

Morgan Health  
JPMorgan Chase & Co.  
875 15<sup>th</sup> St NW  
Washington, DC 20005

Embold Health  
1801 West End Avenue  
Suite 800  
Nashville, Tennessee 37209

December 6, 2022

The Honorable Chiquita Brooks-LaSure  
Administrator  
Centers for Medicare and Medicaid Services  
*Electronic Submission*

Re: Request for Information; National Directory of Healthcare Providers & Services, CMS-0058-NC

Dear Administrator Brooks-LaSure:

Morgan Health, a business unit of JPMorgan Chase (JPMC), and Embold Health appreciate the opportunity to respond to the Centers for Medicare and Medicaid Services (CMS) Request for Information relating to the creation of a National Directory of Healthcare Providers & Services (NDH).

JPMC launched Morgan Health in 2021 to improve the quality, equity and affordability of health care for individuals who have employer-sponsored insurance (ESI) in the United States. Morgan Health is deploying \$250M from the JPMC balance sheet to invest and help scale promising companies in this sector. We also are partnering with our Corporate Benefits team to pilot solutions for the 285,000 employees and dependents covered by the JPMC health plan, as well as sharing research and insights to influence the broader ESI marketplace.

Embold Health is a data analytics company that connects patients to top-performing providers and specialists through real-time quality data using metrics that assess practice patterns and appropriateness of care. Morgan Health invested in Embold Health as its robust capabilities offer a promising solution to address long-standing issues in health care quality. Data that provide reliable and evidence-based evaluations of physician performance are critical to health care purchasers and patients alike to support value-based reforms. Both Embold Health and Morgan Health recognize that transparent provider cost and quality data are essential to broader innovation efforts across the health system.

We applaud CMS for proactively soliciting public input as it begins to consider creating and implementing a resource with the ability to impact the entire health care system. As this is a herculean effort, we acknowledge the complexities of balancing the government's capacity to build a single centralized provider and services directory with the need to maintain it as reliable resource for

stakeholders across the industry. With these considerations, the proposed national provider directory would be a critical step to ensure the United States has an efficient way to capture accurate data that are publicly available and reliable to leverage in efforts to improve health care throughout the country.

For these reasons, we support the creation of the NDH, noting that this resource will enable:

- Health plans and plan sponsors to have a more accurate picture of where individuals are seeking care, helping to inform benefit design refinements and network improvements needed to optimize access to and quality of care delivered to members across geographies and specialties;
- Health plans, plan sponsors, and providers to collaboratively develop more effective payment models that drive accountability for the cost and quality of care delivered to Americans;
- Health care innovation efforts to help accelerate adoption of value-based care models, as the provider data in the NDH will reliably facilitate evaluation of providers across public and commercial payers.

## Responses to Select Questions

**What benefits and challenges might arise while integrating data from CMS systems (such as NPPES, PECOS, and Medicare Care Compare) into an NDH? What data elements from each of these systems would be important to include in an NDH versus only being available directly from the system in question?**

While there are notable challenges related to integrating data from CMS systems into a central hub, the utility of a single national directory of providers and services outweighs the burden of the concerns. In building this database, CMS should consider whether required data elements will be extracted from existing databases or if providers will need to validate or resubmit their information, either in a set timeframe or as part of renewing their enrollment with Medicare or Medicaid. If the information is to be merged from existing databases, CMS should include a period for data validation by providers and facilities. Clear guidance should be established for providers submitting new information or renewing enrollments during this timeframe before the complete transition to the NDH is made to minimize risk of incomplete data or data loss. A needs assessment and inventory of available data should be part of the discovery process for the NDH to determine what data currently exist with adequate fidelity, what data are available without provider participation, and what data will require provider participation.

Additionally, CMS should adopt “best data” rules to determine the most accurate information in the likely event there is conflicting information from different sources (e.g., site of practice address variation between an individual provider and group practice that includes the same individual provider in its roster of affiliated clinicians). CMS should consider how the NDH will be maintained as the source of truth for both Type 1 (individual) and Type 2 (organizational) providers and specify criteria for many-to-many data mapping relationships to account for providers affiliated with multiple practice locations, or multiple providers in a single practice location. This would allow for individual providers to be mapped through organizational information and vice versa, maximizing flexibility within the resource and ensuring that updates made to individual or organizational profiles are perpetuated across the database.

