InductiveHealth Inc.

Original Copy

Technical Volume

ATTACHMENT B: TITLE PAGE, EXECUTIVE SUMMARY, AND SUBCONTRACTOR LETTERS

1. Title Page

In accordance with *Section 5 – Vendor Proposal* of this RFP, the Vendor should include a titlepage stating the Vendor's intent to bid for this Request for Proposal (RFP). The Vendor's response should include a Title Page; Table of Contents; Executive Summary; and Vendor contact and location information.

Response: See Title Page on next page.

REQUEST FOR PROPOSAL
CRFP MIS2200000001-ENTERPRISE SURVEILLANCE SYSTEM

February 1, 2022

Mr. Matthew Dollacker
Chief Executive Officer
InductiveHealth Informatics, Inc.
2870 Peachtree Rd NW #915-3304
Atlanta, GA 30305-2918
www.inductivehealth.com

Crystal Hustead
Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130
Crystal.G.Hustead@wv.gov

Re: Original Proposal - Title Page - CRFP MIS2200000001 – Enterprise Surveillance System

Ms. Hustead,

With a corporate mission to stop communicable disease through technology, InductiveHealth Informatics, Inc. ("InductiveHealth") looks forward to continuing to support the people of West Virginia and intends to bid on the Enterprise Surveillance System opportunity (CRFP MIS2200000001).

We look forward to the continued partnership with West Virginia and provided the requested Title Page information in the table below.

Sincerely,

Matthew Dollacker
Chief Executive Officer

ID	Title Page Requested Information	Response
1	**Vendor's Name**	InductiveHealth Informatics, Inc.
2	**Business Address**	2870 Peachtree Rd NW #915-3304 Atlanta, GA 30305-2918 www.inductivehealth.com
3	**Telephone number, fax number, name of contact person, e-mail address**	Authorized Parties: Mr. Matthew Dollacker Chief Executive Officer 770-329-1233 matthew.dollacker@inductivehealth.com Contracts inbox: contracts@inductivehealth.com Corporate Fax Number: 800-991-2996 Attn: InductiveHealth #3304

REQUEST FOR PROPOSAL
CRFP MIS2200000001-ENTERPRISE SURVEILLANCE SYSTEM

The Vendor should include the following cover letter, signed in **blue ink** by an authorized signatory legally binding the Vendor and include it in the labeled "Original Proposal."

The Vendor should also provide the following information regarding the person responsiblefor completing the Vendor responses. This person should also be the person DHHR and Purchasing Division should contact for questions and/or clarifications.

Name	Matthew Dollacker	Phone	770-329-1233
Address	2870 Peachtree Rd NW #915-3304	Fax	800-991-2996 Attn: InductiveHealth #3304
	Atlanta, GA 30305-2918	E-mail	matthew.dollacker@indutivehealth.com

Subject to acceptance by the State, the Vendor acknowledges that by submitting a response AND signing in the space indicated below, the Vendor is submitting a formal offer to meet the requirements and intent of the RFP.

In addition to providing a signature to *Section 6.9 – Availability of Information* in the RFP, failure to sign the Submission Cover Sheet or signing it with a false statement shall void the submitted response or any resulting contracts.

_____ / 1/30/22

Original Signature of Signatory Authorized to Legally Bind the Company / Date

Name (Typed or Printed)	Matthew Dollacker
Title	CEO
Company Name	InductiveHealth Informatics, Inc.
Physical Address	2870 Peachtree Rd NW #915-3304 Atlanta, GA 30305-2918
State of Incorporation	GA

By signature hereon, the Vendor certifies that:

1. All statements and information prepared and submitted in response to this RFP are current, complete, and accurate.

2. The proposed solution for the project meets the requirements of this RFP.

3. The Vendor will comply with all federal and state laws, rules, and regulations that are in force currently or anytime during the term of a resulting contract.

4. The Vendor understands that proposal submissions become public and are available for review immediately after opening pursuant to West Virginia Code §5A-3-11(h). All other information associated with the RFP, including but not limited to, technical scores and reasons for disqualification, will not be available until after the contract has been awarded pursuant to West Virginia Code of State Rules §148-1-6.3.d.

5. The company represented here is an authorized dealer in good standing of the products and services included in this response.

6. The Vendor and its principals are eligible to participate in this transaction and have not been subjected to suspension, debarment, or similar ineligibility determined by any federal, state or local governmental entity; are in compliance with the State's statutes and rules relating to procurement; and are not listed on the federal government's terrorism watch list asdescribed in Executive Order 13224. Entities ineligible for federal procurement are listed at https://www.sam.gov/portal/SAM/#1.

7. Prior to award, the Vendor affirms it will have all current approvals, licenses, or other qualifications needed to conduct business in West Virginia.

2. Vendor Information

Complete the following information regarding the Vendor's information, including: primary contact for any questions pertaining to the Vendor's payment address to which the State should send payments under the Contract, legal notice address to which the State should send legal notices for any potential future agreements, and individuals responsiblefor the Vendor's response.

2.1. Payment Address

In Table 10, the Vendor should provide the address to which the State should send payments.

Table 10: Payment Information

Payment Information:			
Name:	James Maglione	Title:	Director of Finance and Contracting
Address:	2870 Peachtree Rd NW #915-3304		
City, State and ZIP Code:	Atlanta, GA 30305-2918		
Phone:	714-390-1465	Fax:	800-991-2996 Attn: InductiveHealth #3304
Email:	james.maglione@inductivehealth.com, contracts@inductivehealth.com		

2.2 Legal Notice Address

In Table 11, the Vendor should provide the name, title, and address to which the State should send legal notices.

Table 11: Legal Notice Information

Legal Notice Information			
Name:	Matthew Dollacker	Title:	CEO
Address:	2870 Peachtree Rd NW #915-3304		
City, State and ZIP Code:	Atlanta, GA 30305-2918		
Phone:	770-329-1233	Fax:	800-991-2996 Attn: InductiveHealth #3304
Email:	matthew.dollacker@inductivehealth.com, contracts@inductivehealth.com		

3. Executive Summary

This section should be a brief (three (3) to five (5) page) summary of the key aspects of the Vendor's Technical Proposal. The Executive Summary should include an overview of the Vendor's qualifications, approach to delivering the services described in the RFP; timeframefor delivering the services; proposed team; and advantage of this proposal to the State.

Response: See next page.

Vendor Qualifications: With a corporate mission to stop communicable disease through technology, InductiveHealth Informatics, Inc. (InductiveHealth) looks forward to continuing to support the people of West Virginia under the Enterprise Surveillance System opportunity (CRFP MIS2200000001) with our **next generation enterprise disease surveillance platform**, based on the InductiveHealth-maintained **EpiTrax™** disease surveillance system and other enabling components from our mature disease surveillance software-as-a-service (SaaS) platform. InductiveHealth delivers this solution today to State-level clients, including successful migrations of data and disease surveillance capabilities from the NEDSS Base System (NBS) into this more modern, usable, integrated disease surveillance system, delivered in a software-as-a-service (SaaS) model. **InductiveHealth has partnered with STChealth** – another established, successful vendor to the State of West Virginia – to leverage their expertise and capabilities in immunization systems to enable the modern, integrated surveillance vision that the West Virginia Department of Health and Human Resources (WV DHHR) seeks to realize.

InductiveHealth is one of the largest disease surveillance systems software-as-a-service providers in the United States, delivering the reference electronic disease surveillance system (EDSS) for thirteen (13) states and territories, managing the exchange of several million HL7 messages from clinical care to public health daily, with well over a billion records under management. By focusing exclusively on disease surveillance technology, InductiveHealth has developed optimized tools, processes, and technology that have been vetted at scale and optimized for best practice delivery of surveillance, investigation, contact tracing, and response functions.

InductiveHealth works across federal, state, territorial, and tribal public health agencies to deliver mission critical solutions in public health disease surveillance. Founded in 2013 and headquartered in Atlanta, Georgia, our institutional capacity and financial resources have been recognized by the Federal

InductiveHealth collects nationwide hospitalization and laboratory result data, critical to the Coronavirus (COVID-19) pandemic response. Image of InductiveHealth-provided data presented to President Joseph Biden.

government as an awardee of the Chief Information Officer-Solutions and Partners 3 (CIO-SP3) and General Service Administration (GSA) Multiple Award Schedule (MAS) contract vehicles, as well as multiple other large, mission-critical disease surveillance programs. This includes delivery of the National Syndromic Surveillance Program / BioSense (NSSP) for the Centers for Disease Control and Prevention, collecting and processing HL7 data across thousands of feeds, covering over 70% of hospitalizations nationwide, many billions of records, and delivering advanced analytics and dashboards that support the understanding and response to outbreaks and events of public health importance.

As a trusted partner to West Virginia since 2018, InductiveHealth successfully delivers similar services as those defined under the Enterprise Surveillance System opportunity (CRFP MIS2200000001), including:

- Delivery of software-as-a-service (SaaS) solution for the National Electronic Disease Surveillance System (NEDSS) Base System (NBS) for all West Virginia reportable diseases

- Since the start of the Coronavirus Disease 2019 (COVID-19) pandemic in early 2020, delivery of electronic laboratory reporting (ELR) onboarding and operations to support receipt of laboratory results electronically
- Electronic Case Reporting (eCR) onboarding and operations to expand surveillance capabilities of West Virginia based on Centers for Disease Control and Prevention (CDC) and Centers for Medicare & Medicaid Services (CMS) interoperability rules
- Modernization of data interoperability capabilities through Rhapsody data integration engine subject matter expertise and technical assistance

By the numbers:
InductiveHealth Delivery to West Virginia

5 Years EDSS Solution Provider	**500+** End Users
12M+ Patient Records	**10M+** Electronic Laboratory Reports
1000+ Reporting Facilities	**99.95+%** Solution Uptime Achieved

InductiveHealth has delivered mission-critical electronic disease surveillance solutions to West Virginia since 2018.

We are excited to propose a low-risk path to transition West Virginia to the next generation of integrated electronic disease surveillance technology that not only meets RFP requirements, but also enables some of the most important new ideas in disease surveillance today.

Approach to delivering the services described in the RFP: InductiveHealth is proposing an integrated disease surveillance solution that provides for coordinated data and interactions with WV ESS users and residents to improve the effectiveness, timeliness, and quality of interventions. This is a solution that InductiveHealth delivers to other clients today, including support for many of the ancillary systems integrations between other systems WV DHHR utilizes. We have partnered with STChealth to help deliver these capabilities, bringing deep expertise in one of the most critical data systems to further integrate into surveillance functions, West Virginia's immunization information system.

InductiveHealth's proposed solution is based on the EpiTrax™ electronic disease surveillance system, in use by 5 states and territories. InductiveHealth delivers this solution in a **commercial open source model**, meaning the core software is available open source, reducing the risk of vendor lock-in, while providing the same levels of maintenance, support, bugfix, and new feature development provided by other commercial software. As shown in the diagram below, our proposed solution includes several other components, including the Rhapsody™ integration engine, EMSA™ for message data flow control, visualization, and audit, Respond Plus™ for automated contact tracing and symptom monitoring via SMS, and InductiveHealth's custom Grafana dashboards for data visualization and RStudio Web for advanced data exploration. **These components are already integrated** as part of services InductiveHealth delivers today, reducing deployment timelines and risk, and providing coordinated workflows across components. Some, such as Rhapsody™, are used as part of InductiveHealth's existing service delivery to West Virginia, allowing for significant reuse of existing feeds and mappings and supporting WV DHHR's strategic investment in this integration technology for external reporting.
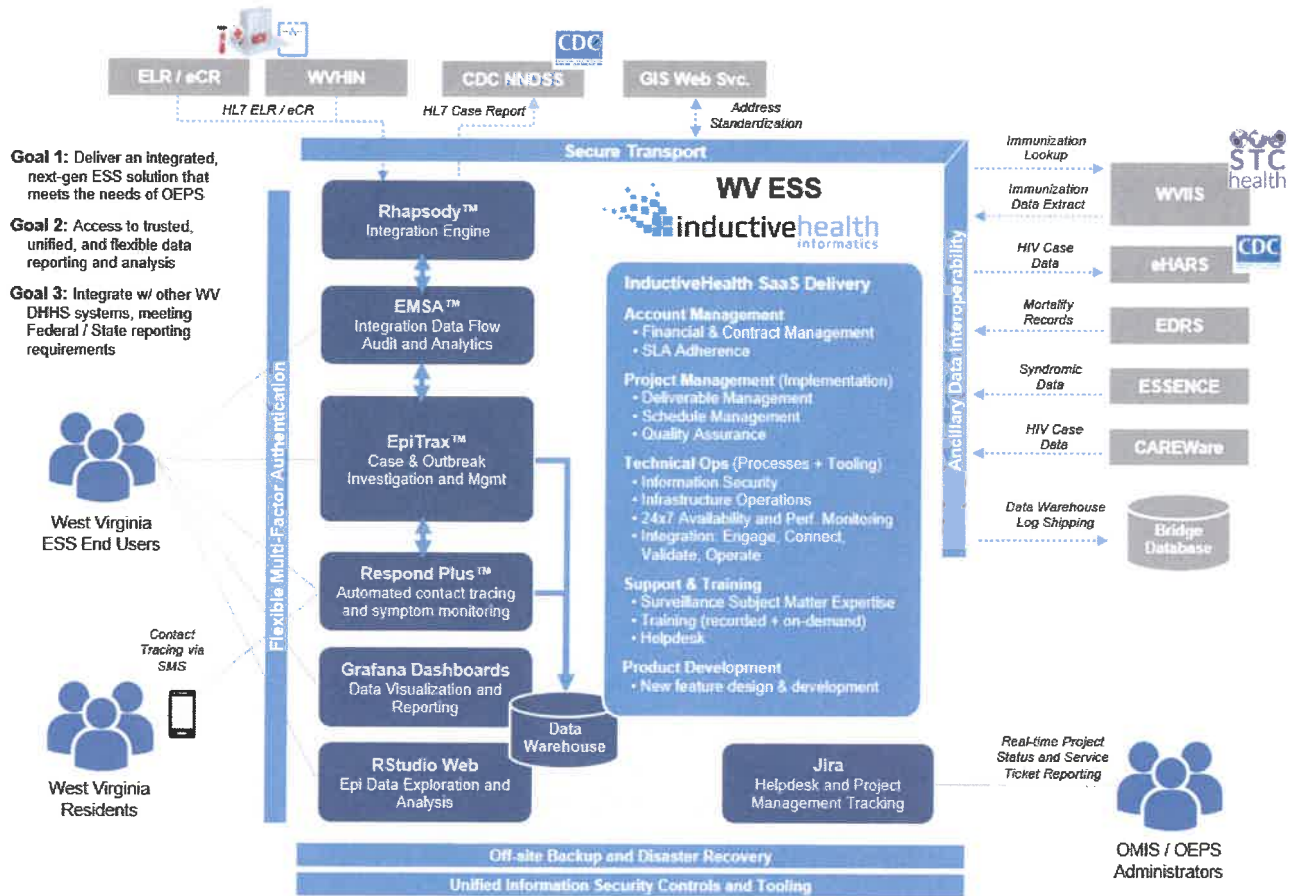
InductiveHealth's approach to delivering to West Virginia's requirements for an Enterprise Surveillance System is based on mature technology and existing integrations and integration patterns to deliver core surveillance capabilities while enabling additional data interoperability and advanced, unified data analytics

These software components are supported by InductiveHealth's mature SaaS infrastructure, tooling, methodologies, and team that backs over a dozen state and territorial disease surveillance systems today. The scalability of our delivery model, infrastructure, and tooling have been demonstrated with **successful delivery of EDSS capabilities throughout the COVID-19 pandemic, supporting 10-100x increases in users, user traffic, and 100-10,000x increases in HL7 message flow and data volume**. We understand the criticality of these systems, made even more important during outbreak and pandemic response, when systems use and data volumes are at their highest. We have designed our technical solutions to provide fast, reliable information processing and analysis to support public health response activities. This is driven by well-architected underlying technology, with a flexible multi-site private cloud infrastructure layer optimized for the types of systems resources required to deliver responsive systems performance at scale. These systems are managed using the NIST cybersecurity framework, leveraging a complete set of information security controls and an integrated suite of advanced information security tools, including Acunetix vulnerability scanning and flexible multi-factor authentication (MFA) with sophisticated geography-based IP filtering and reporting.

InductiveHealth leverages our nationally recognized Engage, Connect, Validate, Operate℠ methodology to ensure high-throughput feed integration, and high-quality data exchange among public health agencies and trading partners (including clinical providers, laboratories, health information

InductiveHealth Informatics, Inc.

exchanges, and other non-traditional reporters). This model and supporting technology is also used for state-level reporting to the Centers for Disease Control and Prevention using the most recent NEDSS Modernization Initiative (NMI) reporting standards.

Data from all components (and select ancillary systems) lands in a unified data warehouse, including data from the WVIIS, supported by team member STChealth. This data warehouse follows InductiveHealth's existing pattern supporting log shipping to WV's Bridge Database, providing local access to integrated data for additional analysis, audit, and research activities. Within the platform, data visualization and exploration are supported through customizable dashboards implemented in Grafana, with data exploration enabled through RStudio Web for sophisticated, high-performance data analysis.

Timeframe for delivering the services: InductiveHealth's current delivery to West Virginia provides us a deep understanding of the State's disease surveillance processes, ancillary systems, and data reporting environment (including successful collaboration with the WVHIN). While other vendors must spend many weeks and months learning (including dependencies on WV DHHR staff), we are ready to deliver upon award. This, in combination with our mature, already-integrated solution and **demonstrated successful migration from the NBS to EpiTrax**, reduces the time needed for implementation and keeps deployment risk low. Our solution also leverages existing WV DHHR investments in provider feed integrations in Rhapsody™, reducing the need for rework using new technologies. The high-level Gantt chart below summarizes the major implementation phases in support of a **production system release only 9 months following award**, informed by our successful completion of similar efforts on this timeline. Reference Attachment E - Initial Work Plan for Gantt chart of high-level Implementation phase milestones.

Proposed team: InductiveHealth today has over 70 full time employees delivering disease surveillance technology services, 35+ with degrees in computer science, engineering or mathematics, and 30+ with advanced degrees in the public health domain. The InductiveHealth team will be led day-to-day by **Michelle Brazel, PMP (Project Manager)** with corporate delivery oversight from **Pamela Knight-Schwartz, MPH (Account Manager)**, who currently leads InductiveHealth's delivery to WV DHHR. Michelle has spent the last fifteen (15) years supporting state public health agencies with similar size, scope, and complexity programs in the implementation and operations of electronic disease surveillance systems (EDSS) and Pam was previously accountable for EDSS delivery across dozens of public health agencies, with numerous successful EDSS implementations to her credit. Michelle and Pam will leverage dedicated team members to support implementation and operations activities for WV DHHR, as well as utilizing InductiveHealth's integrated SaaS delivery organization for shared services and scalable surge support.

InductiveHealth has partnered with STChealth (sub-contractor) who has successfully supported the West Virginia Statewide Immunization Information System (WVSIIS) for over 23 years. STChealth will bring forward expertise in IIS integration as well as support the overall effort with quality assurance, documentation, and information security delivery assurance and review. InductiveHealth is excited to bring forward this team with demonstrated experience delivering successful EDSS implementations many times over, and who also have knowledge and context delivering to WV DHHR today.

Advantages of this proposal to the State: The table below summarizes some of the key advantages of InductiveHealth's proposed solution and approach:

Solution Feature	Benefit to WVDHHR
1) Next-generation EDSS solution based on EpiTrax™ with commercial open source product maintenance, enhancement, and support provided by InductiveHealth	• Meets WV DHHR requirements with a modern, scalable core EDSS solution • Provides flexibility for customization and **vendor-backed product support with the benefits of open-source flexibility** and lack of vendor lock-in
2) Supports sophisticated use cases with existing component integrations, ready to deploy	• Advanced, automated SMS contact tracing features with bi-directional EDSS integration • Supports coordination across WV DHHR systems to **provide higher-quality, more timely interactions with WV residents**
3) Reuse of existing external provider feed integrations and Rhapsody™ infrastructure. EMSA™ for visibility into external data flows	• **Leverages existing data feed connectivity and mappings** • Lowest risk approach to provide continuous data reporting from providers, and continue to advance electronic integration from providers • Compliant with most-current NMI reporting to CDC
4) Incumbent vendor team delivering EDSS SaaS and IIS SaaS for WV DHHR, with demonstrated technology and processes for migrating from NBS to EpiTrax™	• **Lowest risk solution**, with no ramp-up time needed to understand existing systems, integrations, and processes • Demonstrated experience and tooling to support migration from the NBS to EpiTrax™ • **Proven vendor and team with a successful delivery track record to West Virginia**
5) Advanced, flexible data analysis and dashboard technology, leveraging unified data from ancillary WV information systems	• Flexible and user-friendly data reporting and analytic tools • Unified data, integrated from ancillary information systems to support an **integrated disease surveillance model**, with visibility across infectious disease, immunization, contact tracing, and syndromic / hospitalization data.

The remainder of our proposal will detail the specifics of the systems, methodology, deployment plan, and team to realize WV DHHR's vision to improve its surveillance system capabilities.

InductiveHealth Informatics, Inc.

4. Subcontractor Letters

For each proposed subcontractor, the Vendor should attach to *Attachment B: Title Page, Executive Summary, and Subcontractor Letters*, a letter from the subcontractor, signed in inkby an authorized signatory legally binding the subcontractor, which includes the following information:

- The subcontractor's legal status, federal tax identification number, DUNS number, and principal place of business address.
- The name, phone number, fax number, email address, and mailing address of a person authorized to legally bind the subcontractor to contractual obligations.
- A description of the work the subcontractor will perform.
- A statement of the subcontractor's commitment to perform the work if the Vendor is selected.
- A statement that the subcontractor has read and understands the RFP, and will complywith the requirements of the RFP.
- A statement that the subcontract will maintain any permits, licenses, and certifications requirements to perform its portion of the work.

Response: See next page for sub-contractor letter from STChealth.

Subject: STChealth, LLC Subcontractor to Inductive Health CRFP MIS2200000001-ENTERPRISE SURVEILLANCE SYSTEM

STC Company Information

STChealth, LLC (STC) is a Delaware Limited Liability Company small business located in the State of Arizona with a physical address of 411 South 1st Street, Phoenix, Arizona 85004 and 145 Full Time Employees (FTE's) dedicated to building and supporting public health information systems. STC DUNS# is 198675084 and Cage Code# 1GHE8. STC maintains a Federal GSA Contract Schedule with a contract number #GS-35F-00548S.

This proposal is valid for 120 days from the date of submission.

Per the FAR STC maintains its registration in System for Award Management (SAM) and the current registration is valid through 09/14/2022.

Payment Information

Sandy Vasseur, Chief Financial Officer 411 South 1st Street Phoenix, AZ 85004 Sandy_Vasseur@stchome.com (480) 745-8500 FAX: (602) 598-7712	Felicia O'Sullivan, Accounting Manager 411 South 1st Street Phoenix, AZ 85004 Felicia_Osullivan@stchome.com Phone: 480-745-8500 FAX: (602) 598-7712

Legal Notice Information

Address: STChealth, LLC. 411 South 1st Street Phoenix, AZ 85004	Attn: Legal Department: Michael Kevin Jones, General Counsel Kevin_Jones@stchome.com (480) 745-8500
Attn: Contractual Point of Contact: David Mora, Director of Contracts David_Mora@stchome.com (480) 745-8552	Attn: Technical Point of Contact: Joe Kelly, Chief Technology Officer Joe_Kelly@stchome.com (480) 745-8500

Authorized Persons to Negotiate

The following individuals are authorized to negotiate on behalf of STChealth, LLC (STC) with Inductive Health, West Virginia, CDC, and GSA in connection with this CRFP.

REQUEST FOR PROPOSAL
CRFP MIS2200000001-ENTERPRISE SURVEILLANCE SYSTEM

Michael L. Popovich, CEO 411 South 1st Street Phoenix, AZ 85004 Phone: (480) 745-8500 Michael_Popovich@stchome.com	Kristina Crane, Chief Strategy Officer 411 South 1st Street Phoenix, AZ 85004 Phone: (480) 745-8552 Kristina_Crane@stchome.com

STChealth has been in business for 33 years in the current public health climate. STChealth is a leaderof integrated public health solutions that manage day-to-day disease and syndromic surveillance, pandemics, contact tracing, and outbreak management tied to a population view and vaccine status.

STChealth is a leader in Immunization Information Systems (IIS) and has over 30 years in subject matter expertise in the development of disease surveillance. By working with Inductive Health, STChealth is able to bring this expertise while providing the same patient duplication and GIS tools available within the IIS that has been in operation for over 23 years in West Virginia. STChealth operates the nation's largest Intelligent Information Network for Immunizations that has reported over 45% of all administered vaccines in the USA and moved over one billion vaccine messages in 2021. The expanded mobility of our global population raises the necessity of public health systems to be designed, architected, and developed to comply with current standards and best practices, and have theability to address future threats while retaining the core value of eliminating all preventable disease (including vaccine-preventable) through information technology.

In response to the subject RFP, STChealth is committed to perform the work as a subcontractor to Inductive Health in support of the CRFP MIS2200000001-ENTERPRISE SURVEILLANCE SYSTEM. The Subcontractor has read and understands the RFP and all its addendums, and if selectedwill comply with the requirements of the RFP, and with any noted exceptions to be reconciled at negotiations upon award. The subcontractor will maintain any permits, licenses, and certification requirements to perform its portion of the work contained in the resulting subcontract. STChealth the subcontractor does not have any business disputes to disclose based on definition in the CRFP.

Authorized Signatories

By signature hereon, the Vendor certifies that:

1. All statements and information prepared and submitted by STChealth, LLC in response to this RFPare current, complete, and accurate.

2. The proposed solution for the project meets the requirements of this RFP.

3. The Vendor will comply with all federal and state laws, rules, and regulations that are in forcecurrently or anytime during the term of a resulting subcontract.

4. The Vendor understands that proposal submissions become public and are available for review immediately after opening pursuant to West Virginia Code §5A-3-11(h). All other information associated with the RFP, including but not limited to, technical scores and reasons for

disqualification,will not be available until after the contract has been awarded pursuant to West Virginia Code of StateRules §148-1-6.3.d.

5. The company represented here is an authorized dealer in good standing of the products and services included in this response.

6. The Vendor and its principals are eligible to participate in this transaction and have not been subjected to suspension, debarment, or similar ineligibility determined by any federal, state or local governmental entity; are in compliance with the State's statutes and rules relating to procurement; andare not listed on the federal government's terrorism watch list as described in Executive Order 13224. Entities ineligible for federal procurement are listed at https://www.sam.gov/portal/SAM/#1.

7. Prior to award, the Vendor affirms it will have all current approvals, licenses, or other qualifications needed to conduct business in West Virginia.

The following persons are permitted to sign proposals, task orders, or other documents that may resultfrom this response, and signatures below bind our organization to this proposal.

Michael L. Popovich, CEO   David Mora, Director of Contracts

5. Table of Contents

This section should contain a table of contents. The table of contents should include all parts of the proposal, including response forms, and attachments, identified by section and page number. The table of contents should include a Table of Tables and Table of Figures, etc.

Response:

Proposal Section	Response Template/Contents	Tab Name	Page Numbers
Cost Proposal	**Attachment A: Cost Proposal (submit separate from Technical Proposal)**	Attachment A: Cost Proposal	Not Page Counted
Contents:	• Microsoft Excel workbook		Not Page Counted
Technical Proposal	**Attachment B: Title Page, Executive Summary, Subcontractor Letters**	**Attachment B: Title Page, Executive Summary, Subcontractor Letters**	2 - 17
Contents:	• Title Page		2
	• Vendor Information		3 - 5
	• Executive Summary		6 -10
	• Subcontractor Letters		11 - 14
	• Table of Contents		15 – 16
	• *Section 8: Certification and Signature Page* (signed document)		17
Technical Proposal	**Attachment C: Vendor Qualifications and Experience**	**Attachment C: Vendor Qualifications and Experience**	18 – 32
Contents:	• Organization Overview		18- 19
	• Mandatory Qualifications		19 – 20
	• Existing Business Relationships with the State		21
	• Business Disputes		21
	• References		21 – 28
	• Financial Stability		28 - 32
Technical Proposal	**Attachment D: Project Organization and Staffing Approach**	**Attachment D: Project Organization and Staffing Approach**	33-74
Contents:	• Initial Staffing Plan		33 – 43
	• Use of State Staff		43 – 45
	• Key Staff, Resumes, and References		45 - 74
Technical Proposal	**Attachment E: Initial Work Plan**	**Attachment E: Initial Work Plan**	75 - 89
Contents:	• Initial Work Plan		75 - 89

Proposal Section	Response Template/Contents	Tab Name	Page Numbers
Technical Proposal	**Attachment F: Mandatory Requirements**	**Attachment F: Mandatory Requirements**	90 – 95
Contents:	• Completed table of mandatory requirements		90 – 95
Technical Proposal	**Attachment G: Business Specifications Approach**	**Attachment G: Business Specifications Approach**	96 – 115
Contents:	• Contact Tracing		96 – 100
	• Case Investigation and Management		100 – 106
	• Case and Contact Integration		106 – 109
	• Outbreak Management		109 – 114
	• Reporting and Analytics		114 - 115
Technical Proposal	**Attachment H: Technical Specifications Approach**	**Attachment H: Technical Specifications Approach**	116 – 145
Contents:	• Data Sources, Delivery and Display		116 – 128
	• Data Quality		128 – 130
	• Infrastructure		130 – 139
	• Security Management		139 - 145
Technical Proposal	**Attachment I: Implementation Specifications Approach**	**Attachment I: Implementation Specifications Approach**	146 – 176
Contents:	• Project Management Methodology		146 – 159
	• Implementation Methodology		159 – 165
	• Deployment Methodology		165 – 170
	• Testing		170 - 176
Technical Proposal	**Attachment J: Maintenance and Operations Specifications Approach**	**Attachment J: Maintenance and Operations Specifications Approach**	177 – 188
Contents:	• Operations		177 – 185
	• Solution Backup, Disaster Recovery, and Failover		185 - 188
Technical Proposal	**Attachment K: Terms and Conditions Response**	**Attachment K: Terms and Conditions Response**	189 – 196
	• RFP Terms and Conditions		189
	• State Customary Terms and Conditions		189 – 190
	• Mandatory Requirements and Terms		190
	• Commercial Materials		191 – 191
	• Exceptions		191 – 197
Technical Proposal	**Appendix 1: Detailed Specifications**	**Appendix 1: Detailed Specifications**	198 - 216
Contents:	Completed table containing list of detailed specifications		198 - 216

InductiveHealth Informatics, Inc.
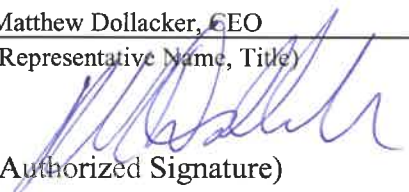
SECTION 8: CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; that I understand the requirements, agree to comply with all mandatory requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for reviewand consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

InductiveHealth Informatics, Inc.
(Company)

770-329-1233 / 800-991-2996 Attn: InductiveHealth #3304
(Contact Phone/Fax Number)

Matthew Dollacker, CEO
(Representative Name, Title)

(Date)

(Authorized Signature)

DESIGNATED CONTACT

The Vendor appoints the individual identified in this section as the Contract Administrator andthe initial point of contact for matters relating to this contract.

Matthew Dollacker, CEO
(Printed Name, Title)

2870 Peachtree Rd NW #915-3304 Atlanta, GA 30305-2918
(Address)

770-329-1233 / 800-991-2996 Attn: InductiveHealth #3304
(Phone Number)/(Fax Number)

matthew.dollacker@inductivehealth.com
(Email Address)

ATTACHMENT C: VENDOR QUALIFICATIONS AND EXPERIENCE

1. Organization Overview

This section of the Vendor's Technical Proposal should include details of the Vendor and subcontractor overview. The Vendor's Technical Proposal should include: organization overview, corporate background, Vendor's experience in the public sector, and certifications.

1.1. Vendor Overview

Provide all relevant information regarding the general profile of the Vendor.

Vendors are NOT to change any of the pre-filled cells in the following tables.

Table 12: Vendor Overview

Vendor Overview	
Company Name	InductiveHealth Informatics, Inc.
Name of Parent Company (If Applicable)	Not Applicable
Industry (North American Industry Classification System [NAICS])	51820, 541511, 541512, 54519, 541611, 541618, 541690
Type of Legal Entity	S-Corporation
Company Ownership (e.g., Private/Public, Joint Venture)	Private
Number of Full-Time Employees	74
Last Fiscal Year Company Revenue	17,562,144
Last Fiscal Year Company Net Income	Undisclosed – privately held firm. Positive income above $1m. Additional details to be provided confidentially upon request.
% of Revenue From State and Local Government Clients in the United States	72%
% of Revenue From IT Design and Implementation Services	64%
Number of Years in Business	8
Number of Years Vendor has been Providing the Type of Services Specified in the RFP	8
Number of Employees Providing the Type of Services Specified in the RFP	74
Headquarters in the United States	Yes
Locations in the United States	Headquarters in Atlanta, Georgia with employees in Texas, Florida, Washington, and many other states

1.2 Subcontractor Overview (if applicable)

If the proposal includes the use of Subcontractor(s), provide all relevant information

regardingthe profile of each Subcontractor. This section may be duplicated in its entirety and a page created per Subcontractor included.

The Vendor is NOT to change any of the pre-filled cells in the following tables.

Table 13: Subcontractor Overview

Subcontractor Overview	
Company Name	STChealth, LLC.
Name of Parent Company (if applicable)	Not Applicable
Industry North American Industry Classification System (NAICS)	STChealth NAICS codes: 511210 (Primary), 541511, 541512, 541513, 541519
Type of Legal Entity	Limited Liability Company (LLC) Corporate Entity
Company Ownership (e.g., Private/Public, Joint Venture)	Private
Number of Full-Time Employees	145
Last Fiscal Year Company Revenue	$23,122,729
Last Fiscal Year Company Net Income	$2,425,123
% of Revenue From State and Local Government Clients in the United States	60%
% of Revenue From IT Design and Implementation Services	100%
Number of Years in Business	34 Years
Number of Years Vendor Has Been Providing the Type of Services Specified in the RFP	20 Years
Number of Employees Providing the Type of Services Specified in the RFP	120
Headquarters in the United States	Yes
Locations in the United States	Yes, HQ in Arizona.

Some Remote employees all located in the United States.

2. Mandatory Qualifications

This section details the mandatory qualifications. The Vendor must complete this section to demonstrate that it has the experience needed to meet requirements set forth in this RFP. The

table below lists each mandatory qualification; the Vendor must note whether it meets the qualification and provide narrative demonstrating fulfillment of the requirement. The Vendor must list each project experience separately and completely every time it is referenced.

Table 14: Mandatory Qualifications

Mandatory Qualification Item(s)	Vendor Meets?	Provide A Brief Narrative To Demonstrate Fulfillment of Requirement
The Vendor must demonstrate experience within the last three (3) years as the prime contractor for at least three (3) federal, state, local government or private healthcare entities where a public health surveillance system is currently being or has been implemented.	YES	Yes, InductiveHealth currently delivers software-as-a-service (SaaS) to thirteen (13) state and territorial public health agencies including West Virginia. Additionally, InductiveHealth is a prime awardee of the Centers for Disease Control and Prevention (CDC) Information Management Services and Support for the National Center on Birth Defects and Developmental Disabilities (NCBDDD).
The Vendor must demonstrate at least three (3) years' experience in disease surveillance solutions.	YES	Yes, since 2013, InductiveHealth has delivered software-as-a-service (SaaS) solutions for disease surveillance solutions including the NEDSS Base System and EpiTrax platform.
The Vendor must include at least three (3) references from projects performed within the last three (3) years that demonstrate the Vendor's ability to perform the scope of work described in the RFP. Vendors may only use one (1) reference per project performed. The State strongly prefers three (3) references from different state engagements where a public health disease surveillance system is currently being or has been implemented. Please note, because this item is a mandatory requirement, it will not be scorable.	YES	Yes, in **Section 5.0**, InductiveHealth provides references for the delivery of software-as-a-service (SaaS) solution for disease surveillance systems on behalf of the 1. State of West Virginia, 2. Wyoming Department of Health, and 3. State of Rhode Island.
The Vendor must have at least three (3) years' experience in operating a public health disease surveillance system similar to the State's in compliance with all federal and state regulations.	YES	Yes, InductiveHealth is the market leader in delivery of disease surveillance systems with a deep commitment to information security and data stewardship of the protected health information (PHI) we are entrusted to manage, InductiveHealth is also an awardee of the GSA MAS Highly Adaptive Cybersecurity Services (HACS) Special Item Number (SIN) 54151HACS and has completed Security Assessment and Authorization (SA&A) evaluations leading to Authorization to Operate for multiple health information systems.

3. Existing Business Relationships With the State

Describe any existing or recent (within the last five (5) years) business relationships the Vendor or any of its affiliates or proposed Subcontractors have with the State, the State's counties, and/or the State's local municipalities.

Response:

InductiveHealth presently supports the State of West Virginia through the delivery of the same and similar services as this RFP under the following contracts:

1. EHP 18*01 – Hosting of WVEDSS Application

2. AMA MIS21*01 – ELR Surge Support

3. AMA MIS21*02 – InductiveHealth Case Reporting and Technical Assistance

STChealth (subcontractor) presently supports the State of West Virginia through the delivery of West Virginia State Immunization Information System (IIS).

4. Business Disputes

Provide details of any disciplinary actions and denote any that are pending litigation or Terminated for Cause or Convenience and associated reasons. Also denote any other administrative actions taken by any jurisdiction or person against the Vendor. List and summarize all judicial or administrative proceedings involving your sourcing activities, claims of unlawful employment discrimination, and anti-trust suits in which you have been a party within the last five (5) years. If the Vendor is a subsidiary, submit information for all parent companies. If the Vendor uses Subcontractors, associated companies, or consultants that will be involved in any phase of this project, each of these entities will submit this information as part of the response.

Response: The State of Ohio and InductiveHealth could not come to agreement concerning a change in the scope of work for InductiveHealth's services, which was unanticipated, but necessary to the delivery of the contracted solution for Ohio. After negotiations failed to come to a mutually agreeable solution, Ohio terminated the contract for convenience (not for cause).

5. References

The State may conduct reference checks to verify and validate the past performance of the Vendor and its proposed subcontractors.

5.1 Vendor (Prime) References Form

Include at least three (3) references from projects performed within the last three (3) years that demonstrate the Vendor's ability to perform the scope of work described in this RFP. The Vendor should provide three (3) different clients/projects in order to demonstrate its experience.

The Vendor should include a project description, contract dates, and contact information (customer points of contact, addresses, telephone numbers, and email addresses). The Vendor should explain whether it performed the work as a prime contractor or as a subcontractor.

The Vendor is NOT to change any of the pre-filled cells in the following tables.

The Vendor may add additional reference tables as necessary.

Response: See three (3) references below.

Table 15: Vendor References

REQUEST FOR PROPOSAL
CRFP MIS2200000001-ENTERPRISE SURVEILLANCE SYSTEM

Vendor Information

Vendor Name:	InductiveHealth Informatics Inc.	Contact Name:	Stephen Macauley, COO
	(Prime Contractor)	Contact Phone:	678-231-0906

Customer Information

Customer Organization: State of West Virginia Office of Epidemiology and Prevention Services at the Department of Health and Human Services		Contact Name:	Tim Neely
		Contact Title:	Director of Information Services
Customer Address: 350 Capitol Street Room 125 Charleston, WV 25301		Contact Phone:	(304) 558 -5858
		Contact Email:	tim.b.neely@wv.gov

Project Information

Total Vendor Staff: Solution is delivered as a software-as-a-service (SaaS) with multiple staff across disciplines supporting West Virginia including 'Help Desk, Technology, and Onboarding Teams.

Project Objectives:
Provide software-as-a-service (SaaS) for the NEDSS Base System (disease surveillance system) to support surveillance of all reportable diseases in West Virginia

Project Description:
Provide software-as-a-service (SaaS) for the NEDSS Base System (disease surveillance system) to support surveillance of all reportable diseases in West Virginia including electronic laboratory reporting, CDC national notifiable disease reporting, and local health department support.

Vendor's Involvement:
InductiveHealth is responsible for all aspects of the electronic disease surveillance systems including Help Desk, ELR on-boarding and operations, and onboarding of Nationally Notifiable Disease message specifications with the CDC.

Project Benefits:
Solution provides West Virginia with a turn-key disease surveillance system (as developed by the CDC) and has enabled West Virginia to meet or exceed all CDC funding requirements of modernization of health information system capability.

Key Personnel

Name: Stephen Macauley - Account Executive	Role: Bridget Teevan - Help Desk Manager
Name: Page Smith - Technology Manager	Role: Lindsey Roles - Onboarding Manager

Project Measurements:

Estimated one-time costs: $387,600	**Actual one-time costs:** $387,600

Reason(s) for change in one-time cost: InductiveHealth has provided consistent cost across the period of performance via firm fixed price delivery (billed monthly).

Original value of Vendor's contract: $387,600	**Actual total contract value:** $387,600

Reason(s) for change in value: InductiveHealth has managed to the contract to the original pricing.

Estimated Start & Completion Dates:	From:	02/15/2018	To:	02/15/2022
Actual Start & Completion Dates:	From:	02/15/2018	To:	02/15/2023

Reason(s) for difference between Estimated and Actual dates: At the request of West Virgina, InductiveHealth is under active discussions to continue services for an additional one year period.

If the Vendor performed the work as a Subcontractor, the Vendor should describe the scope of subcontracted activities: All worked performed as a prime contractor

InductiveHealth Informatics, Inc.

Vendor Information			
Vendor Name:	InductiveHealth Informatics Inc. (Prime Contractor)	Contact Name:	Stephen Macauley, COO
		Contact Phone:	678-231-0906

Customer Information			
Customer Organization: State of Rhode Island, Center for Acute Infectious Disease Epidemiology		Contact Name:	Daniela Quilliam, MPH
		Contact Title:	Chief, Center for Acute Infectious Disease Epidemiology
Customer Address: 3 Capitol Hill, Providence, RI 02908		Contact Phone:	401-222-3284
		Contact Email:	daniela.quilliam@health.ri.gov

Project Information

Total Vendor Staff: Solution is delivered as a software-as-a-service (SaaS) with multiple staff across disciplines supporting the public health agency including Help Desk, Technology, and Onboarding Teams.

Project Objectives: Provide software-as-a-service (SaaS) for the NEDSS Base System (disease surveillance system) to support surveillance of all reportable diseases

Project Description: Provide software-as-a-service (SaaS) for the NEDSS Base System (disease surveillance system) to support surveillance of all reportable diseases including electronic laboratory reporting, CDC national notifiable disease reporting, and local health department support.

Vendor's Involvement: InductiveHealth is responsible for aspects of the disease surveillance system including 99.9% uptime, administration of multi-factor end use authentication, electronic laboratory reporting on-boarding, and integration with CDC NMI initiative for national disease reporting.

Project Benefits: Provides the public health agency with a modern disease surveillance system in support of CDC and CMS initiatives for data interoperability including electronic laboratory reporting, electronic case reporting, and national disease reporting.

Key Personnel

Name: Stephen Macauley - Account Executive	Role: Bridget Teevan - Help Desk Manager
Name: Page Smith - Technology Manager	Role: Lindsey Roles - Onboarding Manager

Project Measurements:

Estimated one-time costs: None	Actual one-time costs: None

Reason(s) for change in one-time cost: InductiveHealth has provided consistent cost across the period of performance via firm fixed price delivery (billed monthly) and time and material delivery (billed on demand) to support customizations and enhancements requested by the public health agency.

Original value of Vendor's contract: $1,323,436	Actual total contract value: $1,323,436

Reason(s) for change in value: In early 2020, at the start of the COVID-19 pandemic, the public health agency requested additional customizations and enhancements to support the pandemic response thereby increasing the total contract ceiling in 2020, 2021, and 2022.

Estimated Start & Completion Dates:	From:	01/01/2018	To:	12/31/2022
Actual Start & Completion Dates:	From:	01/01/2018	To:	Present

Reason(s) for difference between Estimated and Actual dates:

If the Vendor performed the work as a Subcontractor, the Vendor should describe the scope of subcontracted activities: All worked performed as a prime contractor

Vendor Information			
Vendor Name: InductiveHealth Informatics Inc. (Prime Contractor)		Contact Name:	Stephen Macauley, COO
		Contact Phone:	678-231-0906

Customer Information			
Customer Organization: State of Wyoming Department of Public Health		Contact Name:	Clay Van Houten, MS
		Contact Title:	Chief, Center for Acute Infectious Disease
Customer Address: 401 Hathaway Building Cheyenne, WY 82002		Contact Phone:	(307) 777-5596
		Contact Email:	clay.vanhouten@wyo.gov

Project Information

Total Vendor Staff: Solution is delivered as a software-as-a-service (SaaS) with multiple staff across disciplines supporting the public health agency including Help Desk, Technology, and Onboarding Teams.

Project Objectives: Provide software-as-a-service (SaaS) for the NEDSS Base System (disease surveillance system) to support surveillance of all reportable diseases

Project Description: Provide software-as-a-service (SaaS) for the NEDSS Base System (disease surveillance system) to support surveillance of all reportable diseases including electronic laboratory reporting, CDC national notifiable disease reporting, and local health department support.

Vendor's Involvement: InductiveHealth is responsible for aspects of the disease surveillance system including 99.9% uptime, administration of multi-factor end use authentication, electronic laboratory reporting on-boarding, and integration with CDC NMI initiative for national disease reporting.

Project Benefits: Provides the public health agency with a modern disease surveillance system in support of CDC and CMS initiatives for data interoperability including electronic laboratory reporting, electronic case reporting, and national disease reporting.

Key Personnel

Name: Stephen Macauley - Account Executive	Role: Bridget Teevan - Help Desk Manager
Name: Page Smith - Technology Manager	Role: Lindsey Roles - Onboarding Manager

Project Measurements:

Estimated one-time costs: None	Actual one-time costs: None

Reason(s) for change in one-time cost: InductiveHealth has provided consistent cost across the period of performance via firm fixed price delivery (billed monthly).

Original value of Vendor's contract: $772,800	Actual total contract value: $772,800

Reason(s) for change in value:

Estimated Start & Completion Dates:	From:	05/01/2020	To:	4/30/2025
Actual Start & Completion Dates:	From:	05/01/2020	To:	Present

Reason(s) for difference between Estimated and Actual dates:

If the Vendor performed the work as a Subcontractor, the Vendor should describe the scope of subcontracted activities: All worked performed as a prime contractor

5.2 Subcontractor References (if applicable)

If the Vendor's proposal includes the use of subcontractor(s), provide three (3) references for each subcontractor.

The State prefers references that demonstrate where the Prime and Subcontractors have worked together in the past. The Vendor may add additional subcontractor reference

tables as necessary.

Table 16: Subcontractor References

Subcontractor Information		
Vendor Name: STChealth, LLC	Contact Name:	Ivan Matosevic
	Contact Phone:	480-745-8500
	E-Mail	Ivan_Matosevic@stchome.com
Customer Information		
Customer Organization: West Virginia Department of Health	Contact Name	Tim Neely
	Contact Title	WV IIS Manager
Customer Address	Contact Phone	(304) 558 -5858
	E-mail	tim.b.neely@wv.gov

Total Vendor Staff: 12 to 15 support WV,

Project Objectives: STCHealth Maintains the West Virginia State Immunization Information System (IIS)

Project Description: STCHealth Maintains the West Virginia State Immunization Information System (IIS)

Vendor's Involvement: STC Created the IIS that is in place with West Virginia

Project Benefits: WV has 2,637,517 persons in the IIS, having 25,598,805 vaccines and we have 11,072 system users.

Key Personnel	
Name: Asad Tufail	Role: V.P. of Customer Success, leads the STC Tier Support Staff
Name: Ivan Matosevic	Role: Client Partner, STC project management contact

Project Measurements:	
Estimated One-time costs:	Actual One-time Costs:

Reason for Change in One-time cost: Request for changes in Tier support and request for updated Customer requested features.

Original Value of Vendors Contract: Current Contract $3,385,193.20	Actual Contract Value: Current Contract $4,900,411.58

Reason(s) for change in value: Continuing Maintenance for Option years and updated features requested

Estimated Start & Completion Dates	From: 1999	To: Current
Actual start & Completion Dates	From: IIS Go Live date 1999	To: Current
Current Contract Period	From: 9/19/2021	To 9/18/2022

Subcontractor Information

Vendor Name: STChealth, LLC	Contact Name:	Ivan Matosevic
	Contact Phone:	480-745-8500
	E-Mail	Ivan_Matosevic@stchome.com

Customer Information

Customer Organization: West Virginia Bureau for Public Health	Contact Name	Mary M. Hayes
	Contact Title	Public Health Advisor, Division of Immunization Services
Customer Address	Contact Phone	(304) 352-6264 , (681) 340-1110
	E-mail	Mary.M.Hayes@WV.GOV

Total Vendor Staff: 12 to 15 support WV,

Project Objectives: STCHealth Maintains the West Virginia State Immunization Information System (IIS)

Project Description: STCHealth Maintains the West Virginia State Immunization Information System (IIS)

Vendor's Involvement: STC Created the IIS that is in place with West Virginia

Project Benefits: WV has 2,637,517 persons in the IIS, having 25,598,805 vaccines and we have 11,072 system users

Key Personnel

Name: Asad Tufail	Role: V.P. of Customer Success, leads the STC Tier Support Staff
Name: Ivan Matosevic	Role: Client Partner, STC project management contact

Project Measurements:

Estimated One-time costs:	Actual One-time Costs:

Reason for Change in One-time cost: Request for changes in Tier support and request for updated Customer requested features.

Original Value of Vendors Contract: Current Contract $3,385,193.20	Actual Contract Value: Current Contract $4,900,411.58

Reason(s) for change in value: Continuing Maintenance for Option years and updated features Requested

Estimated Start & Completion Dates	From: 1999	To: Current
Actual start & Completion Dates	From: IIS Go Live date 1999	To: Current
Current Contract Period	From: 9/19/2021	To 9/18/2022

Subcontractor Information

Vendor Name: STChealth, LLC	Contact Name:	Ivan Matosevic
	Contact Phone:	480-745-8500

	E-Mail	Ivan_Matosevic@stchome.com
Customer Information		
Customer Organization:	Contact Name	Quan Le
	Contact Title	LINKS Program Manager
Customer Address	Contact Phone	(504) 236-8036
	E-mail	Quan.Le@LA.GOV

Total Vendor Staff: 12-20 staff provide support for the IIS and Tier Support Services

Project Objectives: STCHealth Implemented and Maintains the LA IIS System LINKS

Project Description: STCHealth Implemented and Maintains the LA IIS System

Vendor's Involvement: STChealth maintins the LA IIS system and provides Tier 1 and Tier 2 Support for the IIS

Project Benefits: Provides full-service solutions for managing the LA Immunization Programs requirements for their LINKS system including meeting all CDC requirements, support to providers and consumers and other professional services including Vaccine intelligence through Analytics, Data Science, and Dashboards.

Key Personnel

Name: Asad Tufail	Role: V.P. of Customer Success, leads the STC Support Staff
Name: Ilyssa Simons	Role: Client Partner, STC Project Management contact

Project Measurements:

Estimated One-time costs:	Actual One-time Costs:

Reason for Change in One-time cost: Request for changes in Tier Level support and requests for updated Customer requested features and functionality.

Original Value of Vendors Contract: $618+99.78	Actual Contract Value: $4,630,315.97

Reason(s) for change in value: Continuing Maintenance for Option years and updated features and functionality items requested, implemented, and maintained.

Estimated Start & Completion Dates	From: 7/17/2018	To: Current end is 7/16/2023
Actual start & Completion Dates	From: 7/17/2018	To: Current end is 7/16/2023
Current Contract Period	From: 7/17/2021	To 7/16/2022

6. Financial Stability

The Vendor should provide the following components for this section:

6.1 Dun & Bradstreet (D&B) Ratings

The Vendor should provide the industry standard D&B ratings that indicate its financial strength and creditworthiness, assigned to most U.S. and Canadian firms (and some firms of other nationalities) by the U.S. firm D&B. These ratings are based on a firm's worth and composite credit appraisal. Additional information is given in credit reports (published by D&B) that contain the firm's financial statements and credit payment history.

Response: See below rating information.

dun&bradstreet

Business Information Report Snapshot

INDUCTIVEHEALTH INFORMATICS, INC.

D-U-N-S: 07-869-2538
ADDRESS: 3107 Clairmont Rd Ne Ste C, Atlanta, GA, 30329, United States
Date: 07/09/2021

RISK ASSESSMENT

SCORES AND RATINGS

Max. Credit Recommendation	PAYDEX® SCORE	Delinquency Predictor Percentile	Financial Stress Percentile	Supplier Evaluation Risk Rating
	80	85	50	3
US$ 90,000	LOW RISK	LOW-MODERATE RISK	MODERATE RISK	LOW RISK

MAXIMUM CREDIT RECOMMENDATION

Overall Business Risk

LOW-MODERATE

Maximum Credit Recommendation

US$ 90,000

The recommended limit is based on a low probability of severe delinquency.

Dun & Bradstreet Thinks...

Overall assessment of this organization over the next 12 months: STABLE CONDITION
Based on the predicted risk of business discontinuation: LIKELIHOOD OF CONTINUED OPERATIONS
Based on the predicted risk of severely delinquent payments: LOW POTENTIAL FOR SEVERELY DELINQUENT PAYMENTS

6.2 Financial Capacity

The Vendor should supply evidence of financial stability sufficient to demonstrate reasonable stability and solvency appropriate to the requirements of this procurement.

Response: See Financial Capacity on next page.

AGL
CPA GROUP

1870 Buford Hwy, Suite 100
Duluth, GA 30097
(770) 622-2982
www.aglcpa.com

January 28, 2022

West Virginia
Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV, 25305-0130

This letter is intended solely for the information and use of the West Virginia Department of Administration, Purchasing Division and should not be used by anyone other than the West Virginia Department of Administration to satisfy the Financial Capacity request in CRFP MIS2200000001.

To whom it may concern,

I have been engaged by the client since 2018 and have prepared tax returns for filing with the IRS for InductiveHealth Informatics, Inc. (the "Company") and its shareholders based on information provided by my client for tax years 2017, 2018, 2019, 2020, and soon to be 2021. The returns were prepared based on information provided by my client. This information was neither audited nor verified by me, and I make no representation, nor do I provide any assurance regarding the accuracy of this information or the sufficiency of this tax return information for your credit decision making purposes.

- Matthew Dollacker and Stephen Macauley are the sole shareholders
- The Company has reported Gross Receipts or Sales on the Company's Federal Tax Return of over two million ($2,000,000) per year for years 2016 (reviewed prior accountant's filed federal tax return and then was amended and refiled by AGL CPA Group, LLC), 2017 (prepared), 2018 (prepared), 2019 (prepared), 2020 (prepared)
- As reported on the Company's Federal Tax Returns from 2016 to 2021, the Company's revenues increased each year. The Company's 2021 Federal Tax Return has not year been filed.
- The Company has reported profits for the 2020, 2019, 2018, 2017, and 2016 tax years.
- The information provided to file the 2021 Tax Return which are internally prepared financial statements which have not been verified or audited show an increase in Gross Receipts and Sales for 2021.

It is important to note that I have not performed any attestation procedures over the numbers represented on the Federal Tax Returns.

This letter is intended solely for the information and use by the West Virginia Department of Administration, Purchasing Division and is not intended to be and should not be used by anyone other than these specified parties.

Regards,

James Leutenegger, CPA
AGL CPA Group, LLC

In the following table, please list credit references that can verify the financial standing of your company.

Table 17: Credit References

Institution	Address	Phone Number
Truist (formerly Suntrust)	214 N Tryon St, Charlotte, NC 28202	1 (800) 226-5228
AGL CPA Group	1870 Buford Hwy, Ste 100, Duluth GA 30097	770-622-2982

ATTACHMENT D: PROJECT ORGANIZATION AND STAFFING APPROACH

Instructions: The Vendor should employ staffing strategies are to ensure all requirements and service levels are met to the satisfaction of DHHR. The evaluation of the Vendor's staffing approach shall be based on the ability of the Vendor to satisfy the requirements stated herein. Therefore, the Vendor should present detailed information regarding the expertise of the proposed staff and an Initial Staffing Plan.

For ease of formatting and evaluation, *Attachment D: Project Organization and Staffing Approach* provides the required outline for the Vendor's response to staffing. The Vendor's response to the following should not exceed 25 pages, excluding key personnel resumes and the forms provided in this attachment.

Please refer to *Appendix 3: Staff Qualifications, Experience, and Responsibilities* of the RFP for the details pertaining to staff qualifications, experience, and responsibilities.

1. Initial Staffing Plan

As part of the Vendor's bid response, the Vendor should provide an Initial Staffing Plan. In addition to the requirements described in *Attachment F: Mandatory Requirements* and *Appendix 1: Detailed Specifications*, the Vendor's narrative description of its proposed Initial Staffing Plan should include the following:

- A succinct description of the Vendor's proposed project team and should exhibit the Vendor's ability and capability to provide knowledgeable, skilled, and experienced personnelto accomplish the scope of work, requirements, and specifications of the ESS as described in this RFP.

Response: Introduced in **Exhibit-1**, the InductiveHealth Team provides highly skilled professionals with public health experience, to deliver the best solution functionality to monitor disease to support the goals defined by West Virginia for the Enterprise Surveillance System (ESS). The **InductiveHealth Team will be led day-to-day by Michelle Brazel, PMP (Project Manager) with corporate delivery oversight from Pamela Knight-Schwartz, MPH (Account Manager)**. Michelle has spent the last fifteen (15) years supporting state public health agencies with similar size, scope, and complexity programs in the implementation and operations of electronic disease surveillance systems (EDSS). Notably, Michelle supported the Virginia Department of Health in the implementation of Sexual Health and HIV electronic disease surveillance capabilities. Pam was previously accountable for EDSS delivery across twenty-six public health agencies for a commercial EDSS solution including delivery to the New York City (NYC) Department of Health and the Washington State Department of Health.

As a software-as-service (SaaS) delivery organization, InductiveHealth also has the existing shared services needed to successfully deliver ESS capabilities to West Virginia. While other vendors must identify new resources, form new teams, develop cadence, and provide training on disease surveillance, the InductiveHealth Team is able to integrate West Virginia into existing Teams and Playbooks designed specifically for electronic disease surveillance. These Teams include our Help Desk, managed by Bridget Teevan, MPH, who formerly served as the EDSS coordinator for the State of Rhode Island; Lindsey Roles, MPH who manages our Onboarding / Integration Team responsible for all electronic laboratory report, electronic case reporting, and syndromic surveillance onboarding; and the Technical Architecture Team responsible architecture and product development led by Casey Murray. Our capabilities, modeled as Playbooks, include InductiveHealth's Engage, Connect, Validate, and Operate methodology for data source onboarding, our IT service management (ITSM) based Help Desk with an existing knowledge base, and InductiveHealth's Data Migration Utility for migrating NEDSS Base System (NBS) data to the InductiveHealth EpiTrax™ platform.

