WHAT IS THE SHIN-NY?
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Executive Summary

Under the direction of the New York State Department of Health, The Statewide Health Information Network of New York (SHIN-NY) was established to allow the electronic exchange of clinical records between participating providers. The SHIN-NY is comprised of nine independent regional health information organizations (RHIOs) who are participating in, and certified as Qualified health IT entity (QE) organizations of, the SHIN-NY. Together, these QEs form a network of networks whereby a participating provider, with patient consent, can search for and exchange electronic health information in a timely and secure manner with any other participating provider in the state.

Built on a service-oriented architecture, the SHIN-NY interconnects the QEs’ Health Information Exchanges (HIEs). Each QE enrolls provider participants, including hospitals, clinics, labs, radiologists and ambulatory physicians so that they can exchange patient information via the HIE regardless of the venue in which the patient receives care. QE participants may share data and services within and across regions using common standardized protocols. This enables greater collaboration and coordination of care and helps to reduce unnecessary and avoidable duplicate tests or procedures. The SHIN-NY incorporates and extends Federal standards such as those adopted by the Nationwide Health Information Network (NHIN).

The purpose of this document is to outline the core set of services known as Dial Tone Services and the timeline of their availability. Dial Tone services are provided by the QEs to participants as part of the SHIN-NY. The development of this set of uniform, shared services assures that the data of all New Yorkers are made accessible to providers. This core set of services includes functionality such as the ability for a clinician to search for patient records across the state as well as security rules that ensure the protection of the underlying patient data. Many of these services are already in place across the state, and all services described in this document will be fully available at a regional level by the end of May 2015. The technology supporting cross-community patient record lookup will be live in July 2015 with all QEs enabled for cross community exchange by or before September 2015.
What is the SHIN-NY?

The adoption of electronic health records (EHRs) has helped to improve the continuity of medical care and has reduced medical errors by facilitating the exchange of timely information; however, EHRs alone are not a panacea for improving how we deliver healthcare. In our highly mobile society, the information contained in health records must be easily accessible and shareable among doctors and healthcare facilities anywhere a patient travels in order to be truly useful and save lives: that’s where the SHIN-NY comes in.

By providing a way for healthcare professionals to easily and securely share electronic health information, we can significantly improve patient safety and care while reducing wasteful cost in the system. This requires the creation of a secure technical infrastructure, a set of regulations as to how the network will be governed, and policies which allow the flow of information while simultaneously safeguarding all patients’ information and right to privacy.

Today, the SHIN-NY is comprised of nine independent regional health information organizations (RHIOs) who are participating in, and certified as Qualified health IT entity (QE) organizations of, the SHIN-NY. These organizations were initially funded through the HEAL grant program and built through the collaboration of local healthcare stakeholders to ensure their regions’ and communities’ needs were best served. Each QE operates its own network that aggregates electronic health records from participating providers in their regions. Together, the nine QEs connect data from 84% of hospitals in New York State, and from more than 50 thousand providers and 34 public health departments.

During the past year, more than 10,000 new healthcare providers used the network and nearly 7 million New Yorkers have provided consent to share their records through the SHIN-NY. During the course of 2015, all QEs will be interconnected and certified by the Department of Health to ensure consistency in the type of quality of services provided. The New York eHealth Collaborative is the State Designated Entity responsible for interconnecting the QEs.
Statewide Health Information Network of New York (SHIN-NY) at a Glance

RHIOs by Geographic Region

Today there are 9 Regional Qualified Entity (QEs) Organizations

Network Overview
How Will the SHIN-NY Benefit Patients and Healthcare Providers?

- **A safer environment for patients:** more comprehensive information about a patient’s conditions and prescriptions can reduce risk of adverse reactions due to taking different medications or allergies.

- **More streamlined care:** reduces the burden on the patient to remember what their other doctors have told them, which tests they’ve had, or specifics of their medical history. Patients and administrative staff will no longer need to send records from facility to facility.

