NATIONAL QUALITY FORUM

Meeting Summary

Task Order 19: Attribution: Principles & Approaches 2015-2016
March 29, 2016 Committee Web Meeting #2 Summary

A recording of the meeting is available here:
http://eventcenter.commpartners.com/se/Meetings/Playback.aspx?meeting.id=558329

Welcome and Introductions

- Erin O'Rourke, Senior Director, welcomed everyone to the meeting and introduced the NQF project team.
- The co-chairs, Ateev Mehrotra and Carol Raphael, introduced themselves, and Erin O'Rourke conducted a roll call of the Committee members.

Review of Committee Input from Web Meeting #1

- Kim Ibarra, Project Manager, provided an overview of the discussion from the first web meeting, which included considerations for the scan, issues to explore as they relate to attribution, and suggestions for key definitions and concepts.
- Carol Raphael asked the Committee members for their reactions to the summary, and whether they had additional issues that were not reflected in the summary.
    - Committee members agreed that the summary was reflective of their preliminary thoughts and considerations for the projects.

Project Scope Review

- Erin O'Rourke reviewed the project purpose and objectives, key activities, timeline, and the refined project approach.
    - The project approach was refined based on Committee feedback from the orientation web meeting in February. The approach will include defining attribution and other key concepts, identifying delivery models and payment approaches, cataloguing and analyzing attribution models in theory and practice, and identifying guiding principles for seleting and implementing attribution models, and their target audience.
    - Ateev Mehrotra asked the Committee and NQF staff about narrowing the project scope to ensure that the work is feasible and the products are meaningful. The Committee discussed keeping the original scope broad and using examples to narrow the scope after the environmental scan is completed. The Committee, authors, and NQF staff will continue to refine the project approach.

Initial Outline Presentation and Committee Discussion

- Ariel Linden, one of the team of five commissed authors, introduced himself and reviewed the draft outline for the environmental scan and commissioned paper (attached).
- Ateev Mehrotra prompted the Committee to provide their reactions and engage in a discussion about the initial outline presented by Ariel.
- The Committee dicussed:
    - Creating a framework for attribution rules and determining how the rules are applied in different contexts, for example, rural as compared to urban settings.

  - Clarifying what is included in an attribution model, such as the services covered, length of a look back period or how long the attribution model applies for.
  - Where attribution methodologis are needed the most. Some ideas were in primary care delivery models, alternative payment models, when the look back period is a full year, and in population health.
  - Attribution based on patient choice or attestation, with some members identifying that this is the default for their organizations, and others noting that patient attestation is the last resort attribution method.
  - Specific ways to use attribution in certain use cases, and how use cases fit into the environmental scan. The authors thought use cases might be used to highlight gaps and opportunities in using different attribution approaches.
- The Committee discussed two separate products from this project: 1) a "checklist" of sorts to determine what to consider when developing or selecting an attribution model and 2) case studies or vignettes of attribution models, and their strengths and weaknesses.
  - The Committee agreed that they may want to parse down to a few areas where their contributions would add the most value. This will require them to leave some issues not addressed. The precise way to focus their efforts will continue to be explored.
  - The Committee discussed starting with a broad approach with high level guidance and focusing on a few specific use cases. The Committee agreed that it would be difficult picking a single use case, but rather thinking about attribution as a multidimensional problem and selecting use cases that highlight the different dimensions would be beneficial.
- Andrew Ryan, the lead commissioned author, emphasized the importance of a shared understanding of terms and priorities to allow for optimal framing of the attribution issue and determining the scope. He noted that based on the Committee's discussion today there is general agreement on what is important to include in the environmental scan and commissioned paper.
- The authors will refine their outline based on the Committee's discussion and share these with the Committee and co-chairs for feedback.

Next Steps

- Donna Herring, Project Analyst, reviewed next steps and key meeting dates.
  - The next meeting will be in-person at NQF Conference Center in Washington, DC, June 14 – 15, 2016 from 8:30-5:00PM (EST) to review and discuss the draft environmental scan and commissioned paper.
- NQF welcomes additional input from the Committee including relevant references to share, particularly grey literature in the private sector.
  - The Committee can upload resources directly to their SharePoint site and/or send them via email to the Attribution project team.

Public Comment

- There were no public comments.

Adjourn

- Erin O'Rourke concluded the meeting by thanking Committee members, authors, and members of the public for participating.

Draft outline for "Attribution methods and implications for measuring performance in health care"

Andrew Ryan, Ariel Linden, Kristin Maurer, Rachel Werner, Brahmajee Nallamothu

Version 3/24/16

Purpose of the commissioned paper

The National Quality Forum has commissioned a paper to identify and evaluate current attribution models in health care. Attribution models are pre-specified rules that determine the specific patients, types of health care services, and the duration of care for which providers and organizations are responsible. Attribution of patients to providers is necessary to link indicators of patient-level health care quality and spending to specific providers for the purpose of profiling and accountability.

