Per California Code of Regulations, title 2, section 548.5, the following information will be posted to CalHR's Career Executive Assignment Action Proposals website for 30 calendar days when departments propose new CEA concepts or major revisions to existing CEA concepts. Presence of the department-submitted CEA Action Proposal information on CalHR's website does not indicate CalHR support for the proposal.

A. GENERAL INFORMATION

1. Date	2. Department
5/24/2022	California Department of Public Health

3. Organizational Placement (Division/Branch/Office Name)

Center for Health Statistics and Informatics

4. CEA Position Title

Chief Data Officer

5. Summary of proposed position description and how it relates to the program's mission or purpose. (*2-3 sentences*)

This position supports the California Department of Public Health's (CDPH) mission and strategic plan by leading and delivering the CDPH and statewide public health data strategy. The Chief Data Officer (CDO) will shepherd statewide public health efforts to accelerate and streamline data access, modernize data management and services, and accelerate excellent use of data in decision making. The CDO will be responsible for the development and implementation of all modeling, analysis, inference, exploration, and outcomes-based utilization of the department's data assets. The position will ensure that these activities and efforts align with Department's programmatic goals and strategies. The CDO will lead the development and implementation of enterprise-wide data management policies, practices, and standards for the department.

6. Reports to: (*Class Title/Level*)

Deputy Director, Center for Health Statistics and Informatics/Exempt

7. Relationship with Department Director (*Select one*)

☑ Member of department's Executive Management Team, and has frequent contact with director on a wide range of department-wide issues.

☐ Not a member of department's Executive Management Team but has frequent contact with the Executive Management Team on policy issues.

(*Explain*):

8. Organizational Level (*Select one*)

☐ 1st ☐ 2nd ☑ 3rd ☐ 4th ☐ 5th (mega departments only - 17,001+ allocated positions)

B. SUMMARY OF REQUEST

9. What are the duties and responsibilities of the CEA position? Be specific and provide examples.

Under general direction of the Center for Health Statistics and Informatics (CHSI) Deputy Director (DD), the Chief Data Officer (CDO) is responsible for establishing a data governance structure; fostering and promoting a culture of data use by enabling and encouraging programs to share data to collaborate on common issues and related programs; and employing and analyzing operational data to improve program performance. The CDO ensures that automation and innovation projects, and stakeholder engagement and development and automation of enterprise systems align with Departmental goals. Serves as liaison to the Center for Data Insight and Innovation (CDII) and collaborates with CDOs of other state and federal agencies.
Direct and oversee the development of short and long-term enterprise data management projects involving a wide range of automation and innovation issues, such as data architecture, storage, inventory, access, transfer and sharing, and internal and external publication. Responsible for envisioning data-enabled strategies and enabling all forms of business outcomes through analytics; data and analytics governance and enterprise information policy; accountability for analytics governance and business outcome enablement; and oversight and implementation of key data and analytic initiatives based on enterprise-wide data collected in the normal course of State business to improve transparency, efficiency, and accountability of CDPH operations. Institute a programmatic approach to enterprise data management to identify, prioritize and execute data and analytic initiatives with clear line of sight to enterprise strategies and outcomes. Including: establishing and maintaining a data governance program; shepherding the data and analytics strategy; defining the data and analytics operating model; fostering and promoting a culture of data use by enabling and encouraging programs and government agencies to share data to collaborate on common issues and related programs, such as the Congregate Care Dashboard that integrates COVID case and death data on congregate care facilities from five departments; employing and analyzing data to improve program performance; creating and expanding open data offerings to empower citizens and to enable better public health services. Develop, establish, and maintain a data governance program, including development of policies and procedures and plans to execute the procedures. Manage data science and data analytics efforts. Establish a data analytics culture to ensure sound analytical data is available to support enterprise-wide decision making. Define and develop data strategy practices and assure the ongoing relevance of CDPH data strategy in association with Local Health Departments and stakeholders.

