Schedule 13

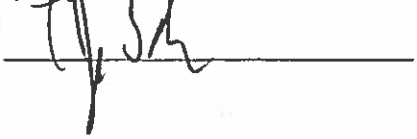
Department of Human Services

Funding Request for The FY 2019-20 Budget Cycle

Request Title

R-11 Colorado Crisis System Enhancements

Dept. Approval By: 

OSPB Approval By: 

____	Supplemental FY 2018-19
____	Budget Amendment FY 2019-20
X	Change Request FY 2019-20

Summary Information	Fund	FY 2018-19 Initial Appropriation	FY 2018-19 Supplemental Request	FY 2019-20 Base Request	FY 2019-20 Change Request	FY 2020-21 Continuation
Total of All Line Items Impacted by Change Request	Total	$85,678,653	$0	$84,961,391	$985,092	$1,363,497
	FTE	76.8	0.0	79.6	3.6	3.0
	GF	$58,863,550	$0	$54,017,412	$985,092	$1,363,497
	CF	$1,280,533	$0	$5,221,814	$0	$0
	RF	$17,140,374	$0	$12,988,393	$0	$0
	FF	$8,394,196	$0	$12,733,772	$0	$0

Line Item Information	Fund	FY 2018-19 Initial Appropriation	FY 2018-19 Supplemental Request	FY 2019-20 Base Request	FY 2019-20 Change Request	FY 2020-21 Continuation
01. Executive Director's Office, (A) General Administration, (1) General Administration - Health, Life, And Dental	Total	$46,696,345	$0	$45,681,295	$31,709	$31,709
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$33,413,551	$0	$29,357,601	$31,709	$31,709
	CF	$144,915	$0	$2,930,144	$0	$0
	RF	$10,356,168	$0	$7,685,079	$0	$0
	FF	$2,781,711	$0	$5,708,471	$0	$0
01. Executive Director's Office, (A) General Administration, (1) General Administration - Short-Term Disability	Total	$472,856	$0	$469,396	$592	$592
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$330,992	$0	$312,663	$592	$592
	CF	$8,592	$0	$27,320	$0	$0
	RF	$93,723	$0	$69,252	$0	$0
	FF	$39,549	$0	$60,161	$0	$0

Line Item Information	Fund	FY 2018-19 Initial Appropriation	FY 2018-19 Supplemental Request	FY 2019-20 Base Request	FY 2019-20 Change Request	FY 2020-21 Continuation
01. Executive Director's Office, (A) General Administration, (1) General Administration - Amortization Equalization Disbursement	Total	$14,268,257	$0	$14,199,753	$15,584	$15,584
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$9,956,150	$0	$9,429,823	$15,584	$15,584
	CF	$255,862	$0	$814,901	$0	$0
	RF	$2,884,962	$0	$2,136,137	$0	$0
	FF	$1,171,283	$0	$1,818,892	$0	$0
01. Executive Director's Office, (A) General Administration, (1) General Administration - S.B. 06-235 Supplemental Equalization Disbursement	Total	$14,268,257	$0	$14,199,753	$15,584	$15,584
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$9,956,807	$0	$9,429,823	$15,584	$15,584
	CF	$255,823	$0	$814,901	$0	$0
	RF	$2,884,522	$0	$2,136,137	$0	$0
	FF	$1,171,105	$0	$1,818,892	$0	$0
08. Behavioral Health Services, (A) Community Behavioral Health Administration, (1) Administration - Personal Services	Total	$6,560,246	$0	$7,006,404	$348,623	$451,318
	FTE	76.8	0.0	79.6	3.6	3.0
	GF	$2,089,333	$0	$2,374,063	$348,623	$451,318
	CF	$553,343	$0	$577,174	$0	$0
	RF	$904,733	$0	$945,522	$0	$0
	FF	$3,012,837	$0	$3,109,645	$0	$0
08. Behavioral Health Services, (A) Community Behavioral Health Administration, (1) Administration - Operating Expenses	Total	$344,401	$0	$336,499	$22,140	$2,850
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$48,426	$0	$45,148	$22,140	$2,850
	CF	$61,998	$0	$57,374	$0	$0
	RF	$16,266	$0	$16,266	$0	$0
	FF	$217,711	$0	$217,711	$0	$0
08. Behavioral Health Services, (D) Integrated Behavioral Health Services, (1) Integrated Behavioral Health Services - Crisis Response System Telephone Hotline	Total	$3,068,291	$0	$3,068,291	$550,860	$845,860
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$3,068,291	$0	$3,068,291	$550,860	$845,860
	CF	$0	$0	$0	$0	$0
	RF	$0	$0	$0	$0	$0
	FF	$0	$0	$0	$0	$0

