



NATIONAL
QUALITY FORUM

Creating a Framework to Support Measure Development for Telehealth

Multi-Stakeholder In-Person Meeting
1030 15th Street, NW
Washington, DC 20005

November 16-17, 2016

Welcome

- Restrooms
 - *Exit main conference area, past elevators, on right.*
- Breaks
 - *11:00am – 15 minutes*
 - *12:30pm – Lunch provided by NQF*
 - *3:00pm – 15 minutes*
- Laptops and cell phones
 - *Wi-Fi network*
 - » User name: **guest**
 - » Password: **NQFguest**
 - *Please mute your cell phone during the meeting*

Agenda

- Welcome and introductions
- Review project purpose, objectives and scope
- Progress update on the environmental scan
- Discuss selection of existing measures that could incorporate telehealth as a means of care delivery
- Discuss methodologies on how to modify existing measures to incorporate telehealth, and what new measures are needed
- Discuss initial dimensions of a framework that would provide the ability to utilize existing measures to evaluate telehealth as well as develop the foundation to create new measures
- Opportunity for Public Comment

NQF Project Team

- Jason Goldwater, Senior Director
- Tracy Lustig, Senior Director
- Katie Streeter, Senior Project Manager

Introductions and Disclosures of Interest

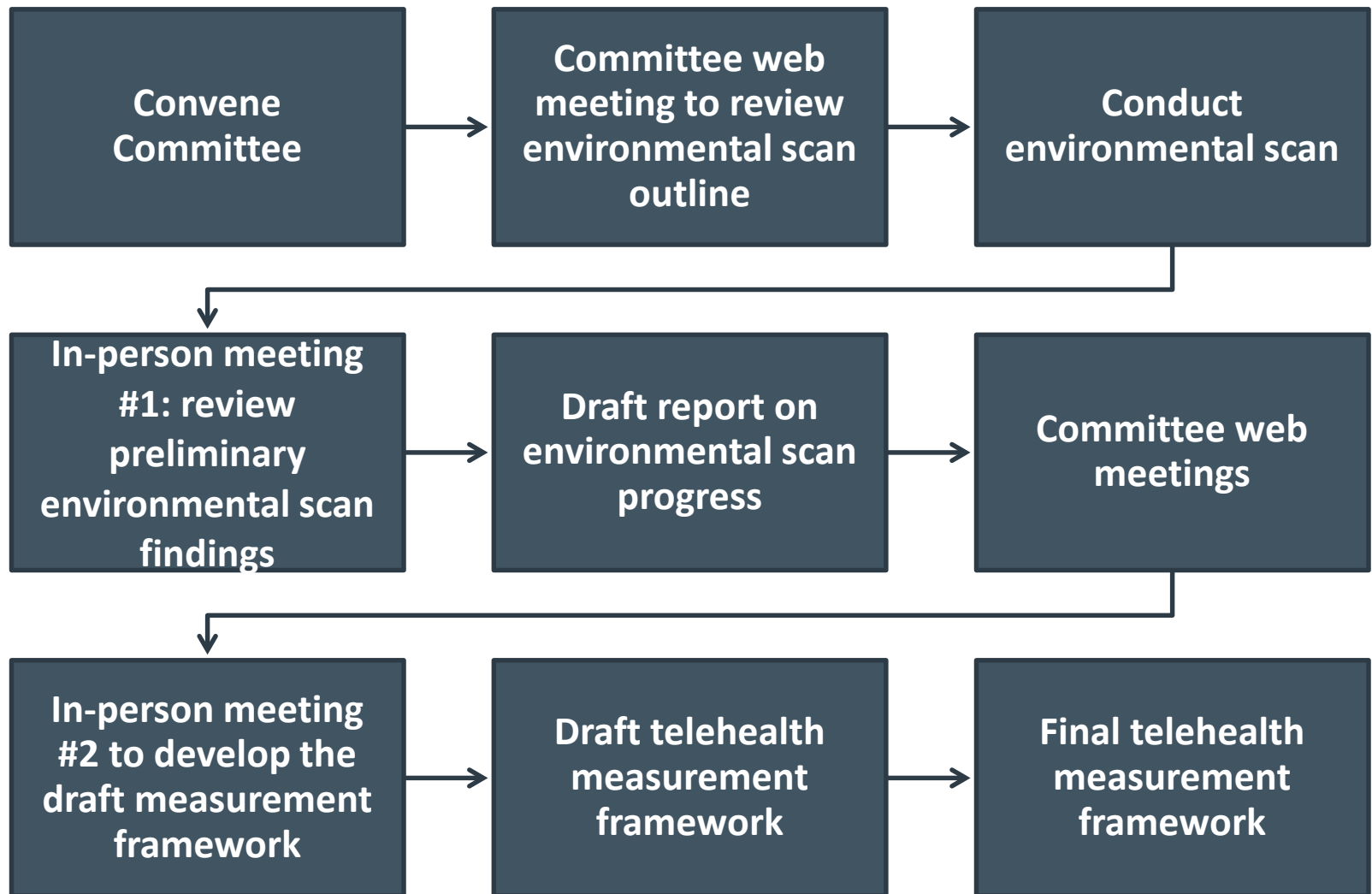
Committee Members

- **Judd Hollander, MD (Co-Chair)**
- **Marcia Ward, PhD (Co-Chair)**
- Dale Alverson, MD
- Rashid Bashshur, PhD
- Adam Darkins, MB, ChB, MPM, MD, FRCS
- Henry DePhillips, MD
- Charles Doarn, MBA
- Marybeth Farquhar, PhD, MSN, RN
- Archibald (Stewart) Ferguson, PhD
- David Flannery, MD
- Paul Giboney, MD
- Nate Gladwell, RN, MHA
- Don Graf
- Julie Hall-Barrow, EdD
- Steven Handler, MD, PhD, CMD
- Yael Harris, PhD, MHS
- Kristi Henderson, DNP, NP-C, FAAN, FAEN
- Mary Lou Moewe, MT (ASCP), PMP, ACP, FACHE, CPHIMS
- Eve-Lynn Nelson, PhD
- Stephen North, MD, MPH
- Peter Rasmussen, MD
- Sarah Sossong, MPH
- Daniel Spiegel, MD, MBA
- Jean Turcotte, MA, BSN, RN
- Dennis Truong, MD
- Angela Walker, MD, FAAD

Project Purpose and Objectives

