

April 3, 2015

Dr. Karen DeSalvo
National Coordinator for Health Information Technology
Office of the National Coordinator for Health Information Technology
U.S. Department of Health and Human Services
Hubert H. Humphrey Building, Suite 729D
200 Independence Ave. SW
Washington, DC 20201

Submitted Via: <http://www.healthit.gov/>

RE: Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap

Dear Dr. DeSalvo:

UnitedHealth Group (UHG) is pleased to respond to your request for comments on ONC's new Nationwide Interoperability Roadmap that describes a ten-year vision and plan for enabling interoperable health information technology (HIT) to support a broad scale learning health system by 2024.

UHG is dedicated to helping people live healthier lives and making our nation's health care system work better for everyone through two distinct business platforms – UnitedHealthcare, our health benefits business, and Optum, our health services business. Our workforce of 183,000 people serves the health care needs of more than 85 million people worldwide, funding and arranging health care on behalf of individuals, employers and government. As America's most diversified health and well-being company, we not only serve many of the country's most respected employers, but we are also the nation's largest Medicare health plan - serving nearly one in five seniors nationwide - and one of the largest Medicaid health plans, supporting underserved communities in 24 states and the District of Columbia. Recognized as America's most innovative company in our industry by *Fortune* magazine for six years in a row, we bring innovative health care solutions to scale to help create a modern health care system that is more accessible, affordable and personalized for all Americans.

We appreciate ONC's commitment to leading and collaborating with all stakeholders to advance interoperable HIT and nationwide secure sharing of health information. UHG is in alignment with ONC on the importance of this effort and the urgency required to implement the strategy embodied in the Roadmap.

Sophisticated, secure and interoperable HIT and robust health information exchange (HIE) are key enablers for transforming our health care system to achieve the three-part Aim in population health and improve the quality, safety and cost effectiveness of health care for the American

people. UHG has long advocated for policies and programs that support these goals, including most recently in our February 6, 2015 response to ONC's Strategic Plan 2015-2020.

In addition to leveraging interoperable technology, UHG's comprehensive approach to modernizing the health care system includes value-based payment and delivery models, such as Accountable Care Organizations (ACOs), sophisticated care management programs-- including deep collaboration with high value providers, transparency and consumer engagement programs and value-based insurance designs.

We offer the following comments and recommendations in the spirit of achieving our shared goals and based on the experience of our enterprise in developing modern HIE technologies that enable a more integrated and coordinated approach to patient-centered care delivery.

1. General

a. Are the actions proposed in the draft Interoperability Roadmap the right actions to improve interoperability nationwide in the near term while working toward a learning health system in the long term?

The Roadmap describes critical actions for enabling nationwide interoperability of electronic health information and we agree on the importance of including both administrative and clinical data as critical components to achieve this worthy goal. However, we recommend ONC address both clinical and administrative data and platforms simultaneously as opposed to under separate initiatives. We believe that, in order to examine the barriers and identify ways to streamline the system, the input and export of both administrative and clinical data within each stakeholder's workflow are equally important. For example, administrative revenue cycle workflow has to be examined with medical record exchange, as both impact clinical workflow processes. The industry must begin converging administrative and clinical data together by identifying what data is needed for what purpose and perform the required data mapping to pull and push this data between stakeholders' systems. This includes both practice management systems and electronic medical record (EMR) systems, in an authorized manner.

Additionally, almost all clinical processes start with administrative processes, including plan enrollment, eligibility verification, prior authorization requirements, verification, etc. In order for providers to be more productive and support better care, they require accurate and timely patient-specific health insurance information in an automated, clinically efficient manner within their daily workflow. The 2014 Council for Affordable Quality Healthcare (CAQH) Committee on Operating Rules for Information Exchange (CORE) study reveals the Plan and Provider Combined Average of Electronic Transaction Adoption through portals and standard transactions ranged from 92% down to 7%, indicating ample opportunity for improvement.

