology.
Ms. Baznik advised 89.3 million Americans live in federally designated Mental Health Professional Shortage Areas. Data shows a need for 25.9 psychiatrists per 100,000 people to meet current mental health crisis. The National average is 10 psychiatrists per 100,000 people however; Florida has only seven psychiatrists per 100,000 people and the average age of U.S. psychiatrists is over 55 years old.

Ms. Baznik shared telehealth allows IMPOWER practitioners to treat individuals at home, at work, or anywhere they have privacy. Their providers conduct work from their home or their office, increasing their availability to include evenings and weekends. IMPOWER intends to have 24/7 crisis availability soon.

Ms. Blakely discussed some of the experience IMPOWER has had since its inception in 1994. She noted that IMPOWER conducted over 35,000 sessions since 2012; there were 55 Mental Health Therapists, five (5) Psychiatrists, five (5) Physician’s Assistant-Certified, and one (1) Psychiatric Advanced Registered Nurse Practitioner, all using telehealth.

She shared there was initially a barrier in treating psychiatric patient virtually because of controlled substance prescribing regulations. Ms. Blakely shared that the Florida Medical Boards have since amended their rules allowing psychiatrist to prescribe controlled substances with a live video visit. She reported IMPOWER implemented studies to solidify the value of making this change in the Boards’ rules. The findings from the study showed the telehealth group had 10% fewer controlled substances prescribed. A large majority of the patients said they were satisfied with their telehealth services and were more likely to stay in treatment. The wait times for new patient evaluations went from six weeks to two days, which is much more convenient for the patients.

IMPOWER collaborated with the University of North Florida (UNF) on a two year study of IMPOWER telehealth services. There were 557 clients included in the study, monitoring the services provided over a five-year span. The study outcomes indicate that using telehealth increases access to care, as well as improves medication adherence. Ms. Blakely also discussed the costs for the study and the monetary saving associated with telehealth.

Ms. Blakely told the Council that IMPOWER has a virtual response team to prevent hospitalizations. They have formed created partnerships with insurance providers, hospitals, first responders, universities, physician practices, and group care facilities. They have worked through issues with provider locator numbers and other billing issues.

Ms. Baznik completed the presentation with suggestions for language to be included in proposed legislation, as well as suggestions for the Agency.

The Council asked questions about the shortage of mental health providers, building patient volume, consent, security and privacy issues, provider scope and reimbursement. The Council asked about Baker Acts and the different requirements for children.

Dr. Phillips asked if IMPOWER had gathered data on opioid overdose prevention. Ms. Baznik responded that IMPOWER is not currently working on substance abuse issues, but they hope to in the future.
Public Comment

Mr. Greg Hartley with the Physical Therapist Association told the Council that physical therapists have an interest in using telehealth to provide treatment to their patients. He suggested the use of telehealth allows for collaboration of care, which assists in reducing the need to prescribe opioids.

Ms. Debbie Sapp with Pediatrics in Brevard, spoke to the Council about her concern of inconsistent messaging about telehealth usage. She noted insurers solicit patients to use telehealth directly through contracted physicians not associated with the patient’s on-going care. The same insurers will not reimburse for care provided using telehealth from the patient’s primary care giver. Ms. Sapp noted this scenario goes against the Medical Home Model. She shared her opinion that network adequacy is a barrier the Council should consider. Ms. Sapp expressed patients should receive the same care whether they have private insurance or Medicaid. Chair Senior stated Medicaid and the insurers participating in the MMA reimburse for telehealth. There was discussion about having health insurance billing specialists share information at a future meeting.

Member Discussion and Next Steps

Chair Senior shared the goal for this meeting was to develop a definition and to determine barriers that would make up the report outline.

The Council debated on telehealth definition language. After much discussion, the Council identified two potential definitions. Chair Senior requested the member to contemplate on the two definitions and provide feedback to staff.

The Council discussed barriers identified through the telehealth surveys, public testimony, and telehealth stakeholders. The barriers include technology, health practitioner specific issues, patient/consumer protection, and insurance coverage and reimbursement. After much discussion, it was the consensus of the Council that education issues need to be included as a barrier. The Council discussed nuances of identified barriers, including Medicare regulations and studies identifying improvement in patient access to technology. After much discussion, there was a motion to extend the meeting five minutes to recap and close. The motion was seconded and carried unanimously.

Chair Senior reviewed the completed tasks of narrowing down the telehealth definitions and identifying a high-level report outline. He advised the Council would discuss barriers and accessibility more in-depth at the next meeting. Chair Senior requested the members provide Ms. King with their telehealth definition preference, as well as, any recommendations related to the report outline.

Adjournment

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

Interested Parties Present:

Anna Baznik, IMPOWER; Amy Blakely, IMPOWER; Christine Certain, Children’s Home Society of Florida; Maggie Dante, Children’s Home Society; Joni Higgins, BayCare; Greg Hartley, Florida Physical Therapy Association; Jane Johnson, Florida Council for Community Mental Health; Hiep Le Nguyen; Pediatrics in Brevard; Debbie Sapp, Pediatrics in Brevard; Aneel Irfan, Trapollo; and Alejandro Toro, AKL Therapy, Inc.
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 CEO, Mr. Kenneth Burdick, welcomed the Telehealth Advisory Council to Wellcare’s new facility. He gave a brief history of Wellcare and informed the Council of Wellcare’s telehealth coverage expansion.

BayCare – Publix Collaboration
Dr. Greg Hindahl, Vice President and Chief Medical Information Officer, BayCare Health System, spoke on 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 noted BayCare’s care continuum through a community-based model and elaborated on their inclusion of telehealth in this mode. Dr. Hindahl explained benefits of telehealth use as improved access, experience, and convenience for patients and families, as well as reducing hospital readmissions from both homecare and skilled nursing facilities.
Dr. Hindahl added that 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 $27,400 for limited pediatric behavioral health services. As part of the investment, they also developed “BayCare Anywhere,” which is a telehealth application for cellphones. This service provides around the clock coverage for patients with minor illness and conditions.

The current use of telehealth at BayCare improves access to specialists in psychology, endocrinology, neurology, and wound care. In the future, they 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 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 as well as 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 the 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, representing TripleCare, an “after-hour” telehealth provider, 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 license 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, TMH, reported they are a not-for-profit hospital system with 31 physician practices and three residency programs. The hospital system includes an acute care hospital, a psychiatric hospital, and multi-specialty care centers, all of which share 772 beds. She noted TMH provides care for 17 counties in Florida and in Georgia, and has several partnerships with rural hospitals in those areas.

Ms. Faison added 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, compatible 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 by 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, Telehealth for Nemours Florida, reported to the Council that Nemours Children’s Health Systems has two 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 also 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. Vyys 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. Vyys 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. Vyys also spoke briefly about Nemour’s pilot remote monitoring program for children called TytoCare.

Dr. Vyys explained 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 an average time of less than 30 minutes.

Dr. Vyys 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. Vyys 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. Vyys responded that they had received a $500,000 telehealth grant, which helped 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 explained how the compact allows treatment of patients across the state lines by using telecommunication technologies and/or temporary face-to-face psychological practice. He expressed to the Council the benefits of PSYPACT, and reiterated how it works.

Mr. John Whitman spoke to the Council about the efficiencies 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 while serving as a pilot in the U.S Marine Corps, he injured his back before he was even 25 years old. He explained how he could have benefited from the use of telehealth for his therapy sessions.
Dr. Gardner, representing Gardner Audiology, told the Council that he has seven offices in the Tampa Bay area, all utilizing telehealth. He noted some the efficiencies 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 said the Department of Health was working with the regulatory boards to provide guidance on development of telehealth regulations where possible. Chair Senior noted 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 the information provided by the Medicaid Quality Bureau, within the Agency for Health Care Administration regarding cell phone access for Medicaid participants. He highlighted data provided by the Lifeline Emergency Phone Program. Lifeline has 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 Program 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.

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.

**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.
Coverage & Reimbursement

A large proportion of Florida health care stakeholders identify issues surrounding coverage and reimbursement as primary policy concerns influencing the provision and growth of Telehealth services. Health care facilities and professionals have voiced concerns, both through surveys and testimony to the Telehealth Advisory Council, regarding a lack of coverage or insufficient reimbursement for health care services provided using telehealth technologies. A majority of health insurers surveyed indicated that there is very limited coverage of telehealth services. Approximately 43% of Florida licensed health insurers and Health Maintenance Organizations (HMOs) indicated in survey responses that they provide some type of coverage for telehealth. Coverage may be limited to specific circumstances and methodologies or require special coding. For example, Federal policies have placed significant limitations on telehealth coverage and reimbursement under the Medicare program. The State of Florida has greater flexibility in establishing regulations related to coverage and reimbursement for the state’s Medicaid program as well as to govern private and commercial coverage in the state.

Medicare

Although Medicare is a federal program, Medicare regulations often impact how states are able to serve vulnerable populations, such as patients who are dually eligible under both the Medicare and Medicaid programs. There are many caveats governing telehealth coverage under Medicare, including requirements for the geographical location and care setting of patients, and limitations to specific technological modalities. The Council finds the current Medicare policies related to telehealth coverage and reimbursement to be a significant limiting factor to growth and innovation. The Council recommends that the State of Florida support federal regulatory changes that would allow greater flexibility for Medicare enrollees to benefit from utilization of telehealth services.

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; and to 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 telehealth payments to a broader array of practitioners. Similar to Medicare, Medicaid coverage in Florida is 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; however, there is no mandate for coverage. Based on survey responses by Florida health plans, coverage for telehealth is greatest among Florida Medicaid Managed Care plans and Affordable Care Act Exchange Plans.

Recommendation(s):

- It is the consensus of the Council that the Medicaid telehealth fee-for-service rule be further modified to include coverage of store and forward and remote patient monitoring modalities in addition to live video conferencing. It is also the consensus of the Council that the Agency work
with the Medicaid Managed Care plans to promote the expansion of telehealth utilization statewide.

