



STATE OF ARKANSAS
**Department of Finance
and Administration**

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April 4, 2024

Senator Justin Boyd, Co-Chair
Representative Roger D. Lynch, Co-Chair
Joint Budget Committee
Performance Evaluation & Expenditure Review Sub-Committee
State Capitol Building
Little Rock, AR 72201

RE: FY 24 American Rescue Plan Act Request

Dear Co-Chairs:

Pursuant to Section 36 (01) of Act 796 of 2023, I am forwarding the attached American Rescue Plan Act request(s) that have received my approval as Chief Fiscal Officer of the State.

1. Department of Health – Reallocation of previously approved request to support grant staff, provide blood pressure monitors to local health units \$0
2. Department of Health – Reallocation of previously approved request for Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases \$0
3. Department of Health – Reallocation of previously approved request for Strengthening Infrastructure, Workforce and Data Processes \$0

Sincerely,

James L. Hudson
Secretary

Attachment(s)

**AMERICAN RESCUE PLAN ACT OF 2021 PROGRAM APPROPRIATION
AND PERSONNEL AUTHORIZATION REQUEST
SECTION 36 OF ACT 796 OF 2023**

C1

Agency: Arkansas Department of Health Business Area Code: 0645
 Program Title: Strengthening the Infrastructure, Workforce, & Data Processes for the Public Health System in Arkansas.
 Granting Organization: DHHS: Centers for Disease Control & Prevention CFDA #: 93.967
 Effective Date of Authorization: Beginning: 3/1/2024 Ending: 6/30/2024

Purpose of Grant / Reason for addition or change (include attachments as necessary to provide thorough information):
 Request for reallocation from Professional Fees to Regular Salaries, Extra Help, Personal Services Matching, Operating Expenses, Conference and Travel Expenses and Indirect Costs.
 This is for part **A1 component** of the grant for a total of \$29,122,015. The Arkansas Department of Health (ADH), as the centralized authority on public health in the state, has identified several areas where improvements are needed to support the workforce. Improvements include increased training and professional development opportunities, and opportunities for improved workplace wellness. ADH will place Blood Pressure monitors in Local Health Units as a way to identify high blood pressure--the leading cause of heart disease, stroke and others--for both staff and constituents. Further, the ADH has identified programs that currently have staff supported by other grants that are vital to the work of the ADH and need continued funding. These include a number of epidemiologists positions, the Office of Performance Management, Quality Improvement and Evaluation, and the Office of Health Disparities Elimination. Contracts to include required Certified Tumor Registrars for the AR Central Cancer Registry.

American Rescue Plan Act Program Funding

Func. Area: HHS Fund Code: FRP6450 Direct Funding:
 Funds Center: BI1 Internal Order/WBS Element: RIWD0023/RIWD0024 State:
 Continuation:

	Program Funding Amount
Regular Salaries	260,140
Extra Help	306,764
Personal Services Matching	73,863
Operating Expenses	6,643,300
Conference & Travel Expenses	305,686
Professional Fees	(7,719,188)
Capital Outlay	
Data Processing	
Grants and Aid (CI: 04)	
Other: Indirect Costs	129,435
Other:	
Total	\$ -

Anticipated Duration of Federal Funds: 11/30/24

DFA IGS State Technology Planning	Date
Items requested for information technology must be in compliance with Technology Plans as submitted to DFA IGS State Technology Planning.	

Positions to be established: (list each position separately)

Org Unit	Pers Area	Pers SubArea	Cost Center	Position Number	Cmnt Item	Position Title	Class Code	Grade	Line Item Maximum *

State funds will not be used to replace federal funds when such funds expire, unless appropriated by the General Assembly and authorized by the Governor.

Approved by: J. D. Ade 3-8-24 Robert Brech 04/03/24
 Cabinet Secretary/Agency Director Date Office of Budget Date Office of Personnel Mgmt Date

CRB 3/11/2024

**Project Summary for A1 of the Strengthening U.S. Public Health Infrastructure, Workforce and Data Systems Grant
(PHIG)**

**Arkansas Department of Health NE11OE000049 Arkansas
Principal Investigator: Bala Simon, MD, DrPH**

Note: Abstract and summary still apply with February 2024 reallocation request. Scope of work does not change, just the category of appropriation because of a mis-categorization.

