



# Position on a National Provider Directory

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## Abstract

The document outlines the complexities and strategic approach to building and sustaining a National Provider Directory (NPD) in the U.S. healthcare system. It highlights the systemic challenges of data fragmentation, provider reporting behaviors, and governance issues, while proposing a comprehensive, technology-driven solution to improve provider data accuracy and interoperability across stakeholders.

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# Introduction

Establishing and maintaining a national provider directory involves technical, operational, and organizational challenges. While the goal is to create a reliable single source of accurate information, issues can arise due to frequent changes in data such as providers, organizations, and services update affiliations, locations, or operational details. Standards for provider directories differ across states and systems, resulting in varied formats, incomplete data submissions, and delays in updates. The healthcare sector also presents additional considerations such as regulatory requirements, legacy technology platforms, fragmented governance structures, and diverse stakeholder priorities. The new requirement to collect provider endpoint information for the CMS Health Tech Ecosystem will require both providers and intake partners to include endpoint information among the collected data elements.

This white paper will review ecosystem-level challenges and the underlying factors contributing to the complexities in developing national provider directories. It will discuss possible solutions, essential dependencies such as endpoint collection, key constraints requiring attention, and insights from similar initiatives. The paper will also describe approaches for establishing and maintaining a national provider database/directory intended to support the evolving health technology system and improve outcomes for patients, citizens, and providers.

### Key Points:

- The new model must simplify the process for providers and reduce the need for them to input the same data into multiple solutions. Create a “one stop shop” for providers.
- In addition to collecting and managing provider demographic elements members need, the new model must begin collecting and managing provider FHIR endpoint information.
- Bad data must be identified and resolved BEFORE ingesting into the national database/directory, and constant data cleansing must occur for data already loading into the database/directory.
- Leverage and expand existing industry solutions versus building from scratch.

# Background

## Health Ecosystem Problems

The U.S. healthcare system continues to struggle with provider directory accuracy, impacting efficiency, usability, sustainability, and cost. What appears to be a simple administrative function—keeping directories up to date—is in fact a systemic data challenge fueled by fragmented processes, inconsistent standards, and misaligned incentives. The result is a costly, inefficient ecosystem that undermines patient access and erodes trust.

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Below are several arguments regarding the challenges and consequences of poor data quality in healthcare directories:

- **Poor Data Quality and Inaccuracy:** Directories suffer from poor underlying data quality. Due to the complex and burdensome nature of the existing data processes between provider and payors, providers often do not report changes, may attest inaccurately, or submit conflicting information. This lack of accountability and the fragmented reporting processes lead to data becoming stale, sometimes for years.
- **Lack of a Single Source of Truth:** Key data such as location, network status, and service availability are scattered across various systems like electronic medical records (EMRs), health plan systems, and third-party administrators. This fragmentation results in a single provider appearing differently in multiple systems, creating inconsistent and conflicting records.
- **Consequences of Inaccurate Data:** Consequences include barriers to accessing care, delays, and unexpected out-of-pocket costs for patients and caregivers. Increased administrative burdens on providers and health plans may cause disruptions in continuity of care, patient scheduling, and claim reimbursement. These factors may lead to an erosion of trust in both health plans and the healthcare system overall.
- **Financial Impact:** Health plans and providers spend \$2.76 billion dollars annually on directory maintenance costs practices nationwide<sup>1</sup>. The opportunity cost of reconciliation includes resources diverted from innovation in health IT, interoperability, and care coordination. Without systemic change, the system remains trapped in a costly cycle of manual validation and error correction.
- **Impact of Mergers and Acquisitions:** Mergers and acquisitions can magnify problems such as overlapping EMRs, credentialing systems, and directories multiplying duplicate and conflicting records. In addition, data lineage is often lost during consolidation, reducing accuracy and accountability. Many times, the gaps in governance widen as organizations restructure, further compounding data inconsistencies, duplication, and loss.
- **Current State Endpoints:** No historical collection and maintenance of FHIR endpoints. The lack of endpoint data prevents true health tech ecosystems interoperability.

Today's provider data ecosystem is fragmented, inefficient, and unsustainable. These arguments collectively emphasize the critical need for improved data quality and management in healthcare directories to ensure better patient care, reduce administrative burdens, and enhance overall trust in the healthcare system.

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Addressing this challenge requires a coordinated national strategy focused on standardization, governance, provider-centric workflows, and technology modernization to simplify the provider experience. Only then, can the industry break the cycle of poor accuracy and wasted resources and redirect billions toward innovations that truly improve care quality, patient experience, and health equity.