**Commercial Insurance Coverage and Reimbursement**

As of December 2016, 29 states, including the District of Columbia, have active parity laws, which require private payer coverage and payment for telehealth services to be equitable with coverage and reimbursements for face-to-face health services. Additional states have passed similar parity laws that will become effective in 2017. Of this latter group, Massachusetts is the only state that has regulations exclusively requiring private insurance companies to reimburse for services provided through telehealth.\(^1\)

Based on Florida survey results and stakeholder testimony the coverage and reimbursement for telehealth services are limited. Insurers indicate deficiency of regulation is a barrier to increasing coverage for telehealth services. Health care providers note a lack of insurance coverage and reimbursement as a barrier to implementing and expanding telehealth services. Based on stakeholder input, the Council is in full agreement that implementation of regulations requiring coverage of telehealth services would be beneficial in expanding telehealth implementation.

Stakeholder input and research data provided mixed interpretation from the Council regarding the need of regulations for reimbursement for telehealth services by private payers. A majority of the Council support recommending the need for regulations that would require insurers to reimburse providers at the same rate as in-person services. These members believe this type of regulation is needed in order to ensure providers they would be adequately paid for providing services remotely and to stimulate provider interest in investing in telehealth opportunities. Conversely, a minority of the Council is concerned that regulations requiring reimbursement parity could be limiting to providers. The minority noted input from stakeholders that shared increased use of telehealth as part of bundled payment programs.

**Recommendation(s):**

- The Council recommends implementation of regulations requiring private payers to cover telehealth services.
- The Council recommends implementation of regulations requiring private payer reimburse providers for services provided by telehealth at the same rate as in-person offerings.
- *The consensus of the Council is to recommend expanding state employee coverage policies to cover telehealth. The Council recommends that the state encourage expanded utilization of Telehealth through programs administered by the State such as Medicaid, the state employee group health insurance program, and state employee worker’s compensation benefit programs.*

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\(^1\) Florida AHCA Telehealth Survey Report
\(^2\) § 59G-1.057, Florida Administrative Code. Print.
\(^3\) Florida AHCA Telehealth Survey Report
\(^4\) Florida AHCA Telehealth Survey Report
Patient/Consumer Protection

Background:

Experts and stakeholders indicate the need to ensure services provided via telehealth maintain expected quality and security. Specific to consumer protection are issues involving practitioner standard of care regulations, patient-provider relationships and informed consent, and prescribing.

Standard of Care Considerations

- The standard of care for practitioners is the benchmark in determining the appropriateness for telehealth use.
- Because telehealth is simply a modality for treating patients, the standard of care for each profession still applies.
- Some stakeholders have indicated a need to have specific statutory authority that would allow regulatory boards to provide specific practice guidelines for licensees in using telehealth – similarly to the Boards of Medicine and Osteopathic Medicine.
- There may already be rule-making authority for regulatory boards to develop telehealth guidelines or they may not be necessary, since many practitioners are currently providing care using telehealth technology.

Recommendation Options:

1. Vote to include a recommendation for the legislature to develop language that would give licensure boards, where appropriate, authority to develop telehealth specific standards.

OR

2. Vote to recommend the Department of Health provide a review of any needed legislation to authorize development of telehealth standard of care language for regulatory boards where it does not currently exist.

OR

3. Provide no recommendation on standard of care language
Patient/Consumer Protection (continued)

Patient-Provider Relationships/Informed Consent Considerations
- Stakeholders iterated the need to ensure patients have a right to choose whether they receive in-person or telehealth care.
- There was mixed input from stakeholders on the need for additional patient consents to treat at a distance.
- Some stakeholders identify additional consents as potentially creating additional barriers to the use of telehealth.

Recommendation Options:
1. Vote to include a recommendation for the legislature to include an addition to the patient bill of rights regarding the ability to choose the modality in which they receive care – whether telehealth or in-patient when available.

OR

2. Vote to provide no input on patient rights.

1. Vote to recommend the legislature require specific consent be obtained when treating a patient via telehealth.

OR

2. Vote to clarify no additional consents are needed to provide care to patients via telehealth.

OR

3. Vote to provide no input on consents.
Patient/Consumer Protection (continued)

Physician-Patient Relationship & Prescribing

- Many states allow a patient-provider relationship to be established via telehealth. Some states have laws requiring an initial “face-to-face” visit or an exam; however statutes are not always clear whether “face-to-face” means in-person or via live telehealth interaction.
- The accepted standard of care is for a provider to conduct an exam prior to prescribing a medication. As with telehealth in general, some states allow the exam through telehealth.
- The current Medical Boards’ rules for physicians & physician assistants prohibit the prescribing of controlled substances without a face to face visit (with the exception of Psychiatrists) and specifies specific requirements needed to ensure a complete record is maintained for any prescriptions.
- There are no specific telehealth standard of care regulations for providers other than physicians and physician assistants.

Recommendation Options:

1. Vote to include a recommendation that providers’ have physician-patient relationship and/or specified information prior to prescribing medications (whether face to face or through telehealth)
OR
2. Vote to recommend different requirements for prescribing controlled substances than other medications
OR
3. Determine this would be covered in Standard of Care recommendation
OR
4. Vote to provide no input on
Licensure and Telehealth

Background:

Licensure and licensure portability were noted by stakeholders as important issues for consideration in expanding provider networks. It was shared that licensing policies could help address existing workforce shortages.

Licensure Considerations

- Telehealth can be provided in Florida under current state licensure regulations
- The need for a license is based on the location of the patient (patients in Florida are treated by Florida licensed practitioners)
- Several stakeholders shared the need to maintain licensure requirements for those providing telehealth to Florida patients

Recommendation Options:

1. Vote to recommend utilization of interstate compacts where appropriate to expedite the licensure process.
   OR
2. Vote to recommend an implementation of special telehealth licensure
   OR
3. Provide no recommendation on licensure considerations
Telehealth Definition

Background:
Experts and stakeholders expressed the need for a clear definition of telehealth. Providers indicated the need for a definition so it is clear the use of technological modalities is a viable way to treat patients within their scope of practice. Health plans note the need to clarity in the allowable use of technology for reimbursement purposes.

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.

The Council developed two definition options and submitted input to staff on the definition they deem most appropriate. The results of Council input were provided at the June meeting and are included in the July meeting materials. There was discussion at the June meeting on whether it would be more prudent for the Council to recommend general concepts that should be included in stator definition of telehealth.

Recommendation Options:

1) Vote to recommend a specific definition of telehealth:
   a. Telehealth means a mode of delivering health care and public health services, through synchronous and asynchronous information and communication technology, by a Florida licensed practitioner, within the scope of his/her practice, who is located at a site other than the site where a recipient is located.

   b. Telehealth means the delivery of health care and public health services through telecommunications from a licensed provider to a patient who is at a different location.

OR

2) Vote to recommend conceptual language which would include:
   a. Defining telehealth (not telemedicine)
   b. Inclusive of delivering health care and public health services
   c. Inclusion of synchronous and asynchronous modalities
   d. Providers treating Florida patients must be appropriate licensed in Florida
   e. Providers must treat within the scope of their practice
   f. No limitations on geographical or site locations

OR

3) No recommendation on a telehealth definition
Reference Materials:

A. American Telemedicine Association – State Policy Resource Center link – this link provides information on state parity laws and other regulations related to telehealth – provided by Bill Manzie

B. National Quality Forum Draft Environmental Scan Report as of June 1 – provided by Anne Burdick, MD

C. Correspondence from Doug Manning, DMD, JD, Dentaquest

D. Correspondence from the Florida Dental Association and Response

E. Transcript of Dr. Rheuban’s testimony before the US Senate Subcommittee on Communication, Technology, Innovation and the Internet regarding telehealth – provided by Anne Burdick, MD

F. 2018 HEDIS Measures (added measures for telehealth)
American Telemedicine Association – State Policy Resource Center link – this link provides information on state parity laws and other regulations related to telehealth

http://www.americantelemed.org/policy-page/state-policy-resource-center
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-500-2012-00009I Task Order HHSM-500-T0022.
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.

\textbf{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><strong>Access to Care</strong></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><strong>Cost</strong></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><strong>Cost Effectiveness</strong></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><strong>Patient Experience</strong></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><strong>Clinician Experience</strong></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>
<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>
Financial Impact/Cost

- Financial impact to patient, family, and/or caregiver
- Financial impact to care team
- Financial impact to health system or payer
- Financial impact to society

Experience

- Patient, family, and/or caregiver experience
- Care team member experience
- Community experience

Effectiveness

- System effectiveness
- Clinical effectiveness
- Operational effectiveness
- Technical effectiveness

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>
</table>
| Applicable Framework Subdomains | Clinical effectiveness  
| | System effectiveness |
| Measure Concepts | The instructions for care were clear to the patient  
| | The system was able to effectively provide the care that was recommended |
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.
Telehealth services prevented urgent or emergency care being delivered to a patient
Avoidance of an adverse outcome and subsequent medical malpractice lawsuits

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. 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.

<table>
<thead>
<tr>
<th>Primary Framework Domain</th>
<th>• Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable Framework Subdomain</td>
<td>• Patient, family, and/or caregiver experience</td>
</tr>
</tbody>
</table>
| Measure Concepts | • Patients demonstrated increased confidence in care plan  
  • Patients demonstrated increased understanding of care plan  
  • Patients demonstrated compliance with their care plan |
**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. 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.