InductiveHealth Corporate Capabilities

- 30+ Team Members with experience working at State or Federal public health agencies
- 30+ Team Members with advanced degrees in public health or epidemiology
- 35+ Team Members with degrees in computer science, engineering, or mathematics
- 20+ Team Members with advanced training in data integration and Health Level Seven (HL7) messaging

Team Member	Role in Supporting Enterprise Surveillance System Delivery	History of Successful Delivery To West Virginia
inductivehealth informatics	**Prime contractor:** Since 2013, InductiveHealth Informatics has executed on our corporate mission to *stop communicable diseases through technology* by working across the public health data pipeline supporting CDC, state and territorial public health agencies, and public health partners. In managing over 1 billion records on behalf of clients, InductiveHealth has deep expertise in data stewardship, public health surveillance, and system engineering.	InductiveHealth presently provides software-as-service (SaaS) solution for West Virginia's electronic disease surveillance system (WVEDSS) including stewardship of all electronic laboratory reporting (ELR), electronic case reporting (eCR), and support for Coronavirus Disease 2019 (COVID-19) pandemic response efforts.
STC health	**Subcontractor:** STChealth has been in business for 33 years and operates the nation's largest Intelligent Information Network for Immunizations that has reported over 45% of all administered vaccines in the USA and moved over one billion vaccine messages in 2021.	For the last 23 years, STChealth has supported the West Virginia Statewide Immunization Information System (WVSIIS) including School Nurse, Lead Screening and Oral Health modules.

Exhibit-1: The InductiveHealth Team provides WV with public health specific expertise, staffing, and capabilities.

- A detailed proposal for providing all resources necessary to fulfill the requirements asspecified in this RFP. This includes details covering not only key staff but support staff.

Response: Building on the InductiveHealth's Team successful delivery to West Virginia, **Exhibit-2** presents the proposed resources based on the project roles identified by West Virginia for providing

resources to support Enterprise Surveillance System (ESS) delivery. These resources provide West Virginia with experts in their specific domains in addition to resources who are able to reach into existing Shared Service Teams to bring forward additional skills staffed as needed.

Project Role	Proposed Resource(s)	Relevant Qualification	Experience Highlight
Account Manager	Pamela Knight-Schwartz, MPH InductiveHealth	• Masters in Public Health • Over 15 years implementing and operating disease surveillance systems in 28 state and local public health agencies • Multiple publications on the utilization of EDSS to improve the state of public health and the use of technology in health promotion activities	• Currently supports West Virginia WVEDSS delivery for electronic case reporting (eCR) • Prior experience includes the Massachusetts Department of Public Health and Maine Center for Disease Control & Prevention • Successful execution of 8 EDSS implementations including data migration • Former Director of Public Health Consulting for Conduent Public Health Solutions overseeing public health clients
Project Manager	Michelle Brazel, PMP InductiveHealth	• PMI Project Management Professional (PMP) certification • Over 10+ years managing implementation and operations of disease surveillance systems for over 10 state public health agencies • Deep experience providing customer management including resource allocation	• Former Customer Success Director for Conduent Public Health Solutions overseeing day-to-day disease surveillance operations • Implemented disease surveillance systems for the State of Virginia and State of Mississippi • Hands on experience collecting requirements and interpreting needs of project stakeholders.
Business Lead	Hayleigh McCall, MPH InductiveHealth	• Over 5+ years of experience working with State, Territorial, Local, and Tribal health departments. • Significant experience in managing projects, program development and implementation of public health information systems. • Masters in Public Health.	• Acted as CSTE's syndromic surveillance subject matter expert (SME) with knowledge of BioSense • Has successfully led the management of multi-faceted CDC cooperative agreements with responsibility over various contracts • Has collaborated and built relationships with federal and state, territorial, local, and tribal (STLT) health department partners to assist coordination between all government public health levels
Technical Lead	Casey Murray InductiveHealth	• Over 10 years of experience implementing scalable information systems • InductiveHealth Solution Architect for EpiTrax™ • Deep expertise in Java, modern web frameworks, and relational database implementation • Expert in cloud computing and infrastructure engineering	• Design and implementation of multi-factor authentication (MFA) into InductiveHealth EpiTrax™ Platform • Design and development of NEDSS Base System to InductiveHealth EpiTrax™ Platform data migration solution • Implementation of new enhancements to InductiveHealth EpiTrax™ Platform to support client specific needs

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Project Role	Proposed Resource(s)	Relevant Qualification	Experience Highlight
Operations Manager	Bridget Teevan, MPH InductiveHealth	• Masters in Public Health • Over 5+ years managing implementation and operations of disease surveillance systems for 13 state public health agencies • Extensive experience managing change requests and end user service requests • Deep experience in HL7 and data integration	• Currently supports West Virginia WVEDSS delivery for the NEDSS Base System (NBS) • Former electronic disease surveillance system (EDSS) coordinator for the State of Rhode Island • Manages InductiveHealth's Help Desk Team including CDC NMI onboarding
Implementation Manager	Doug Hamaker InductiveHealth	• Proven leader in managing the integration of complex organizations and business processes with sophisticated public health information systems and laboratory reporting systems. • Subject matter expert in policies and procedures relating to public health disease surveillance and data management, including data confidentiality, sensitivity of information, and de-identification. • Extensive 30-year experience leading business policy, requirements, development, implementation, and onboarding of disease surveillance systems.	• Key contributor to standards and architectures to modernize public health surveillance in the United States and globally • Recognized for excellence in managing complex system integrations at state, federal, and international levels • Successfully advocated for critical disease surveillance improvements at Texas State Department of Health • Improved STD and HIV/AIDs reporting by developing innovative epidemiological processes
Test Manager	Jimmy Mofadal InductiveHealth	• Over 20 years in implementation of healthcare and public health information systems • Deep understanding of HL7 and data integration standards including Clinical Document Architecture (CDA) • Extensive experience in development of documentation to support operations and maintenance and project implementation	• Currently supports West Virginia WVEDSS delivery for electronic case reporting (eCR) • Previously supported New York City Healthcare Authority in the adoption of data interoperability standards and integration across health information systems • Completed health information system implementations in complex geo-political environments in international settings.
Quality Assurance Manager	Nicholas Harrar STChealth	• Over 5+ years of experience in working on client implementations, and in ensuring quality of deliver.	• Extensive experience in managing implementations for STChealth., ensuring quality delivery.
Documentation Management Lead	Ashley McDonald STChealth	• Over 5+ years of experience working with State and Local surveillance systems. • Lead for STC Public Health Services, with extensive	• Developed and delivered training plans, including production of all associated training materials. • Established multiple learning management systems for clients.

Project Role	Proposed Resource(s)	Relevant Qualification	Experience Highlight
		experience in developing and maintaining relevant documentation.	
Information Security Architect Privacy Data Protection Officer	Doug Michaelson /STChealth	• 10 years of experience in IT and Security management. • Chief Information Security Officer for STChealth.	• Implementation of GRC related programs and activities for systems such as HIPAA, NIST CSF, SOC, and FedRamp. • Spearheaded the planning and implementation of standardized cyber security requirements that aligned with Cybersecurity Maturity Model Certification (CMMC) guidelines.

Exhibit-2: The InductiveHealth Team provides WV with experts in disease surveillance, cloud computing, and software-as-as-service (SaaS) delivery.

Exhibit-3 presents details on InductiveHealth's existing shared services (i.e., "support staff") that will also support delivery in both implementation and operational phases. These are existing Teams with many years of experience working together and across West Virginia project sponsors and clients including OMIS and OEPS.

InductiveHealth Team Shared Service	Delivery Responsibilities	History of Successful Delivery To West Virginia
Executive Team	Led by Matthew Dollacker (CEO): • Single point of accountability • Fiduciary oversight responsibility • Corporate strategy and solution vision • Relationship management with project sponsors and stakeholders	• Has supported the success of West Virginia since 2018 including management of partnership across the Coronavirus Disease 2019 (COVID-19) pandemic response efforts. • Architected onboarding of 42 reference laboratories to the NEDSS Base System (NBS) in seven (7) business days in response to COVID-19 pandemic.
Business Operations	Led by James Maglione (Director of Finance and Contracting): • Financial reporting • Time entry management and invoicing • Talent acquisition and corporate recruiting • Human resource management include People development	• Responsive contract management based on evolving needs of West Virginia • Policies and procedures to ensure accurate and timely invoicing and financial reporting • Financial controls to monitor spend and delivery commitments recognized by the Federal government through multiple prime awards and multiple government wide acquisition contracts
Customer Success Team	Led by Stephen Macauley (COO): • Project delivery oversight • Client stewardship and execution • Delivery assurance based on service level targets	• Maintained high levels of service delivery for West Virginia in response to Coronavirus Disease 2019 (COVID-19) pandemic • Deep commitment to the success of West Virginia working across DHHR including OMIS and OEPS
Technology Team	Led by Page Smith (Manager): • Software-as-service (SaaS) infrastructure and data center management • Security / Information Security management • Tier 3 service request management • Oversight of data integration engine operations and enhancement including Mirth, Rhapsody, and InductiveHealth Link	• 24/7/365 Software-as-service (SaaS) operations with 99.9% uptime • Implementation and operations of multiple COVID-19 pandemic data extracts including advanced database management to support increase user and data processing volumes • Collaboration with OMIS resources on NEDSS Base System data model and data variables to support analytical needs

InductiveHealth Team Shared Service	Delivery Responsibilities	History of Successful Delivery To West Virginia
		• Stewardship of West Virginia's Rhapsody™ data integration engine and platform
Help Desk Team	Led by Bridget Teevan, MPH (Manager): • Manages Tier 1, 2, and 3 Service Requests • Implementation and operations of CDC NNDSS Modernization Initiative (NMI) message mapping guides (MMGs) • Support on-going client status meetings and escalations	• Resolution of over 2,800 help desk tickets submitted by West Virginia end users and project sponsors • Management of over 500 named user accounts including setup and operations of multi-factor authentication (MFA) accounts • Onboarding of multiple CDC NNDSS Modernization Initiative (NMI) message mapping guides (MMGs) including Hepatitis program area.
Onboarding / Integration Team	Led by Lindsey Roles, MPH (Manager): • Executes InductiveHealth Engage, Connect, Validate, Operate methodology • Management of trading partner facilities in customer relationship management solution • Ongoing monitoring of data feeds including enhancements based on operational needs	• Management of over 9,500,000 electronic laboratory reports (ELRs) since start of Coronavirus Disease 2019 (COVID-19) pandemic • Onboarding of 2,400 reporting facilities since the start of Coronavirus Disease 2019 (COVID-19) pandemic (as measured by individual Clinical Laboratory Improvement Amendments (CLIA) identifiers
Product and Operations Team	Led by Casey Murray (Technical Architect): • Data analytics product development • Product development (Scrum delivery) • DevOpsSec delivery for performance engineer • Management of testing and quality assurance • Manage InductiveHealth Data Migration™ solution	• Development of Grafana-based dashboards for internal monitoring of West Virginia chain of custom for electronic laboratory reports • Implementation of self-service password reset feature enabling end users to self-help / self-heal • Implementation of job execution logging and email to promote transparency in process execution
Subject Matter Expert Team	Led by Michael Coletta, MPH (Senior Systems Analyst): • Provide clients and project sponsors with expertise in disease surveillance and the application of disease surveillance systems to public health practice • Subject matter experts in EpiTrax™, Maven®, Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE), and other disease surveillance systems • Deep expertise in Health Level Seven (HL7) message standards and application for data interoperability	• Advise West Virginia on topics ranging from HIV epidemic response and integration of data with Enhanced HIV/AIDS Reporting System (eHARS) • Collaborate with the West Virginia Health Information Network (WVHIN) on data needs, national message specifications, and best practices for data transmission • Advise on the application of current electronic disease surveillance system to meet federal requirements such as electronic Case Reporting (eCR) in response to Epidemiology and Laboratory Capacity (ELC) Cooperative Agreement requirements

Exhibit-3: The InductiveHealth Team provides WV with experts in disease surveillance, cloud computing, and software-as-as-service (SaaS) delivery.

- Organization charts for implementation and maintenance stages showing both the Vendorstaff and their relationship to DHHR staff who will be required to support the project. The organization chart should denote all key staff for this project, and a summary of each key member's high-level responsibilities.

Response: Exhibit-4 presents the organizational chart for Implementation phase including relationship to West Virginia resources. Our clear corporate structure promotes accountability across business units with clear lines of decision-making authority and has been used for the past five years through our current delivery to West Virginia.
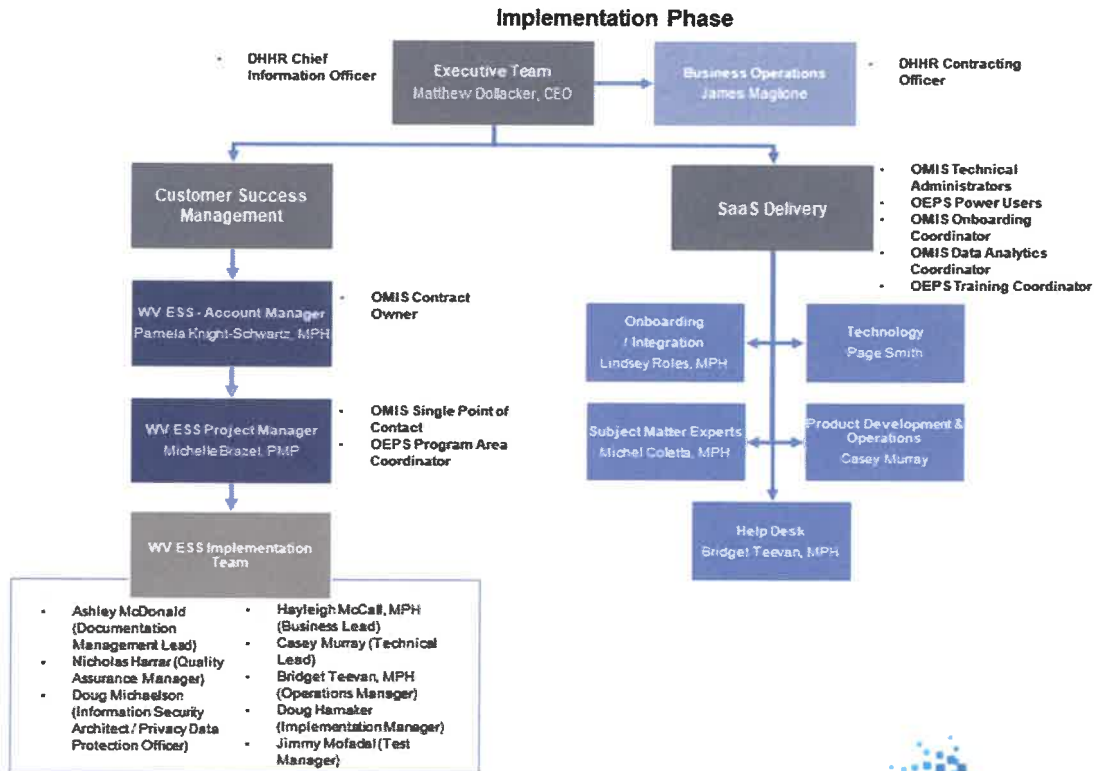
Exhibit-4: The InductiveHealth Team provides WV with experts in disease surveillance, cloud computing, and software-as-as-service (SaaS) delivery.

For the Implementation phase, **Exhibit-5** summarizes high level responsibilities including relationships to West Virginia staff.

Project Role	Proposed Resource(s)	High Level Responsibility	WV Staff Relationship
Account Manager	Pamela Knight-Schwartz, MPH InductiveHealth	• Single point of contact for the contract period. • Provide contracting oversight through the life of the contract. • Meet with designated client staff on agreed upon frequency, and by client request.	• OMIS Contract Owner
Project Manager	Michelle Brazel, PMP InductiveHealth	• Maintains project plan through the implementation phase of the project. • Provide oversight of vendor implementation staff.	• OMIS Single Point of Contact • OEPS Program Area Coordinator

Project Role	Proposed Resource(s)	High Level Responsibility	WV Staff Relationship
Business Lead	Hayleigh McCall, MPH InductiveHealth	• Ensure solution adheres to requirements. • Manages and coordinates business analysts and oversees work and completion. • Provides subject matter expertise and ensures defined client policies and rules are implemented correctly. • Supplies reports as defined and requested by client. • Manages change request process and procedure.	• (see Project Manager)
Technical Lead	Casey Murray InductiveHealth	• Primary point of contact and subject matter expert on technical matters. • Ensures effective and accurate implementation of solution, as defined by client requirements. • Ensures accuracy of system documentation.	• (see Project Manager)
Operations Manager	Bridget Teevan, MPH InductiveHealth	• Supports project to ensure smooth transition to operations phase.	• OMIS Technical Administrators • OEPS Power Users • OMIS Onboarding Coordinator • OMIS Data Analytics Coordinator • OEPS Training Coordinator
Implementation Manager	Doug Hamaker InductiveHealth	• Provides oversight of development and implementation and performs day-to-day planning activities. • Ensure timely delivery of project deliverables, as defined in the project plan. • Coordinates implementation activities with client and communicates project and implementation status in a timely manner.	• (see Project Manager)
Test Manager	Jimmy Mofadal InductiveHealth	• Develops, executes, and coordinates all testing activities. • Manages all testing resources and environments and provides oversight of all testing execution. • Ensures system functions and operates to meet certification criteria.	• (see Project Manager)
Quality Assurance Manager	Nicholas Harrar STChealth	• Manage all testing activities during the development of the system.	• (see Project Manager)
Documentation Management Lead	Ashley McDonald STChealth	• Produces high quality documentation using developed methods and tools.	• (see Project Manager)

Project Role	Proposed Resource(s)	High Level Responsibility	WV Staff Relationship
		• Plans and directs documentation project, and manages writers or SMEs assigned to those projects.	
Information Security Architect Privacy Data Protection Officer	Doug Michaelson /STChealth	• Monitors implementation and ensures and security concern or incident is communicated to client in a timely manner.	• (see Project Manager)

Exhibit-5: The InductiveHealth Team provides WV with experts in disease surveillance, cloud computing, and sotware-as-as-service (SaaS) delivery.

Exhibit-6 presents the organizational chart for Operations phase including relationship to West Virginia resources. In Operations, ongoing software-as-a-service (SaaS) delivery shifts to InductiveHealth's SaaS Delivery Team with Michelle Brazel, PMP (Project Manager) continuing to serve as West Virginia's primary point of contact. Michelle will coordinate the prioritization and execution of change requests with the Product Development & Operations Teams lead by Casey Murray (Technical Architect). This proposed approach provides West Virginia with continuity across Implementation and Operations with resources who are deeply familiar with West Virginia needs and stakeholders.
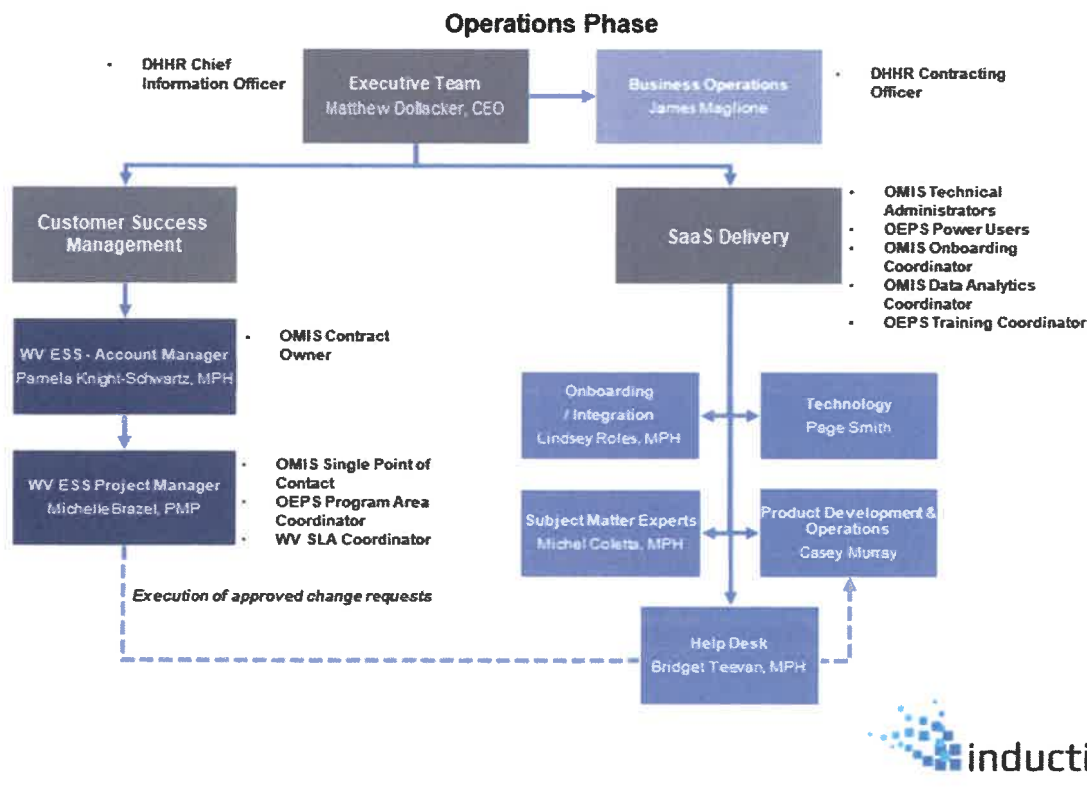
Exhibit-6: The InductiveHealth Team provides WV with experts in disease surveillance, cloud computing, and software-as-as-service (SaaS) delivery.

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For the Operations phase, **Exhibit-7** summarizes high level responsibilities including relationships to West Virginia staff.

Project Role	Proposed Resource(s)	High Level Responsibility	WV Staff Relationship
Account Manager	Pamela Knight-Schwartz, MPH InductiveHealth	• Single point of contact for the contract period. • Provide contracting oversight through the life of the contract. • Meet with designated client staff on agreed upon frequency, and by client request.	• OMIS Contract Owner
Project Manager	Michelle Brazel, PMP InductiveHealth	• Provide transition oversight after implementation and system go-live. • Meet with designated client staff on agreed upon frequency, and by client request.	• OMIS Single Point of Contact • OEPS Program Area Coordinator • WV SLA Coordinator
Technology Team	Multiple Developer, DevSecOps Engineers, and Data Integration Specialists led by Page Smith (Manager)	• Responsible for day-to-day technical delivery	• OMIS Technical Administrators • OEPS Power Users • OMIS Onboarding Coordinator • OMIS Data Analytics Coordinator • OEPS Training Coordinator
Help Desk Team	Multiple Help Desk Analysts led by Bridget Teevan, MPH (Manager)	• Oversees and performs all solution operations. • Monitors and oversees all day-to-day activities associated with system maintenance.	• OMIS Technical Administrators • OEPS Power Users • OMIS Onboarding Coordinator • OMIS Data Analytics Coordinator • OEPS Training Coordinator
Onboarding / Integration Team	Multiple Onboarding Coordinators led by Lindsey Roles, MPH (Manager)	• Responsible for execution on onboarding methodology and operations of clinical data sources	• OMIS Technical Administrators • OEPS Power Users • OMIS Onboarding Coordinator • OMIS Data Analytics Coordinator • OEPS Training Coordinator
Product and Operations Team	Multiple Developers led by Casey Murray (Technical Architect)	• Responsible for Product Development	• OMIS Technical Administrators • OEPS Power Users • OMIS Onboarding Coordinator • OMIS Data Analytics Coordinator • OEPS Training Coordinator
Subject Matter Expert Team	Multiple Epidemiologists and Product Specialists led by Michael Coletta, MPH	• Responsible for product expertise and client advisory	• OMIS Technical Administrators • OEPS Power Users • OMIS Onboarding Coordinator • OMIS Data Analytics Coordinator • OEPS Training Coordinator

Exhibit-7: The InductiveHealth Team provides WV with experts in disease surveillance, cloud computing, and software-as-as-service (SaaS) delivery.

- A narrative describing tools and processes used to screen available staff to fill positions.In addition, a narrative describing the process for replacing key staff within defined timeframes, and procedures for backfilling key staff during any transition.

Response: Talent acquisition including pipelining, recruiting, onboarding, and professional development is the responsibility of InductiveHealth's Business Operations Team managed by James Maglione (Director of Finance and Contracting). Within the Business Operations Teams, talent

acquisition is performed by Eve Spencer (Senior Corporate Recruiter). Eve's career has spanned the last 20+ years including building a high performing technology organization for an Atlanta, Georgia based technology startup. To support talent acquisition, InductiveHealth has LinkedIn Recruiter and Job Slot to support both passive and pro-active outreach to candidates. In 2021, InductiveHealth was able to onboard 21 resources in under two months to support the expansion of InductiveHealth's work on the Centers for Disease Control and Prevention (CDC) National Syndromic Surveillance Program (NSSP). These 21 resources consisted of software development engineers, experts in public health surveillance and epidemiology, and Big Data engineers.

To support retention, InductiveHealth has a predefined onboarding processes to Welcome and Integrate (W&I) new Team Members. These processes including teaming new Team Members with "onboarding buddies", Welcome Letters from the Executive Team, and financial stipends to expand home office capabilities. Recognizing that Team Members may choose to depart InductiveHealth based on their career journeys and personal needs, InductiveHealth is continually pipelining to engage with prospective candidates. Primarily, InductiveHealth's pipelining is driven by internal Team Member referrals. On average, InductiveHealth can backfill staff within two to three weeks of a Team Member announcing their departure. This process often includes having prospective candidates engage with clients, as InductiveHealth currently does in support of delivery to the Association of Public Health Laboratories (APHL).

- Resumes (not to exceed two (2) pages each) for the key staff and support staff members assigned to this project including their licenses, credentials, and experience. DHHR considersthe key staff resumes as a key indicator of the Vendor's understanding of the skill sets required for each staffing area.

Response: Please see response in **3.1 Resumes** summarizing the InductiveHealth Team's resumes highlighting licenses, credentials, and experience.

- A letter of intent for each proposed staff member not currently employed by the Vendor. Each letter of intent should be signed by the named individual, indicating that the individualis willing to accept employment if the Vendor is awarded the contract.

Response: All proposed resources are currently employed by InductiveHealth or STChealth.

- A description and diagram of the proposed staffing for each phase of the project.

Response: Please see response above to project organization for Implementation and Operations phases.

- Identification of subcontractor staff, if applicable.

Response: Reference Exhibits above for resources from team members employed by STCHealth (subcontractor).

2. Use of State Staff

Describe the required staffing of business and technical resources DHHR should provide to support the creation of all deliverables. Specifically, the Vendor should address the following:

- The nature and extent of DHHR support required, in terms of staff roles and percentageof time available

- Assistance from DHHR staff and the experience and qualification levels required

- Staffing for both implementation and maintenance and operations phases

DHHR may not be able or willing to provide the additional support the Vendor lists in this part of its proposal. The Vendor therefore should indicate whether its request for additional support isa requirement for its performance. If any part of the list is a requirement, the State may reject theVendor's proposal, if DHHR is unwilling or unable to meet the requirements.

Response: In working with West Virginia for the last 5 years, **Exhibit-8,** presents the InductiveHealth Team's anticipated use of State staff including rationale, estimated percentage allocations, and phases.

Proposed DHHR Staff	Rationale for Staff	Participates in Monthly Status Meeting	Proposed Percentage of Time Available	Phases
DHHR Chief Information Officer	Provide feedback on delivery to InductiveHealth Executive Team, identify strategies to continually enhance Enterprise Surveillance Systems (ESS) platform.	No	2%	• Implementation • Operations
DHHR Contracting Officer	Support review of invoices and financial reporting, acceptance of contract deliverables, and escalation of issues impacting contract execution.	No	5%	• Implementation • Operations
OMIS Contract Owner	Responsible for day-to-day contract execution including processing of change requests.	Yes	5%	• Implementation • Operations
OMIS Single Point of Contact	Single point of contact from OMIS for day-to-day service delivery and management of issues and risks identified by the InductiveHealth Team.	Yes	10%	• Implementation • Operations
OEPS Program Area Coordinator	Singe point of contact from OEPS that can internally coordinate with epidemiologists across program areas including requirements for Implementation phase across local health departments.	Yes	10%	• Implementation • Operations
WV SLA Coordinator	Single point of contact for reviewing SLA compliance and exceptions	Yes	5%	• Implementation • Operations

Proposed DHHR Staff	Rationale for Staff	Participates in Monthly Status Meeting	Proposed Percentage of Time Available	Phases
OMIS Technical Administrators	Resource(s) who are designated as Technical Administrators who interact with the Enterprise Surveillance System (ESS) software-as-a-service (SaaS) solution.	Optional	25%	• Implementation • Operations
OEPS Power Users	Resource(s) who are designated as power users for Enterprise Surveillance System (ESS) software-as-a-service (SaaS) solution who conduct internal training and serve as internal subject matter experts.	Optional	10%	• Implementation • Operations
OMIS Onboarding Coordinator	Resource responsible for prioritizing and interacting with the InductiveHealth Team to coordinate data source onboarding and Ancillary data interoperability.	Yes	75%	• Operations
OMIS Data Analytics Coordinator	Resource responsible for requirements, review, and coordination of data analytic needs from the Enterprise Surveillance System (ESS) software-as-a-service (SaaS) solution.	Yes	75%	• Operations
OEPS Training Coordinator	Conducts and coordinates training for local health departments, new users, and specific needs.	No	10%	• Implementation • Operations

Exhibit-8: The InductiveHealth Team provides WV with experts in disease surveillance, cloud computing, and software-as-as-service (SaaS) delivery.

3. Key Staff, Resumes, and References

Key staff consist of the project's senior leadership for the ESS project. These resources are responsible for providing leadership, and creating the standards and processes required for the successful implementation, operation, and maintenance. Resumes for key staff named in the Vendor proposal should indicate the role of the staff on the ESS project and demonstrate how each staff member's experience and education will contribute to the successful implementation of the ESS. The Vendor should make the proposed key staff available for an in-person interview upon DHHR's request.

To ensure successful transition to the operations phase, the implementation activities should be led by key staff identified in the list below:

4. Account Manager
5. Project Manager
6. Business Lead
7. Technical Lead
8. Implementation Manager
9. Quality Assurance Manager

The qualifications, experience, and responsibilities for each key staff role are defined

in *Appendix 3: Staff Qualifications, Experience, and Responsibilities*.

3.1. Resumes

The Vendor should complete Table 18 and embed resumes of all proposed key staff to this section of the proposal. Each resume should demonstrate experience relevant to the position proposed. If applicable, resumes should include work on projects cited under the Vendor's corporate experience, and the specific functions performed on such projects.

Table 18: Resumes for Proposed Key Staff

Name	Proposed Role	Experience in Proposed Role
Pamela Knight-Schwartz, MPH InductiveHealth	Account Manager	• Currently supports West Virginia WVEDSS delivery for electronic case reporting (eCR) • Prior experience includes the Massachusetts department of Public Health and Maine Center for Disease Control & Prevention • Successful execution of over 8 disease surveillance conversions including data migration • Former Director of Public Health Consulting for Conduent overseeing disease surveillance clients
Michelle Brazel, PMP InductiveHealth	Project Manager	• Former Customer Success Director for Conduent overseeing day-to-day disease surveillance operations • Implemented EDSS systems for the State of Virginia and State of Mississippi • Hands on experience collecting requirements and interpreting needs of project stakeholders.
Hayleigh McCall, MPH InductiveHealth	Business Lead	• Over 5+ years of experience working with State, Territorial, Local, and Tribal health departments. • Significant experience in managing projects, program development and implementation of public health information systems. • Masters in Public Health.
Casey Murray InductiveHealth	Technical Lead	• Design and implementation of multi-factor authentication (MFA) into InductiveHealth EpiTrax™ Platform • Design and development of NEDSS Base System to InductiveHealth EpiTrax™ Platform data migration solution • Implementation of new enhancements to InductiveHealth EpiTrax™ Platform to support client specific needs
Bridget Teevan, MPH InductiveHealth	Operations Manager	• Currently supports West Virginia WVEDSS delivery for the NEDSS Base System (NBS) • Former electronic disease surveillance system (EDSS) coordinator for the State of Rhode Island • Manages InductiveHealth's Help Desk Team including CDC NMI onboarding
Doug Hamaker InductiveHealth	Implementation Manager	• Proven leader in managing the integration of complex organizations and business processes with sophisticated public health information systems and laboratory reporting systems • Subject matter expert in policies and procedures relating to public health disease surveillance and data management, including data confidentiality, sensitivity of

Name	Proposed Role	Experience in Proposed Role
		information, and de-identification • Extensive 30-year experience leading business policy, requirements, development, implementation and onboarding of disease surveillance systems. • Demonstrated Subject matter expert for Electronic Laboratory Reporting (ELR) of notifiable laboratory results to public health and Case Reporting from health care providers
Jimmy Mofadal InductiveHealth	Test Manager	• Currently supports West Virginia WVEDSS delivery for electronic case reporting (eCR) • Previously supported New York City Healthcare Authority in the adoption of data interoperability standards and integration across health information systems • Completed health information system implementations in complex geo-political environments in international settings.
Nicholas Harrar STChealth	Quality Assurance Manager	• Over 5+ years of experience in working on client implementations, and in ensuring quality of deliver. •
Ashley McDonald STChealth	Documentation Management Lead	• Over 5+ years of experience working with State and Local surveillance systems. • Lead for STC Public Health Services, with extensive experience in developing and maintaining relevant documentation.
Doug Michaelson STChealth	Information Security Architect / Privacy Data Protection Officer	• 10 years of experience in IT and Security management. • Chief Information Security Officer for STChealth.

Pamela Schwartz, MPH

Proposed Role: Account Manager

EXPERIENCE RELATIVE TO REQUIREMENTS

- Masters in Public Health
- Over 15 years implementing and operating disease surveillance systems in 28 state and local public health agencies.
- Multiple publications on the utilization of EDSS to improve the state of public health and the use of technology in health promotion activities.

EXPERIENCE OVERVIEW

Solutions-oriented professional with a proven track record in account and project management. Success in planning and managing projects that align business goals with technology solutions. Analytical problem-solver, able to anticipate issues and create solutions to resolve concerns and improve efficiencies. Excellent written and verbal communication skills – able to leverage technical, business, and financial acumen to communicate effectively with client executives and their respective teams. Exceptional negotiation, influencing, and conflict management skills. Superb track record in client satisfaction. Strategic leader focused on building and managing high performance teams positioned for success in client delivery.

SELECTED PROJECT EXPERIENCE

Senior Manager, InductiveHealth (2021 to present): Mrs. Schwartz is Responsible for two state-wide Electronic Disease Surveillance Systems (EDSS) projects. Coordinates project activities within the scope and breadth of additional dependent projects. Sets and manages stakeholder expectations resulting in projects remaining in scope, on time, and within budget. Manages a team of technical multi-disciplinary team members tasked with execution on project deliverables. Provides continuous and real-time updates to all stakeholders, internal and external as well as provide timely and useful status reports on project health.

Director, Public Health Consulting, Conduent Public Health Solutions (2018 to 2021): Developed and maintained long-term relationships with existing clients and managed a portfolio of client contracts for public health and other government sector clients. Led efforts for ensuring client satisfaction and representing client interests to internal Conduent departments, maintaining maximum responsiveness, superior service levels, and personalized client care. Facilitated the Maven User Group, the communication and collaboration platform available to all Maven clients. Facilitation included monthly discussion and training calls as well as planning and executing yearly multi-day conferences. Managed a team of epidemiologists responsible for providing public health and epidemiological insight into Conduent's Maven EDSS implementation projects.

Project Manager, Conduent Public Health Solutions (2015 to 2018): Responsible for leading business and technical units through project activities to meet critical deadlines. Maintained project schedules and managed scope for new Maven implementations, including projects in Washington, Virginia and

Accomplishment Highlights

- Currently supports West Virginia WVEDSS delivery for electronic case reporting (eCR)
- Successful execution of over 8 EDSS implementations, including data migration
- Former Director of Public Health Consulting for Conduent Public Health Solutions overseeing public health clients

Education

- M.P.H., American Public University, 2020
- B.S., Business Administration, University of North Carolina at Greensboro, 2013

Chicago. Managed team of implementations engineers and was responsible for allocating and reporting on availability. Managed client relationships.

Account Executive, Scientific Technologies Corporation (2010 to 2014): Effectively and successfully managed portfolio of ten client accounts, serving as primary liaison between public health clients and technical staff. Developed and maintained client relationships at an executive level to further both company and client goals. Facilitated problem resolution in a timely manner as escalation point of contact for client and STC support staff.

Project Manager, Scientific Technologies Corporation (2007 to 2010): Successfully managed multiple projects, ensuring on-time and quality performance from developers, quality assurance, professional services, documentation, and support staff during new client implementations, services deliveries, and custom software development projects. Managed client expectations while advocating for the client with other business units. Created project documentation for tracking and communication, including project plans, status reports, and budgets. Built credibility, established rapport, and maintained communication with stakeholders at multiple levels. Interacted with client to clearly define and document requirements for new projects and enhancements to existing information systems. Prepared change request documentation and followed development through the software development life cycle to ensure deliverables were met.

SELECTED PUBLICATIONS AND PRESENTATIONS

Schwartz, Pamela. Hepatitis A Vaccine Promotion Using Facebook Ads to Reach At-Risk Groups. American Journal of Health Promotion, 2021. https://doi.org/10.1177/08901171211044594

EMPLOYMENT HISTORY

InductiveHealth Informatics	Senior Manager	2021–Present
Conduent Public Health Solutions	Director, Public Health Consulting	2018–2021
Conduent Public Health Solutions	Project Manager	2015–2018
Massachusetts Department of Public Health	Project Manager	2014
Scientific Technologies Corporation	Account Executive	2010–2014
Scientific Technologies Corporation	Project Manager	2007–2010
State of Maine, IPHIS Team	Research and Planning Associate	2005-2006

Michelle Brazel

Proposed Role: Project Manager

EXPERIENCE RELATIVE TO REQUIREMENTS

- PMI Project Management Professional (PMP) certification.
- Over 10+ years managing implementation and operations of disease surveillance systems for over 10 state public health agencies.
- Deep experience providing customer management including resource allocation.

EXPERIENCE OVERVIEW

Ms. Brazel is an experienced professional in the disease surveillance space, having been involved in the successful implementation of over 10+ disease surveillance systems. Michelle has extensive experience in managing those implementations, is PMP certified, and has managed multi-discipline project teams. Additionally, Michelle has worked directly with clients throughout her career, and has been instrumental in driving client satisfaction and success.

SELECTED PROJECT EXPERIENCE

Senior Project Manager, InductiveHealth (2021 to present): Ms. Brazel collects, analyzes and documents customer requirements, as well as managing customer communications. Michelle oversees the COVID-19 NBS implementation for the State of Mississippi, providing status updates both internally and externally at regular intervals.

Professional Services Director, ZPD Solutions (2019 to 2021): Managed all customer communications, and collected, analyzed and documented requirements. Communicated internally with development and other impacted teams. Collaborated on core platform, providing input on both tactical and strategic priorities. Ensured adherence to product fidelity, based on agreed upon requirements.

Customer Solutions Director, Lancet Registry Solutions (2018 to 2019): Created and managed customer user group, including process for capturing and leveraging customer input. Oversaw weekly team meetings, improving team morale and consistency of inward and outward communication. Interacted daily with many tier-one customers and liaised with external technology partners. Ensured adherence to industry standards, and analyzed, documented, and advocated for inclusion of market requirements on product roadmap. As State Workgroup Coordinator, developed and maintained ITDX data dictionary, and ran the ITDX Workgroup, establishing formats for data submissions with state trauma leadership.

Maven Services Manager, Conduent (2017 to 2018): Responsible for managing all Maven services staff, ensuring staff was appropriate for all vertical markets. Ultimately responsible for on-time project completion and project oversight. Provide feedback and input on proposals and coordinated staff in building demo systems as needed.

Accomplishment Highlights

- Former Customer Success Director for Conduent Public Health Solutions, overseeing day-to-day disease surveillance operations
- Implemented disease surveillance systems for the State of Virginia and the State of Mississippi

Education

- Certification in Elementary Education, University of Texas,1996
- B.A., Psychology, University of Maryland, 1992

Certifications and Training

- Project Management Professional (PMP), Project Management Institute, 2014

InductiveHealth Informatics, Inc.

Customer Success Director, Xerox/Conduent (2014 to 2017): Managed all in-production customers' needs, ensuring customers were getting the most value out of their Maven implementations. Worked with customers to maintain and renew contracts. Provided guidance on how to update customer systems to best suit their needs and developed and managed all change requests. Managed projects from inception to completion, and continued work with customer relationships upon completion of the project. Owner of the Maven User Group, responsible for conducting monthly meetings and planning annual conferences. Managed customer success team and coordinated staffing on all training classes.

Business Analyst and Business Analyst Manager, Consilience Software (2006 to 2014): Understand customer business needs and develop models to support them. Liaise as a "translator" between customers and our technical staff by describing the customers' issues in terms of our product technically and vice versa, translating the technical jargon into understandable concepts that the customers understand. Manage and maintain customer relationships during and after the model implementation process. Lead business analyst on all critical accounts for Consilience. Developed to-be business process materials used to drive the business and system requirements of Maven projects. Developed internal and customer-facing best practices for initial modeling and model updates. Responsible for the initial development of all training-related materials within the company, and primarily responsible for instruction, planning and coordinating training activities. Managed and mentored all business analysts within the company.

EMPLOYMENT HISTORY

InductiveHealth Informatics	Senior Project Manager	2021–Present
ZPD Solutions	Professional Services Director	2019–2021
Lancet Registry Solutions	Customer Solutions Director	2018–2019
Conduent	Maven Services Manager	2017–2018
Xerox / Conduent	Customer Success Director	2014–2017
Consilience Software	Business Analyst / Business Analyst Manager	2006–2014
Motive, Inc.	Business Analyst / Sr. Technical Instructor	2000–2005
ProsoftTraining.com	Web Development Instructor	1999–2000
Knowledge Alliance	Applications Training Manager / Consultant	1998–1999

Hayleigh McCall, MPH

Proposed Role: Business Lead

EXPERIENCE RELATIVE TO REQUIREMENTS

- Over 5+ years of experience working with State, Territorial, Local, and Tribal health departments.
- Significant experience in managing projects, program development and implementation of public health information systems.
- Masters in Public Health.

EXPERIENCE OVERVIEW

Hayleigh McCall is an experience and knowledgeable epidemiologist, with extensive experience working with State, Territorial, Local, and Tribal health departments. Hayleigh has been deeply involved in a variety of public health information system projects and has significant involvement in a number of programs with the Council of State and Territorial Epidemiologists.

SELECTED PROJECT EXPERIENCE

Project Manager I, InductiveHealth (2020 to present): Support CDC National Syndromic Surveillance Program (NSSP) projects and efforts relating to communications and new data source development.

Program Analyst III, Council of State and Territorial Epidemiologists (2020 to present): Acted as CSTE's syndromic surveillance subject matter expert (SME) with knowledge of BioSense Platform processes, tools, and data sources; syndrome definition development and validation methods; data quality efforts; and analytic reports. Synthesized, wrote, organized, implemented, supervised, critiqued, finalized, and biannually reported on multi-faceted CDC CoAg projects and deliverables. Collaborated and built relationships with federal and state, territorial, local, and tribal (STLT) health department partners to assist coordination between all government public health levels. Drafted Request for Proposals (RFPs), reviewed workplans, wrote contracts, and managed consultants to ensure project completion and quality product development. Served in CSTE's COVID-19 Incident Command System (ICS) as the Epidemiology/Surveillance Task Force Lead. Led strategic coordination of the NSSP Community of Practice (CoP). Provided and assisted federal technical assistance for STLT public health practitioners. Planned and facilitated trainings, events, and workshops to ensure knowledge sharing and generative discussion. Composed and curated scientific content for program websites and advise website designs and layouts.

Program Analyst II, Council of State and Territorial Epidemiologists (2018 to 2020): Established

Accomplishment Highlights

- Acted as CSTE's syndromic surveillance subject matter expert (SME) with knowledge of BioSense
- Has successfully led the management of multi-faceted CDC cooperative agreements with responsibility over various contracts
- Has collaborated and built relationships with federal and state, territorial, local, and tribal (STLT) health department partners to assist coordination between all government public health levels

Education

- M.P.H. in Epidemiology, University of Georgia, 2016
- B.S. in Microbiology and Psychology, University of Georgia, 2014

Certifications and Training

- AMA Best Practices for the Multi-Project Manager, 2019
- Management Concepts Managing Federal Grants & Cooperative Agreements for Recipients, 2017

the syndromic surveillance portfolio at CSTE, including the successful transition of the NSSP CoP's facilitation, activity coordination, and project implementation. Coordinated the 2019 NSSP Data Sharing Workshop Series & National Capstone, which included four regional, two-day activity-based events and one national, cumulative experience. Managed, planned, and executed the 2018 & 2019 CSTE Disaster Epidemiology Workshops; the 2018 & 2019 Climate and Respiratory Health Summits; the 2018 & 2019 CSTE Conference Environmental Health Tracks and Workshops.

Program Analyst I, Council of State and Territorial Epidemiologists (2017 to 2018): Supported Hurricanes Irma, Maria, and Harvey public health response activities, including boots-on-the-ground implementation of a Community Assessment for Public Health Emergency Response (CASPER) in USVI.Monitored the Sub-County Assessment of Life Expectancy (SCALE) Project to facilitate the development and adoption of small-area life expectancy methods.

ORISE Research Participant, CDC National Center for Environment Health: (2016 to 2017): Engaged in federal public health responses to Hurricane Matthew, Flint Water Crisis, and Zika Virus, including monitoring and addressing inquiries from STLT health departments and the public; drafting CDC situation reports (SITREPs), Incident Action Plans (IAPs), and After-Action Reports (AARs); and developing of community resources. Analyzed, interpreted, and composed a technical report with syndromic and Medicaid claims data to compare rash and alopecia ED visit rates before, during, and after the change in water sources in Flint, Michigan. Produced a curriculum, student manual, learning activities, and testing materials for the Palau Community Colleague's Public Health Disaster Management Certificate Program.

EMPLOYMENT HISTORY

InductiveHealth Informatics	Project Manager I	2020–Present
Council of State and Territorial Epidemiologists	Program Analyst III	2020–Present
Council of State and Territorial Epidemiologists	Program Analyst II	2018–2020
Council of State and Territorial Epidemiologists	Program Analyst I	2017–2018
CDC National Center for Environment Health	ORISE Research Participant	2016–2017
CDC National Center for Environment Health	SWEP Intern & Volunteer	2015–2016

Casey Murray

Proposed Role: Technical Lead

EXPERIENCE RELATIVE TO REQUIREMENTS

- Over 10 years of experience implementing scalable information systems
- InductiveHealth Solution Architect for EpiTrax™
- Deep expertise in Java, modern web frameworks, and relational database implementation
- Expert in cloud computing and infrastructure engineering

EXPERIENCE OVERVIEW

Highly motivated full-stack software engineer with experience in the development and maintenance of desktop and mobile applications, web services, embedded systems and back-end servers. Proven ability to deploy successful projects independently and as part of an established development team. Skilled in communicating with technical and non-technical individuals..

SELECTED PROJECT EXPERIENCE

System Architect, InductiveHealth (2021 to Present): Leads the Technical Architecture Team, which is responsible for architecture and product development. Responsible for improvements to the InductiveHealth product suite, particularly EpiTrax's. Developed multiple enhancements to EpiTrax, including multi-factor authentication. Design and developed a migration solution from NEDSS to EpiTrax.

Software Design Engineer, Solar Technology, Inc. (2013 to 2021): Design and distribute iOS and Android apps to support multiple established company products. Develop and maintain Mongo-DB backed production server, mobile web server (Play Framework/Java) and Java-based client desktop software. Maintain build system and release packages. Write communication software to support proprietary protocols for various sensor types (ie. radar, Bluetooth) for integration into ITS software. Develop end-to-end ITS SmartZone software for automated real-time traffic decision making (Java). Integrate communication over NTCIP protocols into head-end software (Java/C++). Provide technical training on management of DMS over protocols. Develop and maintain RESTful API for customers (Play Framework/Java).

Application Developer, Zen Life Productions (2012 to Present): Manage distributed application servers and MongoDB replica set on three AWS cloud servers with custom iptables, nginix load balancing, https certificates, proxy and automated application management scripts. Design and distribute child-friendly mobile applications. Design company and app store assets and privacy policy. Develop personal automated budget management website.

Accomplishment Highlights

- Design and implementation of multi-factor authentication (MFA) into InductiveHealth EpiTrax™ Platform
- Design and development of NEDSS Base System to InductiveHealth EpiTrax™ Platform data migration solution
- Implementation of new enhancements to InductiveHealth EpiTrax™ Platform to support client specific needs

Education

- AAS Web Development & Design, Harrisburg Area Community College, 2012
- AS Computer Information Systems, Harrisburg Area Community College, 2011

EMPLOYMENT HISTORY

InductiveHealth Informatics	System Architect	2021–Present
Solar Technology, Inc.	Software Design Engineer	2013–2021
Zen Life Productions	Application Developer	2012–Present

Bridget Teevan, MPH

Proposed Role: Operations Manager

EXPERIENCE RELATIVE TO REQUIREMENTS

- Masters in Public Health
- Over 5+ years managing implementation and operations of disease surveillance systems in over 13 state public health agencies
- Extensive experience managing change requests and end user service requests
- Deep experience in HL7 and data integration

EXPERIENCE OVERVIEW

Bridget is an experienced public health professional, with an extensive background in working with state health agencies. As the coordinator for the State of Rhode Island's electronic disease surveillance system, she has a significant understanding of the disease surveillance field. This understanding has been expanded upon by working with InductiveHealth's client base as the help desk manager and client coordinator.

SELECTED PROJECT EXPERIENCE

Help Desk Manager/ Client Coordinator, InductiveHealth (2020 to Present): Coordinate software as a service (SaaS) delivery for clients in 12 states and territories including leading regular status calls (weekly, biweekly, and monthly cadences) and completing monthly written status reports. Conduct all client communications for the SaaS Tech and Ops team. Liaise with Tech Team and ELR Team Managers to coordinate delivery. Serve as client steward for two clients involving routine one-on-one listening sessions to ascertain feedback on delivery and to understand client priorities. Manage company JIRA Help Desk and team of five Help Desk Analysts to ensure timely and quality responses to client submitted help desk tickets and technical assistance projects. Support clients and team members by providing subject matter expertise for the NEDSS Base System (NBS) used to report infectious disease data to the CDC. Lead client onboardings to CDC-released HL7 message mapping guides as part of the NNDSS Modernization Initiative. Represent clients and company on national NBS-related conference calls.

Senior Public Health Epidemiologist/Informatics Coordinator, Rhode Island Department of Health (2016 to 2020): Led disease surveillance for several infectious diseases including group A and B streptococcus, streptococcal toxic shock syndrome, respiratory outbreaks, malaria, babesia, animal bites/rabies, human rabies, typhoid fever, vaccine preventable diseases, influenza, and Zika virus and participate in the Mosquito-borne Disease Advisory Group. Designed and led annual outbreak training for state congregate living facilities. Conducted grant writing activities and was responsible for carrying out deliverables, reporting to CDC, and meeting with CDC quarterly to discuss progress. Created annual reports, and compiled reports for data requests detailing disease statistics for the State of Rhode Island. Worked with stakeholders at Brown University, University of Rhode Island, state hospitals, and

Accomplishment Highlights
- Currently supports West Virginia WVEDSS delivery for the NEDSS Base System (NBS)
- Former electronic disease surveillance system (EDSS) coordinator for the State of Rhode Island
- Manages InductiveHealth's Help Desk Team including CDC NMI onboarding

Education
- M.P.H., Yale School of Public Health, 2013
- B.S. in Environmental Science, University of Connecticut, 2011

Certifications and Training
- Yale Climate Change and Health Certificate Program, 2020

staff at other local health departments to coordinate infectious disease surveillance and informatics activities. Provided for routine National Electronic Disease Surveillance System maintenance and enhancements internally and served as a liaison between the department and the contracted vendor hosting the system. Supported and manage the onboarding of state hospitals and national laboratories to allow for the transmission of electronic laboratory reports and electronic case reports to the Department of Health. Oversaw syndromic surveillance using the Rhode Island Real-Time Outbreak and Disease Surveillance (RODS) system and ESSENCE and initiated the department's syndromic surveillance user group. Served as the KIDSNET Administrator for the Division of Preparedness, Response, Infectious Disease, and Emergency Medical Services.

Research Associate, Community Health Center, Inc. (2014 to 2016): Supported staff members agency-wide with research ideas, literature reviews, grant-writing, IRB proposals, and manuscript preparation. Managed a team of research assistants on several clinical trials including two different smoking cessation initiatives which enrolled over 1000 patients, a behavioral health smart phone application which enrolled 40 patients, a long-acting reversible contraception program, and a patient behavior change program. Mentored Wesleyan University undergraduate students and Quinnipiac University medical school students on primary care projects that seek to help them understand and promote the health of the community. Provided department support for the statistical analysis of project data. Acted as a liaison for our project partners including Yale University, Innovations for Poverty Action, Community Health Network, and Pro-Change.

SELECTED PUBLICATIONS AND PRESENTATIONS

Kurek K, Teevan B, Zlateva I, Anderson D. Patient-Provider Social Concordance and Health Outcomes in Patients with Type 2 Diabetes: a Retrospective Study from a Large Federally Qualified Health Center in Connecticut. *Journal of Racial and Ethnic Health Disparities* (2015): 1-8.

Anderson, D., Villagra, V. G., Coman, E., Ahmed, T., Porto, A., Jepeal, N., ... & Teevan, B. (2018). Reduced cost of specialty care using electronic consultations for medicaid patients. *Health Affairs*, 37(12), 2031-2036.

Choe YJ, Teevan B, Smit M, Quilliam D, Bandy U, Mermel L. Post-exposure rabies prophylaxis for mass bat exposures: Case series and systematic review. *Zoonoses Public Health*. 2020;00:1–11.

EMPLOYMENT HISTORY

InductiveHealth Informatics	Help Desk Manager / Client Coordinator	2020–Present
Pro-Change Behavior Systems Inc.	Institutional Review Board Member	2016–Present
Rhode Island Department of Health	Senior Public Health Epidemiologist/Informatics Coordinator	2016–2020
Community Health Center, Inc.	Research Associate	2014–2016
Community Health Center, Inc.	HealthCorps Member	2013–2014
Central Connecticut Health District	Intern	2013
Urban Resources Initiative	Community Greenspace Intern / Greenskills Supervisor	2012–2013
University of Connecticut	Honors Thesis Laboratory Worker	2010-2011

Doug Hamaker

Proposed Role: Implementation Manager

EXPERIENCE RELATIVE TO REQUIREMENTS

- Proven leader in managing the integration of complex organizations and business processes with sophisticated public health information systems and laboratory reporting systems
- Subject matter expert in policies and procedures relating to public health disease surveillance and data management, including data confidentiality, sensitivity of information, and de-identification
- Extensive 30-year experience leading business policy, requirements, development, implementation and onboarding of disease surveillance systems.
- Demonstrated Subject matter expert for Electronic Laboratory Reporting (ELR) of notifiable laboratory results to public health and Case Reporting from health care providers

EXPERIENCE OVERVIEW

Mr. Hamaker is a highly recognized public health specialist with over 30 years of experience leading public health informatics projects. He offers proven leadership expertise in public health policy, epidemiology, disease surveillance, and case and laboratory reporting. Mr. Hamaker continuously demonstrates success using his public health background to lead innovation, development, and integration of complex information systems that are used to at local, federal, and international levels. With his extensive knowledge of public health policy and keen insight toward public health budget constraints, Mr. Hamaker provides invaluable guidance when faced with tough choices. He exemplifies professionalism in all areas of public health management and policy.

SELECTED PROJECT EXPERIENCE

Senior Analyst, InductiveHealth 2015–present Mr. Hamaker is a Senior Analyst for InductiveHealth Informatics. In this role, Mr. Hamaker leads team efforts for multiple project tasks including NEDSS Base System (NBS) support, training, community facilitation, and deployment assistance to States/Territories using InductiveHealth hosted NBS in an Application Service Provider (ASP) environment. Mr. Hamaker performs intricate systems analysis, design, integration, documentation and implementation and provides mentoring and consulting on complex problems that need extensive subject matter expertise. Drawing on his knowledge and skills in Electronic Laboratory Reporting (ELR) to public health, Mr. Hamaker also provides ELR onboarding and Rhapsody integration support as needed.

Epidemiologist, Texas Department of State Health Services (2002 to 2015): Coordinator for the National Electronic Disease Surveillance System (NEDSS) project at the Texas Department of State Health Services. Extensive experience in the initiation, planning, and operation of standards-based electronic integrated surveillance methods for reporting of notifiable diseases. Performed assessments of disease surveillance systems to improve public health monitoring in the State of Texas, including workflow analysis on the data collected to

Accomplishment Highlights

- Key contributor to standards and architectures to modernize public health surveillance in the United States and globally
- Recognized for excellence in managing complex system integrations at state, federal, and international levels
- Successfully advocated for critical disease surveillance improvements at Texas State Department of Health
- Improved STD and HIV/AIDs reporting by developing innovative epidemiological processes

Education

- B.S., Health Education, Texas A&M University, 1983

identify and improve overall data system utilization and effectiveness. Doug's hands-on approach is evident in the training that accompanies the systems that he oversees and coordinates, as the objectives and curriculum he developed in April 2005 for the Texas NEDSS system New User Training is still in widespread use across Texas. The training methods Doug developed have been shared with and used as a template in other states.

HIV/STD Reporting Manager, Texas Department of State Health Services (1992 to 2002): Managed the statewide HIV/STD Surveillance Program at the Texas Department of Health. Planned, developed, and implemented procedures and processes at the statewide level which affected local, state, and national systems. Consulted and advised the coordination of interactions between the medical community and local, state, and federal resources for HIV/AIDS and STD reporting programs. Evaluated new technologies, equipment, vendors and product feasibility especially with regard to conformance to state, federal, and industry standards. Identified and instituted techniques that enhanced the reporting of HIV/AIDS and STD case information to the statewide surveillance system.