Determine CDPH use of new, existing, and legacy information assets and when/how to retire such assets by creating policies and controls for the appropriate protection of enterprise data assets through a defined life cycle, from acquisition or creation to end of life destruction and disposal procedures through the governance program and its stakeholders. Develop and implement master data management (MDM) policies to effectively control CDPH master data. Identify CDPH master data and establish a standard definition for business-critical data that is shared across the enterprise and collectively represents an authoritative source of master data; for example, standardize Sexual Orientation and Gender Identity (SOGI) data categories, define the categories, and recommend best practices for data collection. Implement tools that support MDM to remove duplicates, standardize data, and incorporate rules to eliminate incorrect data from entering the system. Direct and oversee the development of short and long-term analytical and interpretive projects involving a wide range of program policy and oversight issues. Direct and oversee the development of short and long-term strategic plans for data modernization projects involving a wide range of technology and innovation issues, including data cloud architecture, structured and unstructured data asset linkage keys, data file storage and manipulation, inventory, role-based access, data transfer and sharing, and internal and external publication. Pursue the implementation of these plans in partnership with the Information Technology Services Division and Centers and Offices. Establish metrics in partnership with the Department's Centers and Offices, and measure improvements and performance on those metrics through improved research, modeling, survey design, machine learning, and case- and population-modeling techniques. Lead the development of methodologies and standards for technology advancement and objectives through rigorous research, such as data intake and automation, data architecture, data cleaning methodologies, surveys (internal and external), disaster tracking and response, quasi-experiments, machine learning, geographic information system (GIS) and other modeling, and dashboard production. Lead the development, implementation, and alignment of data standards, policies, and procedures. Formulate policies as they relate to Enterprise Data Management. Inform reports and legislative analysis using data and outcome-focused metrics for the department's programs. Define and create continuous improvement protocols for programmatic data analysis and inferential analysis in support of that reporting and policy deliberation. Advise and provide guidance to CDPH senior leadership and CHSI DD regarding enterprise-wide data governance and strategy. Develop policies and practices on complex and politically sensitive data curation issues through external & internal program evaluations; work with interdisciplinary stakeholders including internal department customers, contractors, and other state entities; develop legislative language and coordinate bill analysis on proposals affecting CDPH program data.

B. SUMMARY OF REQUEST (continued)

10. How critical is the program's mission or purpose to the department's mission as a whole? Include a description of the degree to which the program is critical to the department's mission.

☑ Program is directly related to department's primary mission and is critical to achieving the department's goals.

☐ Program is indirectly related to department's primary mission.

☐ Program plays a supporting role in achieving department's mission (i.e., budget, personnel, other admin functions).

Description: The Center for Health Statistics and Informatics (CHSI) three main functions are:
1. Register vital events and issue vital records.
2. Produce and disseminate vital statistics based on vital records.
3. Utilize population health science to inform decisions and interventions regarding public health.

CHSI provides the public with birth, death, and marriage certificates that enable access to vital benefits such as healthcare, insurances, and other public and private services. This vital records information is translated into vital statistics and data that is used by public health programs at CDPH, local public health departments, and researchers nationwide. This data can also generate informed predictions about behaviors that are used by multiple entities to guide policy and service decisions that improve the health of Californians.

B. SUMMARY OF REQUEST (continued)

11. Describe what has changed that makes this request necessary. Explain how the change justifies the current request. Be specific and provide examples.

At present time the Deputy Director of the Center for Health Statistics and Informatics (CHSI) is also the Chief Data Officer (CDO) for CDPH. The responsibilities of the CDO (leading data governance, digital transformation, creating a data-driven culture, maintaining master data management, developing and maintaining data strategies, and developing policies on data governance, access, sharing, management, and analytics) should be established as a separate function within the Department. The following other departments have also deemed this function as a separate and distinct role as they have established positions to cover the workload and responsibilities of a CDO: The Center for Data Innovation and Insights (part of the California Health and Human Services Agency (CHHSA)), the Department of Social Services, the Department of Health Care Access and Information (formerly the Office of Statewide Healthcare Planning and Development), the Department of Motor Vehicles, and the Department of Health Care Services.

Over the past six years, CHSI has moved away from only providing vital records and vital statistics to taking on the role of providing Data as a Service with the development and implementation of the Ecosystem of Data Sharing (EODS). This includes taking on the workload and responsibilities of a CDO mentioned above. Additionally, the evolution of cloud environment and data matching have the potential to provide greater assistance to Local Health Departments.

CHSI is leading the efforts for the Department, creating the capacity and knowledge to create real-time and repeatable linkage and curation of data sets, coupled with GIS and new visualization tool capabilities. This will enable automated ongoing views and insights into program evolutions, highlight disparities, and examine the impact of changes on the public's health across the Department's programs.
Examples of these new activities in 2020, which could not have previously been done, include daily dash-boarding of COVID-19 and identifying vaccinated individuals in congregate care facilities.

