Certilytics Response to CMS RFI for Health Technology Ecosystem_CMS-0042-NC

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Prepared for

Centers for Medicare & Medicaid Services

certilytics

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June 16, 2025

Dear CMS Team,

Thank you for the opportunity to respond to the CMS Request for Information on the health technology ecosystem.

Certilytics is a healthcare technology company committed to the belief that unified data and AI-driven analytics can keep people healthier and make healthcare more affordable. Our team—including actuaries, data scientists, technologists, and clinicians—has spent more than a decade partnering with some of the nation's largest and most influential healthcare organizations and employers to help them harness the full potential of their data. Our work enables these organizations and their members to manage chronic conditions, access care more efficiently, and take greater control of their health and well-being.

We have built a platform from the ground up to ingest, warehouse, and enrich large and diverse data sets. This foundation enables us to apply advanced, AI-based analytics to generate accurate, predictive, and actionable insights. These insights drive strategies, inform clinical and consumer decision-making, evaluate network and provider performance, and measure outcomes and return on investment—all to enable innovation in healthcare and improve population health.

Problem-solving is one of our core strengths. Our customers often turn to us to address their most complex technology and analytics challenges—especially those that others have been unable to solve. We've already invested in the innovation and infrastructure that many others are still building, which allows us to help our partners move faster, implement more rapidly, and respond to urgent needs without starting from scratch.

Drawing on this experience, we have submitted responses to your RFI that we hope will support CMS's mission to unleash innovation in healthcare and make America healthy again. We remain available at any time to support your efforts to achieve these goals.

Kind regards,

Merle Ryland
President & CEO, Certilytics, Inc.

Below please find our answers to RFI questions organized by section and question number. We responded to only the questions on which we could provide valuable insights to CMS based on our experience.

B. Patients and Caregivers

1. Patient Needs

PC-1. What health management or care navigation apps would help you understand and manage your (or your loved ones) health needs, as well as the actions you should take?

Apps that put all of the information in one place including:

- Care team list with communication channel access: phone & secure messaging/email
- Provider scheduling/availability
- Meaningful provider quality ratings powered by AI based on analytics that consider traditional quality scores, cost, outcomes, and practice deviation
- Past medical/surgical history list in a format that users can understand
- Reconciled Medication list with reminders and flags for duplicates, generic or less expensive equivalents, side-effects, interactions. Medication list should specify which medications are for which conditions
- Radiology Images and Reports
- Pathology Reports
- Lab Reports
- "To Do List" for gaps in care, labs, preventive screening, appointments — powered by predictive analytics that adjust based on patient history
- Educational information to make medical diagnosis, tests, reports, labs, understandable provided via a conversational AI
- Accurate price transparency of medications, professional, and facility fees that are based on beneficiaries' actual benefits
- Information about available community resources
- Ability to arrange home care
- Access to an advocate to help with navigation and clinical questions
- Access to a behavioral health coach
- Ability to share records with family members or other care givers
- Support for multiple languages
- Connection to devices such as blood pressure monitoring devices or glucometers
- AI and analytics-based recommendations about questions to ask providers based on care needs and risk models

a. What are the top things you would like to be able to do for you or your loved ones' health that can be enabled by digital health products?

- Review consolidated records, reports, and labs in real-time
- Review reconciled medication list
- Review diagnosis list
- Find providers, make appointments based on their real-time schedule

b. If you had a personal assistant to support your health needs, what are the top things you would ask them to help with? In your response, please consider tasks that could be supported or facilitated by software solutions in the future.

- All of the following can be supported by software:
  - Identify high-quality providers and make appointments
  - Identify high-quality low-cost imaging
  - Explain records, reports, and lab results
  - Discuss medication side-effects
  - Identify opportunities to change medications to reduce side-effects and/or decrease costs
  - Remind beneficiaries about appointments, screening tests, and make other suggestions about care based on past medical history
  - Provide guidance (triage) on level of care needed for a given condition (call provider, go to urgent care, go to ER)
  - Explain diagnosis, conditions, reason for medications

PC-2. Do you have easy access to your own and all your loved ones' health information in one location (for example, in a single patient portal or another software system)?

- We have experienced access to health information available through portals provided by healthcare systems. These portals do not have all the information, but all the information from that particular system.

  a. If so, what are some examples of benefits it has provided?

  - Real-time access to patient lab results, radiology imaging and reports, clinical notes to help understand and coordinate care when a patient is hospitalized. This information available in real-time also often provides piece of mind to a well-educated patient/family, since providers can be slow to contact patients and provide information. While this information is not easy to share with others, sharing it helpful to understand care and results. However, this information is less useful to people without medical training who may not understand how to use it.

  b. If not, in what contexts or for what workflows would it be most valuable to use one portal or system to access all such health information?

  - For outpatient records, consolidating all real-time records, labs, and reports would help patients to understand and coordinate care.

  c. Were there particular data types, such as x-rays or specific test results, that were unavailable? What are the obstacles to accessing your own or your loved ones' complete health information electronically and using it for managing health conditions or finding the best care (for example, limitations in functionality, user friendliness, or access to basic technology infrastructure)?

  - The biggest challenge is providing access to the records to family, loved ones, other providers.

PC-4. What features are missing from apps you use or that you are aware of today?

Top missing features include:

- Seamless cross-provider scheduling

- Real-time, beneficiary-specific price transparency
- Easy, standards-based data sharing
- High-quality, reconciled clinical and claims data
- Medication switch alerts and therapeutic guidance
- Plain-language explanations of conditions and reports
- Personalized care recommendations based on complete, accurate data
- Predictive analytics to surface emerging risks and proactively recommend care

a. What apps should exist but do not yet? Why do you believe they do not exist yet?

Apps should exist that:

- Reconcile clinical, claims, pharmacy, and social needs data
- Identify and explain coverage gaps, eligibility changes, and cost exposure
- Offer smart summaries of conditions, labs, imaging, and treatment plans using real-time analytics
- Provide real-time updates as data changes

They do not yet exist because of:

- Inconsistent data capture and coding across providers
- Fragmentation across EHR, claims, pharmacy, and benefits systems
- Poor timeliness and accuracy of data flowing to CMS and third parties
- Lack of strong data governance and validation standards across CMS programs

b. What set of workflows do you believe CMS is uniquely positioned to offer?

CMS can:

- Set minimum data quality thresholds for clinical and claims data submitted by Medicare Advantage plans, Medicaid MCOs, and ACOs
- Require standardized data reconciliation workflows, including:
  - Med list reconciliation across EHR and pharmacy claims
  - Closed-loop referral and test result tracking
  - Identification and resolution of diagnosis and procedure code mismatches
- Enhance Blue Button and TEFCA participation to include validated, high-fidelity data usable by developers and care teams
- Provide public data quality scorecards by vendor, plan, and health system
- Fund CMMI pilots that incentivize data quality improvements as a precursor to app development and advanced analytics

PC-5. What can CMS and its partners do to encourage patient and caregiver interest in these digital health products?