HIV/STD Reporting Manager, Texas Department of State Health Services (1998 to 1992): Conducted and coordinated epidemiological investigations of risks associated with HIV infection transmission. Supervised personnel responsible for technical components of the statewide AIDS case reporting system. Created database programs to collect and analyze data which assisted with the development of statistical models. These database solutions replaced legacy paper-based systems.

Public Health Representative, Victoria City/County Health Department (1984 to 1998): Administered STD disease intervention services at the local health department and to the surrounding seven-county area. Provided individual counseling and epidemiological follow-up regarding the disease intervention of sexually transmitted diseases, including HIV/AIDS. Ensured available clinical capacity was matched with program needs. Assisted with implementation and transition to computerized system. Cited the need for and assisted with the creation of public health laboratory services capacity located within the department, resulting in increased services being offered at a decreased cost and an improvement in timeliness.

EMPLOYMENT HISTORY

InductiveHealth Informatics	Senior Analyst	2015–Present
Texas Department of State Health Services	Epidemiologist	2002–2015
Texas Department of Health	HIV/STD Reporting Manager	1992–2002
Texas Department of Health	AIDS Reporting and Evaluation	1988-1992
Victoria City/County Health Department	Supervisor	1984-1988

Jimmy Mofadal

Proposed Role: Test Manager

EXPERIENCE RELATIVE TO REQUIREMENTS

- Lead the WV team for eCR onboarding process and work side by side with the trading partners to implement electronic initial case reporting (eICR) and provide technical assistance on case reporting data from healthcare facilities.
- Work closely with the Interface developers to implement and test the automated generation and transmission of electronic case reporting (eCR) from hospital systems to PHAs.
- Monitor and support the West Virginia electronic disease surveillance system (WVEDSS) for COVID-19 case reporting and other communicable diseases.
- Help on the transformation of flat-file.csv and CCD/CDA to an (eCR) minimum requirements solution for CMS rules and Promoting Interop.

EXPERIENCE OVERVIEW

Jimmy is a Sr. Systems Analyst experienced on all aspects of Healthcare Information Technology 18+ years of hospitals Electronic Health Record (EHR) system applications.

Knowledge and support of Health Information Exchange (HIE), Electronic Case Reporting (eCR) and National Electronic Disease Surveillance System (NEDSS). Functional and regression testing with extensive knowledge of QA, product validation and step by step troubleshooting skills on client issues.

SELECTED PROJECT EXPERIENCE

Sr. Systems Analyst, InductiveHealth Informatics, March 2021– present.

Representing the InductiveHealth team working closely with the State of West Virginia Bureau of Public Health to develop and implement the electronic case reporting (eCR) for COVID-19 and other communicable diseases transmitted into the WV state National Disease Surveillance System (NEDSS). Also, assist on case reporting workflow decision support (WDS) configuration, case investigation for contact tracing and reporting to CDC. Providing technical assistance for the onboarding team and the new healthcare facilities, analyze, troubleshoot, and validate the samples eCRs before processed into the NBS. Assist and support other WV hospitals who are not yet implemented eCR solution to consume and transforms CCD samples/xml format to a valid electronic case reporting (eCR).

Accomplishment Highlights

- Currently supports West Virginia WVEDSS delivery for electronic case reporting (eCR)
- Previously supported New York City healthcare authority in the adoption of data interoperability standards and integration across health information systems
- Completed health information system implementations in complex geo-political environments in international settings.

Education

- Network Engineering and Data Communications Diploma, The Chubb Institute, NY (1999).
- Bachelor of Computer Science (Candidate) University of Alexandria, Alexandria Egypt (1990 - 1993)
- Diploma in Computer Science (Electronic Circuit Design) Advanced Technical Institute, Alexandria Egypt (1985 – 1990)

REQUEST FOR PROPOSAL

Sr. Support Analyst, Harris Healthcare Solutions, 2018 - 2020

Troubleshoot and testing of reported cases/issues by clients. Test applications and verify configurations to validate client issues. Perform regression and functional testing including QA validation process. Test application's functionality, analyze clients' expectations and provide feed-back to clients. Present client cases to Design Board for review and discuss defect vs. as designed and present final resolution to client(s). Communicate resolutions and cases status to clients (Test Track/Helix and CRM-Customer Relation Management. Provide step by step analysis and documentation of test results for development team and participate in project meetings, develop test cases and follow-up with test plans.

Sr. Implementation Consultant, Quadramed Affinity, 2013 - 2018

Implemented and supported the EHR for inpatient/outpatient and emergency departments at Kuwait Amiri Royal Hospital. Assisted in the implementation of patient registration and admission for Siemens/Soarian conversion and Go-Live support. EHR Supported for inpatient/outpatient and emergency departments (Kuwait, Royal Hospital). Worked with Ensemble engine and the Health Information Exchange (HIE) teams to design and configure end to end exchange of patient's electronic health record. Implemented Patient Portal solution working with Dynamic Healthcare IT (DHIT) and project design of HL7 integration for Continuity of Care Document (CCD). Provided support for Meaningful Use Interoperability implementation and Control Medical Vocabulary (CMV). Created workflow design for the auto generation of inpatient/outpatient clinical Summaries to standardize the content and the structure of Document Architecture (CDA). Core team member for (SANG) Saudi Arabia National Guard onsite system configuration, end user training and Go-Live Support.
Managed overall client implementation plans, providing modification recommendations, identifying potential issues/opportunities, and conducted projects analysis. Provided training to internal teams and clients teams prior to project Go-Live kick off. Wrote client test scripts to evaluate and support final product and application validations.

EMPLOYMENT HISTORY

InductiveHealth Informatics	Sr. Systems Analyst	2021 – Present
Harris Healthcare Solutions	Sr. Support Analyst	2018 - 2020
Quadramed Affinity	Sr. Implementation Consultant	2013 - 2018

Nicholas J. Harrar

Education

Bachelors of Science Degree   2012
Information Technology Purdue University

Associates Degree   2008
Networking Collins College

Experience

Implementation Manager/Product Owner
STChealth, LLC – Phoenix, AZ   **July 2016 - Current**

- Gathering resources from stakeholders as well as ensuring product needs are managed on a roadmap.

- Jira product Agile management

- Implementing Webservice/HTTPS/Webhook integrations to various PMS/HER systems.

- Ensure stability of data and transfers through HIE systems.

- Maintaining the integrity of the data residing on systems and performing validations as well as decision making to complete or support business processing requirements.

- Participate in development planning sessions, weekly team status meetings, along with creating and updating appropriate project management documentation.

- Produce in-depth documentation of all operational integration development, policies, and procedures.

- Work with vendors to ensure needed coordination is in place between application owners and integration development and support teams who use the product.

- Analyze and manipulate incoming data for means of translations to a multitude of HIE supported applications.

- Azure and AWS Systems Management

- SFTP and Certificate/Key Pair Management

Interface Analyst
Scottsdale Health Partners (HIE) – Scottsdale, AZ | **February 2015 - July 2016**

- Using the Rhapsody interface tool to connect PPO's and Humana Ins providers connected to the Hospital network

- Maintain Mirth Servers and connections flowing through

- Working close with development as well as clients to plan integrations to fit into timeline and budget restrictions

- Linux server maintenance for all environments running Rhapsody

Onboarding Specialist
STChealth, LLC – AZ | **September 2012 - February 2015**

- Onboarding providers for state registries to conduct bi-directional interface exchange.

- Proficient in 2.3.1, 2.4, 2.5.1, and 2.7 HL7 messaging for both immunizations and Electronic Lab reporting (ELR).

- Familiar with ACIP recommendation schedule for immunization forecasting.

- SQL developer, Oracle 10, and 11g experience.

- Fluent in SQL query's, including updates and deletes.

- Tier 2 support, logging, and troubleshooting bug tickets.

- Consistent communication with clients and weekly help desk calls along with Meaningful use stage 2 providers status calls.

- Fully versed is the software development lifecycle.

Awards / Certifications / Patents / Languages

Certifications:

- Rhapsody Associate Certification
- Cisco CCENT Certification
- 2.5.1 and 2.7 HL7 certified
- PTCB certified pharmaceutical technician.
- A+ Hardware Certification.

Ashley McDonald

Education

Health Informatics and Health Information Technology Post-Graduate Certification   2015
Health Informatics and Health Information Technology, 3.8 G.P.A.
University of Texas, Austin, TX

Masters of Science – Digital Media   2003
Digital Media; 30-hrs Completed with 4.0 G.P.A.
Southern Methodist University, Dallas, TX

Bachelors of Science – Social Work   1997
Social Work – 4.0 G.P.A. in Major Course Work
University of Arkansas, Fayetteville, AR

Experience

Team Lead for Public Health Services   Jan. 2018 to Current
STChealth, LLC, Phoenix, AZ

Performs project management duties and oversee communications to ensure that project deliverables are successfully provided per the contract stipulations, and project stakeholders are pleased throughout the process

Provides leadership for the Public Health Services Team and oversight for an array of projects including:

Onboarding of provider interfaces for the purpose of establishing the successful transmission of HL7 messages through a state HIE and into the state immunization registry

Creation and implementation of product testing plans

Assistance with full product suite implementation

Development and delivery of complete training plans; including the development of   associated training materials, produced in an array various media formats.

Establishment of Learning Management Systems for clients

Public Health Consultant & Associate Public Health Consultant   June 2018 to Dec. 2018
STChealth, LLC, Phoenix, AZ

Facilitator for Training & Education Consortium
Created various formats of training materials for numerous applications in the STC product line including: IWeb, SMaRT AFIX, iQ, STC|U and VOMS
Provided product education to clients on-site, by webinar and through written communications

Assisted in product testing and provided suggestions for improvement to Product Owners

Provided project management and served as the project lead for several projects: overseeing the daily tasks, project expansion and contract finance details

Data Exchange Coordinator   Oct. 2015 to Dec. 2015
STChealth, LLC, Phoenix, AZ

Enhanced quality assurance by assessing CVX and CPT codes within provider immunization messages for the State of Rhode Island

Conducted HL7 message assessments and provided assistance to providers formatting HL7 messages to become 2.5.1 compliant

Prepared a gap analysis report comparing onboarding processes for immunization registries in various states

Project Manager   Jan. 2016 to June 2016
Baylor Scott & White Health

One of Three Project Managers representing the organization's high profile Digital Health & Innovations Office; Report directly to the Chief Digital Officer

Managed and maintained communication with stakeholders through reoccurring meetings & regular written status updates tracking milestones, resources, risks, budget & deliverables

Provided presentations to senior-level executives regarding current project details as well as innovative healthcare ideas and proposals

Oversaw the framework of project schedules in order to coordinate stakeholders, manage resources and provide deliverables in a timely manner

Assessed risks and created mitigation plans to manage the issues

Baylor Scott & White Projects Included:
Epic Rover Implementation – Rover is a nurse mobility application developed byEpic

Strategic Planning and Review of the Organization's Enterprise Mobility

Mobile App Developments for Surgeons & Surgery Staff and Cardio/Heart Hospital

Frisco Homes for Sale, LLC   Sept. 2003 to May 2015
Residential Real Estate Broker: Team Lead & Digital Marketing Specialist

Provided assessment of client needs and lead the team to provide positive outcomes

Coordinated marketing efforts for sales team through digital media & won a national digital marketing award from Realtor.com.

Awarded 5 office-based awards for sales, customer service and marketing

Douglas Michaelson

<u>Experience</u>

Director of Information Security – Chief Information Security Officer   January 2021 to Present
STChealth, LLC.

Directs end-to-end IT security operations and assists in scheduling, staffing, and budgeting. Improves communication channels by introducing and executing software applications to interact and negotiate with vendors. Streamlines outdated processes and identifies immediate cost savings opportunities. Reduces downtime and eliminates the risk of data loss.

- Implementation of GRC related programs and activities for systems such as HIPPA, NIST CSF, SOC, and FedRamp

- Guided and directed the migration of commercial Cloud to Govt. Environment Cloud and ensured compliance with the US Government's data protection and security regulations.

- Will work to continually improve our processes and toolsets, in both production and Test environments, for systems that are connecting the entire healthcare community and building a path to a healthier future for people all around the world.

IT Manager   2015 to 2021
Modern Industries.

Executive leader charged with providing strategic direction, implementation, support and management of all technology programs, initiatives and applications. Led the design, implementation and enhancement of technology solutions, as well as the definition and execution of technology strategies, roadmaps and short/long-range plans. Partnered with executive leadership on the planning of new projects and programs that align with business requirements and drove the continuous improvement of operations. Built, developed and led team of 5; managed $1.2M capital budget.

- Spearheaded the planning and implementation of standardized cyber security requirements that aligned with Cybersecurity Maturity Model Certification (CMMC) guidelines.

- Selected to serve on 401K, Audit Committees, assisting with ensuring compliance with AS9100C/ISO9001:2008, SSAE 16, SOC, CMMC, and NADCAP regulations; drove the improvement of processes and audit procedures to maintain certification.

Director of IT Services   2012 to 2015
Sun Valley Community Church

Recruited into role as the first IT team member, overseeing the development and ongoing management of the IT department. Designed, developed and maintained both live production and office environment integration. Increased POS distribution and business application integration.

- Introduced support structure to meet the expansion of user base to 225+ across 4 locations.

- Partnered with management and Board of Directors in the development of enterprise standards for service agreements, IT consolidation, surveillance, emergency management and performance goals.

- Planned and led large-scale hardware, software and operating system upgrade/migration projects; led cloud/Azure architecture and rollout of new ERP. Developed business process and refined documentation.

Awards / Certifications / Patents / Languages

Affiliations: Infragard, Sonoran Desert Security User Group,
Society for Information Management, Interface Phoenix Advisory Board

3.2. References

The Vendor should provide three (3) references for which each proposed key staff candidate has successfully demonstrated meeting the requirements of the RFP. The name of the person to be contacted, phone number, client name, address, brief description of work, and date (month and year) of employment should be given for each reference. These references should be able to attest to the candidate's specific qualifications. The reference given should be a person within a client's organization and not a co-worker or a contact within the Vendor's organization.

Vendors should use the format provided. Please repeat the rows and tables as necessary.

Table 19: Key Staff References

Key Personnel Reference Form						
Key Personnel Name:	Pamela Knight-Schwartz		**Proposed Role:**	Account Manager		
Reference 1						
Client Name:	West Virginia DHHR	**Client Address:**	One Davis Square, Suite 100 East, Charleston, West Virginia 25301			
Contact Name:	Tim Neely	**Contact Title:**	Director, Division of Information Services			
Contact Phone:	304-807-9511	**Contact E-mail:**	tim.b.neely@wv.gov			
Project Name: West Virginia Immunization Information System		**Start Date:**	2007	**End Date:**	2014	
Project Description: Maintenance, enhancements, and operations of WVIIS.						
Project Role and Responsibilities: Contract and relationship management.						
Reference 2						
Client Name:	Massachusetts DPH	**Client Address:**	250 Washington St, Boston, MA 02108			
Contact Name:	Scott Troppy	**Contact Title:**	Epidemiologist			
Contact Phone:	617-686-2542	**Contact E-mail:**	scott.troppy@mass.gov			
Project Name: Massachusetts Virtual Epidemiological Network (MAVEN)		**Start Date:**	2018	**End Date:**	2021	
Project Description: Maintenance, operations, and enhancements of EDSS.						
Project Role and Responsibilities: Contract and relationship management.						
Reference 3						
Client Name:	Washington DOH	**Client Address:**	111 Israel Road SE, Tumwater, WA 98501			
Contact Name:	Ky Decker	**Contact Title:**	Enterprise Business Architect			
Contact Phone:	360-292-8794	**Contact E-mail:**	Ky.decker@doh.wa.gov			
Project Name: WA DOH EDSS Implementation		**Start Date:**	2016	**End Date:**	2021	
Project Description: Implementation of new EDSS for WA DOH. Disease areas include TB, GCD, Hep, and Arbo. Maintenance, operations, and enhancements of EDSS.						
Project Role and Responsibilities: Contract and relationship management.						

Key Personnel Reference Form			
Key Personnel Name:	Michelle Brazel	**Proposed Role:**	Project Manager

Reference 1			
Client Name:	New York City DHMH	**Client Address:**	42-09 28th Street, Long Island City, NY 11101
Contact Name:	Adile Bekbay	**Contact Title:**	Assistant Commissioner
Contact Phone:	646-784-4619	**Contact E-mail:**	abekbay@health.nyc.gov

Project Name: NYC Electronic Disease Surveillance System	**Start Date:**	10/2014	**End Date:**	10/2017

Project Description: Implementation of EDSS in New York City

Project Role and Responsibilities: I was the business analyst who built their user interface from the ground up (as well as the other three bureaus in NYC). I also helped with requirements for their offline version of Maven. Finally, I managed customer success for them.

Reference 2			
Client Name:	New York City DHMH	**Client Address:**	42-09 28th Street, Long Island City, NY 11101
Contact Name:	Natasha McIntosh	**Contact Title:**	Surveillance System Administrator
Contact Phone:	347-396-2660	**Contact E-mail:**	nmcintosh@health.nyc.gov

Project Name: NYC Electronic Disease Surveillance System	**Start Date:**	10/2014	**End Date:**	10/2017

Project Description: Implementation of EDSS in New York City

Project Role and Responsibilities: I was the business analyst who built their user interface from the ground up (as well as the other three bureaus in NYC). I also helped with requirements for their offline version of Maven. Finally, I managed customer success for them.

Reference 3			
Client Name:	Texas DSHS	**Client Address:**	1100 W 49th Street, Austin, TX 78756
Contact Name:	Jennifer Vinyard	**Contact Title:**	Manager
Contact Phone:	512-776-3773	**Contact E-mail:**	Jennifer.Vinyard@dshs.texas.gov

Project Name: Healthcare Associated Infections System	**Start Date:**	2010	**End Date:**	2010

Project Description: Implementation of an HAI system for the State of Texas

Project Role and Responsibilities: I acted as the business analyst on this project and built their user interface from inception to completion (2010) and then helped them with Customer Success – again offering suggestions for improvements and solutions to their issues.

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Key Personnel Reference Form			
Key Personnel Name:	Hayleigh McCall	**Proposed Role:**	Business Lead

Reference 1

Client Name:	CDC	**Client Address:**	1600 Clifton Rd, Atlanta, GA 30333
Contact Name:	Deborah Gould (retired)	**Contact Title:**	Health Scientist
Contact Phone:		**Contact E-mail:**	dwgould2016@gmail.com

Project Name: CSTE Workshops		Start Date:	2017	End Date:	2020

Project Description: Planning for CSTE conference workshops.

Project Role and Responsibilities: Managed, planned, executed various CSTE workshops.

Reference 2

Client Name:	CDC	**Client Address:**	1600 Clifton Rd, Atlanta, GA 30333
Contact Name:	Amy Schnall	**Contact Title:**	Associate Service Fellow
Contact Phone:		**Contact E-mail:**	ghu5@cdc.gov

Project Name: CASPER Implementation		Start Date:	2016	End Date:	2017

Project Description: Implementation of Community Assessment for Public Health Emergency Response

Project Role and Responsibilities: Supported Hurricanes Irma, Maria and Harvey public health response.

Reference 3

Client Name:	Kahuina Consulting	**Client Address:**	40 Coniston Rd, Roslindale, MA 02131
Contact Name:	Charlie Ishikawa	**Contact Title:**	Public Health Consultant
Contact Phone:		**Contact E-mail:**	Charlie.ishikawa@kahuina.com

Project Name: CSTE Workshops		Start Date:	2017	End Date:	2020

Project Description: Planning for CSTE conference workshops.

Project Role and Responsibilities: Managed, planned, executed various CSTE workshops.

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Key Personnel Reference Form			
Key Personnel Name:	Casey Murray	**Proposed Role:**	Technical Lead

Reference 1			
Client Name:	CDC	**Client Address:**	1600 Clifton Rd, Atlanta, GA 30333
Contact Name:	Maureen Diaz	**Contact Title:**	Microbiologist
Contact Phone:		**Contact E-mail:**	Iqs5@cdc.gov

Project Name: TAC Data Management System	**Start Date:**	05/2021	**End Date:**	12/2021

Project Description: Processing of TaqMan Array Cards (TAC) designed and implemented by the Pneumonia Response and Surveillance Laboratory (PRSL) for large-scale respiratory disease surveillance programs

Project Role and Responsibilities: Scrum agile project completed 2 sprints early. Application design from the ground up, stack selection, infrastructure management, oversight of development team, design and implementation of complex processing algorithm, design and implementation of regression, 508 compliance and performance testing, SaaS training, client-facing retrospectives.

Reference 2			
Client Name:	ScioInformatics LLC	**Client Address:**	Atlanta, GA
Contact Name:	Tim Morris	**Contact Title:**	Business Analyst / SME
Contact Phone:	404-386-1084	**Contact E-mail:**	Tim.morris@scioinformatics.com

Project Name: TAC Data Management System	**Start Date:**	05/2021	**End Date:**	12/2021

Project Description: Processing of TaqMan Array Cards (TAC) designed and implemented by the Pneumonia Response and Surveillance Laboratory (PRSL) for large-scale respiratory disease surveillance programs.

Project Role and Responsibilities: Scrum agile project completed 2 sprints early. Application design from the ground up, stack selection, infrastructure management, oversight of development team, design and implementation of complex processing algorithm, design and implementation of regression, 508 compliance and performance testing, SaaS training, client-facing retrospectives.

Reference 3			
Client Name:	Nevada DOH - DPBH	**Client Address:**	102 E Haskell St, Winnemucca, NV 89445
Contact Name:	Theron Huntamer	**Contact Title:**	Epidemiologist
Contact Phone:	775-846-7371	**Contact E-mail:**	thuntamer@health.nv.gov

Project Name: EpiTrax - Migration from NBS	**Start Date:**	08/2021	**End Date:**	Present

Project Description: Support Nevada in the migration from NBS as disease management and surveillance software, to the EpiTrax platform.

Project Role and Responsibilities: Infrastructure design and maintenance, implementation of secure authentication with MFA, custom ETL development, delivery of an environment for internal training and disease-specific form development aligned to state needs.

Key Personnel Reference Form			
Key Personnel Name: Doug Hamaker		**Proposed Role:** Implementation Manager	
Reference 1			
Client Name: Oklahoma DOH	**Client Address:**	123 Robert S Kerr Ave, Oklahoma City, OK 73102	
Contact Name: Bill Kerr	**Contact Title:**	Chief Technology Officer	
Contact Phone: 405-323-5727	**Contact E-mail:**	Bill.Kerr@omes.ok.gov	
Project Name: Oklahoma State Department of Health	**Start Date:** 12/2020	**End Date:**	Present
Project Description: OKEDSS Base System Software as a Service (SaaS)			
Project Role and Responsibilities: Surveillance Subject Matter Expert			
Reference 2			
Client Name: Nebraska HHS	**Client Address:**	301 Centennial Mall S, Lincoln, NE 68508	
Contact Name: Robin Williams	**Contact Title:**	Epidemiology Surveillance Coordinator	
Contact Phone: 402-471-0935	**Contact E-mail:**	Robin.M.Williams@nebraska.gov	
Project Name: Nebraska Department of Health and Human Services	**Start Date:** 10/2018	**End Date:**	Present
Project Description: NEDSS Base System Software as a Service (SaaS)			
Project Role and Responsibilities: Surveillance Subject Matter Expert			
Reference 3			
Client Name: West Virginia DHHR	**Client Address:**	350 Capitol St, Charleston, WV 25301	
Contact Name: Mike Morris	**Contact Title:**	Director OMIS Operations	
Contact Phone: 304-356-4129	**Contact E-mail:**	Michael.J.Morris@wv.gov	
Project Name: West Virginia Department of Health and Human Resources	**Start Date:** 03/2018	**End Date:**	Present
Project Description: WVEDSS Base System Software as a Service (SaaS)			
Project Role and Responsibilities: Surveillance Subject Matter Expert			

Key Personnel Reference Form						
Key Personnel Name:	Nick Harrar			**Proposed Role:**	QA Manager	
Reference 1						
Client Name:	AZ Department Health	**Client Address:**	150 N 18th Ave, Phoenix, AZ 85007			
Contact Name:	Cesar Pacheco	**Contact Title:**	Data Analyst			
Contact Phone:	9283668426	**Contact E-mail:**	N/A			
Project Name: Immslink Integration			**Start Date:**	09/2019	**End Date:**	11/2021
Project Description: Integration between pharmacy systems to state IIS registries						
Project Role and Responsibilities: Testing, validating and technical onboarding of pharmacies to state IIS registries						
Reference 2						
Client Name:	Front Runner	**Client Address:**	36 Cordage Park Circle, Suite 302, Plymouth, MA 02360			
Contact Name:	Monica Garcia	**Contact Title:**	Onboarding Specialist			
Contact Phone:	6232299409	**Contact E-mail:**	N/A			
Project Name: Immslink Integration			**Start Date:**	09/2019	**End Date:**	11/2021
Project Description: Integration between pharmacy systems to state IIS registries						
Project Role and Responsibilities: Testing, validating and technical onboarding of pharmacies to state IIS registries						
Reference 3						
Client Name:	CA HIE	**Client Address:**	125 Creekdale Rd, Walnut Creek, CA 94595			
Contact Name:	Courtney Moss	**Contact Title:**	Implantation Supervisor			
Contact Phone:	9518523725	**Contact E-mail:**	N/A			
Project Name: Immslink Integration			**Start Date:**	01/2019	**End Date:**	09/2020
Project Description: Integration between pharmacy systems to state IIS registries						
Project Role and Responsibilities: Testing, validating and technical onboarding of pharmacies to state IIS						

ATTACHMENT E: INITIAL WORK PLAN

Instructions: The Vendor should provide an Initial Work Plan and Work Breakdown Structure (WBS) by project phase and task group. Each task group is defined in *Section 4.5: Project Task, Payment Milestones, and Deliverables* of this RFP.

This Work Plan and Work Breakdown Structure (WBS) should show all task details with responsibilities, timelines, durations, milestone dates, deliverable dates, and Vendor personnel hours by deliverables for each project phase, State personnel hours by phase deliverable, and all critical dependencies for the project's milestones and deliverables. The Initial Work Plan should be provided as an attachment to the Vendor's Technical Proposal and tabbed as such in the submission. The Vendor should also provide an electronic version of the Microsoft Project® version in the Vendor's electronic submission of the Technical Proposal. At a

minimum, the Vendor's proposed Work Plan should include the following:

- Detailed tasks and timelines, outlining the major project phases planned by the Vendor. These should include, at a minimum, the timeline and tasks associated with **full deployment of functionality**

- The WBS

- The project schedule for all project deliverables and milestones

- Identification of resources assigned the responsibility for each deliverable within the WBS to the level at which control will be exercised

- Identification of deliverables that require a more prompt State acceptance than described in the RFP, including the proposed acceptance period for the deliverable

Response:

Solution Overview
Exhibit-1 presents InductiveHealth's proposed West Virginia Enterprise Surveillance System (ESS) Program based on an existing, in use solutions including modifications to meet specific requirements as defined in the RFP. Responses here and in Attachment I, Implementation

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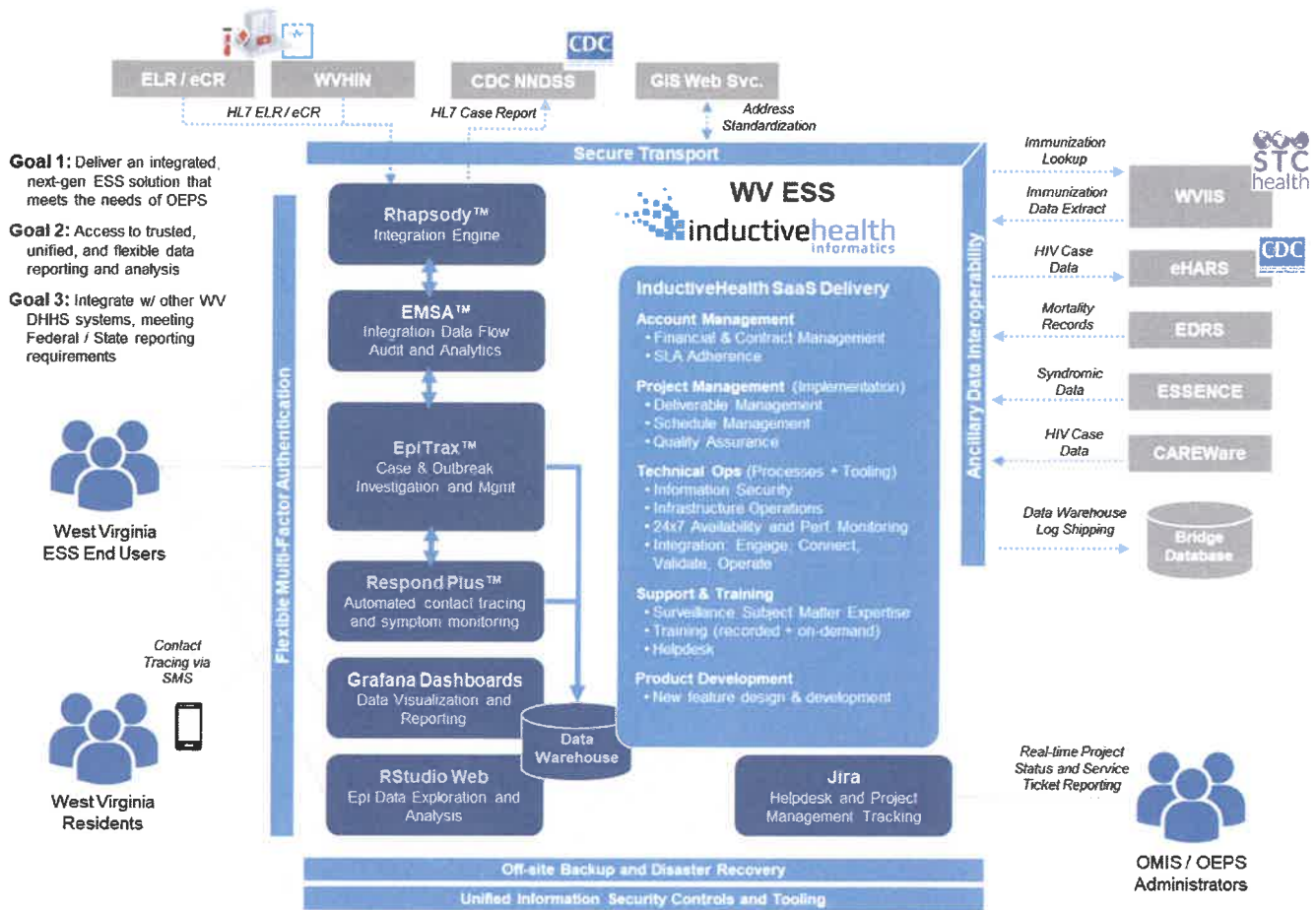
Exhibit-1: Full featured enterprise surveillance system (ESS) solution.

Building on the solution elements presented in **Exhibit-1** and to demonstrate completeness of the InductiveHealth solution, **Exhibit-2** maps each solution element to the business and technical specifications presented Section 4.4 Detailed Specifications of the request for proposal (RFP).

Business and Technical Specifications

Solution Elements	1. Contact Tracing	2. Contact and Case Integration	3. Outbreak Management	4. Reporting and Analytics	5. Data sources, delivery, & display	6. Data Quality	7. Infrastructure	8. Security Management	9. Project Management	10. Testing	11. Training	12. Operations	13. Solution Backup, Disaster Recovery, & Failover
Rhapsody™ *Integration Engine*		✓			✓	✓	✓	✓	✓	✓		✓	✓
EMSA™ *Integration Data Flow Audit and Analytics*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EpiTrax™ *Case and Outbreak Investigation and Management*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Respond Plus™ *Contact tracing and symptom monitoring*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Grafana Dashboards *Data Visualization and reporting*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
RStudio Web *Epi data Exploration and Analysis*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Datawarehouse *Integrated data sets*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
JIRA *Helpdesk and Project Management Tracking*								✓	✓	✓	✓	✓	✓
Flexible multi-factor authentication *Secure access for end users*	✓	✓		✓	✓			✓	✓	✓	✓	✓	✓
Secure Transport *Secure receipt and management of data in and out of system boundary*						✓		✓	✓	✓		✓	✓
Ancillary Data Interoperability *Integration with other health information systems*					✓	✓	✓	✓	✓	✓		✓	✓
Off-site Backup and Disaster Recovery *Geo-redundant DR of virtual machines and databases*								✓	✓	✓	✓	✓	✓
Unified Information Security Control and Tooling *Federal Information Security Management Act (FISMA) moderate security standards and controls*							✓	✓	✓	✓	✓	✓	✓

Exhibit-2: Solution element mapping to business and technical specifications.

Exhibit-3 provides DHHR with a proposed release schedule for each solution elements which is detailed further in the **Project Schedule** section of this document.

Solution Element	Solution Overview	Proposed Release Plan
Rhapsody™	Data integration engine currently used by DHHR for electronic laboratory reporting (ELR), electronic Case Reporting (eCR), and CDC NNDSS Modernization Initiative (NMI) Messaging Mapping Guides.	Go-Live (Release 1)
EMSA™	Electronic Messaging Staging Area (EMSA) provides a secure web portal for the management of ELR and eCR into EpiTrax™ including	Go-Live (Release 1)

Solution Element	Solution Overview	Proposed Release Plan
	patient matching, test matching, and validation of messages.	
EpiTrax™	Electronic disease surveillance system (EDSS) for the investigation and surveillance of West Virginia reportable diseases. EpiTrax™ includes support for endemic contact tracing for reportable diseases such as sexually transmitted diseases and outbreak management	Go-Live (Release 1)
Respond Plus™	Contact tracing and monitoring for large scale outbreaks, epidemics, and pandemics including SMS text messaging and symptom monitoring through web surveys.	Additional Release (Release 2)*
Grafana Dashboards	Data analytics to monitor data integration chain of custody, system performance, and other dashboards to drive public health action.	Additional Release (Release 2)
RStudio Web	RStudio environment delivered over the web to conduct data analysis, statistics, and geospatial analysis against integrated public health data sets.	Additional Release (Release 2)
Datawarehouse	Integrated database across ESS solutions providing a single source of information for DHHR to conduct analysis.	Additional Release (Release 2)
Jira	Web portal to submit service requests and manage change requests.	Go-Live (Release 1)
Flexible multi-factor authentication	Multi-factor authentication (MFA) solution supported by soft tokens (SMS, phone, and smartphone push).	Go-Live (Release 1)
Secure Transport	Secure file transport (SFT) end points to support the secure transmission of data to from and from the InductiveHealth private cloud.	Go-Live (Release 1)
Ancillary Data Interoperability	Data integrations with ancillary health information systems.	Go-Live (Release 1)
Off-site Backup and Disaster Recovery	Redundant data storage at the virtual machine and database level across geographic areas.	Go-Live (Release 1)
Unified Information Security Control and Tooling	Management of ESS solution using Federal Information Security Management Act (FISMA) moderate security standards and controls including ongoing independent verification and validation (IV&V).	Go-Live (Release 1)
Based on discussion with DHHR on COVID-19 pandemic needs.		

Exhibit-3: Full featured enterprise surveillance system (ESS) solution.

High Level Schedule of Events

Exhibit-4 summarizes the major milestones across the life of the program with emphasis on Year 1 of the program focused on the initial Go-Live (Release 1) within nine (9) months of contract kick-off and additional release (Release 2) eleven (11) months after contract kick-off.
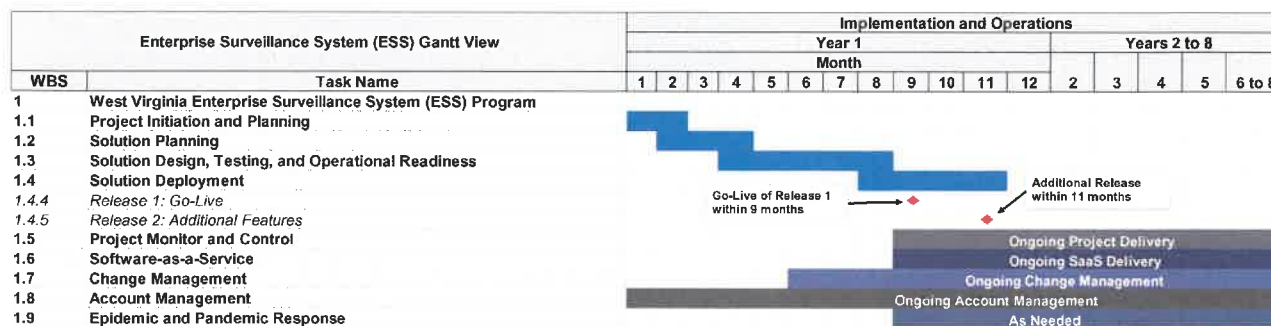
Exhibit-4: High Level Gantt. Initial deployment and configuration of ESS within 9 months of contract kick-off.

Work Breakdown Structure (WBS) Overview

Exhibit-5 provides an overview of our Work Breakdown Structure (WBS) based on 1) the deliverables

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identified for the Implementation phase in **Appendix 2: Deliverables and Milestones Dictionary** of the Request for Proposal (RFP), 2) on-going operational delivery of software-as-service (SaaS) solutions across the life of the contract, and 3) activities to support outbreak, epidemic and pandemic response as needed.
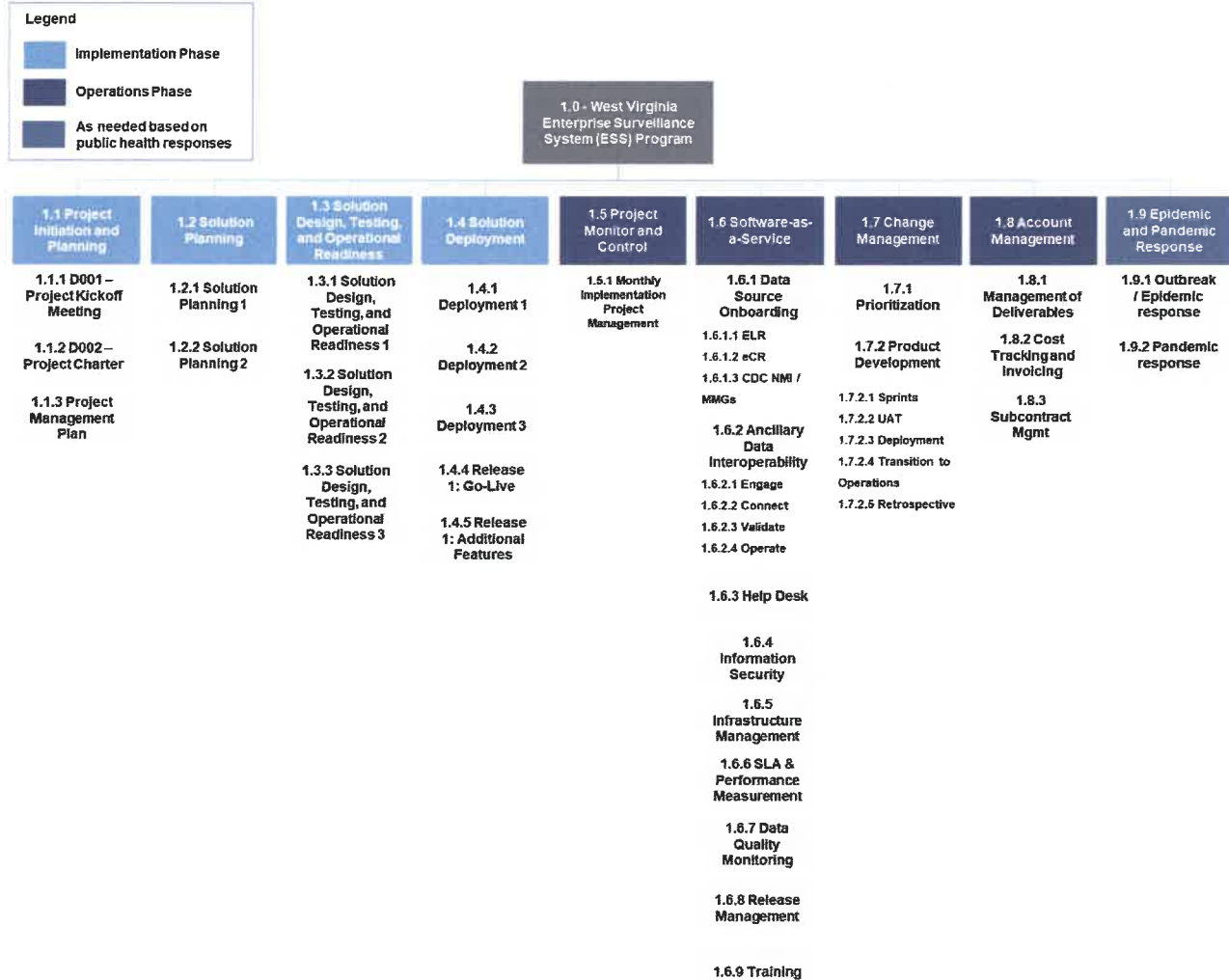
Exhibit-5: WBS Overview. Organization of solution delivery across life of program..

Project Schedule

Exhibit-6 presents our proposed project schedule based on the **Work Break Down Structure (WBS)** presented above including timeline, duration, and deliverables and tasks where prompt attention is needed by DHHR.

WBS	Deliverable, Milestones, and Tasks	Task Group	Responsible Team	Prompt State Attention	Duration (Business Days)	Start Date	End Date	Month (End Date)
				Year 1				
1	West Virginia Enterprise Surveillance System (ESS) Program				364	4/1/22	3/31/23	March
1.1	Project Initiation and Planning	1			364	4/1/22	3/31/23	March
1.1.1	D001 – Project Kickoff Meeting	1		Yes	12	4/1/22	4/18/22	April
1.1.1.1	Deliverable development	1	Implementation		0	4/1/22	3/31/22	March

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WBS	Deliverable, Milestones, and Tasks	Task Group	Responsible Team	Prompt State Attention	Duration (Business Days)	Start Date	End Date	Month (End Date)
			Team					
1.1.1.2	Deliverable submission to DHHR	1	Implementation Team		1	4/4/22	4/4/22	April
1.1.1.3	Deliverable decision by DHHR	1	DHHR		10	4/5/22	4/18/22	April
1.1.2	**D002 – Project Charter**	**1**			**21**	**4/5/22**	**5/3/22**	**May**
1.1.2.1	Deliverable development	1	Implementation Team		10	4/5/22	4/18/22	April
1.1.2.2	Deliverable submission to DHHR	1	Implementation Team		1	4/19/22	4/19/22	April
1.1.2.3	Deliverable decision by DHHR	1	DHHR		10	4/20/22	5/3/22	May
1.1.3	**Project Management Plan (inclusive of)**	**1**			**18**	**4/20/22**	**6/1/22**	**June**
1.1.3.1	D003 – Change Management Plan	1	Implementation Team		0	4/20/22	4/20/22	April
1.1.3.2	D004 – Communication Management Plan	1	Implementation Team	Yes	0	4/20/22	4/20/22	April
1.1.3.3	D005 – Cost Management Plan	1	Implementation Team		0	4/20/22	4/20/22	April
1.1.3.4	D006 – Documentation Management Plan	1	Implementation Team		0	4/20/22	4/20/22	April
1.1.3.5	D007 – Project Work Plan	1	Implementation Team		0	4/20/22	4/20/22	April
1.1.3.6	D008 – Quality Management Plan	1	Implementation Team		0	4/20/22	4/20/22	April
1.1.3.7	D009 – Risk and Issue Management Plan	1	Implementation Team		0	4/20/22	4/20/22	April
1.1.3.8	D010 – Schedule Management Plan	1	Implementation Team		0	4/20/22	4/20/22	April
1.1.3.9	D011 – Scope Management Plan	1	Implementation Team		0	4/20/22	4/20/22	April
1.1.3.10	D012 v Stakeholder Management Plan and Stakeholder Analysis	1	Implementation Team	Yes	0	4/20/22	4/20/22	April
1.1.3.11	D013 – Staffing Management Plan	1	Implementation Team		0	4/20/22	4/20/22	April
1.1.3.12	Deliverable development	1	Implementation Team		20	4/20/22	5/17/22	May
1.1.3.13	Deliverable submission to DHHR	1	Implementation Team		1	5/18/22	5/18/22	May
1.1.3.14	Deliverable decision by DHHR	1	DHHR		10	5/19/22	6/1/22	June
1.1.4	Payment Milestone 1: Project Initiation Complete	1	Account Manager		0	6/1/22	6/1/22	June
1.2	**Solution Planning**	**2**			**52**	**4/4/22**	**8/3/22**	**August**
1.2.1	**Solution Planning 1**	**2**			**52**	**4/4/22**	**6/14/22**	**June**
1.2.1.1	**D014 – Data Management Plan**	**2**			**16**	**4/4/22**	**4/25/22**	**April**
1.2.1.1.1	Deliverable development	2	Implementation Team		5	4/4/22	4/10/22	April
1.2.1.1.2	Deliverable submission to DHHR	2	Implementation Team		1	4/11/22	4/11/22	April
1.2.1.1.3	Deliverable decision by DHHR	2	DHHR		10	4/12/22	4/25/22	April
1.2.1.2	**D015 – Security, Privacy, and Confidentiality Plan**	**2**			**21**	**4/5/22**	**4/26/22**	**April**
1.2.1.2.1	Deliverable development	2	Implementation Team / Technology Team		5	4/5/22	4/11/22	April
1.2.1.2.2	Deliverable submission to DHHR	2	Implementation Team / Technology Team		0	4/12/22	4/12/22	April
1.2.1.2.3	Deliverable decision by DHHR	2	DHHR		10	4/13/22	4/26/22	April
1.2.1.3	**D016 – Incident Management**	**2**			**21**	**4/28/22**	**5/19/22**	**May**

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WBS	Deliverable, Milestones, and Tasks	Task Group	Responsible Team	Prompt State Attention	Duration (Business Days)	Start Date	End Date	Month (End Date)
	Plan							
1.2.1.3.1	Deliverable development	2	Implementation Team / Technology		5	4/28/22	5/4/22	May
1.2.1.3.2	Deliverable submission to DHHR	2	Implementation Team / Technology		1	5/5/22	5/5/22	May
1.2.1.3.3	Deliverable decision by DHHR	2	DHHR		10	5/6/22	5/19/22	May
1.2.1.4	**D017 – Privacy Impact Analysis**	**2**			**20**	**5/6/22**	**5/26/22**	**May**
1.2.1.4.1	Deliverable development	2	Implementation Team / Technology		5	5/6/22	5/12/22	May
1.2.1.4.2	Deliverable submission to DHHR	2	Implementation Team / Technology		1	5/13/22	5/13/22	May
1.2.1.4.3	Deliverable decision by DHHR	2	DHHR		10	5/14/22	5/26/22	May
1.2.1.5	**D018 – Requirements Gap Analysis Document / User Stories**	**2**		Yes	**21**	**4/12/22**	**5/3/22**	**May**
1.2.1.5.1	Deliverable development	2	Implementation Team / Product Development & Operations		5	4/12/22	4/18/22	April
1.2.1.5.2	Deliverable submission to DHHR	2	Implementation Team / Product Development & Operations		0	4/19/22	4/19/22	April
1.2.1.5.3	Deliverable decision by DHHR	2	DHHR		10	4/20/22	5/3/22	May
1.2.1.6	**D019 – Requirements Management Plan**	**2**			**16**	**5/16/22**	**6/6/22**	**June**
1.2.1.6.1	Deliverable development	2	Implementation Team / Product Development & Operations		5	5/16/22	5/22/22	May
1.2.1.6.2	Deliverable submission to DHHR	2	Implementation Team / Product Development & Operations		1	5/23/22	5/23/22	May
1.2.1.6.3	Deliverable decision by DHHR	2	DHHR		10	5/24/22	6/6/22	June
1.2.1.7	**D020 – Training Management Plan**	**2**			**16**	**5/24/22**	**6/14/22**	**June**
1.2.1.7.1	Deliverable development	2	Implementation Team / Subject Matter Experts		5	5/24/22	5/30/22	May
1.2.1.7.2	Deliverable submission to DHHR	2	Implementation Team / Subject Matter Experts		1	5/31/22	5/31/22	May
1.2.1.7.3	Deliverable decision by DHHR	2	DHHR		10	6/1/22	6/14/22	June
1.2.1.8	Payment Milestone 2: Solution Planning 1	2	Account Manager		1	6/14/22	6/14/22	June
1.2.2	**Solution Planning 2**	**2**			**46**	**6/1/22**	**8/3/22**	**August**
1.2.2.1	**D021 – Master Test Plan (Testing Management Plan)**	**2**			**16**	**6/1/22**	**6/22/22**	**June**
1.2.2.1.1	Deliverable development	2	Implementation Team		5	6/1/22	6/7/22	June
1.2.2.1.2	Deliverable submission to DHHR	2	Implementation Team		1	6/8/22	6/8/22	June
1.2.2.1.3	Deliverable decision by DHHR	2	DHHR		10	6/9/22	6/22/22	June
1.2.2.2	**D022 – Requirements Specification Document**	**2**			**21**	**6/1/22**	**6/22/22**	**June**
1.2.2.2.1	Deliverable development	2	Implementation Team		5	6/1/22	6/7/22	June

WBS	Deliverable, Milestones, and Tasks	Task Group	Responsible Team	Prompt State Attention	Duration (Business Days)	Start Date	End Date	Month (End Date)
1.2.2.2.2	Deliverable submission to DHHR	2	Implementation Team		1	6/8/22	6/8/22	June
1.2.2.2.3	Deliverable decision by DHHR	2	DHHR		10	6/9/22	6/22/22	June
1.2.2.3	**D023 – Requirements Traceability Matrix**	**2**		Yes	**21**	**6/9/22**	**6/30/22**	**June**
1.2.2.3.1	Deliverable development	2	Implementation Team		5	6/9/22	6/15/22	June
1.2.2.3.2	Deliverable submission to DHHR	2	Implementation Team		1	6/16/22	6/16/22	June
1.2.2.3.3	Deliverable decision by DHHR	2	DHHR		10	6/17/22	6/30/22	June
1.2.2.4	**D024 – Security Plan**	**2**			**21**	**6/17/22**	**7/8/22**	**July**
1.2.2.4.1	Deliverable development	2	Implementation Team / Technology		5	6/17/22	6/23/22	June
1.2.2.4.2	Deliverable submission to DHHR	2	Implementation Team / Technology		1	6/24/22	6/24/22	June
1.2.2.4.3	Deliverable decision by DHHR	2	DHHR		10	6/25/22	7/8/22	July
1.2.2.5	**D025 – System Architecture Plan**	**2**			**21**	**6/27/22**	**7/18/22**	**July**
1.2.2.5.1	Deliverable development	2	Implementation Team / Technology		5	6/27/22	7/3/22	July
1.2.2.5.2	Deliverable submission to DHHR	2	Implementation Team / Technology		1	7/4/22	7/4/22	July
1.2.2.5.3	Deliverable decision by DHHR	2	DHHR		10	7/5/22	7/18/22	July
1.2.2.6	**D026 – System Backup and Records Retention Plan**	**2**			**21**	**7/5/22**	**7/26/22**	**July**
1.2.2.6.1	Deliverable development	2	Implementation Team / Technology		5	7/5/22	7/11/22	July
1.2.2.6.2	Deliverable submission to DHHR	2	Implementation Team / Technology		1	7/11/22	7/11/22	July
1.2.2.6.3	Deliverable decision by DHHR	2	DHHR		10	7/12/22	7/26/22	July
1.2.2.7	**D027 – System Requirement Document/Backlog User Stories or Use Cases**	**2**			**21**	**7/13/22**	**8/3/22**	**August**
1.2.2.7.1	Deliverable development	2	Implementation Team / Technology		5	7/13/22	7/19/22	July
1.2.2.7.2	Deliverable submission to DHHR	2	Implementation Team / Technology		1	7/19/22	7/19/22	July
1.2.2.7.3	Deliverable decision by DHHR	2	DHHR		10	7/20/22	8/3/22	August
1.2.2.8	Payment Milestone 3: Solution Planning 2	2	Account Manager		1	8/3/22	8/3/22	August
1.3	**Solution Design, Testing, and Operational Readiness**	**3**			**169**	**7/21/22**	**1/6/23**	**January**
1.3.1	**Solution Design, Testing, and Operational Readiness 1**	**3**			**69**	**7/21/22**	**9/28/22**	**September**
1.3.1.1	**D028 – Business Process Models (BPMs)**	**3**			**21**	**7/21/22**	**8/11/22**	**August**
1.3.1.1.1	Deliverable development	3	Implementation Team / Subject Matter Experts		5	7/21/22	7/27/22	July
1.3.1.1.2	Deliverable submission to DHHR	3	Implementation Team / Subject Matter Experts		1	7/28/22	7/28/22	July
1.3.1.1.3	Deliverable decision by DHHR	3	DHHR		10	7/29/22	8/11/22	August
1.3.1.2	**D029 – Capacity Plan**	**3**			**21**	**7/21/22**	**8/11/22**	**August**

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WBS	Deliverable, Milestones, and Tasks	Task Group	Responsible Team	Prompt State Attention	Duration (Business Days)	Start Date	End Date	Month (End Date)
1.3.1.2.1	Deliverable development	3	Implementation Team / Technology		5	7/21/22	7/27/22	July
1.3.1.2.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	7/28/22	7/28/22	July
1.3.1.2.3	Deliverable decision by DHHR	3	DHHR		10	7/29/22	8/11/22	August
1.3.1.3	**D030 – Configuration Management Plan**	**3**			**21**	**7/29/22**	**8/19/22**	**August**
1.3.1.3.1	Deliverable development	3	Implementation Team / Technology		5	7/29/22	8/4/22	August
1.3.1.3.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	8/5/22	8/5/22	August
1.3.1.3.3	Deliverable decision by DHHR	3	DHHR		10	8/6/22	8/19/22	August
1.3.1.4	**D031 – Data Conversion Plan**	**3**			**21**	**7/29/22**	**8/19/22**	**August**
1.3.1.4.1	Deliverable development	3	Implementation Team / Technology		5	7/29/22	8/4/22	August
1.3.1.4.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	8/5/22	8/5/22	August
1.3.1.4.3	Deliverable decision by DHHR	3	DHHR		10	8/6/22	8/19/22	August
1.3.1.5	**D032 – Data Conversion Test Cases**	**3**			**22**	**8/8/22**	**8/30/22**	**August**
1.3.1.5.1	Deliverable development	3	Implementation Team / Technology		5	8/8/22	8/14/22	August
1.3.1.5.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	8/15/22	8/15/22	August
1.3.1.5.3	Deliverable decision by DHHR	3	DHHR		10	8/16/22	8/30/22	August
1.3.1.6	**D033 – Data Conversion Test Results**	**3**			**22**	**9/6/22**	**9/28/22**	**September**
1.3.1.6.1	Deliverable development	3	Implementation Team / Technology		5	9/6/22	9/12/22	September
1.3.1.6.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	9/13/22	9/13/22	September
1.3.1.6.3	Deliverable decision by DHHR	3	DHHR		10	9/14/22	9/28/22	September
1.3.1.7	**D034 – Database Design Document and Data Models**	**3**			**21**	**8/5/22**	**8/26/22**	**August**
1.3.1.7.1	Deliverable development	3	Implementation Team / Technology		5	8/5/22	8/11/22	August
1.3.1.7.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	8/12/22	8/12/22	August
1.3.1.7.3	Deliverable decision by DHHR	3	DHHR		10	8/13/22	8/26/22	August
1.3.1.8	**D035 – Detailed System Design (DSD) Document**	**3**			**21**	**8/5/22**	**8/26/22**	**August**
1.3.1.8.1	Deliverable development	3	Implementation Team / Technology		5	8/5/22	8/11/22	August
1.3.1.8.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	8/12/22	8/12/22	August
1.3.1.8.3	Deliverable decision by DHHR	3	DHHR		10	8/13/22	8/26/22	August
1.3.1.9	**D036 – Disaster Recovery and**	**3**			**21**	**7/29/22**	**8/19/22**	**August**

WBS	Deliverable, Milestones, and Tasks	Task Group	Responsible Team	Prompt State Attention	Duration (Business Days)	Start Date	End Date	Month (End Date)
	Business Continuity Plan							
1.3.1.9.1	Deliverable development	3	Implementation Team / Technology		5	7/29/22	8/4/22	August
1.3.1.9.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	8/5/22	8/5/22	August
1.3.1.9.3	Deliverable decision by DHHR	3	DHHR		10	8/6/22	8/19/22	August
1.3.1.10	**D037 – Interface Inventory**	**3**			**21**	**7/29/22**	**8/19/22**	**August**
1.3.1.10.1	Deliverable development	3	Implementation Team / Technology		5	7/29/22	8/4/22	August
1.3.1.10.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	8/5/22	8/5/22	August
1.3.1.10.3	Deliverable decision by DHHR	3	DHHR		10	8/6/22	8/19/22	August
1.3.1.11	Payment Milestone 4: Solution Design, Testing, and Operational Readiness 1	3	Account Manager		1	9/28/22	9/28/22	September
1.3.2	**Solution Design, Testing, and Operational Readiness 2**	**3**			**60**	**8/8/22**	**10/7/22**	**October**
1.3.2.1	**D038 – Load and Stress Test Cases**	**3**			**22**	**8/8/22**	**8/30/22**	**August**
1.3.2.1.1	Deliverable development	3	Implementation Team / Technology		5	8/8/22	8/14/22	August
1.3.2.1.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	8/15/22	8/15/22	August
1.3.2.1.3	Deliverable decision by DHHR	3	DHHR		10	8/16/22	8/30/22	August
1.3.2.2	**D039 – Load and Stress Test Results**	**3**			**22**	**8/23/22**	**9/14/22**	**September**
1.3.2.2.1	Deliverable development	3	Implementation Team / Technology		5	8/23/22	8/29/22	August
1.3.2.2.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	8/30/22	8/30/22	August
1.3.2.2.3	Deliverable decision by DHHR	3	DHHR		10	8/31/22	9/14/22	September
1.3.2.3	**D040 – Operational Readiness Plan**	**3**			**22**	**8/31/22**	**9/22/22**	**September**
1.3.2.3.1	Deliverable development	3	Implementation Team / Technology		5	8/31/22	9/6/22	September
1.3.2.3.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	9/7/22	9/7/22	September
1.3.2.3.3	Deliverable decision by DHHR	3	DHHR		10	9/8/22	9/22/22	September
1.3.2.4	**D041 – Operational Readiness Test Scripts**	**3**			**22**	**9/8/22**	**9/30/22**	**September**
1.3.2.4.1	Deliverable development	3	Implementation Team / Technology		5	9/8/22	9/14/22	September
1.3.2.4.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	9/15/22	9/15/22	September
1.3.2.4.3	Deliverable decision by DHHR	3	DHHR		10	9/16/22	9/30/22	September
1.3.2.5	**D042 – Operational Readiness Test Results**	**3**			**21**	**9/16/22**	**10/7/22**	**October**
1.3.2.5.1	Deliverable development	3	Implementation Team /		5	9/16/22	9/22/22	September

