NATIONAL QUALITY FORUM

Attribution: Principles and Approaches

Committee In-Person Meeting

August 30-31, 2016

Agenda

- Welcome and introductions
- Review project overview and meeting objectives
- Understand the context for developing the Committee's recommendations
- Finalize the core principles
- Define the elements of an attribution model
- Determine draft recommendations

Welcome and Introductions

- Housekeeping Items
  - Restrooms
  - Name Tents
  - Microphone Use
  - Cell phone use
  - Breaks

NQF Project Team

- Ashlie Wilbon, Senior Director
- Erin O'Rourke, Senior Director
- Kim Ibarra, Project Manager
- Donna Herring, Project Manager
- Taroon Amin, Advisor

Committee Member Introductions and Disclosures of Interest

Committee Members

- **Ateev Mehrotra, MD, MPH (co-chair)**
- **Carol Raphael (co-chair)**
- Michael Barr, MD, MBA, MACP
- Jenny Beam, MS
- Jill Berger, MAS
- Anne Deutsch, PhD, RN, CRRN
- Elizabeth Drye, MD, SM
- Troy Fiesinger, MD
- Charles Hawley, MA
- Ari Houser
- Keith Kocher, MD, MPH, MPhil
- Robert Kropp, MD, MBA, MACP
- Danielle Lloyd, MPH
- Edison Machado, MD, MBA
- Ira Moscovice, PhD
- Jennifer Nowak, RN, MSN
- Jennifer Perloff, PhD
- Brandon Pope, PhD
- Laurel Radwin, PhD, RN
- Jack Resneck, MD
- Michael Samuhel, PhD
- Robert Schmitt, FACHE, FHFMA, MBA, CPA
- Nathan Spell, MD
- Srinivas Sridhara, PhD, MS
- Bharat Sutariya, MD, FACEP
- L. Daniel Muldoon **(Federal Liaison)**

Setting the Stage: Context for Developing the Committee's Recommendations

June 14 & 15 In-Person Meeting Summary

- Reviewed attribution challenges from NQF and CMS
- Explored attribution challenges through case studies:
  - Measurement lens
  - Program and population health lens
  - Patient-centered, clinical lens
- Developed an initial set of guiding principles to address challenges
- Discussed and provided feedback on the environmental scan

Project Purpose

- Taking in account trends toward providing care in shared accountability structures, provide multistakeholder guidance on the field on approaches to the attribution issue
  - ✓ Identify key challenges in attribution
  - ✓ Develop a set of guiding principles
  - **Identify elements of an attribution model**
    - » **Explore strengths and weaknesses**
  - **Identify recommendations for developing, selecting, and implementing an attribution model**

Context for Developing Committee's Recommendations

- Review of public and NQF member comments
- Findings of Ryan et al. white paper
  - *No standard definition for an attribution model*
  - *Lack of standardization across models limits ability to evaluate*
- Defining guiding principles
- Developing an attribution checklist
- Recommendations can be related to:
  - *NQF criteria and processes*
    - » CDP and MAP
  - *Guidance to measure developers, implementers, and the field*
    - » Recommendations for use of the checklist
    - » Recommendations about the elements of the checklist
  - *Broader policy issues*
    - » Recommendations about the relationship between a measure's use and its attribution methodology

Illustrative Examples: Recommendations from the Risk Adjustment Expert Panel

- **Recommendation 2:** NQF should define a transition period for implementation of the recommendations related to sociodemographic adjustment. During the transition period, if a performance measure is adjusted for sociodemographic status, then it also will include specifications for a clinically-adjusted version of the measure only for purposes of comparison to the SDS-adjusted measure.
- **Recommendation 7:** NQF should consider expanding its role to include guidance on implementation of performance measures. Possibilities to explore include:
  - *guidance for each measure as part of the endorsement process;*
  - *guidance for different accountability applications (e.g., use in pay-for-performance versus pay-for-improvement; innovative approaches to quality measurement explicitly designed to reduce disparities).*

Finalizing the Core Principles and Commissioned Paper

Draft Core Principles

- **Principle 1:** A key goal of attribution is to assign accountability in order to advance and measure progress towards the goals of the National Quality Strategy: better care, healthy people/communities, and smarter spending.
- **Principle 2:** Attribution is an essential part of measure development, implementation, and policy and program design.
- **Principle 3:** Available data and data quality are fundamental to designing an attribution model.
- **Principle 4:** Attribution models may evolve over time as data availability and quality, health system goals, and the evidence-base for attribution models evolve.