Auxiliary Data			
Requires Legislation?	NO		
Type of Request?	Department of Human Services Prioritized Request	**Interagency Approval or Related Schedule 13s:**	Requires OIT Approval

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Cost and FTE

- The Department requests $985,092 total funds/General Fund and 3.6 FTE in FY 2019-20 and $1,363,497 total funds/General Fund and 3.0 FTE in FY 2020-21 and ongoing in order to support the enhancement to the Colorado Crisis System. A corresponding capital IT request has been submitted to implement one Statewide Colorado Crisis Documentation System.
- This is an increase of 3.0% over the FY 2018-19 appropriations to $32,547,092.

Current Program

- The Department currently manages $31,562,000 million in state funds to operate the statewide crisis hotline, mobile response, walk-in centers, crisis stabilization units, respite and marketing campaign.

Problem or Opportunity

- The current crisis system has many administrative inefficiencies, limited access to target populations including youth, inability to identify overlap with other state funded services, and no coordinated system for reliable data collection or evaluation.

Consequences of Problem

- If the Department does not improve data collection and reporting it will be unable to drive and measure the intended outcomes for the system including outreach to target populations, better allocate funds, and improve behavioral access.
- Additionally, the system is not currently targeting services to at risk populations in a meaningful way for children, adolescents and families which decreases the likelihood of impacting state suicide rates. In 2017, there were 192 youth suicides, which was the leading cause of death in Colorado for youth aged 10 to 24.

Proposed Solution

- The Department requests $985,092 total funds/General Fund and 3.6 FTE in FY 2019-20 in order to support the enhancement of the Colorado Crisis System.
- The Department proposes the following crisis services system enhancements: add an electronic crisis record system for all services delivered by the hotline and mobile teams; increase crisis hotline capacity and functionality; and add Co-responder pilot Emergency Medical System (EMS/911) to better coordinate emergency response information by funding local community pilots to integrate EMS systems with a uniform electronic crisis record system.

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Department Priority: ***R-11***

Request Detail: **Colorado Crisis System Enhancements**

Summary of Incremental Funding Change for FY 2019-20	**Total Funds**	**FTE**	**General Fund**
Colorado Crisis System Enhancements	$985,092	3.6	$985,092
Summary of Incremental Funding Change for FY 2020-21	**Total Funds**	**FTE**	**General Fund**
Colorado Crisis System Enhancements	$1,363,497	3.0	$1,363,497

Problem or Opportunity:

The Department of Human Services requests $985,092 total funds/General Fund and 3.6 FTE in FY 2019-20 and $1,363,497 total funds/General Fund and 3.0 FTE in FY 2020-21 and beyond for the purposes of addressing needed improvements to the Department's behavioral health crisis system. Specifically this request will address:

1. The lack of a centralized electronic crisis record that does not currently promote continuity of care by establishing a new electronic crisis record system that is integrated with the State Health Information Exchanges.
2. Address the changing need of how children, adolescents and the general public access crisis line services by creating a downloadable crisis services mobile phone app and increasing crisis line contractor personnel resources to address the growing demand for crisis response through text capacity.
3. The lack of coordinated emergency response information and service delivery systems by funding local community pilots that will integrate Emergency Medical Service (EMS) system with the Department's proposed new electronic crisis record system.

The priorities of this budget request are based upon the recommendations of the Crisis Steering Committee.