WBS	Deliverable, Milestones, and Tasks	Task Group	Responsible Team	Prompt State Attention	Duration (Business Days)	Start Date	End Date	Month (End Date)
			Technology					
1.3.2.5.2	Deliverable submission to DHHR	3	Implementation Team / Technology		1	9/23/22	9/23/22	September
1.3.2.5.3	Deliverable decision by DHHR	3	DHHR		10	9/24/22	10/7/22	October
1.3.2.6	Payment Milestone 5: Solution Design, Testing, and Operational Readiness 2	3	Account Manager		0	10/7/22	10/7/22	October
1.3.3	**Solution Design, Testing, and Operational Readiness 3**	**3**			**102**	**9/26/22**	**1/6/23**	**January**
1.3.3.1	**D043 – Regression Test Cases**	**3**			**22**	**9/26/22**	**10/18/22**	**October**
1.3.3.1.1	Deliverable development	3	Implementation Team		5	9/26/22	10/2/22	October
1.3.3.1.2	Deliverable submission to DHHR	3	Implementation Team		1	10/3/22	10/3/22	October
1.3.3.1.3	Deliverable decision by DHHR	3	DHHR		10	10/4/22	10/18/22	October
1.3.3.2	**D044 – Regression Test Results**	**3**			**22**	**10/18/22**	**11/9/22**	**November**
1.3.3.2.1	Deliverable development	3	Implementation Team		5	10/18/22	10/24/22	October
1.3.3.2.2	Deliverable submission to DHHR	3	Implementation Team		1	10/25/22	10/25/22	October
1.3.3.2.3	Deliverable decision by DHHR	3	DHHR		10	10/26/22	11/9/22	November
1.3.3.3	**D045 – Reports and Forms Inventory**	**3**			**22**	**8/8/22**	**8/30/22**	**August**
1.3.3.3.1	Deliverable development	3	Implementation Team / Subject Matter Experts		5	8/8/22	8/14/22	August
1.3.3.3.2	Deliverable submission to DHHR	3	Implementation Team / Subject Matter Experts		1	8/15/22	8/15/22	August
1.3.3.3.3	Deliverable decision by DHHR	3	DHHR		10	8/16/22	8/30/22	August
1.3.3.4	**D046 – System Integration Plan**	**3**			**22**	**10/26/22**	**11/17/22**	**November**
1.3.3.4.1	Deliverable development	3	Implementation Team		5	10/26/22	11/1/22	November
1.3.3.4.2	Deliverable submission to DHHR	3	Implementation Team		1	11/2/22	11/2/22	November
1.3.3.4.3	Deliverable decision by DHHR	3	DHHR		10	11/3/22	11/17/22	November
1.3.3.5	**D047 – System Integration Test Cases**	**3**			**22**	**11/3/22**	**11/25/22**	**November**
1.3.3.5.1	Deliverable development	3	Implementation Team		5	11/3/22	11/9/22	November
1.3.3.5.2	Deliverable submission to DHHR	3	Implementation Team		1	11/10/22	11/10/22	November
1.3.3.5.3	Deliverable decision by DHHR	3	DHHR		10	11/11/22	11/25/22	November
1.3.3.6	**D048 – System Integration Test Results**	**3**			**21**	**11/25/22**	**12/16/22**	**December**
1.3.3.6.1	Deliverable development	3	Implementation Team		5	11/25/22	12/1/22	December
1.3.3.6.2	Deliverable submission to DHHR	3	Implementation Team		1	12/2/22	12/2/22	December
1.3.3.6.3	Deliverable decision by DHHR	3	DHHR		10	12/3/22	12/16/22	December
1.3.3.7	**D049 – User Acceptance Test Cases**	**3**			**20**	**12/3/22**	**12/23/22**	**December**
1.3.3.7.1	Deliverable development	3	Implementation Team		5	12/3/22	12/8/22	December
1.3.3.7.2	Deliverable submission to DHHR	3	Implementation Team		1	12/9/22	12/9/22	December
1.3.3.7.3	Deliverable decision by DHHR	3	DHHR		10	12/10/22	12/23/22	December
1.3.3.8	**D050 – User Acceptance Test Results and Letter of Completion**	**3**			**22**	**12/15/22**	**1/6/23**	**January**
1.3.3.8.1	Deliverable development	3	Implementation		5	12/15/22	12/21/22	December

WBS	Deliverable, Milestones, and Tasks	Task Group	Responsible Team	Prompt State Attention	Duration (Business Days)	Start Date	End Date	Month (End Date)
			Team					
1.3.3.8.2	Deliverable submission to DHHR	3	Implementation Team		1	12/22/22	12/22/22	December
1.3.3.8.3	Deliverable decision by DHHR	3	DHHR		10	12/23/22	1/6/23	January
1.3.3.9	Payment Milestone 6: Solution Design, Testing, and Operational Readiness 3	3	Account Manager		0	1/6/23	1/6/23	January
1.4	**Solution Deployment**	**4**			**93**	**9/28/22**	**12/30/22**	**December**
1.4.1	**Deployment 1**	**4**			**93**	**9/28/22**	**12/30/22**	**December**
1.4.1.1	**D051 – Cutover Play Book**	**4**		**Yes**	**22**	**9/28/22**	**10/20/22**	**October**
1.4.1.1.1	Deliverable development	4	Implementation Team		5	9/28/22	10/4/22	October
1.4.1.1.2	Deliverable submission to DHHR	4	Implementation Team		1	10/5/22	10/5/22	October
1.4.1.1.3	Deliverable decision by DHHR	4	DHHR		10	10/6/22	10/20/22	October
1.4.1.2	**D052 – Federal Review Supporting Documentation**	**4**			**20**	**10/13/22**	**11/2/22**	**November**
1.4.1.2.1	Deliverable development	4	Implementation Team		5	10/13/22	10/19/22	October
1.4.1.2.2	Deliverable submission to DHHR	4	Implementation Team		1	10/19/22	10/19/22	October
1.4.1.2.3	Deliverable decision by DHHR	4	DHHR		10	10/20/22	11/2/22	November
1.4.1.3	**D053 – Implementation Certification Letter**	**4**		**Yes**	**20**	**10/13/22**	**11/2/22**	**November**
1.4.1.3.1	Deliverable development	4	Implementation Team		5	10/13/22	10/19/22	October
1.4.1.3.2	Deliverable submission to DHHR	4	Implementation Team		1	10/19/22	10/19/22	October
1.4.1.3.3	Deliverable decision by DHHR	4	DHHR		10	10/20/22	11/2/22	November
1.4.1.4	**D054 – Implementation Plan (Rollout Plan)**	**4**			**20**	**10/6/22**	**10/26/22**	**October**
1.4.1.4.1	Deliverable development	4	Implementation Team		5	10/6/22	10/12/22	October
1.4.1.4.2	Deliverable submission to DHHR	4	Implementation Team		1	10/12/22	10/12/22	October
1.4.1.4.3	Deliverable decision by DHHR	4	DHHR		10	10/13/22	10/26/22	October
1.4.1.5	**D055 – Operations Change Management Plan**	**4**			**20**	**10/14/22**	**11/3/22**	**November**
1.4.1.5.1	Deliverable development	4	Implementation Team		5	10/14/22	10/20/22	October
1.4.1.5.2	Deliverable submission to DHHR	4	Implementation Team		1	10/20/22	10/20/22	October
1.4.1.5.3	Deliverable decision by DHHR	4	DHHR		10	10/21/22	11/3/22	November
1.4.1.6	Payment Milestone 7: Deployment 1	4	Account Manager		0	12/31/22	12/30/22	December
1.4.2	**Deployment 2**	**4**			**42**	**11/7/22**	**12/19/22**	**December**
1.4.2.1	**D056 – Operational Milestone Review**	**4**			**20**	**11/7/22**	**11/27/22**	**November**
1.4.2.1.1	Deliverable development	4	Implementation Team		5	11/7/22	11/13/22	November
1.4.2.1.2	Deliverable submission to DHHR	4	Implementation Team		1	11/13/22	11/13/22	November
1.4.2.1.3	Deliverable decision by DHHR	4	DHHR		10	11/14/22	11/27/22	November
1.4.2.2	**D057 – Product Screenshots, Reports, and Data Certification**	**4**			**20**	**11/29/22**	**12/19/22**	**December**
1.4.2.2.1	Deliverable development	4	Implementation Team		5	11/29/22	12/5/22	December
1.4.2.2.2	Deliverable submission to DHHR	4	Implementation Team		1	12/5/22	12/5/22	December
1.4.2.2.3	Deliverable decision by DHHR	4	DHHR		10	12/6/22	12/19/22	December
1.4.2.3	**D058 – Report Distribution**	**4**			**20**	**11/29/22**	**12/19/22**	**December**

WBS	Deliverable, Milestones, and Tasks	Task Group	Responsible Team	Prompt State Attention	Duration (Business Days)	Start Date	End Date	Month (End Date)
	Schedule							
1.4.2.3.1	Deliverable development	4	Implementation Team		5	11/29/22	12/5/22	December
1.4.2.3.2	Deliverable submission to DHHR	4	Implementation Team		1	12/5/22	12/5/22	December
1.4.2.3.3	Deliverable decision by DHHR	4	DHHR		10	12/6/22	12/19/22	December
1.4.2.4	**D059 – Solution Health Monitoring Plan**	**4**			**20**	**11/29/22**	**12/19/22**	**December**
1.4.2.4.1	Deliverable development	4	Implementation Team		5	11/29/22	12/5/22	December
1.4.2.4.2	Deliverable submission to DHHR	4	Implementation Team		1	12/5/22	12/5/22	December
1.4.2.4.3	Deliverable decision by DHHR	4	DHHR		10	12/6/22	12/19/22	December
1.4.2.5	**D060 – System Operations Plan**	**4**			**20**	**11/29/22**	**12/19/22**	**December**
1.4.2.5.1	Deliverable development	4	Implementation Team		5	11/29/22	12/5/22	December
1.4.2.5.2	Deliverable submission to DHHR	4	Implementation Team		1	12/5/22	12/5/22	December
1.4.2.5.3	Deliverable decision by DHHR	4	DHHR		10	12/6/22	12/19/22	December
1.4.2.6	Payment Milestone 8: Deployment 2	4	Account Manager		0	12/20/22	12/20/22	December
1.4.3	**Deployment 3**	**4**			**75**	**10/13/22**	**12/27/22**	**December**
1.4.3.1	**D061 – System and User Documentation**	**4**			**20**	**10/13/22**	**11/2/22**	**November**
1.4.3.1.1	Deliverable development	4	Implementation Team		5	10/13/22	10/19/22	October
1.4.3.1.2	Deliverable submission to DHHR	4	Implementation Team		1	10/19/22	10/19/22	October
1.4.3.1.3	Deliverable decision by DHHR	4	DHHR		10	10/20/22	11/2/22	November
1.4.3.2	**D062 – Training Materials**	**4**			**20**	**10/13/22**	**11/2/22**	**November**
1.4.3.2.1	Deliverable development	4	Implementation Team		5	10/13/22	10/19/22	October
1.4.3.2.2	Deliverable submission to DHHR	4	Implementation Team		1	10/19/22	10/19/22	October
1.4.3.2.3	Deliverable decision by DHHR	4	DHHR		10	10/20/22	11/2/22	November
1.4.3.3	**D063 – Training Report**	**4**			**20**	**11/18/22**	**12/8/22**	**December**
1.4.3.3.1	Deliverable development	4	Implementation Team		5	11/18/22	11/24/22	November
1.4.3.3.2	Deliverable submission to DHHR	4	Implementation Team		1	11/24/22	11/24/22	November
1.4.3.3.3	Deliverable decision by DHHR	4	DHHR		10	11/25/22	12/8/22	December
1.4.3.4	**D064 – Training Schedule**	**4**			**20**	**11/4/22**	**11/24/22**	**November**
1.4.3.4.1	Deliverable development	4	Implementation Team		5	11/4/22	11/10/22	November
1.4.3.4.2	Deliverable submission to DHHR	4	Implementation Team		1	11/10/22	11/10/22	November
1.4.3.4.3	Deliverable decision by DHHR	4	DHHR		10	11/11/22	11/24/22	November
1.4.3.5	**D065 – Closeout Management Plan**	**4**			**20**	**12/7/22**	**12/27/22**	**December**
1.4.3.5.1	Deliverable development	4	Implementation Team		5	12/7/22	12/13/22	December
1.4.3.5.2	Deliverable submission to DHHR	4	Implementation Team		1	12/13/22	12/13/22	December
1.4.3.5.3	Deliverable decision by DHHR	4	DHHR		10	12/14/22	12/27/22	December
1.4.3.6	Payment Milestone 9: Deployment 3	4	Account Manager		0	12/28/22	12/28/22	December
1.4.4	**Release 1: Go-Live**	**N/A**	**Product Development & Operations / Technology**	**Yes**	**1**	**1/6/23**	**1/9/23**	**January**
1.4.5	**Release 2: Additional Features**	**N/A**	**Product**	**Yes**	**60**	**1/10/23**	**4/4/23**	**April**

WBS	Deliverable, Milestones, and Tasks	Task Group	Responsible Team	Prompt State Attention	Duration (Business Days)	Start Date	End Date	Month (End Date)
			Development & Operations / Technology					
1.5	Project Monitor and Control	5			260	4/1/22	3/31/23	March
1.5.1	**Monthly Implementation Project Management**	5			260	4/1/22	3/31/23	March
1.5.1.1	D066 – Project Schedule	5	Project Manager / Account Manager		260	4/1/22	3/31/23	March
1.5.1.2	D067 – Project Status Reporting (Weekly and Monthly)	5	Project Manager / Account Manager		260	4/1/22	3/31/23	March
1.5.1.3	D068 – Risk Register/Exception Plan	5	Project Manager / Account Manager		260	4/1/22	3/31/23	March
1.5.1.4	D069 – Updated Project Management Components	5	Project Manager / Account Manager		260	4/1/22	3/31/23	March
1.5.1.5	D070 – Updated Requirements Traceability Matrix	5	Project Manager / Account Manager		260	4/1/22	3/31/23	March
1.5.1.6	D071 – Updated Training Management Plan	5	Help Desk		260	4/1/22	3/31/23	March
1.5.1.7	Payment – Monthly Implementation Project Management Invoice	5	Account Manager		260	4/1/22	3/31/23	March
1.6	**Software-as-a-Service**	N/A			81	1/9/23	3/31/23	March
1.6.1	**Data Source Onboarding**	N/A			80	1/10/23	3/31/23	March
1.6.1.1	ELR	N/A	Onboarding		80	1/10/23	3/31/23	March
1.6.1.2	eCR	N/A	Onboarding		80	1/10/23	3/31/23	March
1.6.1.3	CDC NMI / MMGs	N/A	Onboarding / Help Desk		80	1/10/23	3/31/23	March
1.6.2	**Ancillary Data Interoperability**	N/A			80	1/10/23	3/31/23	March
1.6.2.1	Engage	N/A	Onboarding / Technology		80	1/10/23	3/31/23	March
1.6.2.2	Connect	N/A	Onboarding / Technology		80	1/10/23	3/31/23	March
1.6.2.3	Validate	N/A	Onboarding / Technology		80	1/10/23	3/31/23	March
1.6.2.4	Operate	N/A	Onboarding / Help Desk		80	1/10/23	3/31/23	March
1.6.3	**Help Desk**	N/A	**Help Desk**		80	1/10/23	3/31/23	March
1.6.4	Information Security	N/A	Technology		80	1/10/23	3/31/23	March
1.6.5	Infrastructure Management	N/A	Technology		80	1/10/23	3/31/23	March
1.6.6	SLA & Performance Measurement	N/A	Project Manager / Account Manager		80	1/10/23	3/31/23	March
1.6.7	Data Quality Monitoring	N/A	Help Desk		80	1/10/23	3/31/23	March
1.6.8	Release Management	N/A	Product Development & Operations / Technology		80	1/10/23	3/31/23	March
1.6.9	**Training**	N/A	**Help Desk**		80	1/10/23	3/31/23	March
1.7	**Change Management**	N/A			80	1/10/23	3/31/23	March
1.7.1	Prioritization	N/A	Project Manager		80	1/10/23	3/31/23	March
1.7.2	Product Development	N/A			80	1/10/23	3/31/23	March
1.7.2.1	Sprints	N/A	Product Development & Operations		80	1/10/23	3/31/23	March
1.7.2.2	UAT	N/A	Product Development &		80	1/10/23	3/31/23	March

WBS	Deliverable, Milestones, and Tasks	Task Group	Responsible Team	Prompt State Attention	Duration (Business Days)	Start Date	End Date	Month (End Date)
			Operations					
1.7.2.3	Deployment	N/A	Product Development & Operations		80	1/10/23	3/31/23	March
1.7.2.4	Transition to Operations	N/A	Product Development & Operations		80	1/10/23	3/31/23	March
1.7.2.5	Retrospective	N/A	Product Development & Operations		80	1/10/23	3/31/23	March
1.8	Account Management	N/A			364	4/1/22	3/31/23	March
1.8.1	Management of Deliverables	N/A			364	4/1/22	3/31/23	March
1.8.2	Cost Tracking and Invoicing	N/A	Account Manager		Ongoing	4/1/22	3/31/23	March
1.8.3	Subcontract Mgmt	N/A	Account Manager		Ongoing	4/1/22	3/31/23	March
1.9	Epidemic and Pandemic Response	N/A			80	1/10/23	3/31/23	March
1.9.1	Outbreak / Epidemic response	N/A	Project Manager / Help Desk / Technology		80	1/10/23	3/31/23	March
1.9.2	Pandemic response	N/A	Project Manager / Help Desk / Technology		80	1/10/23	3/31/23	March

Exhibit-6: Project Schedule.

ATTACHMENT F: MANDATORY REQUIREMENTS

Instructions: The mandatory requirements must be met by the Vendor as a part of the submitted proposal. Failure on the part of the Vendor to meet any of the mandatory requirements may result in disqualification of the proposal, at the sole discretion of the State. The term "must," stipulates and identifies a mandatory requirement. The Vendor is to demonstrate compliance with mandatory requirements in its proposal. If the Vendor's proposal meets the mandatory requirements, it may be included in the next part of the technical evaluation of this RFP. For mandatory requirements that necessitate a future action, the Vendor will respond in ***Attachment K: Terms and Conditions*** with an attestation that it will meet all mandates. For mandatory requirements that involve documentation, Vendors should include that documentation with their technical proposal. Any documentation for mandatory requirements not supplied with their technical proposal must be submitted prior to contract execution. When appropriate Vendors must provide narrative responses in the area below.

Hierarchy Level: The hierarchy level column defines relationships between parent and child specifications. DHHR refers to parent specifications as specifications that rely on the content of a subset of related specifications (children) to fully define the scope of the requirement. DHHR refers to child specifications as specifications that rely on additional context provided by a higher-level specification (parent) to fully define the scope of the specification. A hierarchy value of 1 denotes the highest-level specification. Any greater hierarchy value denotes a child specification. For example, a hierarchy level 2 is a child to the nearest prior hierarchy level 1. Asanother example, a hierarchy level 3 is a child to the nearest prior hierarchy level 2 specification,which is in turn a child to the nearest prior hierarchy level 1 specification. See the diagram belowfor an illustration of a hierarchy relationship:

- Hierarchy Level 1 Specification,
  - Hierarchy Level 2 Specification
    - Hierarchy Level 3 Specification

See the attached Microsoft Excel® file titled, "Attachment F – Mandatory Requirements".

Response: In the sections below, InductiveHealth responds to the mandatory requirements. Please reference Attachment F – Mandatory Requirements for traceability matrix with corresponding page numbers.

InductiveHealth Informatics, Inc.

Req ID #	Hierarchy Level	Specification Text	Type	Vendor's Disposition	Attachment	Section	Page #
		Mandatory Requirements			**Vendor Response**		
MR001	1	The vendor must be incorporated as a business in any state for at least three years.	Locations	Will Meet	Attachment C - Vendor Qualifications and Experience	Organization Overvie	18
MR002	1	The Vendor, all business partners, subcontractors, independent contractors, and other entities supporting the Vendor in delivery of the services defined in this contract must perform all work associated with this contract within the continental United States or U.S. Territories, as established in requirements related to handling of federal tax information (FTI) contained in Internal Revenue Service (IRS) Publication 1075, Section 5.3 Access to FTI via State Tax Files or Through Other Agencies under the authority granted by United States Code §6013(p)(4)(C). At no time shall information governed by privacy laws and regulations be used, maintained, transmitted, or caused to be transmitted outside of the United States.	Locations	Will Meet	Attachment C - Vendor Qualifications and Experience	Organization Overvie	18
MR003	1	The Vendor must host the Enterprise Surveillance System (ESS) and maintain a secure site(s) and secure secondary geo-redundant site(s) within the continental United States. Off-site is defined as a physically separate location based on current industry best practices. These facilities must be located in the continental United States, as established in requirements related to handling of federal tax information (FTI) contained in Internal Revenue Service (IRS) Publication 1075, Section 5.3 Access to FTI via State Tax Files or Through Other Agencies under the authority granted by United States Code §6013(p)(4)(C).	Locations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Backup, Dis	185
MR004	1	Prior to contract execution, the Agency will conduct a review of all hardware, software, and communication components. The Vendor must ensure compatibility with the most current West Virginia Office of Technology (WVOT) supported versions and standards.	Compatibility	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Backup, Dis	185
MR005	1	The Vendor must agree to incorporate all applicable current and future coding standards and formats and legislated or program necessary data and transport requirements to ensure that the Enterprise Surveillance System (ESS) is current in its ability to accept and appropriately employ new standards and requirements as they occur including, but not limited to:	Compatibility	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR006	2	RxNorm	Compatibility	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR007	2	Health Level 7 (HL7)	Compatibility	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR008	2	Systematic Nomenclature of Medicine (SNOMED)	Compatibility	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR009	2	Patient Protection and Affordable Care Act (PPACA)	Compatibility	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR010	2	Logical Observation Identifiers Names and Codes (LOINC)	Compatibility	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR011	2	International Classification of Diseases - Version 10 (ICD-10)	Compatibility	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR012	2	Health Insurance Portability and Accountability Act (HIPAA) v5010	Compatibility	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR013	2	Health Information Technology for Economic and Clinical Health Act (HITECH)	Compatibility	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR014	2	Public Health Information Network (PHIN) Vocabulary Access and Distribution System (VADS)	Compatibility	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR015	1	The Vendor must provide facilities for the recovery of Design, Development, and Implementation (DDI) or operations activities in the event of a disaster that disrupts DDI or operations as described in the Vendor's Disaster Recovery and Business Continuity Management Plan which will be developed by the Vendor and approved by the Agency. The Vendor must provide resources necessary to:	Disaster Recovery	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Backup, Dis	185
MR016	2	Recover critical services and data in accordance with the Recovery Time Objective (RTO) and Recovery Point Objectives (RPO) to be approved by the Agency and documented in the Disaster Recovery and Business Continuity Management Plan	Disaster Recovery	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Backup, Dis	185

Req ID #	Hierarchy Level	Specification Text	Type	Vendor's Disposition	Attachment	Section	Page #
		Mandatory Requirements			**Vendor Response**		
MR017	2	Meet the approved Service Level Agreements listed in Appendix 5. Service Level Agreements & Performance Standards	Disaster Recovery	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Backup, Dis	185
MR018	1	The vendor must have established privacy, security, and auditing policies and procedures documented in the Data Security, Privacy and Confidentiality Plan, Privacy Impact Analysis, and Security Plan to be approved by the Agency.	Security	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139
MR019	1	The Vendor must comply with the baseline security controls for moderate impact information systems as recommended by the National Institute of Standards and Technology (NIST), Code of Federal Regulations.	Security	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139
MR018	1	The vendor must have established privacy, security, and auditing policies and procedures documented in the Data Security, Privacy and Confidentiality Plan, Privacy Impact Analysis, and Security Plan to be approved by the Agency.	Security	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139
MR021	1	The vendor must provide secure data encryption while data are at rest and in transit.	Security	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139
MR022	1	The Vendor must include in the Security Plan applicable NIST SP 800-53 security control responsibilities noting which security controls are inherited by the Vendor, implemented by the Agency, or shared by both parties. The Security Plan must be maintained by the Vendor and outline the following:	Security	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139
MR023	2	Non-compliant and required security controls	Security	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139
MR024	2	Applied mitigations	Security	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139
MR025	2	Plan to correct deficiencies	Security	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139
MR026	2	Cyber security procedures and management plans	Security	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139
MR027	1	The Vendor must agree to incorporate all requirements mandated through Federal and State regulations and legislation, including new reporting requirements. The Vendor must ensure that the Enterprise Surveillance System (ESS) is current in its ability to accept and employ new standards and requirements as they occur. Formalized change control will be used for all such changes, during all phases of the project as defined in the Change Management Plan.	Federal and State Regulatory Changes	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139
MR028	1	The Vendor must provide right of access to systems, source code, and facilities to the Agency or its designee and federal personnel to conduct audits and inspections. The Vendor must provide access to data, systems, and documentation required by auditors and inspectors.	Right of Access	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139
MR029	1	The Vendor will operate the Enterprise Surveillance System (ESS), perform all functions described in the RFP, and continue all operations from the date of acceptance of each release, including any optional additional periods or extensions.	Operations	Will Meet	Attachment F - Mandatory Requirements	N/A	95
MR030	1	The Vendor must perform according to approved Service Level Agreements (SLAs) and identified Key Performance Indicators (KPIs) with associated metrics in the areas listed in Appendix 5: Service Level Agreements & Performance Standards	Compliance with Service Level Agreements	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
MR031	1	The Vendor must deduct any amount due from future payments if the agreed upon SLAs are not met. The Agency reserves the right to seek any other remedies under the Contract.	Compliance with Service Level Agreements	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
MR032	1	The Vendor must use industry-standard professional project management standards, methodologies, and processes to ensure the project is delivered on time, within scope, within budget, and in accordance with the Agency's quality expectations. The Agency utilizes the Project Management Institute (PMI) PMBOK methodology.	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
MR033	1	The Vendor must provide project status information to the Agency and the Enterprise Surveillance System (ESS) Project Management Office (PMO) within the required timeframes and in the agreed-upon format, as defined in the approved Project Management Plan.	Status Reporting	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
MR034	1	The Vendor must update deliverables at the request of the Agency to align with changes in approach or methodology, or to include new or updated information that was not available at the time the deliverable was initially submitted and approved.	Deliverable Updates	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146

		Mandatory Requirements			Vendor Response			
Req ID #	Hierarchy Level	Specification Text		Type	Vendor's Disposition	Attachment	Section	Page #
MR035	1	The Vendor must submit updated deliverables for Agency approval based on the Project Schedule approved by the Agency.		Deliverable Updates	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
MR036	1	The Vendor must submit substantive changes to deliverables identified in Appendix 2: Deliverables and Milestones Dictionary to the Agency for review and approval within thirty (30) calendar days of the proposed change.		Deliverable Updates	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
MR037	1	The Vendor must provide compliance support services to include providing up-to-date, accurate, and thorough documentation and reporting for regulatory and State compliance auditing.		Audit Compliance Support and Deliverables	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
MR038	1	The vendor must provide a solution as a software-as-a-service (SaaS) with current updates, releases, and patches		Technical	Will Meet	Attachment B - Title Page, Executive Summary, and Subcontractor Letters	Executive Overview	6
MR039	1	The vendor must utilize cloud hosting in the United States with geo-redundant storage.		Technical	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Backup, Dis	185
MR040	1	The vendor must provide technical and data design and architecture that meets industry best practices.		Technical	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Backup, Dis	185
MR041	1	The vendor must provide a solution that has been successfully implemented for communicable disease surveillance, in at least two states for a minimum of two years, to include, at a minimum:		Technical	Will Meet	Attachment G - Business Specifications Approach	Attachment G - Busi	96
MR042	2	Contact tracing		Technical	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96
MR043	2	Case investigation		Technical	Will Meet	Attachment G - Business Specifications Approach	Case Investigation an	100
MR044	2	Case management		Technical	Will Meet	Attachment G - Business Specifications Approach	Case Investigation an	106
MR045		Outbreak management or integration with outbreak management system		Technical	Will Meet	Attachment G - Business Specifications Approach	Outbreak Manageme	109
MR046	1	The vendor must have the capacity to support:		Technical	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
MR047	2	1000 active users		Technical	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
MR048	2	600 concurrent users		Technical	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
MR049	2	50,000 lab results per day		Technical	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
MR050	2	2,500 cases reports per day		Technical	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
MR051	2	Increased users, lab results and cases in the event of pandemics and/or outbreaks.		Technical	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
	1	The vendor must support definitions of user with assigned levels of access including.		Technical	Will Meet	Attachment H - Technical Specifications Approach	Security Managemen	139

Req ID #	Hierarchy Level	Mandatory Requirements Specification Text	Type	Vendor's Disposition	Attachment	Section	Page #
MR053	2	Viewing	Technical	Will Meet	Attachment H – Technical Specifications Approach	Security Management	139
MR054	2	Data entry	Technical	Will Meet	Attachment H – Technical Specifications Approach	Security Management	139
MR055	2	Editing	Technical	Will Meet	Attachment H – Technical Specifications Approach	Security Management	139
MR056	2	Auditing	Technical	Will Meet	Attachment H – Technical Specifications Approach	Security Management	139
MR057	1	The vendor must provide a 508 compliant, web-based, browser agnostic, User Interface (UI) with person- and case-centric view options, easy navigation, and robust search capabilities.	Technical	Will Meet	Attachment J – Maintenance and Operations Specifications Approach	Operations	177
MR058	1	The vendor must provide the capability to manage look up tables, within the system, containing identifiers and attributes for reporting organizations including:	Functionality	Will Meet	Attachment J – Maintenance and Operations Specifications Approach	Operations	177
MR059	2	Local health departments	Functionality	Will Meet	Attachment J – Maintenance and Operations Specifications Approach.	Operations	177
MR060	2	Healthcare providers	Functionality	Will Meet	Attachment J – Maintenance and	Operations	177
MR061	2	Clinical Laboratory Improvement Amendments (CLIA) certified laboratories	Functionality	Will Meet	Attachment J – Maintenance and Operations Specifications	Operations	177
MR062	1	The vendor must provide the ability receive data for:	Functionality	Will Meet	Attachment J – Maintenance and Operations Specifications Approach	Operations	177
MR063	2	State reportable diseases and conditions (http://dhhr.wv.gov/oeps/disease/Reporting/Documents/reportable_disease_chart.pdf)	Functionality	Will Meet	Attachment J – Maintenance and Operations Specifications Approach	Operations	177
MR064	2	National notifiable diseases and conditions (https://wwwn.cdc.gov/nndss/conditions/notifiable/2021/infectious-diseases/))	Functionality	Will Meet	Attachment J – Maintenance and Operations Specifications Approach	Operations	177
MR065	2	Newly identified diseases	Functionality	Will Meet	Attachment J – Maintenance and Operations Specifications Approach	Operations	177
MR066	2	And to process surveillance tasks using workflows based on pre-defined rules by.	Functionality	Will Meet	Attachment J – Maintenance and Operations Specifications	Operations	177
MR067	3	Disease Type	Functionality	Will Meet	Attachment J – Maintenance and Operations Specifications Approach	Operations	177
MR068	3	Contact status	Functionality	Will Meet	Attachment J – Maintenance and Operations Specifications Approach	Operations	177
MR069	3	Case status	Functionality	Will Meet	Attachment J – Maintenance and Operations Specifications	Operations	177

Req ID #	Hierarchy Level	Specification Text	Type	Vendor's Disposition	Attachment	Section	Page #
		Mandatory Requirements			**Vendor Response**		
MR070	3	Jurisdiction	Functionality	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
MR071	1	The vendor must provide multiple methods for data submission including web-based data entry; batch upload for pdf, jpg, gif, csv, tsv, and excel formats; html; aggregate reports; and the latest standard HL7 messages for electronic laboratory reports and electronic case reports.	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR072	2	Web-based data entry	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR073	2	And batch upload for:	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR074	3	Pdf	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR075	3	Jpg	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR076	3	Gif	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR077	3	Csv	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR078	3	Tsv	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR079	3	Excel formats	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR080	2	Html	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR081	2	Aggregate reports	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR082	2	Latest standard HL7 messages for:	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR083	3	Electronic laboratory reports (ELRs)	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR084	3	Electronic case reports (eCRs)	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR085	1	The vendor must utilize a standard message transport protocol for HL7 messages including, but not limited to:	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR086	2	PHINMS	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR087	2	SFTP	Functionality	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delive	116
MR088	1	The vendor must have the ability to push a copy of the database to an Agency server in a SQL format at least twice daily.	Data and Reporting	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR089	1	The vendor must have the ability to migrate data from legacy systems to new solution.	Data and Reporting	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114

Req ID #	Hierarchy Level	Specification Text	Type	Vendor's Disposition	Attachment	Section	Page #
		Mandatory Requirements		**Vendor Response**			
MR090	1	The vendor must provide metadata, based on audit logs, to indicate changes in data and records including, but not limited to: users, actions, date, time, and changes such as new or updated records.	Data and Reporting	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR091	2	Date	Data and Reporting	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR092	2	Time	Data and Reporting	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR093	2	Users	Data and Reporting	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR094	2	And actions, including but not limited to:	Data and Reporting	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR095	3	Additions	Data and Reporting	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR096	3	Updates	Data and Reporting	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR097	3	Deletions	Data and Reporting	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR098	1	The vendor must provide the ability to provide bi-directional data exchange and/or integration with other systems internal and external to public health including, but not limited to:	Integration	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR099	2	Electronic health records	Integration	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR100	2	Laboratory information systems	Integration	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR101	2	Electronic death registry system (EDRS)	Integration	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR102	2	Enhanced HIV/AIDS Reporting System (eHARS)	Integration	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR103	2	Centers for Disease Control and Prevention (CDC)	Integration	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR104	2	West Virginia Immunization Information System (WVIIS)	Integration	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114
MR105	2	West Virginia Health Information Network (WVHIN) health information exchange	Integration	Will Meet	Attachment G - Business Specifications Approach	Reporting and Analyt	114

ATTACHMENT G: BUSINESS SPECIFICATIONS APPROACH

Instructions: The Vendor should provide a narrative overview of how the proposed system willmeet the business specifications. Use the response sections to provide specific details of the proposed approach to meet the business specifications in each subject matter area. Responses should reference specifications and relevant mandatory requirements using the appropriate IDs from *Appendix 1: Detailed Specifications* and *Attachment F: Mandatory Requirements*.

DHHR also expects the Vendor to propose its approach for meeting any narrative included in *Section 4: Project Specifications* of this RFP. Responses in this section should be highlyfocused on the business processes and specifications and not simply provide generic or marketing descriptions of solution capabilities.

If the Vendor is proposing a phased implementation, the Vendor should indicate how that approach may or may not affect functionality. Additionally, the Vendor should indicate exception handling processes where appropriate and any dependencies on existing systems orcomponents of the new system to provide the specified functionality.

1. Contact Tracing

Refer to the relevant business specifications located in *Appendix 1: Detailed Specifications* and pertinent narrative in *Section 4: Project Specifications* in this RFP to cover solution capabilitiesin this area. The Vendor should describe its approach to Contact Tracing below. The narrative response for this category should be organized using the appropriate subject matter area as per *Appendix 1: Detailed Specifications*.

1.1 Appendix 1: Detailed Specifications

CT001	1	The Vendor should provide capability for users to collect person-level contact data including:
CT002	2	Demographics
CT003	2	Risk factors
CT004	2	Exposure type
CT005	2	Exposure location
CT006	2	Geographic
CT007	2	Personal contact information including:
CT008	3	Address
CT009	3	Phone number(s)
CT010	3	Email address
CT011	3	Photographs
CT012	2	Others as defined by DHHR

Consolidated Response to CT002, CT003, CT004, CT005, CT006, CT007, CT008, CT009, CT010, CT011, and CT012: For endemic surveillance contact tracing needs, EpiTrax™ implements the requirements identified by DHHR. Specifically, end users can collect the identified data variables which can be configured via a Form Builder for condition (disease) specific contact record forms.

EpiTrax™ - Contact Tracing for Endemic Disease Surveillance – Data Variables

EpiTrax | Welcome, Stephen Macauley | Session Timeout Remaining 59:10 Minute(s) | NEW CMR | EVENTS | OUTBREAKS | FACILITIES | CMR SEARCH | EXPORTS | PEOPLE | AVR | ADMIN | SETTINGS | LOGOUT

Edit Contact Event

Options ▾   Workflow Options ▾   View ▾   Navigate ▾   Save & Continue   Save & Exit

Contact, Two
Record #: 20222241732

Event type	Workflow status	Investigator	Disease	Investigating Agency	Event date	Queue
Contact	Not participating in workflow.	Not assigned	Pertussis	CaseMgt	01/29/2022	Not assigned to queue

Parent patient
Index Index Patient

Brief note   Save

Demographic | Clinical | Laboratory | Contacts | Encounters | Investigation | Notes | Administrative

Name

Last name	First name	Middle name	Parent/Guardian
Contact	Two		

Age

Date of birth   Approximate age   Age at onset   Age at event date
mm/dd/yyyy 📅   Unknown   Unknown

Addresses

Street	Unit number	City	State	Zip code	County	Earliest known	Placed
			Please select... ▾		Please select... ▾		

Note

Address not verified

Save as Address at Diagnosis   Cancel

Options ▾   Workflow Options ▾   View ▾   Navigate ▾   Save & Continue   Save & Exit

Address not verified   Save as Address at Diagnosis   Cancel

Other Addresses

Telephones

Telephone type	(Area) Phone, Ext	Country	Earliest known	Note
Please select... ▾	Enter phone, click save to add		Select Country 📅	

	(999) 999-9999		Earliest known	Created	Note	
				01/29/2022		🗑

Email Addresses

Email Address
Enter email, click save to add

Demographics

Birth sex	Current gender	Primary language	Ethnicity	Race (Select all that apply)
Please select... ▾	Please select... ▾	Please select... ▾	Please select... ▾	

Country of birth	Gender Identity	Sexual Orientation
Please select... ▾	Please select... ▾	Please select... ▾

Marital Status
Please select... ▾

Event Info

Contact disposition	Contact disposition date	Contact type
Suspect ▾	mm/dd/yyyy 📅	Work ▾

EpiTrax™ - Contact Tracing for Endemic Disease Surveillance – Form Builder for Contact Events
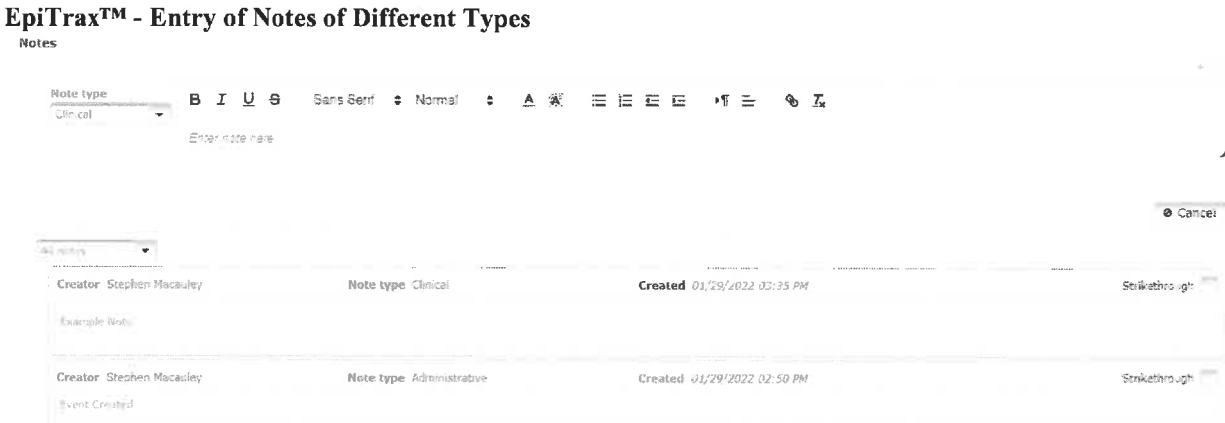
CT013	1	The Vendor should provide capability to receive laboratory test reports and attach to existing contact.

Response: Both EpiTrax™ and Respond Plus™ support association of laboratory results to existing contact records.

CT014	1	The Vendor should provide the ability to perform validation of contact information formatting and alert user of invalid data.

Response: Both EpiTrax™ and Respond Plus™ perform data variable validation upon data entry by end users (e.g., contact record entry validates for properly formatted phone numbers).

CT015	1	The Vendor should provide capability for users to categorize and sort contacts per user defined characteristics.

Response: Both EpiTrax™ and Respond Plus™ provide the ability to filter contact records based on specific data variables and status.

CT016	1	The Vendor should provide capability to visually represent contact linkage via the contact web (Pin map).

Response: Both EpiTrax™ and Respond Plus™ support the export of contact records to support contact web development. Additionally, R Studio Web enables construction of contact webs using Comprehensive R Archive Network (CRAN) packages and shapefiles.

CT017	1	The Vendor should provide the ability for users to classify contacts based on location and/or risk factors.

Response: Both EpiTrax™ and Respond Plus™ allow contact classification including exposure type.

CT018	1	The Vendor should provide the ability to support algorithms to determine contact priority based on risk.

Response: Both EpiTrax™ and Respond Plus™ support assignment of contacts to specific risk categories which can also be exported for additional analysis and to support further workflow and follow-up.

CT019	1	The Vendor should have the ability to sort contacts based on interview status and prioritize follow-up.

Response: EpiTrax™ enables contacts to be sorted to prioritize for follow-up.

CT020	1	The Vendor should provide a public-facing symptom tracking interface.
CT021	1	The Vendor should provide alerts to public users based on symptom criteria.
CT022	1	The Vendor should provide alerts to system users based on symptom criteria.

Consolidated Response to CT020, CT021, CT022: Respond Plus™ includes the ability for contacts and monitrees to complete web surveys to collect symptom and monitoring information (as currently implemented for COVID-19 response).

CT023	1	The Vendor should provide capability to record multiple exposures for each contact.

Response: EpiTrax™ enables this through the implementation of exposure data variables that allow multiple selections which can be configured in via the Form Builder.

CT024	1	The Vendor should provide the ability for users to create questionnaires for contact interviews.

Response: See response to CT001.

CT025	1	The Vendor should provide the ability for users to manage and track contact interview status.

Response: EpiTrax™ enables management of interview status including closing the contact with a disposition date and status.

CT026	1	The Vendor should provide the ability for users to type information/notes in free-form text box.

Response: Both EpiTrax™ and Respond Plus™ support free text notes including capturing date / time.

EpiTrax™ - Entry of Notes of Different Types

CT027	1	The Vendor should support the ability to record and track any instructional communications sent to contacts including:
CT028	2	Phone
CT029	2	Letter
CT030	2	Email
CT031	2	Fax
CT032	2	SMS (text message)
CT033	2	Others as defined by DHHR

Consolidated Response to CT028, CT029, CT030, CT031, CT032, CT033: Both EpiTrax™ and Respond Plus™ support attachments (by type) to the Investigation records including the addition of rolling notes to capture outreach activity.

EpiTrax™ – Capturing Attachments
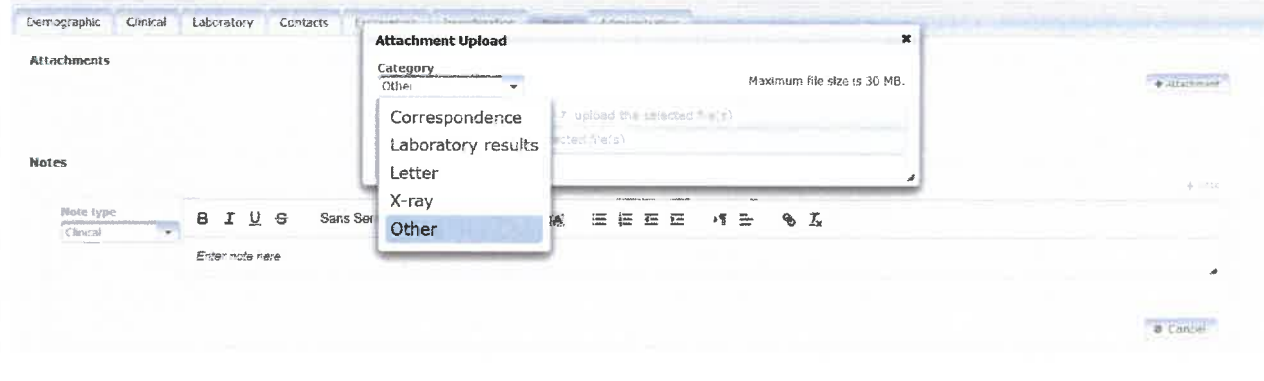
CT034	1	The Vendor should provide the ability for users to set/modify contact exposure criteria.
CT035	1	The Vendor should support the ability to select and modify predefined intervention plans to include updated guidelines/metadata from CDC and other supporting information.
CT037	1	The Vendor should provide the ability for users to upload lists of contacts from spreadsheets or other documents.
CT038	1	The Vendor should provide the ability for users to export lists of contacts in spreadsheet format.

Consolidated Response to CT034, CT035, CT037, and CT038: EpiTrax™ supports the configuration of exposure criteria via value sets (locally defined and/or CDC developed) that underpin data variables and predefined intervention plans can be modeled as data variables on condition (disease) specific contact forms. Additionally, EpiTrax™ supports uploading of contact records to an index patient and downloading of contact records including associated exposure information.

EpiTrax™ – Batch Upload of Contacts
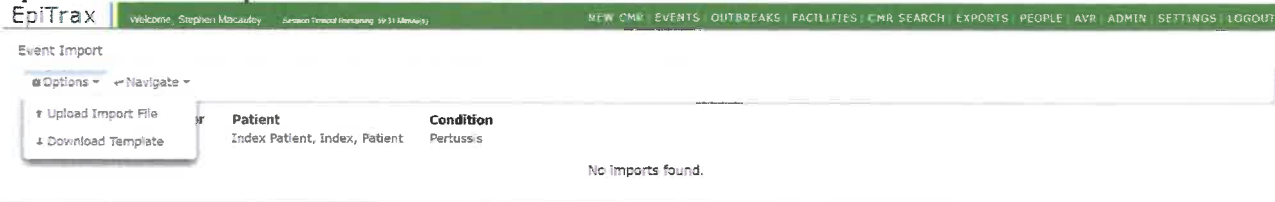
CT036	1	The Vendor should provide capability for users to send communications to care providers to identify contacts via interface with EHR systems.

Response: Using Rhapsody™ integration engine, communication can be established with providers to identify contacts. This requires implementation of a data interface designed for this use case and InductiveHealth will collaborate with DHHR to mutually agree on scope and implementation schedule using the Change Request process identified in this RFP.

1.2 Attachment F-Mandatory Requirements

No mandatory requirements identified.

2. Case Investigation and Management

Refer to the relevant business specifications located in *Appendix 1: Detailed Specifications* and

pertinent narrative in *Section 4: Project Specifications* in this RFP to cover solution capabilities in this area. The Vendor should describe its approach to Case Investigation and Management below. The narrative response for this category should be organized using the appropriate subjectmatter area as per *Appendix 1: Detailed Specifications*.

2.1 Appendix 1: Detailed Specifications

CI001	1	The Vendor should provide capability for users to collect person-level contact data including:
CI002	2	Demographics
CI003	2	Risk factors
CI004	2	Exposure type
CI005	2	Exposure location
CI006	2	Geographic information
CI007	2	Personal contact information including:
CI008	3	Address
CI009	3	Phone number(s)
CI010	3	Email address
CI011	3	Photographs
CI010	2	Treating information
CI011	2	Diagnostics
CI012	2	Others as defined by DHHR

Note: Based on this section referencing Case Investigation and Management, InductiveHealth assumes that CI001 is actually referencing "case" data and not "contact" data.

Consolidated Response to CI002, CI003, CI004, CI005, CI006, CI007, CI008, CI009, CI010, CI011, CI010, CI011, CI012: EpiTrax™ meets the requirements identified by DHHR including enhancement of 'out of the box' condition (diseases) specific data collection forms using Form Builder.

EpiTrax™ – Data Collection Forms that are Condition (Disease) Specific
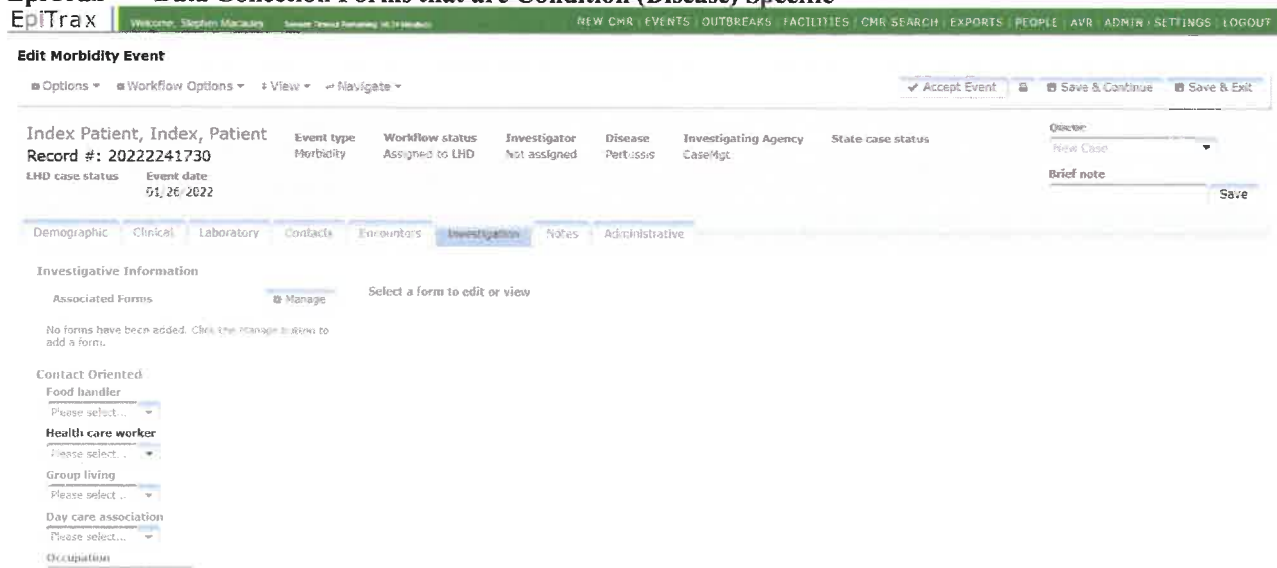
CI013	1	The Vendor should support the ability to record and track case-related workflow activities.

Response: EpiTrax™ meets the requirements identified by DHHR including bulk review of Investigations and routing of Case Investigations to the appropriate local health department and Investigators.

EpiTrax™ – Investigation Routing and Classification
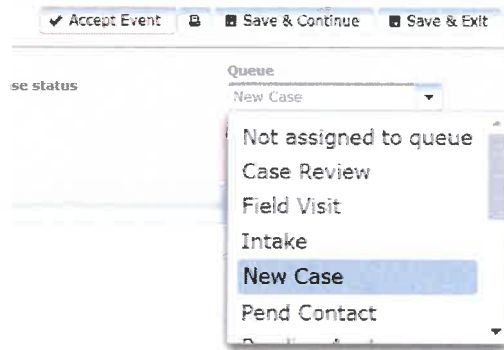
EpiTrax™ – Bulk Management of Investigation Workflows
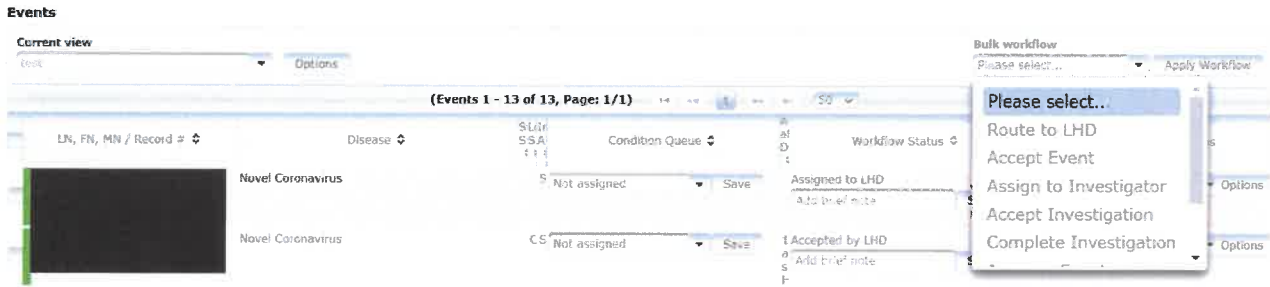
CI014	1	The Vendor should provide capability to receive test reports and attach to existing case.
CI015	1	The Vendor should provide capability to receive new or updated test results and attach to existing cases.
CI016	1	The Vendor should provide capability to receive new or updated electronic case reports and attach to cases.
CI017	1	The Vendor should provide capability for pre-defined case-definition parameters to be established for distinct conditions.

Consolidated Response to CI014, CI015, CI016, and CI017: Using clinical decision support algorithms implemented in EMSA™, Investigations (cases) will be automatically created and updated including appending test results and electronic case reports to the Investigations. Disease specific Investigation (case) rules can be configured in EMSA™ including time-based rules for when Investigations (cases) should be updated versus a new Investigation (case) created.

EMSA™ Condition (Disease) Specific Workflow Algorithms

CI018	1	The Vendor should provide the ability for users to create questionnaires for case interviews.
CI019	1	The Vendor should provide the ability to link questionnaires to case investigation.

Consolidated Response to CI018 and CI019: EpiTrax™ supports questionnaire development through the Form Builder feature.

CI020	1	The Vendor should provide the ability for users to set/modify case exposure criteria.
CI021	1	The Vendor should allow for configuration changes for disease case definition assignment or case auto closure.
CI022	1	The Vendor should provide capability to auto-suggest to close case, based on defined criteria.
CI023	1	The vendor should provide capability to identify when appropriate time periods have lapsed to close case based on pre-defined criteria.
CI024	1	The Vendor should provide capability for users to manually assign closure justification to a case.
CI025	1	The Vendor should allow for configuration changes for disease case definition assignment or case auto closure.
CI036	1	The Vendor should provide capability for users to configure an algorithm to have system automatically assign closure justification to case.

Consolidated Response to CI020, CI021, CI022, CI023, CI024, CI025, and CI036: EpiTrax™ supports the requirements identified by DHHR including manual assignment of closure justification.

CI026	1	The Vendor should support ability to add the intervention plan to an existing case record.
CI027	1	The Vendor should provide capability for users to create and save a customized intervention plan.
CI028	1	The Vendor should provide capability to automatically suggest an intervention plan, based on the disease or condition.
CI029	1	The Vendor should provide capability for users to select a recommended treatment plan.
CI030	1	The Vendor should provide capability to alert users of missed events including: (e.g., missed test, treatment, or vaccine).
CI031	2	Missed test
CI032	2	Treatment
CI033	2	Vaccine
CI034	2	Others as defined by DHHR
CI035	1	The Vendor should provide capability to alert users of follow-up test and other diagnostic results.

Consolidated Response to CI026, CI027, CI028, CI029, CI030, CI031, CI032, CI033, CI034, and CI035: EpiTrax™ supports these requirements as defined by DHHR.

EpiTrax™ - Treatment Plan

☰ Options ▾   ☰ Workflow Options ▾   ⁝ View ▾   ⤺ Navigate ▾   ✔ Accept Event   🖨   🖫 Save & Continue   🖫 Save & Exit

+ Facility / Clinician

No facilities or clinicians found.

Other Facility / Clinician / Hospitalized Status

Mortality Status

Died?	Date of death
Please select... ▾	mm dd yyyy 🗓

Treatments

Treatment given?

Yes ▾

+ Treatment

Treatment date	Treatment stopped	Treatment	Quantity	Treatment form	Status	Data source
mm dd yyyy 🗓	mm dd yyyy 🗓	Please select... ▾		Please select... ▾	Please select... ▾	EpiTrax UI

Treatment comment

⊘ Cancel

ρ

Please select...

Amoxicillin 500 mg PO (3x/day for 7 days)

Amoxicillin 500mg PO TID

Azithromycin 1 g PO (single dose)

Azithromycin 2 g PO (single dose)

Azithromycin 500mg PO X 2

No treatments found.

Other Treatments

Vaccines

+ Vaccine

No vaccines found.

EpiTrax™ - Adding Task (One Time and Re-occurring)

☰ Options ▾   ☰ Workflow Options ▾   ⁝ View ▾   ⤺ Navigate ▾   ✔ Accept Event   🖨   🖫 Save & Continue   🖫 Save & Exit

01/20/2022

| Demographic | Clinical | Laboratory | Contacts | Encounters | Investigation | Notes | Administrative |

Attachments

+ Attachment

Notes

Add Task   ✖

Note type	B I U S̶ Sans Serif	Title of task	Category
Clinical ▾			Appointment ▾

Enter note here.

Description of task

Please select...

Appointment

Phone Call

CareWare/ARTAS

F/V

IX/RX

Due Date(s)

Due date mm/d 🗓   Not repeating ▾

Assign task to

Stephen Macauley ▾

Save   Cancel

All notes ▾

⊘ Cancel

Creator: Stephen Macauley

Strikethrough

Event Created

Tasks

Show all tasks ▾

+ Add Task

No tasks found

EpiTrax™ - Adding Encounter Interactions

CI037	1	The Vendor should provide ability to include non-human test results with linkage to human cases for the following:
CI038	2	Animal
CI039	2	Food
CI040	2	Water
CI041	2	Others as defined by DHHR

Consolidated Response for CI037, CI038, CI039, CI040, CI041: Using EMSA™, non-human test results can be created in EpiTrax™ and then linked to human events as contact records. This allows relationships for conditions (diseases) such as Animal Rabies and Animal Bites to be monitored.

CI042	1	The vendor should provide ability to send order sets to the following:
CI043	2	Healthcare providers
CI044	2	Case management providers
CI045	2	Reporting organizations
CI046	2	Others as defined by DHHR

Consolidated Response for CI042, CI043, CI044, CI045, and CI046: InductiveHealth can accomplish this through the receipt of ORM HL7 messages from reference laboratories or hospitals indicating laboratory orders have been placed. Once received into the WV ESS system boundary, the Rhapsody™ integration engine can be used to parse key data variables into a flattened structured to drive public health action. The flattened structure can be made available in the Datawarehouse or securely sent to DHHR for integration into ancillary data systems (such as those used for case management or clinical care).