A1 Workforce Abstract

The Arkansas Department of Health (ADH), as the centralized authority on public health in the state, has identified several programs where additional staff is needed to meet changing demand. These programs include the Public Health Lab, where reporting is shifting to almost entirely online; the Arkansas Central Cancer Registry which continues to face challenges in staffing; and in hepatitis surveillance, as cases in the state have risen nearly 400% since the pandemic began. Further, the ADH has identified programs that currently have staff supported by other grants that are vital to the work of the ADH and need continued funding. These include a number of epidemiologists positions, the Office of Performance Management, Quality Improvement and Evaluation, and the office of Health Disparities Elimination. Further, staff are requesting more from employers in the form of professional development, training opportunities, enhanced workspaces, and flexible workspaces. The ADH will work to address each under the leadership of a Workforce Director, a position new to this grant. And lastly, the ADH must develop and support working partnerships statewide to maintain a robust public health system, and this is present throughout but highlighted with enhanced trainings for the state's County Health Officers, and a proactive approach to working with colleges and universities in the state to offer intern positions to expose more students to public health. In conclusion, the Arkansas Department of Health intends to address some of the workforce challenges by hiring new staff and retaining current staff and partnerships through improvements to the workplace and opportunities offered like training, professional development, and improved workspaces.

Strategy A1 Workforce

A1 Background:

Staff continue to be stretched to their limit in many cases, required to learn new skills and redirect their efforts to projects outside of their scope of work; many critical public health programs were stalled or limited in effort because of staff redirection; underserved communities faced greater challenges to their wellness; and a spotlight was cast on public health for what it was and was not doing. A commitment to hiring new staff and retaining current staff through improved support is a first step towards a robust public health system for Arkansas.

The ADH noted a 400% surge in new hepatitis C (HCV) cases in the state. Drug use by people who inject drugs (PWID), self-medication through drug use, and a mental health are risk factors contributing to the increase in HCV cases reported. As public health in the state begins to regain its footing, connecting with essential partners in communities of need across the state, staff is needed to support the work.

The Arkansas Central Cancer Registry (ACCR) at the ADH continues to face the challenge of limited Certified Tumor Registrars (CTR) in the state. The issue was compounded by the pandemic as reporting facilities faced staff shortages/redirections of cancer registry reporting staff, and many staff opted for other work from home jobs when offices opened again. According to the Arkansas CTR Association, there are only 50 CTRs in the state and this may include individuals who have retired or are no longer working in the profession. The addition of staff for the program through this grant will help to create a training program to assist students in the state with their practicum hours for their CTR certification. This position will be responsible for partnering with the University of Arkansas for Medical Sciences (UAMS) and other institutions, hospitals, and facilities to target potential students and to establish internships. The cancer support staff would also be included in the training program. They will work directly with the cancer registry

with the goal of earning a CTR which will ultimately expand the capacity of the ACCR to provide CTR services and ensure compliance with national standards.

Retaining staff and hiring new staff is also needed in Arkansas's evolving Public Health Laboratory (PHL). The PHL has traditionally used paper forms, documents, and reports. ADH is moving away from using and retaining copious amounts of paper documentation towards the implementation of electronic systems. Currently, the laboratory utilizes a contractor for on-going upgrades and support of the Laboratory Information Management System, StarLIMS. Since the use of StarLIMS has grown exponentially in the last several years, the laboratory needs a staff member to manage the on-going upgrades and troubleshooting. Additionally, the laboratory is expanding the use of the online test request and reporting platform – Lab Web Portal – for private submission of specimens to the laboratory. The Lab Web Portal is in the early stages of expanding to all clinical laboratory areas, including Newborn Screening. Lastly, the laboratory must retain documentation for accreditation purposes, some documents up to 25 years. In the past, this documentation was kept in the form of paper files. To better preserve this documentation, and to become more environmentally friendly, the laboratory is in the process of electronically archiving this paper documentation and updating workflows to become paperless. This on-going project is headed by the current Laboratory Logistic Specialist, which the laboratory would like to retain for the period of this grant opportunity. These staff members will be critical to the work of the Laboratory, working to meet the expectations of partners across the state.

Related, there is often the challenge within the public sector to retain and recruit new staff to perform necessary public health job functions, particularly for workforce associated with complex and technical skills, like for the ADH Office of Information Technology Services (ADH IT). Using a consulting firm that specializes in finding talent associated with these skills helps alleviate some of the struggle with recruiting high-performing individuals into these roles. The Office of Information Technology systems has maintained strong working relationships with TEK Systems and Orchestrate, two third party consulting firms that specialize in technology contracts and have ample experience recruiting high quality talent.