UHG supports and encourages ONC to address both administrative and clinical data as part of the scope of this current Roadmap. Furthermore, we recommend enhancing the priority of Health Insurance Portability and Accountability Act (HIPAA) standard transactions and operating rule compliance and adoption through certification and the advancement of robust operating rules that drive adoption of these transactions by plans and providers through the CAQH CORE initiative.

b. *What, if any, gaps need to be addressed?*

UHG recommends the following core elements be addressed in order to advance the goals established in the Roadmap:

- Define an overarching software architecture for the health data infrastructure to organize functions that allow interoperability, protect patient privacy, and facilitate access for clinical care and biomedical research. Optum accomplishes this via Optum Cloud – an open platform approach via a cloud based software architecture and network infrastructure. This approach facilitates data sharing across diverse systems and stakeholders, including hospitals, physicians, consumers, states and public health entities. We do this while ensuring for flexible data governance and patient consent requirements, facilitating enhanced care coordination and enabling population health management in support of value based care. We encourage financial incentives to support interoperability across disparate health systems (and discourage information blocking), with a focus on transport and content standards that ease barriers to the portability of health information.
- Establish a consistent meaning of data values and a more aggressive timeline for achieving an interoperable infrastructure. A common administrative data set and a common clinical data set are necessary to improve health and health care quality and lower costs. We encourage the governance committee to specify the coding and value sets for this combined set of standards in order to advance interoperability in a scalable way. Furthermore, because health IT serves as a fundamental enabler in transforming the U.S. health care delivery system, we recommend a more aggressive timeline for expanding the interoperable health IT infrastructure than the current ten-year continuum embodied in the Roadmap.
- Establish clear and precise guidelines for what constitutes a HIPAA violation. This is particularly important as consumers demand relevant information that can be used in real time. In order to provide consumers with actionable and insightful information that also complies with HIPAA requirements, specific details on what is and is not permissible under HIPAA would be helpful.
- Streamline the myriad of standards that impact the flow of data. Currently, payers are faced with multiple demands for data in various forms and formats. For example, regarding claims data alone, All-Payer Claims Databases (APCDBs), exchange transparency requirements, CMS audits, state market conduct exams, state regulatory demands around filings related to claims and CMS Star Ratings all apply. Any standards related to interoperability should be contemplated in the context of other standards in place. Ideally, these standards would be streamlined to achieve multiple purposes.
- Streamline various legal and regulatory roadblocks that impact the potential for interoperability. For example, the scope of this effort necessarily overlaps with state laws and regulations which are inconsistent nationally and may even impede the overall success of the effort. In order to achieve interoperability in the timeline put forth, a firm understanding of these overlapping laws and regulations and strategies for approaching impediments as the model further rolls out are necessary.
- Consider the impact of rules around consumer consent as a potential impediment to achieving broad interoperability. To enable clinical data exchange, it is necessary to clearly define data that would fall within the scope of the HIPAA Privacy Rule Treatment, Payment, and Health Care Operations (TPO) and data that would require individual physician and patient consent.
- Continue to promote and encourage students to select health information management (computer science and biomedicine) as their field of choice through educational campaigns

and financial incentives. Providing long-term resources to support industry interoperability is essential to achieving the goals of the Roadmap.

c. *Is the timing of specific actions appropriate?*

UHG supports an accelerated timeline for achieving basic interoperability. To improve interoperability nationwide in the near term while working toward a learning health system in the long term, we encourage ONC to set forth timelines associated with technical actions to establish formats and advance standards necessary to accomplish the Roadmap objectives. Additionally, we request that ONC enforce the timelines established, while promoting incentives for adoption.

d. *Are the right actors/ stakeholders associated with critical actions?*

We recommend a diverse set of stakeholders be engaged across both administrative and clinical areas in order for providers to be more productive and support better care.

2. Priority Use Cases

a. *Appendix H lists the priority use cases submitted to ONC through public comment, listening sessions, and federal agency discussions. The list is too lengthy and needs further prioritization. Please submit 3 priority use cases from this list that should inform priorities for the development of technical standards, policies and implementation specifications.*

- “Payers use integrated data from clinical and administrative sources to determine reimbursement in support of payment reform.”
 - As the industry shifts to value based payment and other incentives based on quality, there is an increasing need for information contained on the patient’s medical record to be shared with payers. Manual copying, sending and receiving of this information is cost prohibitive. We suggest that HHS release an attachment standard transaction final rule, as well as require the standard use (recognition of Health Care Common Procedure Coding System (HCPCS) instructions) of HIPAA Transactions and Code Set (TCS) to ensure consistency in data reporting. Unlike ICD-9, HCPCS code instructions (guidelines and conventions) are not mandated, resulting in misapplication and misrecognition of HCPCS codes. Industry or individual trends cannot be easily identified if the data is not consistently reported or recognized. Standardized import and export capabilities from certified electronic health records (EHR) would significantly reduce the effort involved in data extraction activities required for population health initiatives and other uses supporting value based payment and quality.
 - Further, without consistent meaning of data values, the value of interoperability will be constrained. In addition to converging the standards that govern the data exchange structures for practice management and EMR systems (Accredited Standards Committee (ASC X12) standards and Health Level Seven International (HL7) standards), the governance committee should specify the coding and value sets for this combined set of standards.