<table>
<thead>
<tr>
<th>Primary Framework Domains</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Effectiveness</td>
</tr>
<tr>
<td>Applicable Framework Subdomains</td>
<td>Patient, family, and/or caregiver experience</td>
</tr>
<tr>
<td></td>
<td>Care team member experience</td>
</tr>
<tr>
<td></td>
<td>Patient, family, and/or caregiver effectiveness</td>
</tr>
<tr>
<td></td>
<td>Community effectiveness</td>
</tr>
<tr>
<td></td>
<td>Clinical effectiveness</td>
</tr>
<tr>
<td>Measure Concepts</td>
<td>The amount of care coordination needed due to the use of telehealth services</td>
</tr>
<tr>
<td></td>
<td>Overall number of multidisciplinary visits</td>
</tr>
<tr>
<td></td>
<td>Overall improvement in quality of life because services are received at home via telehealth</td>
</tr>
</tbody>
</table>

**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
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.30

| 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.31

| Primary Framework Domains | • Effectiveness  
|                          | • Access  |
• Financial Impact/Cost
• Experience

Applicable Framework Subdomains
• System effectiveness
• Access of patients, families, and/or caregivers
• Cost to patients, families, and/or caregivers
• Cost to society
• Experience of patients, families, and/or caregivers

Potential Measure Concepts
• Patients can conduct visits using a telehealth modality on their own
• Providers were able to see complex patients more efficiently
• Was travel eliminated or travel time reduced for a specific patient encounter because of telehealth services?
• Amount of patient’s time spent during a telehealth consultation

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, telastroke, 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

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*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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{15} A similar VA study in the Pacific Islands

\textsuperscript{b} Postmenstrual age – gestational age plus chronological age.
Healthcare System used videoconferencing to deliver cognitive processing therapy—cognitive only version (CPT-C)\textsuperscript{16}—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.\textsuperscript{17} 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.\textsuperscript{18} 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.\textsuperscript{19} 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\textsuperscript{20} 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). 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. 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 telehealth 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.

Another study conducted by the VA examined the CCHT program’s impact on preventable hospitalizations for veterans with DM at four VA medical centers. 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) 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. 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. 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. 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
form of teleophthalmology also reduced travel distance and time, and reduced office visits to the retina specialist by 48 percent while improving the efficiency of clinical examination, testing, and treatment.

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

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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>System effectiveness</td>
<td>Patients can conduct visits on their own using a specific telehealth modality</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>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>Experience</td>
<td>Patient, family, and/or caregiver</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>
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</tr>
<tr>
<td>Effectiveness</td>
<td>System effectiveness</td>
<td>The amount of time it takes to schedule a visit</td>
</tr>
<tr>
<td>Financial Impact/Cost</td>
<td>System effectiveness</td>
<td>The amount of time to check-in for a visit</td>
</tr>
<tr>
<td>Experience</td>
<td>System effectiveness</td>
<td>Increased use of services</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>Effective Cost</td>
<td>Access for patients or families</td>
<td>Relationship of the telehealth modality to the therapeutic need of the patient</td>
</tr>
<tr>
<td>Effective Cost</td>
<td>Clinical Effectiveness</td>
<td>Decrease in the length of stay in the hospital</td>
</tr>
<tr>
<td>Access</td>
<td>Access for care team</td>
<td>In-person visit was agreed to after a telehealth consultation</td>
</tr>
<tr>
<td>Effective Cost</td>
<td>Operational effectiveness</td>
<td>Telehealth services facilitated transitions of care</td>
</tr>
<tr>
<td>Access</td>
<td>Access for patients or families</td>
<td>Percentage of patients enrolled in a telehealth program for at least three months</td>
</tr>
<tr>
<td>Experience</td>
<td>Care team member</td>
<td>Satisfaction in telehealth capturing the appropriate clinical variable</td>
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<table>
<thead>
<tr>
<th>Domain</th>
<th>Subdomain</th>
<th>Measure Concept</th>
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</thead>
<tbody>
<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>
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<tr>
<td>Effectiveness</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>Clinical 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? What is the data access in telehealth for patients?</td>
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<tr>
<td>Domain</td>
<td>Subdomain</td>
<td>Measure Concept</td>
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</tr>
<tr>
<td>Access</td>
<td>Experience for patients, family and/or caregiver</td>
<td>Was travel eliminated for a specific patient encounter because of telehealth services?</td>
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<tr>
<td></td>
<td>Financial impact to society</td>
<td></td>
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<tr>
<td></td>
<td>Financial impact to patients, family, and/or caregiver</td>
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<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>Cost to patients, family, and/or caregiver</td>
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<tr>
<td>Access</td>
<td>Access for patients or families</td>
<td>Was there any travel involved because telehealth facilitated transitions of care?</td>
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<tr>
<td></td>
<td>Cost to patients, family, and/or caregiver</td>
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<tr>
<td>Access</td>
<td>Access for care team</td>
<td>Removing geographic limitations increased the volume of specialty providers</td>
</tr>
<tr>
<td>Experience</td>
<td>Access to patient, family, and/or caregiver</td>
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<tr>
<td>Experience</td>
<td>Experience for members of care team</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>Clinical effectiveness</td>
<td></td>
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<tr>
<td>Effectiveness</td>
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</tr>
<tr>
<td>Financial Impact</td>
<td>Financial impact to society</td>
<td>Increase in diabetic exams with retinal screens</td>
</tr>
<tr>
<td>Effectiveness</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>
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<tr>
<td>Effectiveness</td>
<td>Clinical effectiveness</td>
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<td>Experience</td>
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<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>
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<tr>
<td>Effectiveness</td>
<td>Community</td>
<td>The amount of care coordination needed due to the use of telehealth services</td>
</tr>
<tr>
<td>Experience</td>
<td>Clinical effectiveness</td>
<td></td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Technical effectiveness</td>
<td>Initial visit is connected to the appropriate provider</td>
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<tr>
<td>Experience</td>
<td>Experience of patient, family, and/or caregiver</td>
<td></td>
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<tr>
<td>Effectiveness</td>
<td>System effectiveness</td>
<td>Amount of patient’s time used during a telehealth consultation</td>
</tr>
<tr>
<td>Experience</td>
<td>Experience of patient, family, and/or caregiver</td>
<td></td>
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<tr>
<td>Financial Impact/Cost</td>
<td>Cost to patient, family, and/or caregiver</td>
<td></td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Operational effectiveness</td>
<td>Amount of provider’s time used during a telehealth consultation</td>
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<tr>
<td>Domain</td>
<td>Subdomain</td>
<td>Measure Concept</td>
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<tr>
<td>Experience</td>
<td>Patient, family, and/or caregiver</td>
<td>Decrease in wait times for patients</td>
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<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>
</tbody>
</table>
| Financial Impact Effectiveness | Financial impact to health system or payer  
Clinical effectiveness                       | Increase in medication adherence                                                   |
| Experience     | Patient, family, and/or caregiver; and community                           | Reduction in diagnostic errors and avoidance of an adverse outcome because of telehealth |
| Clinical Provider | Clinical effectiveness  
Cost avoidance                                 |                                                                                   |
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>
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<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>
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<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>
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<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>
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<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>
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<td>Data Submission Method</td>
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<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>
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<td>Data Submission Method</td>
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<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>
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<tr>
<td>NQF #</td>
<td>Measure Name</td>
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<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>
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<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>
From: Manning, Douglas [mailto:Douglas.Manning@dentaquest.com]  
Sent: Wednesday, June 21, 2017 10:01 AM  
To: Senior, Justin <Justin.Senior@ahca.myflorida.com>; 'celeste.philip@flhealth.gov'  
Cc: Watson, Dana <Dana.Watson@ahca.myflorida.com>; TELEHEALTH <TELEHEALTH@ahca.myflorida.com>  
Subject: REimbursement Parity comment

I was thinking more on your discussion about reimbursement parity and hope you don’t mind if I make a few comments. I am going to use a dental example but it may translate to all health care services.

As you mentioned parity is more a FFS issue than if a MCO pays a provider via capitation, and encounter rate or some other value-based methodology. In those circumstances we don’t care how the provider provides care as long as it is a recognized standard of care (that is her or his decision) we only care about the outcomes if it is value-based (and if it is a pure capitation or encounter we want to make sure quality care is being delivered but we are not concerned over what specific delivery model the provider chooses). One note we do want to track the services and delivery of care for measurement purposes.

In a FFS model, the delivery model may be an issue. For example in dentistry we have CDT codes. So if a provider wants to use teledentistry and “evaluates” a patient remotely, the question becomes what service did they provide using the delivery model. Teledentistry allows for visual and audio examination, but may not allow for smell, touch and possibly radiographs. Thus, what sort of evaluation is the provider performing. Right now the CDT codes do not account for teledentistry – there is no teledental exam. So the provider and MCOs are trying to force fit the evaluation into the existing code set – was the evaluation a comprehensive exam, a limited exam, a screening or a consultation? Each of those services has a specific code and under AHCA’s fee schedule a specific fee.

In other health areas the teledental evaluation may be exactly like an in person evaluation (e.g. anything that relies solely on audio or visual) so using existing codes may not matter. But when the service provided is slightly different, the question becomes what code to use and ultimately what fee should be used to reimburse (in other words parity to what fee).

One idea may be to create a specific codes and fees for unique telehealth services. Whether the state does this or professional organizations that control the code sets add this could diminish the need for parity. Ultimately, the MCOs and providers will negotiate such rates and fees based upon who has leverage and market forces.

One other note at least for dentistry (and I am sure with other areas) is defining the level of supervision that occurs under telehealth when using auxiliaries. When a hub provider oversees a remote auxiliary provides services within their scope of practice (for example under the Dental Practice Act, there must be a dentist exam prior to a dental hygienist performing their scope of services at least in non-health access settings. Moreover, Florida Statues and Rules dictate the level of supervision – direct, indirect and general). So for a situation like in Nassau what sort of supervision is the hub dentist providing to a dental hygienist in a remote setting?

I think these were the two issue the Board of Dentistry wrestled with back when we started the teledentistry pilot program:

1) Since a teledental exam is not life a traditional in person exam is it a valid standard of care (we had to do a study to show it was), but also if it was a valid standard of care what type of evaluation is it (back then we could not get reimbursed for the teledental exam – we could only get reimbursed for the dental hygiene services since the teledental exam did not fit a specific
code and thus was considered experimental. It would have helped for reimbursement purposes if the state recognized telehealth and specifically teledental exams.

2) The supervision level – what sort of supervision does telehealth provide for auxiliaries?

Thanks for listening to my meanderings,

Look forward to the next meeting.

Douglas

Douglas T. Manning DMD, JD, MPH
Regional Executive Director | DentaQuest | Florida
Home Office - 941-925-2906
Business Cell - 941-223-3334
July 5, 2017

Mike D. Eggnatz, DDS, President
Florida Dental Association
118 E. Jefferson Street
Tallahassee, FL 32301

Dear Dr. Eggnatz,

On behalf of the Telehealth Advisory Council, thank you for your correspondence advising of the Florida Dental Association stance on telehealth regulations and standards. Your correspondence will be provided to all of the members of the Council for consideration at their July meeting.

