MEMORANDUM OF AGREEMENT

BETWEEN

NEW JERSEY DEPARTMENT OF HEALTH

AND

THE NEW JERSEY INSTITUTE OF TECHNOLOGY

FOR

CDRSS / NJIIS CAPACITY AND SYSTEM ENHANCEMENTS

WHEREAS, pursuant to N.J.S.A. 26:4-2, N.J.S.A. 26:13-12, and Executive Order 103, the New Jersey Department of Health (NJDOH) is authorized to take all reasonable and necessary measures to prevent the transmission of infectious disease, to oversee the uniform prevention of the spread of disease, and to coordinate the activities of all local health agencies with regard to public health emergencies; and

WHEREAS, the Division of Epidemiology, Environmental and Occupational Health, Communicable Disease Service (CDS) awarded funding to the Office of the Commissioner/Management and Administration within NJDOH entitled, “Epidemiology and Laboratory Capacity (ELC) Enhancing Detection Cooperative Agreement (ELC-ED),” effective January 20, 2020 through November 18, 2022, for the purpose of ELC Enhancing detection and response to COVID-19/SARS-CoV-2; enhancing laboratory, surveillance, informatics and other workforce capacity; strengthening laboratory testing; advancing electronic data exchange at public health labs; improving surveillance and reporting of electronic health data; using laboratory data to enhance investigation, response and prevention; and coordinating with strategic partners; and

WHEREAS, pursuant to N.J.S.A. 18A:64E-12 et seq., the New Jersey Institute of Technology (NJIT) is authorized to enter into agreements with other State agencies to benefit the residents of the State of New Jersey; and
WHEREAS, NJDOH seeks to engage the professional services of NJIT to enhance the Communicable Disease Reporting & Surveillance System (CDRSS) and NJ Immunization Information System (NJIIIS) Capacity, Systems, and Database Servers; and

WHEREAS, the Submission, Strategy, and Activity listed references the Submission, Strategy and Activity stated within relevant portions of the ELC-ED agreement and are listed in Attachment D, incorporated herein by reference;

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

I. UNDER THIS AGREEMENT, THE NJDOH IS HEREAFTER REFERRED TO AS THE “FUNDING AGENCY” AND THE NJIT IS HEREAFTER REFERRED TO AS THE “SERVICE PROVIDER AGENCY.”

II. OBLIGATIONS AND RIGHTS OF FUNDING AGENCY

A. Obligations

1. Funding Agency shall provide funding in an amount not to exceed:
   • $21,480,000.00 for the 30-month period (June 2020 to November 2022) with breakdown as follows:
     • $5,012,000.00 in Year 1, Months 1-7, (June 2020 to December 2020);
     • $8,592,000.00 in Year 2, Month 8-19, (January 2021 to December 2021);
     • $7,876,000.00 in Year 3, Month 20-30, (January 2022 to November 2022);
     a. Payment is contingent upon the satisfactory delivery of services as described herein at Section III.A., “Service Provider Obligations.”
     b. Payment obligations, reporting and monitoring requirements, and other special conditions to this MOA, are set forth at Attachment A, incorporated herein by reference.
     c. Payments shall be made in accordance with the provisions set forth at Attachment A, Section I. Payments are made for approved budget costs, set forth at Attachment B, incorporated herein by reference.

2. Funding Agency shall monitor the progress of this project to ensure services are provided in accordance with the schedule of work in Section III(A) for which payment shall be made. The financial, performance, and monitoring requirements are set forth at Attachment A, Sections II, III, and IV.

B. Rights

1. Audit
   a. Funding Agency has the right to audit all accounts and/or records maintained by the Service Provider Agency for this project.
   b. Funding Agency has the right, during normal business hours, to access all records and/or data pertaining to this MOA.
   c. The provisions of this subparagraph shall continue for a period of seven years after the submission and acceptance of the final financial and programmatic reports required under this MOA.
2. **Work Product**
   a. Funding Agency owns all data originated, developed, prepared, used, obtained, created, and maintained in the performance of services set forth herein.
      i. All written work produced pursuant to this MOA shall bear an acknowledgment of the support of the Funding Agency.
   b. Funding Agency must grant prior written consent before the Service Provider Agency may release any written work produced utilizing funds or data obtained pursuant to this MOA.
   c. Funding Agency has the right to edit all written work produced pursuant to this MOA and to add co-authorship or disclaimers as it, in its sole discretion, deems appropriate.
   d. Funding Agency assumes all responsibilities relative to determining compliance and effect of the Open Public Records Act (N.J.S.A. 47:1A-1) as it pertains to any work performed by the Service Provider Agency pursuant to this MOA.