The Colorado Crisis System, created in response to the Aurora theatre shooting, was designed to strengthen Colorado's mental health system and to provide Coloradans with greater access to behavioral healthcare services as part of a continuum of care, regardless of ability to pay. The Colorado Crisis

Steering Committee was formed in early 2018 in anticipation of the end of the first five years of services and the solicitation process to take place in 2019. The Steering Committee's charge was to identify gaps in current service delivery or access; address the use of data to demonstrate the effectiveness of the system, increase system efficiencies for crisis services and improve mobile response in communities; establish services and clinical standards to meet the needs of the intended population; ensure that services are reaching those populations at highest risk of suicide including adolescents, adult men and veterans; address licensing challenges and prioritize regional solutions for co-located and fully integrated services.

The Department included six of nine recommendations from the Crisis Steering Committee that the Department is proposing through this request. The Department prioritized these areas because these investments will allow the Department to align the recommendations by leveraging technology to achieve multiple priorities outlined in the Steering Committee recommendations. Additionally, these recommendations are believed to have the most direct impact and improving the quality of care. The Crisis Steering Committee recommendations that were sent to the Department on June 15, 2018 that are tied to the funding request are:

- Recommendation 1: Increase the breadth and depth of services for youth and children. There are a number of steps that CDHS can take to ensure that youth and children have access to appropriate and timely behavioral health services.
- Recommendation 3: Leverage technology to connect and simplify the state and local crisis hotlines.
- Recommendation 4: Determine how the Co-Responder Model & Mobile Services can be leveraged in a crisis situation.
- Recommendation 5: Develop and implement an outcome evaluation system.
- Recommendation 7: Improve integration of services for mental health/substance abuse disorder within Crisis Stabilization Units.
- Recommendation 8: Offer a statewide-integrated data and resource system for the Hotline.

In consideration of the State's overall budget and the Department's effort to prioritize areas align overlapping initiatives, the Department did not include the following recommendations from the committee as other strategies may impact the following recommendations.

- Recommendation 2: Increase peer support in all areas.
- Recommendation 6: Establish a Leadership Committee to review and update outcomes, identify additional outcomes, identify additional gaps and needs, etc.
- Recommendation 9: Consider target marketing for those populations not served by the crisis system.

The Department's request for additional resources reflected in this request and the corresponding capital IT request titled "R-03 – Department IT Capital Construction Priority: IT-4
Colorado Crisis System Enhancements" align with these prioritized recommendations from the Crisis Steering Committee members representing local public health and human services officials, patients, advocates, hospitals, law enforcement, other state departments, elected officials, behavioral health providers, and the current crisis contractors.

The following items are based on the Crisis Steering Committee recommendations and needed system infrastructure upgrades necessary to improve service coordination and integration along with increased capacity to serve at risk populations.

- The Department is unable to determine if the populations at risk are receiving intended interventions and services, identify service utilization and adjust resources based on regional demand, make best practice recommendations for interventions, and evaluate cost, quality and outcomes for Coloradans. Funding an electronic crisis record system with improved crisis services documentation, improved system design, improved communications, and integrated technology to utilize and exchange information, would allow the Department to more actively reduce suicide rates, ensure access to the system for the entire population, integrate services across the larger health care delivery system and share relevant data with programs intended to deliver ongoing treatment and follow-up care and/or care coordination.
- The Department's crisis line contractor is reporting increase demand for text capacity crisis calls. The existing crisis hotline does not have the capacity for hotline text functionality or enhanced mobile technology which is the preferred mode of communication for the child and adolescent population. Reducing the hotline call wait time and expanding text capacity will enhance the ability to provide resources across multiple systems and existing investments, increase patient-level data collection and documentation to address the social determinants of health and provide an opportunity to leverage additional revenue streams.
- The existing crisis system has grown since its inception; however services have not been fully integrated. Additional investments include partnerships with law enforcement and emergency services to support improved community-based behavioral health responses. Integrating these systems and services will allow the State to leverage these new resources through the use of technology that tests interventions to increase access to coordinated systems and appropriate delivery of services.

