Department of Health

2021-23 Regular Budget Session

Policy Level - P4 - Maintain Core Public Health Data

Agency Recommendation Summary

The Department of Health (DOH) requests funding to support the development, maintenance, and operations of core public health information systems upon the expiration of federal funding from the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009. These five systems have proven to be critically important during the current COVID-19 pandemic.

Fiscal Summary

Fiscal Summary *Dollars in Thousands*	Fiscal Years		Biennial	Fiscal Years		Biennial
	2022	**2023**	**2021-23**	**2024**	**2025**	**2023-25**
Staffing						
FTEs	72.7	77.2	**74.95**	77.2	77.2	**77.2**
Operating Expenditures						
Fund 001 - 1	$9,043	$9,344	**$18,387**	$9,345	$9,345	**$18,690**
Fund 001 - 2	$1,954	$2,020	**$3,974**	$2,020	$2,020	**$4,040**
Total Expenditures	**$10,997**	**$11,364**	**$22,361**	**$11,365**	**$11,365**	**$22,730**
Revenue						
001 - 0393	$1,954	$2,020	**$3,974**	$2,020	$2,020	**$4,040**
Total Revenue	**$1,954**	**$2,020**	**$3,974**	**$2,020**	**$2,020**	**$4,040**

Decision Package Description

Problem

DOH is currently developing five critical public health information systems which have already proven their worth during this current COVID-19 pandemic. These systems are currently supported by federal funding provided through the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009. Access to HITECH funding is scheduled to end after September 2021. Additional funding is needed to support the eventual maintenance and operation (M&O) activities to sustain these systems.

Background

What is HITECH?

The HITECH Act is one of the last remaining components of the economic stimulus bill called the American Recovery and Reinvestment Act (ARRA) of 2009. The five goals of HITECH were to:

- Improve quality, safety and efficiency of the U.S. healthcare system;
- Allow healthcare providers to better engage patients in their care;
- Increase coordination of care for patients requiring treatment from various providers;
- Improve the entire health status of the U.S. population; and
- Ensure the privacy and security of patient clinical and payment information.

One of the main strategies to achieve these goals was to transition healthcare providers away from paper-based health records to electronic health records (EHR). Thus, earlier stages of HITECH implementation involved distributing incentive payments to healthcare providers to adopt and maintain new EHR systems. This funding was distributed through the federal Medicare and state Medicaid programs.

However, adding EHRs in provider offices and hospitals are not good enough to achieve HITECH aspirations. It was also critical to improve the overall data infrastructure supporting U.S. healthcare and public health systems so as to ensure the accuracy of health-related data collection and the security of such data as it is shared across systems to inform patient treatment and public health activities. Therefore, the HITECH Act provided significant funding for states to improve data infrastructure.

How does HITECH Support Public Health?

During this currently COVID-19 pandemic, five core public health systems – funded through the HITECH Act – have demonstrated their

importance to the state's ability to respond to communicable disease outbreaks:

RAINIER Suite

The RAINIER (Reporting Array for Incident, Non-Infectious and Infectious Event Response) Suite includes five interconnected applications which centralize the collection and processing of statewide mandatory reporting of disease and environmental public health conditions. The cornerstone application of the RAINIER Suite is the Washington Disease Reporting System or WDRS which is the main surveillance tool used by DOH and the local health jurisdictions (LHJ) for case management and outbreak response. This suite also includes the Sexually Transmitted Disease (STD) Hub for Electronic Laboratory Data Input (or SHELDIn) system which focuses primarily on the delivery of laboratory reports related to STDs. The other three suite applications collect laboratory reports from commercial, public health and hospital sources, verify their accuracy, and standardize the information so it can be stored in the WDRS and SHELDIn systems. This allows case managers around the state to access and use the data to inform public health activities.

The Role of the RAINIER Suite in the COVID-19 Response

The RAINIER suite has proven to be a critical tool in DOH's COVID-19 response as it is the source of data for conducting contact tracing – cases from WDRS are retrieved and imported into the Contact Risk Exposure Surveillance Tool (CREST) for case and contact investigation. COVID-19 cases are created through either an electronic laboratory report (ELR) processing into WDRS, or LHJ entry into WDRS, these cases are then investigated and the required data is submitted to the federal Centers for Disease Control and Prevention (CDC) on a weekly basis.

RHINO Program

The Rapid Health Information Network (RHINO) program collects, analyzes, and distributes syndromic surveillance data at DOH. These data are collected in near real-time from hospitals and clinics from across the state and include key data elements such as patient demographic information, chief complaint, coded diagnoses, and other data associated with inpatient hospitalizations and outpatient clinical encounters at primary care, specialty care, and urgent care clinics. This system is the only source of Emergency Department (ED) data for Washington State.