Draft Core Principles

- **Principle 4:** Attribution models may evolve over time as data availability and quality, health system goals, and the evidence-base for attribution models evolve.
- **Principle 5:** Simplicity and consistency of attribution models are the ideal state
- **Principle 6:** Attribution requires transparency about the goals and purpose of measurement, the rationale for selecting the attribution model, and consideration of the intended and unintended consequences to all stakeholders (patients, clinicians and facilities, plans, payers) that might arise when the model is implemented.

Purpose of Guiding Principles

- Baseline set of agreement on which to build recommendations
- Preamble highlights the importance of attribution, and that there is no gold standard for designing or selecting an attribution model
- Provide broad guidance on attribution

Overview of Process for Drafting Principles and Commissioned Paper

- First draft of core principles at June 14-15 in-person meeting
- Revisions based on Committee feedback at June 21 web meeting
- 30-day public and NQF member comment on the draft core principles and commissioned paper
  - *Comments on the paper have been shared with the authors*
  - *Authors are making revisions to the paper*

Overarching Themes from Public and Member Comments

- Purpose and goal
  - *Locus of control*
    - Clinical circumstance
    - Provider(s) delivering care
    - Purpose of attribution
- Total cost of care
- Relationship to Consensus Development Process and making this actionable
- How to define the patient relationship

Committee Discussion

- Do you still believe that these principles are foundational for the work ahead?
- Are there any specific comments that warrant discussion of the full Committee?

Defining the Elements of an Attribution Model – The "Attribution Checklist"

Why do we Need an Attribution Checklist?

- Tension between desire for clarity around a model's fit for purpose and state of the science.
- There is no standard definition for an attribution model.
- The Committee recommended developing a checklist of standardized elements as a foundational contribution to the field.

Overview of Strawperson Checklist

1. Purpose/goal of the attribution model
2. Accountable unit/level of attribution
3. Eligible clinicians or provider entities
4. Eligible patients/cases
5. The method to define the relationship between the patient and the accountable entity is clear and consistent, and weighs the pros and cons of the method (e.g., attestation, majority, plurality)
6. Services, costs, health outcomes, and/or adverse events attributed
7. Data sources
8. Measurement period

Overview of Committee Homework Survey Results

- Majority supported the strawperson elements
  - *Many elements received 100% agreement*
  - *Some uncertainty about "Services, outcomes, costs, and adverse events" as a key element*
- Additional key elements or considerations include:
  - *Fairness/equity*
  - *Buy-in from patients, clinicians, and key stakeholders*
  - *Graphic or decision tree*
  - *Transparency and strategy for informing stakeholders*
- Questions about whether stronger/normative criteria are needed to set expectations and advance the field
- Considerations for implementation of the model

Recurring Examples of Suggested Clarifications and Key Considerations

- Clarify what each element means
- Specify whether purpose is aspirational or current practice
- Define who is responsible versus accountable
- Clarify the difference, if any, between “accountable unit”, “clinicians/provider entities” and “accountable entity”
- Consider risk adjustment in eligible patients/cases, data validity and data limitations
- Develop a protocol to operationalize the checklist

Break

Operationalizing the Checklist: Purpose and Potential Uses

Operationalizing the Checklist: Purpose and Potential Uses

- Is this checklist detailed enough?
- Are there items missing?
- Are there additional considerations?
- How do you envision the checklist being used?

Lead discussants:

- Dan Muldoon
- Jennifer Nowak
- Elizabeth Drye
- Ateev Mehrotra

Potential Recommendations for Use of the Checklist

- Measures and programs should be evaluated and compared with more than one attribution approach to ensure accuracy and fairness, and judge the adequacy of the model.
- Effective attribution models require patient and provider/clinician engagement. The details of an attribution model should be transparent to both patients and providers. Additionally, providers should have an opportunity to review their panels for errors.
- An attribution model must be well-defined and precisely specified so that it can be implemented consistently.
- An attribution model must demonstrate repeatable results.