To avoid redundancy and maximize the reliability of the hub, all data that providers are required to submit to populate CMS systems should be housed in this central repository. As discussed in more detail below, we believe basic data, including name, state(s) of licensure and associated identifiers, National Provider Identifier (NPI), specialty, practice location, administrative address, and plan/payer affiliations should be made publicly available to all registered users. However, sensitive information related specifically to Medicaid and Medicare—including any information related to audits, overpayment disputes, or fraud and abuse investigations—should be limited to designated registered users (e.g., CMS employees, payers, providers, auditors).

Once implemented, if reducing administrative burden and data inaccuracies are primary goals for the NDH, its design should also include functionality to compare any information that is integrated from the NDH into other CMS systems, flag discrepancies for correction, and apply “best data” rules as above. The same rules should apply for data that other CMS systems extract from the NDH. It should also incorporate periodic validation from a randomized sample of providers to maintain integrity of data exchanges between systems.

Noting that databases outside the CMS ecosystem (including commercial payers’ systems) would likely plan to use and integrate the data from the NDH, further integration efforts should incorporate lessons learned from the integration of CMS systems and maintaining data integrity.

**Are there systems at the state or local level that would be beneficial for an NDH to interact with, such as those for licensing, credentialing, Medicaid provider enrollment, emergency response (for example, the Patient Unified Lookup System for Emergencies (PULSE) [73] ) or public health?**

**++ What data elements would be beneficial to include in an NDH for interaction with state or local systems, including State-based Exchanges or existing state-level provider directories?**

At a minimum, the NDH should be able to interface with state licensing boards for the most commonly enrolled clinicians (e.g., physicians, nurses, physician assistants, physical and occupational therapists, behavioral health clinicians, etc.). Even though these clinicians must maintain state licenses, there is currently no central licensing hub for states to populate to make credentialing information widely available. As health delivery increasingly seeks to leverage virtual care options, having an efficient way to evaluate clinician credentials across states is a necessary step toward maximizing the benefits of virtual care delivery.

Additionally, CMS should consider ways to leverage existing databases that have been developed in the absence of a centralized hub to date. For example, the Federation Credentials Verification Service (FCVS) is a resource affiliated with the Federation of State Medical Boards. FCVS is designed to help streamline education information for physicians and physician assistants seeking multi-state licensure. We acknowledge the need for CMS to assess risks and determine the implications of having a third-party resource (e.g., FCVS) populate the NDH, but FCVS and similar databases could provide a means for “behind the scenes” validation of information submitted by providers. Integration with specialty and subspecialty boards to verify board certification would also be important to ensure all information is up-to-date.

**What types of data should be publicly accessible from an NDH (either from a consumer-facing CMS website or via an API) and what types of data would be helpful for CMS to collect for only internal use (such as for program integrity purposes or for provider privacy)?**

Publicly available data should at a minimum include access to a core set of data elements for individual providers, including: provider name, NPI, practice location(s) (mapped to the corresponding facility data including contact information, insurance plans accepted, etc.), basic demographic information (e.g., gender, race and ethnicity, languages spoken by the physician), taxonomy code and specialty, board certifications, and insurance plans accepted.

For organizational providers, publicly available data should at a minimum include the organizational name, physical location of the facility, NPI, facility ownership and corporate office street level address, office phone number(s), email address(es), website, insurance plans accepted, levels of care (e.g., trauma center designations for hospitals) and types of specialties offered, designation of whether the office location and layout is accessible to individuals with physical disabilities, and languages spoken by the staff should be available to all registered users. We note that a single organization NPI may have multiple facility locations or that a single facility may have multiple associated NPIs; therefore, the design of the data should be carefully considered to accommodate the complexity in these data mapping relationships.

An ideal state would also include provider quality information; however, as there is currently no quality designation that encapsulates provider quality performance across all types of payers, the information would be incomplete, and as a result, may be confusing or misleading. That said, physician quality has emerged as a key missing element across the U.S. health care system, and we suggest that the NDH effort might be a launching point to accelerate our path to more meaningful levels of provider quality transparency. CMS should consider incorporating facility quality scores for Type 2 providers as another subset of public-facing information in a later version/update to the NDH.

To ensure this information is accessible, the NDH data should be presented both in a graphical user interface (that allows users to search for specific or groups of providers) and available for download as a complete set through application programming interfaces (APIs). When presenting public information within a graphical user interface, developers should carefully consider how to ensure data are presented in a manner that is easy to access and consume by the average public user. The ability to use the information in the NDH should not require additional programs or specialized software, and the format should allow sorting and filtering of information. For example, consider a social worker looking to locate a nursing home for a patient. The social worker should be able to use the interface to curate a list of providers to share with the patient's family based on the provider geography or insurance accepted. Mobile accessibility and the presence of a modern user interface should also be considered so that public users (including patients, their families, and their caregivers) have equitable access regardless of the type of device they use to access the NDH.