- Facilitate the identification of the most appropriate way to ensure clinical measures are applied to telehealth encounters in order to measure quality of care and to guide the future development of telehealth related measures
- Conduct a multistakeholder review of existing and potential telehealth metrics
- Identify measurement gaps
- Develop a measure framework and set of guiding principles for future telehealth measurement and the possible need for telehealth measure development

Project Activities and Timeline



Review of Environmental Scan

Environmental Scan Overview

- Assist in developing a framework that provides measure concepts that address the ability to identify and classify telehealth as a separate means of care delivery and its impact on outcomes of care
- Divided into five sections, each aligned with key outcomes and influences of telehealth:
 - *Access to Care*
 - *Cost*
 - *Cost-Effectiveness*
 - *Patient Experience*
 - *Clinician Experience*

Domains of Information Within the Environmental Scan

Domains	Potential Information
Access to Care	Timely receipt of health services; access to health services from those living in rural communities; access to health services from those living in medically underserved areas; access to appropriate health specialists based on the need of the patient; access to patients that need specialized healthcare services.
Cost	The cost of telehealth for providers as opposed to the alternative; 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.
Cost-Effectiveness	Effect of telehealth on patient self-management; cost effect on patient care as opposed to the alternative; reduction in medical errors; reduction in overuse of services; cost savings to patient related to travel and time away from work.
Patient Experience	Appropriateness of services; increase in patient's knowledge of care; patient compliance with care regimens; difference in morbidity/mortality among specific clinical areas.
Clinician Experience	Diagnostic accuracy of a telehealth application; comfort with telehealth applications and procedures; quality of communications with patients.