After a recent training needs assessment conducted in 2020 by the ADH Human Resources, the following recommendations were made: (1) increase high quality training opportunities for staff on effective communication, community public health, outreach, and/or health improvement, and professional development; (2) support the development of program-specific trainings to enhance the orientation for new employees assigned to specific programs, and (3) establish a protocol that will allow employees to dedicate a certain amount of time per week/month to complete skills-based and/or professional development training. It is vital that the ADH invest in skills for employees that are consistent with public health practice and will ensure that the state is prepared for the next disease outbreak/pandemic. Additionally, the ADH IT conducted an assessment and deemed the following skills as imperative to a well-trained workforce: soft skills like problem-solving, adaptability, critical thinking, teamwork, effective communication of data, dependability, empathy, and patience; and hard skills: SAS, R Studio, Python, Jasper Studio, Rhapsody, SQL, Artificial Intelligence, command line programming, and database management. And further, failing disease surveillance infrastructure and limited applied technical skills to perform complex data management and transformation tasks. CDC ELC funding allowed the ADH to upskill staff, but the relatively young workforce still requires more training to ensure that they are effective at all of their job requirements. Most of the funding for training requested in this application will be aimed at helping Epidemiology staff gain the soft and hard skills listed above, while IT staff will utilize Rhapsody and database training to become more effective at data collection and management.

In addition to flexibilities and incentives, employees want to feel that their wellness is supported, particularly important for public health employees as they have committed to that work for all residents of this state. The ADH previously held a position for an individual who coordinated some wellness activities, but it did not have an associated budget. Continued importance of physical and mental wellness and the ADH is committed to providing spaces and opportunities that support that.

As high blood pressure, both diagnosed and undiagnosed, is a major risk factor for heart attacks and strokes, free-standing Blood Pressure Kiosks will be placed in the waiting rooms of ADH's local health units located throughout the state. These kiosks have digital health trackers and are handicapped accessible allowing ADH staff and ADH clients to check their blood pressure, access their blood pressure histories online, and share this information with their medical providers to improve blood pressure control. This intervention will help reduce inequities with self-measured blood pressure and uncontrolled hypertension and have a significant impact on disparities in deaths and disability due to heart disease, stroke, diabetes, and kidney disease in Arkansas.

To cultivate the future generation of public health workforce, the ADH must be more proactive in working with all colleges and universities in the state to offer such placements to expose more students to public health activities. Experience has shown that students exposed to public health earlier in the studies and careers are more likely to choose careers in public health. There were many students at the Fay W Boozman College of Public Health (COPH) who got involved in the early stages of case investigation and contact tracing, leading to more exposure to this work and ADH activities during the pandemic. Some of these students got involved in analytic projects with COPH faculty. And generally, there is a lot more interest from students wanting to do projects at the ADH, and that has been increasing over time.

In a similarly important partnership, Arkansas has 75 County Health Officers (CHO)—one in each county in the state. The CHOs are medical professionals, almost all in private practice. These CHOs function as volunteers with no compensation from the ADH, and almost none has any public health training. However, they are expected to represent the ADH in several public health functions and emergencies, developing and maintain relationships with all facets of the communities they serve, and have carried out these duties diligently. They are a vital part of the public health infrastructure and should have the opportunity for formal public health training.

Many people learned more about public health than ever before in the last few years, and consequently there is an increased need for continued transparency and commitment to quality improvement. The ADH created the Office of Performance Management and Quality Improvement and Evaluation as the need for an organized approach increased. This office is vital to the development and maintenance of working partnerships on all levels as all Arkansans have shown interest in this work---from individual community members to state legislators to the media. Similarly, as an Academic Health Department, the ADH staff are encouraged to participate in research activities, particularly in collaboration with our academic partners. Over the past few years, ADH staff are producing many more scientific papers, abstracts and poster for publication, and many of these get accepted for presentations at state and national conferences, requiring a specialized printers.

**AMERICAN RESCUE PLAN ACT OF 2021 PROGRAM APPROPRIATION
AND PERSONNEL AUTHORIZATION REQUEST
SECTION 36 OF ACT 796 OF 2024**

C2

Agency: Arkansas Department of Health Business Area Code: 0645
 Program Title: Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases (ELC) SET-NET
 Granting Organization: Centers for Disease Control and Prevention (CDC) CFDA #: 93.323
 Effective Date of Authorization: Beginning: 7/1/2023 Ending: 6/30/2024

Purpose of Grant / Reason for addition or change (include attachments as necessary to provide thorough information):
 The Department of Health is requesting to re-allocate \$18,015 of salaries, fringe, and indirect cost appropriation to operating expenses. The purpose of this request is to realign appropriations where needed and redirect funding for a media campaign for infectious disease.