3. **Purchases**
   a. Any purchases made using funds from this MOA are the property of the Funding Agency, which Service Provider Agency agrees to return upon request at the expiration or termination of the MOA.

### III. OBLIGATIONS AND RIGHTS OF SERVICE PROVIDER AGENCY

#### A. Obligations

1. Service Provider Agency shall deliver work established in the budget at Attachment B.

2. Service Provider Agency shall submit expenditure, progress and final reports and State invoices as set forth at Attachment A.

3. Service Provider Agency shall maintain all records related to this MOA for a period of seven years.

4. Service Provider Agency agrees to follow guidelines and comply with principles in Strategy and Activity within Submission 1 and Submission 2 as set forth in Attachment D, incorporated herein by reference.

5. **Schedule of Work.** Service Provider Agency agrees to deliver the following work in the expressed timeframes as follows:
### Submission 1: Strategy 4 / Activity 3 Milestones

<table>
<thead>
<tr>
<th>Deliverables/Milestones</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Complete the merger of the two disparate Master Person Indexes (MPIs) to become one comprehensive index.</td>
<td>March 2021</td>
</tr>
<tr>
<td>2. Implement Electronic Case Reporting Use Case, onboarding 5 TDSOs to support reportable conditions in surveillance system.</td>
<td>November 2022</td>
</tr>
<tr>
<td>3. Implement enhanced CCD Use Case to include additional data elements that will support health condition tracking, health equity and/or special population analysis to support Milestone 2. Pilot 5 TDSOs.</td>
<td>August 2022</td>
</tr>
<tr>
<td>4. Implement interface for ADT reporting from NJHIN to NJDOH through API. Pilot with 5 hospitals.</td>
<td>November 2022</td>
</tr>
</tbody>
</table>

### Submission 2: Strategy 4 / Activity 3 Milestones

<table>
<thead>
<tr>
<th>Deliverables/Milestones</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Engage 30 LTCs in the EHR selection and implementation process</td>
<td>October 2022</td>
</tr>
<tr>
<td>2. Connect 30 LTC facilities to NJHIN.</td>
<td>November 2022</td>
</tr>
<tr>
<td>3. Complete ADT and TOC (CCD) NJHIN use case connections with 30 LTCs.</td>
<td>November 2022</td>
</tr>
<tr>
<td>4. Implement interface for ADT reporting from NJHIN to NJDOH through API. Pilot with 5 LTCs.</td>
<td>November 2022</td>
</tr>
</tbody>
</table>

5. **Whistleblower Protection Notice.**
   Service Provider Agency agrees to comply with and provide adequate notice of available whistleblower rights and remedies, pursuant to 41 U.S.C. 4712, as follows:
   a. Informing employees and independent contractors working on this MOA of their entitlement to the rights and remedies of the "Pilot Program for Enhancement of Contractor Employee Whistleblower Protections", which cannot be waived by any MOA, policy, form or condition of employment, and includes the following:
      i. The right not to be discharged, demoted, or otherwise discriminated against as a reprisal for whistleblowing, which is defined as "making a disclosure that the employee reasonably believes is evidence of," any of the following:
         1. Gross mismanagement of federal contract or grant;
         2. A gross waste of federal funds:
         3. An abuse of authority relating to federal contract or grant;
         4. A substantial and specific danger to public health or safety;
         5. A violation of law, rule or regulation related to a federal contract or grant (including the competition for, or negotiation of a contract of grant); and
ii. This benefit applies when the employee's disclosure is made to one of the following individuals or entities:
   1. A member of Congress, or representative of a Congressional Committee;
   2. An Inspector General;
   3. The Government Accountability Office;
   4. A federal employee responsible for contract or grant oversight or management at the relevant agency;
   5. An official from the Department of Justice or other law enforcement agency;
   6. A court or grand jury; or
   7. A management official or other employee of the contractor, subcontractor, grantee, or subgrantee with responsibility to investigate, discover, or address misconduct.

b. Providing such written notice in the predominant native language of the workforce; and

c. Including such requirements in any subsequent MOA with another party to carry out its obligations under the MOA.