Syndromic surveillance is a real-time, population-based monitoring system, used to identify, investigate, and design data-driven, rapid responses to emerging public health threats. These data can provide insights into chronic disease burden, environmental threats, and injury trends. Since syndromic data are so versatile, it is rapidly growing into a basic tool for public health practitioners and their partners.

The Role of the RHINO Program in the COVID-19 Response

RHINO was the first data source used for evaluation of visit trends in Washington following the identification of the first COVID-19 in the nation. At that time, there was no specific surveillance system or specific data being collected for COVID-19 as it was an emerging threat. RHINO was – within days of the first case – able to tailor a data query to provide insight into whether emergency department and clinic visits, and inpatient hospitalizations in Washington were demonstrating changes in trends not explained by influenza and other respiratory viruses. This analysis indicated the presence of COVID-19 in larger numbers. Furthermore, when community spread of COVID-19 was first identified in Washington in February 2020, the detail available in the RHINO data allowed public health practitioners to identify emergency department visits potentially associated with residents or employees of long term care facilities for early identification of facilities that may have had undiagnosed COVID-19 cases.

Washington Immunization Information System (WAIIS)

WAIIS is a secure, web-based application available to authorized, licensed healthcare providers all day, every day. The tool is designed to store patient immunization information, help forecast needed immunizations, and assist with ordering vaccines. WAIIS receives 97 percent of its data through electronic data exchange through provider EHRs. Used by more than 2,100 organizations, such as medical offices, pharmacies, and hospitals, the system contains over 80 million vaccination records for over eight million unique individuals. Epidemiology staff and LHJs rely on

WAIIS for data when responding to an outbreak event or conducting necessary surveillance. Schools use the system to ensure students have the required vaccinations for school entry. DOH uses the system to produce the required reporting for the CDC, the federal Centers for Medicare and Medicaid Services (CMS), and HCA, along with other needed reporting.

The Role of WAIIS in the COVID-19 Response

Currently, WAIIS awaits its turn to play a core role in the COVID-19 response, however, once a vaccine is available to the public, this system will be in the front and center of the state's COVID-19 vaccine distribution and administration tracking.

Prescription Monitoring Program

PMP captures all controlled substance prescriptions dispensed by pharmacists in Washington and makes this information available to healthcare providers who write controlled substance prescriptions. State law requires health care providers to check the PMP before writing prescriptions for opioids to prevent over-prescribing and reduce the risk of opioid overdose. Washington's PMP is connected to two national data sharing hubs that allow (1) Washington prescribers to check patient prescriptions histories in other jurisdictions and (2) prescribers in other states to check patient prescriptions issued here. The PMP is a crucial clinical decision-making tool and the largest health information technology system operated by DOH, with over 38,000 user accounts and handling a volume of over 50 million queries in 2019 alone.

The Role of PMP in Recent Public Health Events

While PMP does not have a direct role in the management of the state's COVID-19 response, it continues to have an indispensable role in addressing Washington's ongoing opioid crisis. According to a recently published article in the American Journal of Managed Care (Am J Manag Care. 2020;26(7):e202-e204. https://doi.org/10.37765/ajmc.2020.43386), the opioid crisis is worsening under the economic hardships and social isolation brought on by COVID-19. The availability of PMP data is now more important the ever since this data are accessible across state lines as part of an integrated, nationwide effort to control the opioid epidemic. This system provides insight into prescription trends and is the most effective information tool in combating the opioid epidemic.

Data Exchange Services

Data Exchange Services consolidate the means through which DOH submits and receives healthcare data. It promotes efficiency, reduces provider burden related to data exchange with public health, and improves interoperability with DOH's clinical partners. This critical system supports clinical partners in exchanging data with: electronic laboratory reporting, immunizations, syndromic surveillance (RHINO), electronic case reporting (eCR), cancer registry, prescription monitoring (PMP), newborn screening, child developmental health (birth defects registry, etc.) and emergency medical services. It is scalable system, thus allowing future programs to leverage the benefits of this system. Its use has already resulted in cost efficiencies by reducing the initial costs to establish new data feeds from clinical partners and avoiding overhead costs of maintaining multiple connections. Providers use this system to send legally-mandated data to DOH for public health purposes (such as COVID laboratory and case reports) and are able to receive data to make informed patient care decisions.