American Rescue Plan Act Program Funding

Func. Area: HHS Fund Code: FRP645W Direct Funding: X
 Funds Center: BC2 Internal Order/WBS Element: RCAWCA23 State: _____
 Continuation: _____

	Program Funding Amount
Regular Salaries	(11,022)
Extra Help	
Personal Services Matching	(3,833)
Operating Expenses	18,015
Conference & Travel Expenses	
Professional Fees	
Capital Outlay	
Data Processing	
Grants and Aid (CI: 04)	
Other:	
Other: IDC	(3,160)
Total	-

Anticipated Duration of Federal Funds: 07/31/2024

DFA IGS State Technology Planning	Date
Items requested for information technology must be in compliance with Technology Plans as submitted to DFA IGS State Technology Planning.	

Positions to be established: (list each position separately)

* unclassified positions only

Org Unit	Pers Area	Pers SubArea	Cost Center	Position Number	Cmnt Item	Position Title	Class Code	Grade	Line Item Maximum *

State funds will not be used to replace federal funds when such funds expire, unless appropriated by the General Assembly and authorized by the Governor.

Approved by: J.D. Ad 3-15-24 Robert Brech 04/03/24
 Cabinet Secretary/Agency Director Date Office of Budget Date Office of Personnel Mgmt Date
 CRB 3/18/2024

The Department of Health, ADH is requesting to re-allocate \$18,015 of the remaining \$210,775 appropriation from Salaries, Fringe, and Indirect Cost to operating expenses. ADH is also requesting to use the remaining funding and appropriation toward supplementing costs for a media campaign for infectious disease. The original request for appropriation was approved by ALC in October of 2022 to participate in optional surveillance data collection on pregnancy through the Surveillance for Emerging Threats to Mothers and Babies Network (SET-NET). The media campaign will consist of print ads, Social media/apps, and radio streaming.

This re-allocation will supplement existing funding that we are using as well.

**AMERICAN RESCUE PLAN ACT OF 2021 PROGRAM APPROPRIATION
AND PERSONNEL AUTHORIZATION REQUEST
SECTION 36 OF ACT 796 OF 2023**

C3

Agency: Arkansas Department of Health Business Area Code: 0645
 Program Title: Strengthening the Infrastructure, Workforce, & Data Processes for the Public Health System in Arkansas.
 Granting Organization: DHHS: Centers for Disease Control & Prevention CFDA #: 93.967
 Effective Date of Authorization: Beginning: 2/1/2024 Ending: 6/30/2024

Purpose of Grant / Reason for addition or change (include attachments as necessary to provide thorough information):
 Reallocation request of **LDX and Acceleration**. Reallocation from Regular Salaries, Personal Services Matching, Conference & Travel, Professional Fees, Indirect Costs to Extra Help and Operating Expenses.
 This is for part A3 DMI Acceleration & LDX components of the grant. The Arkansas Department of Health (ADH) recognizes the critical importance of maintaining and enhancing its analytics capacity to effectively conduct disease surveillance activities. With a focus on continuous improvement and skill development, the ADH utilizes various resources to train its technical staff and provides them with the necessary tools to conduct complex analytical techniques. To begin its modernization efforts, ADH plans to upgrade its NBS application from version 5.4 to version 6.0.14. This upgrade will incorporate new features, bug fixes, and performance improvements. The upgrade will follow established protocols, including testing, quality assurance, and user training, to minimize disruptions and ensure a successful transition. Furthermore, the ADH is actively exploring the feasibility of migrating the NEDSS Base System (NBS) application to a cloud-hosted environment. This move aims to leverage the advantages of cloud computing, such as scalability, flexibility, accessibility, data security, and operational efficiency. By conducting a thorough assessment, ADH will evaluate the technical and operational aspects of the migration, ensuring compatibility and seamless transition of the NBS application to the cloud.

American Rescue Plan Act Program Funding

Func. Area: HHS Fund Code: FRP6450 Direct Funding: x
 Funds Center: BI1 Internal Order/WBS Element: RIWD0023/RIWD0024 State: _____
 Continuation: _____

	Program Funding Amount
Regular Salaries	(30,852)
Extra Help	4,896
Personal Services Matching	(6,076)
Operating Expenses	3,231,064
Conference & Travel Expenses	(6,192)
Professional Fees	(3,186,370)
Capital Outlay	
Data Processing	-
Grants and Aid (CI: 04)	-
Other: Indirect Costs (CI: 46)	(6,470)
Other:	
Total	\$ -

Anticipated Duration of Federal Funds: 11/30/24

Gary Zhou 3/18/2024

DFA IGS State Technology Planning Date
 Items requested for information technology must be in compliance with Technology Plans as submitted to DFA IGS State Technology Planning.