- “Payers should be able to receive notification automatically through the health IT system when a beneficiary is admitted to the hospital.”
 - Successful return on investment has already been realized by HIEs and providers through notification services utilizing Direct Project (DIRECT) protocols.
 - ONC is encouraged to continue to promote these use cases. These patient notification systems are critical to attributed providers within bundled payment models and ACOs. Real-time exchange of data, including notification of admissions to hospitals and emergency departments, is critical for the necessary care coordination and care transitions that will help better achieve the Triple Aim.
- “Population health measurement is supported at the community level and includes data from all relevant sources on each patient in the population and is accessible to providers and other stakeholders focused on improving health.”
 - In line with decreasing health care costs, population health management is critical to ensure quality health care is delivered to all consumers.

3. Governance

a. The draft Interoperability Roadmap includes a call to action for health IT stakeholders to come together to establish a coordinated governance process for nationwide interoperability. ONC would like to recognize and support this process once it is established. How can ONC best recognize and support the industry-led governance effort?

The governance body should be a combination of public and private entities. Within the private sector, ONC should choose companies with market share within the payer market, provider/ clinical systems, security, EMR and cloud systems. ONC should also include companies with the latest technology development regarding data sharing. With the guidance of public entities and the experience of the private sector, a balanced governance approach would be established.

The governance body should include thought leaders from both public and private entities that exchange administrative and clinical data. In addition to thought leaders, all major stakeholders should be represented on the governance body, including employers, government and private payers, health plans, providers, practice management systems, EMR vendors, clearinghouses, HIEs and consumers. Additionally, representatives from the standard-setting bodies should be at the table, including those organizations focused on interoperability and exchange, such as Healtheway, DirectTrust and Carequality.

Additionally, it is important to note that the volunteer workforce is overburdened and spread thin across the entire standard-setting, operating rule and related organizations, including Standards and Interoperability (S&I) initiatives. By leveraging the governance process to streamline and simplify administrative and clinical interoperability efforts, efficiencies of both time and effort can be realized. This can be accomplished by compiling clear objectives and timelines that are achievable into a single roadmap and removing redundancies between perceived administrative and clinical data. For example, practice management systems and EMR systems both process the same patient demographic information, HIPAA standard code sets, and other information critical to interoperability and the delivery of quality patient

care. However, both are built on different standards – practice management systems are built on ASC X12 standards and EMR systems on HL7 standards. The convergence of this medical information and data content should be the utmost priority.

We encourage ONC to work with HHS to investigate options to better coordinate the work of the various standard-setting bodies, including ONC, ASC X12, HL7, National Uniform Billing Committee (NUBC), National Uniform Claim Committee (NUCC), CAQH CORE and other related entities, and encourage increased participation by volunteers or funding of support staff. As conveyed on page 30, footnote 23, standards development organizations (SDOs) “do not necessarily work on the standards that the industry, CMS, ONC and other federal agencies believe are necessary to support interoperability.” The compilation of a single industry interoperability roadmap that includes both administrative and clinical processes is necessary to effectively drive resources in the right direction for increased success.

4. Supportive Business, Cultural, Clinical and Regulatory

a. How can private health plans and purchasers support providers to send, find or receive common clinical data across the care continuum through financial incentives? Should they align with federal policies that reinforce adoption of standards and certification?

In order for health plans and purchasers to support providers, there needs to be alignment with federal policies along with enforcement of timing, similar to ICD-10. Adoption can and will be faster given private sector incentives for providers in multiple areas. For example, small provider groups will be supplied with a low cost (and fully supported) IT system that utilizes cloud and standards to access and manage clinical and patient data. This incentive will prompt small providers to become early adopters of already scaled market solutions based on lower overhead and administrative costs. Additionally, the private sector entity providing the service will see lower overhead costs with more providers using standards. This will promote greater health care record sharing, drive better data analytics, help consumers make better decisions and support better health outcomes.