Furthermore, the NDH data should be made available through a set of APIs to organizations using the data to drive health care delivery through innovation and scale. Operationally, this could be as simple as a set of comma-separated value files that are updated on a weekly or monthly basis, similar to the

National Plan & Provider Enumeration System (NPES). In addition to the publicly available data cited above, data elements that should be available to this subset of registered users (e.g., payers and providers) may include: CMS Certification Number (CCN), state license(s), billing address, billing Tax Identification Number (TIN), office fax number, and facility email address. For organizational providers, any interactions or relationships with other facilities should be clearly identified. For example, if a clinic is owned by a hospital but has a separate Type 2 NPI, and is therefore separate entry in the NDH, the relationship to the hospital NPI should be clear.

**We want an NDH to support health equity goals throughout the healthcare system. What listed entities, data elements, or NDH functionalities would help underserved populations receive healthcare services? What considerations would be relevant to address equity issues during the planning, development, or implementation of an NDH?**

CMS can consider multiple design elements to ensure the NDH helps advance health equity. The website and database must be accessible for those with disabilities in accordance with U.S. Department of Justice Guidance for Web Accessibility and the Americans with Disabilities Act (ADA). Additionally, the ability to use the database in multiple languages or have access to translation or interpretation services to navigate the database will be important. Every consideration should be made to ensure all users can obtain the necessary information they need in a way they can understand.

Other health equity related considerations include ensuring availability of certain public-facing fields. For example, the languages spoken by a provider or at a practice should be represented clearly. The NDH should also clearly specify the types of insurance accepted by each provider, particularly Medicare, Medicaid, and Qualified Health Plans (QHPs) in the Marketplaces. Also, including a breakdown of patients by insurance type for each provider can help users understand whether specific providers often or rarely treat patients of similar coverage types. An indication of percentage of patients that each provider serves by age groups could be beneficial for the same reason. To ensure the comprehensiveness of the NDH as a reliable data hub, these equity data elements should be available for a minimum threshold (ex. 95 percent) of NPIs.

In addition to the data elements above, CMS must carefully consider the implications of making individual provider demographic information (e.g., race and ethnicity) publicly available. A clearinghouse of race, ethnicity, and language data for providers does not exist, so the NDH could become the sole source for that information with the goal of giving patients the ability to identify racially, ethnically, and culturally concordant providers if they so choose. If CMS includes providers' race and ethnicity in the NDH, it should align the reported categories with those used by the Office of Management and Budget (OMB) to ensure consistency and clarity in the definitions. Additionally, providers should self-identify their race and ethnicity. Data collection and normalization of the same will be a key piece of the movement toward greater equity in U.S. health care.

Facility level information should clearly state information on ADA compliance (including any authorized exemptions) and note missing equipment or services that could impair someone living with a disability from receiving optimal care. This data should be cross-referenced with any other government resources on exceptions to ADA compliance to ensure consistency.

**How could NDH use within the healthcare industry be incentivized? How could CMS incentivize other organizations, such as payers, health systems, and public health entities to engage with an NDH?**

If the NDH is envisioned to be the centralized data source that feeds the other CMS databases, then the use of the NDH by both individual and organizational providers should be a condition of participation in any Medicare, Medicaid, or CMS Innovation Center alternative payment model. The requirement should also extend to providers delivering care under networks in QHPs in the Marketplaces. CMS also could require insurance carriers for government-sponsored plans (e.g., Medicaid Managed Care, Medicare Advantage, or QHP) to have their in-network providers maintain their information in the NDH. Such an action would lead the vast majority of providers to report into the NDH.

If CMS institutes the requirements above, private insurance plans would be incentivized to use the NDH as their central data source for all of their provider data. This is in part because providers often deliver care under multiple payers. If in-network providers (individuals and facilities) already report to the NDH, and the federal government provides resources to maintain the system, then leveraging the central hub relieves the plans from having to maintain their own databases. Plans should then have the responsibility to ensure in-network providers' information is accurate and up-to-date, including the ability to update the NDH for providers who achieve preferred status within their networks. Realizing the possibilities of private plan involvement requires up-front collaboration between CMS and private payers to ensure consistency with CMS programs and processes to facilitate secure transmission of information between systems. The use of different access levels and designations could help ensure access is granted in a controlled manner.

**How could CMS evaluate whether an NDH achieves the targeted outcomes for its end users (for example, that it saves providers time or that it simplifies patients' ability to find care)?**

CMS should solicit input from the relevant stakeholders that regularly use the NDH to determine if the database meets these goals. Monitoring frequency of use and other activity, such as how data are being used and timeliness of maintenance, could help assess whether the NDH is achieving its targeted outcomes.