Positions to be established: (list each position separately)

* unclassified positions only

Org Unit	Pers Area	Pers SubArea	Cost Center	Position Number	Cmnt Item	Position Title	Class Code	Grade	Line Item Maximum *

State funds will not be used to replace federal funds when such funds expire, unless appropriated by the General Assembly and authorized by the Governor.

Approved by:

J.D. Adams 3-8-24
 Cabinet Secretary/Agency Director Date

Robert Brech 04/03/24
 Office of Budget Date
 CRB 3/11/2024

Office of Personnel Mgmt Date

**Project Summary for A3 Data Modernization of the Strengthening U.S. Public Health Infrastructure,
Workforce, and Data Systems Grant**

Arkansas Department of Health NE11OE000049 Arkansas

July 15, 2023

Project Director: Bala Simon, MD, DrPH

Deputy Chief Medical Officer

State Chronic Disease Director

Associate Director for Science, Center for Health Advancement

Medical Director, Chronic Disease Prevention & Control, Center for Health Advancement

Background:

The Arkansas Department of Health (ADH) has developed a comprehensive plan to modernized its public health infrastructure through the Centers for Disease Control and Prevention's (CDC) Public Health Infrastructure Grant (PHIG). Based on the findings from the Data Modernization Assessment, ADH recognizes the significant challenges resulting from its outdated IT infrastructure, which hinders our ability to effectively manage and utilize critical data resources. Furthermore, our reliance on siloed systems for reportable disease data storage restricts seamless information exchange and collaboration among stakeholders

To address these pressing issues and unlock the full potential of our public health initiatives, ADH has proposed a variety of activities with dedicated milestones using funding from the PHIG. This funding will provide the vital financial resources necessary to revitalize our obsolete infrastructure and lay a new foundation for a modern, efficient, and interconnected public health system.

Through the subgrant awards of Core Data Modernization, Data Modernization Acceleration, and Laboratory Data Exchange, we aim to revolutionize our ability to accept and transmit disease data using electronic lab reporting (ELR), electronic case reporting (eCR) and the development of a web application for providers to disease case reports. ADH plans on enhancing its ability to store, process, analyze, disseminate, and transmit data to relevant stakeholders swiftly and seamlessly through the development of a data warehouse and migration of relevant applications to Amazon Web Service's (AWS) cloud computing services. This modernization effort will empower our agency to make data-driven decisions, identify emerging health trends, expand to meet data storage needs, and swiftly respond to public health crises. Furthermore, ADH understands the need to be more transparent in the information collected and stored associated with disease surveillance. To preserve public trust and meet the reporting demands associated with CDC funding, ADH has proposed sizeable investments in the modernization of data transmission routes and data visualization software and personnel.

The investment in data modernization efforts at the Arkansas Department of Health will dramatically improve the State's ability to respond to disease threats, improve the accuracy and validity of data, reduce workforce burned, and engage our communities. In the following paragraphs, we summarize the projects associated with the PHIG funding awards. For more detailed explanation associated with each funding proposal, please refer to the respective workplan or budget workbook. Using the investment provided by the PHIG, we can build a healthier future for the people of Arkansas – one that is driven by innovation, collaboration, and improved health outcomes.

Area A: Core Data Modernization/Data Modernization Acceleration

The Arkansas Department of Health (ADH) is embarking on a comprehensive initiative to advance data modernization activities within the organization. Recognizing the critical role of data in improving public health outcomes, the ADH has appointed a Data Modernization Director who will lead the assessment, planning, and implementation of data modernization activities based on the guidance provided by the PHIG. This director will

be responsible for overseeing a support staff dedicated to data modernization activities and coordinating efforts across various departments within the ADH.

The data modernization activities began with a thorough assessment of the existing data systems and infrastructure within the ADH in 2021. The Data Modernization Assessment evaluated the strengths and weaknesses of current IT infrastructure, identified gaps and areas for improvement, and helped determine the necessary steps for enhancing our foundation capacity. Furthermore, the assessment included an analysis of data quality, workforce skills, resource management, data governance practices, and data transparency protocols.

Based on these findings, the ADH is in the processes of developing a comprehensive data modernization roadmap to document our strategic initiatives associated with the Data Modernization Initiative. This roadmap will outline a clear vision for data modernization, establish strategic goals and objectives, and define specific action steps to be taken to improve our IT infrastructure. The roadmap will prioritize the implementation of modern data management technologies, such as cloud-based platforms and advanced analytics tools, to enable more efficient data collection, processing, and analysis.