Adoption of clinical record exchange will occur when it is easy to use, incorporated within a streamlined workflow, stakeholders trust the data and security of the transport and value is tied to the action. For example, Optum Cloud enables interoperability among health care stakeholders to facilitate timely data sharing while ensuring privacy and security protections. Use of cloud enabled technology and standard development kits will advance the ability to access and share data among health care stakeholders.

Additionally, through UHG’s Rally platform, we have built a digital health care network that will allow communication and data exchange between providers, their patients, health insurers and their subscribers to engage consumers in their health care decisions. UHG has 245,000 adopted physician administrative staff on a common secure identification service with plans to onboard consumers in 2015, creating the ability to securely exchange health information between providers and the consumer.

As mentioned earlier, to truly advance health information exchange, we encourage ONC to:

- Define an overarching software architecture for the health data infrastructure, including both administrative and clinical, to organize functions that allow interoperability, protect patient privacy and facilitate access for clinical care and biomedical research; and

- Allocate resources towards a consumer empowerment educational campaign to raise awareness of how data can empower consumers in their health care decisions.

5. Privacy and Security Protections for Health Information

a. *What security aspects of RESTful services need to be addressed in a standardized manner?*

While the ultimate owner of a health care record is the patient, we encourage ONC to balance individual and public interests by protecting electronic information through encryption and establishing appropriate standards around technology, its availability to consumers and ease of use. This will help ensure an appropriate balance between protecting consumer information while meeting the desire for consumers to have ready access to their personal health information.

Optum's secure messaging capabilities and Application Program Interface (API) not only expand the current ability for stakeholders to communicate through DIRECT, but also provide a secure Optum ID multi-factor authentication process and secure encryption to allow Personal Health Information (PHI) and other sensitive information to pass to the right person securely and to store patient information in the right location. Enabling data sharing for administrative purposes and coupling it with consumer capabilities to electronically approve of data use would fundamentally change the way in which health information can be shared to improve patient outcomes, empower the consumer and remove unnecessary costs from the health care system. UHG recommends the following:

- Study the effect and accuracy of EMR data sharing, as the entire medical record is not transmitted and misinterpretations could occur; and
- Require safeguards to prohibit unauthorized data extraction from a Practice Management System (PMS) or EMR. Existing competition and patient privacy must be preserved. Sensitive patient data, contracted fee schedule and related pricing information must not be directly accessed by competitors or automatically retrieved from provider or payers' administrative and clinical systems. Data that is to be exchanged and its intended purpose must comply with HIPAA regulations or data holder consent.

6. Core Technical Standards and Functions

a. *Which data elements in the proposed common clinical data set list need to be further standardized? And in what way?*

The data elements in the proposed common clinical data set list need to be standard ID for all consumers. After this, there are many other key elements that should be identified and driven by the industry-led governance group. ONC is encouraged to support and participate in an industry forum (e.g., Workgroup for Electronic Data Interchange (WEDI)) to identify standard industry data needs, such as Healthcare Effectiveness Data and Information Set (HEDIS) and CMS Star Ratings, and develop and incent the use of recommended standard API data pull formats.

b. *Do you believe the approach proposed for Accurate Individual Data Matching will sufficiently address the industry needs and address current barriers?*

There is a pressing need to define a realistic and achievable definition of semantic interoperability that can be meaningfully tested and contribute to a reduction in integration challenges between systems. Progress made in transport standards (DIRECT, Integrating the Healthcare Enterprise (IHE), etc.) has reduced some of the interoperability challenges, but we continue to struggle with content standards which are essential for making data actionable, supporting evidence-based care and population health initiatives and fostering the success of ACO and value based care initiatives.

We encourage ONC to ensure that the accurate individual data matching aligns with both administrative and clinical business needs. There is a need for cross industry patient identifications. Optum ID is an example of a utility for such cross industry patient identification. Optum ID is a multi-factored identification to ensure the right information is sent to the right individual when requested. Additionally, Optum ID is used to ensure patient information is securely and accurately placed within Federation storage solutions for easy access by the patient and/ or approved provider.

In addition, an electronic standard intake process needs to be created that is applicable for all provider settings, including demographics, health insurance information, personal health history and HIPAA attestation. UHG supports the WEDI Virtual Clipboard initiative, which will be valuable for both administrative and clinical processes. Establishing a standard ID for all consumers is critical for record sharing.