Patients and caregiver will use products when they find that they provide value. CMS should not mandate the use of products, but should ensure that these products meet the standards discovered through this RFI process that would provide the most value to patients and providers.

a. What role, if any, should CMS have in reviewing or approving digital health products on the basis of their efficacy, quality, or impact or both on health outcomes (not approving in the sense of a

coverage determination)? What criteria should be used if there is a review process? What technology solutions, policy changes, or program design changes can increase patient and caregiver adoption of digital health products (for example, enhancements to data access, reimbursement adjustments, or new beneficiary communications)?

CMS should not act as a product certifier but can set baseline standards for digital health tools used by Medicare, Medicaid, and ACA plans. These should focus on:

- Interoperability and data access (e.g., HL7 FHIR compliance)
- Usability and accessibility (especially for older adults, people with disabilities, and caregivers)
- Transparency of clinical logic or AI recommendations
- Cultural and linguistic appropriateness
- Standards for measurable impact supported by analytics (e.g., improved adherence, preventive care compliance)

CMS could create a “Digital Health Standards Framework” and commission independent organizations to:

- Score digital health products against CMS-defined criteria
- Conduct evidence reviews on clinical impact, user satisfaction, and health equity
- Develop public dashboards or directories for beneficiary and provider reference

Key review domains could include:

Domain	Criteria Example
Clinical Relevance	Ties to guidelines, improves decision-making, reduces avoidable utilization
Usability	Ease of use across literacy levels, screen sizes, and functional limitations
Understandability	Clear explanations of conditions, treatments, and coverage options
Data Stewardship	Patient-controlled sharing, privacy, auditability of data uses
Impact on Outcomes	Evidence of improved adherence, patient activation, or measured quality metrics
Interoperability	Ability to import/export data via FHIR or APIs; Blue Button compatibility

Policy or design changes can increase adoption by patients and caregivers

Technology solutions:

- Create a trusted CMS App Library with filters (e.g., for diabetes, caregiver tools, language, usability scores)
- Enhance Blue Button 2.0 and TEFCA like standards to allow real-time, longitudinal data aggregation for app developers

Policy changes:

- Tie incentives in MA and ACO REACH to offering validated, high-performing apps to beneficiaries
- Fund pilots (via CMMI or SHIP grants) that pair digital health tools with community-based supports

Beneficiary communications:

- Include apps and tools in Welcome to Medicare and Medicare Advantage onboarding packets
- Use trusted channels (like SHIPs, pharmacists, and health coaches) to promote recommended tools

Reimbursement adjustments:

- Support billing for digital care navigation services (e.g., CPT codes for remote patient support)
- Create demonstration waivers to reimburse for community or caregiver digital training sessions

b. What changes would enable timely access to high quality CMS and provider generated data on patients?

To enable timely access, CMS can focus on four core levers:

1. Data Standardization & Completeness
    - Require provider-generated data to meet structured data standards (e.g., FHIR, USCDI v3).
    - Incentivize submission of complete clinical data (including ADT events, SDOH, functional status) via quality programs or ACO models.
2. Real-Time Data Exchange
    - Mandate real-time or near-real-time claims processing feeds for MA, Medicaid MCOs, and ACOs via API, not quarterly batches.
    - Expand use of the Beneficiary Claims Data API (BCDA) and Data at the Point of Care (DPC) for real-time coordination.
3. Patient-Controlled Data Sharing
    - Enhance Blue Button 2.0 and enable full read/write capabilities for beneficiaries to share data with apps, caregivers, or family.
    - Provide secure identity verification and granular consent tools for patients and proxies.
4. Auditability & Transparency
    - Require providers and payers to report data freshness and completeness metrics.
    - Develop a CMS data dashboard showing provider participation in data sharing and app integrations.

PC-6. What features are most important to make digital health products accessible and easy to use for Medicare beneficiaries and caregivers, particularly those with limited prior experience using digital tools and services?

- Familiar, Low-Barrier Interfaces: Tools should use chat-based or voice-based interfaces that mimic common consumer experiences (e.g., texting, Alexa-style voice prompts) to reduce learning curves.
- Plain Language and Visual Simplicity: Use large fonts, high-contrast colors, and plain-language explanations instead of medical jargon. Include video walk-throughs or audio instructions where possible.
- Multilingual and Cultural Adaptation: Provide multi-language support and ensure content is culturally appropriate for diverse Medicare populations.
- Caregiver Access Controls: Allow authorized caregivers to act on behalf of beneficiaries through proxy accounts with clear consent workflows.
- Offline or Low-Bandwidth Modes: Offer offline functionality, SMS reminders, and data caching to support those without reliable internet.
- Accessible Design Standards: Comply accessibility standards, including screen reader compatibility and keyboard navigation.
- Built-In Navigation Help: Include in-app guidance ("help me" button) and offer direct access to a live human support line when needed.

CMS can encourage or require vendors to certify against these accessibility standards and reward designs that demonstrate meaningful usability testing with older adults and caregivers.

PC-7. If CMS were to collect real-world data on digital health products' impact on health outcomes and related costs once they are released into the market, what would be the best means of doing so?

CMS should use a combination of claims, EHR, and patient-reported outcome data to assess digital health products post-deployment. The most effective means would include:

1. Integrating into Existing CMS Data Pipelines and leverage Medicare claims and encounter data to track changes in utilization, medication adherence, clinical outcomes and cost patterns tied to digital health tool use. Use analytics platforms to generate comparative insights, detect utilization shifts, and identify trends across patient populations.
2. Partnerships with Providers and to report standardized outcome metrics and utilization patterns. Analytics partners can assist in structuring dashboards and analytics frameworks to support real-time monitoring.
3. Patient-Reported Outcomes via App or Portal Use in-app surveys to gather user-reported outcomes, satisfaction, and impact. Analytics can then correlate this with objective claims and clinical data to assess total impact.
4. API-Based Data Collection Standards Encourage app developers to report usage and outcome metrics to CMS via FHIR APIs with standard analytics-ready formats.
5. Linkage with CMMI or ACO Models Embed real-world data analytics into innovation models (e.g., ACO REACH, Primary Care First) to evaluate effectiveness in structured testbeds.

6. Analytics and Monitoring Framework Define standard KPIs such as:
   - Reduction in hospital readmissions
   - Improved preventive screening rates
   - Better medication adherence
   - Net cost savings
   - Other patient-relevant outcomes
7. Public Dashboard Over time, CMS can build a public analytics dashboard to display Real-world data summaries by tool, geography, and population.

2. Data Access and Integration

PC-8. In your experience, what health data is readily available and valuable to patients or their caregivers or both?

Availability of health data varies widely. Many health systems offer access to medical records through patient portals, and private insurers sometimes share limited data through apps. CMS's Blue Button initiative has helped expand beneficiary access to Medicare claims data, but usage is still limited. While medical record data, lab results, and imaging reports are highly valuable to patients and caregivers, their presentation is often not user-friendly.

a. What data is valuable, but hard for patients and caregivers, or app developers and other technical vendors, to access for appropriate and valuable use (for example, claims data, clinical data, encounter notes, operative reports, appointment schedules, prices)?