To ensure effective integration and coordination of data modernization efforts, the ADH will maintain its existing advisory committees comprised senior officials from governmental and nongovernmental partners. These committees will serve as a platform for collaboration, decision-making, and the integration of various funding streams and budgets (i.e., ELC and PHIG). They will meet regularly to discuss strategies, progress, and challenges, bringing together representatives from different disciplines and organizations to foster a holistic approach to data modernization. The committees will also identify collaboration opportunities, share best practices, and facilitate the alignment of data modernization efforts with statewide public health initiatives.

The ADH recognizes the need for technical assistance in implementing data modernization initiatives. To address this, the department will engage consultants through the Public Health Infrastructure Grant (PHIG) to provide specialized expertise. These consultants will work closely with the ADH's IT and Informatics teams to assess the existing data infrastructure, develop strategic plans for modernization, design workforce training programs to build capacity, and establish monitoring and evaluation mechanisms to track progress. The consultants will bring industry best practices and cutting-edge knowledge to guide the ADH in adopting state-of-the-art data management technologies and practices.

Additionally, the ADH will forge partnerships with local academic institutions to foster collaboration in data modernization. These partnerships will include opportunities for internships and collaborative projects, creating a pipeline of future professionals skilled in data modernization and public health informatics. By engaging with academic institutions, the ADH aims to leverage their expertise, research capabilities, and innovative approaches to drive data modernization efforts.

To ensure ongoing assessment and improvement, the ADH will regularly review and update the Data Modernization Assessment. This process will involve revisiting the initial assessment, incorporating technological advancements and emerging best practices, engaging stakeholders from within and outside the organization, and establishing baselines for measuring progress. This iterative assessment approach will allow the ADH to adapt its strategies and tactics as the data modernization landscape evolves.

Two key plans will be developed to guide data modernization efforts: a Data Modernization Strategic Plan and a Workforce Development Plan. The Data Modernization Strategic Plan will outline clear goals, objectives, and action steps to be undertaken in alignment with agency priorities. It will identify key performance indicators and establish monitoring mechanisms to track progress. The Workforce Development Plan will assess the current skill gaps within the ADH's workforce and develop targeted training programs to enhance data management and analytics capabilities. The plan will also include strategies for recruiting and retaining talent with expertise in data modernization.

By implementing these comprehensive activities, the ADH aims to drive effective and sustainable data modernization within the organization. This will enhance the department's capabilities in data collection, analysis, and utilization for evidence-based decision-making, ultimately leading to improved public health outcomes for the people of Arkansas.

A3 – Laboratory Data Exchange (Area B)

The Arkansas Department of Health (ADH) recognizes the critical importance of maintaining and enhancing its analytics capacity to effectively conduct disease surveillance activities. With a focus on continuous improvement and skill development, the ADH utilizes various resources to train its technical staff and provides them with the necessary tools to conduct complex analytical techniques.

To begin its modernization efforts, ADH plans to upgrade its NBS application from version 5.4 to version 6.0.14. This upgrade will incorporate new features, bug fixes, and performance improvements. The upgrade will follow established protocols, including testing, quality assurance, and user training, to minimize disruptions and ensure a successful transition. Furthermore, the ADH is actively exploring the feasibility of migrating the NEDSS Base System (NBS) application to a cloud-hosted environment. This move aims to leverage the advantages of cloud computing, such as scalability, flexibility, accessibility, data security, and operational efficiency. By conducting a thorough assessment, ADH will evaluate the technical and operational aspects of the migration, ensuring compatibility and seamless transition of the NBS application to the cloud.

The modernization of electronic disease reporting will expand with the development of ADH's Disease Reporting Portal. In April of 2023, ADH executive leadership expanded the project to include all reportable conditions. By leveraging intermediary technology (i.e., between faxing and ELR), the ADH plans on collaborating with external healthcare providers and federal program (i.e., ReportStream) to reduce the burden of analog disease reporting, while improving the timeliness and quality of disease data.

Additionally, ADH recognizes the importance of monitoring the data quality of electronic laboratory reports (ELRs), electronic case reports (eCRs), and other reporting methodologies to ensure accurate disease surveillance and reporting. To facilitate this, ADH will utilize ArcGIS Experience Builder and Insights, powerful data visualization and analytics tools. These tools will enable the creation of internal data quality dashboards for monitoring ELRs, eCRs, and other reporting methods. The dashboards will provide a comprehensive view of key metrics and indicators, allowing real-time visualization and analysis of data quality. By leveraging ArcGIS technology, ADH can quickly identify any data quality issues or anomalies, facilitating timely investigations and corrective actions to maintain data integrity and reliability.

