**Building a Healthier Future: Strengthening Data for Smarter Public Health in Sierra Leone**

**Introduction:**

Since 2017, Sierra Leone has made significant strides in disease surveillance, thanks to the support of key organizations and governments, and the use of the District Health Information Software 2 (DHIS2). However, to maximize our public health impact, we need to further enhance our data landscape. This entails integrating and communicating seamlessly between Information Technology (IT) systems across human, animal, and environmental health sectors. By leveraging data, we can enhance our public health preparedness and response, eliminating duplication and streamlining data sharing.

**The Challenge: Fragmented Data Hinders Public Health**

Our current public health data system faces challenges. Fragmented data collection across sectors, limited compatibility with DHIS2, and weak data analysis capabilities hinder our ability to:

- Track disease trends effectively.
- Identify outbreaks early.
- Allocate resources efficiently.

The current fragmented approach to public health data management significantly weakens our response, ultimately jeopardizing the health of our communities. This underscores the urgent need for a more robust and unified data management system.

**Key Issues:**

- **Fragmented Data Collection:** Data from various sources (hospitals, clinics, labs, communities) across sectors is collected using different formats and systems. This makes it challenging to aggregate and analyze data to understand public health threats comprehensively. Real-time electronic reporting at the community level is lacking, delaying outbreak notification.
- **Limited Analysis Capabilities:** The lack of user-friendly data analysis tools across all sectors makes it challenging to identify trends, predict outbreaks, and guide public health interventions.

**The Solution: Building a Stronger Data Ecosystem**

The National Public Health Agency (NPHA) is dedicated to constructing a more resilient public health data management system through a comprehensive approach. This solution, we believe, has the potential to revolutionize our public health approach, making it more innovative and responsive.

**GOVERNMENT OF SIERRA LEONE**
**NATIONAL PUBLIC HEALTH AGENCY**
**(NPHA)**
Address: 42A Main Motor Road, Wilberforce, Freetown
Contact: (+232) 78 787878/77 777777
Email: info@npha.gov.sl – Website: www.npha.gov.sl

**Integrated Data Management and Analytics System (IDMAS) - $682,128:**

- Develop a centralized platform to collect, store, and analyze public health data from various sources.
- Ensure seamless integration with DHIS2 and other existing systems.
- Standardize data, improve quality and triangulation (verification through multiple sources), and facilitate real-time reporting.
- Enhance performance on Joint External Evaluation (JEE) indicators regarding early warning systems and event verification.

**Data Management Infrastructure Investment - $417,410:**

- Upgrade IT infrastructure (hardware, software, secure data storage) to support the IDMAS platform.
- Implement user-friendly reporting tools for efficient data analysis.

**Strengthening Data Collection & Reporting Practices - $210,120:**

- Review and standardize data collection tools and protocols at the lowest reporting unit.
- Train staff on proper data entry and reporting procedures for accuracy and completeness of data.
- Promote data analysis and use at lower reporting units for earlier outbreak detection.

**Utilizing Artificial Intelligence for Advanced Analytics - $368,077:**

- Explore Artificial Intelligence (AI) to analyze large datasets and identify patterns.
- Use AI to predict outbreaks, monitor disease transmission trends, and optimize resource allocation.
- Improve performance on JEE indicators regarding analysis and information sharing, allowing advanced analysis at all levels.

**Benefits:**

- **Track Disease Trends:** Monitor disease spread in real-time for earlier outbreak identification and response.
- **Improved Resource Allocation:** Allocate resources strategically based on the latest disease prevalence and transmission patterns data.
- **Strengthened Public Health Interventions:** Sustain existing data-driven public health interventions targeting specific populations and high-risk areas.

**Estimated Total Cost:** USD 1.7 Million

**GOVERNMENT OF SIERRA LEONE**
**NATIONAL PUBLIC HEALTH AGENCY**
**(NPHA)**

Address: 42A Main Motor Road, Wilberforce, Freetown
Contact: (+232) 78 787878/77 777777
Email: info@npha.gov.sl – Website: www.npha.gov.sl

**Call to Action:**

Investing in a robust data management system unlocks the power of data to transform our public health approach. Join us in building a more innovative and more responsive public health system! Your support through donations, volunteering, or raising awareness is instrumental in leveraging data for a healthier Sierra Leone.