6. **Data Privacy and Data Security**
   Service Provider Agency agrees to protect NJDOH data collected, used, and maintained through the professional services provided pursuant to this MOA pursuant to applicable federal and State law, standards and policies of the State of New Jersey Office of Information Technology, as amended and supplemented, and accessed at [http://www.state.nj.us/it/services/policies.shtml](http://www.state.nj.us/it/services/policies.shtml). Service Provider Agency Agrees to comply with the terms of Attachment C, Incorporated herein by reference.

**B. Rights**

Service Provider Agency has the rights set forth at Sections III, IV, and V of this MOA and Attachment A.

**IV. GENERAL PROVISIONS**

A. During the term of this MOA, each party shall comply with all federal, State and municipal laws, rules and regulations generally applicable to the activities performed pursuant to this MOA. The award of funds is based on the Service Provider Agency's submission, and the Funding Agency's acceptance, of a Cost Proposal, which is incorporated herein by reference.

B. Each party shall maintain accurate books and records of all disbursements, funds received, funds spent and funds available because of this MOA.

C. Each party is an independent entity and neither party shall hold itself out as an agent, partner or representative of the other.

D. Failure by either party to exercise any right or demand performance of any obligation under this MOA shall not be deemed a waiver of such right or obligation.

E. If any terms and conditions of this MOA are held to be invalid or
unenforceable as a matter of law, the other terms and conditions hereof shall not be affected thereby and shall remain in full force and effect. To this end, the terms and conditions of this MOA are declared severable.

F. This MOA may not be assigned without the prior written consent of NJDOH.

G. The laws of the State of New Jersey govern this MOA.

H. This MOA may be modified in accordance with the provisions of Attachment A, Section III.

I. The parties recognize and agree that this MOA is expressly dependent upon the availability to the NJDOH of funds appropriated from applicable federal or state funding sources. The NJDOH shall not be held liable for any termination of this MOA due to the absence of available funding appropriations. In the event that funding is reduced in this MOA, both parties agree to renegotiate performance obligations.

J. Funding Agency reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, the copyright in any work developed under the MOA.

K. The parties agree that all data resulting from this MOA are to be considered confidential and shall be solely used for the purposes as outlined above. All parties are required to use reasonable care to protect the confidentiality of the data.

L. Any research resulting from this MOA which is subject to the Institutional Review Boards of either of the parties shall be confidential. Each party is responsible for adhering to the rules of the Institutional Review Board.

V. TERMS AND TERMINATION

A. Subject to any rights of termination hereinafter set forth, this MOA shall become effective on June 1, 2020 and shall remain in effect through January 31, 2023.

   1. A portion of this MOA is retroactive.

   2. Neither party will incur any penalty because of the retroactive period.

B. This MOA may be terminated by either party with or without cause upon 30 days’ advance written notice.

C. Notice of termination shall be addressed to the contact person identified at Section VI and delivered via U.S. mail, return receipt requested, and shall be effective upon receipt.

D. Upon the expiration of the term of this MOA or upon the issuance of a notice of termination, all unexpended funds appropriated by the Funding Agency to the Service Provider Agency, in any account whatsoever, shall be immediately returned to the Funding Agency through the contact persons identified at Section VI without any further assessment or expenditure except as specifically approved by the Funding Agency in writing.
VI. PRINCIPAL CONTACTS

The principal contacts for all notifications required or otherwise necessary under this MOA shall be as follows:

For the New Jersey Department of Health:

Program Management Officer
CIO, Office of Health Information Technology
New Jersey Department of Health
25 South Stockton Street
Trenton NJ, 08625

Fiscal Officer

For New Jersey Institute of Technology (NJIT)

Program Officer
Senior Vice President, Healthcare Division
New Jersey Innovation Institute
211 Warren Street
Newark, NJ 07102

Fiscal Officer
VII. WE, THE UNDERSIGNED, CONSENT TO THE CONTENTS OF THIS AGREEMENT.