- **Better patient experience:** because gathering information is more efficient, doctors can spend more time actually talking to and treating patients.

- **Lowered readmission rates:** hospital readmissions within 30 days of discharge are common and costly and are often the result of ineffectively communicated instructions on follow-up care. Health information exchange helps ensure that all providers treating a patient, as well as the patients themselves, have accurate information. Two recent Weill Cornell Medical College studies conducted in Rochester have shown that health information exchange reduced admissions from the Emergency Room by 30% and reduced readmissions by 57% over a six-month period.

- **Improved public health:** local public health departments reporting communicable diseases will be able to reduce disease investigation times, lower administrative costs, and provide the right treatments more efficiently to protect against large-scale public outbreaks of communicable diseases, including measles, tuberculosis, and influenza.

- **Improved emergency response:** on an individual level, doctors will be able to look up health records for unresponsive patients who enter emergency rooms to ensure that appropriate care is administered. On a broader level, during public emergencies such as severe weather, health information exchange will help hospitals maintain continuity of care for patients needing to be moved from one facility to another as well as tracking people in cases of declared disaster emergencies.
What Services are Available in the SHIN-NY?

Dial tone services are the baseline and essential service requirements that organizations must fulfill to be considered New York State Qualified Entities (QEs). The table below outlines each Dial Tone Service. Patient Record Lookup and Secure Messaging are being implemented on a statewide basis. All other dial tone services are currently available within a QE community.

<table>
<thead>
<tr>
<th>Services</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Patient Record Lookup (PRL)</strong></td>
<td>Search for existing patient records within the local QE and across all other QEs statewide. Currently PRL is available within QEs; the technology that enables cross-QE functionality is anticipated to go live in July 2015. Full statewide cross-QE patient record lookup is expected by or before September 2015.</td>
</tr>
<tr>
<td>2. <strong>Secure Messaging</strong></td>
<td>Send (push) peer-to-peer messages between two trusted providers. At this time, the Direct Project (<a href="http://directproject.org/">http://directproject.org/</a>) provides the de facto standard and state of the art practice and protocol for such messaging. QEs make Direct messaging available as an accredited Health Information Service Provider (HISP) or through a partnership with an accredited HISP.</td>
</tr>
<tr>
<td>3. <strong>Consent Management</strong></td>
<td>Track patient consent to access records according to New York State law and other requirements defined by the New York State law and policy.</td>
</tr>
<tr>
<td>4. <strong>Notifications (Alerts)</strong></td>
<td>Allow users to establish subscriptions to pre-defined patient events (ER and inpatient admits and discharges) and receive notifications when those events occur.</td>
</tr>
<tr>
<td>5. <strong>Identity Management &amp; Security</strong></td>
<td>Secure access and ensure patient privacy through the authentication of all individuals and organizations who will have access to view protected health information accessible through the QE.</td>
</tr>
<tr>
<td>6. <strong>Provider and Public Health Clinical Viewer</strong></td>
<td>Make available to qualified providers and public health authorities secure access to individual patient records from all available local, statewide and other data sources accessible by the QE via a web-based interface.</td>
</tr>
<tr>
<td>7. <strong>Public Health Integration</strong></td>
<td>Route required public health reporting information from primary sources to state aggregation points.</td>
</tr>
<tr>
<td>8. <strong>Results Delivery</strong></td>
<td>Deliver diagnostic results and reports back to ordering providers and others designated to receive results.</td>
</tr>
</tbody>
</table>
Dial Tone Services Availability by QEs

The table below provides a landscape overview of Dial Tone Services availability across the QEs as of April 2015.