Research Questions

- Does telehealth provide more timely access to appropriate health services?
- How does telehealth affect patients' health and well-being compared to the alternatives?
- How do the costs of telehealth compare to in-person care delivery?
- Are both patients and clinicians satisfied with the services provided through telehealth?

Literature Review

- Identify existing terms and issues applicable to telehealth through literature and ideas to facilitate what should be included in each measure concept and how to clarify it through specific domains
- Information sources:
 - *Peer-reviewed literature*
 - *Grey literature*
 - » Reports issued by Agency for Healthcare Research and Quality (AHRQ), Health Resources and Services Administration (HRSA), American Telemedicine Association (ATA) and National Association of Rural Health Clinics (NARHC)
 - » NQF reports on Rural Health, Care Coordination, Population Health, Home and Community-Based Services, Health and Well-Being
 - *Legislation and proposed rules under MACRA*

Progress to Date

- 200 + articles initially obtained through a combination of search terms
- Every potential field within telehealth was covered (dermatology, ICU, ophthalmology, chronic disease, mental and behavioral health, etc.).
- Scoring rubric evaluated the articles on five dimensions:
 - *Article fell into one of the domains in the SOW*
 - *Study was done in a scientifically rigorous manner*
 - *Study addresses one of the research questions*
 - *Study has a well-articulated scientific method and research objectives*
 - *Goals of the study were satisfied with their published results*
- 151 articles scored a 6 or above at the abstract level

Review and Abstraction of Articles

- Currently abstracting articles that include: author(s); date of study; disease type; telehealth modality; nature of intervention & type of study; duration and number of patients; primary outcomes; and secondary outcomes
- Specific focus on the literature
 - *The disease areas and modalities of telehealth in those disease areas that are most effective*
 - *Where telehealth increases the access of care*
 - *The cost and cost-effectiveness of telehealth as well as the patient/clinician experience*
 - *The overall summation of the diagnostic accuracy, diagnostic impact, therapeutic impact and technical accuracy of telehealth services*
 - *Impact of telehealth on rural and urban areas*

Issues to Consider

- Are there areas of telehealth that we have not covered in the literature review?
- What are the important areas or themes we should be concentrating on in our evaluation of the articles
- What are the most important areas in the literature review, apart from what we have discussed, that we need to consider in the development of the measure framework?
- What would you like to see in the Environmental Scan Report?

