Revolutionizing Public Health with AI: Upskilling of STLTS Employees through Workforce Innovation - Scope of Work (SoW)

# Project Background

The contractor will provide technical expertise for a 9-month initiative aimed at upskilling employees within the State, Tribal, Local, and Territorial Support (STLTS) division in artificial intelligence (AI) applications in public health informatics. This initiative is designed to address skill gaps in the use of AI for public health data analysis, predictive modeling, and decision-making, ensuring that the STLTS workforce can apply emerging technologies to improve public health outcomes.

The contractor will develop, deliver, and refine specialized AI training materials to equip participants with practical knowledge of AI applications in public health informatics.

# Project Objectives and Scope of Work

The goal of this project is to implement a structured training program introducing STLTS employees to AI applications in public health informatics. The contractor will develop comprehensive training materials, conduct four progressively advanced webinars, and continuously evaluate and improve the content based on participant feedback and AI advancements.

# **Key Activities and Detailed Implementation Methods**

1. **Development of AI Training Materials**

**Activity**: The contractor will create comprehensive training materials, including a presentation covering the fundamentals of AI in public health informatics. The content will address practical use cases in electronic case reporting, health assessments, disease surveillance, predictive analytics, and automated data processing.

**Implementation**:

* + Conduct a **needs assessment** to identify knowledge gaps in the STLTS workforce.
  + Develop materials using **AI-enhanced content creation tools (E.g., Canva, Jasper)**, integrating real-world use cases in public health.
  + Include **interactive elements and business case studies** to engage participants and demonstrate practical applications.
  + Administer a **pre-test baseline assessment evaluation** to the STLTS employees

**Deliverable**: AI training materials, including a slide deck, case studies, and supporting documents.  
**Due Date**: End of October 2024

1. **Delivery of Four Webinars Over Nine Months**

**Activity**: The contractor will deliver four webinars, progressively introducing AI concepts and their applications in public health informatics, advancing from foundational topics to more complex ethical and technical considerations. Each session will be interactive and include practical demonstrations, Q&A, and participant engagement tools.

**Implementation**:

* + Design and deliver four webinars, with content aligned to the needs of beginner, intermediate, and advanced participants.
  + Use **AI-powered platforms (**[**Zoom**](https://zoom.us/)**,** [**WebEx**](https://www.webex.com/)**,** [**BigMarker**](https://www.bigmarker.com/)**)** to schedule and deliver the webinars, while tracking engagement and participation.
  + Record each session and make supplementary materials available for future review.

**Deliverables and Descriptions**:

* + **Webinar 1: Introduction to Artificial Intelligence in Public Health Informatics: Foundations and Concepts**  
    Description: This introductory session will cover the fundamental concepts of AI and its applications in public health informatics. Participants will learn about AI technologies, terminology, and how these tools can enhance public health workflows.  
    **Due Date**: End of November 2024
  + **Webinar 2: Leveraging AI for Data Analytics in Public Health: Practical Applications and Tools**  
    Description: This intermediate session will explore AI tools and techniques for public health data analysis. Participants will gain insight into predictive analytics, natural language processing, and machine learning applications, with demonstrations of relevant tools.  
    **Due Date**: End of January 2025
  + **Webinar 3: Implementing AI in Public Health Workflows: Integrating Predictive Analytics and Automation**  
    Description: This session will focus on integrating AI solutions into public health workflows. Topics include automated processes, predictive analytics for outbreak prediction, and managing large datasets with AI-driven systems.  
    **Due Date**: End of March 2025
  + **Webinar 4: Advanced AI Techniques for Public Health: Ethical Considerations, Scalability, and Future Trends**  
    Description: This advanced webinar will cover cutting-edge AI technologies in public health. Topics include ethical challenges, addressing biases in machine learning models, and planning for scalable AI solutions in global public health programs.  
    **Due Date**: End of May 2025

1. **Ongoing Evaluation and Iteration of Training Content**

**Activity**: The contractor will continuously evaluate the training program’s effectiveness by collecting feedback and conducting knowledge assessments. AI tools will be employed to analyze participant engagement and learning outcomes, ensuring the content remains relevant and effective.