<table>
<thead>
<tr>
<th>Qualified Entities with Dial Tone services</th>
<th>Bronx</th>
<th>eHNLJ</th>
<th>HeathieConnections</th>
<th>HeathieLink</th>
<th>Healthix</th>
<th>HIXNY</th>
<th>Rochester</th>
<th>Interboro</th>
<th>HealthLinkNY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Record Lookup (Community)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Secure Messaging Direct</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Consent Management</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>Notifications (Alerts)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>Identity Management &amp; Security</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>Provider and Public Health Clinical Viewer</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>Public Health Integration</td>
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<tr>
<td>Results Delivery</td>
<td>✓</td>
<td>✓</td>
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QEs may provide additional services above and beyond Dial Tone and may charge for these “value added services”. EHR vendors may also charge a connection fee. PPSs are encouraged to talk to their local QE for more information.

Timeline of Statewide Patient Record Lookup

There are multiple components that must be operational before an end user can search for patients across the state. The statewide gateway, or bus, which will enable the QEs to connect across the state, is expected to go live in July 2015. Various tasks and milestones are being tracked to ensure that this date is met. The statewide gateway alone will not allow a provider to search for an existing patient record across all QEs – the individual QE must connect to the bus to enable cross-community data exchange. QEs will be connecting and testing their systems throughout July and August. Once a QE has connected to the bus, its participants will be able to search for patient clinical information, with patient consent, within other QEs that have also connected. It is expected that the connections for all QEs will be live by September, enabling the full statewide patient record lookup process. Please contact your local QE to determine when they expect cross community exchange to be available. The table below outlines the intermediate bus milestones described above.
<table>
<thead>
<tr>
<th>QE Integration Testing</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
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<tbody>
<tr>
<td>Statewide PRL Certification</td>
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<tr>
<td>QE Certification</td>
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<tr>
<td>Patient Matching Processes - Algorithm Tuning and Governance Committee Established</td>
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<tr>
<td>Statewide Services Available in Production for QEs to Connect</td>
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<tr>
<td>QEs Connect to the Statewide Patient Record Lookup Services</td>
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</tbody>
</table>

* As of April 2015

- **QE Integration Testing** - QEs began integration testing in January and will be complete as of August

- **Statewide PRL Certification/ QE Certification** - Statewide services and QE services will be certified by an outside agency prior to availability in the production environment

- **Patient Matching Process** - A governance committee comprised of the DOH, QEs and NYeC will create and implement protocols for statewide patient matching and monitoring

- **Statewide Services Available in Production for QEs to connect** - Statewide services will be available in a live production environment in July 2015. QEs can then begin connecting to provide this service within their region.

- **QEs Connect to Statewide Services** – QEs will begin connecting in order to offer Statewide Patient Record Lookup across communities as a Service to their participants as of August
QE Development and Testing Status (as of April 2015):

<table>
<thead>
<tr>
<th>QE Development</th>
<th>Bronx</th>
<th>eHNL</th>
<th>HealthConnections</th>
<th>Healthlink</th>
<th>Healthix</th>
<th>HIXNY</th>
<th>Rochester</th>
<th>Interboro</th>
<th>HealthLinday</th>
</tr>
</thead>
<tbody>
<tr>
<td>QE develops functionality to connect to statewide services</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
</tbody>
</table>

| Pre-testing |
|----------------|-------|------|-------------------|-----------|---------|-------|-----------|----------|-------------|
| Compliance with interoperability specs | ✓ | ✓ | ✓ | ✓ | In progress | ✓ | ✓ | ✓ | ✓ |

| Integration Testing |
|----------------------|-------|------|-------------------|-----------|---------|-------|-----------|----------|-------------|
| Send/receive transactions between QEs in stage environment | ✓ | In progress | ✓ | In progress | ✓ | In progress | ✓ | In progress | ✓ |

- **QE Development** – QEs develop functionality to connect to the statewide services

- **Pre-Testing** – QEs test in a simulated environment to assess compliance with interoperability specifications

- **Integration Testing** – QEs test their ability to send and receive clinical information between QEs in the test environment

### Dial Tone Services

#### 1. Patient Record Lookup

Patient record lookup allows healthcare providers to retrieve individual patient records from both the local QE and across the statewide network after receiving consent from the patient. Providers have the ability to search for existing patient records within the local QEs currently, and will soon have the ability to search statewide (see Statewide Patient Record Lookup (sPRL) section). This service makes information available to providers accessing the SHIN-NY via third party software (EHRs) and QE-provided clinical viewers.