Testimony by individual dentists and presentations of tele-dental offerings in County Health Departments at prior meetings have demonstrated the value and success of these types of programs. We thank you for your commitment and work toward improving access to healthcare through telehealth and other initiatives.

Thank you again for your input on this very important topic.

Sincerely,

Nikole Helvey, Bureau Chief,
Center for Health Information and Transparency

Cc: Telehealth Advisory Council
June 26, 2017

Telehealth Advisory Council  
2727 Mahan Drive, MS #16  
Tallahassee, FL 32308

Dear Telehealth Advisory Council –

The Florida Dental Association (FDA) represents more than 8,000 dentists and dental students in Florida who are voluntary members of the association. As such, the FDA monitors administrative and legislative initiatives that may have an impact on the dental profession.

As the Telehealth Advisory Council reviews and evaluates opportunities that attempt to increase access to care through parameters outlined through telehealth, the FDA would like to provide some information as it relates to dentistry. Teledentistry has been in place in Florida for a limited number of years and has been effective in addressing access to care in underserved areas. The FDA would like to continue to be involved in discussions on the role of teledentistry in Florida and how it will help to improve access to dental care for all Floridians.

In the meantime, the FDA recommends that several guiding principles be included, but not limited to, the following:

- Dentists must be licensed in the state of Florida.
- Dental workforce must practice within their scope of practice.
- Limit the number of offices a dentist can supervise as a part of telehealth.
- Reimbursement for telehealth services must be equivalent to reimbursement for in-person services.

As the advisory council continues to gather information, the FDA would like to extend its representatives as a resource to provide the group with additional information that may prove helpful upon completion of your report. As dental-related recommendations and proposals are considered and discussed, it is paramount that the health, safety and well-being of each patient receiving dental care is of the highest standards, no matter where they are located.

There are several reports that have indicated that Florida does not have a shortage of dentists, but instead suffers from a maldistribution of dentists around the state. The Department of Health (DOH) started conducting dental workforce surveys in 2009/2010, during licensure renewal to capture where dentists are located, and it included questions on projected date of retirement. Additionally, the State University System of Florida, Board of Governors, conducted an environmental scan of several health care professional groups to assess the sufficiency of those professions in Florida. The report categorized dentists as “occupations with a sufficient supply

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from new or overlapping sources.” With this information, it is clear that Florida has a sufficient workforce to treat its citizens; however, challenges remain in those areas that tend to be more rural. The FDA has advocated for legislative proposals such as the dental student loan repayment program, which encourages dentists to practice in underserved areas of the state and in return, receive assistance in their repaying their student loan. These types of programs have been effective in Florida in previous years and remain effective in other states to incentivize dentists to locate in underserved areas. Furthermore, the American Dental Association (ADA) Health Policy Institute (HPI) recently released a report outlining the “Geographic Access to Dental Care” by state, which shows that in Florida roughly “96% of publicly insured children live within 15 minutes of a Medicaid dentist.”

The FDA continually engages in efforts to improve access to dental care through its legislative efforts and through Florida’s Action for Dental Health, a comprehensive report developed to improve the oral health and resulting overall health of all Floridians. One initiative included in this report discusses the important role community dental health coordinators (CDHC) can provide to individuals who are struggling to find dental care. A CDHC is similar to a community health worker or a patient navigator and has been effective in helping people access dental care already available within their own communities.

The FDA thanks the advisory council for this opportunity to share ideas to be considered as the council develops its report and recommendations. Should you have any questions or need additional information, please contact Joe Anne Hart, Director of Governmental Affairs at jahart@floridadental.org or (850) 224-1089.

Sincerely,

Mike D. Eggnatz, DDS
FDA President

cc: Justin Senior, Secretary, Agency for Health Care Administration
Dr. Celeste Philip, Surgeon General and Secretary, Department of Health
FDA Board of Trustees
FDA Governmental Action Committee
FDA Workforce Innovation Task Group
Drew Eason, FDA Executive Director
Joe Anne Hart, FDA Director of Governmental Affairs

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2 The Future of Health Care in Florida: An Environmental Scan. Conducted by the State University System of Florida, Board of Governors. 
http://www.flbog.edu/documents_meetings/0253_0915_6929_2.3.3%20HIC%20Future%20of%20Health%20Care%20in%20Florida%20An%20Environmental%20Scan%20Web%20Version.pdf

3 Geographic Access to Dental Care: Florida. 

Testimony before the
Senate Committee on Commerce, Science and Transportation’s Subcommittee on
Communications, Technology, Innovation and the Internet

June 20, 2017

Karen S. Rheuban MD
Professor of Pediatrics
Senior Associate Dean for Continuing Medical Education and External Affairs
Director, University of Virginia Center for Telehealth

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University of Virginia Health System
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434-924-2481 (phone)
434-982-1415 (fax)

Chairman Wicker, Ranking Member Schatz, members of the Subcommittee on
Communications, Technology, Innovation and the Internet, thank you for the opportunity
to provide testimony regarding the Federal Communications Commission’s (FCC)
Universal Service Fund and in particular, the Rural Healthcare Support Mechanism
established by the Telecommunications Act of 1996 (the Act).

I am the co-founder and Director of the Center for Telehealth at the University of
Virginia (UVA), past President of the American Telemedicine Association, and current
Board Chair of the Virginia Telehealth Network. UVA is also the home of the
Department of Health and Human Services’ Health Resources and Services Administration (HRSA) funded Mid Atlantic Telehealth Resource Center, through which we provide technical assistance to providers and systems across 9 states including the District of Columbia. It is from these related perspectives that I offer testimony regarding the critically important role of the Universal Service Fund in advancing access to high quality care to rural Americans through telehealth related programs and services. Although the focus of this hearing relates to the Rural Healthcare Support Mechanism, I will also touch upon the multifactorial issues that continue to impact the adoption of telehealth nationwide.

As Committee members know well, telemedicine is not a new specialty, a new procedure or a new clinical service…simply defined, it is the use of technology designed to enable the provision of healthcare services at a distance. 21st century telemedicine services can be provided live, via high-definition interactive videoconferencing supported by high resolution peripheral devices; asynchronously, using store and forward technologies, or through the use of remote patient monitoring tools. Telemedicine has been demonstrated to effectively mitigate the significant challenges of workforce shortages, geographic disparities in access to care, while improving patient triage and timely access to care by the right provider at the right time. Telemedicine tools foster patient engagement and self-management where appropriate.

**Rural healthcare:**

Where local specialty care services are not available, particularly in rural and underserved regions and health professional shortage areas, telemedicine offers timely access to care and spares patients the burden of long distance travel for access to that
care. Telemedicine supports an integrated systems approach focused on disease prevention, enhanced wellness, chronic disease management, decision support, and improved efficiency, quality and patient safety.¹

Although rural communities face the same basic challenges in access, quality and cost as their urban counterparts, they do so at far greater rates, attributable to a host of factors. “Core health care services” such as primary care, emergency medical services, long term care, mental health and substance abuse services, oral health and other services are considerably less accessible in rural communities.² Lack of access to specialty care services is an even greater challenge. Rural communities lack sufficient patient volumes to support specialty and subspecialty practices and primary care providers are often overwhelmed with complex patients with acute and chronic illness. Telehealth technologies offer ready access to such services when rural communities and providers partner with tertiary and quaternary care facilities and where appropriate, with one another.³

Attracting health professionals to rural communities remains a daunting task and retaining those health professionals to practice in rural communities is equally difficult. Strategies to recruit and retain clinicians to practice in rural and frontier communities must also include innovative applications that enhance the management of patients with acute and chronic illness, and reduce the chronic sense of isolation experienced by those


practitioners by affording enhanced connectivity to colleagues and educational opportunities.

Telehealth technologies should be viewed as integral to rural development. In our program, more than 90% of patients seen via telehealth remain within their community healthcare environment, resulting in reduced burdens for patients and their families. These benefits include a reduction in unnecessary transfers, and related transportation and housing expenses for patients and family members. In addition, a reduction in hospital lost revenue (as might occur with patient transfers) can lead to enhanced economic viability of the rural community hospital. A viable community healthcare environment supports jobs, provides incentives for the relocation of industry, and enhances community economic development.

The aging of our population has already created increased demand for specialty healthcare services to address both acute and chronic disease in the elderly. These challenges are exacerbated in rural communities. As an example, rural patients experience 25% higher death rates from ischemic heart disease than do their urban counterparts.4

The FCC’s Connect2Health Taskforce has created a searchable database to overlay health status indicators with broadband availability. Not surprisingly, according to the Taskforce, close to half of U.S. counties are “double burden” counties – that is, areas with high levels of chronic disease and need for more broadband. More than 36 million Americans live in these double burden counties, according to the FCC report, where the fixed broadband access rate is 55 percent. The FCC also found that in these

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counties, as an example, the prevalence of obesity is 19 percent above the national average, while the prevalence of diabetes is 25 percent above the national average. A lack of Internet access is also connected with challenges in seeing health professional. “Most of the counties with the worst access to primary care physicians are also the least connected,” according to the FCC report. The 2010 National Broadband Plan sets achievable targets for healthcare connectivity.

Although the challenges of unfavorable geography and distance tend to be uniquely rural, socioeconomic issues, health disparities, and other serious barriers to access to quality healthcare are also, of course, compelling in urban areas. Poverty, unhealthy behaviors and adverse health status indicators are also highly prevalent in our urban communities. Wait times for access to specialty care services adversely impact our urban insured beneficiaries as much as they impact our rural insured. Isolated vulnerable urban patients suffer from high rates of chronic illness. A bus ride across town with a long wait in an emergency room can be as challenging for an isolated, vulnerable uninsured urban patient as is a long ride for a rural patient. Telehealth tools can help to mitigate health disparities and improve outcomes in urban populations as well.