Additionally, the CHHSA is focused on data driven decision-making at CDPH.
CHHSA Guiding Principles: Use Data to Drive Action: We must better leverage our data to understand the conditions in our community, the impact of our current programs, and the opportunities to improve our service delivery. Actionable data can help us advance social and economic mobility and improve the health and well-being of children, families, and individuals across California.

The CDPH strategic map has a target of: OPTIMIZE DATA AND TECHNOLOGY: Implement prioritized enhancements to data collection systems; promote ecosystem of data sharing; optimize vital records systems through interoperability strategies (CHSI); emphasize automation and digital services wherever possible (CHSI).

C. ROLE IN POLICY INFLUENCE

12. Provide 3-5 specific examples of policy areas over which the CEA position will be the principle policy maker. Each example should cite a policy that would have an identifiable impact. Include a description of the statewide impact of the assigned program.

The Chief Data Officer (CDO) is responsible for leading the development and implementation of all new strategic efforts to integrate, link, curate, model, analyze data, and to establish new Department policies and procedures for scientifically rigorous inference, exploration, and outcomes-based utilization of the Department's data assets. In order to do this work, the CDO will be establishing new policies and procedures for the Department, at a minimum for the following policy areas:
1. Data literacy expectations, education, and training for the Department
2. Data linkage and analysis policies and procedures
3. Data curation, maintenance, and quality
4. Rigorous inference, exploration, and outcomes-based utilization of the Department's data assets that is grounded in data science principles

The impacts of these policies include:
1. The establishment of a syndromic surveillance system that will help CDPH identify infectious disease/re-emerging infectious disease/and novel infectious disease outbreaks (such as COVID and Influenza) earlier on, as well as identify clusters of overdose related deaths to provide quicker interventions.
2. Maternal and infant mortality, through a partnership with the Maternal, Child, and Adolescent Health Program to improve data quality on the confidential portion of the birth certificate through the provision of role-based access to the Vital Records Business Intelligence System.
3. COVID-19 prevalence data, and vaccination data to boost on-the-ground efforts to reduce transmission rates of COVID-19 and increase vaccination rates.

The department currently does not have enterprise-wide policies and procedures for these activities.
This CEA is responsible for establishing and enforcing new uniform enterprise-wide data interpretation and utilization policies. The position will provide GIS and visualization capabilities across the Department, and supply enterprise views of vulnerable and target populations to the Department's Centers, Offices, and Programs to improve the health and wellbeing of vulnerable Californians more holistically, improve health outcomes and reduce disparities, address social determinants of health, and track and inform policy and program adjustments to further improve those outcomes.

C. ROLE IN POLICY INFLUENCE (continued)

13. What is the CEA position's scope and nature of decision-making authority?

The Chief Data Officer will have broad decision-making authority in the development, establishment, and implementation of policies and procedures related to the full scope of enterprise-wide data governance. This includes collaborating with the Directorate and Senior Management Team to render decisions on the establishment of the Department's data governance policies. They will advise the Directorate, the CHSI Deputy Director, the CIO, and ISO, and other executive staff across the department on data literacy, linkage, inference, exploration, informatics, data analytics, machine learning, data standardization, open data, and outcomes-based results. The CDO will have full autonomy to ensure compliance with certification and reporting requirements, lead internal regulatory and compliance programs, and represent CDPH regarding data governance with control agencies.

14. Will the CEA position be developing and implementing new policy, or interpreting and implementing existing policy? How?

The CDO will be responsible for developing and implementing new and existing policy in regards to data governance and management, in collaboration with key internal and external stakeholders. This position will do so by collaborating with the positions it supervises, members of the Department's executive team, and in consultation with other state departments and members of the CHHS Agency's data team. The CDO will also interpret existing policy and serve as an advisor to the Directorate. This position will be responsible for coordinating policy development and implementation activities within the Center for Health Statistics and Informatics. The CDO will work with the Deputy Director of the Center for Health Statistics and Informatics to set statewide data strategy policies. As part of this responsibility, the CDO will author new policy directives, and review and refresh existing policy that resides within the CDO's influence. The CDO will also have the responsibility of interpreting and implementing existing policy that is currently being leveraged and used by the State of California.