### Underlying Causes

- **Data Accuracy:** The widespread inaccuracy of provider directories is not truly a “directory problem”, but a **data problem**. Directories are only as accurate as the systems feeding them, and those systems consistently reflect poor-quality, inconsistent, or outdated provider data. Understanding these root causes is critical to redesigning solutions that go beyond surface-level fixes.
- **Provider Behavior and Reporting Gaps:** The most significant driver of poor data quality is provider behavior. Providers often neglect to inform payors of changes, submit incomplete or inaccurate information, or fail to accurately attest to their records. In some cases, providers give conflicting information when contacted compared to what was originally submitted. For example, UnitedHealthcare has found that **96% of its directory errors stem directly from provider behavior issues**. Without timely and accurate updates from providers, directories cannot remain current.
  - Industry practices have contributed to provider behavior by complicating the process and frequency of how providers update their data.
- **Fragmented and Redundant Processes:** The industry places the responsibility for updates on providers, but in highly inefficient ways. When a provider changes office locations, they must notify every payor they contract with, yet each payor has its own unique intake process. These range from proprietary portals and industry portals to email addresses, roster templates, and even fax numbers. This redundancy discourages compliance and leads to inconsistent updates across systems.
- **Stale Update Cycles:** Some payors rely on credentialing as the primary opportunity for updates. Because credentialing cycles can be as infrequent as every three years, directories are often outdated for long stretches. This structural lag compounds the accuracy problem by allowing changes in location, network status, or availability to go unreported.
- **Low Provider Incentives:** For most providers, directory listings are not a priority compared to delivering care or managing practice operations. With limited consequences for neglecting updates, providers are unlikely to devote resources to correcting data across multiple payors. Asking them to navigate duplicative reporting

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processes for something they do not view as central to their mission predictably leads to low compliance.

- **Fragmentation Across Systems:** Critical data lives in many different places—EMRs, credentialing systems, contract management platforms, payor databases, and third-party administrators. A single provider may appear differently across each of these systems, with no universal source of truth to reconcile the differences.
- **Inconsistent Standards:** Even basic attributes such as provider names, specialties, and addresses are captured differently across systems. Without shared data standards or validation rules, reconciliation becomes a manual, error-prone process that perpetuates inconsistency.
- **Industry-Centric Design:** Payors have historically built systems around their own internal needs rather than around provider workflows. This fragmented approach creates barriers for providers, making updates difficult and time-consuming.
- **Lack of Governance and Accountability:** Finally, many organizations lack the governance frameworks needed to ensure accountability, enforce standards, and resolve conflicts across data sources. Without a clear owner or governing body, data quality issues remain systemic and unaddressed, perpetuating poor directory accuracy across the industry.

### Provider Organizational Relationships

Provider to Organization mapping for both directory and downstream processes can present challenges given a one-to-many relationship for health systems, facilities, provider groups, and even individual providers. The process by which providers establish their businesses is complex and differs significantly from the way they care for patients.

### Complexities of Provider Data Management in Multi-Site Health Systems

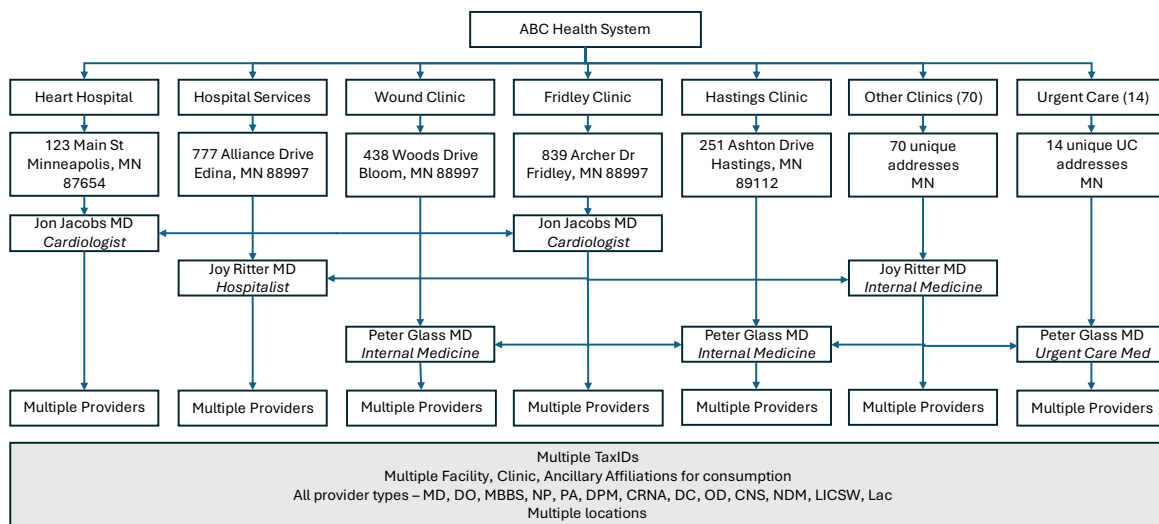
Health systems today operate across a wide spectrum of care settings—including hospitals, ancillary services, outpatient clinics, and specialized practitioner offices. From a provider data management perspective, accurately capturing and maintaining the interconnected affiliations among these entities is critical. It ensures that the right services are available at the correct locations, tied to the appropriate group, clinic, or facility, and that providers are actively offering appointments or seeing patients at those sites.