New Jersey Department of Health:

Signature: [Signature]
Eileen Troutman
CIO
Office of Health Information Technology

Date: 10-25-20

New Jersey Institute of Technology:

Signature: [Signature]
Joel S. Bloom, Ed.D.
President

Date: 10-32-20
ATTACHMENT A

This Attachment A is hereby incorporated into the Memorandum of Agreement between the New Jersey Department of Health (NJDOH) and the New Jersey Institute of Technology (NJIT) entitled “Capacity and System Enhancements.”

I. METHOD OF PAYMENT

A. NJDOH shall make cost reimbursement payments on a quarterly basis upon receipt of timely and satisfactory financial and performance reports and State invoices.

B. A quarterly period is defined herein as established in Attachment B. Please note the first quarter of FY2020 will be four months, June 1, 2020 to September 30, 2020, and the last quarter of FY2022 will be two months, October 1, 2022 to November 30, 2022.

C. NJDOH shall remit final payment within 60 days of acceptance of final reports.

II. FINANCIAL AND PERFORMANCE REPORTING AND MOA MONITORING

A. Expenditure Reports.
NJIT shall submit expenditure reports and State invoices to NJDOH no later than 30 days after the end of each quarter.

B. Performance Reports.
NJIT shall submit to NJDOH performance reports in the form specified by NJDOH no later than 30 calendar days after the end of each quarter.

C. Meetings.
NJIT shall attend monthly technical assistance meetings with NJDOH.

D. Monitoring Requirements.
NJDOH shall monitor expenditure and performance reports on a quarterly basis to ensure the timely progression of the project and, if needed, shall initiate improvement plans to overcome any barrier to completion.

III. MODIFICATIONS TO THE AGREEMENT

The MOA and any attachment thereto represent the entire Agreement between the parties and shall not be amended except by the express written consent of both parties, except as stated herein:

1. Extensions of Time
May be granted in writing by the NJDOH Program Management Officer and NJDOH Fiscal Officer identified in the MOA at Section VI.

2. Budget Revisions
May be granted in writing by the NJDOH Program Management Officer
and NJDOH Fiscal Officer identified in the MOA at Section VI.

3. **Modifications to Service Deliverables**
   May be made to Subsection IV. of the MOA with the approval of the
   NJDOH Program Management Officer identified in the MOA at Section VI.

**IV. SPECIAL CONDITIONS**

There are no special conditions to the MOA.

**V. MULTI-YEAR AGREEMENTS**

1. The MOA is a multi-year agreement.

2. The MOA is for a period of two and a half years (30 months) and
   authorization is approved for that time.

3. The budget for the first year is approved herein and funding amounts for
   the succeeding years are contingent upon the availability of funding, the
   satisfactory performance of deliverables, and compliance with the terms of
   this MOA, which may be established by annual modifications to the MOA
   for years two and three as necessary.
ATTACHMENT B

This Attachment B is hereby incorporated into the Memorandum of Agreement between the New Jersey Department of Health (NJDOH) and New Jersey Institute of Technology (NJIT) entitled “Capacity and System Enhancements.”

ATTACHMENT B CONTINUES ON FOLLOWING PAGE
ATTACHMENT C

SECURE PROTECTION AND HANDLING OF NJDOH DATA CDRSS AND NJIIS ENHANCEMENT

Attachment C is hereby incorporated into and provides for additional provisions and conditions to the Memorandum of Agreement (MOA) between the New Jersey Department of Health (NJDOH) and the New Jersey Institute of Technology (NJIT). Pursuant to E.O. 103, N.J.S.A. 26:13-12, N.J.S.A. 26:4-2, and N.J.S.A. 26:13-21, the New Jersey Department of Health (NJDOH) is authorized to take all reasonable and necessary measures to prevent the transmission of infectious disease, to oversee the uniform prevention of the spread of disease, and to coordinate the activities of all local health agencies with regard to public health emergencies. As such, NJIT will make system enhancements by engaging professional services of NJIT to enhance CDRSS and New Jersey Immunization Information System (NJIIS) capacity, systems, and database servers. NJIT and service vendors agree that there shall be no further use and disclosure of the data obtained other than to those specifically outlined in this MOA. Data privacy rules require that the data will reside in MPI used by CDRSS. All of the provisions below apply to NJIT and all of the subcontractors it employs for the purposes of this MOA.