**Capabilities**

- Search for existing patient records across all QEs
- Search within a QE’s clinical viewer
- Search within third party software (EHR) supported by the QE
What does this mean from a technology perspective?

- A QE has the capability to receive a query from the SHIN-NY for a specific request and service it by returning a CCD, C-CDA or other information to the network and make a query
- A QE handles patient consent to access data cross-community, such that the originating QE confirms that the patient has given consent for the querying provider to access the patient’s data
- A QE logs all patient record lookup requests sent and received with audit data specified

2. Secure Messaging

Secure Messaging gives clinicians the ability to securely and seamlessly exchange authenticated, encrypted clinical data with one another. Direct messaging pushes health information from a sender to a known receiver, similar to how an email or fax is pushed from one endpoint to another. A provider is able to receive information about his/her patient from another provider in the network or another network connected to a provider.

Capabilities

- Generate messages and/or documents to be sent to another provider
- Send messages, with or without attached documents, directly and securely to an Authorized User or list of users
- Look up intended recipients in a Provider Directory / Master Clinician Index
- Request and receive messages and/or documents from other QEs for delivery to a secure Direct address
- Allows for providers to receive messages who may not have access to EHR via a web-based interface

What does this mean from a technology perspective?

- Incoming messages are verified and properly signed by an appropriate certificate authority
- All messages sent and received are logged
- Receiving QE may notify the sender of a failure to deliver a message within a set length of time
- EHNAC accreditation of HISP
- NIST level 3 ID proofing is required to ensure the appropriate security threshold is maintained by the sender and the receiver
3. Consent Management

Consent management services provide the ability to track patient consent at the local/community level. New York and SHIN-NY consent policy is defined as consent to access patient records. Access is granted by patients opting in for providers to access data at the entity level (hospital, provider practice, individual practitioner, etc.). Written consent is collected by each provider and communicated to one or more QEs. QEs maintain a local index of patient/provider consent that can be checked before releasing any information, including information that identifies which providers have generated patient records to a provider or another QE.

Capabilities

- Ability to verify the consent status for patients using the same search criteria enabled by the Patient Record Lookup service
- Ability to gain access without patient affirmative consent by “breaking the glass” in emergency condition situations, unless the patient has explicitly denied consent
- Consent is recorded to access patient data, as explicitly authorized by a patient
- Consent denial is recorded within the QE
- Consent is recorded within the QE for emergency basis only (“break the glass”)
- QEs review and modify consent status on behalf of a patient using an online interface provided by the QE
- Manage consent permissions and restrictions from within third party software with consent management capabilities, with an interface supported by the QE (provided that certain conditions are met)

What does this mean from a technology perspective?

- QE maintains a system, which allows authorized end users to add, modify and review the status of an individual patient consent
- QE timestamps and maintains a history of all changes to consents, including initial creation, updates and revocations
- “Break the glass” events are logged in patient record lookup requests through various notification messages and trigger appropriate audit process.

4. Notifications (Alerts)

Alerts allow providers to subscribe to real-time events, giving providers ability to receive notifications related to their patients. For example, a hospital can instantly be alerted if one of its discharged patients subsequently goes to another emergency room. Through these notifications, providers and care managers can help their patients stay out of the hospital through better management of their care on an outpatient basis.
Capabilities

- An authorized user can subscribe to notification feeds related to the following events:
  - ER admit
  - Inpatient admit
  - Inpatient discharge
- Receive notifications related to patients for which the Authorized User has subscribed at an electronic address and in a format (provided at the time of subscription), including at minimum, as either:
  - Secure messaging
  - HL7 formatted documents and data
- Facilitate subscription requests received from a provider from another community when the provider wishes to subscribe to notifications from provider organizations served by the local QE (subject to the subscription policies and processes of the local QE)
- Review all active subscriptions
- Unsubscribe from notification feeds

What does this mean from a technology perspective?