These systems often span hundreds of Tax Identification Numbers (TINs), each representing distinct entities or providers. These TINs are contractually linked to specific locations and

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providers, who may offer varying specialties and services depending on the site. For example, a single clinic may host both Urgent Care and Internal Medicine services, each staffed by different providers with unique areas of expertise.

Managing this complexity requires a robust data infrastructure that can dynamically reflect provider availability, service offerings, and location-specific nuances. Without this, organizations risk misalignment between patient needs and provider capabilities, leading to inefficiencies in care delivery and operational performance.



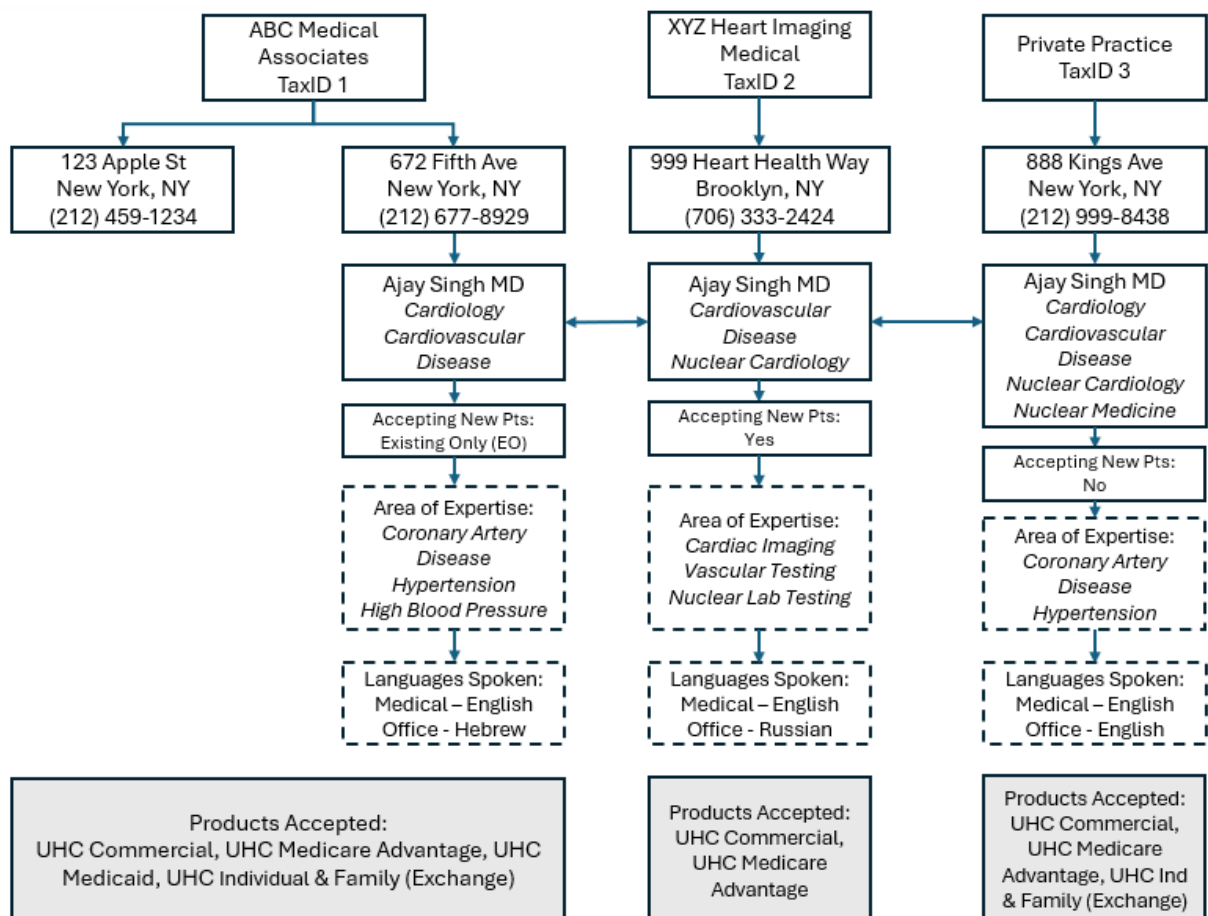
## Managing Multi-Affiliation Provider Data in Health Systems

Individual healthcare providers maintain affiliations with **multiple** Tax Identification Numbers (TINs), each representing a unique contractual and operational relationship. This complexity introduces significant challenges in maintaining accurate provider data—both for public-facing directories and for backend systems supporting claims processing and related services.

Each TIN's affiliation may correspond to different Health Information Exchange (HIE) endpoints, specialty designations, and areas of clinical expertise, all of which can vary by location depending on the services offered. Additionally, location-specific details such as whether a provider is accepting new patients, operating hours, and appointment availability must be precisely captured and maintained.

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At the highest organizational level, each contracting entity may also engage in agreements for distinct product lines—including Commercial, Medicare, Medicaid, and Qualified Health Plans (QHP) Exchanges. These layered relationships require a data infrastructure capable of dynamically reflecting provider roles, service offerings, and contractual nuances across multiple locations and systems.