1. NJDOH Data.
NJDOH Data shall mean any Personally Identifiable Information (PII), as defined by the New Jersey Statewide Information Security Manual https://www.nj.gov/it/docs/ps/NJ_Statewide_Information_Security_Manual.pdf, or other data or information which RBHS/SPH receives or to which RBHS/SPH otherwise has access pursuant to the provision of services under the MOA.

NJIT agrees at all times to maintain network security for the integration project that – at a minimum – includes: network firewall provisioning, intrusion detection, and regular and at least an annual, vulnerability assessment(s). Likewise, NJIT agrees to maintain network security that conforms to generally recognized industry standards and best practices that are applied to its own network.

NJIT agrees at all times to provide, maintain and support MOA and subsequent updates, upgrades, and bug fixes such that the MOA is and remains secure from those vulnerabilities as described in generally recognized and comparable industry practices or standards. User access will be controlled through a user id and password and privileges within the system will be restricted based on user role.

NJIT agrees to preserve the confidentiality, integrity and accessibility of NJDOH data with administrative, technical and physical measures that conform to generally recognized industry standards and best practices that NJIT then applies to its own processing environment. Maintenance of a secure processing environment includes but is not limited to the timely application of patches, fixes and updates to operating systems and applications as provided by NJIT or open source support.
5. **Data Storage.**
Neither NJIT nor any of its subcontractors may share the data other than as provided for in the MOA or by specific written permission of the NJDOH Chief Information Officer. NJIT agrees that any and all NJDOH data will be stored, processed, and maintained solely on designated target servers and that no NJDOH data at any time will be processed on or transferred to any portable or laptop computing device or any portable storage medium, unless that device or storage medium is in use as part of NJHIN’s designated backup and recovery processes and encrypted, whether at rest or in motion, in accordance with “7. Data Encryption.” For purposes of this Section 5, it is permissible for NJIT to store, process, and maintain such data on services maintained by third parties, and to access this data on portable or laptop computing devices. Data and devices shall be managed and protected in accordance with guidance set forth by New Jersey Cyber Communications & Integration Cell (NJCCIC)” Bulletin located here.

NJIT recognizes that the confidentiality of the NJDOH Data is of paramount importance and must be observed except where disclosure is allowed by this Agreement. All Data exchange activity conducted through the Agreement will be conducted in a manner consistent with the New Jersey Identity Theft Prevention Act (NJSA 56:8-161, et seq.) and all applicable State and Federal law. The parties agree to take all necessary steps to protect such privacy by complying with the provisions that are applicable to their particular entity, in governing their handling of confidential information.

6. **Data Transmission.**
NJIT agrees that any and all electronic transmission or exchange of system and application data with NJDOH and/or any other parties expressly designated by NJDOH shall take place via secure means (using HTTPS or SFTP or equivalent) and solely in accordance with “8. Data Re-Use.”

7. **Data Encryption.**
NJIT agrees to store all NJDOH backup data as part of its designated backup and recovery processes in encrypted form, using a commercially supported encryption solution. NJIT further agrees that any and all NJDOH data defined as personally identifiable information under current legislation or regulations stored on any portable or laptop computing device or any portable storage medium be likewise encrypted.

8. **Data Re-Use.**
NJIT agrees that any and all NJDOH data exchanged shall be used expressly and solely for the purposes enumerated in this MOA and this Attachment, or any existing NJDOH MOAs NJDHS MOAs, as modified from time to time. Except for enhancement predicted usage, NJDOH data shall not be distributed, repurposed or shared across other applications, environments, or business units of NJIT.

9. **End of Agreement Data Handling.**
Except for data used for the purpose of and as a necessary part of the current enhancement usage, NJIT agrees that upon termination of this MOA it shall turn over all data to NJDOH. In addition, excepting that data necessary for proper operation and maintenance of enhancement usage, NJIT shall erase, destroy, and render unrecoverable all NJDOH data maintained by NJIT for the NJHIN and certify in writing that these actions have been completed within 30 days of the termination of this MOA or within 7 days of the request of NJDOH, whichever shall come first. At a minimum, a “Clear” media sanitization is to be performed according to the standards enumerated by the National Institute of Standards, Guidelines for Media Sanitization.