Background:

While the State has invested over $30 million in the crisis system, the Department is unable to determine if the populations at risk are receiving intended interventions and services, identify service utilization and adjust resources based on regional demand, make best practice recommendations for interventions, and evaluate cost, quality and outcomes for Coloradans. Foundational to addressing this issue is the lack of consistent and uniform data collection.

The Office has repeatedly engaged contractors to analyze, validate or report additional data that is needed to understand the functionality of the system. Additionally, OBH hosts monthly data meetings to enhance standardization and improve reporting. In spite of these efforts by the State and its contractors, there are still inconsistencies and gaps in the regional data collection and reporting because of the lack of coordinated information technology infrastructure. This disconnect has been further shown in the work of different Department evaluations including broad stakeholder feedback obtained through the Crisis Steering Committee survey, the Colorado Health Institute data analysis of OBH data sets, and the law enforcement survey recently conducted as part of the S.B. 17-207 evaluation.

The Department has established monthly processes to review, troubleshoot and improve data validity and continuity in the existing crisis reporting system. These processes include: monthly data validity review of the aggregate reports, monthly presentations and action items in C-Stat, monthly meetings with contractors, and ongoing review of billing data. Additionally, the Department consistently utilizes multiple staff on an on-going basis along with contractual resources to triangulate inadequate and incomplete data from providers. Inadequate and incomplete data impedes the Department's ability to evaluate outcomes and effectiveness of the crisis system. Therefore the Department requests funding to create a new electronic crisis record system for the crisis system aligned with the current efforts for S.B. 17-019 for Medication Consistency and S.B. 17-207 to enhance the crisis service delivery system for the community, including local law enforcement agencies. By mirroring the efforts in S.B. 17-019 and leveraging the existing funding of $5.9M into law enforcement's crisis response efforts, the Department can further transfer utilization of the emergency response system and law enforcement departments to the appropriate behavioral health safety net resources in the crisis system.

While the Department has implemented performance based contracts with providers, the data reporting is too aggregate to have conversations with individual providers to drive performance change. To address this issue, the Department's Office of Behavioral Health has entered into two contracts to have subject matter experts review the data for outcomes and innovation. Unfortunately, the aggregate data shared by providers with the State is insufficient to answer research questions, and the contractors surmise there needs to be more granular and specific data collection. Furthermore, the Department's Office of Performance and Strategic Outcomes has helped perform data validation into the systems and noted differences across the system.

Proposed Solution:

The Department requests $985,092 total funds/General Fund and 3.6 FTE in FY 2019-20 and $1,363,497 total funds/General Fund and 3.0 FTE in FY 2020-21 and ongoing in order to increase the capacity of the crisis system, create and maintain information technology to better coordinate and evaluate utilization and need, and better integrate services across communities. The requested funding will support a coordinated solution to meet the identified challenges and leverage technology solutions to meet the Colorado Crisis Steering Committee's recommendations. The Department anticipates transferring $351,075 of this request to the Governor's Office of Information Technology for system enhancements. This coordinated solution includes five primary elements;

1. Creation of a single electronic Crisis Record System. The electronic Crisis Record System will support client service documentation, mobile GIS mapping technology to create a coordinated behavioral health responses between the hotline and mobile response to crisis intervention. Connecting the client record to the two State Health Information Exchanges will allow for providers to view treatment records from other providers such as hospitals, behavioral health, and primary care providers to view relevant history to appropriately treat and coordinate care and services. This system will strategically align with the Department's efforts for IT

interoperability to maximize coordinated care across systems and programs. Funding for this element has been included in this request and in the corresponding capital IT request.

2. Enhanced capacity and functionality of the crisis hotline. The crisis hotline will be enhanced to support text, chat, and mobile functionality and a downloadable app for users to instant message. Enhanced resource and referral services will be created to track patient engagement in community based services including referral and follow up care. Funding for this element has been included in part in this request and in part in the corresponding capital IT request.
3. Creation of a pilot program to connecting Emergency Medical Service (EMS), Co-Responder teams, and Mobile through 911. This pilot will ensure appropriate responses to a behavioral health crisis in the community.