### Summary of Data Accuracy Challenges and NPD Solution Framework

A truly effective National Provider Directory (NPD) must address the unique challenges faced by payors, health systems, and patients—each of whom interacts with provider data in distinct ways, yet all are impacted by its accuracy, accessibility, and reliability.

**Payors** require access to accurate, up-to-date provider information to ensure network adequacy, process claims efficiently, and support regulatory compliance. Inaccurate directories contribute to administrative waste, delayed reimbursements, and increased regulatory risk.



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**Health systems** require a streamlined process to manage provider affiliations, locations, and service offerings across multiple entities and contracts, supporting operational efficiency and coordinated care delivery. Complex entity relationships, redundant reporting requirements, and the need to update multiple payors through disparate processes create significant operational overhead and disrupt care coordination.

**Patients** depend on reliable provider information to find appropriate care, avoid unexpected costs, and trust that health plan directories accurately reflect available options.

The NPD is a holistic, technology-driven approach that simplifies provider responsibilities, leverages existing accurate data sources, and continuously monitors data quality:

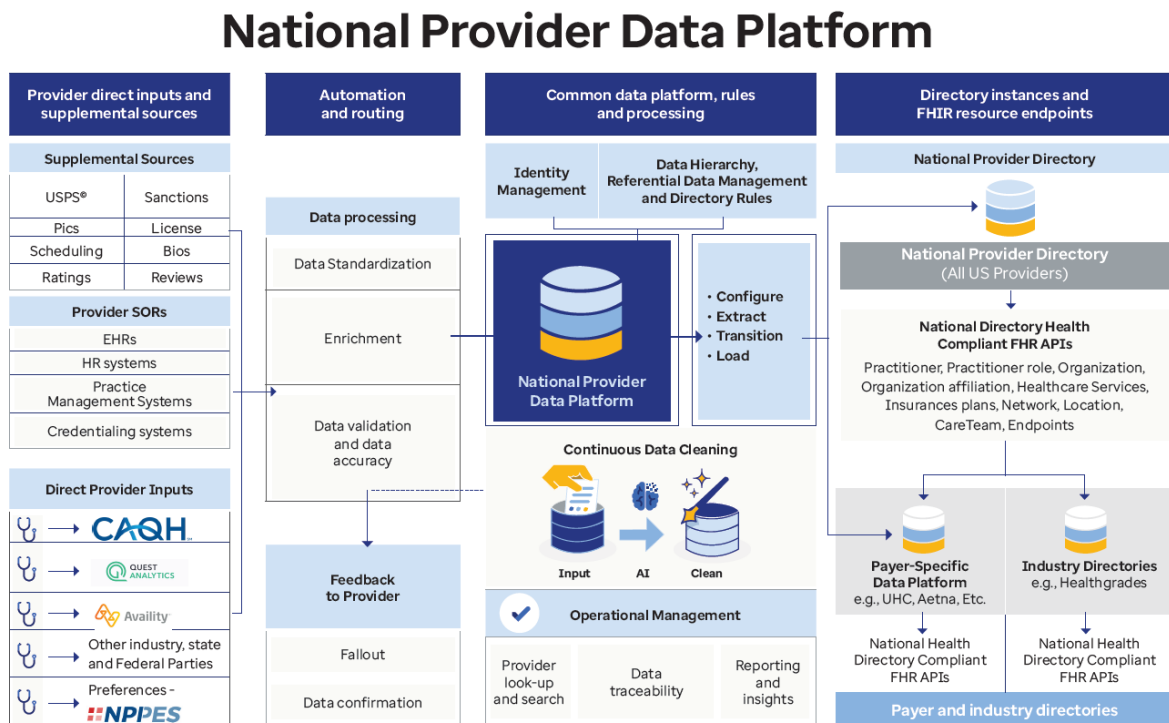
1. **Simplify Provider Responsibilities:** Providers should only need to submit their data once, through a single portal or aggregator, rather than repeating the process for every payor or contract. This “one stop shop” approach reduces administrative burden and increases compliance, ensuring that updates are efficiently propagated across the ecosystem.
2. **Leverage Existing Accurate Data Sources:** Whenever possible, the system should source and validate provider data from authoritative external sources (such as NPPEs, licensing boards, or scheduling systems) without requiring direct provider intervention. This further streamlines the provider’s experience and enhances data completeness.
3. **Continuous Data Quality Monitoring:** Data must be vetted for accuracy before ingestion and continuously monitored thereafter. Automated routines and feedback loops will flag discrepancies, triggering updates from source owners when inaccuracies are detected. This ensures that the directory remains current and trustworthy for all stakeholders.

### **Solution Impact:**

- For payors, this approach delivers a single, reliable source of truth, dramatically reducing reconciliation costs and improving regulatory compliance.
- For health systems, it eliminates redundant reporting, supports dynamic management of complex affiliations, and enables more effective care coordination.
- For patients, it ensures that provider directories are accurate and accessible, improving their ability to find care and reducing the risk of unexpected costs.