Potential Recommendations for Use of the Checklist

- Even though the consistency of attribution approaches across all accountability programs is impractical, certain elements could be standardized. The checklist is intended to provide this standardization and increase the ability to evaluate attribution models in the future.
- Current attribution methods are limited by the available data. Better data will increase the ability of an attribution model to reflect the ways in which care is delivered as the ability to select useful measures.
- NQF Standing Committees could evaluate a measure's attribution approach as part of its endorsement review.

Committee Discussion

- Do you agree with the potential recommendations?
- Are there additional recommendations the Committee should make about the checklist and its use?

Opportunity for Public Comment

Lunch

Standardizing the Elements of an Attribution Model

Element 1: Purpose/Goal

- Potential recommendations:
  - *Who is supposed to act and the actions they are expected to take to influence quality/cost are clearly stated*
  - *Whether the assumed roles are aspirational or reflect current practice(s) should be made explicit*

Element 1: Purpose/Goal – Survey Results Summary

- 19/19 agreement that this is a core element
- Think about accountable versus responsible framing:
  - *Physician response for quality of care, but ACO accountable*
- Do actions map one to one with purpose/goal?
- Is relationship to payment and reporting embedded in this element?
- Bullets don't seem to address the purpose or what is being attributed, but rather uses of the model or why it's being applied
- Add considerations:
  - *Whether for quality or payment*
  - *Clarify the meaning of aspirational versus current practice using examples*
  - *Explicitly state the goal*
  - *Define "who" in "Who is supposed to act and the actions they are expected to take to influence quality/cost are clearly stated"*
  - *Define what is being attributed*

Committee Discussion

- Is this a core element of an attribution model?
- Do you agree with the potential recommendations for this element?
- What other recommendations could the Committee make related to this element?

Lead Discussants

- Srinivas Sridhara
- Michael Samuhel
- Jennifer Perloff
- Keith Kocher

Element 2: Accountable unit/level of attribution

- Potential recommendations:
  - *Consider locus of control for quality/cost*
  - *Consider the scientific rigor of quality/cost score given the sample size*
  - *Carefully evaluate pros and cons of attributing quality/cost to accountable unit(s) (for example: individual physicians, nurses, hospitals, or hospital systems)*
  - *To drive the system forward, it is necessary to challenge current norms of attribution including a tendency to identify a single clinician or provider (vs. assigning to multiple providers).*

Element 2: Accountable unit/level of attribution – Survey Results Summary

- 18/19 agreement that this is a core element; 1/19 unsure
- Need a stronger statement than “consider”
- Determine whether attribution can be done accurately, and what should be done in the absence of adequate or valid data
- Fundamental questions: Data availability and quality at each unit of analysis; sample size as a subset of data quality
- Provide guidance on how to evaluate pros/cons of attributing quality/cost to accountable unit(s)
- Incorporate the “eligible clinicians/provider entities” element with this one
- Appropriateness of the accountable unit to the item being measured
- Reference to multiple attribution (e.g., team-based care or ACO/CIN-type organizations)

Committee Discussion

- Is this a core element of an attribution model?
- Do you agree with the potential recommendations for this element?
- What other recommendations could the Committee make related to this element?
- Attribution approaches may link patients to individual clinicians or groups such as ACOs or hospitals.
  - *Ryan et al noted that this may result in a trade-off between reliability of the approach and locus of control.*
  - *Are there other strengths and weaknesses to approaches to the accountable unit?*

Lead Discussants

- Charles Hawley
- Danielle Lloyd
- Edison Machado
- Anne Deutsch
- Bharat Sutariya

Element 3: Eligible clinicians or provider entities

- Potential recommendations:
  - *Criteria for identifying eligible clinicians or provider entities are clearly articulated and supported by accurate data*