Further descriptions of these three elements are outlined as follows.

1. **Electronic Crisis Record System**

   An Electronic Crisis Record System addresses Crisis Committee Report, specifically

   - Recommendation 3 (leverage technology to connect and simplify the state and local crisis lines),
   - Recommendation 4 (determine how the Co-Responder Model & Mobile Services can be used in a crisis situation),
   - Recommendation 5 (develop and implement an outcome evaluation system) and
   - Recommendation 8 offer a statewide-integrated data and resource system for the crisis line.

   The Department recommends that one electronic crisis record be procured that will allow for documentation in one standard record, allow for data extraction and reporting, as well as utilization, cost and outcomes reporting for the crisis system. Establishing one record for documentation of crisis services allows for regular and consistent reporting of data to base day to day decision making and make continual adjustments to the crisis system with the use of real time data and allows providers access to meaningful data to improve care quality for crisis clients. The Electronic Crisis Record System would also serve as an outcome evaluation system to investigate the extent to which the crisis system is achieving its short-term and medium-term outcomes once those outcomes are defined and determine to what degree those outcomes are attributable to the system itself. It could measure the effectiveness of the system, and ultimately make it more effective in terms of delivering the intended benefits.

   In the current crisis system each contractor documents in each of the providers native electronic health record system and then submits data to the regional contractor who aggregates and reports the data. While the Department chose measures to track performance and utilization, these have been hard to validate and implement quality activities for due to aggregate data submission. Furthermore, since contractors have different electronic record systems there are disparate methods to submit and calculate measures for the Office.

The problem of disparate data systems and different data records has been identified through C-Stat performance measurement, internal data audits and in several external evaluations. The Department's Office of Performance and Strategic Outcomes completed data integrity validation for the timeliness of mobile response measure, and found different contractors have different data systems that inhibit congruent data collection across the State. Notably, through the data integrity evaluation, 50 percent of OBH crisis hotline referrals for mobile units were not deployed by the Crisis Providers between July 2016 and January 2017. During this time frame, 576 mobile responses were requested by the hotline after assessment. The primary reasons these rescues were reported as "not complete" were reportedly due to inadequate staffing, or diverting the client to an alternative service such as walk-in. Additionally data analysis conducted by the Colorado Health Institute for the Crisis Steering Committee made several additional recommendations about the challenges associated with the lack of consistent data.

The lack of a meaningful crisis record system is negatively affecting service delivery and customers. There is not a current solution to maximize continuity of care across regions and across providers. The branched and disconnected data systems lead to possible misallocation of resources, duplicitous efforts, and a missed opportunity for interventions for clients. OBH currently meets with crisis contractors on a monthly basis but due to the current business structure of each of the entities, disparate ownership of the providers in the system, inconsistent business rules, and the absence of one data system that is tracking utilization, services costs, system capacity, and clinical outcomes OBH has struggled to leverage opportunities for identifying ways to improve service delivery and outcomes for Coloradans.

An Electronic Crisis Record System solution will coordinate care and efforts of the Crisis Services Hotline, Crisis mobile response providers, and State leadership. The purpose of this single Crisis System Record System is to:

- create a centralized repository of standardized consumer information pertinent to case management and treatment and integrate Crisis system data with current OBH treatment data (including Substance Use Disorder (SUD) treatment information) to coordinate care for consumers with co-occurring disorders;
- allow access and utilization of a client record from any entry or referral point, be it the crisis hotline or the mobile response unit;
- allow access to query or build a direct interface into the State Health Information Exchanges to allow access to patients' historical treatment records to enable appropriate treatment interventions, enable continuity of care, and inform timely crisis interventions. Access to information contained in the State Health Information Exchanges may include psychiatric treatment, Emergency Department utilization, medications, hospitalizations, primary care physician information, and other connected Electronic Health Records from specialty providers;
- allow data collection and report standardized quality metrics pertinent to contract management and policy decisions (e.g. mobile dispatch times, bed utilization);

- allow data collection of cross-system, client-level outcomes congruent with strong research and evaluation principals;
- allow real-time system metrics such as geo-mapping of response used in emergency services/911 service deployment to inform local policy and coordination of response; and
- allow connectivity to the uniform data set and data warehouse of OBH treatment data.