The Role of Data Exchange in the COVID-19 Response

Data critical to the COVID-19 response comes through these data exchange services including laboratory results and emergency department visits. By using automated connections to provider laboratory and medical record systems DOH can receive these important data in near-real time to more quickly investigate new cases and prevent the spread of the disease. These services ensure public health and clinical partners are able to efficiently transport data in a secure and automated fashion for better public health surveillance and case investigation and for better clinical care.

HITECH federal funding to support these systems is distributed through the Medicaid program, therefore DOH works closely and continuously

with the Washington State Health Care Authority (HCA) to access the necessary HITECH authorizations from CMS. Through HITECH, 90 percent of the system development costs are covered through federal funds; the state covers the remaining 10 percent of the costs.

However, when HITECH ends and activities shift to the M&O phase, the amount of federal funding available decreases significantly. M&O activities to sustain these systems must be covered by regular Medicaid information system funding sources (also called Medicaid Management Information System or MMIS funding). DOH will continue to work with HCA and attain CMS approval to receive the maximum amount of Medicaid funding possible to support M&O activities.

If this request is not properly funded, a variety of adverse impacts will result.

- Critical data collection needed for all diseases, including COVID-19, cannot be sustained and data will not be extracted and submitted to CDC;
- Changes and creative solutions to capture relevant data for all diseases will not maintained and local partners will need to use their own resources to implement less effective, work-around processes to capture this data;
- State level visibility to disease prevalence across LHJs will be hindered and communications with the state will suffer;
- Any data needed to inform decisions about mitigation and prevention measures will not be available and/or need to be clumsily pulled together from disparate, incomplete data sources;
- Data quality will degrade over time and become progressively less reliable for surveillance and decision making. This will render DOH and the other governmental public health system partners less able to detect and understand emerging public health threats;
- Less capability to support data users in LHJs which will limit their ability to investigate health concerns and perform timely response in their jurisdictions;
- Providers will not be able to electronically update their EHR systems with the immunization history needed to inform the best clinical care decisions. Providers would have to use inefficient and time consuming manual login processes to retrieve current information needed to make important healthcare decisions and report updated immunization information;
- Schools would not have access to the information needed to verify compliance with state school entry requirements. DOH's ability to properly respond to an outbreak event like COVID-19, evaluate coverage rates, and identify communities with pockets of need would be severely hampered as the data would not be current or complete;
- The ability of PMP to provide near real-time prescription data to prescribers will be severely compromised;
- PMP will not be able to support staff, leading to an inability to support system users;
- PMP users will not be able to adhere to the legislative requirements for checking the PMP before prescribing opioids and other controlled substances;
- Critical information needed for COVID-19 response and other critical DOH work like immunizations, prescription drug monitoring and cancer surveillance will no longer be automated or efficient to receive. DOH's public health surveillance systems will need to consider reverting to manual methods of data collection and sharing (i.e paper, fax and manual data entry);
- DOH's ability to properly conduct case investigation, contract tracing and surveillance will be critically hampered;
- Providers will not receive immunization or prescription history to ensure better clinical care decisions are made. Providers will need to log into portals or fax requests, which aren't always timely enough to make important healthcare decisions;
- PMP will not be able to support staff, leading to an inability to support system users;
- PMP users will not be able to adhere to the legislative requirements for checking the PMP before prescribing;
- Critical information needed for COVID-19 response and other critical DOH work like immunizations, prescription drug monitoring and cancer surveillance will no longer be automated or efficient to receive. DOH's public health surveillance systems will need to consider reverting to manual methods of data collection and sharing (i.e paper, fax and manual data entry);
- DOH's ability to properly conduct case investigation, contract tracing and surveillance will be critically hampered;
- Providers will not receive immunization or prescription history to ensure better clinical care decisions are made. Providers will need to log into portals or fax requests, which aren't always timely enough to make important healthcare decisions;
- The ability to meet CMS standards and conditions for continued funding would be compromised as CMS expects states to reuse technology they have invested in like the Health Information Exchange; and
- The department's ability to comply with new federal laws surrounding information blocking will be hampered (https://www.healthit.gov/curesrule/). These laws require data to be transmitted using national standards in an interoperable fashion. The current data exchange services provides the infrastructure for these requirements to be met.

Assumptions and Calculations

Expansion, Reduction, Elimination or Alteration of a current program or service:

This proposal does not request an expansion of systems already being developed. Rather it requests the needed funding to maintain and operate core public health information systems currently under development.

Detailed Assumptions and Calculations:

The supporting backup documentation provided with this request details the maintenance and operations cost assumptions for each of these systems.