**The University of Virginia Center for Telehealth**

The University of Virginia Health System is a 610 bed state-supported academic medical center, and one of the two safety-net hospitals in the Commonwealth. The Health System is comprised of the UVA Medical Center, the UVA School of Medicine,

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5 https://www.fcc.gov/health/maps
the UVA School of Nursing, and University Physicians Group, our practice plan. Our UVA telemedicine program was formally established in 1996, as an effort to improve access to high quality care for all Virginians, regardless of geographic location.

Recognizing the limited availability of broadband connectivity in rural regions of our state, we were early advocates for the Rural Healthcare Support Mechanism prior to the passage of the Telecommunications Act of 1996, and have since worked with the Federal Communications Commission by participating in Commission hearings, hosting members of the Commission at UVA and in the form of comments to multiple FCC proceedings. My UVA Center for Telehealth faculty colleague Colonel Eugene Sullivan served on the initial FCC Healthcare Advisory Board and Katharine Wibberly, PhD, Director of Research at our Center currently serves on the Universal Service Administrative Company (USAC) board representing rural healthcare.

Since the establishment of our telemedicine program, we have developed collaborations that connect the UVA Health System with 153 sites across the Commonwealth using high definition video-teleconferencing, store and forward technologies, remote patient monitoring and mobile health tools to improve access to healthcare services for the citizens of the Commonwealth. We connect with hospitals, clinics, federally qualified health centers, free clinics, community service boards, health departments, medical practices, dialysis facilities, correctional facilities, PACE programs, rural schools, and skilled nursing facilities. Our telemedicine program has reduced the burden of travel for Virginians by more than 17 million miles, saved lives and fostered innovative models of care delivery and workforce development. We have launched a care coordination and remote patient monitoring program for patients at home that has
significantly reduced hospital readmissions by more than 40% regardless of payer. UVA telemedicine spans more than 60 different clinical subspecialties, spanning the continuum from prenatal services, to emergency and acute care consultations and follow up visits, to chronic disease management and palliative care. We have facilitated more than 65,000 live interactive patient consultations and follow up visits using high definition video-teleconferencing, monitored more than 3000 patients at home with remote monitoring tools, screened more than 2500 patients with diabetes for retinopathy, the number one cause of blindness in working adults, used our connectivity to support more than 100,000 teleradiology services and through our electronic medical record, EPIC, facilitated more than 2500 e-consults between providers. These programs and partnerships are dependent on reliable broadband communications services and in the majority of cases, we rely on the FCC Rural Healthcare Program for connectivity between facilities. Absent the Rural Healthcare program, our ability to provide these services would be severely constrained.

As an example, not long after we launched our telemedicine program in 1996, we received a grant from the US Department of Commerce NTIA TIIAP program. Prior to the passage of the Telecommunications Act, the cost of a 1.54 megabit connection to a small rural community hospital in Appalachian Virginia was unaffordable, priced nearly $6000 per month. After passage of the Act, with enhanced competition and through the Telecommunications program of the Rural Healthcare Program, we secured discounts that allowed us to deploy telehealth services to that same hospital with greater bandwidth for a fraction of that original cost. Lives have been saved. That community hospital participates in our acute telestroke program, facilitated by the rapid transmission of
radiographic images and CT scans and high definition videoconferencing that informs the mutual clinical decision making processes. By benchmarking against urban sites, we have secured subsidies as high as 89% for some eligible rural partners through the Telecommunications program. Since the inception of the Rural Healthcare Program in 1988 to 2016, the Commonwealth of Virginia has drawn down support of $23,588,000 in USAC funding for healthcare programs.\(^7\)

Affordable broadband connectivity is without question, the requisite underpinning of our telemedicine program, and as such, these efforts have changed the standard of care in rural Virginia. However, in light of the complexity of the program applications, we established a process by which we applied on behalf of our telemedicine partners across the state. Few small hospitals or federally qualified health centers could easily navigate the complex process inherent in the Program.

In 2002, in response to a notice of proposed rulemaking, and in the face of low utilization of the Telecommunications Program nationwide, we proposed that the Commission consider inclusion of rural for-profit hospitals with an emergency room as eligible for subsidies. Our justification was that many of those rural hospitals were financially strapped not-for-profit hospitals later acquired by for-profit entities, the only healthcare facility in the rural community, were bound by EMTALA (Emergency Treatment and Labor Act) and as such, inclusion of those facilities in the Rural Healthcare program was consistent with the public health and public safety provisions of the Act, which identified the relationship between universal service and public safety was clearly addressed. “The Joint Board in recommending, and the Commission in establishing, the definition of the services that are supported by Federal universal service

\(^7\) Universal Service Administrative Company 2016 Annual Report
support mechanisms shall consider the extent to which such telecommunications services
(A) are essential to education, public health, or public safety...[and]
(D) are consistent with the public interest, convenience and necessity”. 8

The Commission agreed, and in its subsequent rulemaking, included as eligible
entities for-profit rural hospitals with emergency departments. Using a similar argument,
we also suggested the Commission consider funding emergency medical services
providers (EMS) however, the Commission demurred.

In 2007, UVA was awarded a FCC Pilot Program to expand our telehealth and
telestroke network across the Commonwealth. The pilot program provided broadband
discounts of 85%, and for the first time, permitted inclusion of a limited number of urban
terities. Our Pilot program ends with Funding Year 2016, on June 30, 2017 and we
will apply as a consortium to continue through the Healthcare Connect Fund.

The Healthcare Connect Fund (HCF), a modernized Rural Healthcare Program
was established in 2013 to allow for consortium applications, for funding up to three
years which reduces the cumbersome annual reapplication process. The Commission
recently added skilled nursing facilities as eligible entities both for both the
Telecommunications and the HCF fund. The HCF provides 65% support and limited
urban support within consortia.

USAC has accelerated its outreach efforts and by streamlining the application
process (amongst other changes consistent with program modernization), utilization has
greatly increased, such that in Funding Year 2016, remarkably, the $400 million funding
cap was exceeded. Hence, to ensure equitable use of the program, the Commission has
reduced support in Funding Year 16 by 7.5%. This has created hardships for states such

8 47 U.S.C. Section 254 (C) 1 A,D
as Alaska that currently draw down more than $100 million to support their extraordinary needs to expand telehealth programs within rural and frontier regions of the state. We fully support an expansion of the $400 million cap established by the Commission for the Rural Healthcare Program in 1998. If that is not feasible, we would suggest consideration of additional federal options for infrastructure build out.

**Sustainability of telehealth**

It is important to note that the success of any telehealth program relates to factors that include but also extend beyond the cost of broadband connectivity. Elements that contribute to the success of program operations and sustainability include payment by private and government payers, tracking of clinical and process quality metrics, workforce capacity, and careful analysis of outcomes. All play a role in institutional commitments to sustaining a telehealth program. Return on investment must be considered in the context of organizational mission and programmatic alignment with that mission.

The UVA Center for Telehealth tracks a broad range of process and quality metrics to include such metrics as time from consult request to completion of encounter, data transport metrics (as they relate to the transfer of medical images and quality of service of the connection), *clinical outcomes measures*, miles of travel avoided, patient satisfaction, provider satisfaction and other organizational metrics.

Examples of clinical outcomes include the following:

a) Our stroke telemedicine program has supported the evaluation and treatment of more than 1000 rural Virginians, resulting in TPA (Tissue Plasminogen Activator) administration rates now exceeding >20% in rural partner hospitals. These TPA
administration rates align with the rates of TPA administration for stroke patients
treated in our own emergency department. This compares favorably to statewide
TPA administration rates of <1% prior to the initiation of our stroke telemedicine
program and others within the Commonwealth. In addition, we have more recently
accelerated time to treatment by connecting EMS providers to our stroke team
further accelerating time to treatment when “time is brain”. The human toll and cost
to society (and the payers) of a lack of access to such therapies is enormous.

b) Our high-risk obstetrics telemedicine program serves rural high risk pregnant
women. We, like others, have documented a reduction in NICU hospital days for the
infants born to these patients by 39% compared to control patients, reduced patient
no-shows by 62% and reduced patient travel by these pregnant women by 200,000
miles.

c) With our partner, UVA Remote Care Solutions, using care coordination and remote
patient monitoring tools, we launched a program to prevent hospital readmissions
for patients with heart failure, acute myocardial infarction, chronic obstructive
pulmonary disease, pneumonia, stroke and joint replacement, and have reduced all
cause 30 day readmissions by > 40%.

d) Store and forward ophthalmologic screening for retinopathy, the number one cause
of blindness in working adults has been provided to underserved adults with diabetes.
Over the past two years, more than 2500 ophthalmologic screens have been
performed, with 46% of patients identified as having abnormal studies, requiring
follow up or sight saving intervention.
e) Our telepsychiatry program represents the number one request for services. We offer child and adolescent, adult, emergency and substance use services. These programs have been shown to be effective, with high rates of patient satisfaction and rely upon high definition videoconferencing technologies supported by reliable bandwidth.

**Issues for consideration:**

There remain significant barriers to the broader integration of telemedicine services into everyday healthcare that impact provider utilization. More than 16 different federal agencies report engagement in telehealth, be it through research and other grant funded opportunities, through the establishment of broadband communications networks, clinical service delivery, and even device development and regulation. In the face of a multi-billion dollar federal investment in telemedicine and broadband expansion in support of access to healthcare, those good faith efforts have also been stifled by 20th century federal and state barriers to widespread adoption and a lack of alignment across the programs.

**Reimbursement**

**Medicare:** Payment coverage restrictions remain a major impediment to the broader adoption of telehealth by providers. Congress, in 1997, through the Balanced Budget Amendment, and later in 2000, through the Benefits Improvement and Protection Act, authorized the Center for Medicare and Medicaid Services (CMS) to reimburse for telemedicine services provided to rural Medicare beneficiaries across a broad range of CPT codes and services. However, those Medicare telehealth provisions, as established in the Section 1834 (m) of the Social Security Act limit eligible patient originating sites to rural, and have not evolved to take advantage of subsequent analyses of best practices,
outcomes data, and new paradigms of healthcare delivery, even following enactment of the Affordable Care Act. The Medicare definition of rural for purposes of telehealth coverage remains as non-Metropolitan statistical areas and Health Professional Shortage Areas which are aligned with primary care shortages but not adequately for specialty workforce shortages.