CI047	1	The Vendor should provide capability for users to transmit recommendations to outside organizations or systems including:
CI048	2	Healthcare providers
CI049	2	Case management systems
CI050	2	Reporting organizations
CI051	2	Others as defined by DHHR

Consolidated Response for CI047, CI048, CI049, CI050, and CI051: These requirements can be implemented using the Rhapsody integration engine to communicate using ancillary data systems such as the health alert network (HAN) or similar communication platform. InductiveHealth will collaborate with DHHR to identify the specific requirements and use cases as mutually agreed upon according to the scope and timeline for execution.

CI052	1	The Vendor should provide ability for administrator-level users to modify case investigation forms.

InductiveHealth Informatics, Inc.

Response: EpiTrax™ supports this requirement via Form Builder feature.		
CI053	1	The Vendor should provide ability to maintain multiple disease-specific and condition-specific classification criteria.
Response: EpiTrax™ supports this requirement based on algorithms defined in EMSA™.		

2.2 Attachment F-Mandatory Requirements

No mandatory requirements identified.

3. Contact and Case Integration

Refer to the relevant business specifications located in *Appendix 1: Detailed Specifications* and pertinent narrative in *Section 4: Project Specifications* in this RFP to cover solution capabilities in this area. The Vendor should describe its approach to Contact and Case Integration below. The narrative response for this category should be organized using the appropriate subject matter areaas per *Appendix 1: Detailed Specifications*.

3.1 Appendix 1: Detailed Specifications

CC001	1	The Vendor should provide capability to generate a new case from a contact record.
CC002	1	The Vendor should provide ability for users to break linkage between contact and case.
CC003	1	The Vendor should provide capability for users to associate a contact or case with index case.
CC004	1	The Vendor should provide capability to alert users if anyone identified as a contact subsequently becomes a case through existing workflow rules.

Consolidated Response to CC001, CC002, CC003, and CC004: For endemic surveillance contact tracing needs, EpiTrax™ implements the requirements identified by DHHR. Specifically, end users can enter and traverse the relationships between index patients and contacts. As part of this traversal, contact records will not be included as Investigations until the record is converted from a contact to a morbidity record. End users will be notified upon conversion via existing workflows when the Investigation is assigned to either a local health department or triaged by the state health department. In the event a contact record should not be associated, the contact can be removed from the index patient while preserving the information previously entered for the contact.

EpiTrax™ - Contact Tracing for Endemic Disease Surveillance – Index Patient with two (2) linked Contact Records

REQUEST FOR PROPOSAL
CRFP MIS2200000001-ENTERPRISE SURVEILLANCE SYSTEM

EpiTrax™ - Contact Tracing for Endemic Disease Surveillance – Contact Record Linked to Index Patient

EpiTrax™ - Contact Tracing for Endemic Disease Surveillance – Contact Record De-Linked from Index Patient

For epidemic and pandemic contact tracing, Respond Plus™ includes the ability to add, link, and de-link contact records including automated monitoring and symptom tracking. Respond Plus™ is currently implemented to respond to the needs of the OVID-19 pandemic.

Respond Plus™ - Contact Tracing for Epidemic and Pandemic Disease Surveillance – Index Patient and Contact Entry

Respond Plus™ - Contact Tracing for Epidemic and Pandemic Disease Surveillance – Contact Dashboard

3.2 Attachment F-Mandatory Requirements

No mandatory requirements identified.

4. Outbreak Management

Refer to the relevant business specifications located in *Appendix 1: Detailed Specifications* and pertinent narrative in *Section 4: Project Specifications* in this RFP to cover solution capabilities in this area. The Vendor should describe its approach to Outbreak Management below. The narrative response for this category should be organized using the appropriate subject matter areaas per *Appendix 1: Detailed Specifications*.

4.1 Appendix 1: Detailed Specifications

OM001	1	The Vendor should provide capability to open, manage and close outbreaks.
OM002	1	The Vendor should provide the ability to link contacts and cases to outbreaks
OM003	1	The Vendor should provide the ability to assign outbreak definitions including:
OM004	2	Disease
OM005	2	Setting type
OM006	2	Others as defined by DHHR
OM007	1	The Vendor should provide the ability to link a case/contact-specific intervention record to an outbreak.
OM008	1	The vendor should allow users to generate, edit and save outbreak plans.
OM009	1	The Vendor should provide capability to maintain a library of previous outbreak or event management plans.

Consolidated response for OM001, OM002, OM003, OM004, OM005, OM006, OM007, OM008, OM009: For outbreak management, EpiTrax™ meets the requirements identified by DHHR.

EpiTrax™ - Creation of New Outbreak Events

EpiTrax | Welcome, Stephen Macauley Session Timeout Remaining: 46:56 Minutes   NEW CMR | EVENTS | OUTBREAKS | FACILITIES | CMR SEARCH | EXPORTS | PEOPLE | AVR | ADMIN | SETTINGS | LOGOUT

Add Outbreak

Name:	
Type:	State Outbreak
Agency:	Please select...
Disease:	E. coli - Carbapenem resistant
Date Outbreak Identified:	01/26/2022
National Outbreak	

Description:

B *I* U̲ S̶ Sans Serif : Normal : A A̶ ☰ ☰ ☰ ☰ ›¶ ☰ ✆ Iₓ

Enter Description here

Exit | Save

EpiTrax™ - Management of Outbreak Event

EpiTrax | Welcome, Stephen Macauley Session Timeout Remaining: 50:44 Minutes   NEW CMR | EVENTS | OUTBREAKS | FACILITIES | CMR SEARCH | EXPORTS | PEOPLE | AVR | ADMIN | SETTINGS | LOGOUT

Edit Outbreak > Example   CREATED: Jan 29, 2022 - 05:15 PM

Options ▾   Save & Continue   Save & Exit

Summary | Admin | Notes | Associated Events | Investigation | Report | Associated Outbreaks | Sharing

Outbreak Number
2022-00002

Outbreak Name
Example

Manually Added Outbreak Data
   Number of Confirmed Cases:
   Number of Probable Cases:
   Total Number of Cases: 0

Outbreak Data For Associated Events

No associated events found.

EpiTrax | Welcome, Stephen Macauley Session Timeout Remaining: 50:44 Minutes   NEW CMR | EVENTS | OUTBREAKS | FACILITIES | CMR SEARCH | EXPORTS | PEOPLE | AVR | ADMIN | SETTINGS | LOGOUT

Edit Outbreak > Example   CREATED: Jan 29, 2022 - 05:15 PM

Options ▾   Save & Continue   Save & Exit

Summary | Admin | Notes | Associated Events | Investigation | Report | Associated Outbreaks | Sharing

Number	2022-00002
Name	Example
Type	State Outbreak
Date Outbreak Identified	01/26/2022
Status	ACTIVE
Investigating Agency	Please select...
Lead Investigator	Please select...
Disease	E. coli - Carbapenem resistant
Disease Type	Enteric
Major setting of exposure	Please select or type in value
Associate New Facilities	Press Enter to search

Associated Facilities to Example

Facility Id	Facility Name	Actions
No records found		

1st known onset date	mm/dd/yyyy
Primary mode of transmission	Please select or type in value ..
Etiology Status	Please select...
Confirmed State Outbreak	Please se ▾
PFGE Cluster	Please se ▾
Number of Confirmed Cases	

EpiTrax™ - Report Information for Outbreak Event including Documenting Activities via Plan

EpiTrax™ - Association of Investigation (Cases) to Outbreak

OM010	1	The Vendor should provide the ability to monitor, in real time, outbreak-related data including:
OM011	2	Type of outbreak
OM012	2	Number of tests ordered by care providers
OM013	2	Chief complaints
OM014	2	Emergency department visits
OM015	2	Others as defined by DHHR
OM016	1	The Vendor should provide the ability for users to do the following to:
OM017	2	Create metrics
OM018	2	Define metrics
OM019	2	Edit metrics
OM020	2	Save metrics
OM021	2	As the metrics relate to:
OM022	3	Interventions
OM023	3	Control
OM024	3	Prevention
OM025	3	Others as defined by DHHR

Consolidated Response to OM011, OM012, OM013, OM014, OM015, OM016, OM017, OM018, OM019, OM020, OM021, OM022, OM023, OM024, and OM025: For outbreak management, EpiTrax™ meets the requirements identified by DHHR including the ability to add outbreak-related data variables using the Form Builder feature to track aggregate data

variables on the outbreak as reported by hospitals and laboratory results.

EpiTrax™ - Outbreak Level Data Metrics
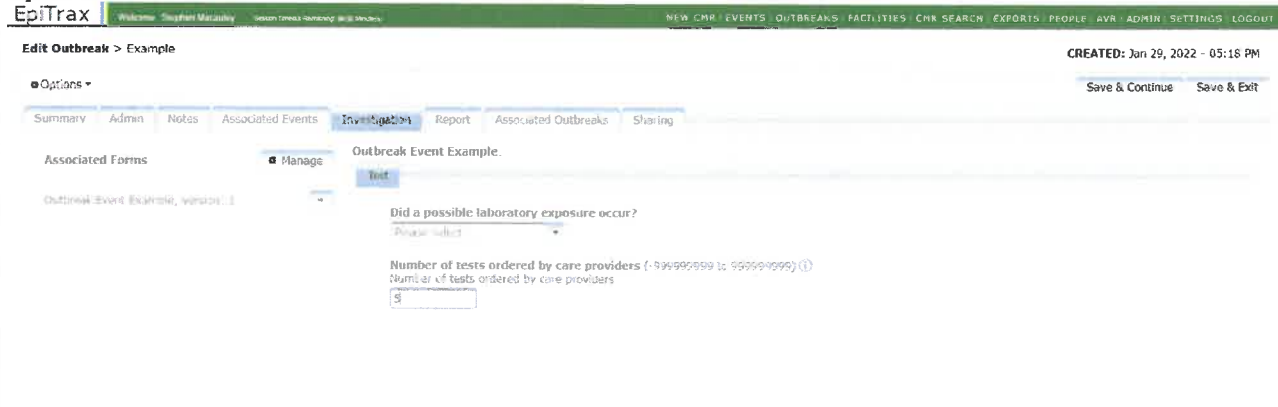
OM026	1	The Vendor should provide the capability to alert users of outstanding tasks in the outbreak management plan.

Response: Tasks can be set on investigations (cases) associated to the outbreaks to send reminders for end users.
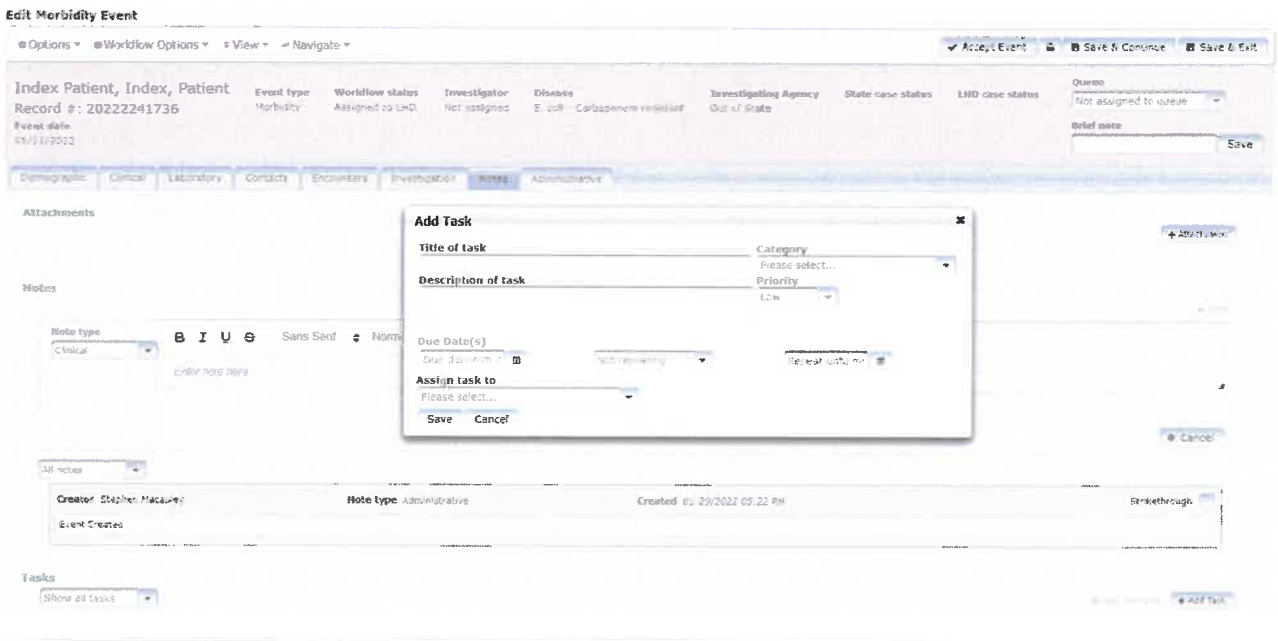
OM027	1	The Vendor should provide the ability to assign to each outbreak event, as derived from the original case, the following:
OM028	2	Record creation date
OM029	2	Unique record number
OM030	2	Others as defined by DHHR

Consolidated Response to OM027, OM028, OM029, and OM030: EpiTrax™ meets these requirement as defined by DHHR to allow Investigations (Cases) to be linked to the outbreak event.

OM031	1	The Vendor should provide the ability to trigger a case classification in condition identification and reporting, based on outbreak definition.

Response: EpiTrax™ provides the ability to trigger a case classification.

OM032	1	The Vendor should provide the ability to link to the environmental investigation system or import relevant environmental data as needed.

Response: EpiTrax™ can support the linkage of environmental investigation system including the import of investigation (case) information and patients.

OM033	1	The Vendor should provide the ability to send test orders to the following:
OM034	2	Healthcare providers
OM035	2	Laboratories
OM036	2	Others as defined by DHHR

Consolidated Response to OM034, OM035, and OM036: InductiveHealth can accomplish this through the transmission of ORM HL7 messages using the Rhapsody™ integration engine to reference laboratories or hospitals indicating laboratory orders have been placed by DHHR. This requires implementation of a data interface designed for this use case and InductiveHealth will collaborate with DHHR to mutually agree on scope and implementation schedule using the Change Request process identified in this RFP.

OM037	1	The Vendor should provide the ability to automatically link test results with requests for testing, based on the following:
OM038	2	User-defined key
OM039	2	User-defined code
OM040	2	Others as defined by DHHR

Consolidated Response to OM038, OM039, OM040, and OM041: Linkage between Orders and Results can be accomplished via the Rhapsody™ integration engine and leveraging EMSA™ to support consumption of results into EpiTrax™ for surveillance purposes including linkage to existing investigations (cases).

OM041	1	The Vendor should provide the ability for users to create after-action reports.

Response: EpiTrax™ Outbreak Management module supports the printing of after action reports.

OM042	1	The Vendor should provide the ability to maintain multiple outbreak-specific classification criteria.
OM043	2	The Vendor should provide the capability to capture outbreak-level data including the following:
OM044	2	Demographics
OM045	2	Risk factors
OM046	2	Exposure type
OM047	2	Exposure location
OM048	2	Geographic information
OM049	2	Personal contact information including:
OM050	3	Address
OM051	3	Phone number(s)
OM052	3	Email address
OM053	3	Photographs
OM054	3	Treating information
OM055	3	Diagnostics
OM056	3	Others as defined by DHHR

Consolidated Response to OM042, OM043, OM044, OM045, OM046, OM047, OM048, OM049, OM050, OM051, OM052, OM053, OM054, OM055: See response to OM010 and OM001.

4.2 Attachment F-Mandatory Requirements

No mandatory requirements identified.

5. Reporting and Analytics

Refer to the relevant business specifications located in *Appendix 1: Detailed Specifications* and pertinent narrative in *Section 4: Project Specifications* in this RFP to cover solution capabilities in this area. The Vendor should describe its approach to Reporting and Analytics below. The narrative response for this category should be organized using the appropriate subject matter areaas per *Appendix 1: Detailed Specifications*.

5.1 Appendix 1: Detailed Specifications

RA001	1	The Vendor should provide the ability for users to create and regularly update epidemiologic curves.
RA002	1	The Vendor should provide capability for users to develop standard reports and ad-hoc reports by the following attributes:
RA003	2	Demographics
RA004	2	Geographic regions
RA005	2	Disease Types
RA006	2	Outbreaks
RA007	2	Data sources
RA008	2	Others as defined by DHHR
RA009	2	And using the following template types:
RA010	3	Pre-existing
RA011	3	Saved
RA012	3	Customized

Consolidated Response to RA001, RA003, RA004, RA005, RA006, RA007, RA008, RA009, RA010, RA011, and RA012: Endemic surveillance data that is managed in EpiTrax™ can be exported as flattened disease specific data sets in comma separated values (CSV) available for download by authorized end users. To extend this feature, designated users can generate epidemiologic curves and other statistical analysis using R Studio Web. R Studio Web enables end users to access underlying surveillance data to run standard and ad-hoc reports (pre-existing, saved, and customized) through a secure, web-based session. Additionally, as needed, epidemic and pandemic data can be exported from Respond Plus™ as flat data sets.

EpiTrax™ - Exporting of Line List Data

R Studio Web – Example

| RA013 | 1 | The Vendor should have the ability to implement all Message Mapping Guides for the Centers for Disease Control and Prevention (CDC) with the ability to code values within the export integration feature of the application. |

Response: InductiveHealth currently supports this activity today for DHHR and will continue to support CDC MMG onboarding.

5.2 Attachment F-Mandatory Requirements

No mandatory requirements identified.

ATTACHMENT H: TECHNICAL SPECIFICATIONS APPROACH

Instructions: Technical specifications include those that drive how systems should be designedand built in a way that provides for long-term use and reuse, in compliance with related standards (e.g., service-oriented architecture and State and federal adopted standards), as well asdefining the minimum set of technical capabilities expected from certain infrastructure components.

The Vendor should provide a narrative overview of how the proposed system will meet the specifications and narrative in this RFP. Use the response sections to provide specific details ofthe proposed approach to meeting the technical specifications in each subject matter area. Responses should reference specifications and relevant mandatory requirements using the appropriate IDs from *Appendix 1: Detailed Specifications* and *Attachment F: Mandatory Requirements*. DHHR also expects the Vendor to propose its approach for meeting any narrativein *Section 4: Project Specifications* in this RFP.

Responses in this section should be highly focused on the State business processes and specifications. If the Vendor is proposing a phased implementation, it should indicate how that approach may or may not impact functionality. Additionally, the Vendor should indicate exception handling processes where appropriate and any dependencies on existing systems or components of the new system to provide the specified functionality. Where necessary, pleaseinclude one (1) or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

1. Data Sources, Delivery, and Display

Refer to the relevant technical specifications located in *Appendix 1: Detailed Specifications* and pertinent narrative in *Section 4: Project Specifications* in this RFP to cover solution capabilities in this area. The Vendor should describe its approach to Data Sources, Delivery, and Display below. The narrative response for this category should be organized using the appropriate subjectmatter area as per *Appendix 1: Detailed Specifications*.

1.1 Appendix 1: Detailed Specifications

DS001	1	The Vendor should provide the functionality to import and export data (bi-directional reporting) in standard formats with external partners including, but not limited to, the following: healthcare providers, laboratories, WVHIN and the CDC.
DS002	2	Healthcare providers
DS003	2	Laboratories
DS004	2	West Virginia Health Information Network (WVHIN)
DS005	2	Centers for Disease Control and Prevention (CDC)
DS006	2	Others as defined by DHHR

Consolidated Response to DS002, DS003, DS004, DS005, and DS006: Data import is accomplished using the Rhapsody™ data integration engine and the Electronic Messaging Staging Area (EMSA™) solution. Rhapsody™ provides DHHR with

the ability to translate, enhance, and validate both incoming and outbound electronic messages regardless of specification or format. As the stewards of DHHR's Rhapsody™ engine today, InductiveHealth uses the data integration engine to transform incoming comma separated value (CSV) files, Health Level Seven (HL7) version 2.3.1 / 2.5.1 messages, and other trading partner specific specifications. The current Rhapsody engine supported by InductiveHealth also transforms outbound HL7 case notification messages sent to the Centers for Disease Control and Prevention (CDC).

Additionally, Rhapsody™ provides the integration layer to ancillary data integrations such as GIS web services to enhance the postal address information of incoming electronic laboratory reports. Complementing Rhapsody™ is the secure data transport layer currently managed by InductiveHealth which securely brokers all inbound / outbound connections using SFTP communication points.

With over 470 active reporting facilities sending electronic laboratories to DHHR today, InductiveHealth has deep relationships with key trading partners including WVHIN, WVU, and CDC/AIMS HUB. The example report below demonstrates a sample of current electronic laboratory reporting (ELR) data volumes and data processing volumes under the management of InductiveHealth.

Electronic Laboratory Reporting (ELR) – Volume and Throughput

WV - ELR Flow Report

Date Generated: 01/28/2022, 04:20 ET

Time Frame: Rolling Last Seven Days

Show 100 entries   Search:

	Facility	2022-01-21	2022-01-22	2022-01-23	2022-01-24	2022-01-25	2022-01-26	2022-01-27	2022-01-28	Total	Avg
420	QLAB	6766	7906	1984	469	639	3710	3911	2456	27901	1742
55	CAMC Memorial	3572	2764	1771	2399	4361	3782	4103	3463	26215	3627
246	LABCORP	4361	3554	3265	911	1076	4865	4809	2964	26085	2306
40	Boone Memorial	1235	728	630	1062	987	991	983	493	7109	1321
541	University of Minnesota Genomics Center	468	989	1171	1217	70	278	754	515	5462	609
56	CAMC Teays Valley	617	416	513	836	950	722	513	684	5453	644
664	WVU MEDICINE - WVU HOSPITALS LABS	486	462	345	414	609	476	507	401	3700	438
629	West Virginia Labs	799	207	383	64	659	379	666	532	3689	415
54	CABH	492	220	154	289	843	585	605	493	3681	444

Drawing on our experience supporting DHHR today, InductiveHealth is bringing forward the Electronic Messaging Staging Area (EMSA™) solution which serves as web portal to manage, monitor, and analyze incoming and outgoing electronic messages. EMSA™ is designed to empower technical administrators, informaticians, and epidemiologist with 100% transparency into incoming electronic messages to support the chain of custody throughout data processing. With examples highlighted below, key features of EMSA™ include:

- Configuration of clinical decision support rules to automatically create Investigations including patient deduplication and record updating
- Management and mapping of LOINC™, SNOMED-CT, and other standards-based vocabulary to trigger specific actions
- Management of negative results and non-reportable diseases as not to impact disease surveillance workflows
- Management of electronic Case Reports (eCRs) to support surveillance workflows and Investigation creation
- Dashboards and activity logging to troubleshoot data quality challenges with ELRs and eCRs including viewing the original raw message from the trading partner

EMSA™, when combined with Rhapsody™, will provide DHHR with new capabilities to empower end users and administrators with additional insight into data processing with a focus on enhancing data quality and automating Investigation creation and management.

EMSA™ - Example Dashboard

Dashboard Queues ▼ Errors & Exceptions ▼ Configuration ▼ Reporting   Switch user role: Admin ▾ ⧉ Switch   smacauley   EMSA2

Assigned Labs by CDC Category

For 'New CMRs Generated by ELR' column:

For the specified date range and reporting facility, indicates the total number of new CMRs generated by ELR per CDC disease category.

For 'Existing Labs Updated by ELR' column:

For the specified date range and reporting facility, indicates the total number of lab results in NEDSS updated by ELR per CDC disease category.

For example, if three separate HL7 messages updated the same lab result in NEDSS, a count of 1 would be displayed here.

Disease Category	New CMRs Generated by ELR	Existing Labs Updated by ELR	Total Assigned
Enteric		0	0
General Communicable		0	0
Hepatitis		0	0
HIV		0	0
Influenza	0	0	0
Lead Poisoning		0	0
Not Categorized	0	0	0
STD	0	0	0
TB		0	0
VPD		0	0
Zoonotic	0	0	0
[Total]	0	0	0

Messages Blacklisted by Reporting Facility

For the specified date range, indicates the total number of HL7 messages blacklisted per reporting facility.

Reporting Facility   HL7 Messages Blacklisted

QLS   1

EMSA™ - View Individual ELR Message

Dashboard Queues ▼ Errors & Exceptions ▼ Configuration ▼ Reporting   Switch user role: Admin ▾ ⧉ Switch   smacauley   EMSA2

View Individual ELR Message

Message ID# 63531 [Exceptions] [1]

Name	D.O.B.	Condition	Reporter	Date Reported
▲ Close ↗		Novel Coronavirus		11/03/2021 (1:04pm)

People Search Results **Full Lab** **Manual Override** **Audit Log** **Error Flags** **Raw Original Message** **Master XML** **Epitrax XML** **QA Tracking**

Actions: 🔄 Resend This Original Message #14540   ✖ Force Hard Delete This Lab #63531 and Resend This Original Message #14540

Page 1 of 1

EMSA™ - Map Disease to Laboratory Results and Decision Support

DS007	1	The Vendor should provide capability to populate form fields using information received from reporting organizations.

Response: Electronic messages transmitted by reporting organizations (e.g., reference laboratories, hospitals) will flow through Rhapsody™ to EMSA™ where depending on clinical decision support rule(s) an automated decision will be made on the creation (or updating) of an Investigation within EpiTrax™. This includes the ability to prepopulate data variables from the incoming laboratory results (or case report) to Investigation specific data variables.

As required, InductiveHealth can implement disease specific pre-population rules such as those that may be required with foodborne diseases based on culture or for hospital acquired infections based on specimen site.

EpiTrax™ - Investigation Creation from Laboratory Report

DS008	1	The Vendor should provide the ability to merge and standardize data into a uniform format.

Response: Merge and standardization is accomplished through EMSA™ through patient deduplication, laboratory report matching, and case reporting matching.

DS009	1	The Vendor should have the ability to push a copy of the ESS database to a

		DHHR database in a SQL format at least twice daily.

Response: Both EMSA™ and EpiTrax™ utilize Postgres relational databases and InductiveHealth will push a SQL formatted copy of both databases to DHHR at least twice daily. Based on similar processes employed by InductiveHealth today for DHHR, InductiveHealth recommends that DHHR pull down the ESS database(s) from Amazon Web Service (AWS) S3 via secure credentials.

DS010	1	The Vendor should have the ability to notify appropriate users of available data.

Response: EMSA™ enables end user based alerting rules based on specific disease classifications and other events of public health importance. Additionally, specific rule configurations can be configured such as with Type 1 (24 hour reportable diseases).

EMSA™ - End User Alerting

EMSA™ - End User Alerting Configuration

DS011	1	The Vendor should provide the capability to modify data submission format based on reporting organization's requirements.

Response: Rhapsody™ combined with EMSA™ provide DHHR the ability to modify electronic messages to address reporting organization specific data quality challenges or inability to comply with national standard implementation guides. InductiveHealth provides this service today to DHHR given the limitations faced by reporting organizations to comply with national standards. InductiveHealth will continually monitor data submissions to identify on-going data quality errors and identify failed messages both in Rhapsody and in EMSA™. Once identified, InductiveHealth will work with the reporting organization to determine if modifications are required.

EMSA™ - Detecting Data Quality Issues

DS012	1	The Vendor should have the ability to perform regular data processing procedures.

Response: InductiveHealth brings forward our Engage, Connect, Validate, and Operate methodology to perform regular data processing. Engage, Connect, Validate, and Operate addresses all aspects of electronic message onboarding and data processing with emphasis on the Operate phase to continually monitor feeds and messages to identify data quality issues or abnormal trends. InductiveHealth's Engage, Connect, Validate, and Operate methodology has been used by DHHR to onboard over 2,400 reporting facilities.

Supporting Engage, Connect, Validate, and Operate is InductiveHealth's use of Grafana dashboards to demonstrate the chain of custody and data volumes for data processing.

Grafana Dashboard and Analytics

InductiveHealth Informatics, Inc.

DS013	1	The Vendor should provide acknowledgements of incoming messages or data submissions, including the following: (e.g., received, not received, and errors).
DS014	2	Received
DS015	2	Not Received
DS016	2	And with information regarding the quality of the data including:
DS017	3	Errors
DS018	3	Warnings
DS019	3	Others as defined by DHHR

Consolidated Response to DS014, DS015, DS016, DS017, DS018, DS019: InductiveHealth uses a variety of tools to monitor incoming messages and data submissions including the Grafana Dashboard and Analytics presented above and EMSA™ specific business logic to identify data quality challenges.

As required by the reporting organization, InductiveHealth can implement acknowledgement (ACK) messages to confirm receipt of messages.

EMSA™ Data Quality Monitoring
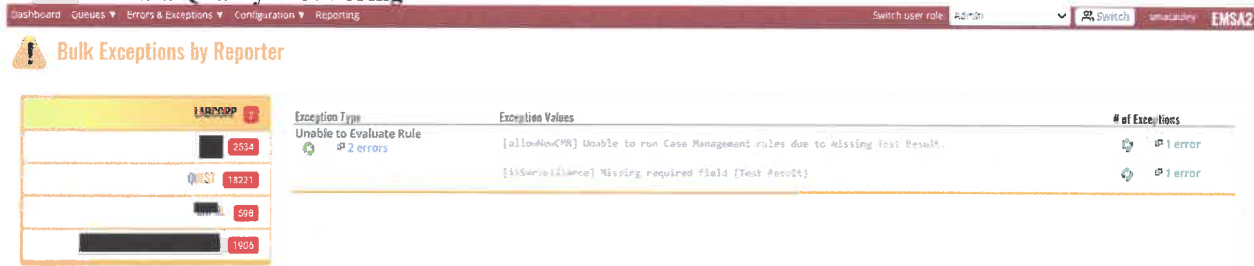
DS020	1	The Vendor should have the ability to report data stream and job failures.

Response: InductiveHealth leverages Grafana Dashboard and Analytics to identify anomalies in the chain of custody including job failures.

Grafana Dashboard and Analytics – Feed Monitoring

DS021	1	The Vendor should have the capability to allow users to define protocols for contacts, cases, and laboratory reports for acceptance or transfer from other public health jurisdictions.

Responses: Protocol definition is conducted in EMSA™ to automate processing with clinical decision support including routing of laboratory reports to other jurisdictions (such as border states).

EMSA™ - Protocol Definition

EMSA™ - Protocol Definition – Case Definition

InductiveHealth Informatics, Inc.

Add/Edit LOINC-Based Case Management Rule ✖

Edit rule for Master LOINC "17009-2":

Rule applies to: EpiTrax ⌄

If...

✖ Test Result Equal (=) ⌄ | Positive / Reactive (Labs) ⌄

➕ Add Condition

Then...

Create New CMR?   Yes ⌄
Update Existing CMRs?   Yes ⌄
Surveillance Event?   Yes ⌄
Set State Case Status to: Confirmed ⌄

Save Changes   Cancel

DS022	1	The Vendor should have the ability to detect and respond to unusual data submission patterns to prevent delayed system performance.

Response: InductiveHealth can detect abnormal submission patterns through continuous data monitoring and through the EMSA™ clinical decision rules engine and intake monitoring alert configuration which automates alerts based on predefined message volume thresholds.

EMSA™ Intake Monitoring Configuration

Dashboard Queues ▼ Errors & Exceptions ▼ Configuration ▼ Reporting   Switch user role: Admin ⌄ ⚲ Switch smacauley **EMSA2**

🔧 **Intake Monitoring Alert Configuration**

Edit Alert Settings:

Received Messages Threshold: 0   o

Accepted Messages Threshold: 2   6

Monitor Received Messages from...   Monitor Accepted Messages from...
✓ +Blank+   ☐ 13
☐ Cerris   ☐ AbbottInformatics
☐ CERNER   ☐ Amazon Pre Reporting
☐ Core Diagnostic Laboratories ▼   ☐ APOLLO ▼

Send Alerts to:
example@example.com

💾 Save Changes

DS023	1	The Vendor should provide the ability for users to maintain a repository of communication contacts with attributes such as healthcare providers, media, laboratories, and other partners involved in surveillance activities.

Response: InductiveHealth currently maintains a customer relationship management (CRM) repository on behalf of DHHR including reference laboratories and hospitals. InductiveHealth can extend this repository to include other contacts and provide designated DHHR secure users access to the CRM web portal.

Customer Relationship Management Portal

DS024	1	The Vendor should provide the ability to integrate with state's enterprise data warehouse to monitor data based on user-defined criteria including:
DS025	2	Syndromic data
DS026	2	Diagnostic testing
DS027	2	Absenteeism
DS028	2	Over-the-counter medication sales
DS029	2	Others as defined by DHHR

Response: InductiveHealth can integrate with ancillary data sources using the Change Request identified in the RFP. InductiveHealth has expertise in the data sets identified by DHHR including:

- **Syndromic data**: InductiveHealth is the exclusive commercial partner with Johns Hopkins Applied Physics Laboratory for Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) and also manages all onboarding and data processing on behalf of the Centers for Disease Control and Prevention (CDC) BioSense Program.
- **Diagnostic Testing**: InductiveHealth has extensive experience with diagnostic testing including point of care testing and traditional laboratory resulting.
- **Absenteeism**: School attendance is a rich data source when correlated with Emergency Department (ED) data via syndromic surveillance.
- **Over the counter medication sales**: Over the counter (OTC) medication provides unique insights into potential public health events when correlated with other data sources such as syndromic data.

DS030	1	The Vendor should support manual logging of data-sharing errors.

Response: InductiveHealth can accomplish this using Rhapsody™ integration engine using Error Queues specific to inter-partner data sharing routes and algorithms.

DS031	1	The Vendor should support methods to collect feedback concerning communication.

Response: As part of InductiveHealth's Engage, Connect, Validate, and Operate methodology, InductiveHealth is continually collecting feedback on trading partner communication (primarily through email communication) that is centralized with our customer relationship management (CRM) portal. Based on the specific needs of DHHR, InductiveHealth can implement specific surveys and feedback models using the Change Request defined in this RFP.

1.2 Attachment F-Mandatory Requirements

MR088	1	The vendor must have the ability to push a copy of the database to an Agency server in a SQL format at least twice daily.	Data and Reporting

Response: Response: Both EMSA™ and EpiTrax™ utilize Postgres relational databases and InductiveHealth will push a SQL format copy of both databases to DHHR at least twice daily. Based on similar processes employed by InductiveHealth today for DHHR, InductiveHealth recommends that DHHR pull down the ESS database(s) from Amazon Web Service (AWS) S3 via secure credentials.

MR089	1	The vendor must have the ability to migrate data from legacy systems to new solution.	Data and Reporting

Response: Based on the inventory of Current Surveillance Systems defined in Section 4.16 of the RFP, the table below introduces the InductiveHealth Team's data conversion approach including proposed timelines with further detail to be provided in the D031 – Data Conversion Plan deliverable.

It is important to note that for the West Virginia Electronic Disease Surveillance System (WVEDSS), DHHR should carefully evaluate vendors for a complete data conversion strategy given WVEDSS represents 1) the data processing layer for all electronic laboratory results (and electronic case reports) received by West Virginia, 2) the integrated repository of reportable disease data, and 3) West Virginia's mechanism for meeting Federal requirements for nationally notifiable disease reporting. In short, simply migrating the data from the NEDSS Base System (NBS) to a new solution will fall short for a data conversation approach.

The InductiveHealth Team highlights the magnitude of the surveillance data contained in WVEDSS as it directly impacts data integrity and consistency in the 'To Be' solutions. Only the InductiveHealth Team has the insights and expertise in extracting and interpreting WVEDSS data for mapping and conversion to the 'To Be' solution elements including avoidance of duplicating data contained in both WVEDSS and Chexout and mitigation of breaks in nationally notifiable disease reporting.

Current Surveillance System	Data Conversion Approach	Data Volumes (Approximate)	'To Be' Solution	Recommended Timeline
West Virginia Electronic Disease Surveillance System (WVEDSS)	**Communicable Disease Data**: Conversion of surveillance data going back to March 2011 consisting of Patients, Investigations, Morbidity Reports, Laboratory Results, Contacts, Interviews, Attachments, DHHR specific data variables, Co-Morbidities, Providers, Organizations	• 12M+ patient records • 180,000+ Investigation records across all reportable diseases • 10M+ laboratory results • 2M+ Providers	EpiTrax™	Prior to initial Go-Live for diseases requiring historical context such as Syphilis. Other diseases to be prioritized with DHHR.
	Rhapsody Data Integration Engine: Filters, translations, and validating logic designed to convert HL7 messages into the NEDSS Base System interface schema. Business Logic to be changed to convert HL7 messages to the EMSA™ interface schema.	• 5,000+ lines of custom integration logic	Rhapsody Data Integration Engine	Prior to initial Go-Live
	Electronic Laboratory Reporting (ELR):	• 10.4M+ individual messages	EMSA™	Prior to initial Go-Live
	electronic Case Reporting (eCR):	• < 1000 individual messages	EMSA™	To be prioritized with DHHR based on CDC/ELC requirements.

	Nationally Notifiable Disease (NND) Reporting to CDC for NNDSS:	• 162k+ message requests	EpiTrax™ NMI Module	Prior to initial Go-Live
Chexout	**COVID-19 Investigation Data:** Conversion of surveillance data using the CDC surveillance form.	Data volumes to be determined upon award.	EpiTrax™	To be prioritized with DHHR based on pandemic status at Go-Live
	COVID-19 Contact Data: Contact tracing data for COVID-19 patients, exposures, and person under investigations.	Data volumes to be determined upon award.	EpiTrax™	To be prioritized with DHHR based on pandemic status at Go-Live
	COVID-19 Laboratory Result Data: Laboratory results indicating both positive and negative findings for COVID-19 and related respiratory diseases. It is important to note that the majority of the Laboratory Result data in Chexout is sources from the WVEDSS.	Data volumes to be determined upon award.	EpiTrax™	To be prioritized with DHHR based on pandemic status at Go-Live
COVID Outbreak Management	**Documents:** Artifacts related to COVID-1 pandemic response	Volumes and types of artifacts to be assess upon award.	To be discussed with DHHS upon award.	To be prioritized with DHHR based on pandemic status at Go-Live.
Text Illness Monitoring (TIM)	**COVID-19 Symptoms and Monitoring Data**: Convert monitoring and symptom data consisting of web surveys.	Data volumes to be determined upon award.	Respond Plus™	To be prioritized with DHHR based on pandemic status at Go-Live.

MR090	1	The vendor must provide metadata, based on audit logs, to indicate changes in data and records including, but not limited to: users, actions, date, time, and changes such as new or updated records.	Data and Reporting
MR091	2	Date	Data and Reporting
MR092	2	Time	Data and Reporting
MR093	2	Users	Data and Reporting
MR094	2	And actions, including but not limited to:	Data and Reporting
MR095	3	Additions	Data and Reporting
MR096	3	Updates	Data and Reporting
MR097	3	Deletions	Data and Reporting

Response: Rhapsody™, EMSA™, EpiTrax™, Respond Plus™, Grafana Dashboards, RStudio Web, and Jira all support end user auditing based on the requirements defined by DHHR. Specifically, in EMSA™ auditing can be conducted on the life cycle of the incoming message and in EpiTrax™

EMSA™ - Audit Log Viewer

2. Data Quality

Refer to the relevant technical specifications located in *Appendix 1: Detailed Specifications* and pertinent narrative in *Section 4: Project Specifications* in this RFP to cover solution capabilities in this area. The Vendor should describe its approach to Data Quality below. The narrative response for this category should be organized using the appropriate subject matter area as per *Appendix 1: Detailed Specifications*.

2.1 Appendix 1: Detailed Specifications

DQ001	1	The Vendor should provide Data Quality Management for all data coming into the solution.
Response: InductiveHealth will encode Data Quality Management within the D014 Data Management Plan (including Governance and Quality) deliverable building on our existing Playbooks and methodologies (e.g., Engage, Connect, Validate, Operate) for data source onboarding and operations.		
DQ002	1	The Vendor should develop processes to maintain data integrity, consistency, accuracy, and

		timeliness of the solution data.

Response: Encoded in the D014 Data Management Plan (including Governance and Quality) deliverable, InductiveHealth's current Playbooks focus on the timeliness, completeness, and quality of data imported, managed, and exported from the ESS platform. This includes database operational processes to main database file integrity and performance, data processing processes and automated alerts to proactively identify data quality and latency challenges, and remote monitoring and management (RMM) solutions to proactively identify infrastructure and network challenges impacting timeliness of solution data.

DQ003	1	The solution should provide a tool that continually monitors the data quality within the solution and internal analytic applications.

Response: InductiveHealth uses many tools to monitor data quality in support of data analytics. This includes automated, re-occurring SQL queries to identify data anomalies in transactional databases, on-going operational reports to identify latency in incoming data processing, and proactively monitoring of data end points to monitor the chain of custody for incoming electronic messages and integrations to ancillary data sources.

DQ004	1	The solution should support audit and control processes that identify, report, and summarize errors in the data.

Response: With the majority of data received into the ESS platform consisting of electronic laboratory reports (ELR) and electronic case reports (eCR), InductiveHealth uses internal monitoring reports to summarize errors in data and features of EMSA™ to proactively identify processing errors that require intervention to resolve.

Internal Incoming Data Monitor to Summarize Data Errors

2	ELR	Failure	1	28	14	PLV
1	ELR	Failure	1	28	14	VPE
1150	ELR	Success	1	28	14	
1243	ELR	Success	1	28	15	

EMSA™ Data Quality Monitoring

DQ005	1	The Vendor should maintain a process to identify and track all errors and discrepancies found in the solution pursuant to Service Level Agreements (SLAs).

Response: To be encoded in the D059 Solution Health Monitoring Plan and D060 System Operations Plan deliverables, InductiveHealth will define the tooling and quantitative measures for each SLA as part of the Implementation Phase including the use of remote monitoring and management (RMM) tools and maintenance schedule to measure system availability.

DQ006	1	The Vendor should provide recommendations for proposed resolution/fixes for identified issues within a timeline approved by DHHR and pursuant to Service Level Agreements (SLAs).

Response: Based on SLA deviations, InductiveHealth will provide recommendations to address the deviations. InductiveHealth manages all deviations to SLA in JIRA Service Desk as service requests with assigned severity levels to drive response and restoration of services, as identified. For transparency, communications on SLA deviations are managed through JIRA Service Desk which includes automated emails to service request owner and participants from DHHR.

DQ007	1	The solution should support data integrity through system controls for software program changes and promotion to production.

Response: InductiveHealth promotes changes across lower environments prior to deployment to Production. This includes changes to not only solution elements but also data interfaces to support inbound / outbound data processing. InductiveHealth manages promotion using BitBucket version control supported by automated build processes (where applicable) which include rollback plans and validations procedures by our Help Desk Team.

2.2 Attachment F-Mandatory Requirements

No requirements identified.

3. Infrastructure

Refer to the relevant technical specifications located in *Appendix 1: Detailed Specifications* and pertinent narrative in *Section 4: Project Specifications* in this RFP to cover solution capabilitiesin this area. The Vendor should describe its approach to Infrastructure below. The narrative response for this category should be organized using the appropriate subject matter area as per *Appendix 1: Detailed Specifications*.

3.1 Appendix 1: Detailed Specifications

IN001	1	The solution should have the ability, using deterministic and probabilistic matching algorithms, to automatically deduplicate, merge and create records.
IN002	1	The Vendor should provide administrator-level users with the ability to unmerge merged records.
IN003	1	The Vendor should provide administrator-level users with the capability to set deterministic and probablistic matching criteria and thresholds.

Consolidated Response to IN001, IN002, and IN003: To automate both person and condition (disease) matching, EMSA™ uses an order of operations approach to deduplicate, merge, and create records. Specifically, when electronic laboratory reports and electronic case reports are received into EMSA™ a set of deterministic rules are first run to auto-match against existing persons in the EpiTrax™ registry. These deterministic rules are based on a 'star' system with 5-star person matches automatically merged. Following execution of the deterministic algorithm, a set of probabilistic matching algorithms are executed to identify possible person matches which are queued for a decision by designated users as 4- and 3-star matches. The probabilistic matching algorithms are based on the Levenshtein distance implementation to measure differences between string sequences to calculate proximity.

After person matching, EMSA™ then attempts to automatically deduplicate, merge and create records for Investigations. Specifically, after deriving the condition (disease), EMSA™ will determine if an Investigations existing and based on the status of the incoming laboratory report (or case report) will update the existing Investigation or create a new Investigation record. This provides a greater level of automation for DHHR in that Investigations creation is fully automated not requiring end user triage of laboratory reports (or case reports).

Given the impact of algorithm rule changes to downstream processing and disease surveillance, changes to deterministic and

probabilistic matching algorithms are coordinated between InductiveHealth (via our Help Desk Team and Technology Team) and DHHR. This enables InductiveHealth to collaborate and advise DHHR on algorithm changes including identification of a test plan to validate expected results in lower environments before implementation in Production. Once requirements and expected results are identified, InductiveHealth will process the algorithm change within the applicable EMSA™ database functions that control processing.

Currently, if a merge is incorrectly processed, the electronic laboratory report (or electronic case report) can be reprocessed using EMSA™ to create a new Investigation or route to the correct existing person. The incorrectly matched record can then be logically deleted as identified by end users.

EMSA™ - Person Review of Matches

IN004	1	The Vendor should provide form-builder capability for users to:
IN005	2	Upload and reuse existing forms
IN006	2	Develop new quesionnaires
IN007	2	Develop new letter templates
IN008	2	Others as defined by DHHR

Consolidated Response to IN005, IN006, IN007, and IN008: EpiTrax™ includes a Form Builder that includes a Question Library, ability to upload / download forms across environments and other public health agencies, management of value sets, and ability to have local health department specific form versions.

Currently, using EpiTrax™, letter templates can be modeled as read-only questions that are available within the Investigation for utilization as templates by end users for communication to patients and clients.

EpiTrax™ - Form Builder Module

EpiTrax | Welcome, Stephen Macauley | NEW CMR | EVENTS | OUTBREAKS | CMR SEARCH | EXPORTS | PEOPLE | ADMIN | SETTINGS | LOGOUT

Manage Forms

Forms ◀

	Published	v1	
	Published	v1	
Gonorrhea	Published	v1	

Other Versions
None

	Published	v2	
	Published	v3	
	Published	v1	

Create Form   ↑ Import Form

Gonorrhea
Status: Published   Version: 1   ID: 11   Created: 01/??/2022 02:31 PM
Last Update: 01/25/2022 04:39 PM

🖫 Save   ▾ Options

Form Attributes   Form Builder   Associated Events

Name: Gonorrhea
Short name: chlamydia_gonorrhea
Event type: Morbidity Event ▾
Description: Gonorrhea Disease Investigatio

Agencies

🔎

EpiTrax™ - Form Builder Module – Question Management

Form Attributes   **Form Builder**   Associated Events

▼ Investigation Tab

Add Tab

Tab (ID:50) **Investigation**
▼ Edit   Move   Insert Question   Insert Group   Add Section   Add Block   Inactivate

Question (ID:51) **Random number:**
Short name: **ssun_random_number**, Data type: **Single Line Text**, Data set: **Hidden**
Edit   Move   Activate

Question (ID:52) **Selected for enhanced investigation:**
▸ Short name: **ssun_random_samp**, Data type: **Radio Buttons**, Data set:
Edit   Move   Add Follow-up   Activate

Question (ID:56) **Is the patient MSM (a man who has sex with men)?**
▸ Short name: **patient_msm**, Data type: **Radio Buttons**, Data set: **Optimal**
Edit   Move   Add Follow-up   Inactivate

Question (ID:87) **Date assigned:**
Short name: **date_assigned**, Data type: **Date**, Data set: **Optimal**
Edit   Move   Inactivate

Question (ID:88) **Was the case interviewed?**
▸ Short name: **case_interviewed**, Data type: **Radio Buttons**, Data set: **Optimal**
Edit   Move   Add Follow-up   Inactivate

Question (ID:108) **Disposition**
▸ Short name: **idx_dispo**, Data type: **Drop Down**, Data set: **Optimal**
Edit   Move   Add Follow-up   Inactivate

EpiTrax™ - Question Library

EpiTrax | Welcome, Stephen Macauley | NEW CMR | EVENTS | OUTBREAKS | CMR SEARCH | EXPORTS | PEOPLE | ADMIN | SETTINGS | LOGOUT

Manage Questions

Questions | Value Sets | Question Groups

Category Filter

▼

Add Question | Clear Filter

(Questions 1 - 50 of 655, Page: 1/14) |◄ ◄◄ **1** 2 3 4 5 6 7 8 9 10 ►► ►| 50 ∨

Action	ID	Short Name ⬍	Question Text ⬍	Data Type	Is Active All ▼
Edit	1	othracetxt	If other race reported	Single Line Text	Yes
Edit	3	hivtestdt	Date of HIV test	Date	Yes
Edit	4	hiv_status_cdc	HIV Status (Self-reported or documented at the time of the event.)	Radio Buttons	Yes
Edit	5	hivdatasource	Data Source:	Drop Down	Yes
Edit	6	gestation	Weeks gestation (at time of diagnosis):	Single Line Text	Yes
Edit	7	aka	AKA:	Single Line Text	Yes
Edit	8	ssun_random_number	Random number:	Single Line Text	Yes
Edit	9	ssun_random_samp	Selected for enhanced investigation:	Radio Buttons	Yes
Edit	10	patient_msm	Is the patient MSM (a man who has sex with men)?	Radio Buttons	Yes
Edit	11	prep	Did the LHD disease investigator discuss PrEP with the patient?	Radio Buttons	Yes
Edit	12	prep_current	Is the patient currently on PrEP?	Radio Buttons	Yes
Edit	13	prep_ever	Has the patient ever previously utilized PrEP?	Radio Buttons	Yes

IN009	1	The Vendor should provide a searchable document repository for frequently used information including:
IN010	2	Outbreak management plans
IN011	2	Treatment protocols
IN012	2	Best practice documentation
IN013	2	Templates for internal and external communications
IN014	2	Others as defined by DHHR

Response: EpiTrax™ enables collection of outbreak information via the Outbreak Management module. For other document management needs, InductiveHealth will collaborate with DHHR on specific requirements needs and lessons learned from the current use of SharePoint to manage documentation.

IN015	1	The Vendor should provide survey functionality including development of questionnaires and the ability to receive and analyze survey responses.
IN016	1	The Vendor should support reminders of incomplete questionnaires and non-responses.

Consolidated Response to IN015 and IN016: Web surveys, triggered based on monitoring or exposure can be completed with results stored in Respond Plus™ including identifying when web survey was not completed.

IN017	1	The Vendor should provide help text with field descriptions and definitions in the user interface.
IN018	1	The Vendor should provide auto-complete/auto-suggest word functionality (i.e., IntelliSense functionality).

Consolidated Response to IN017 and IN018: Help text with field descriptions including type ahead functionality is available in within and across the ESS platform.

IN019	1	The Vendor should provide a user interface that is mobile friendly.

Response: While designed for end users using non-mobile devices, Respond Plus™, EpiTrax™, and EMSA™ are mobile friendly.

Example Mobile Friendly Display

IN020	1	The Vendor should support multiple languages in the user interface.

Response: Currently, Respond Plus™, EpiTrax™, and EMSA™ are designed for English (United States) language with support available for language localization assuming language input files are available to facilitate user interface translation.

IN021	1	The Vendor should provide offline capability for data entry.

Response: Currently, Respond Plus™, EpiTrax™, and EMSA™ are designed for online data entry and management experiences. InductiveHealth will collaborate with DHHR to determine specific use cases and requirements needed for offline capability and determine how best to implement based on mutually agreed upon scope.

IN022	1	The Vendor should provide capability for users to manage lookup tables within the application.

Response: EpiTrax™ and EMSA™ support designated end user management of look up tables including configuration of laboratory resulted test codes, configuration of new values sets, and configuration of new values to existing value sets. This provides DHHR with a greater degree of designated end user configuration for ESS operations.

IN023	1	The Vendor should allow users the ability to override a workflow to move on to next step, even if elements are determined to be missing.

Response: EpiTrax™ and EMSA™ provide a great deal of flexibility in the disease surveillance workflow for routing, record approval, and editing. Both solutions have minimal required fields which enable workflows to not be impeded by missing data variables.

IN024	1	The Vendor should provide SMS capability for automated messaging to the public when monitoring symptoms related to:
IN025	1	Monitoring
IN026	2	Symptom updates
IN027	2	Reminders
IN028	2	Notifications
IN029	2	Others as defined by DHHR

Consolidated Response to IN025, IN026, IN027, IN028, IN029: Respond Plus™ provides SMS capability based on a series of rules for delivery across multiple phone carriers.

IN030	1	The Vendor should provide SMS capability for automated messaging to DHHR users for:

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IN031	2	Alerts of assigned tasks
IN032	2	Notifications related to information changes in the system
IN033	2	Reminders
IN034	2	Others as defined by DHHR

Consolidated Response to IN031, IN032, IN033, and IN034 : EpiTrax™ and EMSA™ currently implement alerting using email triggers. Based on specific DHHR requirements, this functionality could be extended to include SMS messages. InductiveHealth will collaborate with DHHR to determine specific use cases and requirements needed for end user SMS messaging and determine how best to implement based on mutually agreed upon scope.

IN035	1	The Vendor should provide functionality for automated messaging through social media for:
IN036	2	Monitoring
IN037	2	Notifications
IN038	2	Reminders
IN039	2	Alerts
IN040	2	Others as defined by DHHR

Consolidated Response to IN036, IN037, IN038, IN039, and IN040: EpiTrax™ and EMSA™ currently implement alerting using email triggers. Based on specific DHHR requirements, this functionality could be extended to include SMS messages. InductiveHealth will collaborate with DHHR to determine specific use cases and requirements needed for end user SMS messaging and determine how best to implement based on mutually agreed upon scope.

IN041	1	The Vendor should support multiple distribution methods for internal communications including:
IN042	2	Email
IN043	2	Phone
IN044	2	Short message service (SMS)
IN045	2	Others as defined by DHHR

Consolidated Response to IN042, IN043, IN044, IN045: Please reference responses to IN035 and IN030.

IN046	1	The Vendor should provide users with the ability to create/edit and send alert messages.

Response: EMSA™ provides the ability to send email-based alerts to designated end users based on predefined triggers on the occurrence of reportable diseases based on incoming laboratory results and case reports.

IN047	1	The Vendor should provide the ability to track distribution/receipt of education materials.

Response: InductiveHealth customer relationship management (CRM) tool provides similar functionality to what is requested by DHHR. InductiveHealth will collaborate with DHHR to determine specific use cases and requirements needed for tracking of distribution / receipt of education materials to determine how best to implement based on mutually agreed upon scope (target actors, frequency, level of automation).

IN048	1	The Vendor should provide the capability to allow users to set up and modify rules to provide differential views.

Response: EpiTrax™ allows end users to create specific views to facilitate daily workflow tasks.

EpiTrax™ - Configuration of Views

| EpiTrax | Welcome, Stephen Macauley | NEW CMR | EVENTS | OUTBREAKS | CMR SEARCH | EXPORTS | PEOPLE | ADMIN | SETTINGS | LOGOUT |

Events

Current view

test ▼   Options

Bulk workflow

Please select... ▼   Apply Workflow

+ Add View   ▼ More Options

View Criteria

Record #	Last name	First name	Age range	Event date after	Event date before
			- ▼ - ▼	01/01/2015 🗓	mm/dd/yyyy 🗓

Event Type

☐ Contact   ☐ Morbidity

Event investigation status	Queues	Investigators
▼	▼	▼

Diseases	Investigating agency	Language
▼	▼	▼

Address at diagnosis

Enter the exact Street, City, State Zip

Facility

Press Enter to search

Show deleted events
⬤

IN049	1	The Vendor should have a business intelligence tool with dashboard and visual analytic capabilities for surveillance system and workflow analytics.

Response: For business intelligence, the InductiveHealth ESS solution includes 1) ability to export entered data from EpiTrax™ into Comma Separated Value (CSV) format in real-time, 2) Grafana for pre-formatted dashboards and aggregate analytics, 3) RStudio Web for statistical analysis by designated users, and 4) preconfigured dashboards and reports on incoming message processing with EMSA™.

IN050	1	The Vendor should provide capability for administatior-level user configuration for logic changes.

Response: EMSA™ provides user interfaces for administrator level user configurations and EpiTrax™ provides user interfaces to configure forms and associated value sets.

IN051	1	The Vendor should provide an Application Programming Interface (API).

Response: EpiTrax™ includes Rest based APIs to facilitate querying of the patient registry for surveillance events.

EpiTrax™ - Rest APIs

EpiTrax   Welcome, Stephen Macauley   NEW CMR | EVENTS | OUTBREAKS | CMR SEARCH | EXPORTS | PEOPLE | ADMIN | SETTINGS | LOGOUT

Rest Examples

Validate

- **Method:** POST
- **URL:** http://998cdd5fbee5:8080/nedss/admin/rest/RestEJB/validate

Post Body:

Submit

Rest Response

Find MDRO

- **Method:** POST
- **URL:** http://998cdd5fbee5:8080/nedss/admin/rest/RestEJB/findMDRO

Post Body:

```
<nedssHealth>
    <person>
        <firstName></firstName>
        <lastName></lastName>
        <birthDate></birthDate>
        <personCondition>
            <personFacility>
                <medicalRecordNumber></medicalRecordNumber>
            </personFacility>
        </personCondition>
        <score></score>
    </person>
</nedssHealth>
```

IN052	1	The Vendor should have the have ability to integrate with GIS web service for address validation and jurisdiction boundaries.

Response: InductiveHealth currently maintains an integration to GIS web service for DHHR via Rhapsody and has the ability to further integrate GIS web services into the ESS platform.

IN053	1	The Vendor should provide integration with data reporting and visualization applications such as Microsoft Power BI or Tableau.

Response: All data within EpiTrax™ can be exported using the Export module into comma separated value (CSV) format for data analysis using visualization applications. InductiveHealth will collaborate with DHHR to determine specific needs on the level of integration and collaborate to mutually agree on specific use cases and integration levels.

IN054	1	The Vendor should provide the capability to interface with public alert networks.

Response: InductiveHealth can interface with applications such as a Health Alert Network and will collaborate with DHHR to determine specific needs on the level of interface and collaborate to mutually agree on specific use cases and interface levels.

IN055	1	The Vendor should provide the ability to integrate with an outbreak management system.

Response: EpiTrax™ provides outbreak management capabilities for endemic surveillance with Respond Plus available for epidemic and pandemic responses.

EpiTrax™ - Sample Outbreak Design

| EpiTrax | Welcome, Stephen Macauley | | | | NEW CMR | EVENTS | OUTBREAKS | CMR SEARCH | EXPORTS | PEOPLE | ADMIN | SETTINGS | LOGOUT |

Edit Outbreak > Example 1

CREATED: Jan 29, 2022 - 11:15 AM

⚙ Options ▾

Save & Continue   Save & Exit

| Summary | **Admin** | Notes | Associated Events | Investigation | Report | Associated Outbreaks | Sharing |

Number	2022-00004
Name	Example 1
Type	State Outbreak ▾
Date Outbreak Identified	01/26/2022 📅
Status	ACTIVE ▾
Investigating Agency	Alpha Health Department ▾
Lead Investigator	Please select... ▾
Disease	Botulism, other unspecified ▾
Disease Type	Please select or type in value.. ▾
Major setting of exposure	Please select or type in value... ▾
Associate New Facilities	Press Enter to search

Associated Facilities to Example 1

| | Facility Id | Facility Name | Actions |
| Associated Facilities | No records found. | | |

| 1st known onset date | mm/dd/yyyy 📅 |

3.2 Attachment F-Mandatory Requirements

No requirements identified.