NJIT agrees to comply with all applicable laws that require the notification of individuals in the event of unauthorized release of personally identifiable information or other event requiring notification. In the event of a breach of any of NJIT security obligations, or other event requiring notification under applicable law, NJIT agrees to:

a. Notify NJDOH by telephone and e-mail of such an event immediately upon discovery, specifically with reference to a privacy event and

b. Assume responsibility for informing all such individuals in accordance with applicable law, and

c. Indemnify, hold harmless and defend NJDOH and its employees from and against any claims, damages, or other harm related to such Notification Event to the extent the Notification Event was not caused by NJDOH or its employees.

1. Right to Audit.
NJDOH or an appointed audit firm (Auditors) has the right to audit NJIT and any affiliates that provide a service for the processing, transport or storage of NJDOH’s data. NJDOH will announce its intent to audit NJIT by providing at a minimum two weeks (10 business days) notice to NJIT. This notice will go to the signatory of this MOA. A scope document along with a request for deliverables will be provided at the time of notification of an audit. If the documentation requested cannot be removed from NJIT’s premises, NJIT will allow the Auditors access to their site. Where necessary, NJIT will provide a personal site guide for the Auditors while on site. NJIT will provide a private accommodation on site for data analysis and meetings; the accommodation will allow for a reasonable workspace, with appropriate lighting, electrical, a printer and Internet connectivity. NJIT will make necessary employees or contractors available for interviews in person or on the phone during the time frame of the audit. In lieu of NJDOH or its appointed audit firm performing their own audit, if NJIT has an external audit firm that performs a Statement on Standards for Attestation Engagements no. 18 (SSAE 18) report and certification, NJIT shall submit the report and certification to NJDOH. NJDOH has the right to request additional controls to be added to NJIT’s environment for testing the controls that have an impact on NJDOH data. Audits will be at NJDOH’s sole expense, except where the audit reveals material noncompliance with contract specifications, in which case the cost will be borne by NJIT.

11. Industry Standards.
Generally recognized industry standards include but are not limited to the current standards and benchmarks set forth and maintained by the:

a. Center for Internet Security - see http://www.cisecurity.org
e. ISO/IEC 27000-series - see http://www.iso27001security.com/
f. Organization for the Advancement of Structured Information Standards (OASIS) – see http://www.oasis-open.org/
ATTACHMENT D

ELC Enhancing Detection: Emerging Issues (E) Project
Workplan for Proposals – CDRSS/NJIIIS Capacity and System Enhancements
New Jersey Innovation Institute

Submission 1

Overview:
The positions and infrastructure funded through this opportunity will contribute New
Jersey’s epidemiologic surveillance related activities. The projects under this Strategy
and Activity specifically support the State of New Jersey’s extended efforts for process
improvements, data collection and analysis driven through automation. The identified
milestones will lead to long term capacity improvements, ultimately contributing to
patient impact.

Under the ELC Enhancing Detection 2020 opportunity, NJDOH intends to leverage the
existing structure of the NJHIN and expand capacity and additional use case
functionality as part of the strategy for “Improve Surveillance and Reporting of
Electronic Health Data”. The proposed efforts will complement, not duplicate current
infrastructure and services. As more public health data connections are made and
providers continue to join the system and share data, the NJHIN will accelerate its
ability to contribute to emergency response efforts during a pandemic like COVID-19
and continue to improve traditional healthcare service delivery. The New Jersey
Innovation Institute, under the New Jersey Institute of Technology, will lead these
specific efforts.

Master Person Index: Capacity Upgrade
To support those efforts, the MPI for New Jersey is currently in the form of two
separate and distinct data sets. As the NJHIN became operational the state registries
contributed to one MPI and the trusted data sharing organizations (TDSO) connected to
the NJHIN (hospitals, care providers) provided patient information to populate the
second MPI. The Indexes have over 6 million and 8 million identities respectively, with
the overlap unknown. The TDSO data is believed to be more comprehensive and up to
date. Merging these two MPIs into a single one will ensure a single statewide updated
index that will be more reliable, comprehensive and valuable for matching and reporting
success. The NJDOH will have the ability to query the MPI to support surveillance
efforts. Data clean up will be conducted during the merge. Additional data sources for
demographic data improvements will also be pursued. As stakeholders agree, sources
such as vital statistics, Medicaid, universal billing, motor vehicles, corrections, etc. can
also be explored as sources. Third party referential data may be leveraged to
strengthen demographic confidence. A single MPI supports long term capacity for
patient information sharing across the NJHIN.