Selection of Existing Measures

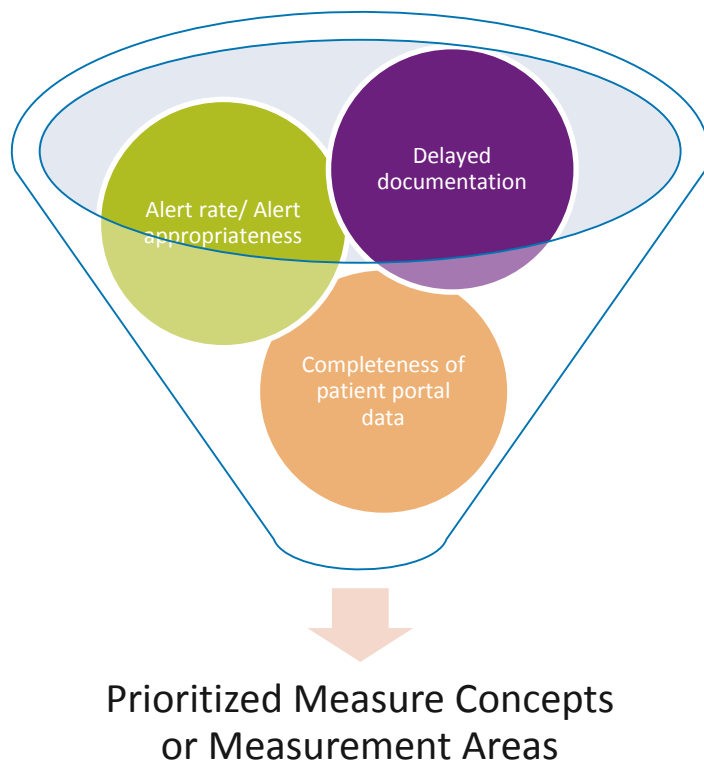
Measure Review

- In addition to reviewing the literature we will also review and establish a library of potential measures that could be used to evaluate the impact of telehealth and in incorporate it as a means of care delivery.
- Exclusion criteria will be applied to the identified measures, which may be refined as the environmental scan commences.
 - *Measures that are not relevant specifically to acute care (for example, stroke and cardiovascular care), care coordination, patient safety, costs, resource use, population health, health and well-being, home and community-based services, emergency care, surgery, dermatology, ophthalmology, and mental and behavioral health*
 - *Duplicate measures will be removed*
 - *Measures that consist of provider, practice or health plan characteristics*
 - *Measures that capture patient or provider satisfaction*
 - *Specialty-based measures will also be excluded (cancer care, obstetrics, pediatrics, HIV care and others.*

Evaluating Measures

- The conceptual model we will ask both NQF and the multistakeholder committee to follow will consider the following:
 - *1) importance of the measure as it relates to telehealth and the specific condition the measure was developed around;*
 - *2) feasibility of the measure to incorporate telehealth, based on the availability of the data and the resources needed to obtain them; and*
 - *3) a common understanding of the measure so that the potential incorporate of telehealth is seamless and does not distort the intent of the measure*

Prioritization of Measure Concepts or Measurement Areas



Possible Criteria

Importance to Measure and Report

- related to measures that have the greatest potential of driving improvement (i.e., high impact on patients and workflow, strong evidence base and gap in care, with variation across providers)

Feasibility

- related to ease of implementation
- may be influenced by concerns about the ability to obtain data due to the presence or absence of EHRs, standardized diagnostic codes, standardized descriptions as well as other concerns.

Review of Measures

Issues to Consider

- Are there specific clinical areas that we should focus on that would have impact?
- The current focus is on clinical outcomes, with little discussion on process measures.
- What are the most important considerations we should be focusing on when examining what kinds of existing measures to include in the framework?

Modification of Measures

Modifying Existing Measures

- Any existing measures may need to be modified to include telehealth as a means of care delivery.
- Modification must be done in a manner that does not change the measure, but only includes telehealth.
- NQF is looking for proposed strategies for potentially modifying the measures identified as potential candidates for the framework.

Discussion of Measure Framework

Rationale for a Telehealth Measure Framework

- A measure framework for telehealth would help address its effects on quality, access and cost.
 - *Does telehealth provide more timely access to appropriate health services?*
 - *How does telehealth affect patients' health and well-being compared to the alternatives?*
 - *How do the costs of telehealth compare to in-person care delivery?*
 - *Are both patients and clinicians satisfied with the services provided through telehealth?*
 - *What is the effect of telehealth on rural health providers and the economic health of rural communities?*