Element 3: Eligible clinicians or provider entities – Survey Results Summary

- 14/19 agreed that this is a core element; 5/19 were unsure
- How is this different from accountable unit? Combine?
- How is this different from Element 5: Method to define the relationship between patient and accountable entity?
- Add facilities as an option for eligible entities
- Criteria can be clearly articulated, but inaccurate, invalid or unfair
  - *Criteria should lead to accurate attribution*
- Need to consider eligibility and identification of providers
- Consider which provider might be included and excluded
  - *Include rural providers*
  - *Will primary care providers or specialty providers be prioritized?*

Committee Discussion

- Is this a core element of an attribution model?
- Do you agree with the potential recommendations for this element?
- What other recommendations could the Committee make related to this element?
- What are the considerations for attributing to specialists versus primary care providers?
- What are the considerations for attributing to a group versus an individual clinician?
- Are there other approaches to this element?
  - *What are strengths and weaknesses of these approaches?*

Lead Discussants

- Laurie Radwin
- Bob Kropp
- Rob Schmitt
- Jack Resneck

Element 4: Eligible patients/cases

- Potential recommendations:
  - *Criteria for identifying eligible patients/cases are clearly specified*
  - *Outlier cases identified and considered for exclusion/adjustment. Exclusions are supported by clinical evidence or by sufficient frequency so that results are distorted without the exclusion.*
  - *Type of information (proportion of dollars vs. visit types/proportion) used for accountability is aligned with the goal.*
  - *Appropriate risk adjustment is considered.*

Lead Discussants

- Brandon Pope
- Ari Houser
- Jill Berger
- Troy Fiesinger

Element 4: Eligible patients/cases – Survey Results Summary

- 19/19 agreement that this is a core element
- Criteria for identifying eligible patients/cases are clearly specified
- Add a consideration of risk adjustment
- Add inclusion and exclusion criteria
  - *Include rural patients*
- Type(s) of encounters used to determine proportion of dollars/visits are defined and aligned with the goal
- Distinguish between what is being attributed (e.g., patient year, admissions) with the event triggering the attribution
- Define the measurement tool

Committee Discussion

- Is this a core element of an attribution model?
- Do you agree with the potential recommendations for this element?
- What other recommendations could the Committee make related to this element?
- What are the considerations for chronic diseases?
  - *Ryan et al noted that patients with specific chronic diseases (e.g. end-stage renal disease) should perhaps be attributed to certain specialists (e.g. end-stage renal disease) should perhaps be attributed to certain specialists (e.g. nephrologists).*
  - *Do you agree with this approach ?*
- What are the considerations for attributing responsibility for a population?
- What are the considerations for risk adjustment for an attribution model?
- Should an attribution model allow attribution to multiple providers?

Lead Discussants

- Brandon Pope
- Ari Houser
- Jill Berger
- Troy Fiesinger

Element 5: Method to define the relationship

- Potential recommendations:
  - *Method is clear and consistent, and weighs the pros and cons of the method (e.g., attestation, majority, plurality)*
  - *The method to define the relationship should be supported by the available data.*

Element 5: Method to define the relationship – Survey Results Summary

- 18/18 agreed this is a core element
- Add alignment of the method with the stated goal
- Combine with prior element?
- Be more prescriptive about how methods can be used in different circumstances to achieve a high degree of accuracy
- Discuss prospective versus retrospective attribution
- Revise to patients/cases as units other than patients may be attributed
- Method is appropriately supported by available data
- Add considerations of information equality and transparency

Committee Discussion

- Is this a core element of an attribution model?
- Do you agree with the potential recommendations for this element?
- What other recommendations could the Committee make related to this element?
- What are the pros and cons of prospective versus retrospective attribution?
- Potential methods to define the relationship include attestation, majority, plurality.
  - *What are the pros and cons of these various approaches?*
  - *Do certain circumstances favor one approach over another?*

Lead Discussants

- Nathan Spell
- Ira Moscovice
- Michael Barr
- Jenny Beam

Break

Review and Summarize Day 1 Recommendations

Opportunity for Public Comment

Adjourn

Day 2

Review Work from Day 1 and Day 2 Objectives

Review Checklist Elements and Key Considerations: Determining Potential Recommendations

Element 6: Services, costs, health outcomes, and/or adverse events attributed – Survey Results Summary