- QEs provide a mechanism for entering and maintaining subscriptions to notifications for a pre-set list of notifiable events such as admissions and discharges
- QEs track and detect notifiable events from within HL7, PIX or other standard message types
- Facilitate subscription requests received from a provider from another community when the provider wishes to subscribe to notifications from provider organizations served by the local QE (subject to the subscription policies and processes of the local QE)
- Report notifications that are unable to be sent to subscriber (subscriber not found) to a monitored exception queue at the QE
- Log all notifications sent to and received from the SHIN-NY subscription listener or directly from / to another QE with audit data specified
- Ability to queue or otherwise store messages in the event of an outage

5. Identity Management and Security

Identity management and security services provide secure access to SHIN-NY data and ensure patient privacy through the authentication of all requests by individuals and organizations to view protected health information accessible through the QE.

Capabilities

- Set and change a password securely through a self-service capability without sharing an existing password in an unsecured manner
- Acquire credentials to use QE and SHIN-NY functions appropriate to the Authorized User’s authority
- Receive assistance with authentication and access issues through a help desk or other attended services provided by the QE
- Authenticate themselves once per session interacting with the QE through a standard approach
- Re-authenticate themselves within the workflow of any functions requiring authentication more frequently than once per session, as defined in SHIN-NY Policies and Procedures (e.g., re-authentication on a per prescription basis for controlled substances)

**What does this mean from a technology perspective?**

- Systems can support multiple roles with configurable levels of access to SHIN-NY data
- QE administrative Authorized Users can add or delete roles on behalf of clinical Authorized Users
- Allow authorized QE administrative users the ability to modify access permissions for existing roles
- Provide registration authority functions, including proving/verifying an Authorized User’s identity (identity proofing) prior to issuing credentials to use QE services and assigning unique addresses / Authorized User IDs for accounts
- Timeout Authorized User sessions and require re-authentication for re-entry to system
- Include the ability to specify credential lifetime and revoke credentials at the expiration of their lifetime
- Log all successful and unsuccessful authentication attempts

**6. Provider and Public Health Clinical Viewer**

A clinical viewer allowing providers to search for records for an individual patient across all data sources (as defined by patient record lookup requirements) based on demographics, MRN or other patient identifying information. The clinical viewer is web-based, which eliminates the need to integrate with EHRs.

**Capabilities**

- View a history of demographic and clinical records associated with a patient to the extent QE has such data:
  - Patient contact, demographics and insurance coverage
  - Patient consent from within the local QE community, as required
  - Encounter history and summaries
  - Vital signs, diagnoses, allergies and medications
  - Lab and radiology reports

**What does this mean from a technology perspective?**

- Controlled access to the viewer using role-based access control
- Records are available within 5 minutes of being received by the QE when they can be auto-matched to the patient’s MPI (i.e., using patient identifier or MRN identifier, without requiring manual MPI merging)
7. Public Health Integration

This capability allows for the routing of required public health reporting information from primary sources to New York State and New York City Public Health Agency (PHA) designated aggregation points and return response messages from the respective PHAs to the originating provider.

Capabilities

- Electronically report to the appropriate reporting entity as designated by the Department of Health for public health measures for which the QE has reporting capability
- Public health role may be established to prepare the state for response efforts during a declared emergency

What does this mean from a technology perspective?