Medicare reimbursement of telehealth services remains woefully limited. The Center for Telehealth and e-Health Law (CTeL) reported that in 2015, Medicare allowed $15,664,543 in distant site reimbursement and $1,937,453 in originating site charges NATIONWIDE. Medicare payment data in the fee for service program are shown below, courtesy of CTeL.

<table>
<thead>
<tr>
<th>Year</th>
<th>Distant Site Allowed Service</th>
<th>Distant Site Allowed Charges</th>
<th>Originating Site Allowed Service</th>
<th>Originating Site Allowed Charges</th>
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<td>2001</td>
<td>1,494</td>
<td>$55,427</td>
<td>294</td>
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<tr>
<td>2002</td>
<td>5,285</td>
<td>$185,086</td>
<td>1,596</td>
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</tr>
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<td>2003</td>
<td>6,776</td>
<td>$404,764</td>
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</tr>
<tr>
<td>2004</td>
<td>11,266</td>
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<td>2005</td>
<td>15,970</td>
<td>$1,176,329</td>
<td>10,972</td>
<td>$227,349</td>
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<td>2006</td>
<td>25,461</td>
<td>$2,124,881</td>
<td>15,908</td>
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<td>2007</td>
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<td>14,336</td>
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<td>2008</td>
<td>23,144</td>
<td>$1,613,408</td>
<td>9,247</td>
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<td>2009</td>
<td>37,503</td>
<td>$2,797,893</td>
<td>17,100</td>
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<td>2011</td>
<td>82,701</td>
<td>$5,938,090</td>
<td>32,450</td>
<td>$761,230</td>
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<td>2012</td>
<td>106,023</td>
<td>$7,467,157</td>
<td>38,540</td>
<td>$903,233</td>
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<td>2013</td>
<td>136,429</td>
<td>$10,689,862</td>
<td>46,147</td>
<td>$1,112,446</td>
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<td>2014</td>
<td>155,387</td>
<td>$12,482,270</td>
<td>58,959</td>
<td>$1,452,160</td>
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<tr>
<td>2015</td>
<td>192,692</td>
<td>$15,664,543</td>
<td>79,185</td>
<td>$1,937,453</td>
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</table>
The Center for Medicare and Medicaid Innovation has funded pilot programs that incorporate broader telehealth reimbursement; although some Accountable Care Organizations remain limited to the rural originating site restrictions.

The Connect for Health Act (S 1016/HR 2556), the Chronic Care Bill (S 870) and the FAST Act (S 431/HR 1148) along with other bills include provisions to expand the use of telehealth and remote patient monitoring in Medicare by reducing originating site restrictions.

The American Medical Association Digital Medicine Payment Advisory Group is currently working to align telehealth taxonomies with use cases, and make recommendations to the CPT Advisory Panel and the RVUs Update Committee (RUC).

**Medicaid:** Currently nearly every state Medicaid program provides some form of reimbursement for the delivery of telehealth facilitated care to Medicaid beneficiaries. Medicaid innovations adopted by many states in addition to video-based telemedicine consults and follow up visits include coverage for remote monitoring, home telehealth, store forward services.

**Private pay:** Thirty three states plus the District of Columbia require that private insurance cover telehealth services. Many of the ERISA plans have chosen to cover telehealth services.

**Other Federal payers:** The Office of Personnel Management offers some telemedicine benefits for individuals covered under the Federal Employee Health Benefit Plans. The Veterans Health Administration has long integrated telehealth solutions as has the Department of Defense.

*Standards and practice guidelines*
Telemedicine does not create a new field of healthcare, but rather allows duly credentialed clinicians to provide care at a distance using technology. That being said, the American Telemedicine Association and its >9000 member supported Special Interest Groups, Committees and Discussion groups have developed standards and practice guidelines to address technical applications, and clinical practice guidelines, endorsed by specialty societies. Many of these standards and practice guidelines extend beyond the practice guidelines that currently exist for traditional healthcare.

**Acceptance of advanced technologies**

Patient acceptance of the use of telehealth technologies for consultation and ongoing acute and chronic care has been remarkably positive, attributable in part to the obvious benefit of timely access to locally unavailable specialty healthcare that spares patients the burden and expense of travel to remote tertiary and quaternary healthcare facilities. Indeed, we have collected data that demonstrates that for pediatric tele-psychiatry services, the telehealth “no-show” rate is considerably lower than the in person clinic “no show” rate. Provider acceptance of advanced technologies and telehealth tools has been equally gratifying for patient consultation, patient education, distance learning opportunities, for acquisition of timely information services and for clinical decision support. High bandwidth and high quality connections remain the underpinnings of successful telehealth encounters.

**Recommendations:**

1. Continue the Rural Healthcare Programs and expand the $400 million funding cap established by the Commission in 1998. There is no statutory requirement that the fund be capped at that level.
2. If the $400 million funding cap cannot be increased, explore additional federal options to support costly infrastructure build-outs for rural healthcare providers.

3. Additionally, if the funding cap cannot be raised, prioritize rural providers in the Rural Healthcare programs.

4. Further simplify the administrative and application processes for rural healthcare providers.

5. Expand eligible providers for the Rural Healthcare program to include emergency medical service providers and community paramedics, consistent with the public health and public safety provisions of the Act.

6. Coordinate with the effort being undertaken by the NTIA Department of Commerce with FirstNet to create a nationwide public safety wireless broadband network for Emergency responders.

7. Include wireless technologies as eligible under the Rural Healthcare Programs.

8. Further eliminate barriers to telehealth payment in the Medicare program such as geographic and other originating site restrictions so as to allow the nearly 80% of Medicare beneficiaries currently not covered for telehealth services to avail themselves of the benefits of telehealth mediated care.

9. Allow for Medicare coverage of home telehealth and remote patient monitoring services, in particular, for patients with chronic illnesses. Allow as eligible providers for telehealth services otherwise eligible Medicare providers such as physical, occupational and speech and language therapists.

10. Improve coordination amongst the federal agencies such that our national interests in population health, improved health outcomes, emergency preparedness,
workforce, and health information exchange, enhanced by connected health tools and strategies.