## Approach

This proposal includes potential solutions, critical dependencies including end point collection, key constraints that must be addressed, and lessons learned from other similar initiatives.



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**Figure 1.** The National Provider Directory (NPD) ecosystem is designed to streamline and standardize how provider demographic data is collected, processed, and distributed across the healthcare landscape. At the front end of this system, providers have multiple options for submitting their data—via platforms such as CAQH, Availity, Quest Analytics, or directly through NPPEs. While UnitedHealth Group (UHG) recommends beginning with CAQH, Availity, and Quest due to their relative maturity and current relationships with a significant amount of U.S. providers, the long-term strategy involves expanding to additional capable partners. To reduce fragmentation and improve data quality, UHG also recommends that CMS require providers to select a single portal for data submission. This means that any single provider health system should not need to respond to any individual payor or more than one Provider data aggregator in the ecosystem—this would reduce burden on providers to respond to multiple parties (sometimes as many as 20) when they have changes to their provider data. Supplemental sources—such as USPS, sanctions databases, licensing boards, scheduling systems, and consumer-facing platforms like Healthgrades—also contribute to the data pool.

A key opportunity is to vet data for inaccuracies BEFORE it is ingested into the ecosystem. Once provider data enters the system, it flows through a robust ingestion pipeline. This pipeline

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performs several key functions: standardizing and enriching the data, validating it against accuracy rules, and initiating a feedback loop to providers when issues are detected. If data fails validation acceptance but still enters the system, it is flagged accordingly. These flags are visible within the National Provider Database/Directory, which maintains a full registry of provider records, including any discrepancies.

Identity management plays a critical role in reconciling discrepancies across sources—such as mismatched NPIs, names, or addresses—and ensures that providers are accurately matched. To further support data integrity, a configurable data hierarchy is implemented. This hierarchy determines the preferred source when duplicate data is submitted through multiple channels. For instance, if CAQH data is unavailable, the system may default to NPPES, depending on the configured priority. This hierarchy is essential for comparing and selecting the most accurate source.

Reference Data Management (RDM) underpins the system's compliance with industry standards, including FHIR. It defines value sets and ensures consistent mapping across platforms; for example, reconciling differences in how phone numbers are labeled between CAQH and NPPES. Directory rules are also applied to exclude sanctioned providers from the dataset.

Operational management capabilities are embedded throughout the platform, enabling real-time tracking of data, triage of issues, and support for key use cases such as provider lookup, data traceability, and reporting and insights. Once data is validated and processed, it is extracted, transformed, and loaded into three primary sources: the National Provider Database/Directory (covering all U.S. providers), Payor-Specific Systems (e.g., UnitedHealthcare), and Industry Directories (e.g., Healthgrades). The National Provider Database/Directory maintains payor affiliation data, indicating whether a provider has an active contract with a specific payor. This affiliation data, along with core demographics, is consumed by both payor-specific and industry systems via FHIR endpoints.

The platform also supports regulatory requirements such as directory extracts for paper directories and bulk data pulls. However, there is a growing advocacy to reevaluate or retire these extracts in favor of more dynamic, consumer-friendly access methods.

## Implementation Strategy

The following outlines a recommended approach towards implementing a National Provider Directory. The approach is broken into the various aspects of the solution and does not suggest an order in which these capabilities would or should be built. It is our position that all pieces of

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the solution should be delivered to enable a robust, flexible, scalable and trustworthy national provider directory.

### **Data Submissions, Data Ingestion Processing, Data Persistence and Data Management**

This first aspect of the implementation outlines the following:

- The identification of primary sources of provider data submissions
- The identification of the industry supplemental data sources
- Integration endpoints that flexibly enable data submissions
- A data ingestion pipeline which accounts for data standardization, enrichment, validation, and data accuracy evaluation
- A feedback mechanism to return suspect or invalid data to providers
- A national provider data platform where provider and supplemental data is persisted in an industry standard data model
- A reference data management utility to manage industry standard value sets
- A master data management solution to ensure that a) provider identities are managed and each unique provider is assigned a unique and long-lived identifier and b) that a provider golden record can be produced for each provider based upon data hierarchy and survivorship rules

#### **Identification and Integration Setup of Preferred Provider Sources**

The first phase of the implementation approach involves identifying preferred provider data and supplemental sources and building integration endpoints that will enable each source to submit data into the data ingestion pipeline.

Integration approaches should be *flexible* and may accommodate both *push* and *pull* methods through a variety of mechanisms (REST APIs, file transfers, data streams). Integration endpoints should be made available via authenticated public URLs and enforce authentication through OAuth2, mutual TLS, and/or additional secure file exchange mechanisms.

#### **Data Ingestion Pipeline and National Provider Data Platform**

Each data submission would traverse a data ingestion pipeline which would apply standardization rules, data enrichment, data validation, and data accuracy functions.