- 12/18 agreed this is a core element; 1 disagreed; 5 were unsure
- Questions about what this element is
- May be included in a preamble, not a core element
  - *Alludes to the measure itself and its goals*
- Combine with measurement period to better understand "operationalization“
  - *About executing the analysis which comes after “data sources”*
- State that different methods and measures will be more suited for different types of attribution
- Include quality

Committee Discussion

- Is this a core element of an attribution model?
- What recommendations could the Committee make related to this element?
- Providers may be accountable for only care that is related to a diagnostically defined episode or may be accountable for all care occurring within the episode.
- Ryan et al. found that majority of models identified in the scan involve all clinical circumstances (including primary care) or episodes of care rather than the attribution of acute or chronic care.
  - *Limitations : limited applications, not applicable to all circumstances.*
- What are other potential approaches and their pros and cons?

Lead Discussants

- Keith Kocher
- Jenny Beam
- Ari Houser
- Bharat Sutariya

Element 7: Data Sources

- Potential recommendations:
  - *Attribution model is supported by accurate data*
  - *Minimum sample size is supported by accurate data*

Element 7: Data Sources – Survey Results Summary

- 17/18 agreed that this is a core element; 1 disagreed
  - *Supports the attribution methodology, but not a core element*
- Reflect quality and best available for intended use in the element definition
- Re-order so it is earlier in the checklist
- Add considerations:
  - *Parsimony/consistency across the healthcare system*
  - *How to address data limitations, insufficient sample size, lack of accurate data, or conflicting data sources*
  - *How to identify a reliable data sources and determine data quality/accuracy, validity, and representativeness*
  - *Minimum sample size required or power calculation*
  - *Call out certain data sources required for each model?*
  - *Risks of using inaccurate data: invalid measurement and erodes trust*

Committee Discussion

- Is this a core element of an attribution model?
- Do you agree with the potential recommendations for this element?
- What other recommendations could the Committee make related to this element?
- Ryan et al. noted that medical claims are the most commonly used data source but found EHRs and attestation/designation as possible alternatives.
- Are there other potential approaches?
- What are the pros and cons to various approaches?
- Does the Committee agree that patient attestation is the "gold standard"?

Lead Discussants

- Michael Barr
- Jennifer Perloff
- Jennifer Nowak
- Brandon Pope

Element 8: Measurement Period

- Potential recommendations:
  - *Time frame for assessment of cost/quality is clearly articulated*
  - *Time frame allows for reliable measurement*

Element 8: Measurement Period – Survey Results Summary

- 18/18 agreed that this is a core element
- Specify the timeframe to which the measure and attribution would apply
- Add considerations:
  - *Whether the measure would have likely changed in the review period*
  - *Retrospective or prospective*
- Define reliable

Committee Discussion

- Is this a core element of an attribution model?
- Do you agree with the potential recommendations for this element?
- What other recommendations could the Committee make related to this element?
- Ryan et al. found the period of time for which the provider was responsible varied across models and was not specified in many cases.
- When the duration was specified the most common approach was one year. Other approaches included attribution for the duration of an episode.
- Are there other potential approaches?
- What are the pros and cons to various approaches?

Lead Discussants

- Anne Deutsch
- Troy Fiesinger
- Srinivas Sridhara
- Charles Hawley

Break

Case Studies: Finalizing the Attribution Checklist

Attribution Challenges from NQF's Cost and Resource Use Work

- NQF recently endorsed a hospital-level, risk-standardized payment associated with a 30-day episode-of-care
  - *These measure estimates hospital-level, risk-standardized payment for an episode-of-care (e.g., AMI, heart failure, or pneumonia) starting with inpatient admission to a short term acute-care facility and extending 30 days post-admission for Medicare fee-for-service (FFS) patients who are 65 years of age or older.*
- Hospitals are attributed to for payments made for services beginning with an index admission through 30 days post-discharge.

Attribution Challenges from NQF's Cost and Resource Use Work

- In addition to inpatient payments, hospital is solely responsible for post-acute services, and any other covered healthcare services paid for within the 30-day post discharge period.
- Within the 30-day post-acute discharge period, hospitals may not be the locus of control over services used and patient outcomes.