The total cost is contingent on the type of record system procured. The key functionality of the procured solution must include a cloud-based, community solution to data collection (geo-mapping, remote data entry), certified for 42 part 2 data storage and reporting, case-management and treatment data modules, texting and multi-data implementation for the hotline service hub, and interoperability with statewide Health Information Exchanges and CDHS enterprise service bus.

Other State investments in electronic record systems have been explored with the Office of Health Information and the Office of e-Health Innovation to make cost estimates for crisis system infrastructure. From these models the following costs for design, implementation, and Crisis Record System were approximated. Staffing for an OIT project manager and an OBH project manager/ system administrator estimates are included to execute the implementation.

Table 1 represents current problem areas with the current data collection process. The Department has identified that data consistency, accuracy and data gaps are problematic. Table 1 describes some of the specific issues that a new electronic health care record system could help to correct.

Table 1: Summary of Data Analysis Themes

Theme	Description	Examples
Consistency	Different values in different systems	Slightly different values of client demographics in reports from Crisis Services Organizations (CSOs) versus compiled data from OBH based on monthly CSO data submission
	Inconsistent definitions	Differences between CSOs on how they define denominator for non-dispatched mobile services
		Different definitions of “respite”
Accuracy	General concerns	Possible incorrect locations coded for some mobile service
	Administrative errors	Invalid Medicaid IDs in HCPF-supplemented claims data set
		Invalid values in claims data cells (e.g., first names listed under DOB)
Presence of Data Gaps	Data silos	Unable to connect hotline data to CSO service provision
	Data incompleteness	Unable to answer questions such as payer mix of clients

A centralized data and reporting system will address many of the problems identified. This system would create a direct connection between a shared crisis systems database and electronic health records, or designate a spot for regular data uploads from crisis service providers. All data pulls, including dashboards and key indicators, could be built off a shared system and available to users designated through a data agreement.

This system addresses the problem of consistency by eliminating the possibility for competing values. It addresses accuracy by limiting administrative errors due to typos, which often occur when processes are manual. Finally, shared databases allow more flexibility in answering questions—for example, queries may be run on custom age groupings, or cross-tabulations can be done by gender and care setting.

A streamlined data reporting process can solve many of these problems as well. Streamlined reporting can be accomplished with a shared database, yet even in the absence of a shared database, a more streamlined process is possible. The process should limit manual or duplicative procedures. For example, when crisis providers report data to OBH, OBH should use a macro to have this data automatically input into a table, rather than using a manual entry process. This addresses accuracy concerns by limiting administrative errors.

The integration of data collection systems will allow for more robust reporting on crisis services. One frequently cited example in the Crisis Steering Committee was a request to integrate hotline and mobile response data collection system.

This integration will serve to address two of the themes identified. Accuracy will improve because data from multiple systems can now serve as cross-validation—for example, when values on mobile dispatches exceed values of mobile requests, this flags an inconsistency in one system. Integrated systems will also allow for more robust questions asked by stakeholders at many of these meetings to be answerable in the future.

2. **Capacity for text, chat, and mobile functionality that includes a downloadable app**

Improved technology and service functionality for the crisis hotline addresses Crisis Committee Report

- Recommendation 1 (Increase the breadth and depth of services for youth and children),
- Recommendation 3 (leverage technology to connect and simplify the state and local crisis lines),
- Recommendation 4 (determine how the Co-Responder Model & Mobile Services can be used in a crisis situation), and
- Recommendation 8 (offer a statewide-integrated data and resource system for the crisis line).