4. Security Management

Refer to the relevant technical specifications located in *Appendix 1: Detailed Specifications* and pertinent narrative in *Section 4: Project Specifications* in this RFP to cover solution capabilities in this area. The Vendor should describe its approach to Security Management below. The narrative response for this category should be organized using the appropriate subject matter areaas per *Appendix 1: Detailed Specifications*.

4.1 Appendix 1: Detailed Specifications

SM001	1	The Vendor should deliver a Security, Privacy, and Confidentiality Plan within 30 calendar days of contract startup.
SM002	1	The Vendor should submit an updated Security, Privacy, and Confidentiality Plan to DHHR for review and approval 30 business days prior to the start of solution operations.
SM003	1	The Vendor should perform a review of the Security, Privacy, and Confidentiality Plan annually and submit to DHHR for review and approval within 30 calendar days of the review.
SM004	1	The Vendor should submit substantive change(s) to the Security, Privacy, and Confidentiality Plan for review and approval within 30 calendar days of the proposed change(s).
SM005	1	The Vendor should maintain a DHHR-approved Security, Privacy, and Confidentiality Plan that details how the solution complies with applicable DHHR, State, and federal security and privacy laws, policies, and/or procedures.

Consolidated Response to SM001, SM002, SM003, SM004, SM005: As a software-as-a-service (SaaS) organization, InductiveHealth maintains a System Security Plan (SSP) governing all security controls based on National Institute of Standards and Technology (NIST) Computer Security Resource Center (CSRC) for Moderate systems under Special Publication 800-53 Revision 4 Security and Privacy Control. InductiveHealth's approach to information security is based on the management of data under the following Controlled Unclassified Information (CUI) Categories:

1. Health Information - https://www.archives.gov/cui/registry/category-detail/health-info
2. General Privacy - https://www.archives.gov/cui/registry/category-detail/privacy.html

These CUI categories include data on:
1. Laboratory results for specific diseases
2. Health status
3. Protected Health Information
4. Patient Identifiable Information
5. Identified contacts
6. On-going health status
7. Workup notes on the course of person's investigation

The figure below provides an excerpt of InductiveHealth's System Security Plan (SSP) which will be reviewed with DHHR in response to the requirements identified for SM001, SM002, SM003, SM004, SM005.

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InductiveHealth SaaS Controls v1

SM006	1	The solution should maintain an audit trail that can be used to identify unauthorized attempts to access the solution and log the IP address from where the intrusion attempt occurred, in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.
SM007	1	The solution should provide an audit of all attempts to access or use sensitive data, consistent with Health Insurance Portability and

		Accountability Act (HIPAA), Centers for Disease Preparedness and Prevention (CDC) , and other DHHR, State, and federal laws and regulations.
SM008	1	The solution should have the ability to prevent, monitor, and detect malicious software and code.

Consolidated Response to SM006, SM007, and SM008: InductiveHealth implements the requested security controls including use intrusion detection system (IDS) at the firewall level, logging of all web traffic including originating IP and browser type, and logging and management of all authentication attempts (end user and system to system).

SM009	1	The solution should have the ability to provide security incident reporting and mitigation mechanisms according to state and federal requirements and in accordance with DHHR's Incident Reporting and Response Policy including, but not limited to:
SM010	2	Terminating access and generating a report when a potential security violation is detected
SM011	2	Preserving and reporting specified audit data when a potential security violation is detected
SM012	2	Others as defined by DHHR

Consolidated Response to SM009, SM010, SM011, SM012: InductiveHealth implements the requested security controls in our current SaaS environment.

SM013	1	The Vendor should ensure that any and all security and privacy breaches, incidents, and/or unauthorized disclosures are reported according, to state and federal requirements and in accordance with DHHR's Incident Reporting and Response Policy.
SM014	1	The solution should have the ability to log all authorized solution user activity and correlate, analyze, and report on all logged user events and associated data.
SM015	1	The solution should have the ability to provide a report of authorized solution user activity as determined by DHHR in the Design, Development, and Implementation (DDI) phase.
SM016	1	The solution should provide an audit trail of record changes, including authorized solution user, date, and time of change.
SM017	1	The solution should have the ability for audit trails to allow information on source documents to be traced through the processing stages to the point where the information is finally recorded.
SM018	1	The solution should have the ability to trace data from the final place of recording back to its source of entry.
SM019	1	The Vendor should ensure that any and all security and privacy breaches, incidents, and/or unauthorized disclosures are reported according, to state and federal requirements and in accordance with DHHR's Incident Reporting and Response Policy.
SM020	1	The solution should limit data sharing to only those entities and individuals located in the United States and/or U.S. territories that maintain a current data sharing agreement with DHHR consistent with DHHR-required agreements and security and privacy policies and procedures.
SM021	1	The solution should have the ability to control access rights to data and system functions based on authorized solution user role-based access.
SM022	1	The Vendor should work with DHHR to define the process for access to the solution in the Design, Development, and Implementation (DDI) phase.
SM023	1	The solution should support role-based user access.

Consolidated Response to SM013, SM014, SM015, SM016, SM017, SM018, SM019, SM020, SM021, SM022, and SM023: InductiveHealth currently implements the requested security controls which InductiveHealth currently uses in delivery of services to DHHR today.

SM024	1	The solution should provide an interactive, adjustable time-out feature for authorized solution user inactivity in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.
SM025	1	The solution should provide alerts to authorized solution users that inactivity will result in being timed out after the specified period of inactivity in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.

Consolidated Response to SM024 and SM025: The ESS solution provides adjustable time-out feature to facilitate inactivity logout in accordance with the provided requirements.

EpiTrax™ - Session Timing

EpiTrax™ - Session Logout

Your session timed out due to a long period of inactivity.

Click the Login button below to re-authenticate.

Login

SM026	1	The solution should have the ability to enforce password policies for length, character requirements, and required updates in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.
SM027	1	The solution should store passwords in encrypted form in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.
SM028	1	The solution should permit system administrators to reset authorized solution user passwords.
SM029	1	The solution should allow authorized solution users to reset their own passwords at any time by following system-defined standards in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.
SM030	1	The solution should block pop-ups, spam, advertisements, and malware.

Consolidated Response to SM026, SM027, SM028, SM029, SM030: InductiveHealth's flexible multi-factor authentication (MFA) solution supports the requirements provided by DHHR. These same requirements are current delivered through InductiveHealth's delivery of WVEDSS.

SM031	1	The solution should have the ability to remove or disable systems, services, components, and modules as defined by DHHR.

Response: InductiveHealth's proposed ESS solutions include role based authorization which support this requirement.

SM032	1	The solution should have secure transmission and data integrity controls to detect improper modification of transmitted information.
SM033	1	The solution should use Secure Sockets Layer (SSL) certificates that are consistent with State and federal requirements for data in transit.
SM034	1	The solution should have the ability to restrict release of sensitive data.
SM035	1	The solution should support data integrity by preventing and detecting unauthorized alteration or destruction.

Consolidated Response to SM032, SM033, SM034, and SM035: All traffic in and out of the InductiveHealth system boundary is over 256-Bit Secure Socket Layers (SSL) [both end user and SFTP]. All authentication attempts require two (2) factor authentication with subsequent solution specific authorization required via user name binding to limit solution specific rights to data.

SM036	1	The Vendor should collaborate with DHHR to determine a security approach that integrates with other solution components to supply role-based single-sign-on access.
SM037	1	The Vendor should maintain procedures that ensure all emergency and non-emergency production system changes follow a DHHR-approved change control process, including a risk analysis.

Consolidated Response to SM036 and SM037: As it does today, InductiveHealth will collaborate with DHHR and as discussed above will following DHHR approved change control process.

SM038	1	The solution should support record, database, table, and field-level access.
SM039	1	The solution should have the ability to provide authorized solution users access to view and audit records of changes to free-form text data fields by capturing information including, but not limited to:
SM040	2	The name of the authorized solution user who updated a field
SM041	2	The date and time a field was updated
SM042	2	Others defined by DHHR

Consolidated Response to SM038, SM039, SM040, SM041, and SM042: All proposed ESS solutions implement role-based authorization security models which restrict what individual users can see, do, and access. Each proposed ESS solution records history to support audit of changes over time including recording the performing end user.

SM043	1	The solution should have data encryption standards in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.
SM044	1	The Vendor should provide documentation on how the solution governs the confidential nature of information about patients and their health information.

Consolidated Response to SM043 and SM044: The InductiveHealth private cloud follows FIPS Publication 199 guidelines for data encryption.

SM045	1	The Vendor should be prepared to demonstrate how the solution supports regulations governing the safeguard of information about patients including, but not limited to:
SM046	2	Names

SM047	2	Addresses
SM048	2	Medical data, including diagnosis and past history of disease or condition
SM049	2	Test results
SM050	2	Treatment plans
SM051	2	Others as defined by DHHR, State, and federal security and privacy policies

Consolidated Response to SM046, SM047, SM048, SM049, SM050, and SM051: InductiveHealth looks forward to collaborating with DHHR to review security controls and associated documentation.

SM052	1	The solution should disable accounts after three consecutive invalid log in attempts and protect against further user authentication attempts using a DHHR approved lock-out mechanism.

Response: The InductiveHealth flexible multi-factor authentication (MFA) solution currently supports a three-strike rule and InductiveHealth will collaborate with DHHR to review InductiveHealth's current solution against DHHR approved lock-out mechanism requirements.

SM053	1	The Vendor should supply, on an annual basis, a report of the results of a security risk assessment, including all tools used for the assessment, and an action plan detailing the approach for remediation of security risk vulnerabilities.

Response: InductiveHealth will supply the annual report based on execution of a web vulnerability can using our Independent Validation and Verification (IV&V) partner.

4.2 Attachment F-Mandatory Requirements

MR018	1	The vendor must have established privacy, security, and auditing policies and procedures documented in the Data Security, Privacy and Confidentiality Plan, Privacy Impact Analysis, and Security Plan to be approved by the Agency.	Security
MR019	1	The Vendor must comply with the baseline security controls for moderate impact information systems as recommended by the National Institute of Standards and Technology (NIST), Code of Federal Regulations.	Security
MR018	1	The vendor must have established privacy, security, and auditing policies and procedures documented in the Data Security, Privacy and Confidentiality Plan, Privacy Impact Analysis, and Security Plan to be approved by the Agency.	Security

Consolidated Response to MR018, MR019, and MR018: As a software-as-a-service (SaaS) organization, InductiveHealth maintains a System Security Plan (SSP) governing all security controls based on National Institute of Standards and Technology (NIST) Computer Security Resource Center (CSRC) for Moderate systems under Special Publication 800-53 Revision 4 Security and Privacy Control. InductiveHealth's approach to information security is based on the management of data under the following Controlled Unclassified Information (CUI) Categories:

1. Health Information - https://www.archives.gov/cui/registry/category-detail/health-info
2. General Privacy - https://www.archives.gov/cui/registry/category-detail/privacy.html

These CUI categories include data on:
1. Laboratory results for specific diseases
2. Health status
3. Protected Health Information
4. Patient Identifiable Information
5. Identified contacts

6. On-going health status 7. Workup notes on the course of person's investigation			
MR021	1	The vendor must provide secure data encryption while data are at rest and in transit.	Security
Response: The InductiveHealth private cloud follows FIPS Publication 199 guidelines for data encryption in transit and at rest.			
MR022	1	The Vendor must include in the Security Plan applicable NIST SP 800-53 security control responsibilities noting which security controls are inherited by the Vendor, implemented by the Agency, or shared by both parties. The Security Plan must be maintained by the Vendor and outline the following:	Security
MR023	2	Non-compliant and required security controls	Security
MR024	2	Applied mitigations	Security
MR025	2	Plan to correct deficiencies	Security
MR026	2	Cyber security procedures and management plans	Security
Consolidated Response to MR023, MR024, MR025, MR026: As a software-as-a-service (SaaS) organization, InductiveHealth maintains a System Security Plan (SSP) governing all security controls based on National Institute of Standards and Technology (NIST) Computer Security Resource Center (CSRC) for Moderate systems under Special Publication 800-53 Revision 4 Security and Privacy Control.			

ATTACHMENT I: IMPLEMENTATION SPECIFICATIONS APPROACH

Instructions: The Vendor should provide a narrative overview of how the proposed system will meet the specifications and narrative in this RFP. Use these response sections to provide specific details of the proposed approach to meeting the implementation specifications in each process area. Be advised, while some sections only require narrative around specifications others may also contain pointed questions. Responses should reference specifications and relevant mandatory requirements using the appropriate IDs from *Appendix 1: Detailed Specifications and Attachment F: Mandatory Requirements.*

Responses in the sections below should be focused on DHHR business processes and requirements. DHHR also expects the Vendor to propose its approach for meeting the narrative included in this RFP.

The Vendor is required to respond to the headings below to provide detail regarding the Vendor's methodology for each project management component.

1. Project Management Methodology

The Vendor's proposal should describe the Vendor's methodology, tools, and techniques used tosupport projects from requirements through finished deliverables, including deployment of the new solution, project management, checkpoints, and periodic status reporting. The proposal should describe policies and procedures employed to ensure timely completion of tasks in a quality fashion.

Response: Presented in further detail below, InductiveHealth utilizes a Project Management Body of Knowledge (PMBOK) based methodologies drawing on Health and Human Services (HHS) Enterprise Performance Lifecycle (EPLC) methodology for program delivery. For Product Development, InductiveHealth uses a Scrum methodology and uses DevOpsSec methodology for software-as-a-service (SaaS) delivery.

InductiveHeath will meeting all mandatory requirements as identified by DHHR.

1.1. Work Plan

The Vendor's proposal should supply a narrative describing the Vendor's proposed processes and methodologies for providing the scope of work described in this RFP. The proposal should include any assumptions as well as the Vendor's approach to meeting the Initial Work Plan. TheVendor should include detail sufficient to give DHHR an understanding of how the Vendor's knowledge and approach will:
- Manage the work
- Guide work execution
- Document planning assumptions and decisions
- Facilitate communication among stakeholders
- Define key management review as to content, scope, and schedule

The Vendor should also submit an Initial Work Plan in *Attachment E: Initial Work Plan* that demonstrates that the Vendor has a thorough understanding of the scope of work and project requirements.

Response: Please reference **Attachment E: Initial Work Plan** that demonstrates that the InductiveHealth Team's thorough understanding of the scope of work and project requirements.

1.2. Issue Management

The Vendor's proposal should describe the Vendor's process for issue management including: issue logging, resolution, tracking of unresolved problems, escalation procedures, closeout, and reporting practices. The Vendor should describe its proposed approach for integration of issue management across subcontractors, if applicable, as well as other State and Vendor project stakeholders. The Vendor should also detail any planned use of an automated solution to support issue management.

Response: The InductiveHealth Team will continue to support West Virginia using our pre-defined library of project management artifacts including Issue Log. Derived from the Project Management Institute (PMI) Project Management Body of Knowledge (PMBOK), Health and Human Services (HHS) Enterprise Performance Lifecycle (EPLC) artifacts [https://www2a.cdc.gov/cdcup/library/other/eplc.htm], and delivery best practices for software-as-a-service (SaaS) solution delivery derived from IT service management (ITSM).

Exhibit-1 provides an example of the combined Issue, Risk, Decision, and Question (IRDQ) Log (Microsoft Excel based) to record issues and measures issues based on Complexity (High, Medium, Low) and Impact (Blocker, High, Medium, Low). Recognizing that Issues often span a time period, all Issues have a Date Opened and a Rolling Status for on-going activity and discussion. Given the importance of 100% transparency, the Issue Log will also include internal Issues such challenges that may arise with delivery of our teaming partner – STChealth. As part of D003 – D013 Project Management Plan deliverable, the InductiveHealth Team will further define issue management as part of the D009 Risk and Issue Management Plan.

The IRDQ Log is managed by Michelle Brazel, PMP (Project Manager) and will be presented to West Virginia via the Monthly Status Report and during status report meetings.

Exhibit-1: Issue Log.

1.3. Risk Management

The Vendor's proposal should describe the Vendor's risk management practices, the expected risk areas, and mitigation plans. In addition, the response should elaborate on the Vendor's internal risk management plan. This should include reference to the use of any specific methodologies, as well as any specific tools being used.

The risk management plan should outline the process, by which, cyber risk management activities are conducted to identify, assess, communicate, and manage shared cyber risk. The Vendor should provide this prior to the first implementation of the Vendor's hosted solution.

Response: As discussed above, the Issue, Risk, Decision, and Question (IRDQ) Log will also be used to manage identified Risks. Upon contract start, the InductiveHealth Team will seed the IRDQ Log with an initial Risk Assessment based on our current delivery to West Virginia (e.g., impact of on-going COVID-19 pandemic response to West Virginia resource availability).

From here, Michelle Brazel, PMP (Project Manager) will have responsibility for Risk mitigation and identification of new Risks based on Implementation phase delivery and on-going delivery in Operations phase. As part of D003 – D013 Project Management Plan deliverable, the InductiveHealth Team will further define risk management as part of the D009 Risk and Issue Management Plan.

In providing software-as-a-service (SaaS) solutions to West Virginia today, InductiveHealth performs Independent Validation and Verification (IV&V) vulnerability scans through our partner Acunetix. These web vulnerabilities proactively and independently assess potential threats based on end points such as the EpiTrax™ Platform web portal. In the event regular scanning detects a threat or potential threat, it will be added to the IRDQ Log for immediate discussion with OIMS representative(s).

Vulnerability Scan   28 March 2018 at 20:03

URL : https://wvnbs.inductivehealth.com

Summary: No vulnerabilities or malware found

| HIGH | 0 | MED | 0 | LOW | 0 | INFO | 26 |

	Name	Vulnerability
	Operating System Detected	INFO
	Host Uptime Based on TCP TimeStamp Option	INFO
	Web Server Version	INFO
	Open TCP Services List	INFO
	SSL Web Server Version	INFO
	Firewall Detected	INFO
	TLS Secure Renegotiation Extension Support Information	INFO
	Target Network Information	INFO

Exhibit-2: Example Independent Validation and Verification (IV&V) vulnerability scan.

1.4. Quality Management

The Vendor's proposal should describe the Vendor's approach to ensure the quality of the solution, and include details on the management of requirements through traceability matrices, configuration management activities, organizational readiness, and deliverables and artifacts. The Vendor's approach should also detail information on the proposed quality metricsas well as the Vendor's approach to managing solution defect and issue tracking.

More specifically, the Vendor's approach to quality management should include, at a minimum,the following elements:

- Management of the solution specifications. This includes identification of inconsistencies between the specifications, project deliverables, and/or artifacts.
- Management of the Requirements Traceability Matrix (RTM) that will be used for specifications management. This includes detail on how the quality management approachwill support and maintain the traceability between the specification and the proposed solution.
- Management of configuration management activities including, but not limited to, the control and monitoring of the software library.
- Management of practices and procedures that will be followed for reporting, tracking,and

resolving problems or issues identified in the solution's development, transition, and maintenance.

- The Vendor's approach to business process changes resulting of requests from DHHR.
- The Vendor's approach to an organizational readiness assessment of DHHR's organization. This may include a gap analysis and recommendations for organization changerequired to support the solution's implementation in the DHHR environment. This assessment should be approved a minimum of three (3) months prior to the solution's deployment.
- The Vendor's approach to the quality of work products developed and delivered by the Vendor and the Vendor's subcontractors, if applicable.
- The Vendor's proposed quality management approach should include detail on how the Vendor plans to deliver signature-ready project deliverables. The Vendor should assume theState will complete its review of signature ready deliverables within 10 business days.
- The Vendor's approach to how quality metrics and measurements will be identified, collected, and analyzed to ensure that quality goals, including management and DHHR solution goals, are being met. It should also describe the types of project metrics used.
- The Vendor's organizational structure, and the roles and responsibilities of Vendor staffas they relate to quality management.
- The Vendor's description of the processes and approach to manage solution defect and issue tracking solution for tracking and resolution of items and, if applicable, how the quality management approach will support corrective action plans (CAPs) being developed to address more significant issues.

Response: As the basis of D008 Quality Management Plan deliverable, the InductiveHealth Team proposes our approach to quality management below. In supporting West Virginia today, the InductiveHealth Team has continually delivered quality solutions in alignment to Statements of Work with a focus on continuous monitoring and quantitative measurement of activities and service targets. Nicholas Harrar (Quality Assurance Manager) will have responsibility for the D008 Quality Management Plan deliverable and execution of the plan.

1. Management of the solution specifications. This includes identification of inconsistencies between the specifications, project deliverables, and/or artifacts.
The D023 Requirements Traceability Matrix (RTM) deliverable forms the basis for the solution specification based on Appendix 1-Detailed Specs and Attachment F-Mandatory Requirements. The D023 Requirements Traceability Matrix (RTM) will be continually updated throughout the engagement to show implementation status and variations that are identified.

2. Management of the Requirements Traceability Matrix (RTM) that will be used for specifications management. This includes detail on how the quality management approach will support and maintain the traceability between the specification and the proposed solution.

Michelle Brazel, PMP (Project Manager) will have responsibility for D023 Requirements Traceability Matrix (RTM) with Ashley McDonald (Documentation Management Lead) managing the document day to day in collaboration with the Quality Assurance Manager (Nicholas Harrar).

3.   Management of configuration management activities including, but not limited to, the control and monitoring of the software library.

The InductiveHealth Team uses BitBucket for Version Control across our client engagements for managing source code, database configurations, platform configurations, and other related artifacts. For deliverables, the InductiveHealth Team will continue to use SharePoint to organize materials with version control and track changes. This provides a common repository for the InductiveHealth Team to work from to ensure accurate and quality documentation.

4.   Management of practices and procedures that will be followed for reporting, tracking, and resolving problems or issues identified in the solution's development, transition, and maintenance.

The InductiveHealth Team uses Jira Service Desk and Jira Software to report, track, and resolve problems or issues identified in solutions. Illustrated in **Exhibit-3**, these are the same solutions we currently use to support West Virginia. These solutions provide 100% transparency for West Virginia to monitor status of open items, including progress and information that is needed by West Virginia to resolve.
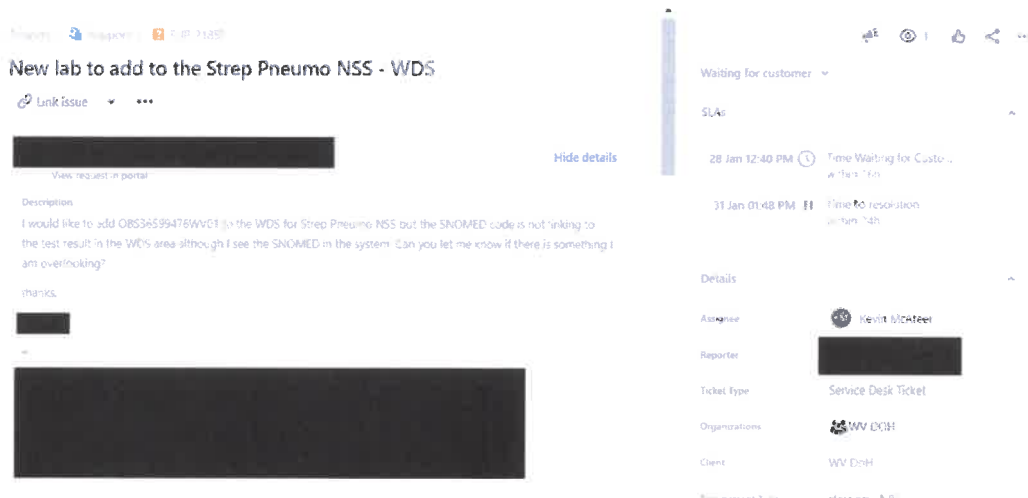
Exhibit-3: Example Jira Service Ticket submitted by West Virginia.

5.   The Vendor's approach to business process changes resulting of requests from DHHR.

The InductiveHealth Team will first log the request as a ticket through the Jira Service Desk. This allows an initial 't-shirt' sizing to take place by our Product Development and Operations Teams and / or Subject Matter Expert Teams. A 't-shirt' sizing is a simple Small, Medium, Large, X-Large that provides a base level of effort and duration to guide initial discussions. From here, Michelle Brazel (Project Manager) will review the 't-shirt' size with DHHR to discuss urgency and prioritization against other change requests.

Based on DHHR guidance, Michelle Brazel (Project Manager) will construct a detailed change request estimate including:
A. Solution components impacted

B. Level of Effort including design, development, testing, and deployment
C. Number of Sprints required
D. Potential impact to on-going operations
E. Resources required to execute change request

For internal controls, the Change Request will be reviewed with the James Maglione (Director of Finance and Contracting) for presentation to DHHR. Based on DHHR approval, the existing Jira Service Desk request will be transitioned to a Sprint via Jira Software for implementation.

6.   The Vendor's approach to an organizational readiness assessment of DHHR's organization.

Reference response to Section 1.6 Organizational Change Management.

7.   This may include a gap analysis and recommendations for organization change required to support the solution's implementation in the DHHR environment. This assessment should be approved a minimum of three (3) months prior to the solution's deployment.

Reference response to Section 1.6 Organizational Change Management.

8.   The Vendor's approach to the quality of work products developed and delivered by the Vendor and the Vendor's subcontractors, if applicable.

InductiveHealth works with public health partners in an integrated manner which we find provides checks and balances on all work products and deliverables. This same approach will be used by InductiveHealth in working with STChealth (sub-contractor), who has over 22 years of experience supporting the public health mission of West Virginia.

9.   The Vendor's proposed quality management approach should include detail on how the Vendor plans to deliver signature-ready project deliverables. The Vendor should assume the State will complete its review of signature ready deliverables within 10 business days.

In working with over thirteen state and territorial public health agencies and federal agencies such as the Centers for Disease Control and Prevention (CDC), the InductiveHealth Team has a robust library of documentation that overlaps with the deliverables defined under APPENDIX 2: DELIVERABLES AND MILESTONES DICTIONARY. This provides the InductiveHealth Team with starting points that can be adapted to West Virginia specific needs and requirements.

As a result, the InductiveHealth Team is able to bring forward deliverables that are of high quality having been accepted by other clients across all levels of public health. Ultimately, Ashley McDonald (Documentation Management Lead) will have responsibility for document quality in collaboration with Nicholas Harrar, (Quality Assurance Manager).

10.   The Vendor's approach to how quality metrics and measurements will be identified, collected, and analyzed to ensure that quality goals, including management and DHHR solution goals, are being met. It should also describe the types of project metrics used.

The basis for quality metrics and measurements are the service level agreements and performance standards defined under APPENDIX 4: SERVICE LEVEL AGREEMENTS (SLAS) AND PERFORMANCE STANDARDS. These metrics and measurements will be consolidated into a Microsoft Excel workbook to document the measure and measurement, method of assessment, tools used to automate assessment, and tracking of compliance and variance based on defined intervals.

Additionally, quality metric and measurements will be proposed by the InductiveHealth Team. Example metrics currently performed by InductiveHealth include the average time to process an electronic laboratory report from receipt and the average time to onboard a clinical facility to operations using the InductiveHealth Engage, Connect, Validate, and Operate methodology.

11. The Vendor's organizational structure, and the roles and responsibilities of Vendor staff as they relate to quality management.

Exhibit-4 demonstrates the InductiveHealth Team's structure and quality management roles and responsibilities.

Project Role	Proposed Resource(s)	Roles and Responsibilities for Quality Management
Account Manager	Pamela Knight-Schwartz, MPH InductiveHealth	Accountable for overall quality of solution delivery including with Service Level Agreements and Performance Standards.
Project Manager	Michelle Brazel, PMP InductiveHealth	Responsible for overall quality of solution delivery including execution of monitoring program for Service Level Agreements and Performance Standards and escalation of issues and risks to Account Manager.
Quality Assurance Manager	Nicholas Harrar STChealth	Responsible for execution of Quality Management Plan across program including escalation of issues and risks to Project Manager.
Documentation Management Lead	Ashley McDonald STChealth	Responsible for development and assurance of high-quality deliverables and documents in support of Quality Management Plan.
Test Manager	Jimmy Mofadal InductiveHealth	Responsible for functional execution of solution testing in alignment to Requirements Traceability Matrix (RTM).

Exhibit-4: Quality Management Roles and Responsibilities.

12. The Vendor's description of the processes and approach to manage solution defect and issue tracking solution for tracking and resolution of items and, if applicable, how the quality management approach will support corrective action plans (CAPs) being developed to address more significant issues.

Building on the InductiveHealth Team's response to Item #4, **Exhibit-5** illustrates our solution to the management of defects using Jira Software which allows the linking of a defect to an originating service request, assigned Sprint, assigned release, and overall status.
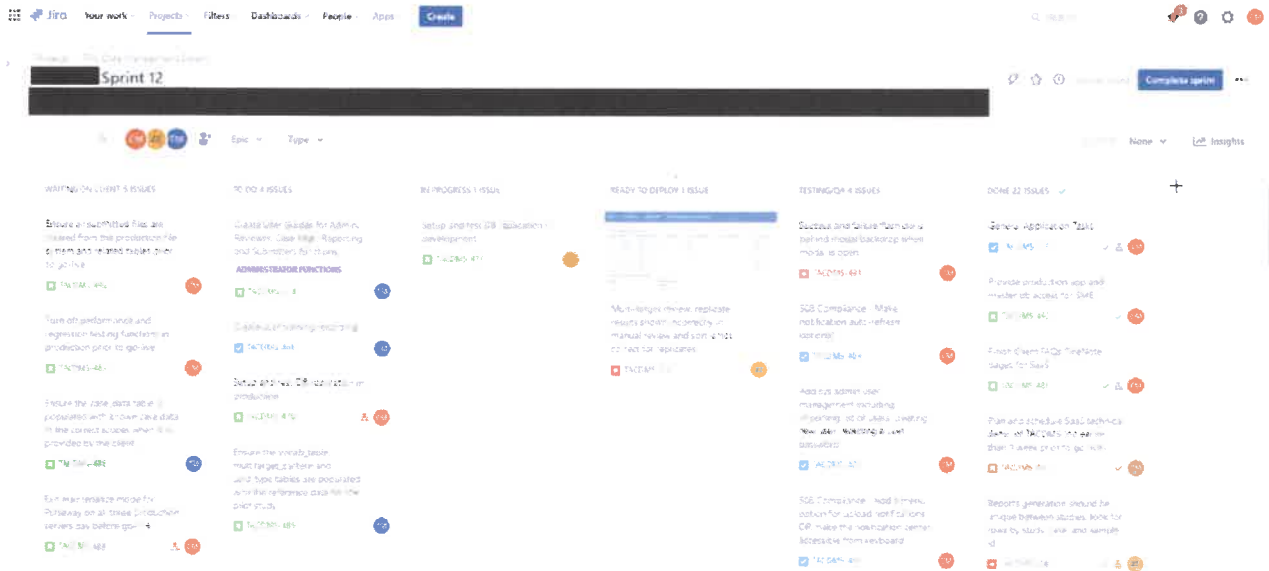
Exhibit-5: Jira Software to support quality management.

More significant issues will be managed in the Issue, Risk, Decision, and Question (IRDQ) Log to support corrective action plans (CAPS) that are identified by the InductiveHealth Team and / or DHHR.

1.5. Change Management

The Vendor's proposal should describe the Vendor's approach for change management including, but not limited to, methodologies, tools, and processes required to appropriately manage and document changes to the system (e.g., impact analysis, change requests.)

Response: InductiveHealth's change management capabilities have been recognized by the Federal government multiple times as an awardee of the General Service Administration (GSA) Multiple Award Schedule (MAS) contract and Chief Information Officer-Solutions and Partners 3 (CIO-SP3) Small Business (SB) contract. Additionally, InductiveHealth is an awardee of the GSA MAS Highly Adaptive Cybersecurity Services (HACS) Special Item Number (SIN) 54151HACS and has completed Security Assessment and Authorization (SA&A) evaluations leading to Authorization to Operate for multiple health information systems.

Exhibit-6 brings forward key elements of the InductiveHealth Team's change management process that will be detailed further in the D003 – Change Management Plan deliverable. The change management elements presented in **Exhibit-6** build on our successful change management execution today on behalf of West Virginia.

Change Management Element	Change Management Overview	Methodologies, Tools, and Processes
Maintenance Windows	Use of predefined maintenance windows to perform solution, infrastructure, and network maintenance. This provides advanced notification to project sponsors and end users to avoid disruptions to workflows and data interoperability.	• Predefined Maintenance Schedule (MS Excel) • Email communication (before and after maintenance window) • After action review to identify efficiencies and opportunities

Change Management Element	Change Management Overview	Methodologies, Tools, and Processes
Code Promotion / Lower Environment Management	Process to progress change requests, defect solutions, and enhancements across lower environments to facilitate testing under 'real world' conditions.	• Lower environments • Code promotion tools such as BitBucket and deployment scripts • Test scripts to validate deployment
Release Schedule	Predefined schedule of release for solutions (to be determined upon contract award).	• Predefined release schedule (MS Excel) • Release Notes
Server Patching	Re-occurring maintenance windows to perform server patching for Linux and Windows operating systems and shared appliances. Patching is performed on a regular basis to ensure information security compliance.	• Predefined Maintenance Schedule (MS Excel) • Email communication (before and after maintenance window) • Playbook for execution of Server Patching and virtual machine / appliance restarts
Ongoing Operational Maintenance	Re-occurring maintenance in Production Operations environment that does not impact end users.	• Maintenance varies and includes debugging electronic laboratory report messages that error due to data quality • Identification and resolution of end user specific errors related to data quality
Change Requests	Build on response under Section 1.2. Quality Management, implementation of change requests	• T-shirt sizing • Detailed estimate • Prioritization • Product Backlog management
Information Security / Privacy	Continually monitoring of solution for information security / privacy threats and taking appropriate action.	• Intrusion Detection System (IDS) monitoring • NIST / CERT list serv monitoring

Exhibit-6: Approach to change management.

1.6. Organizational Change Management

The Vendor's proposal should describe the Vendor's methodology, tools, and techniques for communicating and accomplishing organizational change management for DHHR. The proposal should discuss how the Vendor can assist DHHR in communicating, training, and implementing organizational change to DHHR.

The Vendor's proposed methodology should at a minimum address the following areas:
- The Vendor's organizational change management methodology
- Determination of the impact of this change
- Methods of responding to the change, process harmonization, and approach towards potential resistance
- Method for ensuring a successful change management program
- Lessons learned regarding change management challenges as they will impact this project

Response: The InductiveHealth Team brings a unique organizational change management perspective to West Virginia with the experience of implementing and operating enterprise surveillance systems (ESS) across 13 state and territorial public health agencies. This perspective is informed by transitioning:

InductiveHealth Informatics, Inc.

- Public health agencies from on-premises to software-as-a-service (SaaS) enterprise surveillance system (ESS)
- Public health agencies from the NEDSS Base System (NBS) to InductiveHealth's Epitrax™ platform
- Public health agencies from custom and commercial enterprise surveillance systems (ESS) to InductiveHealth's NEDSS Base System (NBS) platform
- Public health agencies from commercial enterprise surveillance systems (ESS) to COVID-19 specific solutions

This experience informs the InductiveHealth Team's approach to organization change management recognizing:

- On-going demands of the COVID-19 pandemic response on local health departments and state health departments users, subject matter experts, and decisions makers
- Organizational resistance to being required to use new solutions to accomplish day-to-day job duties
- Organizational stress resulting from risk and concern in achieving parity of current operations
- Objectors that continually focus on 'why not' or 'not how we do business today' versus solutions and focusing on the 'to be' state

1.   The Vendor's organizational change management methodology

The InductiveHealth Team proposes using the Prosci 3-Phase Process change management methodology (Phase 1– Prepare Approach, Phase 2 – Manage Change, Phase 3 – Sustain Outcomes).

2.   Determination of the impact of this change

With the backdrop of the on-going COVID-19 pandemic and other high priority epidemics such as HIV, the InductiveHealth Team rates the impact of changing the electronic disease surveillance system as a 9 on a 1 to 10 scale with 10 being the highest. This rating is based on the visibility of the data collected within current health information systems including West Virginia's NEDSS Base System and Chexout solutions, which are used by the Governor of West Virginia for regular press conferences as well as to inform Federal reporting to the CDC and HHS.

3.   Methods of responding to the change, process harmonization, and approach towards potential resistance
4.   Method for ensuring a successful change management program

Drawing on the Prosci 3-Phase Process change management methodology, the following steps are critical to manage the organizational change of this investment:

- Communicate early and often on the reason for the change and benefits across local health departments, state health departments, the WV Health Information Network (WVHIN) and other stakeholders and ancillary systems.
- Avoid arbitrary milestones not supported by schedules, resources, and external dependencies
- Identification of investment champions at the state and local health departments who can advocate with the peers for the change
- Analyzing organizational structure to identify employee / manager relationships which may be needed to address objectors and individuals' resistance to change

5.   Lessons learned regarding change management challenges as they will impact this project

The past two years (January 2020 to January 2022) have been exceedingly difficult for state and local public health agencies, and we advise clients to take a realistic and incremental approach to change management to recognize resource constraints that may exist, existing workload, and personal tolerance for disruption to job duties. Additional lessons learned include ensuring early and frequent communication about changes that impact end users and their workflows, and clearly defining requirements for the ESS with system demonstrations at regular intervals.

1.7. Training Approach

The Vendor's proposal should present a narrative description of the Vendor's proposed approachto completion of the training throughout the contract, including the Vendor's proposed:

- Approach to the completion of the training deliverables (as listed in ***Appendix 2: Deliverables and Milestones Dictionary***), including methodology for updating deliverables throughout the lifecycle of the project.
- Approach to development, maintenance, and implementation of the Training Management Plan, including methodologies addressing:
  - o Assessment of internal and external training needs, including gap analysis
  - o Approach to user training, supporting all business processes as identified in theRFP
  - o Delivery of end-user training throughout the solution's implementation
  - o Development and use of online tutorials, online help, online policy and procedure manuals, and hard copy user manuals for the delivery of training
  - o Development and use of live, web seminar, and video-based training
  - o The target audiences for training, including DHHR staff, Vendor staff, clients, providers, and third-party stakeholders who work in the system

  - o Plan to provide and/or leverage existing State training facilities to perform end-user training detailed in this section.
  - o Tools the Vendor will use to support training
  - o The planned curriculum for each system user role and audience
  - o Initial training schedule
  - o Version control and maintenance of training documentation
  - o Training evaluation, including the use of evaluation survey tools to determine whether the trainings produced the expected results
  - o Initial and ongoing training outcomes tracking and reporting, including information such as, but not limited to, the number of training sessions, type of training, training locations, number of trainees, and information regarding the actualtraining results and recommendations for follow-up training
  - o Approach to "train-the-trainer" activities during the Operations Phase.
- Approach to role-based training during both implementation, and maintenance and operations

- Approach to development of training materials
- Approach to training evaluations

Response: In compliance with Appendix 1 – Detailed Specifications, the InductiveHealth approach to implementation project management includes a detailed training plan, reviewed with state stakeholders prior to DHHR approval. The detailed training plan will include activities that meet or exceed the requirements documented in this RFP.

The InductiveHealth Team has trained thousands of end users, Technical Administrators, and 'Train the Trainers' on electronic disease surveillance systems (EDSS) including use of multi-factor authentication (MFA), application of EDSS to day-to-day job duties, and use of EDSS to conduct data analytics to support on-going disease surveillance.

Notably, InductiveHealth applied our InductiveHealth University curriculum to recently train 600 end users for the State of Oklahoma that includes a mix of virtual, pre-recorded training, development of roles and responsibilities matrix, and frequently asked questions (FAQs) on secure login steps.

1. Approach to the completion of the training deliverables (as listed in Appendix 2: Deliverables and Milestones Dictionary), including methodology for updating deliverables throughout the lifecycle of the project.

Training-related deliverables will be the responsibility of Michelle Brazel (Project Manager) with the support of Ashley McDonald (Documentation Management Lead). Michelle and Ashley will collaborate with our Subject Matter Expert Team who provide guidance and conduct virtual and pre-recorded trainings based on specific solutions.

2. Approach to development, maintenance, and implementation of the Training Management Plan, including methodologies addressing:

The InductiveHealth Team will draw upon our InductiveHealth University curriculum which contains pre-documented courses and progressions including artifacts for each training such as PowerPoint slides to supplement content containing predefined activities for end users to execute. InductiveHealth finds that pre-recorded, virtual trainings work best for most end users and that virtual, instructor-led training work best for 'train the trainer' and technical administrator trainings.

3. Approach to role-based training during both implementation, and maintenance and operations

Role-based training is a key part of the InductiveHealth University training curriculum as most end users only require Introductory training. The InductiveHealth Team takes a targeted approach to training, providing only the training that end users require to complete their job duties.

4. Approach to development of training materials

The InductiveHealth Team adds to InductiveHealth University training curriculum as new features are implemented in solutions and based on analysis of service requests submitted to our Help Desk where patterns are identified on consistent themes that could be addressed through training.

5. Approach to training evaluations

As part of InductiveHealth University, the InductiveHealth Team collects real-time quantitative feedback during virtual, instructor driven training and we ask end users to submit a quantitative rating when completing pre-recorded, self-paced training. The InductiveHealth Team then correlates training scores to end user Help Desk activity to determine patterns that need to be addressed in training curriculum.

2. Implementation Methodology

The Vendor should respond to the headings below and describe the overall approach for the following areas of system development life cycle (SDLC) and support. The response should include what the Vendor believes will be an effective process for each component and flow between each of the areas listed below.

2.1. Requirements Analysis and Solution Design Methodology

The Vendor's proposal should describe the Vendor's approach to requirements analysis and the design of the solution. This should include in the response a description of what the Vendor believes will be an effective system architecture and design methodology.

During the solution's design, the Vendor should conduct requirements analysis, during which the Vendor reviews, refines, and seeks approval for all preliminary requirements included in this RFP, and add requirements where gaps are identified through a detailed analysis exercise. The result should be a final set of detailed requirements to be used for building the ESS. These requirements should be the basis for the Vendor to create usage scenarios and detailed business process workflows.

During the solution's design, the Vendor should develop detailed specifications that demonstratethat the solution meets the IT needs to support business processes. The system requirements andlogical description of the entities, relationships, and attributes of the data documented during therequirements analysis should be further refined and allocated into system specifications that are organized for implementation.

The solution design and its multiple components should be developed in conjunction with the Project Work Plan as follows:

- The first component should be a Preliminary System Design, which outlines the overall functions that will be developed or configured, their interactions, components, and high-level architecture.
- The second component should be a DSD, which will include the planned implementation details of the design for each component, interactions, and place in the overall technical architecture.
- The third component should be the Final System Design, which will give the actual implementation details of each component and sub-component from a functional and technical perspective, including the final architecture implementation.

The Vendor's proposal should also describe its approach to conducting requirements validation sessions. The Vendor's proposal should also include the number and topics of the sessions to beheld in support of the requirements validation sessions.

The Vendor's proposed approach to requirements analysis and solution design should also include detail on the following:

- Process for identifying and resolving gaps between the Vendor's and DHHR's understanding of an RFP specification.
- How the solution's design will include collaborative design with functional and technical subject matter experts.
- How the Vendor intends to obtain DHHR's approval on RFP specifications.
- Design documentation for all project deliverables delivered during the Solution Planningand Solution Design, Testing, and Operations task groups.

The Vendor should propose an approach describing how the ESS design will integrate with other surveillance components and the DHHR enterprise. The Vendor should also propose howdesign decisions will be coordinated across all functional areas.

Response: Based on the functional and non-functional requirements defined in Appendix 1-Detailed Specs and Attachment F-Mandatory Requirements, the InductiveHealth Team has designed our proposed solution using proven disease surveillance solutions and tools delivered using a software-as- a- service (SaaS) model with a focus on providing DHHR with a minimally viable solution from which to conduct requirements analysis and solution design methodology in collaboration with project sponsors

and stakeholders. The InductiveHealth Team finds that requirement analysis and design validation is best accomplished through working software. This real-time validation of workflows and features ensures that disease-specific nuances in workflow are identified, and avoids negative downstream impacts to activities such as nationally notifiable disease reporting to the CDC.

The InductiveHealth Team is aware that DHHR intends to implement only enterprise surveillance solutions that have been implemented in multiple other public health agencies. As a result, the InductiveHealth Team is heavily focused on identified functional and non-functional requirements and key configurations that are specific to DHHR. The InductiveHealth Team also plans to use this phase to study the Current Surveillance Systems defined in Section 4.1.6 to identify specific workflows and use cases and map these to the proposed ESS solution. This is a critical step as it informs the data conversion strategy, approach, and timeline presented in Section 2.1. Data Conversion Strategy, Approach, and Timeline.

As part of the Implementation phase, the InductiveHealth Team will update the Requirements Traceability Matrix (RTM) to indicate what is accomplished 'out of the box' through a minimally viable solution including key information security features such as multi-factor authentication for end users. Iteration of the proposed solution diagram presented in **Exhibit 7** with be accomplished by Casey Murray (Technical Lead) will collaborate with Doug Hamaker (Implementation Manager) and Doug Michaelson (Information Security Architect / Privacy Data Protection Officer). This resource mixture provides DHHR with not only technical expertise but deep experience in the application of disease surveillance procedures to health information systems.
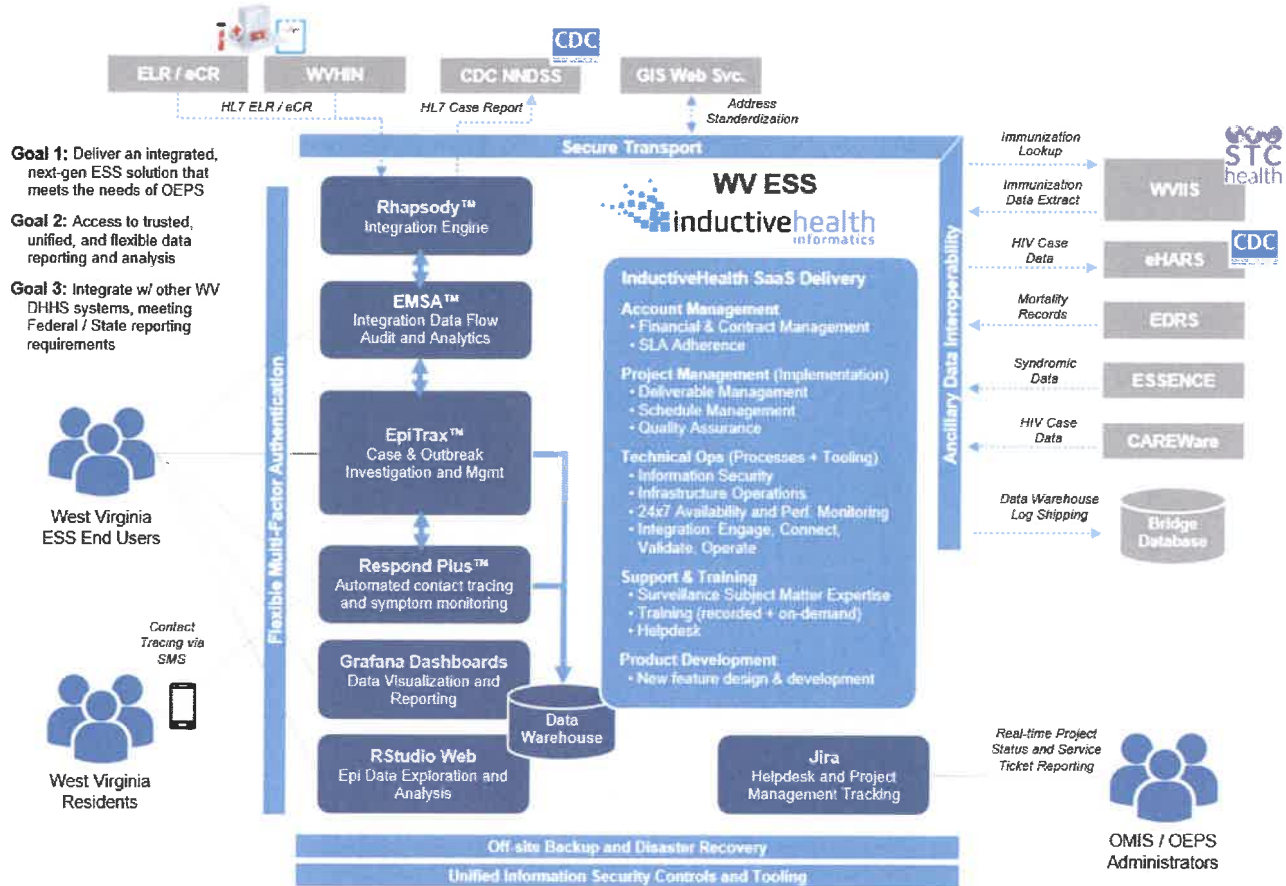
Exhibit-7: Proposed ESS Solution.

The progressive elaboration of the functional and non-functional requirements and the proposed solution will enable DHHR to readily identify extension and ancillary data integrations including prioritization based on level of effort and impact to public health outcomes. For example, given 'out of the box' features of EpiTrax™, DHHR may determine to accelerate integration with WVSIIS as opposed to prioritization of a new feature that requires additional software development cycles.

2.2. Solution Configuration Methodology

During the Configuration Phase, the Vendor's system design team should take the detailed logical information documented in the System Design Phase and transform it into an executableform to ensure that all individual components of the automated system/application function correctly and interface properly with other components.

The Vendor's proposal should describe the Vendor's system configuration methodology. The response should include a description of what the Vendor believes will be an effective system configuration methodology (e.g., Waterfall, Agile) for both the Vendor and DHHR during the implementation of the proposed solution.

The Vendor's proposal should present a narrative description of the Vendor's proposed approachto

solution configuration, including the Vendor's proposed:

- Software solution, including a description of the solution's ability to accommodate the current and future business and technical needs of DHHR. The solution should also describe the methodology and approach for the following:
  - o Regular system maintenance, performance optimization, resource capacity utilization, capacity planning, and capacity expansion
  - o Compatibility of all hardware, software, and communications components installed for use DHHR staff with the most current West Virginia Office of Technology (WVOT)-supported versions.
- Methodology and approach for implementing and maintaining solution documentation, including data structures, entity relationship diagrams, user manuals, and all other documentation related to the ESS platform, operating system, and programming language
- Methodology and approach to preparing, maintaining, and distributing user documentation for each business process, including a description of how it is to be used as the basis for User Acceptance Testing (UAT) and training, as well as the use of final versions for training before the start of operations
- Methodology and approach to programming and unit testing on all system functions to ensure that a single component can function correctly on a standalone basis
- Methodology and approach ensuring that the configured solution meets design criteria
- Methodology and approach ensuring installation and enhancement or modification of the components of the proposed solution meet the specifications DHHR developed and approved

Response: Building on our response to **Section 2.1. Requirements Analysis and Solution Design Methodology,** the InductiveHealth Team are experts in the configuration and deployment of the proposed ESS solution presented in **Exhibit-7**. As a result, the InductiveHealth Team can focus on configuration, integration, and gluing components together rather than from scratch custom software development.

The InductiveHealth Team's methodology for Solution Configuration Methodology is led by Doug Hamaker (Implementation Manager) who has provided similar services to 12 other public health agencies. Doug and InductiveHealth operate with a focus on asking the right questions at the right time on disease specific needs, including data entry form implementation and identifying key public health decision support rules needed to introduce automation into existing surveillance processes (e.g., automated closing of negative findings for chlamydia laboratory results). It is important to note that as the current partner entrusted to manage DHHR's NEDSS Base System (NBS), the InductiveHealth Team is able to extract many of the required configuration elements from West Virginia's existing surveillance practices. This benefits DHHR by limiting the time required by end users and program area disease specialists.

For functional and non-functional requirements that require development (e.g., new features, enhancements to existing features), the InductiveHealth Team uses Scrum methodology characterized by two (2) week Sprints, task board managed in Jira Software, BitBucket for version control and code

review, and test automation frameworks just as Junit. Managed by Casey Murray (Technical Lead), every three (3) Sprints, the InductiveHealth Team revisits the product backlog, and provides demonstrations to project sponsors and stakeholder every two (2) Sprints. At the end of every three (3) Sprints, the InductiveHealth conducts retrospectives to identify velocity, technical debt, and items for the product backlog. Outputs of Sprints are then assigned to a Release Schedule per the Change Management Plan and maintenance window schedule.

In the case of data integration and ancillary data integrations, the InductiveHealth Teams uses a DevSecOps model highlighted by a kanban board. Data integrations often have a greater urgency and are managed under the Technology Team by Page Smith (Manager) using a separate pool of data integration and Health Level Seven (HL7) experts.

2.3. Data Conversion Strategy, Approach, and Timeline

The Vendor's proposal should describe what the Vendor believes to be an effective data migration and conversion strategy and approach for supporting migration of data from the current solutions (*Section 4.1: Background and Current Operating Environment*) to the proposed solution (*Section 4.3: To-Be Enterprise Surveillance System (ESS) Environment*).The Vendor's proposal should also describe how the Vendor will ensure data integrity and consistency through all phases of the project.

Response: Based on the inventory of Current Surveillance Systems defined in Section 4.16 of the RFP, **Exhibit-8** introduces the InductiveHealth Team's data conversion approach including proposed timelines with further detail to be provided in the D031 – Data Conversion Plan deliverable.

It is important to note that for the West Virginia Electronic Disease Surveillance System (WVEDSS), DHHR should carefully evaluate vendors for a complete data conversion strategy given WVEDSS represents 1) the data processing layer for all electronic laboratory results (and electronic case reports) received by West Virginia, 2) the integrated repository of reportable disease data, and 4) West Virginia's mechanism for meeting Federal requirements for nationally notifiable disease reporting. In short, simply migrating the data from the NEDSS Base System (NBS) to a new solution will fall short for a data conversation approach.

The InductiveHealth Team highlights the magnitude of the surveillance data contained in WVEDSS as it directly impacts data integrity and consistency in the 'To Be' solutions. Only the InductiveHealth Team has the insights and expertise in extracting and interpreting WVEDSS data for mapping and conversion to the 'To Be' solution elements including avoidance of duplicating data contained in both WVEDSS and Chexout and mitigation of breaks in nationally notifiable disease reporting.

Current Surveillance System	Data Conversion Approach	Data Volumes (Approximate)	'To Be' Solution	Recommended Timeline
West Virginia Electronic Disease Surveillance System (WVEDSS)	**Communicable Disease Data**: Conversion of surveillance data going back to March 2011 consisting of Patients, Investigations, Morbidity Reports, Laboratory Results, Contacts, Interviews, Attachments, DHHR specific	• 12M+ patient records • 180,000+ Investigation records across all reportable diseases • 10M+ laboratory results	EpiTrax™	Prior to initial Go-Live for diseases requiring historical context such as Syphilis. Other diseases to be

Current Surveillance System	Data Conversion Approach	Data Volumes (Approximate)	'To Be' Solution	Recommended Timeline
	data variables, Co-Morbidities, Providers, Organizations	• 2M+ Providers		prioritized with DHHR.
	Rhapsody Data Integration Engine: Filters, translations, and validating logic designed to convert HL7 messages into the NEDSS Base System interface schema. Business Logic to be changed to convert HL7 messages to the EMSA™ interface schema.	• 5,000+ lines of custom integration logic	Rhapsody Data Integration Engine	Prior to initial Go-Live
	Electronic Laboratory Reporting (ELR):	• 10.4M+ individual messages	EMSA™	Prior to initial Go-Live
	electronic Case Reporting (eCR):	• < 1000 individual messages	EMSA™	To be prioritized with DHHR based on CDC/ELC requirements.
	Nationally Notifiable Disease (NND) Reporting to CDC for NNDSS:	• 162k+ message requests	EpiTrax™ NMI Module	Prior to initial Go-Live
Chexout	**COVID-19 Investigation Data**: Conversion of surveillance data using the CDC surveillance form.	Data volumes to be determined upon award.	EpiTrax™	To be prioritized with DHHR based on pandemic status at Go-Live
	COVID-19 Contact Data: Contact tracing data for COVID-19 patients, exposures, and person under investigations.	Data volumes to be determined upon award.	EpiTrax™	To be prioritized with DHHR based on pandemic status at Go-Live
	COVID-19 Laboratory Result Data: Laboratory results indicating both positive and negative findings for COVID-19 and related respiratory diseases. It is important to note that the majority of the Laboratory Result data in Chexout is sources from the WVEDSS.	Data volumes to be determined upon award.	EpiTrax™	To be prioritized with DHHR based on pandemic status at Go-Live
COVID Outbreak Management	**Documents**: Artifacts related to COVID-1 pandemic response	Volumes and types of artifacts to be assess upon award.	To be discussed with DHHS upon award.	To be prioritized with DHHR based on pandemic status at Go-Live.
Text Illness Monitoring (TIM)	**COVID-19 Symptoms and Monitoring Data**: Convert monitoring and symptom data consisting of web surveys.	Data volumes to be determined upon award.	Respond Plus™	To be prioritized with DHHR based on pandemic status at Go-Live.

Exhibit-8: Data conversion strategy.

3. Deployment Methodology

The proposal should describe the Vendor's overall approach regarding the following areas of SDLC and support. The response should include what the Vendor believes will be an effective process for each component and flow between each of the following areas:

- Implementation/Rollout Planning
- Implementation Methodology and Timeline
- Issues, Challenges, and Risks
- Lessons Learned

Response: Based on the functional and non-functional requirements defined in Appendix 1-Detailed Specs and Attachment F-Mandatory Requirements, the InductiveHealth Team has designed our proposed solution using proven disease surveillance solutions and tools delivered using a software-as-a-service (SaaS) model with a focus on providing DHHR with a minimally viable solution from which to conduct requirements analysis and solution design methodology in collaboration with project sponsors and stakeholders.

The InductiveHealth Team is aware that DHHR intends to implement only enterprise surveillance solutions that have been implemented in multiple other public health agencies and is not focused on the procurement of fully custom software.

With this backdrop, the sub-sections below discuss the InductiveHealth Team's Deployment Methodology which is in use today as part of InductiveHealth's delivery for WVEDSS and team member STChealth's delivery of WVSIIS.

3.1. Implementation/Rollout Planning

The Vendor's proposal should describe the Vendor's methodology, tools, and techniques for implementation/rollout planning. The Vendor should include what specific staging, readiness and deployment techniques it will use to determine the proper sequencing of deployment processes and functions required for successful implementation.