- Claims data is incredibly valuable for app developers, but is difficult to interpret without normalization, enrichment, and analytics overlay. Most apps do not perform claims analytics due to complexity and lack of data science capability.
- Claims data is prone to quality issues, including missing or miscoded information that undermine trust and utility. This can be solved with appropriate analytic tools and experience.
- Encounter notes, pathology reports, and operative summaries are rarely accessible to external developers and are often unstructured. NLP and machine learning can be used to convert these into structured, analyzable data.
- Appointment and provider availability data is almost entirely siloed in provider systems and could benefit from CMS-sponsored API standards for open access.
- Pricing data often lacks context, granularity, or relevance without analytics to interpret ranges based on benefit design, site-of-care differences, and patient characteristics.

b. What are specific sources, other than claims and clinical data, that would be of highest value, and why?

In addition to clinical and claims data, the following sources are of high value:

- Appointment availability and provider access data: Enables timely care navigation.
- Pharmacy benefit analytics to compare medication prices and therapeutic alternatives.
- Device-generated data (e.g., from glucose monitors or wearables) can be analyzed to spot adherence patterns, detect early deterioration, or support remote monitoring.
- SDOH data is underutilized but crucial for risk-adjustment models and equity analytics. CMS should promote its integration into clinical and analytic workflows.

c. What specific opportunities and challenges exist to improve accessibility, interoperability, and integration of clinical data from different sources to enable more meaningful clinical research and generation of actionable evidence?

Opportunities:

- CMS can mandate standardized APIs (e.g., FHIR-based) and participation in trusted exchange frameworks (like TEFCA) or manage their own trusted exchange-framework.
- Promote vendor-neutral data-sharing agreements and incentivize EHR vendors to enable real interoperability.
- Expand Blue Button capabilities to include the ability to read and write clinical data, patient generated health data (e.g., wearables, glucose monitors, fitness activity) and not just claims.

Challenges:

- Fragmentation of data across multiple EHRs and systems with no common standard for notes, images, or reports.
- Lack of incentives for providers to share data outside their networks.
- Privacy concerns limit data availability and sharing, especially across state lines or between payers and tech developers.
- Technical barriers, including differences in data structure, terminology (e.g., SNOMED vs. ICD), and outdated legacy systems.

PC-9. Given that the Blue Button 2.0 API only includes basic patient demographic, Medicare coverage, and claims data (Part A, B, D), what additional CMS data sources do developers view as most valuable for inclusion in the API to enable more useful digital products for patients and caretakers?

The implementation of Blue Button 2.0 provides a strong foundation for digital health innovation. However, expanding the API to include additional high-value data sets would significantly amplify its impact—particularly by enabling AI and machine learning applications that deliver more personalized, proactive patient engagement. The following data sets are especially valuable for powering intelligent digital tools that anticipate patient needs, identify care gaps, and support timely interventions:

- Post-acute and functional assessment data (e.g., MDS, OASIS, IRF-PAI): Offers critical insights into a patient's cognitive function, mobility, and support requirements.
- Prescription Drug Event (PDE) details: Enables a more complete view of medication adherence, with data on formulary tiers, rejected claims, and safety edits.
- Encounter-level Medicare Advantage (Part C) data: Provides a more comprehensive clinical history for enrollees currently underrepresented in Blue Button claims data.
- Preventive services utilization and care gaps: Supports the development of tools that deliver timely, personalized screening reminders and health prompts.
- Social risk factors and HCC indicators: Helps tailor engagement and education strategies for high-risk patients and caregivers, especially in underserved populations.
- Patient-generated health data from wearables (vitals from smart watches, glucose monitors, fitness activity) should be as easy to synchronize utilizing tools and interfaces like Apple Health, Google Health, Azure Health Services.

a. What difficulties are there in accessing or utilizing these data sources today?

- Fragmentation and multiple access paths make integration into consumer apps difficult.
- Data standardization and mapping challenges (e.g., MDS/OASIS not natively FHIR-compatible) require heavy custom transformation.
- Lack of documentation or developer tooling for many non-claims datasets increases onboarding time and risk.
- Delays in data availability, particularly for MA/Part C and assessments, reduce relevance for real-time care planning.
- Lack of standard record of truth for longitudinal health data.

b. What suggestions do you have to improve the Blue Button 2.0 API experience?

- Expand FHIR support beyond claims to include assessment data, risk scores, patient generated data and care plans.
- Improve metadata and transparency around data completeness, lag times, and source system lineage.
- Add the ability to write/update/synchronize via API.

c. Is there non-CMS data that should be included in the API?

- Patient-reported outcomes and device data (via FHIR Observation or Questionnaire Response)
- Advance care planning documents
- Veterans Health Administration (VHA) and Medicaid data where applicable, via data-sharing agreements
- Social services and benefits data (e.g., SNAP, housing support) through future integrations with state or federal systems

PC-10. How is the Trusted Exchange Framework and Common Agreement™ (TEFCA™) currently helping to advance patient access to health information in the real world?

a. Please provide specific examples.

- Care continuity and care transitions: TEFCA enables hospitals or ACOs to access prior clinical data across networks, reducing duplicate testing or medication errors during a patient's transition home.
- Payers enhancing care coordination: Through TEFCA-facilitated claims and clinical data exchange, health plans can more precisely identify at-risk members, improving outreach and plan navigation.
- Public health reporting: State and local health departments can receive immunization and lab result data more quickly via QHINs, supporting timely epidemic response.

b. What changes would you suggest?

- Encourage payer participation in real-time APIs for claims and encounter data.
- Expand FHIR-based resources to include patient-generated health data, functional assessments, and social determinants.

- Implement subscription mechanisms (e.g., webhook-style) so applications can receive proactive updates when patient health events occur.

c. What use cases could have a significant impact if implemented through TEFCA?
   - AI-driven risk stratification: Combining clinical and claims data via TEFCA can power predictive models to identify high-risk patients early enabling preventative care and reduced hospitalizations.
   - Medication adherence interventions: Real-time integration of prescription fill events and lab results supports timely alerts and engagement interventions.
   - Shared care plans across providers and caregivers, ensuring all stakeholders have complete and current patient context.
   - Fraud, waste, and abuse detection: Access to near-real-time clinical and claims data via TEFCA would enable enhanced pre-payment clinical edits and anomaly detection, improving payment integrity and reducing downstream administrative burden.

d. What standards are you aware of that are currently working well to advance access and existing exchange purposes?
   - USCDI (FHIR R4) for core clinical data interoperability.
   - SMART on FHIR for standardized app access across systems.
   - OAuth 2.0 / OpenID Connect for secure, patient-directed data access

e. What standards are you aware of that are not currently in wide use, but could improve data access and integration?
   - FHIR support for patient-generated health data, such as questionnaires and device readings—currently outside most mainstream workflows.
   - FHIR subscription resources to enable push-based updates.
   - FHIR Bulk Data (Flat FHIR) to streamline population-level analyses.

f. Are there redundant standards, protocols, or channels that should be consolidated?
   - Minimize overlapping transport protocols (e.g., CCDA vs. FHIR) by favoring a single FHIR-based exchange standard.
   - Align payer and public health reporting formats under shared FHIR implementation guides to streamline data integration.

g. Are there adequate alternatives outside of TEFCA for achieving widespread patient access to their health information?
   - FHIR-based APIs mandated under CMS rules (e.g., Blue Button 2.0, Patient Access API) are foundational for patient access.
   - Regional HIEs and vendor platforms also play valuable roles. However, TEFCA is uniquely positioned to unify these efforts under a national interoperability framework—reducing fragmentation and creating consistent patient access.