Create a downloadable software application tool to enhance the hotline system to meet broader social determinants of health needs of crisis consumers Currently, the Department has a public

facing website for its resource directory however programming and the development would need to occur in order to make this resource available to the public through a mobile phone app. This app will make information more accessible and easier to navigate. This will assist individuals with behavioral health and non-behavioral health resource needs that could be impacting the crisis. For example, some clients may have housing issues and need local resources such as information on housing vouchers. This app could conveniently assist individuals with the critical information on how to access these resources through the mobile telephone app.

3. **A pilot program to connecting Emergency Medical Service (EMS), Co-Responder teams, and Mobile through 911**

A pilot program to connect EMS, co-responder teams and mobile through 911 will address the Crisis Steering Committee Report

- Recommendation 3 (leverage technology to connect and simplify the state and local crisis lines),
- Recommendation 4 (determine how the Co-Responder Model & Mobile Services can be used in a crisis situation), and
- Recommendation 8 (offer a statewide-integrated data and resource system for the crisis line).

The Co-Responder Model began in 2018 through support from the Colorado Legislature, and partners law enforcement officers with behavioral health specialists to intervene on mental health-related 911 calls. These two-person teams work to de-escalate situations by diverting individuals in crisis for immediate behavioral health assessments instead of arrest. Because the Co-Responder Model is so new, its implications and impact are not yet clear. The Co-Responder Model is not formally a component of Colorado Crisis System. However, it is worthwhile to understand the impact of the model on the Crisis System, how to minimize redundancy, and how to better leverage related or overlapping services as data is collected throughout the Model's implementation. In an effort to connect this program with the larger crisis system, the Department is requesting funding to test three pilots to examine technology solutions to integrate 911 emergency responses with co-responder teams and test models to ensure appropriate behavioral health response rather than law enforcement responses when appropriate.

In the current crisis system structure, co-response with emergency responders (e.g. 911 responders) is on a local community-based initiative level. In other OBH initiatives, the State is piloting and funding co-response programs. These programs are operating separately from the crisis system which does not leverage the two State investments.

The Crisis Services Steering Committee recommended an integration of co-response to the crisis system (Recommendation 4). However, before deploying a statewide solution, the Department is requesting funding to pilot technology solutions that interface with the crisis hotline, OBH funded Co-Responder pilots, existing 911 emergency responses. This will allow the Department to identify strategies that meet the needs of local communities and existing infrastructure to

begin integrating the two systems that currently run parallel to each other. The new pilot should be funded once the new Crisis Service Record is deployed to ensure the benefits for referral, communication, treatment, and outcomes is leveraged in the new pilot.

Anticipated Outcomes:

Electronic Crisis Record System Anticipated outcomes:
The Department will complete a process evaluation of timely procurement of the new system, timely build, and timely implementation of the new data system. Within the new electronic crisis record system, there will be key metrics included to help track outcome evaluation such as continuity of care. An outcome evaluation will compare pre-implementation to post-implementation data collection time, continuity of care and follow up services for individuals in crisis and evaluate outcomes for the population using standard quality measures and cost and utilization metrics. This outcome evaluation will be procured in the second year after implementation. The improved data collection will also allow more finite billing data to allow calculations of cost-centers by region and service type. Therefore, the Department could begin to create an ongoing benefit-cost analysis.

With the procurement of the new electronic crisis record system, there will be strategic requirements to build business analytics into the design. Proper business analytics (e.g. Tableau) allow the state users, contract managers, and even clinicians to track performance and quality metrics in a timely, uniform way. These outcomes will also be tied to other adjudicated/validated data sets from the Health Information Exchanges to track population health and system wide outcomes beyond those in the behavioral health crisis service episode.

With uniform data, the Department will evaluate performance at the service-level in a data informed manner. Long term success will result in the overall decreased utilization of the State's emergency departments and law enforcement calls for behavioral health crises.