##### *Data Standardization*

This function standardizes various aspects of the data, including:

- Reference data standardization

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- Address standardization
- Data attribute format and size standardization
- Any additional required value formatting

### *Enrichment*

This function applies any data enrichment or augmentation as needed to make the provider or supplemental data whole and allow prepare it for the data validation function. Examples include automatically filling in missing data like county codes based on address and zip code and adding reference descriptions or codes.

### **Data Validation**

The data validation step applies form and field level checks to confirm data integrity. This includes verifying valid values, ensuring multiple relationships are accurate, confirming that required and optional fields are appropriately completed, validating data types and maintaining referential integrity across data elements.

In the case where submitted data fails a data validation step, the data *may* be sent back to the submitter for review and correction.

### **Data Accuracy**

The data accuracy service interrogates submitted values and assesses them against data accuracy models to determine the level of confidence in their correctness.

In the case where submitted data is found to be suspect (e.g. a provider submits an address which the data accuracy model believes to be outdated), the data *may* be sent back to the submitter for review and confirmation.

### **Data Persistence**

All data submissions which pass data validation and accuracy checks are persisted in a flexible data repository designed to allow for disparate datasets to co-exist. This data will be later curated via master data management and extract-transform-load processing.

Metadata elements that describe the details of the submission are also retained for reporting and auditing use cases.

### **Reference Data Management**

The ability to manage reference data (both industry and vendor-specific value sets) is foundational to managing data submitted from various sources and standardizing to a common

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output. The platform must provide the ability to manage reference data and mappings from source-to-source.

### **Master Data Management**

A platform that does not account for master data management results in duplicated, conflicting, and/or outdated provider records—a top root cause of downstream errors. Key elements of effective MDM include:

- **Identity Management and Golden Record Creation**  
Reconciliation rules and survivorship logic—often augmented by machine learning—select the most accurate, recent, and authoritative attributes for each provider entity
- **Data Quality Monitoring**  
Automated routines detect and resolve duplicates, outliers, or outdated values, triggering human review or cross-validation workflows.
- **Governance Model**  
Stewards and data owners are responsible for resolving conflicts, authorizing merges/splits, and ensuring compliance with regulatory guidelines.

It may be required to implement a federated model of data governance to allow for various industry partners to govern different aspects of the provider data record.

### **Continuous Data Cleansing**

In addition to evaluating data accuracy at submission time, it is further recommended to apply continuous data accuracy assessments to the data in its persisted state in the national provider data platform. Stale data is a common problem in managing healthcare provider data, and continuously assessing the quality and accuracy of persisted provider data is of high importance. This process will continually evaluate the data in the platform at regular intervals. If persisted data is found to be suspect, the data will be presented to the provider for verification. The mechanism to request confirmation should be the same mechanism that is used in the data ingestion process.

### **Operational Management**

Operational management capabilities are a fundamental aspect of the platform and should be built into the platform from the beginning to ensure that foundational elements are accounted for, including:

- Monitoring and Observability (metrics, logs, traces, dashboards)
- Incident Response and Ticketing

- Reporting and Insights

### **Data Extract Configuration, Data Extract, Transform and Load**

This aspect of the solution accounts for how the data would be configured for output to a highly scalable and performant datastore that is optimized for search. Additionally, it is recommended that configurable and customizable extracts are made available to accommodate payor-specific and industry-specific iterations of directories.

#### **Data Configuration**

To accommodate a highly flexible architecture, it is recommended that there exists a capability to *configure* outputs that would be loaded to each of the various national provider directory resources in conformity to the National Directory of Healthcare (NDH) implementation guide. The configuration will allow for mapping specific attributes from the provider golden record to specific attributes within each FHIR resource. The data configuration component is intended to enable a no-code approach for selecting source attributes that will be mapped to the outbound document to be subsequently loaded into the search index.

#### **Extraction, Transformation and Load**

The extract, transform and load process will process data changes in near-real-time and update provider data as it is changed in the national provider data platform. This process will aggregate provider and supplemental data per the data configuration service and apply changes and updates to each of the search indices underlying the FHIR resource endpoints.

Additionally, it is recommended to provide additional data extraction functionality that would allow payors, as well as other industry vendors, to extract and ingest data more flexibly from the national provider data platform.

It is further recommended that the configuration layer enables customizable extracts for payor-specific and industry-specific directory implementations. The rationale for this capability is twofold. Firstly, there is a technical limitation of sourcing payor and/or industry-specific data loading direct from the National Provider Directory FHIR endpoints. Deep paging is *not* recommended and would introduce excessive use of National Provider Directory resources. Secondly, payors and industry vendors may have reasons for selecting additional data elements that may be made available via the National Provider Data Platform that extend beyond the scope of the NDH FHIR implementation guide. Giving this flexibility to payors and industry vendors would enable them to *both* source their basic data requirements from the shared data platform *as well as* enhance and augment their offerings to customize and differentiate themselves and extend their provider directory offerings.