While the Informatics Program recognizes the importance of expeditious disease reporting, the PHL plans on expanding ETOR services to non-public submitters. By maintaining the ADH iConnect system, the ADH ensures the continued availability and functionality of ETOR services to non-public submitters. This not only improves efficiency and reduces administrative burdens but also enhances data quality and integrity by minimizing the potential for errors associated with manual data entry.

To empower its technical staff with up-to-date knowledge and skills, the ADH leverages online learning platforms such as LinkedIn Learning, Coursera, and DataCamp. These platforms offer a wide range of courses and training programs covering various analytical tools, programming languages, and data analysis techniques. For instance, the technical staff at the ADH can take courses on data visualization using Tableau, machine learning algorithms in Python, or epidemiological analysis using R. By utilizing these resources, the ADH ensures that its technical staff can access a broad range of course offerings, learn at their own pace, and benefit from industry-recognized content.

In addition to training opportunities, the ADH has invested in infrastructure to support advanced analytics capabilities. The ADH has developed an SAS Server, which provides SAS programmers with a powerful

platform to conduct complex analytical techniques. SAS is a widely used programming language and statistical software for data analysis, allowing the ADH to perform sophisticated analytics on large datasets, generate meaningful insights, and support evidence-based decision-making. For example, the ADH can utilize SAS to analyze epidemiological data, identify disease outbreaks, and develop targeted intervention strategies. The SAS Server enables the technical staff to leverage the full potential of SAS by providing them with a centralized and efficient environment for their analytical work. Furthermore, the ADH is in the process of building an R server, adding to its analytical toolbox. R is a programming language and environment for statistical computing and graphics, known for its extensive collection of packages and libraries for data analysis and visualization. By incorporating an R server, the ADH aims to enhance its capabilities in conducting advanced analytics and exploring diverse analytical approaches. For instance, with the R server, the ADH can leverage the extensive packages available in R, such as "ggplot2" for creating data visualizations or "dplyr" for data manipulation, to analyze and present public health data in a more customized and interactive manner.

As ADH begins to improve its analytic capacity through training initiatives, the APHL will also expand its ability to sequence biological sample through advancement in the bioinformatics program. Genomic sequencing enables APHL to gain insights into disease transmission patterns and emerging variants, informing targeted public health interventions. To analyze large volumes of complex genetic data, APHL partners with experts in Deep Learning, leveraging advanced machine learning algorithms. Deep Learning methodologies help uncover meaningful patterns within genomic data and improve the identification of genetic variants. Through these collaborations, APHL aims to rapidly and accurately detect and track disease outbreaks, assess intervention impacts, and provide valuable insights for public health decision-making.

Collaboration and Alignment:

The Arkansas Department of Health (ADH) is undertaking a comprehensive data modernization initiative to enhance its analytics capacity and improve public health outcomes. With the appointment of a Data Modernization Director, the ADH is committed to assessing, planning, and implementing modernization activities based on guidance from the PHIG. A thorough assessment of existing data systems and infrastructure has been conducted, identifying areas for improvement and setting the foundation for enhancement. A comprehensive data modernization roadmap is being developed, prioritizing the adoption of advanced data management technologies. To ensure collaboration and alignment, the ADH will leverage existing advisory committees and engage consultants to provide specialized expertise. Partnerships with academic institutions will foster collaboration and develop a skilled workforce. Regular assessments, along with the development of strategic and workforce plans, will drive ongoing improvement. Through these efforts, the ADH aims to enable efficient data collection, processing, and analysis, ultimately leading to improved public health outcomes for the people of Arkansas.

Collaboration Activities:

The Arkansas Department of Health (ADH) has established a collaborative framework to drive the success of its Data Modernization Initiative. An executive advisory committee has been formed, comprising key internal stakeholders who play pivotal roles in shaping the initiative's direction. This committee, which includes the Chief of Staff, Chief Information Officer, Data Modernization Director, DMI Project Manager, Senior DMI Advisor, Deputy Director of Programs, and Deputy Chief Science, meets bi-weekly to provide strategic guidance, foster collaboration, and ensure alignment across departments. By involving leadership from different areas of expertise, the executive advisory committee enables a holistic approach to data modernization and facilitates effective decision-making based on diverse perspectives. Their involvement and buy-in demonstrate the importance of leadership support for agency-wide initiatives, ensuring the necessary resources, and promoting a culture of data-driven decision-making.

In addition to the executive advisory committee, the ADH has formed a second advisory committee known as the DMI Workgroup. This workgroup collaborates with ADH program partners and data stewards on a monthly basis to provide updates, share progress, and address challenges related to the Data Modernization Initiative. This collaborative effort ensures that stakeholders from various programs and departments are actively engaged in the modernization process and have a platform to contribute their expertise and insights. By fostering collaboration among internal stakeholders, the ADH can leverage the collective knowledge and experience of its staff, promoting a sense of ownership and driving the success of data modernization efforts.