The authors will conduct an environmental scan to identify the attribution models that are currently in use, as well as those that have been proposed but not implemented. These include retrospective and prospective attribution, whole and partial attribution, attribution for acute and chronic episodes, and primary care based and specialty-agnostic models. The environmental scan will be supplemented with themes identified by key informants to better understand critical issues. We will then develop criteria to assess the relative merits of alternative attribution models and evaluate current models. In addition to assessing the technical issues related to attribution, we will consider the implications for using alternative approaches in the context of various programs – such as Accountable Care Organization programs and value-based payment – and payment modalities (e.g. fee-for-services and capitation). We will conclude with an assessment of the fit between current attribution models and programmatic needs, and how models may be revised to better meet these needs. The paper will not emphasize the many programmatic details underlying accountability programs (e.g. shared savings payment formulas). Our focus will be limited to the role of attribution models in these programs.

This paper will serve as a foundation to inform the deliberations of a multi-stakeholder expert panel that will provide input and recommendations related to the use of attribution models in health care.

Definitions

- **Attribution**: pre-specified rules that determine the specific patients, types of health care services, and duration of care for which providers and organizations are responsible
- **Assignment**: used synonymously with “attribution”
- **Aggregation**: the combination of units at a lower level (e.g. individual provider) to a higher level (e.g. physician organization). Attribution is a necessary condition for aggregation.
- **Allocation**: The division of a performance indicator across different health care providers. For instance, 60% of health care spending may be allocated to Provider A and 40% is allocated to Provider B.
- **Quality of care:** In this paper, we will consider quality broadly, based on a modified version of Institute of Medicine’s aims for health care: safety, timeliness, effectiveness, equity, and patient-centeredness.
- **Health care resource use**: Measures of health care utilization. Distinguished from measures of spending through the use of standardized prices.
- **Health care spending**: Measures total health care spending, including total resource use and unit price(s), by payer or consumer, for a health care service or group of health care services associated with a specified patient population, time period, and unit(s) of clinical accountability.

Proposed commissioned paper outline

Executive Summary

Section 1. Introduction: Why does attribution matter?

- Purpose of the paper
- Background
- Policy environment is making attribution critical

- The lack of accountability for managing patients across their encounters with the health care system has led to deficiencies coordinating care and system-failures
    - Patients, particularly in Medicare, have seen lots of physicians across care settings and organizational entities. No one in the health system has been responsible.
- New system incentives and health IT has both encouraged accountability across care settings and enabled it
    - Larger population-based accountability programs (e.g., ACOs) require some unique entity to be responsible for patient quality and cost outcomes
- Accountability programs require a set of rules to define which patients/episodes will “count” for which providers
- Attribution is necessary for accountability
    - Attribution is most relevant in circumstances in which accountability has not been clearly defined (e.g. ambulatory care in fee-for-service medicine).
        - Attribution is not a challenge in integrated systems
- This is relevant for numerous :
    - Public reporting
    - Value-based payment
    - Bundled-payment
    - Internal provider profiling
    - Reference pricing
    - Insurance networks / tiers
- Attribution varies from being straightforward (e.g. hospital inpatient episodes), to moderately challenging, (e.g. 30/60/90 post-discharge episodes), to highly challenging and controversial (e.g. chronic disease management)

- Crucially, the implications of alternative attribution methods have not been rigorously evaluated and the field has not coalesced around best practices for attribution
- We have been coming up with on-the-fly solutions, which have an element of path dependence
    - For instance, the approaches to attribution in the Medicare ACO programs were similar to those in the Physician Group Practice Demonstration

Section 2. Background and context: Identifying the relevant dimensions of attribution

WHO: Who is attributed to whom?

- Patients to physicians
- Patients to ACO
- Physicians to practices
- Physicians to ACOs/other systems

WHAT: What does attribution constitute?

- Whole-provider versus partial-provider attribution
- Whole-service versus partial-service attribution

WHERE: The setting and context for attribution

- Patient presentation
    - Acute: e.g. hospital episode
    - Chronic: e.g. continuous interval without a clinical end date
    - Episodic: dimension of both acute and chronic (e.g. behavioral health)
- Clinical setting
    - Primary care

        - Specialty care
        - Acute care
        - Long term care
    - Context
        - Integrated system versus non-integrated system
        - Urban vs rural

WHEN: When does attribution occur? How long does it last?

- Retrospective versus prospective attribution
- The role of the sequencing of care in attribution
    - E.g. does it matter whether a provider is the first to see a patient during a specified episdoe?
- Term of attribution (e.g. whole year attribution)

HOW: What are the specific data requirements attribution?

- Medical claims
    - Claims from FFS are typically the raw material required for attribution. How could/should attribution models evolve as we move away from FFS?
- Patient/provider attestation
- Electronic health records

Section 3. Environmental scan: The environmental scan will identify the programs employing attribution methods for accountability programs in health care and the models used for attribution.