Dimensions of a Framework

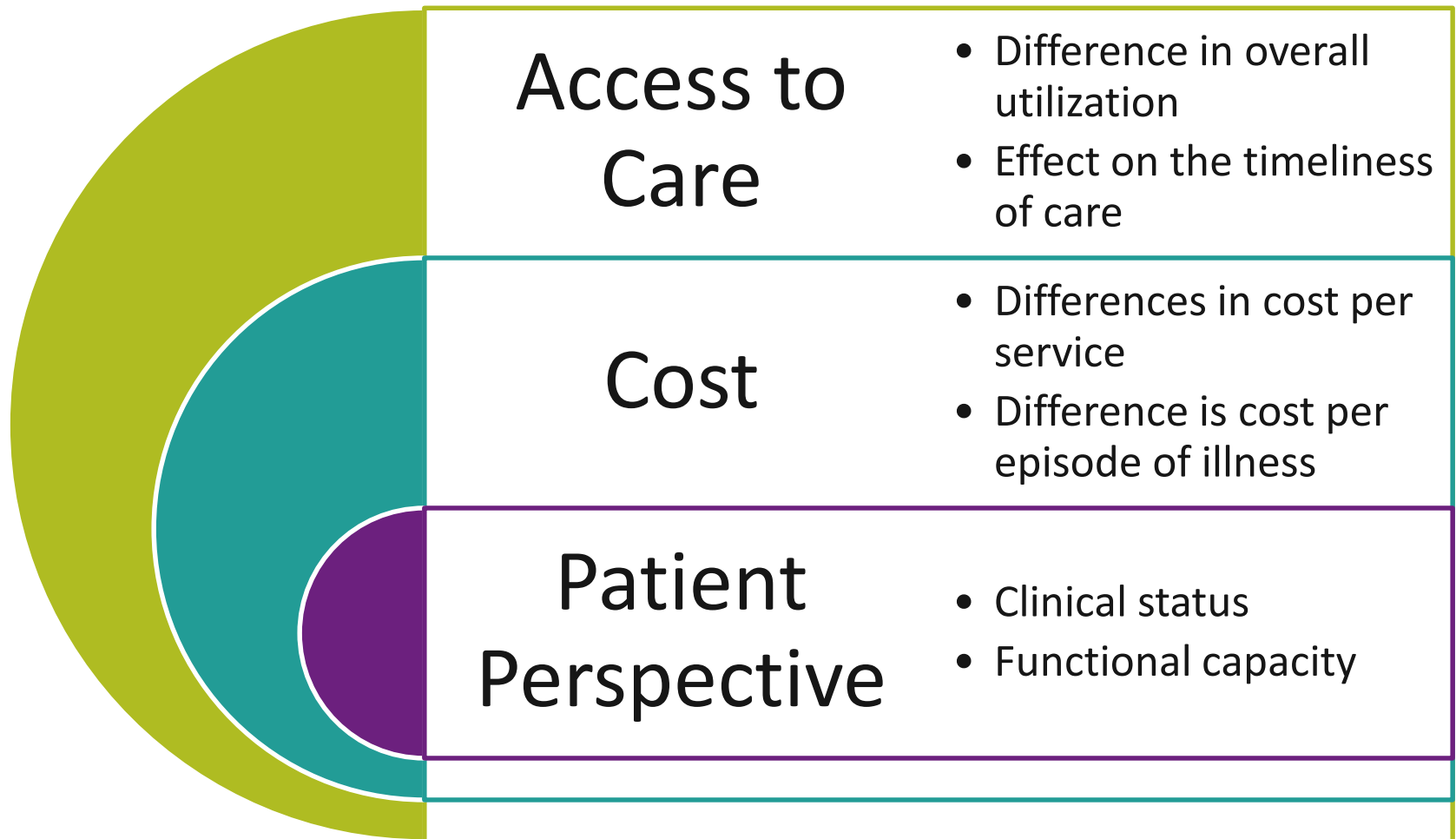
- Technical capacity
 - *Safe and Accurate*
- Diagnostic accuracy
 - *Correct Diagnosis*
- Diagnostic impact
 - *Useful Information*
- Therapeutic impact
 - *Influences Therapy*
- Patient outcome
 - *Improve patient's health*



Proposed Hypothetical Framework

Measure Concept	Dimensions
Access to Care	Technical Capacity
Cost	Diagnostic Impact
Cost-Effectiveness	Therapeutic Outcome
Patient Perspective	Patient Outcome
Clinician Perspective	Diagnostic Accuracy