### NDH FHIR Resources

National Directory of Healthcare (NDH) FHIR-compliant resources will be enabled on top of the curated data that moves from the National Provider Data Platform into a search-optimized datastore. The specific implementation details of the FHIR resources (i.e. whether they would be built using a cloud offering such as Azure Health Data Services – FHIR Service, Amazon Web Services HealthLake, Google Cloud’s Managed FHIR API Platform, or an open-source framework like HAPI FHIR, or a custom-built backend data store with custom FHIR-compliant APIs is not articulated here, and would follow as part of a technical implementation review. It is noted that there are pros and cons to consider for each option, and these would need to be reviewed as part of the deeper technical review.

It is our position, however, that regardless of the specific technical implementation details, that the NDH FHIR Implementation Guide detailed at <http://hl7.org/fhir/us/ndh/STU1/index.html> should be adhered to in order to drive interoperability and standards across the industry. The resources defined by the implementation guide thoughtfully consider various personas (provider, patients, payors, care delivery teams, credentialing agencies, auditors, etc.) and outline a robust approach to facilitate the finding of healthcare providers and organizations as well as their listing of electronic endpoints for information exchange.

It is noted that to fully accommodate the Implementation Guide, payors would have to submit their plan and network data, along with provider affiliations to networks, *back* into the National Provider Data Platform ingestion pipeline.

### EHR Companies & ONC Certification

EHR companies play a crucial role in the National Provider Directory initiative because they often hold the most accurate provider endpoint data. The recommendation is that HHS, through the ONC certification program, should require certified EHR vendors to publish provider endpoints for their providers. This would ensure that endpoint data is available and standardized, helping CMS build a robust directory and reducing vendor lock-in. The regulatory mechanism works because CMS can require providers to use ONC-certified technology, effectively mandating EHR vendors to submit this data to CMS.

### Payor and Industry Directories

In addition to the National Provider Directory, other payor and industry specific implementations of directories should also be enabled. It is proposed that the sourcing of data for these directories should come from the National Provider Data Platform to ensure



consistency of basic provider data attributes for payors, providers, and members across the industry. Different “flavors” of the directory may be made available to extend and enhance directory offerings, but the values for provider data should be consistent across these various implementations. Additionally, it is recommended that these specific implementations also follow the NDH FHIR IG for their base implementation and extend as needed.

## Dependencies & Key Considerations

Building and sustaining a national provider directory requires careful planning across a wide range of interdependent issues. Beyond solving for poor accuracy, the initiative must consider the impacts on payors, providers, vendors, and patients, as well as the technical and governance structures needed to make the system viable and sustainable.

**Standardization of Data and Processes:** A national network cannot succeed without industry-wide agreement on core provider attributes (e.g., name, specialty, location, network status) necessary for collection to produce directories. Current provider directories include data elements often related to credentialing and marketing content like photos and biographies. Without a comprehensive data collection process, health plans will still have to go back to providers requesting information, so the national efforts will reduce but not eliminate administrative burden without standardization. Standardization must extend to intake processes as well: today, CAQH supports roster-based submissions for larger physician groups who send updates in bulk monthly/quarterly/annually, but not all platforms have this capability. Intake methods also vary widely in data completeness, update frequency, and interoperability, leading to fragmentation. Creating uniform, scalable intake processes is a foundational requirement.

**Provider Engagement and Incentives:** Provider engagement is a key component of data quality, and providers are unlikely to prioritize directory updates without clear incentives or simplified processes. A national system must reduce duplicative reporting requirements and design workflows around provider realities, not just payor needs. Regulatory and financial levers may be needed to ensure meaningful compliance.

**Governance and Accountability:** Strong, multi-stakeholder governance is critical. Governance should include payors, providers (large systems and small practices), regulators, and technology partners, with clear accountability for data quality. Without governance, accuracy will erode, especially as mergers, acquisitions, and new care models reshape the ecosystem.

**Technology Integration, Interoperability, and Endpoint Data:** A national network requires seamless interoperability across EMRs, credentialing systems, payor databases, and third-party administrators. An essential capability not currently collected is provider endpoint data (e.g.,

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secure digital addresses used for data exchange). Collecting and standardizing endpoint data will be vital for interoperability and care coordination.

**Data Scope and Non-Traditional Providers:** Directories must go beyond physicians and standard providers – such as hospitals, ancillary providers, durable medical equipment (DME) vendors, radiology centers, home- and community-based service providers, Federally Qualified Health Centers (FQHC), and Rural Health Clinics (RHC). These non-traditional providers are vital in the marketplace, but the provider data set up is unique and will have to be addressed. Current platforms like CAQH do not fully address these provider types, and solutions must be developed to integrate them into the network. Considerations must also include virtual-only providers, who are increasingly central to patient access.

**Entity Management and Hierarchies:** Provider organizations are rarely flat; they involve complex hierarchies linking parent systems, facilities, practices, and contracted entities. Effective entity management including mapping and maintaining these hierarchies will be essential to avoid duplication, conflicting data, reporting gaps, accurate claim payment, referral management, and provider/payor contract alignment.