The Vendor's proposal should include, but not be limited to, details on its approach and methodology for the following:
- Completing all Solution Deployment task group related deliverables
- Obtaining approval of all Solution Deployment task group related deliverables and milestones
- Operational readiness and operational readiness testing (ORT)
- Emergency back-out strategy
- Pilot testing
- Confirming stakeholder readiness for new solution implementation

The Vendor's proposal should also include details on the Vendor's approach to supporting and/or supplying:
- System documentation
- User documentation
- Reports
- Report distribution schedule

- Production environment, including the final production schedule
- Data conversion
- Pre-implementation training
- Updates to project management plans for operations

Response: With further detail provided on sequencing and tasks in **Attachment E: Initial Work Plan,** implementation/rollout planning is a core competency of the InductiveHealth Team having implemented and deployed over 50 major and patch releases across WVEDSS and WVSIIS for DHHR. This also provides DHHR the benefit of software-as-a-service (SaaS) delivery model and utilization of EDSS in use by multiple other public health agencies. in use by multiple other public health agencies.

Having conducted over 16 go-lives of mission critical disease surveillance systems, **Exhibit-9** brings forward the InductiveHealth Team's approach for implementation/rollout planning of ESS on behalf of DHHR. Referred to as the "Go-Live" plan, these items are typically started within 30 days of the production Go-Live milestone and extend 30 days past Go-Live. **The InductiveHealth Team's approach is governed by a deep commitment to 100% transparency, not surprising our clients with last minute delays, and providing quantitative measurement supported by documentation on solution readiness for production operations.**

Approach	Approach Overview	Benefit to DHHR
DHHR Communication	Overseen by Pamela Knight-Schwartz, MPH (Account Manager) Managed by Michelle Brazel, PMP (Project Manager), daily communication through stand-up meetings with DHHR project sponsors to review status of project deliverables and outstanding issues impacting Go-Live.	100% transparency into status of Go-Live activities supported by quantitative measures of progress and readiness.
Trading Partner Communication	Predefined communication strategy using existing email templates to electronic trading partners (e.g., reference laboratories, hospitals, WVHIN) informing them of the planned go-live and identifying any potential impacts.	As the InductiveHealth Team currently manages all trading partner secure communication and message processing, Go-Live activities should not impact trading partners.
CDC Communication	Direct communication with CDC Epidemiology and Laboratory Capacity (ELC) Cooperative Agreement and CDC Center for Surveillance, Epidemiology, and Laboratory Services (CSELS) communicating Go-Live status and impacts, if any, to nationally notifiable disease reporting or similar data streams.	The InductiveHealth Team has existing relationship with CDC/ELC and CDC/CSELS to assist DHHR in navigating to the right resources to inform and collaborate with on nationally notifiable disease reporting.
Consortium Communication	Direct communication with EpiTrax™ Consortium led by the Utah Department of Health consisting of multiple other jurisdictions. The Consortium is an excellent source of information for best practices and surveillance approaches using EpiTrax™	By using the EpiTrax™ platform, DHHR has the benefit of multiple jurisdictions using a common EDSS.
End User Communication	Predefined communication strategy using existing email templates to end users including confirmation of user account provisioning and Go-Live cut-over strategy for when surveillance should be transitioned to the new ESS solution.	The InductiveHealth Team will provide specific quantitative metrics on user account provisioning including identifying those accounts where DHHR follow-up is needed.
21 Day Plan	Detailed plan documenting the key event for	Provides DHHR with specific actions by day to

Approach	Approach Overview	Benefit to DHHR
	each day in the 21 days prior to Go-Live.	set expectations and identify risks to be monitored throughout the Go-Live.
Test Case Suite	Predefined test case suite designed for EpiTrax™ platform with scripts executed by the InductiveHealth Team to validate the Production environment.	Test case suite is provided to DHHR for review including triage of identified challenges with mitigation schedule and action plan.
Parity Testing Analysis	Quantitative analysis from conducting parity testing across end users (disease surveillance), input trading partners (e.g., electronic laboratory reporting, electronic case reporting), and external trading partners (e.g., CDC NND, eHARS data extract).	Demonstrates to DHHR that parity testing across new ESS solution matches utilization of current systems.
Data Migration Analysis	Quantitative analysis from conducting the migration of data from current systems demonstrating record counts and adherence to West Virginia record retention regulations.	Demonstrates to DHHR that current system data is successful migrated and documents the location and retention method of existing current systems.
Independent Validation and Verification (IV&V)	Typically conducted 7 days prior to Go-Live, consists of an Independent Validation & Verification (IV&V) web vulnerability scan of the Production solutions.	Result of IV&V are reviewed with DHHR to demonstrate no web vulnerabilities were independently identified.
Disaster Recovery Exercises	Typically conducted 7 days prior to Go-Live, a full disaster recovery exercise is conducted consisting of restoring operations at the virtual machine (VM) level and the database level.	Results of disaster recovery exercise are provided to DHHR including screen shots showing time stamps, technical job execution, and successfully restoration.
Help Desk Training	For designated users, training on use of InductiveHealth's Help Desk including how to submit a request and confirming email communication is working correctly based on public health agency firewall and email rules.	Ensures that designated users are able to interact with the Help Desk as needed and when needed.
Open Bridge Lines	For 30 days after Go-Live, the InductiveHealth Team provides open bridge lines at multiple points during the day for end users to ask questions or report challenges.	Provides DHHR with near real-time mechanism to collect feedback and proactively address challenges across all local health departments.
Transition to Operations	30 days after Go-Live milestone, the solution is transferred to operations.	Provides DHHR with streamlined, effective, and efficient support under InductiveHealth's proven support processes.

Exhibit-9: The InductiveHealth Team's approach to implementation / roll-out.

3.2. Implementation Methodology and Timeline

The Vendor's proposal should describe an effective implementation and deployment strategy. In addition, the Vendor's proposal should include what the Vendor believes would be a realistic implementation approach and timeframe for the implementation of a solution that would meet DHHR's specifications. Please keep in mind DHHR desires a solution that can be implemented within one year or less. If some of the solution specifications are not part of the standard solution(available now or via configuration), please describe a proposed phasing methodology to deliverfull functionality. Please reference the Vendor's Initial Work Plan and WBS in *Attachment E: Initial Work Plan*.

Response: With further detail provided on tasks and timeline in **Attachment E: Initial Work Plan, Exhibit-10** presents the high-level timeline for implementation of the ESS solution. Recognizing

DHHR's goal to have a solution implemented in one year or less, the InductiveHealth Team has designed the implementation timeline recognizing the following factors:

- Deployment of existing disease surveillance systems solutions delivered through software-as-a-service (SaaS) models
- Need to progressively elaborate on delivery of features focused on minimally viable requirements followed by deployment and configuration of complementary features and requirements
- Annual reconciliation process Morbidity and Mortality Weekly Report (MMWR) reporting for State level and CDC Nationally Notifiable Disease Surveillance System (NNDSS) reporting
- Ongoing impact and availability of the COVID-19 pandemic to state and local health department resources
- Magnitude of data in current systems that needs to be migrated to ESS solution to ensure comprehensive disease reporting especially for longitudinal reportable diseases
- Recognition of expanded Federal requirements for data interoperability driven by the Centers for Medicare & Medicaid Services (CMS)
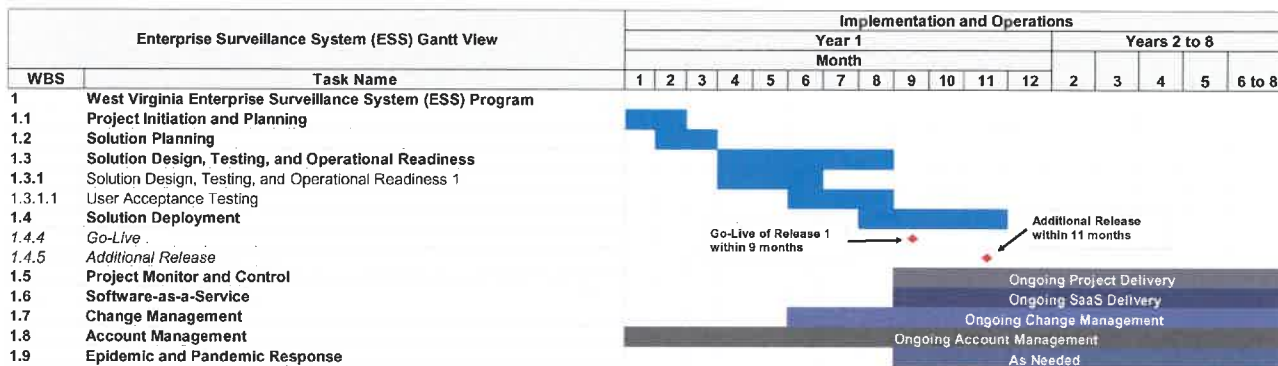
Exhibit-10: The InductiveHealth Team's timeline is realistic and feasible.

3.3. Issues, Challenges, and Risks

DHHR is interested in any information that might help identify issues, clarify the specifications, reduce risk of the procurement, and identify issues and challenges of designing and implementing the proposed solution. Please highlight any concerns or recommendations in this section.

Response: The InductiveHealth Team greatly appreciates the opportunity to communicate issues, challenges, and risks associated with the West Virginia Enterprise Surveillance System (ESS) Program and has identified the following for DHHR consideration:

1. **Risk**: Need exists for clear lines of decision-making within DHHR to avoid the possibility of implementation phase delays. The InductiveHealth Team recommends that DHHR appoint a single point of contact who has scope decision making authority.

2. **Risk**: Clarifying expectations of project sponsors and stakeholder that the West Virginia Enterprise Surveillance System (ESS) Program is focused on procurement of software-as-a-service (SaaS) solutions and not procurement of custom development capabilities to construct a new, from scratch surveillance systems for the specific needs of DHHR. The InductiveHealth Team recommends clear communication on expectations for this procurement after award and kick-off.

3. **Challenge**: Given the on-going impact of the COVID-19 pandemic, the InductiveHealth Team expects reduced levels of availability from project sponsors and stakeholders and greater importance in

ensuring parity of operations given the urgency in data reporting and analytics related to the COVID-19 pandemic. In currently delivering the same and similar services to DHHR, the InductiveHealth Team, and only the InductiveHealth Team, can reduce activities given our insights and stewardship of WVEDSS including all electronic laboratory reporting (ELR) data processing.

3.4. Lessons Learned

DHHR would find it helpful to understand what the Vendor sees as the successes and primary challenges in the implementation of similar systems. In order to gain this insight, DHHR wouldlike to draw upon the Vendor's experiences with similar projects. Please describe any lessons learned from the Vendor's relevant experience and how those lessons learned will impact theVendor's approach to this project.

Response: The InductiveHealth Team provides the same and similar systems across the United States today. We continually gather and implement lessons learned from the modernization of health information system capabilities. Combining these lessons learned with our insights from currently delivery to DHHR, the InductiveHealth Team brings forward the following lessons learned to West Virginia Enterprise Surveillance System (ESS) Program:

1. **Solution Perspective:** As DHHR intends to procurement disease surveillance capabilities used by multiple other public health agencies, it is important for end users, stakeholders, and project sponsors to recognize that enterprise disease surveillance systems have a perspective on how disease surveillance should be conducted with core features built around this perspective. As part of the Project Initiation and Planning activities, the InductiveHealth Team will carefully review these perspectives with DHHR by comparing and contrasting our proposed solution to current surveillance systems.
2. **Incremental Elaboration**: The InductiveHealth Team does not recommend "big bang" Implementation phases where all requirements are a part of the same release at a given point in time. Rather, the InductiveHealth Team advises clients to focus on incremental elaboration whereby a minimally viable solution is provided at Go-Live followed by additional releases of features and solutions. The InductiveHealth Team finds this reduces the stress on end users and project sponsors while recognizing the importance of organizational change management and continuous progress toward deliverables and milestones.

4. Testing

The primary purpose of the Testing Phase is to determine whether the designed or configured solution is ready for implementation. During the Testing Phase, formally controlled and focused testing is performed to detect errors, issues, and defects that need to be resolved.

DHHR envisions the stages of the Testing Phase occurring concurrently with the design and Configuration Phase, with testing for each development iteration. Testing should occur throughout the design and configuration process, and the initial planning for testing activities should occur early in the project. DHHR recommends that planning for the Testing Phase occuras early in the project as possible to ensure successful testing results.

DHHR defines the types of testing as follows:

- **Unit Testing:** Unit testing assesses and corrects the functionality of individual or small groups of code or modules. Unit testing ensures the various objects and components that make up the system are individually tested, and that errors are detected and corrected prior toexiting the development environment.

- **Integration Testing:** Developers perform integration testing after integrating completed components or modules into the overall system codebase. This testing ensures that the completed components or modules work at a level of efficiency acceptable to DHHR and thatexisting components and shared components have not been broken by the new module.

- **Iterative Functional Testing:** Iterative functional testing ensures that the components developed for each logical iteration of the system meet all functional and technical requirements as defined and approved by DHHR.

- **System Integration Testing (SIT):** SIT assesses the functionality and interoperability ofthe solution and the multiple other systems and subsystems it interacts with, such as databases, hardware, software, rules engine, document management system, identity management system, workflow, interfaces, and web services, and their integration with infrastructure into an overall integrated solution. This test includes a test installation and configuration of the solution, with a subsequent functional regression test to confirm the installation's success.

- **Interface Testing:** Interface testing ensures the completeness of interface developmentand the readiness of developed interfaces for integration in the wider system.

- **Regression Testing:** Regression testing assesses the integrity of the solution subsequentto the deployment of new solution components and/or fixes.

- **End-to-End Testing:** End-to-end testing is a quality assurance testing methodology that strives to ensure correct functioning and performance of applications in production-like scenarios. This methodology checks if an application performs as designed on all levels and across all subsystems. It is intended to encompass testing for the solution's key business and functional processes in their entirety from their start through completion.
- **Security Testing:** The testing of functional, technical, infrastructure, and operational solution components to ensure the solution and operations meet all security requirements.
- **Performance Testing:** Performance testing ensures that the solution meets the minimum performance service levels required by DHHR, in terms of query and page response times under simulated load for a number of users for multiple concurrent functions in a given period. Performance testing scenarios take into account expected peak period volumesfor application processing such as closing of open enrollment periods.
- **Usability/Accessibility Testing:** Usability testing ensures the solution user interface design takes into account usability considerations for its target user groups.
- **Browser Testing:** Browser testing ensures that the solution operates in the most likely configurations of browser versions and operating solutions. The Vendor is responsible for providing the machine configurations to perform all necessary browser testing. Browser testing also includes the testing of mobile view and mobile browsers.
- **User Acceptance Testing (UAT):** UAT ensures that the developed system meets all expectations of DHHR and all solution users. UAT test scripts cover all facets of the system,and the Vendor should be responsible for drafting all UAT scenarios and cases per DHHR's direction. DHHR will be responsible for identifying the participants involved in UAT, for the overall execution of UAT scripts, and for any ad-hoc UAT testing.
- **Data Conversion Testing:** Data conversion testing ensures that data migrated from the current solution are brought across to the new solution in a usable, complete, correct, and expected state.
- **Operational Readiness Testing (ORT):** ORT is performed to examine the operational capability of the solution and its associated processes and procedures. ORT focuses on the validation or verification of the processes involved primarily outside the system.
- **Parallel Testing:** Parallel testing is a method of comparing the activities and/or data ofthe old solution against that of the new solution. In order to reduce risk, the old and new solutions run simultaneously for some period after which, if criteria for the new solution ismet, the old solution is disabled.

The Vendor's proposal should describe the Vendor's understanding of the aforementioned testing types, and should include detail on the approach and methodology for the following:
- All aforementioned testing types, as well as any others the Vendor plans to deploy
- Timing for execution of each testing type

- Usage of tools the Vendor proposes be used in support of each testing type
- Testing environments to be used in support of each testing type, and for all necessary testing activities
- Validating the traceability of requirements throughout the testing process

The Vendor's proposal should include details on the Vendor's proposed source code management tool, as well as on the project repository that will be used to store usage scenarios,use cases, requirements, designs, test scenarios, test cases, test results, and other project artifacts.

The Vendor's proposal should also present a narrative description that includes the following:
- Approach to completion of the Solution Design, Testing, and Operations task group's testing-related deliverables.
- Approach to obtaining DHHR's approval of the testing-related project milestones including the proposed acceptance criteria for each milestone.
- Approach to:
  - Working with federal partners, DHHR, and/or any other Vendors throughout all testing phases
  - Developing test cases and scripts to thoroughly test system functionality
  - Supplying documentation of each testing type
  - Preparing data for each testing type
- Details on the support the Vendor intends to supply during UAT, such as the Vendor's approach to:
  - Developing the UAT Plan, scripts, cases, timeline, and supporting processes
  - Preparing test data
  - UAT results analysis, identification of defect severity, and defect resolution
  - Defect tracking, repair, and reporting
  - UAT final report that includes:
    - A certification letter stating that UAT was successfully completed
    - A list of all defects and issues
    - A list of all resolved critical defects and/or issues
- The Vendor's proposal should include detail on the approach to ORT including:
  - ORT approach
  - ORT final report that includes:
    - A certification letter stating that UAT was successfully completed
    - A list of all defects and issues
    - A list of all resolved critical defects and/or issues

Response: As described in Section 1.2 – Issue Management, InductiveHealth meets or exceeds all requirements documented in Appendix 1- Detailed specifications, as part of its proven implementation project methodology. As part of our project documentation which includes a detailed test plan, InductiveHealth will work closely with DHHR to ensure that all proposed and planned testing meets the

guidelines put forth in this RFP.

As requested by DHHR for the West Virginia Enterprise Surveillance System (ESS) Program, the InductiveHealth Team is bringing forward solutions that are used today across public health agencies to support diseases through a software-as-a-service (SaaS) model. This provides DHHR with the benefit of using solutions that are used in today for mission critical surveillance activities including testing under a variety of performance and reportable disease needs. During the Implementation phase, testing activities will be managed by Jimmy Mofadal (Test Manager) and focused on testing integration touch points and DHHR specific needs. Examples of this include West Virginia specific data variables to support sexually transmitted disease and HIV surveillance related to needle sharing.

Exhibit 11 presents the InductiveHealth Team's approach to the types of testing identified by DHHR and includes emphasis on promoting new releases, patches, data integration in lower environments for evaluation prior to promotion into Production. Further, the InductiveHealth Teams understands the importance of using testing with 'real-world' production.

Testing Type	InductiveHealth Team Approach
Unit Testing	The EpiTrax™ and EMSA™ source code repository includes multiple Junit [https://junit.org/junit5/] based unit tests that are executed for new builds of these solutions to automate unit testing. As new features are added to EpiTrax™ and EMSA™, additional Junit tests are added to increase unit testing automation.
Integration Testing	Integration testing is performed in a lower environment using a Rhapsody® integration engine instance that mirrors Production. Integration testing is conducted using production data under various scenarios including HL7 messages that represent complete and incomplete validations to test various scenarios. As part of this, Rhapsody® includes the ability to store test messages and scenarios that can be used to increase test automation and regression testing.
Iterative Functional Testing	Iterative and System testing overlap and specific Team Members are assigned according to their expertise to perform testing against requirements and expected results. Defects that are detected are logged in Jira Software for resolution.
System Integration Testing	
Interface Testing	Demonstrated in **Exhibit-12**, the InductiveHealth Team uses Selenium [https://www.selenium.dev/] to automate interface and end to end testing in addition to predefined test case suites to perform regression testing (see **Exhibit-13** for example).
Regression Testing	
End to End Testing	
Browser Testing	
Security Testing	To detect possible security defects, the InductiveHealth Teams uses static code analysis tools including Checkstyle [https://checkstyle.org/checks.html]. These proactive tools automate detection of information leaks, cross site scripting vectors, and possibilities of SQL injection attacks. Additionally, the InductiveHealth Team also conducts independent validation and verification (IV&V) using a third-party web vulnerability scanning partner.
Performance Testing	The InductiveHealth Team also uses Selenium [https://www.selenium.dev/] to automate performance testing against predefined requirements for user concurrency and data processing.
Usability / Accessibility Testing	The InductiveHealth Team has previously executed Usability / Accessibility Testing in alignment to Federal requirements such as Section 508 compliance as demonstrated in **Exhibit-14.** The InductiveHealth Team will work with DHHR upon award to determine specific requirements and methods for evaluation.
User Acceptance Testing	The InductiveHealth Team supports User Acceptance Testing conducted by the DHHR team through a series of activities designed to ensure that DHHR staff and the EpiTrax™ and EMSA™ UAT environments are prepped and suitable for testing of this magnitude; data and test scripts will be provided by InductiveHealth as noted in **Appendix-1 Detailed Specifications**. UAT will be conducted virtually, with designated InductiveHealth expert staff available to respond to questions or any issues encountered

Testing Type	InductiveHealth Team Approach
	during testing. User Acceptance Testing of electronic data feeds such as ELR and eCR will be monitored and tracked for appropriate usage patterns to ensure success. Daily status calls will be scheduled to discuss and triage findings. Mitigation strategies will be mutually agreed upon at the time of defect discovery.
Data Conversion Testing	Please reference our responses to **Section 3.1 Implementation/Rollout Planning**
Operational Readiness Testing	
Parallel Testing	

Exhibit-11: The InductiveHealth Team's approach to testing using software-as-a-service (SaaS) delivery model.

Volume Tests (query times at specified DB volumes)

Query Times	1 card	15 cards	50 cards	150 cards	300 cards	900 cards
CaseData.getCaseDataForUserScopes	3 ms	2 ms	2 ms	2 ms	2 ms	4 ms
CaseData.setCaseDataListForSampleListInUse	2 ms	2 ms	1 ms	1 ms	1 ms	0 ms
CaseData.updateCaseData	no data	no data	no data	no data	no data	no data
LaboratoryResults.deleteAll	62 ms	62 ms	62 ms	62 ms	62 ms	no data
LaboratoryResults.deleteAllResultsForBarcodeAndReturnCountAndDependentBarcodes	no data	no data	no data	no data	no data	no data
LaboratoryResults.getActiveIndeterminateReplicateRowsForBarcode	3 ms	4 ms	4 ms	4 ms	6 ms	297 ms
LaboratoryResults.getActiveInterpretation	2 ms	2 ms	2 ms	2 ms	2 ms	1492 ms
LaboratoryResults.getActiveReplicateRowsForSampleTarget	2 ms	3 ms	6 ms	15 ms	31 ms	300 ms
LaboratoryResults.getActiveRowsForCaseIdScopeUid	10 ms	10 ms	10 ms	11 ms	15 ms	313 ms
LaboratoryResults.getActiveUserSubmittedRowsByScope	15 ms	19 ms	38 ms	162 ms	401 ms	4899 ms
LaboratoryResults.getActiveUserSubmittedRowsForSampleTarget	1 ms	2 ms	6 ms	15 ms	29 ms	332 ms
LaboratoryResults.getAllActiveInterpretationRowsForBarcode	10 ms	10 ms	13 ms	48 ms	119 ms	4564 ms
LaboratoryResults.getAllActiveMultitargetInterpretationRowsForBarcode	3 ms	3 ms	7 ms	34 ms	108 ms	4466 ms
LaboratoryResults.getAllActiveMultitargetInterpretationRowsWhereManualReviewCommentIsNullListSize	2 ms	4 ms	13 ms	33 ms	91 ms	3483 ms
LaboratoryResults.getAllActiveRowsByScopeUid	21 ms	27 ms	46 ms	97 ms	220 ms	8285 ms
LaboratoryResults.getAllActiveRowsForBarcode	18 ms	18 ms	18 ms	19 ms	20 ms	327 ms

Exhibit-12: Example of automated testing using automated testing solutions.

Exhibit-13: Example Test Case from InductiveHealth Team's document repository.

Guidelines	WCAG Ref #(s)	HHS ID	Failure Conditions	Results	Failure Details (Provide Screen/Location)	Column1	Colum n2
Best Practices	N/A	1A	Where no method exists to correct content so that it meets the requirements, an alternate version is provided. If the statement is false, contact your Section 508 program team for alternate content options.				
	N/A	1B	Where the document links to or embeds another file, an appropriate checklist has been provided for each link or attachment.				
1.1 - Text Alternatives Non-Text Content	1.1.1	2A	All images, form image buttons, and image map hot spots have appropriate, concise alternative text.	Compliant			
	1.1.1	2B	Images that do not convey content, are decorative, or with content that is already conveyed in text are given null alt text (alt="") or implemented as CSS backgrounds.	Compliant			
	1.1.1	2C	Equivalent alternatives to complex images are provided in context or on a separate (linked and/or referenced via longdesc) page.	N/A			
	1.1.1	2D	Embedded multimedia is identified via accessible text.	N/A			
	1.1.1	2E	Frames are appropriately titled.	N/A			
	1.1.1	2F	Content intended to be hidden from all users is also hidden from assistive technology.	Compliant			
	1.1.1	2G	CSS background images that convey meaning have textual alternatives.	N/A			
	1.1.1	2H	Animated content has an alternative or is described in text.	N/A			
	1.1.1	2I	CAPTCHAs are accessible, in visual and audible formats.	N/A			
	1.1.1	2J	Textual alternative information is updated when an element's state changes.	Compliant			
1.2 - Time-based Media	1.1.1;	3A	Where media content is present or embedded,	N/A			

Exhibit-14: Example of usability testing results.

ATTACHMENT J: MAINTENANCE AND OPERATIONSSPECIFICATIONS APPROACH

Instructions: Maintenance and Operations specifications ensure that the solution is fully functional and performing optimally until the end of the life cycle. The Vendor's response should include a narrative overview describing its approach to maintenance of its proposed solution, including updates to new versions of the Software as a Service (SaaS) products, and toconfigurations necessary to support changes in DHHR's business needs.

Use the response sections to provide specific details of the proposed approach to meeting the maintenance and operations specifications in each subject matter area. Responses should reference specifications and relevant mandatory requirements using the appropriate IDs from *Appendix 1: Detailed Specifications* and *Attachment F: Mandatory Requirements*. DHHR alsoexpects the Vendor to propose its approach for meeting any narrative in *Section 4: Project Specifications* of this RFP.

1. Operations

Refer to the relevant maintenance and operations specifications located in *Appendix 1: Detailed Specifications* and pertinent narrative in *Section 4: Project Specifications* in this RFP to cover solution capabilities in this area. The Vendor should describe its approach to operations below. The narrative response for this category should be organized using the appropriate subject matterarea as per *Appendix 1: Detailed Specifications*.

1.1Appendix 1: Detailed Specifications

OP001	1	The Vendor should maintain and ensure contract personnel staffing levels and competencies to support software applications, data integrity, analytics, user training, and contract administration pursuant to Service Level Agreements (SLAs).

Response: As detailed in our response to **Attachment D: Project Organization and Staffing Approach,** InductiveHealth brings forward multi-disciplinary specialists across disease surveillance, software-as-a-service (SaaS), and cloud engineering needed for the delivery of the West Virginia Enterprise Surveillance System (ESS) program. This includes integration of the WV ESS program into existing SaaS Delivery Teams which have been designed for the specific needs of electronic disease surveillance systems and SaaS delivery models.

OP002	1	The Vendor should supply key staff resumes to DHHR for review and approval prior to key staff beginning work under the contract.

Response: Summarized in table **Table 18: Resumes for Proposed Key Staff,** InductiveHealth has provided resumes in our response to **Section 3.1 Resumes of Attachment D: Project Organization and Staffing Approach.**

OP003	1	The Vendor should supply resumes for key staff substitutions to DHHR for review and approval prior to key staff substitutions performing any work under the contract.

Response: Presented in **Section 1. Initial Staffing Plan in Attachment D: Project Organization and Staffing Approach,**

		InductiveHealth will present key staff substitutions to DHHR for review and approval.
OP004	1	The Vendor should collaborate with DHHR to develop and maintain a process for authorized solution user support.

Response: The collaboration will be encoded in D059 – Solution Health Monitoring Plan, D016 – Incident Management Plan, and D060 – System Operations Plan deliverables building on existing InductiveHealth operational procedures in related to solution delivery and operations including Help Desk, Technology, and Onboarding Teams.

OP005	1	The Vendor should maintain and ensure contract personnel staffing levels and competencies to support software applications, data integrity, analytics, user training, and contract administration pursuant to Service Level Agreements (SLAs).

Response: InductiveHealth continually conducts professional development through our InductiveHealth University curriculum and Practice Area Leaders.

OP006	1	The Vendor should maintain adequate staff to perform operational functions including, but not limited to:
OP007	2	Identify a primary and back-up point of contact for day-to-day operations

Response: As part of business continuity planning, InductiveHealth maintains multiple levels of communication and points of contact including assigned Project Manager, Help Desk Manager, Director of SaaS Delivery, and Chief Operating Officer (COO).

OP008	2	Maintain effective communications of project updates and problem resolutions

Response: To be encoded in D004 – Communication Management Plan deliverable, InductiveHealth's Help Desk Team has responsibility for proactive communication on problem resolutions with the assigned Project Manager responsible for project updates including on-going written status reports and meetings.

OP009	2	Maintain current documentation of operational processes and notify designated DHHR staff of operational issues and remediation plans within the designated timeframes pursuant to DHHR-defined Service Level Agreements (SLAs)

Response: To be encoded in D059 – Solution Health Monitoring Plan and D060 – System Operations Plan deliverables, InductiveHealth maintains and executes existing Playbooks for operational processes that include notification patterns for clients of operational issues and remediation plans. These notifications typically take the form of emails with Severity-1 (solution wide unavailability) accompanied by phone call communication to designated DHHR points of contact.

OP010	2	Ensure quality control procedures are in place and utilized and that issues are resolved when identified through quality checks

Response: InductiveHealth's quality control procedures are introduced in our response to **Section 1.4 Quality Management** of **Attachment I: Implementation Specifications Approach** and to be further encoded in D008 – Quality Management Plan deliverable.

OP011	2	Adhere to project and report delivery timeframes

Response: Project and report delivery timelines are the responsibility of InductiveHealth's assigned Project Manager with accountability falling under our assigned Account Manager who reports directly to InductiveHealth's Chief Operating Officer (COO). **Attachment E: Initial Work Plan** presents InductiveHealth realistic and feasible delivery timeframes to be encoded with DHHR via the D010 – Schedule Management Plan deliverable.

OP012	2	Conduct business use analyses to prepare operational reports

Response: InductiveHealth continually monitors data usage patterns of client solutions and prepares recommendations describing opportunities for clients to enhance business utilization. For example, InductiveHealth currently provides daily reports (see below example) to DHHR on electronic laboratory reporting (ELR) processing to identify operational patterns that need action by InductiveHealth and / or DHHR.

WV - ELR Flow Report

Date Generated: 01/28/2022, 10:20 ET

Time Frame: Rolling Last Seven Days

Show 100 ∨ entries   Search: ☐

	Facility	2022-01-21	2022-01-22	2022-01-23	2022-01-24	2022-01-25	2022-01-26	2022-01-27	2022-01-28	Total	Avg
54	CAMC Memorial	3572	2764	1771	2398	4361	3782	4103	2183	24935	3606
243	LABCORP	4561	3554	3265	911	1078	4855	4809	2979	26080	2336
415	QLAB	6768	7999	1984	460	639	1710	1911	1868	27313	1731
39	Boone Memorial	1235	728	630	1062	987	991	993	321	6937	1318
55	CAMC Teays Valley	817	418	513	838	950	722	513	342	5111	638
535	University of Minnesota Genomics Center	468	989	1171	1217	70	278	754	515	5462	609

OP013	2	Work with DHHR to automate operational reports

Response: Building on our response to OP012, InductiveHealth provides full transparency into operational processes through automated reports that inform DHHR stakeholders of successful execution and as needed reason for unsuccessful jobs. Below, InductiveHealth provides an example operational report used today to manage the extraction of data from WVEDSS for secure transport to DHHR to support the COVID-19 pandemic response.

```
Chexout_Historic_Labs_Pull_20220128_1100 - Notepad
File Edit Format View Help
Starting Chexout Historic Labs Pull: Friday, January 28, 2022 11:00:02 AM
        File Size: 4235392.87402344 KB
C:\InductiveHealth\jobs\Chexout_LABS\header\header.txt
C:\InductiveHealth\jobs\Chexout_LABS\export.txt
        1 file(s) copied.
Finished Chexout Historic Labs Pull: Friday, January 28, 2022 12:37:10 PM

Starting Upload to /WVEDSS/Labs: Friday, January 28, 2022 12:37:10 PM
batch           abort
confirm         off
Searching for host...
Connecting to host...
Authenticating...
Using username '           '.
Authenticating with pre-entered password.
Authenticated.
Starting the session...
Session started.
Active session: [1] ████████████████
/
/WVEDSS/Labs
transfer        binary
C:\InductiveHealth\jobs\Chexout_LABS\ChexoutHistoricLabData_20220128_1100.txt |    4235394 KB | 4300.4 KB/s | binary | 100%
Session '                        ' closed.
No session.
Finished Upload to /WVEDSS/Labs: Friday, January 28, 2022 12:49:01 PM
```

OP014	2	Others as defined by DHHR and pursuant to Service Level Agreements (SLAs)

Response: InductiveHealth will collaborate and mutually agree with DHHR on other needed operational functions.

OP015	1	The Vendor should maintain adequate staff to perform technical functions including, but not limited to:

OP016	2	Maintain systems by researching and resolving problems

Response: Detailed in our response to **Attachment D: Project Organization & Staffing,** responsibility for research and resolving problems is the responsibility of the Help Desk Team with escalations to our Technology Team, Onboarding / Integration Team, and Production Development & Operations. All problem reports are managed from Jira Service Desk.

OP017	2	Maintain system and network integrity and security

Response: InductiveHealth leverages multiple tools to monitor system and network integrity including:

- Remote monitoring and management (RMM) tools to automatically detect when predefined thresholds are crossed on memory, CPU, and disk space utilization with automated alerting to our Help Desk and on-call resources.
- InductiveHealth uses intrusion detection system (IDS) to monitor and analyze all inbound / outbound traffic against pre-defined rules that are continually updated.
- InductiveHealth's flexible multi-factor authentication (MFA) solution includes predefined rules for password complexity, reset thresholds, automatic lockouts, and geo-location filters.
- InductiveHealth proactively manages all SFTP communication points via our real-time dashboards (see example below) to drive activities of our Help Desk and Onboarding / Integration Teams
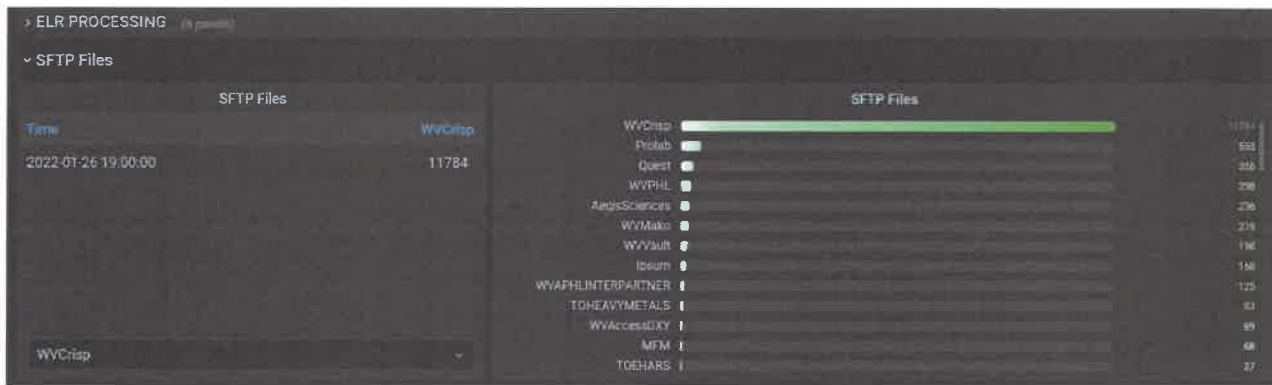
OP018	2	Develop and maintain configuration and customization of the solution, solution tools, and rules engine

Response: Solutions will be maintained through continually monitoring and implementing configurations including 1) adding new Logical Observation Identifiers Names and Codes (LOINC®) within the EMSA™ LOINC library to support onboarding of new electronic laboratory reporting trading partners, 2) curating end user accounts against predefined inactivity thresholds, and 3) adjusting electronic laboratory reporting and electronic case reporting routing rules for investigation creation in EpiTrax™ including case classification. These activities are coordinated by our Help Desk and executed across our SaaS Delivery organization using service requests captured in Jira Service Desk.

OP019	2	Establish, manage, and maintain the solution data exchanges
OP020	2	Maintain file specifications for solution data exchanges
OP021	2	Establish, manage, and maintain solution interfaces

Consolidated Response to OP019, OP020, and OP021: In managing electronic laboratory reporting and electronic case reporting today for DHHR, InductiveHealth has in depth experience in implementing and operating data exchanges using the Rhapsody™ data integration engine. Demonstrated in the graphic below, InductiveHealth establishes and maintains complex routes and processing logic to support data processing including inbound and outbound data exchange across multiple Health Level Seven (HL7) implementation guides and the InductiveHealth Comma Separated Value (CSV) data exchange format used by many West Virginia trading partners.

As part of this, InductiveHealth also currently manages all secure transport mechanisms for DHHR including secure file transport (SFTP) and CDC PHIN Messaging Sender. This includes real-time monitoring of SFTP interfaces for data flow and detection of processing delays.

OP022	2	Assure that new processes/new technology installations minimize negative impact on the system and authorized solution users

Response: InductiveHealth deploys all new processes / technologies to lower environments prior to implementation in Production including coordinating deployments with DHHR. Promotion through lower environments includes testing and validation with real-world Production data including review of potential impacts to Production operations. As part of this, InductiveHealth works to implement new processes / technologies during solution off peak hours including validating restore points and rollback plans.

OP023	2	Provide regular status updates to DHHR on system issues and system updates

Response: Our Help Desk coordinates communication on systems issues and system updates through email communication and regular updates (via email) to service requests managed in JIRA Service Desk.

OP024	2	Maintain a system of checks and balances such that the underlying data are consistent, complete, and accurate

Response: InductiveHealth uses a 'belts and suspenders' approach to data including:
- Data is backed up and archived weekly at the virtual machine level
- Database files are backed up at 5-minute intervals supported by every three (3) hour differentials and one (1) daily full backup, with data integration messages pushed to offsite storage weekly
- Database files are regularly health checked with re-occurring re-index maintenance jobs to avoid latency resulting from fragmentation.

OP025	2	Develop and gather requirements

Response: In the Operations phase, requirements for new or enhanced configurations (e.g., data integration, custom forms) are captured via JIRA Service Desk service requests with requirements for Change Requests (e.g., new feature) captured via JIRA Software via the Product Backlog. Depending on scope, the Subject Matter Expert Team may participate to provide disease surveillance and epidemiologic input including mapping of clinical information or recommendations for data variables to add to disease specific forms. Upon implementation, new requirements will be logged to the Requirements Traceability Matrix (RTM).

OP026	2	Design, implement, and maintain solution architecture

Response: This is the responsibility of the Technology Team in collaboration with the Product Development & Operations Team. Detailed in **Attachment D: Project Organization and Staffing Approach**, the Technology Team is responsible for the solution infrastructure including information security with the Production Development & Operations Team responsible for solution enhancement and performance enhancements.

OP027	2	Monitor solution performance and resolve issues

Response: The Help Desk Team is responsible for monitoring of overall solution performance using remote monitoring and management (RMM) tools using predefined thresholds and daily re-occurring health checks. The Technology Team is responsible for management of solution performance related to infrastructure including daily monitoring of private cloud infrastructure and virtual machines in addition to network throughput and data center health. All issues are logged and managed in JIRA Service Desk and assigned specific Severity levels that have corresponding response frameworks.

OP028	2	Analyze test plans, technical specifications, and test results

Response: In the Operations phase, analysis of test plans, technical specifications, and test results spans the Technical Architect responsible for the Product Development & Operations Team, Manager responsible for Technology Team, and Director of SaaS Delivery. This provides 'many eyes' to assess the impact of solution enhancement including interpreting of test results to identify potential impact to production operations.

OP029	2	Provide system documentation

Response: InductiveHealth will provide systems documentation based on the requirements of this RFP.

OP030	2	Others as defined by DHHR and pursuant to Service Level Agreements (SLAs)

Response: InductiveHealth will collaborate and mutually agree with DHHR on other operational needs.

OP031	1	The Vendor should participate in project meetings as directed by DHHR.

Response: InductiveHealth typically conducts bi-weekly meeting with clients to present status and will support project meeting as directed by DHHR. InductiveHealth actively participates in further project meetings as needed/requested.

OP032	1	The Vendor should work collaboratively with DHHR to explain and support ESS Vendor-based operations and reporting to stakeholders, auditors, and other parties when necessary.

Response: InductiveHealth strives to provide 100% transparency into activities, status, and progress and looks forward to continuing to work collaboratively with DHHR to support ESS operations.

OP033	1	The Vendor should participate in audit activities including, but not limited to:
OP034	2	Attending meetings
OP035	2	Running reports
OP036	2	Providing documentation
OP037	2	Providing access to all system components and modules as requested by DHHR

Consolidated Response to OP034, OP035, OP036, and OP037: As requested by DHHR, InductiveHealth will participate in audit activities and will mutually agree with DHHR if audit activity requests, due to level of effort, require Change Request to successfully complete.

OP038	1	The Vendor should support the State with data integration needs prior to and subsequent to the solution's implementation.

Response: InductiveHealth presently supports West Virginia with data integration services and is entrusted to manage the DHHR Rhapsody instance for electronic laboratory reporting and electronic case reporting data processing (including all COVID-19 data management). Under this RFP, InductiveHealth will continue to support DHHR with data integration needs

		during the Implementation and Operations phases.
OP039	1	The Vendor should provide DHHR with a Data Management Plan as defined in Appendix 2 - Deliverables and Milestones Dictionary.

Response: As identified in **Attachment E: Initial Work Plan** and **Attachment I: Implementation Specifications Approach,** InductiveHealth will construct the D014 Data Management Plan (including Governance and Quality) with a focus on inventory data in scope for the program, methods of data collection, methods for measuring data quality, and methods for on-going inspection and data governance.

OP040	1	The Vendor should agree to perform according to approved Service Level Agreements (SLA) and identified Key Performance Indicators (KPI) with associated metrics in the areas of system availability, performance, data quality, and problem management, and should consent to DHHR retaining a percentage of payment if agreed-upon metrics are not achieved.

Response: InductiveHealth agrees to perform according to the SLA defined for this program and look forward to collaborating with DHHR on methods of measurement and reporting guidelines.

OP041	1	The Vendor should develop, maintain, and implement a DHHR-approved System Operations Plan as defined in Appendix 2 - Deliverables and Milestones Dictionary.

Response: InductiveHealth will delivery the D060 System Operations Plan deliverables building on existing Playbooks used by our SaaS organization including DHHR specific requirements as identified in this RFP.

OP042	1	The Vendor should pay and arrange for an annual Statement on Standards for Attestation Engagements, System, and Organization Controls (SOC) 1, Type II audit, using the most current version of the audit, which should cover work performed by the Vendor at the Vendor's facility and data center sites.
OP043	1	The Vendor should submit the annual Statement on Standards for Attestation Engagements, System and Organization Controls (SOC) 1, Type II audit report, using the most current version of the audit, to DHHR for approval with an action plan to remediate findings within a timeframe agreed upon by the Vendor and DHHR.

Consolidated Response to OP042 an OP043: The InductiveHealth private cloud infrastructure spans multiple geographically distributed co-located data centers which meet or exceed SOC I Type II audit requirements. Each co-located data center maintains compliance and as needed; audit reports can be provided to DHHR for review.

OP044	1	The solution should provide an authorized solution user test environment (sandbox) to test new workflows and reports prior to execution in production.
OP045	1	The solution should have test environments (sandboxes) that include metadata necessary to test new workflows and reports prior to execution in production.
OP046	1	The solution should have a test environment (sandbox) that can be refreshed as requested by DHHR.
OP047	1	The solution should utilize the same hardware, operating system, and relational database management in the test environments (sandboxes) that are used in production.
OP048	1	The solution should have test environments (sandboxes) that mirror the production environment.
OP049	1	The solution should supply access to the user acceptance testing (UAT) environment for authorized solution users.
OP050	1	The Vendor should provide access for authorized solution users to all solution test environments as requested by DHHR.
OP051	1	The solution should have a development environment to develop and unit-test all software contained within the solution.
OP052	1	The solution's user acceptance testing (UAT) environment should have the ability to support

		all components of the solution.
OP053	1	The solution's unit test environment should have the ability to perform full-scale system integration testing (SIT) for the solution.
OP054	1	The solution should have a unit test environment that mirrors production in hardware, software stack, and data volumes.
OP055	1	The solution should have a unit test environment that exists for all relevant components.

Consolidated Response to OP044, OP045, OP046, OP047, OP048, OP049, OP050, OP051, OP052, OP053, OP054, OP055: InductiveHealth's software-as-a-service (SaaS) delivery includes the following environments:

1. **Production:** All solutions and integrations needed for production operations securely accessible to end users and system administrators.
2. **Staging / User Acceptance Testing (UAT):** All solutions and integrations needed for training as well as validation of new releases, enhancements, and defect resolutions securely accessible to end users and system administrators. This environment is continually refreshed with the database files from the Production environment to maintain parity of solutions.
3. **Development:** Solution and integrations needed for unit testing and development. Typically, this environment is only accessible to authorized InductiveHealth resources and is used to support Sprints and product demonstrations with DHHR.

To facilitate environment configuration and parity across, InductiveHealth uses preconfigured virtual machines running on a virtualization management platform that facilitates scaling and replication of specific Production configurations from a point in time to a Staging / User Acceptance Testing (UAT) or Development environment.

1.2 Attachment F-Mandatory Requirements

MR015	1	The Vendor must provide facilities for the recovery of Design, Development, and Implementation (DDI) or operations activities in the event of a disaster that disrupts DDI or operations as described in the Vendor's Disaster Recovery and Business Continuity Management Plan which will be developed by the Vendor and approved by the Agency. The Vendor must provide resources necessary to:	Disaster Recovery
MR016	2	Recover critical services and data in accordance with the Recovery Time Objective (RTO) and Recovery Point Objectives (RPO) to be approved by the Agency and documented in the Disaster Recovery and Business Continuity Management Plan	Disaster Recovery
MR017	2	Meet the approved Service Level Agreements listed in Appendix 5: Service Level Agreements & Performance Standards	Disaster Recovery

Consolidated Response to MR016 and MR017: The InductiveHealth private cloud infrastructure spans multiple geographically distributed co-located data centers. InductiveHealth uses a 'belts and suspenders' approach to disaster recovery and business continuity including:

- Data is backed up and archived weekly at the virtual machine level
- Database files are backed up at 5-minute intervals supported by every three (3) hour differentials and one (1) daily full backup, and data integration messages pushes to offsite storage weekly
- Database files are regularly health checked with re-occurring re-index maintenance jobs to avoid latency resulting from fragmentation
- Use of onsite data storage at co-located data centers
- Use of offsite data storage in Amazon Web Service (AWS) using S3 for long-term storage

InductiveHealth's disaster recovery and business continuity is supported by our virtualization management platform that enables virtual machines to be deployed across multiple hosts in geographical areas with regular tests of virtual machine (VM) restoration and regular tests of database restoration to 5-minute recovery point objectives (RPO).

MR030	1	The Vendor must perform according to approved Service Level Agreements (SLAs) and identified Key Performance Indicators (KPIs) with associated metrics in the areas listed in Appendix 5: Service Level Agreements & Performance Standards.	Compliance with Service Level Agreements

Response: InductiveHealth agrees to perform according to the SLA defined for this program and look forward to collaborating with DHHR on methods of measurement and reporting guidelines.

MR031	1	The Vendor must deduct any amount due from future payments if the agreed upon SLAs are not met. The Agency reserves the right to seek any other remedies under the Contract.	Compliance with Service Level Agreements

Response: InductiveHealth agrees to perform according to the SLA defined for this program and look forward to collaborating with DHHR on methods of measurement and reporting guidelines. InductiveHealth reserves the right to mutually agree with DHHR upon contract award on the specific additional remedies that may be applied.

2. Solution Backup, Disaster Recovery, and Failover

Refer to the relevant maintenance and operations specifications located in *Appendix 1: Detailed Specifications* and pertinent narrative in *Section 4: Project Specifications* in this RFP to cover solution capabilities in this area. The Vendor should describe its approach to Solution Backup, Disaster Recovery, and Failover below. The narrative response for this category should be organized using the appropriate subject matter area as per *Appendix 1: Detailed Specifications*.

2.1 Appendix 1: Detailed Specifications

DR001	1	The solution should provide sufficient transaction logging and database back-up to allow it to be restored. If multiple databases are used for work item routing and program data, restoring the solution should ensure that databases are synchronized to prevent data corruption.

Response: Database files are backed up at 5-minute intervals supported by every three (3) hour differentials and one (1) daily full backup with storage directly to on-site network attached storage (NAS) followed by offsite synchronization to Amazon Web Service (AWS) S3 for long-term storage. Additionally, database files are regularly health checked with re-occurring re-index maintenance jobs to avoid latency resulting from fragmentation.

All database backup jobs are continually monitored with email-based alerting identifying breaks in recovery changes (as demonstrated in the example below for InductiveHealth's current WVEDSS delivery).

Example Database Backup Job Logging

```
------------------------------------------------------------

WV Backup Files:

    DIFF:
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_DIFF_20220128_120934.bak
    WIN-4UUV0DTP1UC_NBS_ODSE_DIFF_20220128_120101.bak
    WIN-4UUV0DTP1UC_NBS_ODSE_REPORT_DIFF_20220128_120526.bak
    WIN-4UUV0DTP1UC_NBS_SRTE_DIFF_20220128_120953.bak

    FULL:
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_01.bak
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_02.bak
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_03.bak
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_04.bak
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_05.bak
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_06.bak
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_07.bak
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_08.bak
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_09.bak
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_10.bak
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_11.bak
    WIN-4UUV0DTP1UC_INDUCTIVE_FULL_20220127_172006_12.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_01.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_02.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_03.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_04.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_05.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_06.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_07.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_08.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_09.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_10.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_11.bak
    WIN-4UUV0DTP1UC_NBS_MSGOUTE_FULL_20220127_174401_12.bak
```

Example Database Restoration Exercise

WVEDSS Database Disaster Recovery Test Report – 3/28/2018

This document captures the results of the Database Restoration Exercise for West Virginia's NEDSS Base System (NBS).

Full back-ups of all NBS databases (and system databases) occur daily at 6:00 PM Eastern Time with differential back-ups of the NBS transactional database (NBS_ODSE) occurring every 10 minutes from 8:00 AM to 5:00 PM Eastern Time.

Each full and differential back-up is automatically stored to on-site Network Attached Storage (NAS) and then copied to an offsite NAS.

> Network > 10.1.10.9 > db-backups > Test_DB_Backups > WV

Name	Date modified	Type
2018-03-28_09-35-00-TEST-DIFF	3/28/2018 9:35 AM	File folder
2018-03-28_09-25-00-TEST-DIFF	3/28/2018 9:25 AM	File folder
2018-03-28_09-15-00-TEST-DIFF	3/28/2018 9:15 AM	File folder
2018-03-28_09-05-00-TEST-DIFF	3/28/2018 9:05 AM	File folder
2018-03-28_08-55-00-TEST-DIFF	3/28/2018 8:55 AM	File folder
2018-03-28_08-45-00-TEST-DIFF	3/28/2018 8:45 AM	File folder
2018-03-28_08-35-00-TEST-DIFF	3/28/2018 8:35 AM	File folder
2018-03-28_08-25-00-TEST-DIFF	3/28/2018 8:25 AM	File folder
2018-03-28_08-15-00-TEST-DIFF	3/28/2018 8:15 AM	File folder
2018-03-28_08-05-00-TEST-DIFF	3/28/2018 8:05 AM	File folder
2018-03-27_18-20-00-TEST-FULL	3/27/2018 6:22 PM	File folder
2018-03-27_17-05-00-TEST-DIFF	3/27/2018 5:05 PM	File folder
2018-03-27_16-55-00-TEST-DIFF	3/27/2018 4:55 PM	File folder

DR002	1	The solution should have the ability to perform online backups without interruption to production operations, according to a schedule agreed upon by DHHR.

Response: InductiveHealth plans to integrate DHHR into our existing virtual machine and infrastructure backup routine which executes Friday evening / Saturday morning. Based on input from DHHR on solutions usage patterns, InductiveHealth will tailor online backups.

DR003	1	The solution should allow continued use of the system during back-up and perform back-ups during non-peak processing hours, to minimize the impact to operational activities.

Response: InductiveHealth's backup strategy allows on-going utilization of solution to minimize impact to operational activities.

DR004	1	The solution should support data freezing.

Response: InductiveHealth's solution supports data freezing via offsite storage of database files and virtual machines to Amazon Web Services (AWS) S3.

DR005	1	The Vendor should maintain an operational back-up power supply capable of supporting vital functions.

Response: All co-located data centers utilized by InductiveHealth include redundant power supply.

DR006	1	The Vendor should equip facilities with proper safeguards for fire prevention, fire detection, and fire suppression that are consistent with local fire codes.

Response: All co-located data centers utilized by InductiveHealth have multiple fire safe cards consistent with local and state regulations.

DR007	1	The Vendor should equip fire detection and alarm systems with uninterruptable power supply.

Response: All co-located data centers utilized by InductiveHealth utilize fire detection and alarm systems using redundant power supplies.

DR008	1	The Vendor should have a remote backup facility that is georedundant to the the primary data center.

Response: InductiveHealth uses two (2) co-located data centers which are georedundant to each other and capable of running the workload identified in this RFP.

DR009	1	The Vendor should conduct an annual disaster recovery exercise at a mutually agreed upon time and provide the results to the designated DHHR staff. DHHR staff should be invited to be included in these exercises.

Response: InductiveHealth will conduct an annual disaster recovery exercise and as part of Go-Live activities during the Implementation Phase, will provide results of the disaster recovery exercise (see below example report previously communicated to DHHR).

inductivehealth

The XVA backup file appears in our AWS S3 storage bucket.

DR010	1	The Vendor should store all backup copies in a DHHR-approved backup storage location for a period of time specified by DHHR.

Response: InductiveHealth uses Amazon Web Service (AWS) S3 for long-term data storage. Use of AWS S3 is included as part of our SaaS delivery and identified of a DHHR-approved backup storage location may incur additional charges.

2.2 Attachment F-Mandatory Requirements

No Mandatory Requirements identified.

ATTACHMENT K: TERMS AND CONDITIONS RESPONSE TEMPLATE

1. Instructions

The Vendor should review *Attachment K: Terms and Conditions Response Template* before signing each provided signature block using **blue ink** in order to note the Vendor's acknowledgement and intent of compliance. The Vendor should identify any exceptions to the Terms and Conditions. If exceptions are not noted in *Attachment K: Terms and Conditions Response Template* of the RFP but raised during contract negotiations, the State reserves the right to cancel the negotiation if, at its sole discretion, it deems that to be in the best interests of the State.

2. RFP Terms and Conditions

RFP Terms and Conditions consist of provisions throughout this RFP. Moreover, these provisions encapsulate instructions, State and federal procedures, and the State's expectations of the Vendor when submitting a proposal. The Vendor should understand and strictly adhere to the RFP Terms and Conditions. Failure to follow any instructions within this RFP may, at the State's sole discretion, result in the disqualification of the Vendor's proposal.

Please provide an authorized signature stipulating the Vendor's acknowledgement, understanding, and acceptance of these RFP Terms and Conditions.

Matthew Dellacker

_____   1/30/22
Printed Name / Signature of Authorized Personnel   Date

3. State Customary Terms and Conditions

The selected Vendor will sign a contract with the State to provide the goods and services described in the Vendor's response. The following documents shall be included in any contract(s) resulting from this RFP:

- *Section 3: General Terms and Conditions (attached PDF file Section_2_Instructions_To_Vendors_Submitting_Bids_and_Section_3_General_Ter ms_a nd_Conditions)*
- *Section 7: Provisions Required For Federally Funded Procurements*
- *Appendix 4: Service Level Agreements and Performance Standards*
- *Appendix 7: IT Terms and Conditions*
- *HIPAA Business Associate Agreement*

Please provide a signature stipulating the Vendor's acknowledgement and complete review of these documents.

Matthew Pollacker

_____   1/30/22

Printed Name / Signature of Authorized Personnel   **Date**

If the Vendor is __not taking exceptions__ to any of the State Customary Terms and Conditions, then the Vendor needs to provide a binding signature stipulating its acceptance of these documents.

See Pg 192

_____

Printed Name / Signature of Authorized Personnel   **Date**

4. Mandatory Requirements and Terms

The following items are mandatory terms and documents. Please be advised, the Vendor **should** provide its affirmative acceptance of these items in order to move forward with consideration under this RFP.

- Attachment F: Mandatory Requirements (attached Microsoft Excel® file, *Attachment F – Mandatory Requirements)*
- In no event shall the State agree to terms that (a) require the State's indemnification of the Contractor; (b) waive the State's right to a jury trial; (c) establish applicable law anywhere other than the State of West Virginia, or jurisdiction in any venue other than the Thirteenth Judicial Circuit Court; (d) designate a governing law other than the laws of the State of West Virginia; (e) constitute an implied or deemed waiver of the immunities, defenses, rights, or actions arising out of the State's sovereign status or under the Eleventh Amendment to the United States Constitution; (f) limit the time within which an action maybe brought; (g) require arbitration, (h) require the ability to defend lawsuit without the approval of the Attorney General's Office; or (i) pay attorney fees.
- *HIPAA Business Associate Agreement*
- *Appendix 5: Service Level Agreements and Performance Standards*

Vendors that are not able to enter into a contract under these conditions should not submit a bid.

Please provide an authorized signature stipulating the Vendor's acknowledgement, understanding, and acceptance of the Mandatory Requirements and Terms stipulated in this section.

Matthew Pollacker

_____   1/30/22

Printed Name / Signature of Authorized Personnel   Date

5. Commercial Materials

The Vendor should list any commercial and proprietary materials it will deliver that are easily copied, such as commercial software, and in which the State will have less than full ownership ("Commercial Materials"). Generally, these will be from third parties and readily available in the open market. The Vendor need not list patented parts of equipment.

Response: InductiveHealth's proposal is based on a software-as-a-service delivery model, where development, maintenance, infrastructure, and licensing costs are integrated. This allows for shared-use components such as multi-factor authentication software, information security scanning and intrusion prevention, and other components to be leveraged across our service delivery. As a result, we do not itemize costs for underlying packaged software, since many factors affect these costs and licenses are not typically assignable. For example, InductiveHealth's licensing approach for Microsoft operating systems leverages a specific licensing structure that does not allow for assignment of these licenses. The result of this licensing method, however, is lower costs and simplicity for our clients.