7. Certification and Testing

a. *In what ways can semantic interoperability be best tested? (e.g., C-CDA content and semantics)*

Standard certification and testing protocols should be applied. Relevant use cases should be identified to ensure the C-CDA content can be seamlessly transferred to the end user to meet the intended business need.

8. Measurement

a. *Does the measurement and evaluation framework cover key areas? What concepts are missing?*

While the framework covers key areas, such as critical infrastructure, standards, services and policies, UHG recommends that ONC prioritize the need for established definitions of coding, measures and value sets to define thresholds for normal and abnormal. For example, it is not sufficient to have adoption of HL7 or Logical Observation Identifiers Names and Codes (LOINC) and have different standards of blood pressure control or lab values.

Additionally, the framework is relatively specific about what will be measured for the initial three-year interval and then appropriately stated at more general levels for the latter years in the framework span. The framework acknowledges and appears compatible with the likelihood that new measures will be

needed to fully capture and assess the impact of interoperability on actual care delivery and the pace of system improvements.

Furthermore, we recommend that the measurement and evaluation framework be consistently adopted by all federal, state and private stakeholders, so that we can consolidate and rationalize the various, unintentionally disparate measures and frameworks that currently exist. For example, it would be helpful if all federal and state agencies agree on using HEDIS for certain measures related to clinical quality and sunset the “HEDIS-like” measures that many state Medicaid agencies developed 15 to 20 years ago.

b. Which concepts from the framework are the most important to measure? What types of measures should be included in a "core" measure set?

The shorter term (years 1-3) measure concept examples identified to address capability, information flow and initial impact collectively look necessary but insufficient to form the core set for the initial phase. Current best practices in performance measurement and interoperability have indicated the need to start with a core set of measures to improve health and health care quality and lower health care costs – all in the initial three-year phase. With the incomplete and still emerging understanding of how to best measure the more robust outcomes anticipated in the out years, the framework at this point can only project general domains of measurement need plus approaches to address key gaps in the future. Selection of the out year core measures will require further definition as the initial phase is undertaken.

c. Should measurement focus on certain use cases, priority populations or at certain levels of the ecosystem (e.g., encounter, patient, provider, organization)?

We recommend observation at multiple levels and across diverse use cases involving interactions of varying parts of the ecosystem. Since progress will need to occur across all use cases and levels, a more limited specification could later lead to incompatibilities at a level that is increasingly critical over time.

d. What other types of metrics have been successfully used at the local or regional level that might be considered for nationwide use? Would stakeholders be willing to propose novel metrics and provide "test beds" to assess the potential for nationwide use?

UnitedHealthcare (UHC) has vast experience with metrics, given its 13-year history leveraging value based payment programs. Our experience shows us that traditional quality measures, such as HEDIS, are necessary, but insufficient to drive value. In order to drive towards the Triple Aim, we need “quality defect” measures, such as hospital readmission rates less than 30 days post-discharge, hospital-acquired conditions, inappropriate prescribing, measures around utilization of discretionary services and total costs of care.

With regard to HIEs, historically these entities have not provided significant analytics. The use of clinical data in developing a comprehensive analytic strategy for an HIE is just being implemented for the first time by several HIEs that are employing the unique clinical analytics technology (which is available from Optum). Optum is interested in engaging with ONC as we move forward with these integrations to share learnings that could potentially be used nationally.

In terms of Impact measures, the planned Agency for Health Care Research Quality (AHRQ) systematic review on HIE would seem to be the preferable approach to assessing this question in a reliable and comprehensive manner.

e. What measurement gaps should be prioritized and addressed quickly?

Because health IT serves as a fundamental enabler in transforming the U.S. health care delivery system, we recommend a more aggressive timeline for expanding the interoperable health IT infrastructure than the current ten-year continuum embodied in Figure 10, page 104 of the Roadmap. Specifically, we should leverage the 2015-2017 period to include a common administrative data set and a clinical data set to improve health and health care quality and lower costs. We should also simultaneously adopt these initial measures and data sets. The resources are available to do this today and waiting until 2018 hampers our efforts to measure and manage discretionary utilization of health services and lower health care costs. We can augment these efforts in the six-year agenda (2018-2020) with more evolved and sophisticated measures.

A more aggressive timeline will naturally impact the measurement actions included on page 112, Table 15. This will underscore the need for the governance body to include all major stakeholders, including health plans, software vendors and data and analytics leaders, as well as government and private payers, providers, and vendors.