**Market Impact and Vendor Displacement:** Building a national system will have significant downstream impacts. Smaller health plans and provider groups may face adoption and resource challenges. Current vendors who are currently working to clean, consolidate, and maintain provider data may be displaced or required to integrate differently, creating potential resistance. Considerations must balance innovation with market disruption to ensure equitable participation.

**Regulatory Alignment and Compliance:** Harmonization across federal and state regulations will be required to prevent a patchwork of rules that undermine national adoption. Enforcement mechanisms must be consistent, predictable, and realistic to ensure compliance across diverse payors and providers.

**Scalability, Sustainability, and Patient Outcomes:** A national directory must be designed to scale across thousands of organizations while remaining sustainable long term. This includes funding models, ongoing maintenance, and adaptability to new technologies and care models. Ultimately, success should be measured by patient-centered outcomes: improved access, reduced administrative waste, and greater trust in the accuracy of provider information.

## Feedback on Existing Initiatives

UHG is participating in two statewide provider directory initiatives:

**California IHA Symphony:**

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- Launched in 2019 under the oversight of the Integrated Healthcare Association (IHA) and powered by Availity, the California IHA Symphony is a statewide initiative aimed at centralizing provider demographic data across all coverage types (commercial, Medicare, Medicaid, exchange) and product affiliations (HMO, PPO, POS). Its goals are to meet California regulatory requirements, improve data quality, and reduce administrative friction.
- Symphony integrates data from multiple external sources of truth and accommodates complex network configurations, including IPA structures, large health systems, and unique contracting arrangements. It features a separate application for individual and small group providers.
- The platform ingests provider and health plan data, performs collective analysis, and returns actionable insights via an ECG exchange process—identifying which data requires updates. IHA continues to enhance the data model to support transactions such as provider additions for delegated groups and deeper entity/participation drilldowns.
- IHA facilitates a collaborative forum with health systems, medical groups, regulators, and health plans to address challenges and develop solutions. Expansion efforts are underway to include ancillary services such as behavioral health, dental, and vision. Until Symphony is fully implemented, delegated rostered groups maintain dual processes—supporting Symphony while continuing to send rosters directly to health plans. Participation is fee-based for both providers and health plans.
- Considerations:
  - IHA and Availity continue to work collectively with payors and providers to address the complexities in data capture, in particular IPA's, ACOs, large delegated health systems and medical groups. Examples of gaps include: the inability for providers to identify delegation status by payor to then capture and transmit provider add transactions, delegated credentialing elements, required vs optional field variances, select NCQA required standards, Area of Expertise, Cultural Competency, and ability to interact with the system for clarifications.
  - IHA also charges both payors and providers to leverage their system which is comparatively expensive and could disincentivize adoption.

### **CMS QHP Oklahoma pilot:**

- Managed by CMS in collaboration with the Oklahoma Department of Insurance and a PDM vendor, the CMS QHP Oklahoma pilot launched Phase 1 in June 2025, with FHIR APIs released on July 31. The initial phase focuses on core demographic fields, prepopulated using NPPES, QHP (State Exchange) files, and state licensure data.
- Providers access a portal to review and update their profiles. Verified and attested data is made available to health plans via FHIR APIs for consumption and updates. Despite broad eligibility across provider types and specialties, initial adoption has been low.
- Considerations:

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- No formal implementation support (e.g., meetings, guidance on standards or connectivity).
- Absence of Tax ID, complicating demographic alignment and maintenance.
- No roster upload or API connectivity for large groups.
- Missing functionality for provider additions, terminations, billing, credentialing, and licensure.
- FHIR API output lacks indicators of validated or updated data, requiring health plans to establish bidirectional review processes.
- Due to these gaps and limited support, the pilot has been slow to advance.

## UHG's Role

UHG is available to assist CMS in the design, build and management of the NPD in various capacities, from purely consultative to full technical partner. As a proven strategic, technical, and thought leader in this space, UHG can provide invaluable input and direction from many perspectives: payor, provider, industry partner. With a keen understanding that a NPD could be a solution for a major industry pain point, UHG is uniquely positioned, humbled, and excited to work with CMS and others to finally create a solution.

## How to Contact Us

For more information on any recommendations or solutions, please contact Mike Kane ([michael\\_kane@uhc.com](mailto:michael_kane@uhc.com)) or Scott Vandeleest ([scott.vandeleest@uhc.com](mailto:scott.vandeleest@uhc.com)).

## Conclusion

Implementing a National Provider Directory promises to enhance data accuracy, reduce administrative burdens, improve patient access, and foster trust across payors, providers, vendors, and government entities. A coordinated, standardized, and technology-enabled approach is essential to realize these benefits and transform the healthcare data ecosystem.

## End Notes

1. Admin. "The Hidden Cause of Inaccurate Provider Directories." *CAQH*, 22 November 2019, [CAQH-hidden-causes-provider-directories-whitepaper.pdf](#).