PC-11. How are health information exchanges (HIEs) currently helping to advance patient access to health information in the real world?

a. How valuable, available, and accurate do you find the data they share to be?
   - HIEs offer critical value in providing localized, encounter-level clinical data that complements claims data. When well-integrated, this data improves the accuracy of patient timelines and predictive models. However, availability and completeness vary widely across geographies and providers, and normalization of structured data (e.g., medications, lab values) remains inconsistent.

b. What changes would you suggest?
   - Standardize data quality and formatting across HIEs using national implementation guides (e.g., FHIR US Core).
   - Expand patient access policies to include more direct digital access through APIs or third-party apps.
   - Promote real-time data availability to increase relevance for care coordination, risk detection, and payment integrity use cases.

c. Are there particular examples of high-performing HIE models that you believe should be propagated across markets?
   - Statewide and regional HIEs like CRISP (Maryland/DC) and Manifest MedEx (California) demonstrate scalable models that blend public health, provider, and payer data, while offering value-added services (e.g., alerts, longitudinal records). These models could inform national best practices for governance, technical infrastructure, and sustainability.

d. What is the ongoing role of HIEs amidst other entities facilitating data exchange and broader frameworks for data exchange (for example, vendor health information networks, TEFCA, private exchange networks, etc.)?
   - HIEs will continue to play a complementary role alongside TEFCA and national vendor networks by offering region-specific data not captured in national systems, supporting public health use cases, and acting as data aggregators for AI/ML applications. Their localized relationships and infrastructure can enhance real-time access, especially where national exchange is still maturing.

PC-12. What are the most valuable operational health data use cases for patients and caregivers that, if addressed, would create more efficient care navigation or eliminate barriers to competition among providers or both?

a. Examples may include the following:

   (1) Binding cost estimates for pre-defined periods.
   (2) Viewing provider schedule availability.
   (3) Using third-party apps for appointment management.
   (4) Accessing patient-facing quality metrics.
   (5) Finding the right provider for specific healthcare needs.

The most valuable operational health data use cases are those that:

1. Improve real-time visibility into care access, cost, and quality.

2. Enable patients and caregivers to act on that information with minimal friction.
3. Support competition by allowing third-party tools to function across systems using standardized, high-quality data.

Key use cases include:

(1) Real-Time, Personalized Cost Transparency

- Patients and caregivers need binding, benefits-specific cost estimates across professional, facility, and pharmacy services—calculated using actual plan data (not just chargemaster rates).
- Use case: Before a procedure, a patient should see their total out-of-pocket cost including facility, anesthesiology, lab, and imaging fees, and compare with alternative locations.
- CMS can support this by requiring APIs from Medicare Advantage plans and Part D sponsors that expose real-time pricing based on benefit design.

(2) Cross-System Provider Scheduling

- Patients should be able to view and book appointments across provider systems using third-party apps. The current lack of scheduling APIs leads to phone calls, missed opportunities, and poor care continuity.
- CMS can encourage adoption of HL7 FHIR Appointment and Schedule resources through policy levers or pilot funding.

(3) Reconciled, Understandable Health Records

- Clean, merged clinical and claims data is vital for effective digital navigation. Today's tools suffer because:
  - Claims data is delayed, fragmented, or poorly structured.
  - Clinical notes are dense, duplicative, and often incomprehensible to patients.
- A CMS-supported reconciliation framework could enable app developers to present a unified, simplified "health timeline" for each patient.

(4) Provider Quality Metrics That Matter to Patients

- Current quality metrics are often too abstract or irrelevant. Patients want:
  - Outcomes: success rates, readmissions, complications.
  - Experience: appointment availability, communication quality.
  - Context: risk-adjusted comparisons for their condition.

- CMS can help define, normalize, and distribute patient-centered quality indicators, especially for specialties (e.g., surgeons, imaging centers) where data is scarce.

(5) Personalized Navigation Recommendations

- Few tools use data to predict what the patient needs next—screenings due, tests to repeat, provider follow-ups, etc.
- CMS can require or support the creation of recommendation engines based on longitudinal Medicare data, integrated into patient-facing tools.

b. What use cases are possible today?

- In theory, APIs exist for Blue Button claims data, some pricing tools, and limited scheduling—but these are fragmented, incomplete, and underutilized.
- A few health systems and payers expose limited appointment booking and pharmacy benefit tools.
- Most apps still rely on manual integration or patient-provided data due to lack of interoperability and real-time access.

c. What should be possible in the near future?

With modest changes:

- Cross-payer, cross-system scheduling APIs could be standardized and widely adopted.
- CMS could publish reconciled, patient-facing longitudinal records from claims and any available clinical data (through Blue Button or TEFCA).
- Consumer-grade navigation tools—comparable to TripAdvisor or Expedia—could be built if high-fidelity data were made consistently available across systems.
- Analytics should be used to prioritize which gaps in care are most urgent, estimate time-to-next-available provider by specialty and geography, and flag cost outliers to steer patients toward higher-value care."

d. What would be very valuable but may be very hard to achieve?

- Real-time claims data streaming across all of Medicare (not just pilots or MA).
- Binding total-cost estimates for multi-service episodes (e.g., surgery + rehab + follow-up), not just discrete services.
- Nationwide provider directory with open scheduling access, real-time availability, and validated quality scores.
- Common data formatting and interpretation across EHRs, health plans, and device vendors.
- Universal patient ID + consent framework that enables secure, granular, and revocable sharing of health data with apps and caregivers.

Additional Opportunities CMS Should Consider:

Enabler of High-Quality Data
CMS should continue investing in data validation, reconciliation tools, and APIs that give app developers and care teams access to structured, usable data. This enables innovation without requiring CMS to build all solutions itself.

Neutral Market Platform
CMS can provide reference directories, scorecards, and app libraries that surface best-in-class tools and allow competition on usability, transparency, and results—rather than locking patients into proprietary health systems or plans.

4. Information Blocking and Digital Identity

PC-14. Regarding digital identity credentials (for example, CLEAR, Login.gov, ID.me, other NIST 800-63-3 IAL2/AAL2 credentialing service providers (CSP)):

a. What are the challenges today in getting patients/caregivers to sign up and use digital identity credentials?

The main challenge in getting patients and caregivers to sign up for and use digital identity credentials is overcoming technical hurdles, such as limited digital literacy, lack of access to devices or broadband, and confusing enrollment processes. However, if digital credentials were more widely accepted and standardized across both government programs and private healthcare, it would dramatically reduce this burden by creating a consistent, trusted experience—making it easier for patients and caregivers to use one secure login across the entire healthcare ecosystem.

b. What could be the benefits to patients/caregivers if digital identity credentials were more widely used?

Widespread use of digital identity credentials in healthcare would empower patients and caregivers—especially in Medicare and Medicaid—with seamless, secure access to health data and services across payers, providers, and apps. These credentials would simplify logins, enable delegated caregiver access, and allow for granular, consent-based data sharing, improving coordination and reducing administrative burden. Patients could more easily manage benefits, enroll in programs, and securely access longitudinal records, while caregivers could act on their behalf without navigating fragmented systems. Digital identity also enhances privacy, fraud prevention, and interoperability, aligning with TEFCA and Blue Button initiatives to deliver a more equitable, efficient, and user-centric healthcare experience.

c. What are the potential downsides?