The breakdown of state and federal funding are based on assumptions regarding general MMIS funding rules for M&O expenditures. Unlike HITECH funding, which covers 90 percent of all design, development and implementation costs to build the system, MMIS federal dollars will only cover 75 percent of "eligible" M&O costs. Since public health systems generally benefit a broad spectrum of the state's entire population, only the costs that are associated with the state's Medicaid population are considered "eligible". Based on July 2020 data, HCA reports a total about 1.8 million Washington residents are enrolled in Medicaid. The U.S Census estimates Washington State population at 7.6 million individuals. This means only about 23.7 percent of any broad public health system can be argued to support Medicaid clients. For the purposes of this funding request, it is assumed MMIS federal funding will only effectively cover 18 percent (75 percent of 23.7 percent, rounded up) of M&O system costs; the state will need to cover the remaining 82 percent. DOH shall continue to work with HCA and CMS to determine if it can receive a higher effective federal matching percentage.

Workforce Assumptions:

RAINIER Suite

Key staff in DOH's Informatics and Epidemiology program areas maintain and enhance the RAINIER Suite enterprise application. This request asks for staff to configure, test, and communicate system changes; troubleshoot issues; create relevant reports; work with surveillance staff and investigation staff to utilize data correctly and consistently; work with information technology (IT) staff to outline, implement, and test changes and enhancements; and work with external partners (i.e. LHJs, Tribes, CDC) to report and/or enable the reporting of required information (in some cases, this reporting is a requirement to maintain receipt of federal funding).

RHINO

This request for funding includes 2.0 FTE Epidemiologist 1 positions to support the maintenance of the RHINO/syndromic surveillance data and program. This funding will be used to support two key domains of activity: 1) ongoing data quality monitoring and improvement and 2) user support including user account administration, user helpdesk support for, and data sharing agreement management.

DOH currently has 1.0 FTE Data Quality Epidemiologist 1 position which it intends to sustain under this funding. Between August 1, 2019 and August 1, 2020, RHINO received approximately 15.9 million visit records reported by 90 hospitals and approximately 900 clinics in Washington. This position daily monitors all inbound data feeds, manages the processing of these data, and assures a clean transfer of these data to the end-user application known as the Enhanced Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE). This position also evaluates the timeliness of receipt and completeness of key data elements, assures adherence to required value sets, and works with data submitters and other key stakeholders to remedy errors or discrepancies when identified.

WAIIS

Key staff in the Office of Immunization and Child Profile and Health Technology Services help to implement, monitor, and troubleshoot interface connections and data quality issues so that system users have access to the most timely, accurate, and complete information possible. IT staff ensure that the infrastructure runs smoothly 24 hours a day so that messages can be received and responded to in real-time. Reporting back to the CDC is a requirement for all the federal funding we receive, including supplemental funding received for the enhanced influenza and COVID-19 response. These staff have been partially funded using HITECH implementation dollars which expire September 30, 2021.

PMP

The funding in this request will be used to support program staff and monthly PMP M&O. Customer service and program associate staff help guide users with registration and training for the system, handle any issues that users have, and answer day-to-day questions around use of the system. With over 38,000 users in Washington State alone, this customer service support is essential for daily operations. Similarly, the technical associate and IT business analyst manage technical issues that cannot be resolved by the customer service and program associate staff because they need to be investigated more fully. The technical associate and IT business analyst liaise more with the vendor team to resolve second tier issues raised by either users or program staff. Data is added to the system daily, and with almost 100 million records, the epidemiologists are key to cleaning and managing the data, analyzing the information, and working to fulfil the multitude of data requests that come to the program weekly. The program manager and director are instrumental in managing the overall program, staff, and funding, maintaining relationships with stakeholders and the vendor, and setting the future direction of the PMP.

Data Exchange Services

Key staff in informatics help ensure that DOH's laboratory and clinical partners are able to have their data feeds validated against national standards. This ensures the data can be ingested into DOH systems and used. IT staff ensure that the infrastructure runs smoothly each day to send and receive these messages. They also build out new routes when required to bring in new data streams or to report data to federal partners like the CDC. Reporting the data to the CDC is often a requirement for the federal funding we receive for COVID-19 and other public health surveillance. These staff to date have been funded using CMS HITECH implementation dollars which expire September 30, 2021.

How is your proposal impacting equity in the state?