**How could a centralized source for digital contact information benefit providers, payers, and other stakeholders?**

A centralized NDH could become the source of truth for all provider-related information, allowing for ease of access for information. Requiring routine updates of a single source of information would ensure that a source of truth exists for all provider contact information and discrepancies do not exist by trying to maintain the same information across multiple, disconnected systems that rely on information from each other.

For employers, an NDH could help advance care navigation improvements within their employee benefits ecosystems. An NDH would provide the foundational information on covered providers and employers could build or enhance care navigation solutions around these data. With this goal in mind, employers can help to increase utilization of an NDH by requiring self-funded plan carriers to have their in-network providers report their information to the NDH.

**We have heard interest in including additional healthcare-related entities and provider types beyond physicians in an NDH-type directory beyond those providers included in current CMS systems or typical payers' directories? For example, should an NDH include allied health professionals, post-acute care providers, dentists, emergency medical services, nurse practitioners, physician assistants, certified nurse midwives, providers of dental, vision, and hearing care, behavioral health providers (psychiatrists, clinical psychologists, licensed professional counselors, licensed clinical social workers, etc.), suppliers, pharmacies, public health entities, community organizations, nursing facilities, suppliers of durable medical equipment or health information networks? We specifically request comment on entities that may not currently be included in CMS systems.**

**++ For what use cases should these various entities be included?**

Given the desire for the NDH to connect with NPPES, at a minimum, any provider requiring the use of an NPI should be included in an NDH. To minimize burden, the input and maintenance of that provider data should occur within the NDH, as the centralized source of information for multiple databases. Excluding non-physician providers with NPIs is counterintuitive to efficiency, innovation, and health equity, given practical considerations (e.g., significant physician shortage projected, particularly in primary care). It also could lead to inconsistencies in the information provided if, for example, Advanced Practice Registered Nurses/Nurse Practitioners were to use NPPES only while the facility reporting to NDH includes their NPI among those providers who deliver primary care services.

Having the broadest variety of providers and facilities included in the NDH has many benefits, including for transitions of care and patient care navigation. For transitions of care, being able to see information on nursing facilities or obtaining durable medical equipment in a singular database can help make finding what a patient and their family needs much simpler. Additionally, patient care needs exist outside of just what physicians can provide so being able to have a singular source of truth to access this needed information would help to aid in these concerns. For example, for patients in certain geographies, the closest access to care may not be a physician provider but rather a nurse practitioner or physician assistant. To continue to advance health equity and align with the CMS Framework for Health Equity Priorities, patients should easily be able to access all of this information in one place to find the care they need.

**What provider or entity data elements would be helpful to include in an NDH for use cases relating to patient access and consumer choice (for example, finding providers or comparing networks)?**

**++ What data elements would be useful to include in an NDH to help patients locate providers who meet their specific needs and preferences?**

**++ Would it be helpful to include data elements such as provider languages spoken other than English, specific office accessibility features for patients with disabilities and/or limited mobility, accessible examination or medical diagnostic equipment, or a provider's cultural competencies, such as the National Committee for Quality Assurance's Health Equity accreditation (though we note that these data elements may be difficult to verify in some cases)?**

As noted above, information on provider locations, accessibility, language, age of patients, and more all contribute to promoting health equity by empowering patient choice. An NDH would provide the

first centralized resource for all of this information to be seen and compared with more ease rather than trying to match across separate systems that may not have the same standardized information.

**Understanding that individuals often move between public and commercial health insurance coverage, what strategies could CMS pursue to ensure that an NDH is comprehensive both nationwide and market-wide?**

**++ Are there specific strategies, technical solutions, or policies CMS could pursue to encourage participation in an NDH by group health plans and health insurance issuers offering group or individual health insurance coverage for programs or product lines not currently under CMS' purview?**

As discussed previously, requiring Medicare, Medicaid, and QHP enrolled providers to use the NDH would incentivize health plan issuers to adopt the NDH for all of their providers, including those in their commercial market product networks. Having a streamlined, central location for data would help ease their data maintenance needs. CMS could determine how information in the database could intersect with payers' information in a way that protects providers' information but encourages use of the NDH to maintain consistency in information for patients, and in particular, patients who move between health plans.

Noting that commercial plans and networks can change more frequently, specific considerations will be to make ensure that the information in the NDH is updated in the appropriate time to accurately reflect these changes. This could mean that provider should re-certify their data annually at a minimum, and the database could allow self-reported changes on an ad hoc basis. Also given the differences in commercial plan designs, CMS should consider accurate mapping to providers and facilities for clarity on in-network status.