- Send required public health reporting data according to standards, formats, specifications and quality assurance procedures specified by Local, State and Federal public health authorities
- Enable public health role based queries of individual patient records
- Log all public health reporting with audit data
- QE provides at least one of the following public health reporting services:
  o Immunizations – to the New York State Department of Health (NYS DOH) and the New York City Department of Health and Mental Hygiene (NYC DOHMH)
  o Syndromic surveillance data – to NYS DOH and NYC DOHMH
  o Reportable laboratory results – to NYS DOH and NYC DOHMH
  o Cancer cases – to the NYS DOH Cancer registry
  o To support emergency preparedness and response efforts, specified data elements for connected facilities – to NYS DOH and NYC DOHMH, and receive requests and respond to a query related to a specific patient with demographic and location data in the case of an emergency and mass casualty event
  o Newborn Bloodspot Screening (NBS) – electronic reporting of demographic and clinically relevant information (associated with newborn bloodspot samples) to NYS DOH and return of acknowledgements and electronic NBS lab results
  o Automate the delivery of data on notifiable diseases/conditions, as developed in conjunction with NYS DOH and/or NYC DOHMH
8. Results Delivery
This service allows for the delivery of diagnostic results and summary reports back to ordering providers and others designated to receive results.

Capabilities
• Receive diagnostic results and summary reports for laboratory tests and radiology tests from laboratories and diagnostic centers and other facilities that have arranged to have the QE route results on their behalf
• Receive results when the Authorized User is the ordering provider or has been listed in the order to receive copies of results
• Receive results in one or more of the following methods stated as a preference by the Authorized User:
  o Directly into the Authorized User’s EHR or other third party software
  o For viewing in a QE’s clinical viewer
  o As a Direct message at a designated address, including an email inbox
• Ability to receive results from a third party software (outside the QE’s clinical viewer) providing that all specific QE conditions are met:

What does this mean from a technology perspective?
• Detect results from within HL7 messages received from source systems
• Methods and preferences other than viewing in the QE’s clinical viewer are supported providing that all of the following conditions are met:
  o The third party software interface meets the standards and requirements of the QE and SHIN-NY for results delivery; proprietary interfaces are supported at the QE’s discretion
  o QE Authorized Users request testing and supporting results delivery to the third party software or a Direct address, and testing and supporting interface is economically feasible and sustainable for the QE; there is no requirement to support “all comers;” third party software and Direct interfaces are supported at the QE’s discretion
Statewide MPI (sMPI) and Statewide Patient Record Lookup (sPRL)

To expand further on Patient Record Lookup, Statewide Patient Record Lookup (sPRL) will enable physicians to search for a patient’s medical records across New York State. This process will be facilitated by the use of “master patient index” (MPI) to identify QEs that have a patient’s data.

Each QE will have the capability to automatically discover and retrieve information about participating patients without a complex query process. The sMPI will provide PIXv3 Manager Services and enable Statewide Cross-Community Patient Discovery (sXCPD) services. Each QE would simply need to provide their patient demographic set for all participating patients to the sMPI and then leverage any of the appropriate IHE profiles such as PIXv3, XCPD to discover patient identity throughout the state.

Use Case
The sMPI establishes a linked master patient record that cross-references patient identities from different communities, enabling document sharing in a variety of supported ways. Key features of sMPI include:
- The ability to take patient identity feed from individual QEs and establish cross-reference of patient records from different QEs
- Enabling communities to discover patient identifiers in other communities either using local community patient ID or patient demographics
- Establishing patient identity cross referencing using consistent algorithms

How Data are transmitted to the sMPI
QEs will send demographics of their patient population to the sMPI to establish patient identity and cross-references with patient identity from other communities. The patient record from the QEs will be the “best known” record at the QE level and carries the patient identifier at the QE level.
In most cases QEs will send data to the sMPI in the following 3 modes:

1. Initial bulk load of QE patients in batch format
2. Ongoing incremental update in batch format
3. Real-time patient update

Statewide Patient Record Lookup (sPRL)
With the implementation of Statewide Patient Record Lookup (sPRL), individual QEs will have the capability to query the statewide services to obtain clinical data from other participating QEs by following Statewide XCA Gateway (sXCA) and Statewide XCPD Gateway (sXCPD) protocols.