Electronic search strategy

- Criteria for study inclusion
    - Types of articles

        - Original research, reviews, and editorials
        - No restriction based on whether manuscript is peer-reviewed article, or unpublished manuscripts or reports
    - Types of interventions
        - No restrictions
    - Types of outcomes
        - No restrictions
    - Date of publication and location of study
        - No restrictions

Electronic search methods

We will search PubMed, Embase, Google Scholar, and Google. The following is a draft search strategy for PubMed:

1. MeSH descriptor: Accountable Care Organizations*
2. MeSH descriptor: Catchment Area (Health)
3. MeSH descriptor: Cost Control
4. MeSH descriptor: Cost Savings
5. MeSH descriptor: Costs and Cost Analysis/methods*
6. MeSH descriptor: Efficiency, Organizational
7. MeSH descriptor: Episode of Care*
8. MeSH descriptor: Gatekeeping/economics
9. MeSH descriptor: Health Care Costs*
10. MeSH descriptor: Health Maintenance Organizations/economics*
11. MeSH descriptor: Health Maintenance Organizations/utilization

12. MeSH descriptor: Insurance Claim Review*
13. MeSH descriptor: Outcome and Process Assessment (Health Care)/organization & administration*
14. MeSH descriptor: Quality of Health Care/organization & administration
15. MeSH descriptor: Referral and Consultation/economics
16. MeSH descriptor: Pay for performance
17. MeSH descriptor: Insurance, Health, Reimbursement
18. attrib* AND account* AND (method* OR pay* OR spend* OR cost OR quality): ti,ab,kw

Our search strategies for other databases will be adjusted accordingly.

Selection of studies

After executing the search strategy described above we will:

- Identify all unique articles
    - We will also review potentially relevant articles that are cited in the identified articles
- Review titles and abstracts for relevance
- Perform detailed review of articles flagged for relevance
- Determine if the article describes a specific attribution model or model

Data extraction

For relevant manuscripts, we will extract the following information:

- Paper citation
- Accountability program
    - Name of program
    - Description of program

    - Public or private
    - Sector
- Outcomes evaluated
- Attribution method
    - [criteria to be determined]
- Conclusions

Other search methods

In addition to the electronic search methods, we solicit input about relevant articles and programs from the expert committee.

The following are articles, reports, and other documents that are likely to be relevant for the project:

Boll, Arthur, and Stephen Miller. "Method and System For Identifying The Appropriate Health Care Provider In Which to Assign Outcome Data From An Inpatient Case." U.S. Patent Application No. 13/414,182.

Bynum JPW, Bernal-Delgado E, Gottlieb DJ, Fisher ES. Assigning ambulatory patients and their physicians to hospitals: a method for obtaining population-based provider performance measurements. Health Serv Res. 2007;42(1):45–62.

Dowd, Bryan, et al. "Medicare's Physician Quality Reporting System (PQRS): quality measurement and beneficiary attribution." Medicare & medicaid research review 4.2 (2014).

Dowd, Bryan, et al. "Alternative approaches to measuring physician resource use. Final Report" (2012).

Health care payment learning and action network. Accelerating and Aligning Population-Based Payment Models: Patient Attribution – Draft White Paper. Feb. 2016

Hu, Jianying, et al. "Assessing practitioner value in multi-practitioner settings." U.S. Patent No. 8,620,690. 31 Dec. 2013.

Kang, Hee-Chung, and Jae-Seok Hong. "Do differences in profiling criteria bias performance measurements? Economic profiling of medical clinics under the Korea National Health Insurance program: An observational study using claims data." BMC health services research 11.1 (2011): 1.

Lewis VA, McClurg AB, Smith J, Fisher ES, Bynum JP. Attributing patients to accountable care organizations: performance year approach aligns stakeholders' interests. Health Aff (Millwood). 2013 Mar;32(3):587-95.

Liebman, Eli. "Comparing Commercial Systems for Characterizing Episodes of Care."

Mehrotra A, Adams JL, Thomas JW, McGlynn EA. The effect of different attribution rules on individual physician cost profiles. Ann Intern Med. 2010;152(10):649–54.

Pantely, Susan E. "Whose patient is it? Patient attribution in ACOs."Milliman Healthcare Reform Briefing Paper (2011).

Thomas JW, Ward K. Economic profiling of physician specialists: use of outlier treatment and episode attribution rules. Inquiry. 2006;43(3):271–282.

Section 4. Synthesis: Determining how to judge the merits of attribution approaches and considering the strengths and weaknesses of current approaches

- Problems of accurately identifying patients for attribution
    - False positives and false negatives
- Problems related to uncertainty when attributing patients
    - E.g. 5 different providers in 5 different organizations each see a patient once. To whom should the patient be attributed
    - Some conditions may be too unpredictable to be appropriate for attribution and accountability
- Relationship between attribution models and the scientific properties of measurement
    - Reliability
    - Validity

- Considerations related to fairness and equity
    - Under what circumstances is it fair to make providers and organizations responsible for care that occurs outside of their direct influence?
- Trade-offs between fairness and incentives
    - Under what circumstances can we expect unfairness (e.g. attributing a readmission to a hospital that did not initially) to generate desirable system outcomes (e.g. better coordination between inpatient and outpatient providers)

Section 5: Discussion

- Are current approaches to attribution meeting the needs of programs?
- Are there current clinical settings in which current attribution approaches work better than others?
- How could current attribution approaches be improved?
- What is needed to improve approaches?
    - Data
    - Patient and provider engagement
- Lessons from other industries
    - Education
    - Private sector profiling outside of health care