If payers, providers, and states adopt different identity frameworks, patients may still face fragmentation and repeated verification steps, undermining the very goal of interoperability. A centralized or better yet a synchronized solution should be used.

d. How would encouraging the use of CSPs improve access to health information?

Encouraging the use of Credential Service Providers (CSPs) would significantly improve access to health information by enabling patients and caregivers to authenticate securely and consistently across multiple healthcare systems using a single, verified digital identity. Instead of managing separate logins for each provider, payer, or app, individuals could use one credential—issued by a trusted CSP like Login.gov or ID.me—to access Medicare data through Blue Button, clinical data via TEFCA, or Medicaid services, without repeated identity proofing. This simplifies access, reduces friction, and improves equity, particularly for older adults and underserved populations who face barriers with traditional documentation or fragmented logins. Just as importantly, it allows third-party and commercial solutions to avoid re-identifying the same individual across disparate datasets, which reduces the risk of mismatched records and data corruption. By ensuring consistent identity resolution, CSPs make it possible to extend high-value services like risk modeling, care gap identification, and

precision health insights—services that companies like Certilytics provide—using integrated, trustworthy longitudinal data. Ultimately, wide adoption of CSPs lays the foundation for a unified, patient-centered digital experience in healthcare while enabling innovation and interoperability across the ecosystem.

e. What role should CMS/payers, providers, and app developers have in driving adoption?

CMS should also mandate that Credential Service Providers (CSPs) adhere to a synchronized, interoperable standard—such as NIST 800-63-3 and FHIR-based identity binding—ensuring that digital identity credentials can be recognized and used across multiple CSPs without locking the ecosystem into a single vendor solution. Rather than mandating a specific CSP, CMS should define federated trust requirements and APIs that enable secure, consistent identity resolution regardless of the issuing provider. This approach promotes competition, scalability, and resilience. Furthermore, CMS should actively encourage and facilitate the use of these CSP-issued credentials in commercial healthcare solutions, including payer portals, provider EHRs, analytics platforms, and patient-facing apps. By enabling consistent, reusable identities across the healthcare ecosystem, CMS would support high-fidelity patient matching, reduce duplication and fraud, and unlock advanced services like risk modeling, care gap detection, and coordinated care planning. These are not just capabilities commercial platforms like Certilytics depend on—they are the foundation on which such firms innovate, applying sophisticated analytics to transform accurate identity resolution into better care outcomes, proactive intervention, and personalized healthcare delivery.

h. How can CMS encourage patients to get digital identity credentials?

CMS can encourage patients to obtain digital identity credentials by making verified digital identity the default method for accessing services like Medicare.gov, Blue Button 2.0, and Medicaid portals, while integrating credential setup at key touchpoints such as enrollment, provider check-ins, and telehealth visits. Targeted, multilingual outreach campaigns—delivered through trusted channels like pharmacies, community centers, and senior programs—can educate beneficiaries and caregivers about the security, simplicity, and benefits of digital credentials. CMS should incentivize adoption by linking credentials to faster access to services such as claims tracking, prior authorizations, or enrollment in care programs, while ensuring accessibility through in-person support, caregiver delegation, and accommodations for underserved populations. Critically, CMS should work across federal and state agencies to promote the consistent use of credentialing services, enabling a shared, interoperable identity infrastructure that spans healthcare, social services, public benefits, and digital government platforms. In parallel, CMS should actively collaborate with the commercial healthcare sector—payers, providers, health IT vendors, and analytics platforms—to encourage the adoption of standardized digital identities across the healthcare continuum, replacing highly vulnerable identifiers like Social Security Numbers or proprietary member IDs with secure, interoperable credentials that enhance privacy, improve patient matching, and support a more seamless, patient-centered data exchange environment.

C. Providers

1. Digital Health Apps

PR-1. What can CMS and its partners do to encourage providers, including those in rural areas, to leverage approved (see description in PC-5) digital health products for their patients?

c. What responsibilities do providers have when recommending use of a digital product by a patient?
Providers should know that the application they are recommending is useful for patients, appropriate (easy to use), connected to their systems, trustworthy (content is accurate), secure, and will not lead to additional work for them in supporting members in utilizing the application.

PR-2. What are obstacles that prevent development, deployment, or effective utilization of the most useful and innovative applications for physician workflows, such as quality measurement reporting, clinical documentation, and billing tasks? How could these obstacles be mitigated?

Providers already have many tasks to do and not enough time to do them. Providers do not want any more administrative tasks and struggle to add additional must do activities to their workflows. New applications must be seamlessly integrated into a provider's normal course of work and must not add cost-burden to their operations.

2. Data Exchange

PR-5. Which of the following FHIR APIs and capabilities do you already support or utilize in your provider organization's systems, directly or through an intermediary? For each, describe the transaction model, use case, whether you use individual queries or bulk transactions, and any constraints:

a. Patient Access API.

b. Standardized API for Patient and Population Services.

Supported indirectly through batch FHIR ingestion. We consume FHIR R4 resources delivered via secure batch transfer mechanisms (e.g., S3 or SFTP). Utilized for longitudinal record construction, risk modeling, care gap detection, and provider performance analytics.

c. Bulk FHIR—Do you support Group ID-based access filtering for population-specific queries? When vendors or payers provide Group ID- or cohort-based FHIR bundles, we process them for population-specific analytics.

d. SMART on FHIR—Do you support both EHR-launched and standalone app access? What does the process for application deployment entail?

e. CDS Hooks (for clinical decision support integrations).

PR-7. What strategies can CMS implement to support providers in making high-quality, timely, and comprehensive healthcare data available for interoperability in the digital product ecosystem? How can the burden of increasing data availability and sharing be mitigated for providers? Are there ways that workflows or metrics that providers are already motivated to optimize for that could be reused for, or combined with, efforts needed to support interoperability?

1. Leverage AI/ML to Automate Data Preparation
    - Employ AI-driven normalization tools harmonize terminology and map local codes to national standards, reducing manual curation.
    - Use applied models to automatically detect missing or inconsistent data, prioritizing provider entry efforts only where needed.
2. Align Interoperability with Existing Provider Workflows
    - Embed data sharing in clinical and quality workflows—for example, auto-export functional assessment and encounter summaries (e.g., MDS, OASIS) during discharge processes or care transitions.
    - Build on existing performance metrics such as HEDIS, CAHPS, and MSSP data submission routines. Align interoperability reporting with these to reuse provider interfaces, staffing, and incentive programs.
3. Incentivize Through Value-Based Care (VBC) Integration
    - Embed interoperability tasks into VBC frameworks—for example, link sharing of care plans and functional assessments to ACO shared-savings bonuses or MSSP quality benchmarks
    - Align interoperability outputs to satisfy both regulatory and payment reporting requirements, making the effort dual-purpose.