Statewide XCA Gateway (sXCA): Rather than QEs querying each other directly, a Statewide Cross Community Document Access Gateway (sXCA) will act as the hub for document query
across multiple QEs and retrieve transactions. Individual QEs will not need to maintain configurations and connections to other QEs in the state. Placing a query to the sXCA gateway, which leverages IHE XCA profile, will allow the QEs to lookup patient clinical record throughout the state.

**Statewide XCPD Gateway (sXCPD):** Similar to the Statewide XCA service, the SHIN-NY will provide a Statewide Cross-Community Patient Discovery Gateway (sXCPD) that acts as a hub for cross-community patient discovery transactions. Individual QEs can discover patients in other communities throughout the state without having to maintain individual connections and configurations to each other.
QE Certification

Each New York State Qualified Entity (QE) will undergo a certification process, which will ensure their adherence to SHIN-NY Dial Tone technical services. The QE certification process is intended to:

- Promote interoperability through conformance to consistent sets of standards and implementation specifications
- Facilitate trust by ensuring adherence to the common policy framework embodied in New York’s Statewide Policy Guidance

In addition to technical services, other services that will also be covered as part of QE certification are:

- **Organizational Characteristics** - includes criteria related to non-profit status, good standing in state, list of participants, necessary insurances, etc.

- **Operational Requirements** - addresses the QEs’ infrastructure to operationalize the SHIN-NY requirements, including policies and practices for non-discriminatory exchange of data, system performance, member-facing services, business plans, audit procedures, participation in statewide policy development, and evaluation processes.

- **Policies and Procedures** - includes the Qualified Entities’ approach for consent, authorization, authentication, access, patient engagement, audit, and breach and draws upon the “Privacy and Security Policies and Procedures for RHIOs and their Participants in New York State Version 2.2.”

- **Technical Services** - includes the baseline technical capabilities and interoperability that users of the SHIN-NY can expect to be available within any region of the state. With respect to interoperability, the Technical Services criteria will adhere to the published SHIN-NY Technical Specifications. Dial tone services currently include Patient Record Lookup, Secure (Direct) Messaging, Consent Management, Notifications (Alerts), Identity Management and Security, Provider and Public Health Clinical Viewer, Public Health Integration, and Results Delivery.

It is anticipated that the SHIN-NY Certification Criteria will be updated biannually by the NYS DOH to reflect changes in best practices, lessons learned, new capabilities and stakeholder expectations.

Certificated criteria were developed by a broad stakeholder group as part of developing the SHIN-NY regulatory package and further refined by a workgroup made up of DOH, QEs, NYeC, and KPMG representatives. KPMG is one of the “Big Four” accounting and professional services firms offering experience in health information exchange technologies and operations over several engagements with NYeC and other HIE state operations. KPMG also has experience in similar compliance work as one of a few accredited third party FedRAMP Assessment.
Organizations. Certification is set to begin in April 2015, and KPMG will run the certification process. Completion of QE certification is expected in the summer of 2015.

**Certification Status and Progress**

In addition to QE certification, KPMG is involved in the audit of the statewide bus. The bus is the central gateway that enables the QEs to perform cross-community exchange and is operated by the New York eHealth Collaborative (NYeC). As of April 2015, pre-audit testing is ongoing to ensure QEs are able to establish connectivity to the bus. Successful connectivity to the bus allows for statewide bi-directional querying by the QEs to obtain patient information.

Certification testing of the QEs’ technology and process against the statewide specification and requirements is ongoing. This is a formal test performed by KPMG. Once passed, a QE will be permitted to connect to the state bus and exchange data with other QEs that are also connected to the bus. Preliminary feedback from KPMG indicates that NYeC and QEs are on track with completing certification.