Additionally, Population Analytics provides a rich patient-centered longitudinal view of patient populations. Care patterns, care delivery, clinically-driven predictive models, gaps in care, ACO measure tracking and reporting are all available across disease-specific models. This allows an entity to:

- Identify the sickest and costliest patients;
- Predict patients at risk for index admissions across multiple disease cohorts;
- Create registries by diagnosis, condition or other metrics;
- Identify patients who are at high risk of a high cost preventable event;
- Identify gaps in care;
- Stratify patients according to risk;
- Measure the care transitions of those enrollees most adversely impacted;
- Gauge and track success on ACO measures;
- Measure physicians against peers nationally and across an organization; and
- Learn how peers are managing their populations.

In terms of the Impacts Domain, we encourage ONC to align closely with existing and ongoing efforts of other HHS agencies to prioritize the development of new measures, such as the Priority Measures for Monitoring and Evaluation identified by the Center for Medicare & Medicaid Innovation in January, 2015: <http://innovation.cms.gov/Files/x/PriorityMsrMontEval.pdf>.

f. What other available data sources at the national level could be leveraged to monitor progress?

In terms of data sources, Optum and UHC both have extensive experience that may be leveraged. For example, UHC has nearly 20 years of experience in performance measurement and 13 years of experience in value-based payment based on various metrics and value-based benefit designs.

Optum has developed extensive data resources that include both administrative and clinical data. For instance, Optum Labs (<https://www.optum.com/optumlabs.html>) focuses on research and innovation and hosts the Optum Labs Data Warehouse (OLDW), which consists of a broad

range of de-identified health care data. This includes administrative records of varying duration for more than 128 million individuals with linkable claims data and 33 million individuals with un-linkable claims data, as well as EHRs for over 31 million patients (approximately 9.2 million patient records overlap between clinical and claims). This detailed patient information comprises more than 2,000 data elements, including approximately 1,500 claims fields, 250 clinical fields and 300 consumer data fields.

The OLDW contains traditional patient-level administrative data, including enrollment, medical claims, pharmacy claims data and lab results across care settings. Clinical data that is sourced from Humedica, an Optum company, curates from more than a dozen different EHRs for 30 large provider practices and integrated delivery networks (IDNs) – and growing.

g. Are the potential mechanisms for addressing gaps adequate? What are other suggestions?

As articulated under question 2, the value of interoperability will be constrained unless a consistent meaning for coding, measures, and data values is accomplished, including common standards, common language and common formats.

Also, ONC should plan for emerging and new gaps as more robust interoperability is achieved. The overall planning must take into account new and closed gaps and adjust appropriately as the Roadmap evolves.

h. How should data holders share information to support reporting on nationwide progress?

Actively supporting reporting will require a refinement of the incentives, workflows and potential policy challenges, especially those related to protecting the confidentiality of patients and providers. This holds true for holders of both national and regional data. At the more granular clinician level, we recommend striving to keep this aspect of the overall process aligned with the scope statement included in the Roadmap to not impose additional burden on practicing clinicians.

i. What are appropriate, even if imperfect, sources of data for measuring impact in the short term? In the long term? Is there adequate data presently to start some measurement of impact?

We commend ONC on its successful interstate exchange of electronic health data. We encourage ONC to continue to support pilots to flesh out barriers and identify opportunities to exchange data and strongly promote the return on investment (ROI) across the industry to encourage increased stakeholder adoption. Optum partnered with the Medical Group Management Association (MGMA), a WEDI Healthcare Secure Messaging Software Work Group, to identify best practices and provide industry education to increase successful secure communication exchange. Three use cases and their associated ROI were highlighted at the October WEDI Work Group. ONC is encouraged to compile and share similar successful use cases and their associated ROI and to fund multiple stakeholder and coordinated care models across systems with private industry experts like Optum.

We have yet to realize the full value of health care data through connected systems that improve population health, quality and care delivery, and lower costs. We look forward to partnering with you to create a modern health care system that maximizes the potential of health care data and technology. Should you have any questions or need additional information, please do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard J. Migliori". The signature is fluid and cursive, with a large loop at the end.

Richard J. Migliori, M.D.
Executive Vice President and Chief Medical Officer, UnitedHealth Group

cc: Sam Ho, M.D.
Executive Vice President, Chief Medical Officer, UnitedHealthcare
Chief Medical Officer, UnitedHealthcare Medicare and Retirement