PR-8. What are ways CMS or partners can help with simplifying clinical quality data responsibilities of providers?

a. What would be the benefits and downsides of using Bulk FHIR data exports from EHRs to CMS to simplify clinical quality data submissions? Can CMS reduce the burden on providers by performing quality metrics calculations leveraging Bulk FHIR data exports?
    - Using Bulk FHIR exports can reduce provider burden by shifting quality metric calculations to CMS or delegated intermediaries. Benefits include centralized logic, improved consistency, and reduced local IT workload. Downsides may include delays in performance feedback and variability in data quality across EHR systems. To be effective, exports must be timely, standardized, and mapped to USCDI/FHIR quality IGs.

b. In what ways can the interoperability and quality reporting responsibilities of providers be consolidated so investments can be dually purposed?
    - CMS can streamline provider responsibilities by aligning interoperability data submissions (e.g., through FHIR APIs or TEFCA participation) with quality reporting needs. Using shared infrastructure and data standards reduces duplicative effort and

allows providers to capture once, report many times across programs like QPP, MSSP, and ACO REACH.

c. Are there requirements CMS should consider for data registries to support digital quality measurement in a more efficient manner? Are there requirements CMS should consider for data registries that would support access to real-time quality data for healthcare providers to inform clinical care in addition to simplifying reporting processes?

- To support digital quality measurement and real-time clinical decision-making, CMS should require registries to:
  - Accept and output standardized FHIR data, with support for near real-time updates
  - Enable bidirectional access so providers can view performance and patient-level insights
  - Incorporate AI tools to surface care gaps, data completeness issues, and improvement opportunities

3. Digital Identity

PR-9. How might CMS encourage providers to accept digital identity credentials (for example, CLEAR, ID.me, Login.gov) from patients and their partners instead of proprietary logins that need to be tracked for each provider relationship?

a. What would providers need help with to accelerate the transition to a single set of trusted digital identity credentials for the patient to keep track of, instead of one for each provider?

Incentivizing EHR technology vendors to adopt standardized digital identity credentials—similar to how EHR adoption was driven under the HITECH Act—would be a powerful step toward achieving seamless, secure patient access across the healthcare ecosystem. CMS and ONC could require EHR vendors to support federated identity standards, such as integration with NIST 800-63-3-compliant Credential Service Providers using OpenID Connect, as part of certified health IT criteria, ensuring every certified EHR can authenticate a single, trusted patient identity. To drive provider adoption, CMS could offer incentives through quality programs, value-based care models, or direct funding to offset the operational cost of implementing and supporting digital ID workflows. Providers could also receive credit under interoperability or patient engagement measures for enabling access via standardized credentials. Coupled with aligned EHR vendor requirements and support for smaller practices, these dual incentives would reduce credential fragmentation, improve care coordination, and accelerate the move to a unified, patient-centered digital health experience.

PR-10. Regarding digital identity credentials (for example, CLEAR, Login.gov, ID.me, other NIST 800-63-3 IAL2/AAL2 CSPs):

a. What are the challenges and benefits for providers?

For providers, the adoption of digital identity credentials from Credential Service Providers (CSPs) compliant with NIST 800-63-3 IAL2/AAL2—such as CLEAR, Login.gov, or ID.me—offers both significant benefits and notable challenges. The primary benefit is enhanced security and trust in patient and caregiver identity verification, which improves patient matching, reduces fraud, and enables more seamless data exchange across EHRs, portals, and care coordination platforms. It also supports delegated access for caregivers, enabling compliant proxy workflows that are essential for managing elderly or disabled patients—especially in Medicare and Medicaid populations. Additionally, using federated identity standards simplifies provider integration with national interoperability initiatives like TEFCA and CMS APIs by standardizing how identities are authenticated across systems. However, challenges include the complexity of integrating external CSPs into legacy EHR workflows, the need for staff training and patient education, and concerns around workflow disruption during credential issuance or recovery. Smaller practices may face resource constraints in adopting and supporting digital credentialing platforms, and providers must ensure that these systems meet both HIPAA and organizational security policies. Balancing usability with assurance level requirements is also difficult, particularly for patients with limited digital access. Despite these hurdles, digital identity credentials represent a foundational step toward more interoperable, secure, and patient-centric care delivery.

D. Payers

PA-1. What policy or technical limitations do you see in TEFCA? What changes would you suggest to address those limitations? To what degree do you expect these limitations to hinder participation in TEFCA?

TEFCA is a significant step toward national health data interoperability, but several policy and technical limitations could hinder broad participation. Its current read-only, document-based architecture lacks support for FHIR write operations, bulk data access, and cohort-level queries, which are essential for analytics vendors, payers, and care coordination platforms. Additionally, TEFCA's limited integration with CMS systems like Blue Button, BCDA, and state Medicaid infrastructure weakens its value for federal and state program alignment. The absence of strong financial or regulatory incentives—especially for small providers and innovative vendors—further limits adoption, while the slow rollout of Individual Access Services (IAS) leaves patients unable to fully control their data. To overcome these barriers, CMS and ONC should expand TEFCA to support FHIR transactional and bulk APIs, formally integrate CMS and Medicaid data systems, accelerate IAS deployment with secure digital identity, and create clear incentives tied to value-based care programs and certification pathways.

PA-2. How can CMS encourage payers to accelerate the implementation and utilization of APIs for patients, providers, and other payers, similar to the Blue Button 2.0 and Data at the Point of Care APIs released by CMS?

- While many payers express interest in adopting API-based interoperability (e.g., FHIR APIs for patient and provider access), real-world adoption remains uneven, particularly among smaller

and regional plans. These organizations are often still working to manage and normalize their own claims data through lagged, batch processes, which limits their ability to support near-real-time APIs.

- To accelerate adoption, CMS should consider:
  - Incentivizing investment in real-time data infrastructure—similar to early EHR incentives—to help smaller payers modernize legacy systems.
  - Providing reusable tools and technical support, such as open-source FHIR converters and pre-certified integration kits.
  - Encouraging standardized certification or attestation pathways for payers to demonstrate incremental progress toward API readiness.
  - Aligning regulatory timelines and expectations with payer capacity tiers, ensuring that resource-constrained plans are supported, not penalized.
- Despite strong interest, significant technical and operational gaps remain. Without targeted support, widespread adoption of patient- and provider-facing APIs will likely remain concentrated among national carriers and tech-forward plans.

PA-5. What are ways payers can help with simplifying clinical quality data responsibilities of providers?

a. How interested are payers and providers in EHR technology advances that enable bulk extraction of clinical quality data from EHRs to payers to allow them to do the calculations instead of the provider-side technology?

- Both payers and providers show strong interest in EHR capabilities that support Bulk FHIR extraction, enabling payers to calculate quality metrics centrally. This reduces provider-side tech burden and allows for consistent, scalable measurement, especially across contracts. Key concerns include data completeness, timing, and the need for standard mapping across diverse EHR systems.

b. In what ways can the interoperability and quality reporting responsibilities of providers to both CMS and other payers be consolidated so investments can be dually purposed? Are there technologies payers might leverage that would support access to real time quality data for healthcare providers to inform clinical care in addition to simplifying reporting processes?

- Payers can support providers by:
  - Aligning reporting requirements across programs (e.g., CMS ACOs and commercial value-based contracts)
  - Encouraging shared use of FHIR APIs or registries that serve both quality and interoperability goals
  - Leveraging real-time data platforms to provide feedback loops at the point of care (e.g., care gap alerts, benchmarks)
- Technologies like FHIR Subscriptions, Bulk Data (Flat FHIR), and AI-enhanced analytics can support real-time data sharing and quality monitoring without duplicating provider workflows.