**Implementation**:

* + Utilize **AI-driven analytics (E.g.,** [**Google Cloud AI**](https://cloud.google.com/)**)** to monitor participant engagement and performance throughout the webinars.
  + Develop a **competitive user-centric framework** to create an **intrinsic and extrinsic employee motivation** **strategy** to engage with AI tools in their daily work using a **gamification framework** or **leaderboard (E.g.,** [**Kahoot!,**](https://kahoot.com/) [**Bunchball Nitro**](https://www.biworldwide.com/gamification/bunchball-nitro/#:~:text=Bunchball%20Nitro%20is%20a%20cloud,incorporating%20them%20into%20work%20environments.)**,** [**Badgeville**](https://en.wikipedia.org/wiki/Badgeville) **platforms).**
  + Conduct a **mid-webinar follow up** **surveys** to evaluate the AI knowledge or learning curve.
  + Implement **post-webinar surveys** and assessments to gather feedback.
  + Use **machine learning algorithms** to refine and adapt content based on feedback and emerging AI trends.

**Deliverable**: Evaluation reports after each webinar, summarizing participant feedback and proposing content improvements.  
**Due Date**: Continuous; reports due after each webinar (Months October 2024, January 2025, March 2025, and May 2025)

1. **Regular Project Meetings and Progress Reporting**

**Activity**: The contractor will attend regular meetings to provide updates on progress, share insights from evaluations, and suggest adjustments to the training initiative. These meetings will ensure alignment with project goals and timelines.

**Implementation**:

* + Use **AI-based project management tools (E.g.,** [**Asana**](https://asana.com/)**,** [**Trello**](https://trello.com/)**,** [**Monday.com**](https://monday.com/)**)** to generate progress reports and track milestones.
  + Participate in **monthly status meetings** to present updates and resolve issues.

**Deliverable**: Monthly progress reports documenting project status, evaluations, and proposed adjustments.  
**Due Date**: Monthly

# **Deliverables**

1. **AI Training Materials**: Comprehensive training materials on AI in public health informatics, including slide decks and case studies.
2. **Four Webinars**: Webinar series delivered over nine months, progressing from introductory to advanced AI topics, with session recordings and supplementary materials.
3. **Evaluation Reports**: Post-webinar reports summarizing participant feedback and content improvements.
4. **Monthly Progress Reports**: Regular updates on project status, challenges, and next steps.

# Project Schedule

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| **Milestone** | **Due Date** |
| **Needs Assessment and Material Development** | End of October 2024 |
| **Webinar 1: Introduction to Artificial Intelligence in Public Health Informatics: Foundations and Concepts**  *Description*: This session will introduce the fundamental concepts of artificial intelligence (AI), with a focus on its applications in public health informatics. Participants will learn the basics of AI technologies, terminology, and potential use cases for improving public health data analysis and decision-making. | End of January 2025 |
| **Webinar 2: Leveraging AI for Data Analytics in Public Health: Practical Applications and Tools**  *Description*: This intermediate session will delve into AI tools and techniques used for public health data analysis. Participants will explore practical AI applications, including predictive analytics, natural language processing, and machine learning algorithms, with demonstrations of relevant tools. | End of March 2025 |
| **Webinar 3: Implementing AI in Public Health Workflows: Integrating Predictive Analytics and Automation**  *Description*: This session will focus on integrating AI-driven solutions into existing public health workflows. Topics will include setting up automated processes, utilizing AI for outbreak prediction, and managing large datasets efficiently using AI-enabled systems. | End of May 2025 |
| **Webinar 4: Advanced AI Techniques for Public Health: Ethical Considerations, Scalability, and Future Trends**  *Description*: This advanced webinar will explore cutting-edge AI technologies and their potential to shape the future of public health. Topics will cover ethical considerations in AI, addressing biases in machine learning models, and planning for scalable AI solutions in global health programs. | End of July 2025 |
| Final Report | End of August 2025 |

**Budget and Period of Performance**

The total budget allocated for this project is $50,000 over a 9-month period. The contractor will be responsible for delivering all training materials, webinars, and evaluation reports within the specified time frame.

**Contract Type and Period of Performance**

This is a fixed-price contract, with a period of performance of 9 months, concluding upon the delivery of all specified deliverables.

**Project Team Contacts**

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