The ADH recognizes the value of external partnerships and collaborations in advancing its data modernization goals. The department has established an education program in collaboration with the University of Arkansas for Medical Sciences (UAMS), offering applied internships to students. This partnership not only provides valuable experiential learning opportunities for students but also allows the ADH to tap into the fresh perspectives and innovative ideas of future professionals skilled in data modernization and public health informatics. Furthermore, the ADH has engaged external partners such as the Arkansas Hospital Association to assist with the onboarding process for electronic laboratory reports (ELRs) and electronic case reports (eCRs). These collaborations facilitate the seamless integration of data sources and ensure accurate and timely reporting, enhancing the overall data quality and integrity of the ADH's surveillance systems. By leveraging the expertise and resources of external partners, the ADH strengthens its capacity for data modernization and expands its reach within the public health ecosystem.

Through these collaborative efforts among internal stakeholders, advisory committees, and external partners, the ADH is creating a robust network of support for its Data Modernization Initiative. This multi-faceted approach ensures that the initiative benefits from diverse perspectives, expertise, and resources. By actively engaging stakeholders and fostering collaboration, the ADH is establishing a foundation for sustainable and effective data modernization, ultimately leading to improved public health outcomes for the people of Arkansas.

Alignment of Activities:

The Data Modernization Initiative at the ADH ensures alignment and coordination of data systems and projects funded by the initiative, leveraging resources from the Public Health Infrastructure Grant (PHIG) and the ELC supplemental grants. By aligning these funding resources, the ADH maximizes its capacity to implement comprehensive data modernization activities. The coordination between PHIG and ELC grants allows for strategic allocation of resources, ensuring that projects funded by both sources work synergistically towards the common goal of data modernization. This alignment enables efficient utilization of resources and promotes consistency in workplans, budgets, and deliverables.

To ensure coherence and a unified approach to data modernization projects, the ADH has appointed a Senior DMI Advisor. This advisor plays a crucial role in overseeing all DMI-related workplans, ensuring consistency and alignment across projects in terms of goals, timelines, budgets, and deliverables. By having a centralized authority responsible for coordinating these aspects, the ADH ensures that all projects funded by the Data Modernization Initiative work in harmony and collectively contribute to the overall objectives of enhancing data systems and capabilities.

One of the key areas of focus in aligning data systems is the development of a data warehouse. The data warehouse aims to consolidate and integrate various data sources within the ADH, providing users with a centralized platform for accessing clean and timely data. This initiative enhances data accessibility and facilitates efficient analysis and reporting, supporting evidence-based decision-making across the organization. By aligning data sources within the data warehouse, the ADH ensures data consistency, accuracy, and reliability, enabling stakeholders to derive valuable insights and make informed decisions.

In addition to the data warehouse, the ADH is working on upgrades and enhancements to its NBS (NEDSS Base System) application. The modernization of the NBS system is essential for aligning disease surveillance practices with current standards and compliance requirements. Through these upgrades, the ADH ensures that its disease surveillance capabilities remain effective and up-to-date, incorporating advancements in technology and best practices. By aligning the NBS system with current application settings, the ADH can enhance data collection, analysis, and reporting, enabling more efficient and accurate disease surveillance.

Through the alignment of funding resources, the appointment of a Senior DMI Advisor, and the focus on data warehouse development and NBS system upgrades, the ADH demonstrates its commitment to aligning data systems and projects within the Data Modernization Initiative. These efforts aim to streamline data management, improve data quality and accessibility, and support evidence-based decision-making for better public health outcomes in Arkansas.

In conclusion, the Arkansas Department of Health (ADH) is fully committed to driving effective and sustainable data modernization and enhancing its analytics capacity. With a dedicated Data Modernization Director and a team of experts, ADH is poised to transform its data systems and infrastructure. The ADH will use data collected from their Data Modernization Assessment to develop a roadmap and prioritize the implementation of modern data management technologies. Collaborative partnerships with advisory committees and academic institutions will ensure a holistic approach and leverage cutting-edge knowledge. By engaging specialized consultants and utilizing online learning platforms, ADH will build workforce capacity and stay at the forefront of analytics. Investments in infrastructure, including the SAS Server and the upcoming R server, will support complex analytical techniques and evidence-based decision-making. ADH's commitment to continuous learning and advanced analytics will drive improved public health outcomes and protect the well-being of the people of Arkansas.