In summary, telehealth affords patients enhanced access, lowers the overall cost of care, and improves efficiency, quality, clinical outcomes and population health. The Rural Healthcare Program is a critical underpinning of a modernized healthcare delivery system in the digital era and as such must be continued, expanded and further modernized to fulfill the promise of healthcare in the digital era.
<table>
<thead>
<tr>
<th>HEDIS 2018 Measures</th>
<th>Applicable to:</th>
<th>Changes to HEDIS 2018</th>
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<tr>
<td>General Guidelines for Data Collection and Reporting</td>
<td>✓</td>
<td>• Updated the “How NCQA Defines an Organization for Accreditation” and “HEDIS Reporting for Accreditation” sections to align with the Health Plan Accreditation publication.</td>
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<tr>
<td></td>
<td>✓</td>
<td>• Updated deadlines in General Guideline 9.</td>
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<td></td>
<td>✓</td>
<td>• Clarified the small denominator thresholds in General Guideline 10.</td>
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<td></td>
<td>✓</td>
<td>• Added General Guideline 17.</td>
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<td></td>
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<td>• Combined former General Guideline 17 with General Guideline 18.</td>
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<tr>
<td></td>
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<td>• Clarified General Guideline 23 to state which products and product-lines report members in measures that allow a gap at the end of the continuous enrollment period.</td>
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<td>• Updated the “plan-lock” deadline in General Guideline 30.</td>
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<td></td>
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<td>• Deleted General Guideline 32; renumbered subsequent guidelines.</td>
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<td>• Clarified requirements in General Guideline 33 (formerly General Guideline 34).</td>
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<td>• Clarified in General Guideline 34 (formerly General Guideline 35) that documentation in a medical record of a diagnosis or procedure code alone does not comply with the numerator criteria.</td>
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<td>• Revised General Guideline 39 (formerly General Guideline 40).</td>
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<td>• Revised General Guideline 45 (formerly General Guideline 46).</td>
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<tr>
<td>Guidelines for Calculations and Sampling</td>
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<td>• Revised the Systematic Sampling Methodology to require organizations to report using the Minimum Required Sample Size (MRSS). Reporting using a Final Sample Size (FSS) is no longer permitted.</td>
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<td>Guidelines for Effectiveness of Care</td>
<td>✓</td>
<td>• No changes to these guidelines.</td>
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<tr>
<td>Adult BMI Assessment (ABA)</td>
<td>✓</td>
<td>• Clarified that the pregnancy optional exclusion should be applied to only female members.</td>
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<tr>
<td>Weight Assessment and Counseling for Nutrition and Physical Activity for Children/ Adolescents (WCC)</td>
<td>✓</td>
<td>• Clarified that the pregnancy optional exclusion should be applied to only female members.</td>
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<td>✓</td>
<td>• Clarified in the Notes that documentation related to a member’s “appetite” does not meet criteria for Counseling for nutrition.</td>
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<td>• Revised the Data Elements for Reporting table to reflect removal of the Final Sample Size (FSS) when reporting using the Hybrid Methodology.</td>
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<td>Appropriate Testing for Children With Pharyngitis (CWP)</td>
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<td>Pharmacotherapy Management of COPD Exacerbation (PCE)</td>
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<td>Asthma Medication Ratio (AMR)</td>
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<td>Controlling High Blood Pressure (CBP)</td>
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<td>Persistence of Beta-Blocker Treatment After a Heart Attack (PBH)</td>
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<tr>
<td>Statin Therapy for Patients With Cardiovascular Disease (SPC)</td>
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<td>HEDIS 2018 Measures</td>
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<tr>
<td><strong>EFFECTIVENESS OF CARE</strong></td>
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</tbody>
</table>
| Comprehensive Diabetes Care (CDC)                                                 | ✓              | ✓              | ✓              | • Added bilateral eye enucleation to the Eye exam (retinal) performed indicator.  
• Revised the language in step 1 of the BP Control <140/90 mm Hg Numerator and added Notes clarifying the intent when excluding BP readings from the numerator.  
• Clarified the medical record requirements for evidence of ACE inhibitor/ARB (for the Medical Attention for Nephropathy indicator).  
• Replaced medication table references with references to medication lists.  
• Added "sacubitril-valsartan" to the description of Antihypertensive combinations in the ACE Inhibitor/ARB Medications List.  
• Revised the Data Elements for Reporting table to reflect the removal of the Final Sample Size (FSS) when reporting using the hybrid methodology. |
| Statin Therapy for Patients With Diabetes (SPD)                                    | ✓              | ✓              | ✓              | • Clarified that the pregnancy required exclusion should be applied to female members.  
• Replaced medication table references with references to medication lists. |
| Disease-Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis (ART)       | ✓              | ✓              | ✓              | • Clarified that the pregnancy optional exclusion should be applied to female members.  
• Replaced medication table references with references to medication lists. |
| Osteoporosis Management in Women Who Had a Fracture (OMW)                          |                |                | ✓              | • Replaced medication table references with references to medication lists.  
• Clarified how to identify an ED visit or observation visit that resulted in an inpatient stay.  
• Clarified the definition of "direct transfer": when the discharge date from the first inpatient setting precedes the admission date to a second inpatient setting by one calendar day or less.  
• Added required exclusions to the Medicare product line for members 65 years of age and older living long-term in institutional settings. |
| Antidepressant Medication Management (AMM)                                         | ✓              | ✓              | ✓              | • Replaced medication table references with references to medication lists.  
• Added telehealth modifiers and telephone visits to the required exclusions (step 2). |
| Follow-Up Care for Children Prescribed ADHD Medication (ADD)                      | ✓              |                | ✓              | • Replaced medication table references with references to medication lists.  
• Added telehealth as eligible for one visit for the C&M phase.  
• Clarified that for the C&M phase, visits must be on different dates of service. |
| Follow-Up After Hospitalization for Mental Illness (FUH)                           | ✓              | ✓              | ✓              | • Revised the measure to no longer include visits that occur on the date of discharge.  
• Added telehealth modifiers to the numerators. |
| Follow-Up After Emergency Department Visit for Mental Illness (FUM)               | ✓              | ✓              | ✓              | • Clarified in the event/diagnosis that the member must be 6 years or older on the date of the visit.  
• Deleted the Telehealth Value Set and added telehealth modifiers to the numerators. |
<table>
<thead>
<tr>
<th>HEDIS 2018 Measures</th>
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<th>Commercial</th>
<th>Medicaid</th>
<th>Medicare</th>
<th>Changes to HEDIS 2018</th>
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<tr>
<td>Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (FUA)</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>• Revised the measure name.</td>
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<td>• Clarified in the event/diagnosis that the member must be 13 years and older on the date of the visit.</td>
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<td>• Replaced the Telehealth Value Set with the Telephone Visits Value Set and the Online Assessments Value Set (the value set was split, but codes are unchanged).</td>
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<td>• Added telehealth modifiers to the numerators.</td>
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<td>• Replaced “Y” with “For each age stratification and total” for the “Eligible Population” row in Table FUA-1/2/3.</td>
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<td>Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications (SSD)</td>
<td>✔️</td>
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<td>• Replaced medication table references with references to medication lists.</td>
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<td>Diabetes Monitoring for People With Diabetes and Schizophrenia (SMD)</td>
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<td>• Replaced medication table references with references to medication lists.</td>
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<td>Cardiovascular Monitoring for People With Cardiovascular Disease and Schizophrenia (SMC)</td>
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<td>Adherence to Antipsychotic Medications for Individuals With Schizophrenia (SAA)</td>
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<td>• Replaced medication table references with references to medications lists.</td>
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<tr>
<td>Metabolic Monitoring for Children and Adolescents on Antipsychotics (APM)</td>
<td>✔️</td>
<td>✔️</td>
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<td>• Replaced medication table references with references to medications lists.</td>
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<tr>
<td>Annual Monitoring for Patients on Persistent Medications (MPM)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>• Replaced medication table references with references to medication lists.</td>
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<tr>
<td>Medication Reconciliation Post-Discharge (MRP)</td>
<td>✔️</td>
<td></td>
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<td>• Clarified in the hybrid specification that the current medication list must be documented in the outpatient medical record.</td>
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<td>• Clarified in the hybrid specification that the process the prescribing practitioner, clinical pharmacist or registered nurse uses to identify the member’s current medications is outside of the scope of the measure specification.</td>
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<td>• Revised the Data Elements for Reporting table to reflect the removal of the Final Sample Size (FSS) when reporting using the hybrid methodology.</td>
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<tr>
<td>Transitions of Care (TRC)</td>
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<tr>
<td>Follow-Up After Emergency Department Visit for People With High-</td>
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<td>Risk Multiple Chronic Conditions (FMc)</td>
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<td>Non-Recommended Cervical Cancer Screening in Adolescent Females</td>
<td>✓</td>
<td>● No changes to this measure.</td>
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<tr>
<td>(NCS)</td>
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<td>Non-Recommended PSA-Based Screening in Older Men (PSA)</td>
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<tr>
<td>Appropriate Treatment for Children With Upper Respiratory Infection (URI)</td>
<td>✓</td>
<td>● Revised the episode date to allow for multiple diagnoses of URI and to exclude members who had other diagnoses on the same date of service.</td>
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<td></td>
<td>✓</td>
<td>● Clarified how to identify an ED visit or observation visit that resulted in an inpatient stay.</td>
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<td>● Replaced medication table references with references to medication lists.</td>
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<tr>
<td>Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis (AAB)</td>
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<td>● Clarified how to identify an ED visit or observation visit that resulted in an inpatient stay.</td>
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<td>● Replaced medication table references with references to medication lists.</td>
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<td>Use of Imaging Studies for Low Back Pain (LBP)</td>
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<td>● Replaced the Telehealth Value Set with the Telephone Visits Value Set and the Online Assessments Value Set (the value set was split, but codes are unchanged).</td>
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<td>Ṣ</td>
<td>● Added telehealth modifiers.</td>
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<td>● Replaced medication table references with references to medication lists.</td>
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<td>● Clarified how to identify an ED visit or observation visit that resulted in an inpatient stay.</td>
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<td>Use of Multiple Concurrent Antipsychotics in Children and Adolescents (APC)</td>
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<td>● Replaced medication table references with references to medication lists.</td>
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<tr>
<td>Potentially Harmful Drug-Disease Interactions in the Elderly (DDE)</td>
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<tr>
<td>Use of High-Risk Medications in the Elderly (DAE)</td>
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<tr>
<td>Use of Opioids at High Dosage (UCD)</td>
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<td>● First-year measure.</td>
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<td></td>
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<tr>
<td>Use of Opioids From Multiple Providers (UOP)</td>
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<td>Medicare Health Outcomes Survey (HOS)</td>
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<td>Fall Risk Management (FRM)</td>
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<tr>
<td>Management of Urinary Incontinence in Older Adults (MUI)</td>
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<tr>
<td>Osteoporosis Testing in Older Women (OTO)</td>
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<td>Physical Activity in Older Adults (PAO)</td>
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<td>Flu Vaccinations for Adults Ages 18-64 (FVA)</td>
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<tr>
<td>Flu Vaccinations for Adults Ages 65 and Older (FVO)</td>
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<td>✓</td>
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<td>Medical Assistance With Smoking and Tobacco Use Cessation (MSC)</td>
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<tr>
<td>Pneumococcal Vaccination Status for Older Adults (PNU)</td>
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</table>

- This measure is collected using survey methodology. Detailed specifications and summary of changes are contained in HEDIS 2018, Volume 6: Specifications for the Medicare Health Outcomes Survey.
### Summary Table of Measures, Product Lines and Changes

<table>
<thead>
<tr>
<th>HEDIS 2018 Measures</th>
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<th>Medicare</th>
<th>Changes to HEDIS 2018</th>
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<td><strong>ACCESS/AVAILABILITY OF CARE</strong></td>
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<tr>
<td>Adults’ Access to Preventive/ Ambulatory Health Services (AAP)</td>
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<td>✓</td>
<td>✓</td>
<td>• No changes to this measure.</td>
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<td>Children’s and Adolescents’ Access to Primary Care Practitioners (CAP)</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Annual Dental Visit (ADV)</td>
<td>✓</td>
<td>✓</td>
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<td>• Removed codes/value sets from the measure.</td>
</tr>
</tbody>
</table>
| Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET) | ✓          | ✓        | ✓        | • Revised the measure name.  
  • Added pharmacy benefit.  
  • Added reporting for indicators by age and diagnosis.  
  • Clarified that for ED visits resulting in an inpatient stay, an AOD diagnosis is not required for the stay when identifying the IESD.  
  • Clarified that a direct transfer is when the discharge date from the first inpatient setting precedes the admission date to a second inpatient setting by one calendar day or less.  
  • Clarified how to identify an ED visit that resulted in an inpatient stay.  
  • Added dispensing of medication-assisted treatment.  
  • Added “telehealth” to the denominator and numerators.  
  • Removed the Note about detoxification from the numerator statement.  
  • Extended the Engagement of AOD Treatment time frame to 34 days from 30 days. |
| Prenatal and Postpartum Care (PPC) | ✓          | ✓        |      | • Updated the administrative numerator specification to indicate when codes must be on the same claim and when codes can occur on different dates of service.  
  • Revised the Data Elements for Reporting table to reflect the removal of the Final Sample Size (FSS) when reporting using the Hybrid Methodology. |
| Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics (APP) | ✓          | ✓        |      | • Replaced medication table references with references to medication lists.  
  • Added telehealth modifiers to the required exclusions (step 4). |
| **EXPERIENCE OF CARE** |             |          |          |                       |
| CAHPS Health Plan Survey 5.0H, Adult Version (CPA) | ✓          | ✓        |          | • This measure is collected using survey methodology. Detailed specifications and summary of changes are contained in HEDIS 2018, Volume 3: Specifications for Survey Measures. |
| CAHPS Health Plan Survey 5.0H, Child Version (CPC) | ✓          |          |          | • This measure is collected using survey methodology. Detailed specifications and summary of changes are contained in HEDIS 2018, Volume 3: Specifications for Survey Measures. |
| Children With Chronic Conditions (CCC) | ✓          |          |          | • This measure is collected using survey methodology. Detailed specifications and summary of changes are contained in HEDIS 2018, Volume 3: Specifications for Survey Measures. |
## Summary Table of Measures, Product Lines and Changes