The software licenses below **are able to be assigned** or used by the State independently from InductiveHealth software-as-a-service delivery, subject to the State's acceptance of license agreement terms. Note, this includes the core EDSS components of EpiTrax™ and EMSA™.

1. EpiTrax™ and EMSA™
2. Rhapsody™ integration engine
3. R Studio Web

Any documentation deliverables that are created solely for the use of West Virginia will also be considered work-for-hire products that the State will retain a perpetual ability to use and modify for its internal purposes.

All other third party software and other components are licensed in a way in which the licenses cannot be assigned to the State. InductiveHealth welcomes discussion on this area to ensure mutual understanding of licensing requirements and objectives from the State. **We have engineered our approach to provide for very limited vendor lock-in, and low long-term costs to the State** through the use of shared and enterprise licensing for various third party software and components required to deliver the service.

6. Exceptions

The Vendor should indicate exceptions to the State's Terms and Conditions in this RFP. Any exceptions should include an explanation for the Vendor's inability to comply with such term or condition and, if applicable, alternative language the Vendor would find acceptable.

Rejection of the State's Terms and Conditions, in part or in whole, or without any explanation, may be cause for the State's rejection of a Vendor's proposal. If an exception concerning the Terms and Conditions is not noted in this response template, but raised during contract negotiations, the State reserves the right to cancel the negotiation, at its sole discretion, if it deems that to be in the best interests of the State.

The terms and conditions of a Vendor's software license, maintenance support agreement, and SLA, if applicable, will be required for purposes of contract negotiations for this project. Failure to provide the applicable Vendor terms, if any, as part of the RFP response may result in rejection of the Vendor's proposal.

Instructions: Identify and explain any exceptions to the State's terms and conditions using the tables provided below, adding tables, as needed. If no changes are listed, the Vendor is indicating that no changes to the Terms and Conditions are proposed, and that the Vendor intends to accept them as written if the Vendor's proposal is selected. Mandatory requirements and terms noted in this RFP are non-negotiable.
- The Vendor may add additional tables, as appropriate.
- Do not submit Vendor's Standard Terms and Contracting Provisions in lieu of stipulatingexceptions below.
- Making revisions to State statutes and regulations is prohibited.
- The State has no obligation to accept any exception(s).

Response: See table below. InductiveHealth welcomes discussion as to the rationale and details behind any of the exceptions listed below.

6.1 Exception #1 Appendix 7. 2.1 Ownership of Work Product.

Document Title (Reference Specific Contractual Document and Section in Which Exception is Taken)	Vendors Explanation (Required for Any Rejection/Exception)	Vendor's Proposed Alternative Language (If Applicable) Cross-Reference to Specific Section of Vendor's Terms, If Any Provided As Part of the RFP Response
Appendix 7. 2.1 Ownership of Work Product.	InductiveHealth Informatics, Inc provides commercially available software for disease surveillance (including contact tracing), outbreak management and syndromic surveillance. To provide future support and unified product management for these software products, InductiveHealth must maintain intellectual property	InductiveHealth Informatics, Inc. and its subcontractors and licensors will retain all intellectual property (IP) rights to its solutions, including software products, product customizations and modifications, and integrations.

Artifacts produced only for WV DHHR that do not include existing InductiveHealth IP, or IP of its subcontractors or licensors are |

	rights to the software itself and any customizations and modifications.	considered a work-for-hire product. West Virginia is granted a right to use and modify these work-for-hire artifacts, including after the conclusion of the period of performance. WV DHHR is granted a license to use the included software in the provision of the services, during the period of performance, subject to the terms of the contemplated contract.

NOTES/COMMENTS: <FOR STATE USE ONLY>

6.2 Exception #2 Appendix 7. 2.1 Ownership of Work Product.

Document Title (Reference Specific Contractual Document and Section in Which Exception is Taken)	Vendors Explanation (Required for Any Rejection/Exception)	Vendor's Proposed Alternative Language (If Applicable) Cross-Reference to Specific Section of Vendor's Terms, If Any Provided As Part of the RFP Response
Appendix 7. 2.1 Ownership of Work Product.	Vendor can not provide a perpetual license to use Pre-existing Materials and Intellectual Property. EpiTrax™ and EMSA™ are open source products and may be used by the State of West Virginia beyond the period of performance for this contract, though product support and maintenance from InductiveHealth will conclude at that time. In addition, InductiveHealth plans to reuse West Virginia's existing Rhapsody license used by InductiveHealth in the delivery of its existing services. This license will remain in the State's possession following the conclusion of the period of	See above.

InductiveHealth Informatics, Inc.

	performance.	

NOTES/COMMENTS: <FOR STATE USE ONLY>

6.3 Exception #3 Appendix 7. 2.1 Ownership of Work Product.

Document Title (Reference Specific Contractual Document and Section in Which Exception is Taken)	Vendors Explanation (Required for Any Rejection/Exception)	Vendor's Proposed Alternative Language (If Applicable) Cross-Reference to Specific Section of Vendor's Terms, If Any Provided As Part of the RFP Response
Appendix 7. 2.1 Ownership of Work Product.	Vendor does not consent to allow WV DHHR to make all Work Product available to public without any proprietary notices of any kind. Work Product will contain Pre-Existing Materials and Intellectual Property of Vendor	Work-for-hire artifacts may be made available to the public by WV DHHR. Vendor does not consent to allow WV DHHR to make any other deliverables or software components available to the public.

NOTES/COMMENTS: <FOR STATE USE ONLY>

6.4 Exception #4 Appendix 7: 2.2 Use of State Intellectual Property

Document Title (Reference Specific Contractual Document and Section in Which Exception is Taken)	Vendors Explanation (Required for Any Rejection/Exception)	Vendor's Proposed Alternative Language (If Applicable) Cross-Reference to Specific Section of Vendor's Terms, If Any Provided As Part of the RFP Response
Appendix 7: 2.2 Use of State Intellectual Property	Edit to make section consistent with IP ownership terms above.	WV DHHR acquires no rights or licenses, including, without limitation, intellectual property rights or licenses, to use Vendor Intellectual Property for its own purposes, except for work-for-hire products, as defined above.

NOTES/COMMENTS: <FOR STATE USE ONLY>

InductiveHealth Informatics, Inc.

6.5 Exception #5 Appendix 7: 3.2 Software Licenses

Document Title (Reference Specific Contractual Document and Section in Which Exception is Taken)	Vendors Explanation (Required for Any Rejection/Exception)	Vendor's Proposed Alternative Language (If Applicable) Cross-Reference to Specific Section of Vendor's Terms, If Any Provided As Part of the RFP Response
Appendix 7: 3.2 Software Licenses	Several proposed software components are only made available on a subscription basis by third parties and InductiveHealth. A perpetual license model is not available for all components, with exceptions noted in response section 6.2 above.	Remove: "The Vendor must provide or arrange enterprise perpetual software licenses for all Commercial Software necessary to meet the specifications of the Contract. For the Commercial Software, WV DHHR requires Enterprise license rights to ultimately serve its entire enterprise, which consists of hundreds of personnel workers, and hundreds of technical administrators and third-party Vendors who may work with the software." - and - "and to permit a third party to host the Key Commercial Software on behalf of WV DHHR in an outsourcing arrangement."

NOTES/COMMENTS: <FOR STATE USE ONLY>

6.6 Exception #6 Appendix 7: 3.4 Software Maintenance

Document Title (Reference Specific Contractual Document and Section in Which Exception is Taken)	Vendors Explanation (Required for Any Rejection/Exception)	Vendor's Proposed Alternative Language (If Applicable) Cross-Reference to Specific Section of Vendor's Terms, If Any Provided As Part of the RFP Response
Appendix 7: 3.4 Software	Placing a limit on the amount	WV DHHR is entitled to damages

Maintenance	Vendor is liable for under the maintenance.	for software errors, and/or failure to remediate software errors timely under this contract, including, but not limited to, general, special, and consequential damages, up to the amount WV DHHR has paid to the Vendor.

NOTES/COMMENTS: <FOR STATE USE ONLY>

6.7 Exception #7 Appendix 7: 4 Termination Assistance

Document Title (Reference Specific Contractual Document and Section in Which Exception is Taken)	Vendors Explanation (Required for Any Rejection/Exception)	Vendor's Proposed Alternative Language (If Applicable) Cross-Reference to Specific Section of Vendor's Terms, If Any Provided As Part of the RFP Response
Appendix 7: 4 Termination Assistance	Any re-formatting of record formats will be out of scope, but Vendor will provide any and all data collected by the system in its native formats (including either database and file storage backups, CSV, or other format)	Vendor will provide historical records to WV DHHR but will not make any material changes to the record format.

NOTES/COMMENTS: <FOR STATE USE ONLY>

6.8 Exception #8 Appendix 7: 4 Termination Assistance

Document Title (Reference Specific Contractual Document and Section in Which Exception is Taken)	Vendors Explanation (Required for Any Rejection/Exception)	Vendor's Proposed Alternative Language (If Applicable) Cross-Reference to Specific Section of Vendor's Terms, If Any Provided As Part of the RFP Response
Appendix 7: 4 Termination Assistance	Some Vendor intellectual property and licensed software from third parties and subcontractors is only made available in a subscription format.	Vendor will not provide any computer programs that are considered Vendor's Pre-existing Materials and/or Intellectual Property following termination of the contract.

NOTES/COMMENTS: <FOR STATE USE ONLY>

6.9 Exception #9 Appendix 4: Service Level Agreements and Performance Standards

Document Title (Reference Specific Contractual Document and Section in Which Exception is	Vendors Explanation (Required for Any Rejection/Exception)	Vendor's Proposed Alternative Language (If Applicable) Cross-Reference to Specific Section of Vendor's Terms, If Any Provided As

InductiveHealth Informatics, Inc.

Taken)		Part of the RFP Response
Appendix 4 Service Level Agreements (SLAS) and Performance Standards	Placing a limit on the amount Vendor is liable for under the SLAS.	WV DHHR reserves the right to seek any other remedies under the Contract limited to the amount paid to the Vendor.

NOTES/COMMENTS: <FOR STATE USE ONLY>

6.10 Exception #10 Appendix 4: 3. Implementation Performance Standards

Document Title (Reference Specific Contractual Document and Section in Which Exception is Taken)	Vendors Explanation (Required for Any Rejection/Exception)	Vendor's Proposed Alternative Language (If Applicable) Cross-Reference to Specific Section of Vendor's Terms, If Any Provided As Part of the RFP Response
Appendix 4: 3. Implementation Performance Standards	Vendor's approach relies on timely inputs and decision-making from WV DHHR. Vendor's proposal describes needed inputs from WV DHHR for successful delivery and achievement of milestones.	WV DHHR may not reduce milestone payments if delay is caused by WV DHHR, or a delay in acceptance caused by WV DHHR.

NOTES/COMMENTS: <FOR STATE USE ONLY>

6.11 Exception #11 Appendix 4: Service Level Agreements and Performance Standards

Document Title (Reference Specific Contractual Document and Section in Which Exception is Taken)	Vendors Explanation (Required for Any Rejection/Exception)	Vendor's Proposed Alternative Language (If Applicable) Cross-Reference to Specific Section of Vendor's Terms, If Any Provided As Part of the RFP Response
Appendix 4 Service Level Agreements (SLAS) and Performance Standards	WV DHHR not required to provide in writing to Vendor SLA Compliance not being met.	WV DHHR must provide in writing to Vendor cause and evidence for any SLA Compliance not being met that would cause short payment of an invoice.

NOTES/COMMENTS: <FOR STATE USE ONLY>

APPENDIX 1: DETAILED SPECIFICATIONS

See the attached Microsoft Excel® file titled, *Appendix 1 – Detailed Specifications*. Please review the following instructions:

1. The Vendor should self-score each requirement listed in the *Capability Assessment* column of *Tab 3 – Specification & Responses*, using only the values that appear in the drop-down list.

2.   *Capability Assessment* values are outlined below: "Will Meet": Vendor agrees to specification.
"Will Not Meet": Vendor declines to meet the specification.

3.   All specifications should contain one of the values identified above. Any specification without a Capability Assessment response value will be considered to be "Will Not Meet."

4.   In addition, the Vendor should provide the attachment, section, and page number(s) where the Vendor's detailed narrative response for each specification resides, providing DHHR with a crosswalk, ensuring that each specification is addressed. Be advised that the column has been pre-populated with the location where DHHR anticipates the requirement response to reside; however, it is up to the Vendor to update that column accordingly shouldthe Vendor respond to a requirement in a different location.

5.   *Hierarchy Level*: The hierarchy level column defines relationships between parent and child specifications. DHHR refers to parent specifications as specifications that rely on the content of a subset of related specifications (children) to fully define the scope of the requirement. DHHR refers to child specifications as specifications that rely on additional context provided by a higher-level specification (parent) to fully define the scope of the specification. A hierarchy value of 1 denotes the highest-level specification. Any greater hierarchy value denotes a child specification. For example a hierarchy level 2 is a child to the nearest prior hierarchy level 1. As another example, a hierarchy level 3 is a child to the nearest prior hierarchy level 2 specification, which is in turn a child to the nearest prior hierarchy level 1 specification. See the diagram below for an illustration of a hierarchy relationship:
   - Hierarchy Level 1 Specification,
     - Hierarchy Level 2 Specification
       - Hierarchy Level 3 Specification

Response: See completed Appendix 1 – Detailed Specifications below.

		Specifications			Vendor Response			
Spec ID #	Hierarchy Level	Specification Text	Subject Matter Area	Capability Assessment	Attachment	Section	Page #	
CT001	1	The Vendor should provide capability for users to collect person-level contact data including:	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT002	2	Demographics	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT003	2	Risk factors	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT004	2	Exposure type	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT005	2	Exposure location	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT006	2	Geographic	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT007	2	Personal contact information including:	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT008	3	Address	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT009	3	Phone number(s)	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT010	3	Email address	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT011	3	Photographs	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT012	2	Others as defined by DHHR	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT013	1	The Vendor should provide capability to receive laboratory test reports and attach to existing contact.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT014	1	The Vendor should provide the ability to perform validation of contact information formatting and alert user of invalid data.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT015	1	The Vendor should provide capability for users to categorize and sort contacts per user defined characteristics.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT016	1	The Vendor should provide capability to visually represent contact linkage via the contact web (Pin map).	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT017	1	The Vendor should provide the ability for users to classify contacts based on location and/or risk factors	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT018	1	The Vendor should provide the ability to support algorithms to determine contact priority based on risk.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT019	1	The Vendor should have the ability to sort contacts based on interview status and prioritize follow-up.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT020	1	The Vendor should provide a public-facing symptom tracking interface.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT021	1	The Vendor should provide alerts to public users based on symptom criteria.	Contact Tracing	Will Meet	Attachment G - Business Specification Approach	Contact Tracing	96	
CT022	1	The Vendor should provide alerts to system users based on symptom criteria.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT023	1	The Vendor should provide capability to record multiple exposures for each contact	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT024	1	The Vendor should provide the ability for users to create questionnaires for contact interviews.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT025	1	The Vendor should provide the ability for users to manage and track contact interview status	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT026	1	The Vendor should provide the ability for users to type information/notes in free-form text box.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT027	1	The Vendor should support the ability to record and track any instructional communications sent to contact including:	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT028	2	Phone	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT029	2	Letter	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT030	2	Email	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT031	2	Fax	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT032	2	SMS (text message)	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT033	2	Others as defined by DHHR	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT034	1	The Vendor should provide the ability for users to set/modify contact exposure criteria.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT035	1	The Vendor should support the ability to select and modify predefined intervention plans to include updated guidelines/metadata from CDC and other supporting information.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT036	1	The Vendor should provide capability for users to send communications to care providers to identify contacts via interface with EHR systems.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT037	1	The Vendor should provide the ability for users to upload lists of contacts from spreadsheets or other documents.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CT038	1	The Vendor should provide the ability for users to export lists of contacts in spreadsheet format.	Contact Tracing	Will Meet	Attachment G - Business Specifications Approach	Contact Tracing	96	
CI001	1	The Vendor should provide capability for users to collect person-level contact data including.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100	
CI002	2	Demographics	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100	

Spec ID #	Hierarchy Level	Specification Text	Subject Matter Area	Capability Assessment	Attachment	Section	Page #
CI003	2	Risk factors	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI004	2	Exposure type	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI005	2	Exposure location	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI006	2	Geographic information	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI007	2	Personal contact information including	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI008	3	Address	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI009	3	Phone number(s)	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI010	3	Email address	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI011	3	Photographs	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI010	2	Treating information	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI011	2	Diagnostics	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI012	2	Others as defined by DHHR	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI013	1	The Vendor should support the ability to record and track case-related workflow activities.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI014	1	The Vendor should provide capability to receive test reports and attach to existing case.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI015	1	The Vendor should provide capability to receive new or updated test results and attach to existing cases.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI016	1	The Vendor should provide capability to receive new or updated electronic case reports and attach to cases.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI017	1	The Vendor should provide capability for pre-defined case-definition parameters to be established for distinct conditions.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI018	1	The Vendor should provide the ability for users to create questionnaires for case interviews.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI019	1	The Vendor should provide the ability to link questionnaires to case investigation.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI020	1	The Vendor should provide the ability for users to set/modify case exposure criteria.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI021	1	The Vendor should allow for configuration changes for disease case definition assignment or case auto closure.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI022	1	The Vendor should provide capability to auto-suggest to close case, based on defined criteria.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI023	1	The vendor should provide capability to identify when appropriate time periods have lapsed to close case based on pre-defined criteria.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI024	1	The Vendor should provide capability for users to manually assign closure justification to a case.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI025	1	The Vendor should allow for configuration changes for disease case definition assignment or case auto closure.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI026	1	The Vendor should support ability to add the intervention plan to an existing case record.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI027	1	The Vendor should provide capability for users to create and save a customized intervention plan	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI028	1	The Vendor should provide capability to automatically suggest an intervention plan, based on the disease condition.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI029	1	The Vendor should provide capability for users to select a recommended treatment plan.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI030	1	The Vendor should provide capability to alert users of missed events including. (e.g., missed test, treatment or vaccine).	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI031	2	Missed test	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI032	2	Treatment	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI033	2	Vaccine	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI034	2	Others as defined by DHHR	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI035	1	The Vendor should provide capability to alert users of follow-up test and other diagnostic results.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI036	1	The Vendor should provide capability for users to configure an algorithm to have system automatically assign closure justification to case.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI037	1	The Vendor should provide ability to include non-human test results with linkage to human cases for the following:	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI038	2	Animal	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI039	2	Food	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI040	2	Water	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI041	2	Others as defined by DHHR	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI042	1	The vendor should provide ability to send order sets to the following:	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100

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CI043	2	Healthcare providers	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI044	2	Case management providers	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI045	2	Reporting organizations	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI046	2	Others as defined by DHHR	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI047	1	The Vendor should provide capability for users to transmit recommendations to outside organizations or systems including:	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI048	2	Healthcare providers	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI049	2	Case management systems	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI050	2	Reporting organizations	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI051	2	Others as defined by DHHR	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI052	1	The Vendor should provide ability for administrator-level users to modify case investigation forms.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CI053	1	The Vendor should provide ability to maintain multiple disease-specific and condition-specific classification criteria.	Case Investigation and Management	Will Meet	Attachment G - Business Specifications Approach	Case Investigation and Management	100
CC001	1	The Vendor should provide capability to generate a new case from a contact record.	Contact and Case Integration	Will Meet	Attachment G - Business Specifications Approach	Contact and Case Integration	106
CC002	1	The Vendor should provide ability for users to break linkage between contact and case.	Contact and Case Integration	Will Meet	Attachment G - Business Specifications Approach	Contact and Case Integration	106
CC003	1	The Vendor should provide capability for users to associate a contact or case with index case.	Contact and Case Integration	Will Meet	Attachment G - Business Specifications Approach	Contact and Case Integration	106
CC004	1	The Vendor should provide capability to alert users if anyone identified as a contact subsequently becomes a case through existing workflow rules.	Contact and Case Integration	Will Meet	Attachment G - Business Specifications Approach	Contact and Case Integration	106
OM001	1	The Vendor should provide capability to open, manage and close outbreaks.	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM002	1	The Vendor should provide the ability to link contacts and cases to outbreaks	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM003	1	The Vendor should provide the ability to assign outbreak definitions including:	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM004	2	Disease	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM005	2	Setting type	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM006	2	Others as defined by DHHR	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM007	1	The Vendor should provide the ability to link a case/contact-specific intervention record to an outbreak.	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM008	1	The vendor should allow users to generate, edit and save outbreak plans	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM009	1	The Vendor should provide capability to maintain a library of previous outbreak or event management plans.	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM010	1	The Vendor should provide the ability to monitor, in real time, outbreak-related data including:	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM011	2	Type of outbreak	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM012	2	Number of tests ordered by care providers	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM013	2	Chief complaints	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM014	2	Emergency department visits	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM015	2	Others as defined by DHHR	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM016	1	The Vendor should provide the ability for users to do the following to:	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM017	2	Create metrics	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM018	2	Define metrics	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM019	2	Edit metrics	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM020	2	Save metrics	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM021	2	As the metrics relate to:	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM022	3	Interventions	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM023	3	Control	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM024	3	Prevention	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM025	3	Others as defined by DHHR	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM026	1	The Vendor should provide the capability to alert users of outstanding tasks in the outbreak management plan.	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM027	1	The Vendor should provide the ability to assign to each outbreak event, as derived from the original case, the following:	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM028	2	Record creation date	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109

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OM029	2	Unique record number	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM030	2	Others as defined by DHHR	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM031	1	The Vendor should provide the ability to trigger a case classification in condition identification and reporting, based on outbreak definition.	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM032	1	The Vendor should provide the ability to link to the environmental investigation system or import relevant environmental data as needed.	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM033	1	The Vendor should provide the ability to send test orders to the following:	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM034	2	Healthcare providers	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM035	2	Laboratories	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM036	2	Others as defined by DHHR	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM037	1	The Vendor should provide the ability to automatically link test results with requests for testing, based on the following:	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM038	2	User-defined key	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM039	2	User-defined code	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM040	2	Others as defined by DHHR	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM041	1	The Vendor should provide the ability for users to create after-action reports.	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM042		The Vendor should provide the ability to maintain multiple outbreak-specific classification criteria	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM043	2	The Vendor should provide the capability to capture outbreak-level data including the following:	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM044	2	Demographics	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM045	2	Risk factors	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM046	2	Exposure type	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM047	2	Exposure location	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM048	2	Geographic information	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM049	2	Personal contact information including:	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM050	3	Address	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM051	3	Phone number(s)	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM052	3	Email address	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM053	3	Photographs	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM054	3	Treating information	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM055	3	Diagnostics	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
OM056	3	Others as defined by DHHR	Outbreak Management	Will Meet	Attachment G - Business Specifications Approach	Outbreak Management	109
RA001	1	The Vendor should provide the ability for users to create and regularly update epidemiologic curves.	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
RA002	1	The Vendor should provide capability for users to develop standard reports and ad-hoc reports by the following attributes:	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
RA003	2	Demographics	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
RA004	2	Geographic regions	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
RA005	2	Disease Types	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
RA006	2	Outbreaks	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
RA007	2	Data sources	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
RA008	2	Others as defined by DHHR	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
RA009	2	And using the following template types:	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
RA010	3	Pre-existing	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114

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RA011	3	Saved	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
RA012	3	Customized	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
RA013	1	The Vendor should have the ability to implement all Message Mapping Guides for the Centers for Disease Control and Prevention (CDC) with the ability to code values within the export integration feature of the application.	Reporting and Analytics	Will Meet	Attachment H - Technical Specifications Approach	Reporting and Analytics	114
DS001	1	The Vendor should provide the functionality to import and export data (bi-directional reporting) in standard formats with external partners including, but not limited to, the following: healthcare providers, laboratories, WVHIN and the CDC.	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS002	2	Healthcare providers	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS003	2	Laboratories	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS004	2	West Virginia Health Information Network (WVHIN)	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS005	2	Centers for Disease Control and Prevention (CDC)	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS006	2	Others as defined by DHHR	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS007	1	The Vendor should provide capability to populate form fields using information received from reporting organizations.	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS008	1	The Vendor should provide the ability to merge and standardize data into a uniform format.	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS009	1	The Vendor should have the ability to push a copy of the ESS database to a DHHR database in a SQL format at least twice daily.	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS010	1	The Vendor should have the ability to notify appropriate users of available data.	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS011	1	The Vendor should provide the capability to modify data submission format based on reporting organization's requirements.	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS012	1	The Vendor should have the ability to perform regular data processing procedures.	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS013	1	The Vendor should provide acknowledgements of incoming messages or data submissions, including the following. (e.g., received, not received, and errors).	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS014	2	Received	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS015	2	Not Received	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS016	2	And with information regarding the quality of the data including:	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS017	3	Errors	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS018	3	Warnings	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS019	3	Others as defined by DHHR	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS020	1	The Vendor should have the ability to report data stream and job failures.	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS021	1	The Vendor should have the capability to allow users to define protocols for contacts, cases, and laboratory reports for acceptance or transfer from other public health jurisdictions	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS022	1	The Vendor should have the ability to detect and respond to unusual data submission patterns to prevent delayed system performance.	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS023	1	The Vendor should provide the ability for users to maintain a repository of communication contacts with attributes such as healthcare providers, media, laboratories, and other partners involved in surveillance activities	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS024	1	The Vendor should provide the ability to integrate with state's enterprise data warehouse to monitor data based on user-defined criteria including:	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS025	2	Syndromic data	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS026	2	Diagnostic testing	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116

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DS027	2	Absenteeism	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS028	2	Over-the-counter medication sales	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS029	2	Others as defined by DHHR	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS030	1	The Vendor should support manual logging of data-sharing errors.	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DS031	1	The Vendor should support methods to collect feedback concerning communication	Data Sources, Delivery and Display	Will Meet	Attachment H - Technical Specifications Approach	Data Sources, Delivery and Display	116
DQ001	1	The Vendor should provide Data Quality Management for all data coming into the solution.	Data Quality	Will Meet	Attachment H - Technical Specifications Approach	Data Quality	128
DQ002	1	The Vendor should develop processes to maintain data integrity, consistency, accuracy, and timeliness of the solution data.	Data Quality	Will Meet	Attachment H - Technical Specifications Approach	Data Quality	128
DQ003	1	The solution should provide a tool that continually monitors the data quality within the solution and internal analytic applications.	Data Quality	Will Meet	Attachment H - Technical Specifications Approach	Data Quality	128
DQ004	1	The solution should support audit and control processes that identify, report, and summarize errors in the data	Data Quality	Will Meet	Attachment H - Technical Specifications Approach	Data Quality	128
DQ005	1	The Vendor should maintain a process to identify and track all errors and discrepancies found in the solution pursuant to Service Level Agreements (SLAs).	Data Quality	Will Meet	Attachment H - Technical Specifications Approach	Data Quality	128
DQ006	1	The Vendor should provide recommendations for proposed resolution/fixes for identified issues within a timeline approved by DHHR and pursuant to Service Level Agreements (SLAs).	Data Quality	Will Meet	Attachment H - Technical Specifications Approach	Data Quality	128
DQ007	1	The solution should support data integrity through system controls for software program changes and promotion to production.	Data Quality	Will Meet	Attachment H - Technical Specifications Approach	Data Quality	128
IN001	1	The solution should have the ability, using deterministic and probabilistic matching algorithms, to automatically deduplicate, merge and create records	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN002	1	The Vendor should provide administrator-level users with the ability to unmerge merged records.	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN003	1	The Vendor should provide administrator-level users with the capability to set deterministic and probabilistic matching criteria and thresholds	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN004	1	The Vendor should provide form-builder capability for users to:	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN005	2	Upload and reuse existing forms	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN006	2	Develop new questionnaires	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN007	2	Develop new letter templates	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN008	2	Others as defined by DHHR	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN009	1	The Vendor should provide a searchable document repository for frequently used information including:	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN010	2	Outbreak management plans	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN011	2	Treatment protocols	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN012	2	Best practice documentation	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN013	2	Templates for internal and external communications	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN014	2	Others as defined by DHHR	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN015	1	The Vendor should provide survey functionality including development of questionnaires and the ability to receive and analyze survey responses	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN016	1	The Vendor should support reminders of incomplete questionnaires and non-responses.	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN017	1	The Vendor should provide help text with field descriptions and definitions in the user interface	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN018	1	The Vendor should provide auto-complete/auto-suggest word functionality (i.e., IntelliSense functionality)	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130

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IN019	1	The Vendor should provide a user interface that is mobile friendly.	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN020	1	The Vendor should support multiple languages in the user interface.	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN021	1	The Vendor should provide offline capability for data entry.	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN022	1	The Vendor should provide capability for users to manage lookup tables within the application.	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN023	1	The Vendor should allow users the ability to override a workflow to move on to next step, even if elements are determined to be missing.	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN024	1	The Vendor should provide SMS capability for automated messaging to the public when monitoring symptoms related to:	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN025	1	Monitoring	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN026	2	Symptom updates	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN027	2	Reminders	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN028	2	Notifications	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN029	2	Others as defined by DHHR	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN030	1	The Vendor should provide SMS capability for automated messaging to DHHR users for:	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN031	2	Alerts of assigned tasks	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN032	2	Notifications related to information changes in the system	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN033	2	Reminders	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN034	2	Others as defined by DHHR	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN035	1	The Vendor should provide functionality for automated messaging through social media for	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN036	2	Monitoring	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN037	2	Notifications	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN038	2	Reminders	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN039	2	Alerts	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN040	2	Others as defined by DHHR	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN041	1	The Vendor should support multiple distribution methods for internal communications including:	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN042	2	Email	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN043	2	Phone	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN044	2	Short message service (SMS)	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN045	2	Others as defined by DHHR	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN046	1	The Vendor should provide users with the ability to create/edit and send alert messages.	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN047	1	The Vendor should provide the ability to track distribution/receipt of education materials.	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130
IN048	1	The Vendor should provide the capability to allow users to set up and modify rules to provide differential views.	Infrastructure	Will Meet	Attachment H – Technical Specifications Approach	Infrastructure	130

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IN049	1	The Vendor should have a business intelligence tool with dashboard and visual analytic capabilities for surveillance system and workflow analytics.	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN050	1	The Vendor should provide capability for administration-level user configuration for logic changes.	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN051	1	The Vendor should provide an Application Programming Interface (API)	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN052	1	The Vendor should have the have ability to integrate with GIS web service for address validation and jurisdiction boundaries.	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN053	1	The Vendor should provide integration with data reporting and visualization applications such as Microsoft Power BI or Tableau	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN054	1	The Vendor should provide the capability to interface with public alert networks.	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
IN055	1	The Vendor should provide the ability to integrate with an outbreak management system.	Infrastructure	Will Meet	Attachment H - Technical Specifications Approach	Infrastructure	130
SM001	1	The Vendor should deliver a Security, Privacy, and Confidentiality Plan within 30 calendar days of contract startup.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM002	1	The Vendor should submit an updated Security, Privacy, and Confidentiality Plan to DHHR for review and approval 30 business days prior to the start of solution operations	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM003	1	The Vendor should perform a review of the Security, Privacy, and Confidentiality Plan annually and submit to DHHR for review and approval within 30 calendar days of the review.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM004	1	The Vendor should submit substantive change(s) to the Security, Privacy, and Confidentiality Plan for review and approval within 30 calendar days of the proposed change(s).	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM005	1	The Vendor should maintain a DHHR-approved Security, Privacy, and Confidentiality Plan that details how the solution complies with applicable DHHR, State, and federal security and privacy laws, policies, and/or procedures.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM006	1	The solution should maintain an audit trail that can be used to identify unauthorized attempts to access the solution and log the IP address from where the intrusion attempt occurred, in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM007	1	The solution should provide an audit of all attempts to access or use sensitive data, consistent with Health Insurance Portability and Accountability Act (HIPAA), Centers for Disease Preparedness and Prevention (CDC), and other DHHR, State, and federal laws and regulations.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM008	1	The solution should have the ability to prevent, monitor, and detect malicious software and code.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM009	1	The solution should have the ability to provide security incident reporting and mitigation mechanisms according to state and federal requirements and in accordance with DHHR's Incident Reporting and Response Policy including, but not limited to:	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM010	2	Terminating access and generating a report when a potential security violation is detected	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM011	2	Preserving and reporting specified audit data when a potential security violation is detected	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM012	2	Others as defined by DHHR	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM013	1	The Vendor should ensure that any and all security and privacy breaches, incidents, and/or unauthorized disclosures are reported according, to state and federal requirements and in accordance with DHHR's Incident Reporting and Response Policy.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM014	1	The solution should have the ability to log all authorized solution user activity and correlate, analyze, and report on all logged user events and associated data.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM015	1	The solution should have the ability to provide a report of authorized solution user activity as determined by DHHR in the Design, Development, and Implementation (DDI) phase.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM016	1	The solution should provide an audit trail of record changes, including authorized solution user, date, and time of change.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM017	1	The solution should have the ability for audit trails to allow information on source documents to be traced through the processing stages to the point where the information is finally recorded.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM018	1	The solution should have the ability to trace data from the final place of recording back to its source of entry.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM019	1	The Vendor should ensure that any and all security and privacy breaches, incidents, and/or unauthorized disclosures are reported according, to state and federal requirements and in accordance with DHHR's Incident Reporting and Response Policy.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM020	1	The solution should limit data sharing to only those entities and individuals located in the United States and/or U.S. territories that maintain a current data sharing agreement with DHHR consistent with DHHR-required agreements and security and privacy policies and procedures.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM021	1	The solution should have the ability to control access rights to data and system functions based on authorized solution user role-based access.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM022	1	The Vendor should work with DHHR to define the process for access to the solution in the Design, Development, and Implementation (DDI) phase.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139

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Spec ID #	Hierarchy Level	Specification Text	Subject Matter Area	Capability Assessment	Attachment	Section	Page #
SM023	1	The solution should support role-based user access.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM024	1	The solution should provide an interactive, adjustable time-out feature for authorized solution user inactivity in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM025	1	The solution should provide alerts to authorized solution users that inactivity will result in being timed out after the specified period of inactivity in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM026	1	The solution should have the ability to enforce password policies for length, character requirements, and required updates in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM027	1	The solution should store passwords in encrypted form in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM028	1	The solution should permit system administrators to reset authorized solution user passwords.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM029	1	The solution should allow authorized solution users to reset their own passwords at any time by following system-defined standards in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM030	1	The solution should block pop-ups, spam, advertisements, and malware.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM031	1	The solution should have the ability to remove or disable systems, services, components, and modules as defined by DHHR.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM032	1	The solution should have secure transmission and data integrity controls to detect improper modification of transmitted information.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM033	1	The solution should use Secure Sockets Layer (SSL) certificates that are consistent with State and federal requirements for data in transit.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM034	1	The solution should have the ability to restrict release of sensitive data.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM035	1	The solution should support data integrity by preventing and detecting unauthorized alteration or destruction.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM036	1	The Vendor should collaborate with DHHR to determine a security approach that integrates with other solution components to supply role-based single-sign-on access.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM037	1	The Vendor should maintain procedures that ensure all emergency and non-emergency production system changes follow a DHHR-approved change control process, including a risk analysis.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM038	1	The solution should support record, database, table, and field-level access.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM039	1	The solution should have the ability to provide authorized solution users access to view and audit records of changes to free-form text data fields by capturing information including, but not limited to:	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM040	2	The name of the authorized solution user who updated a field	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM041	2	The date and time a field was updated	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM042	2	Others defined by DHHR	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM043	1	The solution should have data encryption standards in accordance with DHHR, State, and federal security and privacy laws, policies, and/or procedures.	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM044	1	The Vendor should provide documentation on how the solution governs the confidential nature of information about patients and their health information	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM045	1	The Vendor should be prepared to demonstrate how the solution supports regulations governing the safeguard of information about patients including, but not limited to:	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM046	2	Names	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM047	2	Addresses	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM048	2	Medical data, including diagnosis and past history of disease or condition	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM049	2	Test results	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM050	2	Treatment plans	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139
SM051	2	Others as defined by DHHR, State, and federal security and privacy policies	Security Management	Will Meet	Attachment H - Technical Specifications Approach	Security Management	139

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SM052	1	The solution should disable accounts after three consecutive invalid log in attempts and protect against further user authentication attempts using a DHHR approved lock-out mechanism.	Security Management	Will Meet	Attachment H – Technical Specifications Approach	Security Management	139
SM053	1	The Vendor should supply, on an annual basis, a report of the results of a security risk assessment, including all tools used for the assessment, and an action plan detailing the approach for remediation of security risk vulnerabilities.	Security Management	Will Meet	Attachment H – Technical Specifications Approach	Security Management	139
PM001	1	The solution should align with DHHR's vision for the to-be ESS environment.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM002	1	The solution's initial data load should consist of all current data contained within the existing surveillance systems at the time of the implementation of the Enterprise Surveillance System (ESS).	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM003	1	The Vendor should store and maintain all project documentation in an agreed upon document repository such as a SharePoint location.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM004	1	The Vendor should make all project documentation accessible to all stakeholders identified by DHHR.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM005	1	The Vendor should conduct deliverable walk-throughs for all project deliverables prior to their submission unless otherwise approved in writing by DHHR.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM006	1	The Vendor should work with DHHR to develop acceptance criteria for each project deliverable.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM007	1	The Vendor should submit each project deliverable to DHHR in final form and be ready for signature approval.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM008	1	The Vendor should submit each project deliverable to DHHR in accordance with each date in the project schedule.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM009	1	The Vendor should work with DHHR's project manager regarding all project related activities.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM010	1	The Vendor should submit all meeting materials to DHHR 24 hours prior to each meeting.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM011	1	The Vendor should capture meeting minutes at each meeting.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM012	1	The Vendor should distribute meeting minutes within 48 hours after a meeting occurs.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM013	1	The Vendor should provide DHHR weekly reports of testing status, including, but not limited to:	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM014	2	Metrics on the number of tests completed	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM015	2	Number of deferred or canceled tests	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM016	2	Results of the tests executed	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM017	2	Defects identified by severity level	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM018	2	Corrective actions taken	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM019	2	Others as defined by DHHR	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM020	1	The Vendor should provide DHHR with weekly, monthly, and quarterly project status reports to include:	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM021	2	General project status information	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM022	2	Milestone review	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM023	2	Issues and risks	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM024	2	Project metrics	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM025	2	Others as defined by DHHR	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM026	1	The Vendor should utilize a change management methodology that is based on industry standards and best practices and is approved by DHHR.	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146
PM027	1	The Vendor should propose a change management methodology including, but not limited to:	Project Management	Will Meet	Attachment I – Implementation Specifications Approach	Project Management	146

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PM028	2	Approach across all project phases	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM029	2	Roles and responsibilities	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM030	2	Tools necessary to support change management	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM031	2	Reporting	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM032	2	Others as defined by DHHR	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM033	1	The Vendor should propose an organizational change management methodology in support of the Enterprise Surveillance System (ESS) implementation	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM034	1	The Vendor should conduct requirements analysis sessions with DHHR during which the Vendor will review, refine, and seek approval for all requirements included in this Request for Proposal (RFP)	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM035	1	The Vendor should work with DHHR to design the system in accordance with the following design phases	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM036	1	Preliminary System Design	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM037	1	Detailed System Design	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM038	1	Final System Design	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM039	1	The Vendor should be responsible for all costs associated with requirements analysis and solution design	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM040	1	The solution should be developed and implemented in accordance with the project work plan.	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM041	1	The Vendor should detail their approach to both requirements validation and joint application design in support of requirements analysis and solution design activities	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM042	1	The Vendor should maintain a requirements traceability matrix (RTM) throughout the lifecycle of the project as defined in the Deliverables.	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM043	1	The Vendor should provide all stakeholders identified by DHHR access to the requirements traceability matrix (RTM).	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM044	1	The Vendor should document in the requirements traceability matrix (RTM) where each requirement is accounted for within the following areas:	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM045	2	Design documentation	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM046	2	Workflows	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM047	2	Communications	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM048	2	Test conditions	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM049	2	Test scenarios	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM050	2	Test cases	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM051	2	Others as defined by DHHR	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM052	1	The Vendor should demonstrate through the requirements traceability matrix (RTM) that all documented and approved specifications have been traced throughout the design lifecycle.	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM053	1	The Vendor should work with DHHR to fully understand the scope, purpose, and implications of each Request for Proposal (RFP) specification	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM054	1	The Vendor should identify and work with DHHR to resolve gaps between the Vendor and DHHR's understanding of a specification.	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM055	1	The Vendor should propose and execute a plan for a phased approach to the solution's implementation, including all of the solution's components and modules	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146
PM056	1	The Vendor should design the solution using an iterative development approach.	Project Management	Will Meet	Attachment I - Implementation Specifications Approach	Project Management	146

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PM057	1	The Vendor should review and test in logical functional groups of system components or modules.	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM058	1	The Vendor should ensure that all design documentation is kept current throughout the contract.	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM059	1	The Vendor should support all data migration related activities	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM060	1	The Vendor's data migration strategy should minimize risk and the disruption to other enterprise solutions affected with the solution's design and implementation.	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM061	1	The Vendor should be responsible for the data cleansing of all data being migrated from the existing surveillance systems and converted to the new solution.	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM062	1	The Vendor should propose an industry standard data migration and conversion methodology that includes but is not limited to:	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM063	2	Data analysis techniques	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM064	2	Checks and balances for ensuring data quality and accuracy	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM065	2	Data conversion tool sets	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM066	1	The Vendor should complete a full analysis of DHHR disease surveillance enterprise to understand what source solutions and corresponding data will need to be integrated into the solution.	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM067	1	The Vendor should complete an assessment of the as-is and to-be environment to understand what reports will be needed in support of operations.	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM068	1	The Vendor should develop and obtain DHHR approval of all reports identified as needed in support of operations.	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM069	1	The Vendor should be prepared to work with DHHR to identify and integrate data from DHHR-identified surveillance systems	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM070	1	The Vendor should propose and manage a process by which data from additional solutions can be identified and integrated into the Enterprise Surveillance System (ESS).	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM071	1	The solution should have the ability to support quality measures as defined by DHHR	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
PM072	1	The solution should support workflow development by the Vendor based on new processes defined by DHHR according to business needs as identified in the Change Management Plan.	Project Management	Will Meet	Attachment 1 – Implementation Specifications Approach	Project Management	146
TE001	1	The Vendor should conduct the following types of testing in support of the solution	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE002	2	Unit testing	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE003	2	Integration testing	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE004	2	Iterative functional testing	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE005	2	System integration testing (SIT)	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE006	2	Interface testing	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE007	2	Regression testing	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE008	2	End-to-end testing	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE009	2	Security testing	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE010	2	Performance testing	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE011	2	Usability/Accessibility testing	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE012	2	Browser testing	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170
TE013	2	User acceptance testing (UAT)	Testing	Will Meet	Attachment 1 – Implementation Specifications Approach	Testing	170

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TE014	2	Data conversion testing	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE015	2	Operational readiness testing (ORT)	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE016	2	Parallel testing	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE017	2	Other testing as identified by DHHR and/or Vendor	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE018	2	The Vendor should be prepared to assist DHHR with User acceptance testing (UAT).	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE019	1	The Vendor should be prepared to conduct User acceptance testing (UAT) in all cases whereby DHHR does not elect to conduct UAT	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE020	1	The Vendor should complete regression testing subsequent to, but not limited to, the following:	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE021	2	Deployment of new solution components	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE022	2	Integration of each solution component into the primary solution	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE023	2	Every migration of new build versions to each test environment	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE024	2	Solution fixes	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE025	2	Solution patches	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE026	2	Solution releases	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE027	2	Others as defined by DHHR	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE028	1	The Vendor should utilize a subset of system integration testing (SIT) scenarios representative of maximum functional and technical solution coverage for the purposes of regression testing.	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE029	1	The Vendor should obtain approval from DHHR on which system integration testing (SIT) should be used for regression testing.	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE030	1	The Vendor should utilize end-to-end test cases in support of regression testing.	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE031	1	The Vendor should perform security testing on functional, technical, and infrastructure components to ensure the solution meets all State, DHHR, and Federal security requirements.	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE032	1	The Vendor should propose security testing scenarios and/or cases to DHHR for their approval.	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE033	1	The Vendor's performance testing methodology should allow for performance tests to be representative of the expected peak period volumes for solution operation.	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE034	1	The Vendor's performance testing should occur on a production ready version of the solution.	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE035	1	The solution's performance testing environment should mirror the final production solution specifications	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE036	1	The Vendor's usability/accessibility testing should include testing of the user interface for the following users:	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE037	2	Internal users	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE038	2	External users	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE039	2	Power users	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE040	2	Users with limited computer skills	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE041	2	Prospective new users	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170
TE042	2	Users who will require solution training to complete their daily work	Testing	Will Meet	Attachment I - Implementation Specifications Approach	Testing	170

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TE043	2	Users with disabilities	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE044	2	Others as defined by DHHR	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE045	1	The Vendor's usability/accessibility testing approach should account for testing for compliance with section 504 and 508 of the Americans with Disabilities Act (ADA).	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE046	1	The Vendor's browser testing should be performed using a minimum of a subset of system integration test scripts that ensures maximum solution coverage.	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE047	1	The Vendor should supply the data, environments, and test scripts necessary to support user acceptance testing (UAT)	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE048	1	The Vendor should work with DHHR to define user acceptance testing (UAT) cases representative of the full solution environment.	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE049	1	The Vendor should be responsible for working with DHHR to define the user acceptance test (UAT) scenarios DHHR deems as critical for UAT	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE050	1	The Vendor should be responsible for drafting all user acceptance testing (UAT) cases.	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE051	1	The Vendor should review all user acceptance testing (UAT) results with DHHR, and a strategy for mitigation should be agreed upon for each defect based on the defect's severity, priority, and impact.	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE052	1	The Vendor should discuss and obtain DHHR's approval on data conversion exception tolerance levels prior to the commencement of data conversion testing.	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE053	1	The Vendor should review and obtain DHHR's approval of data conversion test results prior to commencement of production data conversion	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE054	1	The Vendor should work with DHHR to define an operational readiness testing (ORT) approach that encompasses all DHHR and Vendor responsible solution operational processes and procedures.	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TE055	1	The vendor should provide a user interface that has been tested for usability.	Testing	Will Meet	Attachment 1 - Implementation Specifications Approach	Testing	170
TR001	1	The Vendor should provide a sandbox training environment for authorized solution users within the solution that uses de-identified data and is compliant with the Health Insurance Portability and Accountability Act (HIPAA), DHHR, and other State and federal regulations.	Training	Will Meet	Attachment 1 - Implementation Specifications Approach	Training	157
TR002	1	The Vendor should develop and maintain a sandbox environment for training that mirrors production	Training	Will Meet	Attachment 1 - Implementation Specifications Approach	Training	157
TR003	1	The solution's training environment should have the capacity to support all components of the solution.	Training	Will Meet	Attachment 1 - Implementation Specifications Approach	Training	157
TR004	1	The Vendor should ensure that no aspect of training uses protected health information (PHI), personally identifiable information (PII), and that the training materials and environments are compliant with the Health Insurance Portability and Accountability Act (HIPAA), DHHR, and other State and federal regulations.	Training	Will Meet	Attachment 1 - Implementation Specifications Approach	Training	157
TR005	1	The Vendor should provide the necessary training and ongoing support to all DHHR authorized solution users participating in data conversion validation and user acceptance testing (UAT) of the solution components, reporting options, and data structure.	Training	Will Meet	Attachment 1 - Implementation Specifications Approach	Training	157
TR006	1	The Vendor should provide initial and ongoing training and associated reference documentation to authorized solution users for the duration of the contract, at the request of DHHR.	Training	Will Meet	Attachment 1 - Implementation Specifications Approach	Training	157
TR007	1	Throughout the duration of the contract, the Vendor should provide regular training sessions for authorized solution users on updated or new functionality and/or business processes related to the solution, at the request of DHHR.	Training	Will Meet	Attachment 1 - Implementation Specifications Approach	Training	157
TR008	1	The Vendor should track and provide confirmation of attendance at all training sessions and report on which versions of training materials were presented at the training.	Training	Will Meet	Attachment 1 - Implementation Specifications Approach	Training	157
TR009	1	The Vendor should provide evaluation feedback forms to training participants at the end of each training and provide summaries of these evaluations to DHHR with recommendations for changes, if applicable.	Training	Will Meet	Attachment 1 - Implementation Specifications Approach	Training	157
TR010	1	The Vendor should provide hands-on, in-person, remote, and/or online training.	Training	Will Meet	Attachment 1 - Implementation Specifications Approach	Training	157

		Specifications		Vendor Response			
Spec ID #	Hierarchy Level	Specification Text	Subject Matter Area	Capability Assessment	Attachment	Section	Page #
TR011	1	The Vendor should provide DHHR-approved, training and/or guide books addressing all components of the solution and provide to DHHR at least four (4) copies of each book for distribution as well as online electronic copies.	Training	Will Meet	Attachment I - Implementation Specifications Approach	Training	157
TR012	1	The Vendor should ensure that all DHHR-approved training documentation for the solution is posted where authorized solution users can access it on demand.	Training	Will Meet	Attachment I - Implementation Specifications Approach	Training	157
TR013	1	The Vendor should propose a role-based training approach.	Training	Will Meet	Attachment I - Implementation Specifications Approach	Training	157
TR014	1	The Vendor should develop training materials that support each training	Training	Will Meet	Attachment I - Implementation Specifications Approach	Training	157
TR015	1	The Vendor provide as-is necessary the training venues and equipment to best ensure the training's success.	Training	Will Meet	Attachment I - Implementation Specifications Approach	Training	157
TR016	1	The Vendor should provide user acceptance testing (UAT) training.	Training	Will Meet	Attachment I - Implementation Specifications Approach	Training	157
TR017	1	The Vendor should provide train-the-trainer training sessions.	Training	Will Meet	Attachment I - Implementation Specifications Approach	Training	157
TR018	1	The Vendor should support all aspects of training that DHHR and Vendor agree are key towards the trainings delivery	Training	Will Meet	Attachment I - Implementation Specifications Approach	Training	157
TR019	1	The solution's training environments should be reflective of real-world data.	Training	Will Meet	Attachment I - Implementation Specifications Approach	Training	157
TR020	1	The solution's training environments should include end-to-end training on processes during applicable phases of the project.	Training	Will Meet	Attachment I - Implementation Specifications Approach	Training	157
OP001	1	The Vendor should maintain and ensure contract personnel staffing levels and competencies to support software applications, data integrity, analytics, user training, and contract administration pursuant to Service Level Agreements (SLAs).	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP002	1	The Vendor should supply key staff resumes to DHHR for review and approval prior to key staff beginning work under the contract	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP003	1	The Vendor should supply resumes for key staff substitutions to DHHR for review and approval prior to key staff substitutions performing any work under the contract.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP004	1	The Vendor should collaborate with DHHR to develop and maintain a process for authorized solution user support.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP005	1	The Vendor should maintain and ensure contract personnel staffing levels and competencies to support software applications, data integrity, analytics, user training, and contract administration pursuant to Service Level Agreements (SLAs).	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP006	1	The Vendor should maintain adequate staff to perform operational functions including, but not limited to	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP007	2	Identify a primary and back-up point of contact for day-to-day operations	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP008	2	Maintain effective communications of project updates and problem resolutions	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP009	2	Maintain current documentation of operational processes and notify designated DHHR staff of operational issues and remediation plans within the designated timeframes pursuant to DHHR-defined Service Level Agreements (SLAs)	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP010	2	Ensure quality control procedures are in place and utilized and that issues are resolved when identified through quality checks	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP011	2	Adhere to project and report delivery timeframes	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP012	2	Conduct business use analyses to prepare operational reports	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP013	2	Work with DHHR to automate operational reports	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP014	2	Others as defined by DHHR and pursuant to Service Level Agreements (SLAs)	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177

	Specifications				Vendor Response			
Spec ID #	Hierarchy Level	Specification Text	Subject Matter Area	Capability Assessment	Attachment	Section	Page #
OP015	1	The Vendor should maintain adequate staff to perform technical functions including, but not limited to:	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP016	2	Maintain systems by researching and resolving problems	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP017	2	Maintain system and network integrity and security	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP018	2	Develop and maintain configuration and customization of the solution, solution tools, and rules engine	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP019	2	Establish, manage, and maintain the solution data exchanges	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP020	2	Maintain file specifications for solution data exchanges	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP021	2	Establish, manage, and maintain solution interfaces	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP022	2	Assure that new processes/new technology installations minimize negative impact on the system and authorized solution users	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP023	2	Provide regular status updates to DHHR on system issues and system updates	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach		177
OP024	2	Maintain a system of checks and balances such that the underlying data are consistent, complete, and accurate	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP025	2	Develop and gather requirements	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP026	2	Design, implement, and maintain solution architecture	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP027	2	Monitor solution performance and resolve issues	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP028	2	Analyze test plans, technical specifications, and test results	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP029	2	Provide system documentation	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP030	2	Others as defined by DHHR and pursuant to Service Level Agreements (SLAs)	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP031	1	The Vendor should participate in project meetings as directed by DHHR.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP032	1	The Vendor should work collaboratively with DHHR to explain and support ESS Vendor-based operations and reporting to stakeholders, auditors, and other parties when necessary.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP033	1	The Vendor should participate in audit activities including, but not limited to:	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP034	2	Attending meetings	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP035	2	Running reports	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP036	2	Providing documentation	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177

	Specifications			Vendor Response			
Spec ID #	Hierarchy Level	Specification Text	Subject Matter Area	Capability Assessment	Attachment	Section	Page #
OP037	2	Providing access to all system components and modules as requested by DHHR	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP038	1	The Vendor should support the State with data integration needs prior to and subsequent to the solution's implementation	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP039	1	The Vendor should provide DHHR with a Data Management Plan as defined in Appendix 2 - Deliverables and Milestones Dictionary.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP040	1	The Vendor should agree to perform according to approved Service Level Agreements (SLA) and identified Key Performance Indicators (KPI) with associated metrics in the areas of system availability, performance, data quality, and problem management, and should consent to DHHR retaining a percentage of payment if agreed-upon metrics are not achieved.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP041	1	The Vendor should develop, maintain, and implement a DHHR-approved System Operations Plan as defined in Appendix 2 - Deliverables and Milestones Dictionary.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP042	1	The Vendor should pay and arrange for an annual Statement on Standards for Attestation Engagements, System, and Organization Controls (SOC) 1, Type II audit, using the most current version of the audit, which should cover work performed by the Vendor at the Vendor's facility and data center sites.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP043	1	The Vendor should submit the annual Statement on Standards for Attestation Engagements, System and Organization Controls (SOC) 1, Type II audit report, using the most current version of the audit, to DHHR for approval with an action plan to remediate findings within a timeframe agreed upon by the Vendor and DHHR.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP044	1	The solution should provide an authorized solution user test environment (sandbox) to test new workflows and reports prior to execution in production.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP045	1	The solution should have test environments (sandboxes) that include metadata necessary to test new workflows and reports prior to execution in production.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP046	1	The solution should have a test environment (sandbox) that can be refreshed as requested by DHHR.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP047	1	The solution should utilize the same hardware, operating system, and relational database management in the test environments (sandboxes) that are used in production.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications	Operations	177
OP048	1	The solution should have test environments (sandboxes) that mirror the production environment.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP049	1	The solution should supply access to the user acceptance testing (UAT) environment for authorized solution users.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP050	1	The Vendor should provide access for authorized solution users to all solution test environments as requested by DHHR	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP051	1	The solution should have a development environment to develop and unit-test all software contained within the solution.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP052	1	The solution's user acceptance testing (UAT) environment should have the ability to support all components of the solution.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP053	1	The solution's unit test environment should have the ability to perform full-scale system integration testing (SIT) for the solution.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP054	1	The solution should have a unit test environment that mirrors production in hardware, software stack, and data volumes.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
OP055	1	The solution should have a unit test environment that exists for all relevant components.	Operations	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Operations	177
DR001	1	The solution should provide sufficient transaction logging and database back-up to allow it to be restored. If multiple databases are used for work item routing and program data, restoring the solution should ensure that databases are synchronized to prevent data corruption	Solution Back-up, Disaster Recovery, and Failover	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Back-up, Disaster Recovery, and Failover	185

	Specifications			Vendor Response			
Spec ID #	Hierarchy Level	Specification Text	Subject Matter Area	Capability Assessment	Attachment	Section	Page #
DR002	1	The solution should have the ability to perform online backups without interruption to production operations, according to a schedule agreed upon by DHHR.	Solution Back-up, Disaster Recovery, and Failover	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Back-up, Disaster Recovery, and Failover	185
DR003	1	The solution should allow continued use of the system during back-up and perform back-ups during non-peak processing hours, to minimize the impact to operational activities.	Solution Back-up, Disaster Recovery, and Failover	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Back-up, Disaster Recovery, and Failover	185
DR004	1	The solution should support data freezing.	Solution Back-up, Disaster Recovery, and Failover	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Back-up, Disaster Recovery, and Failover	185
DR005	1	The Vendor should maintain an operational back-up power supply capable of supporting vital functions.	Solution Back-up, Disaster Recovery, and Failover	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Back-up, Disaster Recovery, and Failover	185
DR006	1	The Vendor should equip facilities with proper safeguards for fire prevention, fire detection, and fire suppression that are consistent with local fire codes.	Solution Back-up, Disaster Recovery, and Failover	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Back-up, Disaster Recovery, and Failover	185
DR007	1	The Vendor should equip fire detection and alarm systems with uninterruptable power supply	Solution Back-up, Disaster Recovery, and Failover	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Back-up, Disaster Recovery, and Failover	185
DR008	1	The Vendor should have a remote backup facility that is georedundant to the the primary data center.	Solution Back-up, Disaster Recovery, and Failover	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Back-up, Disaster Recovery, and Failover	185
DR009	1	The Vendor should conduct an annual disaster recovery exercise at a mutually agreed upon time and provide the results to the designated DHHR staff. DHHR staff should be invited to be included in these exercises.	Solution Back-up, Disaster Recovery, and Failover	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Back-up, Disaster Recovery, and Failover	185
DR010	1	The Vendor should store all backup copies in a DHHR-approved backup storage location for a period of time specified by DHHR.	Solution Back-up, Disaster Recovery, and Failover	Will Meet	Attachment J - Maintenance and Operations Specifications Approach	Solution Back-up, Disaster Recovery, and Failover	185

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: MIS2200000001

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

[✓] Addendum No. 1   [ ] Addendum No. 6

[✓] Addendum No. 2   [ ] Addendum No. 7

[ ] Addendum No. 3   [ ] Addendum No. 8

[ ] Addendum No. 4   [ ] Addendum No. 9

[ ] Addendum No. 5   [ ] Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

InductiveHealth Informatics, Inc.
_____
Company

_____
Authorized Signature

1/30/22
_____
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012