It is already well publicized in the media that aged individuals and those with living with existing health complications are more vulnerable to the negative effects of COVID-19. However, DOH data show the suffering was also disproportionate among racial lines:

- Hispanic, Native Hawaiian, or Other Pacific Islander residents are nine times more likely to contact COVID-19 than those of Whites;
- Hospitalization rates are seven times higher for Hispanics and 10 times higher for Native Hawaiians or Other Pacific Islanders than those of Whites;
- Case and hospitalization rates for Blacks and American Indians or Alaska Natives are three times higher than those of Whites; and
- Death rates are over three times higher among Hispanics and Native Hawaiians or Other Pacific Islanders, twice as high among American Indians or Alaska Natives, and over 50 percent higher among Blacks and Asians compared to Whites.

While this proposal will benefit all Washington residents, detecting and preventing the spread of COVID-19 will most benefit those individuals and communities who were disproportionately harmed by this pandemic.

Strategic and Performance Outcomes

Strategic Framework:

This request supports the Governor's Results Washington Goal 4: Healthy and Safe Communities. In particular, it links to the following outcomes:

- Preventing Substance Abuse and Improving Recovery;
- Ensuring Access to Quality Healthcare;
- Taking Action to End the Opioid Crisis; and
- Improving Behavioral Health.

Performance Outcomes:

The five systems contained within this request have demonstrated their importance to the state's ability to respond to the COVID-19 pandemic and the opioid crisis. Some of the performance outcomes that will be achieved through this request are:

- Critical data collection needed for all diseases, including COVID-19, will be sustained and data would be able to be extracted and submitted to CDC;
- Changes and creative solutions to capture relevant data for all diseases will be maintained and local partners will not need to use their own resources to implement less effective, work-around processes to capture this data;
- State level visibility to disease prevalence across LHJs and their communications with the state will be supported;
- Data inform decisions about mitigation and prevention measures will be available and will not need to be pulled together from disparate, incomplete data sources;
- Data quality will be sustained and will remain reliable for surveillance and decision making. This will allow DOH and the other governmental public health system partners to detect and understand emerging public health threats;
- Sustained capability to support data users in LHJs and their ability to investigate health concerns and perform timely response in their jurisdictions;
- Providers will be able to electronically update their EHR systems with the immunization history needed to inform the best clinical care decisions;
- Schools will have access to the information needed to verify compliance with state school entry requirements;
- The ability of PMP to provide near real-time prescription data to prescribers will continue;
- PMP will be able to support staff and system users;
- PMP users will be able to adhere to legislative requirements to check the PMP before prescribing opioids and other controlled substances;
- Critical information needed for COVID-19 response and other critical DOH work like immunizations, prescription drug monitoring and cancer surveillance will be automated or efficient to receive;
- DOH will be able to properly conduct case investigation, contract tracing and surveillance; and
- Providers will receive immunization or prescription history to ensure better clinical care decisions are made.

Other Collateral Connections

State Workforce Impacts:

Not applicable

Intergovernmental:

The systems supported by this request are sourced by and are accessed by various entities, including other governments. Laboratory data provided through the RAINIER Suite and surveillance data provided through RHINO informs public health activities in the LHJs. The Attorney General's Office's Medicaid Fraud Control Unit uses data from the PMP to inform their actions on potential Medicaid fraud cases. DOH uses the PMP to produce reporting for the CDC, CMS, and HCA. DOH expects neutrality or support from these entities.

State Facilities Impacts:

Not applicable

Changes from Current Law:

Not applicable

Puget Sound Recovery:

Not applicable

Legal or Administrative Mandates:

Not applicable

Stakeholder Response:

While most stakeholders of this proposal are governmental entities, the information provided by PMP and WAIIS help healthcare providers to provide better clinical care to their patients. DOH expects neutrality or support of this request.

Reference Documents

2021-23 PL-P4 Maintain Core Public Hlth Sys IT Adden RAINIER.docx

IT Addendum

Does this Decision Package include funding for any IT-related costs, including hardware, software, (including cloud-based services), contracts or IT staff?

Yes

Objects of Expenditure

Objects of Expenditure	Fiscal Years		Biennial	Fiscal Years		Biennial
Dollars in Thousands	**2022**	**2023**	**2021-23**	**2024**	**2025**	**2023-25**
Obj. A	$5,989	$6,341	**$12,330**	$6,341	$6,341	**$12,682**
Obj. B	$2,106	$2,234	**$4,340**	$2,234	$2,234	**$4,468**
Obj. C	$450	$450	**$900**	$450	$450	**$900**
Obj. E	$389	$407	**$796**	$408	$408	**$816**
Obj. G	$116	$116	**$232**	$116	$116	**$232**
Obj. J	$1,412	$1,246	**$2,658**	$1,246	$1,246	**$2,492**
Obj. T	$535	$570	**$1,105**	$570	$570	**$1,140**

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