E. Technology Vendors, Data Providers, and Networks

1. Ecosystem

TD-1. What short term (in the next 2 years), and longer-term steps can CMS take to stimulate developer interest in building digital health products for Medicare beneficiaries and caregivers?

CMS can generate sustained developer interest by making richer data available, removing integration friction, and enabling real-world use cases that go beyond viewing claims—toward personalized, AI-enabled tools that support Medicare beneficiaries and their caregivers in everyday decision-making.

Short-Term (Next 2 Years):

- Fund Early-Stage Innovation: Use targeted challenge grants and pilot programs to lower the barrier for new entrants building tools for beneficiaries and caregivers (especially in underserved groups).
- Expand API Data Scope: Augment Blue Button 2.0 with Medicare Advantage encounter data, functional assessments (e.g., MDS, OASIS), and prescription event details to improve data completeness and use-case flexibility.
- Launch Developer Sandbox Programs: Offer synthetic, longitudinal FHIR datasets that mirror real CMS populations—crucial for building, testing, and validating AI/ML models without privacy hurdles.
- Streamline API Documentation and Standards: Provide consistent, up-to-date FHIR implementation guides and example payloads across CMS APIs.

Longer-Term:

- Mandate Real-Time Interoperability Infrastructure: Require and support FHIR Bulk Data + Subscriptions from plans and providers to enable scalable, event-driven apps.
- Enable Bidirectional APIs: Move beyond "read-only" access—support APIs that allow patient-contributed data, care plan collaboration, and secure messaging.
- Support Ecosystem Integration: Facilitate connections across CMS, VA, Medicaid, and social services to allow developers to build more holistic tools for aging and complex populations.
- Incentivize Open-Source and Reusable Components: Encourage development of interoperable libraries, validation tools, and consent frameworks that accelerate innovation across the ecosystem.

TD-2. Regarding CMS Data, to stimulate developer interest—Opening curated, FHIR-aligned access to assessments, social determinants, real-time Rx data, and MA encounters—alongside robust tooling and financial incentives—would help developers unlock AI/ML-powered solutions that are personalized, proactive, and equitable.

a. What additional data would be most valuable if made available through CMS APIs?

- Post-acute and functional assessment data (e.g., MDS, OASIS, IRF-PAI): Offers critical insights into a patient's cognitive function, mobility, and support requirements.
- Prescription Drug Event (PDE) details: Enables a more complete view of medication adherence, with data on formulary tiers, rejected claims, and safety edits.

- Encounter-level Medicare Advantage (Part C) data: Provides a more comprehensive clinical history for enrollees currently underrepresented in Blue Button claims data.
- Preventive services utilization and care gaps: Supports the development of tools that deliver timely, personalized screening reminders and health prompts.
- Social risk factors and HCC indicators: Helps tailor engagement and education strategies for high-risk patients and caregivers, especially in underserved populations.
- Clinical EHR data (e.g., vitals, lab results, progress notes): Provides real-time clinical context not captured in claims.

b. What data sources are most valuable alongside the data available through the Blue Button 2.0 API?

- See Above

c. What obstacles prevent accessing these data sources today?

- Data fragmentation across legacy systems, batch ETL, and manual processes.
- Limited FHIRification of key datasets like assessments or MA encounters.
- Sparse tooling and standards for real-time data exchange.
- Lack of funding incentives for payers/providers to build and maintain APIs.

d. What other APIs should CMS and ASTP/ONC consider including in program policies to unleash innovation and support patients and providers?

- Bulk FHIR + Subscriptions APIs for scalable, push-based data flows.
- APIs exposing patient-generated data, device streams, and care plan assets.
- Federated query APIs for public health, research, and social service integrations—driving innovation while protecting privacy.

5. Compliance

TD-19. Regarding price transparency implementation:

a. What are current shortcomings in content, format, delivery, and timeliness?

Price transparency tools often lack real-time accuracy, are presented in non-intuitive formats, and do not reflect individual benefit designs. Content is generic, delivery is fragmented across platforms, and updates lag behind formulary or pharmacy changes. The result is limited practical use by patients or providers at the point of care.

b. Which workflows would benefit most from functional price transparency?

High-impact workflows include:

- Point-of-care prescribing - providers need instant access to patient-specific cost alternatives.
- Member plan selection - Medicare beneficiaries benefit from tools that forecast total annual drug costs.
- Medication adherence - members make trade-offs based on cost, so timely alerts about lower-cost options matter.

c. What improvements would be most valuable for patients, providers, or payers, including CMS?

- Personalized, plan-specific pricing across retail/mail order and benefit tiers.
- AI-enabled search tools that translate medication cost data into actionable alternatives.
- Provider-facing APIs for prescribing workflows with cost/coverage intelligence baked in.
- Support for dependents and caregivers through shared, role-based access

d. What would further motivate solution development?

CMS can stimulate innovation by:

- Funding demonstration projects or offering bonus points in quality programs (e.g., Stars, ACO REACH) for integrated, real-time transparency tools.
- Requiring standardized APIs and real-time Rx data access under interoperability mandates.
- Encouraging payer and PBM alignment on data standards and incentives for broader adoption.

F. Value-Based Care Organizations

1. Digital Health Adoption

VB-1. What incentives could encourage APMs such as accountable care organizations (ACOs) or participants in Medicare Shared Savings Program (MSSP) to leverage digital health management and care navigation products more often and more effectively with their patients? What are the current obstacles preventing broader digital product adoption for patients in ACOs?

ACOs are increasingly expected to operate with the sophistication of payers—managing total cost of care, population health, and quality outcomes—but often lack the robust analytics infrastructure needed to fulfill these responsibilities. A significant barrier is the limited ability to integrate and analyze both claims and clinical (EHR) data. Many ACOs rely on fragmented EMR tools that lack longitudinal visibility, risk-adjusted performance analytics, and cross-system attribution accuracy.

Additionally, ACO providers often lack experience working with claims data and depend on simplistic or static dashboards that may obscure actionable insights or misrepresent patient attribution and performance. This limits the ACO's ability to:

- Stratify populations using risk and utilization patterns.
- Detect and address unwarranted variation in care.
- Identify rising-risk patients proactively.
- Evaluate the effectiveness and return on investment (ROI) of digital health interventions.

To support broader and more effective digital tool adoption in ACOs, CMS could consider the following actions:

- Facilitate shared analytics infrastructure or provide access to standardized analytics platforms that integrate claims, EHR, and social needs data.
- Tie shared savings or incentive payments to the demonstrated impact of digital tools on key outcomes, as measured through validated analytics (e.g., improved preventive screening, reduced avoidable admissions).

- Provide attribution-accurate benchmarking dashboards that reflect payer-level analytics and allow ACOs to compare performance across relevant peer groups.
- Offer technical assistance and capacity-building support to help ACOs build internal analytic capabilities or participate in regional data collaboratives.

Improving access to high-quality analytics is foundational. Digital tools will only be adopted when ACOs can clearly assess how these tools improve their performance on clinical and financial benchmarks central to value-based care success.