**Bus audit and QE certification process**
Glossary of Terms

**ADT w/Consent:** The ADT feed is a single data feed that electronically transmits Admission, Transfer, and Discharge information for patients admitted to a facility. The ADT w/Consent feed indicates an HIE consent value, collected and electronically stored in the facility’s EHR/EMR system.

**Authorized User:** An individual who has been authorized by a Participant or a QE to access patient information in accordance with SHIN-NY Policies Standards.

**Break the Glass:** Ability of an Authorized User to access a patient’s Protected Health Information without obtaining Affirmative Consent assuming no explicit denial of consent for emergency treatment purposes only.

**CCD:** Continuity of Care Document- The CCD is a core data set of administrative, demographic, and clinical information covering one or more healthcare encounters for a patient.

**C-CDA:** Consolidated Clinical Document Architecture - Clinical Document Architecture (CDA) is a certified standard regarding the coding, structure, and semantics of electronically exchanged clinical documents. A Consolidated CDA (C-CDA) is the new ONC standard for the electronic transfer of Care Summary to meet CMS Meaningful Use Stage 2 requirements and expands the data elements and healthcare information previously captured and exchanged via the CCD.

**HL7:** Health Level Seven - A standard format for exchanging information between medical applications. This standard defines a format for the transmission of health-related information.

**Hub Model:** A Hub Model refers to a structure of HIE connection where an EMR/EHR vendor has established a centralized “hub” that individual clients (i.e. physician practices or healthcare organizations) connect to for EMR/EHR services and this vendor hub has an established interface connection with the HIE. This single interface connection between the vendor hub and the HIE can potentially allow patient data to flow bi-directionally from any of the clients connected to the vendor hub if the client elects to do so. In a Hub Model, the technical work and costs associated with connecting a vendor hub client with the HIE are substantially reduced as opposed to those of individually establishing interface connections between each client and the HIE.

**MDM:** The Medical Document Management (MDM) feed transmits new or updated clinical documents and/or the documents’ status.

**MPI:** Master Patient Index - The database that holds identifying information on every patient registered at a healthcare organization or community. An MPI service will usually provide methods for matching multiple instances of a single patient into one unique identifier, usually through matching demographic and other information about the patient.

**ORU:** The Observation Result (ORU) feed is a single data feed that provides clinical observations (results) for patients, i.e. laboratory results.

**PACS:** Picture Archival and Communication Systems (PACS) is technology that allows for short and long term storage, retrieval, management, distribution, and presentation of medical image studies.

**PIX:** Patient Identifying cross referencing method used for cross-referencing multiple local patient ID’s between HIE’s.

**QE:** A Qualified Health IT Entity, or QE for short, is determined by the New York State Department of Health (NYS-DOH) to have met strict guidelines through a certification process which designates the QE eligible to participate in the SHIN-NY.
**SHIN-NY:** The Statewide Health Information Network of New York (SHIN-NY) is a private and secure information network connecting the regional QEs in New York State to allow for statewide patient data exchange. The SHIN-NY is governed by the NYS-DOH and the New York eHealth Collaborative (NYeC).

**sMPI:** Statewide Master Patient Index – A database that holds identifying information on every patient registered at a healthcare organization or community. An MPI service will usually provide methods for matching multiple instances of a single patient into one unique identifier, usually through matching demographic and other information about the patient.

**sXCPD:** Statewide Cross Community Patient Discovery - Supports the means to locate communities across the state which hold patient relevant health data and the translation of patient identifiers across communities holding the same patient’s data.

**XCA:** Cross Community Access - Supports the means to query and retrieve patient relevant medical data held by other communities.

**XCPD:** Cross Community Patient Discovery - Supports the means to locate communities which hold patient relevant health data and the translation of patient identifiers across communities holding the same patient’s data.

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