Alignment of the Framework



Concept: Access to Care

Domain: Technical Capacity

- Defined as the timely receipt of health services
- Major promise of telemedicine
- Improve access to those living in rural or remote areas
- Can also improve access to inner-city poor and urban/suburban homebound



Issues to Address for Access to Care Concept

- Does telemedicine provide services for patients and clinicians that are ready for use when needed?
- Does telemedicine provide services that are appropriate and ready for use that do not pose an undue burden on either the patient or the clinician?
- Does telemedicine allow a clinician more timely access to appropriate information to inform care?
- What is the uptake of telemedicine services by both providers and clinicians over time?

Concept: Cost

Domain: Diagnostic Impact



- Defined as the way to measure the value of resource use associated with an intervention
- Examines the costs of telemedicine for providers or health plans
- Does the technology provide information and services that benefits the patient in an efficient manner?

Issues to Address for Cost Concept

- Does the effective use of telemedicine provide information that identifies and discourages the overuse of health services?
- Was the use of a telemedicine application associated with differences in cost per services and/or episode of illness?
- Was the use of a telemedicine application associated with differences in overall health care costs?

Concept: Cost-Effectiveness

Domain: Therapeutic Impact

- Cost-effectiveness compares the costs and health effects of telemedicine and its alternatives
- Does the use of telemedicine affect patient management and/or therapy in a manner that is more cost-effective than other methods?



Issues to Address for Cost-Effectiveness

- Examine telemedicine not in terms of whether it is a good investment because that depends on its circumstances of use
- Instead, you examine telemedicine is a good investment for a specific purpose compared to an alternative.
- How did the costs of the telemedicine application relate to its therapeutic impact as compared to an alternative?
- Did the therapeutic impact of a telemedicine application reduce the number of medical errors or overuse of services as compared to the alternative?

Concept: Patient Perspective

Domain: Patient Outcome



- Use patient perspectives as to how they might affect the acceptance of telemedicine.
- This is the one concept that is directly focused on outcomes
- However, the outcomes are dependent on the effective use of telemedicine applications

Issues to Address for Patient Perspective

- Was the telemedicine application associated with differences in appropriateness of services for patients?
- Was the application associated with differences in patient's knowledge of their health status or their compliance in care regimens?
- Was the application associated with differences in morbidity or mortality?
- Was the application associated with differences in health-related behaviors?

Concept: Clinician Perspective

Domain: Diagnostic Accuracy

- Clinician perceptions are less often evaluated than patient perceptions
- Improving the effectiveness of efficiency of care is dependent on how satisfied those who provide care are.
- Special demands created by telemedicine
- Is the use of telemedicine accurate enough to provide the same level of comfort as an in-person clinical encounter?



Issues to Address for Clinician Perspective

- How did the attending/consulting clinicians rate the diagnostic accuracy of the telemedicine encounter?
- How did the attending/consulting clinicians rate their comfort with telemedicine equipment and procedures?
- How did attending/consulting clinicians rate the quality of communications with their patients?
- Did the attending/consulting clinicians believe the application made a positive contribution to patient care?

Next Steps

Key Meeting Dates

Meeting	Date/Time
In-Person Meeting #1	November 16, 2016, 8:30 AM – 4:30 PM ET November 17, 2016, 8:30 AM – 2:30PM ET
Web Meeting #2	December 15, 2016, 2:00PM-4:00PM ET
Web Meeting #3	February 14, 2017, 12:00PM-2:00PM ET
In-Person Meeting #2	March 7, 2017, 8:30 AM – 4:30 PM ET March 8, 2017, 8:30 AM – 2:30PM ET
Web Meeting #4	May 23, 2017, 1:00PM-3:00PM ET
Web Meeting #5	July 28, 2017, 1:00PM-3:00PM ET

Public Comment