Finally, CMS should consider coordinating with the Office of Personnel Management (OPM) in its capacity as administrator of the Federal Employee Health Benefits Program (FEHBP). With the federal workforce being the largest and most geographically diverse of all groups covered by employer-sponsored insurance, incorporating the NDH into the bid requirements for plans seeking to participate in FEHBP could greatly accelerate use in the commercial market.

**What are barriers to updating directory data in current systems that could be addressed with an NDH?**

Barriers exist in that current systems require manual updates in multiple locations, leading to the increased risk of conflicting data due to multiple sources of truth for providers and their information. These conflicts make it difficult to match provider information across multiple systems. In addition, as each provider is currently updating multiple platforms, they have greater likelihood of failing to maintain all of the systems accurately.

It is important to note that data could populate the NDH from multiple sources (ex. individual providers, payers, facility managers), so as noted above, part of this initiative should include a determination of logic that would allow the best, and likely most accurate, information to come across in the NDH, as discussed with determining "best data" rules previously.



**What specific strategies, technical solutions, or policies could CMS implement to facilitate timely and accurate directory data updates? How could consistent and accurate NDH data submission be incentivized within the healthcare industry?**

CMS should explicitly define a time window in which changes to network information for a provider or facility or location need to be reported (ex. within 60 days of the change taking place). Timely updating will help prevent misalignment between members and providers/sites of service without dramatically increasing the reporting burden.

Additionally, providers and facilities should have to review their information on a regular basis, possibly annually, by attesting that their information is correct and updating their information as needed. Tying this to payment eligibility and continued enrollment in Medicare and Medicaid could ensure this is completed. Given the desire for the NDH to be a centralized location, having to complete data submission and verification in only one place should not be overly burdensome on the providers and payers.

**How should duplicate information or conflicting information reported from different sources be resolved to balance the reporting burden versus confidence in data accuracy?**

As discussed above, the scope of this effort must include work to develop ‘best data’ rules to align often conflicting information. This could include requiring individual providers to update their own personal demographic information (vs. data sourcing from elsewhere), in contrast to having insurance coverage data provided by payers (as it is considered higher quality when it comes from the payers). Even when a provider or organization is not considered the ‘best’ source of a particular data element affiliated with their record, they should have the ability to request a correction to any data within their record and for that correction to be reviewed within a timely manner.

**What security standards should be used to support an NDH?**

Cybersecurity, especially in health care, is of the utmost importance when considering the development of an NDH. CMS should prioritize development of a secure framework to protect provider information from unauthorized access, disclosure, and use in order to ensure the integrity of the database. The NDH must also have functionality to avoid cyberattacks against the system itself or any of the users/entities with links into the hub as these attacks would threaten health care operations across the entire country. Specific technical standards should be provided by experts.

**What entities or stakeholders should participate in the development of an NDH, and what involvement should they have?**

- Medicare/Medicaid beneficiaries and Consumer/Patient Advocacy Groups: input on which public-facing information should be available to patients (i.e., the general public)
- Disability Advocacy Groups: input on accessibility of using NDH and key information to include
- State Medicaid agencies, national health insurance plans, small and regional health insurance plans, employers sponsoring health benefits: input on the information they need for their individual provider and payer databases and how they could contribute to or validate information within the database

- Health systems, independent small group practices: input on the collection of data in an NDH and how to ensure that it helps reduce (or at minimum, maintains) their administrative burden
- Individual providers: input on the sensitivity of data elements as they are shared with different subsets of users; input on the usability of the interface
- Researchers: input on the best information to study health care quality, outcomes, and variation of care at the provider level

**What functionality would constitute a minimum viable product?**

A minimum viable product will provide non-government stakeholders and the public the capability to view and utilize clear, accurate provider information. Additionally, the NDH would become the source of truth and data entry point for all providers to related CMS databases.

We applaud the work signaled by this RFI and are encouraged to see CMS begin to explore the development of the NDH. We appreciate the opportunity to offer this feedback from employer-sponsored and data analytics perspectives. If you have any follow-up related to this letter, please contact [Orriel.Richardson@jpmchase.com](mailto:Orriel.Richardson@jpmchase.com) and [Matt.Resnick@emboldhealth.com](mailto:Matt.Resnick@emboldhealth.com).

Sincerely,



Dan Mendelson  
CEO, Morgan Health



Daniel Stein, MD, MBA  
CEO, Founder, Embold Health