Attribution Challenges from NQF's Readmissions Work

- NQF recently endorsed a Standardized Readmission Ratio (SRR) for dialysis facilities.
  - *The Standardized Readmission Ratio (SRR) is defined to be the ratio of the number of index discharges from acute care hospitals that resulted in an unplanned readmission to an acute care hospital within 30 days of discharge for Medicare-covered dialysis patients treated at a particular dialysis facility to the number of readmissions that would be expected given the discharging hospitals and the characteristics of the patients as well as the national norm for dialysis facilities.*
- Dialysis center is responsible for readmission to hospital within 30 days of discharge from acute care facility.

Attribution Challenges from NQF's Readmissions Work

- Dialysis center is responsible for preventing readmission of patient within 30 days after discharge, but often lack the resources to coordinate care and ensure proper communication about a patient's discharge or admission status.
- Attributing readmissions to a dialysis facility within the first three days after hospital discharge may occur during a period when the dialysis facility may not yet have had an opportunity to see the patient for treatment.

Committee Discussion

- What are the attribution considerations in these case studies?
- What recommendations would you make to Standing Committees evaluating these measures?

Opportunity for Public Comment

Lunch

Understanding the Relationship between Measure Use and Attribution

Understanding the Relationship between Measure Use and Attribution

- Attribution of patients to providers is necessary to link cost and quality measures to specific clinicians and providers to accountability purposes (e.g. payment, public reporting, etc.)
- The Committee has stressed the importance of locus of control and that a provider or clinician should be able to influence the results of measures attributed to them.
- A quality or cost measure could be used for a number of purposes: public reporting, incentives, penalties
- NQF convenes the Measures Applications Partnership (MAP) which provides input on the selection of measures for federal quality initiative programs.
  - *Attribution has been a significant challenge to the MAP as a provider may be penalized for performance on a measure that does not have clear attribution to that provider*

HHS Payment Model Taxonomy

	Category 1 FFS; no link of payment to quality	Category 2 FFS ; link of payment to quality	Category 3 APMs built on FFS architecture	Category 4 Population-based payment
Description	Payment based on volume of services; no link to quality or efficiency	Payment varies based on quality or efficiency	Some payment linked to population or episode management. Payment triggered by delivery of service but opportunities for shared savings or risk	Volume not linked to payment. Providers are responsible for care of a beneficiary over time
Medicare Examples	Limited in Medicare FFS	HVBP PVBM HRRP HACRP	ACOs Medical homes Comprehensive Primary Care Initiative Comprehensive ERSD Model BCPI	Eligible Pioneer ACOs in years 3-5

Case Study: Attribution Challenges in Measure Use

- During its 2015-2016 pre-rulemaking review, MAP was asked to provide input on the use the of NQF#2020 Adult Current Smoking Prevalence in public reporting program for hospitals.
  - *The results of the measure would be attributed to a hospital.*
- NQF #2020 assesses the percentage of adults that currently smoke through a CDC survey of households.
- The measure was endorsed as a population-level measure at the national and state level with plans to expand the measure to the city or county level.
- Attribution concerns:
  - *Would include many people who have never been patients at that hospital.*
  - *Hospitals would have limited ability to influence the results*

Potential Committee Recommendations for Measure Use

- Measure Applications Partnership Committees should consider alignment between the program purpose and the attribution approach within the selected measures.

Committee Discussion

- Do attribution considerations vary by how a measure is being used?
- How can the MAP ensure alignment between a measure's attribution methodology and how it is being used?
- Accountability programs may hold a provider responsible for measurement outside of their direct control such as readmissions, costs, and population health. How can program implementers attribute these measures fairly and accurately?
- Do you agree with the potential recommendation?
- Does the Committee have any recommendations about the relationship between measure use and attribution?