Electronic Case Reporting: Capacity Development

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This new Use Case allows healthcare providers and hospitals to send case reports regarding a patient’s infectious disease status to the state registry system via NJHIN. This will automate the process and improve the timeliness of critical information such as hospitalization, discharge diagnosis, mortality, etc. COVID-19 and four other identified priority communicable diseases reporting will be supported through the capacity development in this pilot. The Use Case includes extracting data from the facility/provider electronic health record. Certified EHR (2015 minimum) will support securely sending electronic initial case reports and/or Continuity of Care Documents (CCDs) through Consolidated Clinical Document Architecture (C-CDA) files. Five Trusted Data Sharing Organizations (TDSOs) will participate in the pilot. Each TDSO can range from 1 to thousands of providers. The infrastructure development supports long term capacity for this pandemic and other communicable diseases in the future.

Transitions of Care Use Case Data Enhancements
Surveillance activities relating to the analysis requires additional data collection support so that capacity, resources and interventions can be informed to address information sharing and health equity. Infrastructure to create alert functionality will be developed to support COVID-19 surveillance and information sharing and can be leveraged and replicated for other disease conditions, environmental, and/or social factor data points. This will establish bi-directional alerts between the NJDOH and attributed healthcare providers, or between providers, with the NJHIN as the transmission source. The enhancements establish sustainable functionality that supports COVID-19 and future capacity.

NJHIN and NJDOH Data Integration/Interoperability
Currently NJHIN ADT and CCD notifications are transferred through the NJHIN between healthcare providers and facilities. Interfacing with the NJDOH to receive these notifications directly will enhance automated, machine driven data sharing that supports reporting requirements to the CDC. Interfaces will be developed between NJHIN and NJDOH through API or FHIR standards to facilitate this data exchange. Five hospital Trusted Data Sharing Organizations will be recruited to participate in the pilot. This infrastructure development supports long term capacity that is sustainable.

Strategy 4: Improve Surveillance and Reporting of Electronic Health Data Conducting the activities in this section to enable comprehensive, automated, daily reporting to the CDC and others in a machine-readable format, for data elements to be determined at a later date, is a requirement of accepting these funds.

S4 - Activity 3. Improve understanding of capacity, resources, and patient impact at healthcare facilities through electronic reporting.
Overview:
The positions and infrastructure funded through this opportunity will contribute New Jersey's epidemiologic surveillance related activities, specifically focusing on long term care facility (LTC) related activities. The project under this Strategy and Activity specifically support the State of New Jersey's extended efforts for process improvements, data collection and analysis driven through automation. The identified milestones will lead to long term capacity improvements, ultimately contributing to patient impact.

The existing structure of the NJHIN will be leveraged where possible, and this project will expand capacity and additional use case functionality as part of the strategy for "Improve Surveillance and Reporting of Electronic Health Data". The proposed efforts will complement current infrastructure and services. As more public health data connections are made and providers continue to join the system and share data, the NJHIN will accelerate its ability to contribute to emergency response efforts during a pandemic like COVID-19 and continue to improve traditional healthcare service delivery. The New Jersey Innovation Institute, under the New Jersey Institute of Technology, will lead these specific efforts.

Interoperability Promotion: LTC Provider Engagement
Long term care (LTC) facilities are in various maturity stages in relation to being interoperability ready. Some facilities do not utilize electronic health records while others operate on current versions and are connected to the NJHIN. This initiative will engage LTC facilities to acquire or upgrade a 2015 ONC certified EHR that is ready for information sharing through API, HL7 and FHIR functionalities. Scope includes the costs of vendor software, training and rollout support. The facilities will be assisted in onboarding to the NJHIN to promote interoperability, specifically Use cases for sending and receiving ADT notifications and a specialized Transitions of Care (CCD). An expansion of capacity to include 30 long-term care facilities will engage in use case participation. Increased volume of engaged providers contributes to long term sustainable interoperability and reporting value.

Strategy 4: Improve Surveillance and Reporting of Electronic Health Data Conducting the activities in this section to enable comprehensive, automated, daily reporting to the CDC and others in a machine-readable format, for data elements to be determined at a later date, is a requirement of accepting these funds.

S4 - Activity 3. Improve understanding of capacity, resources, and patient impact at healthcare facilities through electronic reporting.