Highway 1
Improve Data Quality

CMS wants to move to a system that allows data from every health source to easily and without human intervention transfer data that is clean and valid.

Current State:
- Healthcare data is captured in silos and does not have a standard set of data elements.
- It takes either a lot of money or a lot of time to extract data from multiple sources and normalize that data so that it's accurate, standardized, and reliable for easy performance measurement and analysis.

In-between State:
- Require that all eCQMs are submitted using the FHIR API standard.
- Roll out an interoperability measure (not attestation) that confirms a FHIR API submission.

Ideal State:
- All data from all healthcare sources are captured digitally, updated in near real-time, using automated systems with very little human intervention.
- All healthcare data sources have a standard set of data elements.
    - o All sources include: EHR data, eCQMs, all-payer claims, patient-reported outcomes data (including form responses but also items like wearables), post-acute care assessments, abstracted measures, registry measures, business operations data (e.g., bed size), and SDOH data.
- Anyone with appropriate access (CMS, other payers, providers, patients) could run a simple query to get information from any of these data sources for performance analysis.

Key Elements to Success:
- Get the FHIR API fully developed and deployed in every EHR system.
- Define which data elements are necessary for digital measurement and create a core set of standardized data requirements.
- Once those data elements are defined, all data from all data sources must be encoded to universal standards in common formats.

Biggest Barriers to Success:
- Data from different sources (even just EHR sources) is not standardized, normalized, deduplicated, reliable or valid.
- Some hospitals and clinics will face a major uphill battle if they were excluded from the Promoting Interoper ability requirements in the first place – think about your Ambulatory Surgery Centers or Critical Access Hospitals, rural hospitals, or independent small practices that were excluded from the federal incentive money. These groups would have to ready their data, standardize it in FHIR, and make it available for exchange through FHIR API. This will absolutely be more difficult for providers serving rural areas or underserved populations and small practices.

Highway 2
Advance Technology

CMS doesn't want measure performance dependent upon an EHR. They want measure results to be calculated using a completely separate, installable software package that would operate independently of an EHR.

Current State:

- It takes time, resources, and money to implement and maintain measures year after year. This includes updating measure specifications and measure mapping, maintaining measure versioning, and readying it for submission to regulatory programs.

Ideal State:

- dQMs have within them everything they need to capture, calculate, and spit out measure results. They would utilize MCTs to query all digital data sources and format it for analysis. The MCT would calculate the measure performance rate according to the measure logic and generate it in the required output file.
- The MCT developer would update a MCT package directly, which means organizations wouldn't need to maintain measure versioning within their EHR.

In-between State:

- Work with vendors, clinical registries, and data aggregators to help create a Measure Calculation Tool (MCT) which is an installable software that queries an EHR via FHIR APIs, formats that data, calculates a measure score and gives that report to the requesting party.

Key Elements to Success:

- CMS or other groups need to create Measure Calculation Tools that are compatible with standard IT infrastructures and FHIR API EHR systems.
- The MCT must not be integrated into the EHR – it must operate as a self-contained module separate from the EHR.
- CMS must develop standard procedures for testing and versioning to allow groups to develop MCTs.

Biggest Barriers to Success:

- MCTs are completely and utterly dependent upon the success or failure of Highway 1. Without FHIR APIs and data elements coded to universal standards, MCTs cannot be used.

Highway 3
Optomize Data Aggregation

CMS wants to take advantage of the organizations who currently aggregate large amounts of data and create a flow of information between all parties.

Current State:

• Data aggregators are gathering, cleaning, validating, analyzing, and reporting data for specific client needs, but in general, aren't sharing well amongst the different types of data aggregators.
    o Data aggregator types
        • Primary Data Collectors: For example, hospitals, health systems, pharmacies.
        •Focused Aggregators: Collect and combine data from primary data collectors for a specific purpose. Like Medisolv does for you! Also think of EHR vendors and specialty society registries.
        •Broad Aggregators: For example, CMS when they collect your claims data and organizations such as the Strategic Health Information Exchange Collaborative (HIEOs).

Ideal State:

• All these different types of data aggregators create a flow of data between the different parties and a feedback loop that creates a more complete, standardized, and usable set of data.
• All data aggregators would be able to merge data from multiple sources, output clean and valid data, provide tools and resources for quality improvement, and submit that data to federal and private payers using secure PHI exchange. They would ensure accurate patient identities, deduplicate data, convert data to FHIR standards and decrease FHIR API query loads.

In-between State:

• Set up meetings with all the different types of data aggregators.

Key Elements to Success:

• CMS has to define the role, guidelines and processes for data aggregators.
• CMS must modernize their receiving systems to support streamlining this process.

Biggest Barriers to Success:

• Data = Money. Is everyone going to play along and open up their data streams to flow between the different parties? Many of Medisolv's clients must pay their EHR to even allow them access to their own data to populate their measures. Who is paying for all of this?
• Securely exchanging patient data between different aggregators – 'nuff said. I can feel your security teams cringing.

Highway 4
Align Measures

CMS wants to create one common dQMs portfolio that spans all programs, agencies, and payers.

Current State:
- Measures are program-, agency-, payer- and setting-specific. There is no coordinated measure strategy because data sources are varied, settings of care are varied and even priorities are different based on those elements.

In-between State:
- Align measures across CMS programs and other HHS agencies.
- Create a set of priority measures for improvement in patient outcomes that are aligned across settings, providers and payers.
  Decide on the digital data most needed for a list of priority measures.

Ideal State:
- All payers, agencies, and programs have one common set of dQMs.
- These measures are based on a common set of data elements. The data for these measures are gathered and normalized across all the places it lives. The measure rates are calculated using a MCT that gathers the data stream from a FHIR API. The results are delivered to the agency requesting information in near real-time with little to no human intervention.

Key Elements to Success:
- Engaging federal, state and industry partners early and often to develop a common dQM portfolio.
- Successfully complete Highway 1 and Highway 2.

Biggest Barriers to Success:
- CMS must have completed Highway 1 and completely rolled our FHIR APIs, and decided on which data elements they need, and those elements must be standardized.
- CMS must have completed Highway 2 to ensure there's a way to calculate these measures independent of an EHR.
- Everybody is involved! It's not just CMS on this one. It's all the agencies and all the payers and all the paperwork needed to get everyone in line.