Lead Discussants

- Elizabeth Drye
- Jack Resneck
- Dan Muldoon

Summary and Review of Committee's Recommendations

Opportunity for Public Comment

Communicating the Recommendations and Next Steps

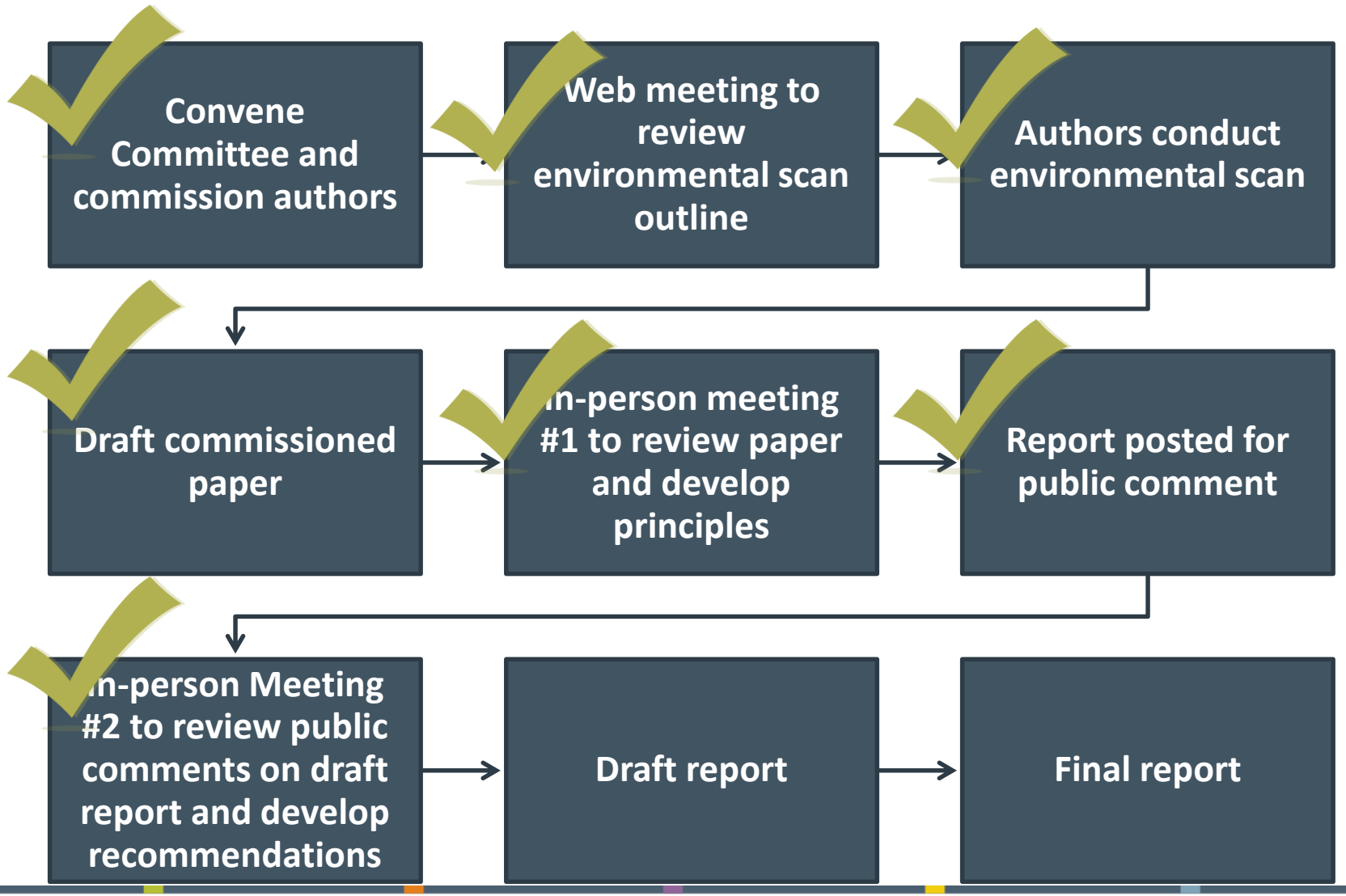
Communicating the Recommendations and Next Steps

- How should we communicate the recommendations to the field?
- What work is necessary to develop an evidence base to support the evaluation of attribution models?

Lead Discussant:

- Sophia Chan

Project Activities and Timeline



Adjourn