### UTILIZATION AND RISK ADJUSTED UTILIZATION

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<th>Changes to HEDIS 2018</th>
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<tr>
<td>Guidelines for Utilization</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>• No changes to these guidelines.</td>
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<td>Frequency of Ongoing Prenatal Care (FPC)</td>
<td>✔️</td>
<td>✔️</td>
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<td>• Clarified that multiple visits on the same date of service count as one visit.</td>
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<td>• Revised the Data Elements for Reporting table to reflect the removal of the Final</td>
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<td>Sample Size (FSS) when reporting using the hybrid methodology.</td>
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<td>Well-Child Visits in the First 15 Months of Life (W15)</td>
<td>✔️</td>
<td>✔️</td>
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<td>• Revised the Data Elements for Reporting table to reflect the removal of the Final</td>
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<td>Sample Size (FSS) when reporting using the hybrid methodology for the Medicaid</td>
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<td>Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life (W34)</td>
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<td>✔️</td>
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<td>Sample Size (FSS) when reporting using the hybrid methodology for the Medicaid</td>
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<td>product line.</td>
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<tr>
<td>Adolescent Well-Care Visits (AWC)</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
<td>• Revised the Data Elements for Reporting table to reflect the removal of the Final</td>
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<td>Sample Size (FSS) when reporting using the hybrid methodology for the Medicaid</td>
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<td>product line.</td>
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<tr>
<td>Frequency of Selected Procedures (FSP)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>• No changes to this measure.</td>
</tr>
<tr>
<td>Ambulatory Care (AMB)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>• Clarified how to identify an ED visit that resulted in an inpatient stay.</td>
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<td>• Removed the AOD Rehab and Detox Value Set from the required exclusions (exclusions</td>
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<td>will be identified based on a principal diagnosis of chemical dependency).</td>
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<td>• Revised the data elements tables to indicate that rates are calculated for the</td>
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<td>Visits/1,000 Member Months/Years in the unknown category.</td>
</tr>
<tr>
<td>Inpatient Utilization—General Hospital/Acute Care (IPU)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>• Revised the data elements tables to indicate that rates are calculated for the</td>
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<td>Discharges/1,000 Member Months/Years in the unknown category.</td>
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<tr>
<td>Identification of Alcohol and Other Drug Services (IAD)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>• Separated outpatient, ED and telehealth for reporting.</td>
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<td>• Added diagnosis stratification to all rates.</td>
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<td>• Added dispensing of medication-assisted treatment (MAT) to the outpatient</td>
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<td>services reporting category.</td>
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<td>• Replaced the Telehealth Value Set with the Telephone Visits Value Set and the</td>
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<td>Online Assessments Value Set (the value set was split, but codes are unchanged).</td>
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<td></td>
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<td></td>
<td></td>
<td>• <strong>Added telehealth modifiers.</strong></td>
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<td></td>
<td>• Clarified how to identify an ED visit or observation visit that resulted in an</td>
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<td>inpatient stay.</td>
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<td>• Added a pharmacy benefit and removed the requirement to report member months</td>
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<td>separately for inpatient and outpatient chemical dependency benefits.</td>
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**Summary:**
- There are no changes to the Guidelines for Utilization.
- Frequency of Ongoing Prenatal Care (FPC) has been clarified.
- Well-Child Visits measures have been revised to reflect the removal of the Final Sample Size when reporting using the hybrid methodology for Medicaid.
- Adolescent Well-Care Visits (AWC) has been revised similarly.
- No changes to Frequency of Selected Procedures (FSP).
- Ambulatory Care (AMB) has been clarified.
- Inpatient Utilization—General Hospital/Acute Care (IPU) has been revised.
- Identification of Alcohol and Other Drug Services (IAD) has been separated into outpatient, ED, and telehealth categories.
- Added a pharmacy benefit and removed the requirement to report member months separately for inpatient and outpatient chemical dependency benefits.
<table>
<thead>
<tr>
<th>HEDIS 2018 Measures</th>
<th>Applicable to:</th>
<th>Changes to HEDIS 2018</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Commercial</td>
<td>Medicaid</td>
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<tr>
<td><strong>UTILIZATION AND RISK ADJUSTED UTILIZATION</strong></td>
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</tbody>
</table>
| Mental Health Utilization (MPT) | ✓ | ✓ | ✓ | • Separated outpatient, ED and telehealth for reporting.
|                     |           |           |         | • Deleted the Telehealth Value Set and added telehealth modifiers.
|                     |           |           |         | • Clarified how to identify an ED visit or observation visit that resulted in an inpatient stay.
|                     |           |           |         | • Removed the requirement to report member months separately for inpatient and outpatient mental health benefits.
| Antibiotic Utilization (ABX) | ✓ | ✓ | ✓ | • Replaced medication table references with references to medication lists.
| Standardized Healthcare-Associated Infection Ratio (HAI) | ✓ | ✓ | ✓ | • Removed all references to "contracted" throughout the measure specification and the definition of "contracted acute care hospital." The Guidelines for Utilization Measures state that only services for which the organization paid or expects to pay should be included in the measure.
|                     |           |           |         | • Clarified how to classify hospitals as "Unavailable" in the "Hospital classification criteria" definition.
|                     |           |           |         | • Clarified that organizations must use the Provider ID in Table HSIR to assign discharges in step 3 in the Calculation of Hospital Discharge Weight.
|                     |           |           |         | • Clarified how to report hospitals from which plans have discharges, but that are not identifiable in Table HSIR in step 3 in the Calculation of Hospital Discharge Weight.
|                     |           |           |         | • Clarified how to report hospitals with an "Unavailable" SIR in Table HAI-1/2/3 in step 7 of the Calculation of Weighted Standardized Infection Ratios (SIR).
|                     |           |           |         | • Revised Table HAI-1/2/3 and added a reporting column, “Number of Hospitals With Inpatient Discharges.”
| Guidelines for Risk Adjusted Utilization | ✓ | ✓ | ✓ | • No changes to these guidelines.
| Plan All-Cause Readmissions (PCR) | ✓ | ✓ | ✓ | • Added the Medicaid product line.
|                     |           |           |         | • Replaced all references to “Average Adjusted Probability of Readmission” with “Expected Readmissions Rate.”
|                     |           |           |         | • Clarified the definition of “direct transfer”: when the discharge date from the first inpatient setting precedes the admission date to a second inpatient setting by one calendar day or less.
|                     |           |           |         | • Clarified in step 2 of the denominator (acute-to-acute direct transfers) that stays are excluded if the direct transfer’s discharge date is after December 1 of the measurement year.
|                     |           |           |         | • Clarified that the pregnancy required exclusion in step 4 of the denominator should be applied to female members.
|                     |           |           |         | • Added instructions to calculate the expected count of readmissions in step 6 of the Risk Adjustment Weighting.
|                     |           |           |         | • Added a note to step 3 of the numerator.
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<tr>
<td><strong>UTILIZATION AND RISK ADJUSTED UTILIZATION</strong></td>
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</table>
| Inpatient Hospital Utilization (IHU) | ✓ | ✓ | | • Added a Note section.  
  • Added Count of Expected 30-day Readmissions as a data element to Table PCR-1 and Table PCR-2/3.  
  • Clarified how to identify an ED visit that resulted in an inpatient stay.  
  • Removed the AOD Rehab and Detox Value Set from the required exclusions (claims and encounters with a principal diagnosis of chemical dependency are excluded from the measure).  
  • Clarified to round to 10 decimal places using the .5 rule during the intermediate calculations of Expected events.  
  • Added steps 5 and 6 to the calculation of the PUCD risk weights to calculate covariance and total variance for each category.  
  • Removed the Risk Adjustment Weighting Process diagram.  
  • Added “Total Variance” as a data elements to Table IHU-B-2/3, Table IHU-C-2/3 and Table IHU-D-2/3. |
| Emergency Department Utilization (EDU) | ✓ | ✓ | | • Clarified how to identify an ED visit that resulted in an inpatient stay.  
  • Removed the AOD Rehab and Detox Value Set from the required exclusions (claims and encounters with a principal diagnosis of chemical dependency are excluded from the measure).  
  • Clarified to round to 10 decimal places using the .5 rule during the intermediate calculations of Expected events.  
  • Added steps 5 and 6 to the calculation of the PUCV risk weights to calculate covariance and total variance for each category.  
  • Removed the Risk Adjustment Weighting Process diagram.  
  • Added Total Variance as a data element to Table EDU-B-2/3. |
| Hospitalization for Potentially Preventable Complications (HPC) | ✓ | | | • Clarified the definition of “direct transfer”: when the discharge date from the first inpatient setting precedes the admission date to a second inpatient setting by one calendar day or less.  
  • Clarified how to identify an ED visit that resulted in an inpatient stay.  
  • Removed the AOD Rehab and Detox Value Set from the required exclusions (claims and encounters with a principal diagnosis of chemical dependency are excluded from the measure).  
  • Clarified to round to 10 decimal places using the .5 rule during the intermediate calculations of Expected events.  
  • Added steps 5 and 6 to the calculation of the PPD risk weights to calculate covariance and total variance for each category.  
  • Removed the Risk Adjustment Weighting Process diagram.  
  • Added “Total Variance” as a data element to Table HPC-B-2/3, Table HPC-C-3 and Table HPC-D-3. |
### Summary Table of Measures, Product Lines and Changes

<table>
<thead>
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<td>Pneumococcal Vaccination Coverage for Older Adults (PVC)</td>
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Next Telehealth Advisory Council Meeting:

Friday, August 18

Orlando Health
52W. Underwood Street
Orlando, FL 32806

9:00 AM – 4:00 PM