VB-2. How can key themes and technologies such as artificial intelligence, population health analytics, risk stratification, care coordination, usability, quality measurement, and patient engagement be better integrated into APM requirements?

To better integrate digital technologies into APM models, CMS should focus on facilitating adoption and infrastructure development, rather than mandating prescriptive models or providing generic open-source tools. Many ACOs lack the advanced analytic capabilities required to manage risk effectively, especially when compared to the sophistication of payer organizations.

Without robust tools and support, most ACOs rely on static dashboards or basic reporting, which are insufficient for:

- Risk stratification that combines claims and clinical data,
- Predictive modeling for avoidable utilization and chronic condition management,
- Dynamic care coordination, and
- Longitudinal performance monitoring against cost and quality benchmarks.

CMS should avoid deploying open-source tools that may appear cost-effective but would leave many provider organizations ill-equipped to compete or succeed in risk-based models. Instead, CMS should:

- Emphasize the importance of accessing payer-grade analytics, supported by commercial or nonprofit organizations with the capability to customize and implement these tools effectively for provider-based APMs.
- Curate and recommend best-in-class analytics platforms, data standards, and vendor types to help ACOs evaluate options.
- Fund or support technical assistance programs that help provider groups implement advanced analytic capabilities, including risk scoring, population segmentation, and predictive care opportunity identification.
- Encourage ACOs to partner with specialized organizations that bring actuarial and claims modeling expertise to augment the provider's clinical perspective.

By setting clear expectations and enabling ACOs to choose fit-for-purpose tools, CMS can support a more level playing field—where provider-led organizations can compete fairly in managing risk, improving quality, and enhancing patient outcomes.

VB-3. What are essential health IT capabilities for value-based care arrangements?

b. What other health IT capabilities have proven valuable to succeeding in value-based care arrangements?

As Accountable Care Organizations (ACOs) and other VBC participants assume increasing financial and clinical responsibility, their health IT infrastructure must support payer-grade analytics, continuous quality improvement, and data-driven care coordination. Essential capabilities that drive success include:

a. Core Health IT Functions:

- Integrated Claims + Clinical Data Infrastructure: ACOs need systems that merge claims, EHR, pharmacy, lab, and SDOH data to create a unified, longitudinal view of patients.
- Advanced Risk Stratification: Models that support population segmentation, dynamic risk scoring, and prioritization of high-impact interventions based on both cost and health outcomes.

b. Analytics and Monitoring:

- Program Evaluation Tools: Rapid-cycle analytics capabilities to evaluate performance of care management programs, digital tools, and provider interventions in near real time.
- Grouping Logic (Groupers): Tools that enable standardized episode grouping, comorbidity scoring, and population clustering to support risk adjustment, cost tracking, and clinical performance comparison.
- Continuous Quality Dashboards: Real-time dashboards that track clinical quality measures, performance gaps, and patient outcomes throughout the year — allowing ACOs to adjust proactively rather than retrospectively reacting at the end of a performance period.

c. Interoperability and Attribution:

- Attribution and Patient Matching Tools: Robust algorithms to support dynamic attribution, patient matching, and beneficiary engagement across fragmented data sources.
- Standards-Based Exchange (e.g., FHIR, TEFCA): Infrastructure that enables scalable ingestion of external data feeds, including hospital ADT events and pharmacy benefit data.

d. Workflow Enablement:

- Care Coordination Platforms: Shared care plans, referral tracking, and cross-provider communication tools.
- Clinical Decision Support: Tools that translate analytics into point-of-care insights, personalized to patient risk and care gaps.
- Quality Reporting Automation: Use of Bulk FHIR and other standards to streamline quality submissions and reduce administrative burden.

  CMS has a key role in supporting the adoption of these capabilities by:

  - Promoting common standards without mandating one-size-fits-all models.
  - Curating trusted vendors and infrastructure partners.
  - Providing technical assistance and targeted funding for capacity building.

VB-4. What are the essential data types needed for successful participation in value-based care arrangements?

To perform successfully under value-based care (VBC), organizations must operate with a 360-degree view of their attributed population — one that spans both clinical activity and cost drivers across the full care continuum. This requires access to comprehensive, high-quality, and timely data across multiple domains.

Essential Data Types Include:

- Claims Data (Medical, Pharmacy, and Institutional – Internal and External):
  - Claims data is foundational for understanding utilization patterns, total cost of care, and risk-adjusted performance.
  - Critically, VBC organizations need access to claims not only from their own institution but from all external providers and facilities that their attributed patients visit. Without this, they are flying blind on key events such as specialist visits, ED usage, or hospitalizations outside their network.
  - Claims data is the great unifier — it stitches together the patient's longitudinal history across fragmented settings, something EHR data alone cannot do. It is essential for risk adjustment, quality measurement, cost modeling, and identifying care gaps.

- Clinical EHR Data (Structured and Semi-Structured):
  - Includes lab results, vital signs, diagnoses, procedures, medication lists, problem lists, clinical notes, and care plans.
  - Enables real-time patient management and proactive gap closure, especially when combined with claims data to enrich insight.

- Attribution, Enrollment, and Coverage Data:
  - Identifies which patients are attributed, under what contract, for what time period.
  - Tracks eligibility changes, coverage disruptions, and member churn — all critical for program integrity and performance reconciliation.

- Provider Directory Data (Unified and Cross-System):
  - ACOs need accurate, unified provider directory data that spans beyond their own institution, including taxonomy, location, NPI, specialty, and panel status.
  - This supports accurate attribution, effective referrals, network adequacy assessment, and patient navigation.

- Admission-Discharge-Transfer (ADT) Feeds:
  - Real-time event notifications are critical for rapid follow-up, reducing readmissions, and ensuring smooth care transitions.

- Pharmacy Benefit Data (PBM-Level):
  - Medication fill data (timing, cost, adherence) allows for monitoring and optimizing adherence, reducing polypharmacy, and recommending lower-cost alternatives.

- Risk Adjustment & Grouping Outputs:

  - HCCs, episode groupers (e.g., ETG, MEG), custom registries, and predictive scores help organizations stratify risk, forecast spending, and evaluate interventions.
  - Required for identifying high-opportunity cohorts and targeting care interventions.
- Patient-Reported Outcome Measures (PROMs) and Experience Data:
  - Offers essential insight into patient wellbeing and satisfaction, especially in models focused on equity, functional outcomes, and quality of life.
- Social Determinants of Health (SDOH) Data:
  - Key for understanding non-clinical drivers of cost and outcomes such as food insecurity, housing instability, transportation access, and caregiver support.
- Pricing and Transparency Data:
  - Facility, professional, and pharmacy pricing data supports financial planning, referral optimization, and beneficiary-facing cost navigation tools.

Successful value-based care requires data that is complete, connected, and computable. Claims data is essential for its breadth and unifying power, while clinical and SDOH data offer critical depth. Provider directory data ensures coordination across organizations, and real-time feeds enable proactive management.

CMS can facilitate improved access to multi-source claims data by expanding data-sharing APIs and standardizing cross-payer data aggregation mechanisms, enabling ACOs to see a unified view of their attributed populations — including care delivered outside their own systems.