Capacity for text, chat, and mobile functionality and downloadable mobile app anticipated outcomes: With the addition of seven contracted staff to the Department's Crisis Services hotline the Department will have a dedicated text resource that is available 24 hours a day seven days a week. Texting functionality was not a feature that was originally built in the crisis hotline; however, the current crisis hotline provider has improvised staffing to address approximately 25 text encounters per day. While many text calls answered do not result in an extended encounter, they must be answered and properly addressed. Once a client is engaged, the average text encounter is approximately 50 minutes. It is anticipated that additional 24/7 posts will allow for an additional 25 text encounters. The Department believes that this increase in capacity will address the growing demand for future text capacity. Table 2 reflects the current utilization rate for text capacity. Over the course of twelve months, texts answered have increased by 43%. It is anticipated that if additional staff are added this will assist with meeting the demand for future services as text communication continues to gain popularity and the service is more widely advertised within the Department's existing marketing efforts.

Table 2: Crisis Hotline Text Answered Trend-September 2017 to August 2018		
Month	**Percentage Change**	**Number of Text Calls Answered**
September 2017	**0%**	559
October 2017	**20%**	669
November 2017	**37%**	765
December 2017	**29%**	723
January 2018	**4%**	582
February 2018	**6%**	595
March 2018	**18%**	657
April 2018	**37%**	768
May 2018	**50%**	838
June 2018	**48%**	827
July 2018	**37%**	766
August 2018	**43%**	801

A pilot program to connect Emergency Medical Service (EMS), Co-Responder teams, and Mobile through 911 anticipated outcomes:

Colorado and local counties and municipalities have invested significantly in better connecting law enforcement and crisis services. These include state and locally supported co-responder models, crisis intervention trainings, training EMTs and peace officers in identifying behavioral health issues and how to address them and refer for services, and law enforcement assisted diversion programs. While these programs are making significant improvements in our justice and health systems, they are currently not coordinated by the entity that intersects with all of these programs, 911.

This pilot program will support training and technology to better connect individuals in crisis to the appropriate local response through interfaces with 911 systems. Outcomes will include:

- Increasing the number of calls to 911 for behavioral health crisis that are directed to the Colorado Crisis Hotline.
- Increasing the number of co-responder led responses to behavioral health crisis emergencies.
- Reduced use of ambulances for behavioral health crises.

Assumptions and Calculations:

Table 3 is a summary of projected costs for this request. Assumptions used to calculate each of the components of this request are provided in the "Assumptions and Calculations" narrative that follows this table.

Table 3: Crisis Services Budget Estimate Summary					
FY 2019-20 and FY 2020-21 General Fund					
	FY 2019-20		**FY 2020-21**		
Description	**FTE**	**Estimated Costs**	**FTE**	**Estimated Costs**	**Notes**
Crisis System Data and Health IT Infrastructure	3.6	$434,232	3.0	$517,637	See Table 4
Hotline Enhancements (text capacity, downloadable app; interface with HIE, resource and referral capacity)		$350,860		$365,860	See Table 5
Pilots to connect EMS/911; Crisis hotline and mobile response, and co-responder projects		200,000		$480,000	See Table 6
Total	**3.6**	**$985,092**	**3.0**	**$1,363,497**	

In Tables 4 through 6, Department of Human Services (CDHS) budget items are denoted with "CDHS Budget" and Office of information Technology (OIT) budget items are denoted with "OIT Budget".

Crisis System Data and Health IT Infrastructure:

This request includes FTE and operating expenses for an OIT Project Manager and an OBH Project Manager Administrator to execute the implementation of the proposed electronic crisis record system. The OIT Project Manager will only be necessary for FY 2019-20 to help complete a formal business requirements document as well as help to document the data fields that are part of the project, as well as to define and articulate the actual outcomes desired. The OIT positions are non-classified FTE and funds will be reappropriated to OIT. The OBH Project Manager Administrator position will be required in FY 2019-20 and ongoing, as they will be the application support position that will interface with the estimated 900 users when there are technical questions/problems that need to be addressed with the system and the software vendor.

The request includes an Identity and Access Management (IAM) Analyst that would take over all provisioning, de-provisioning, account management, Single Sign One, Multi Factor Authentication auditing during implementation and operations. In addition, this request includes an Integrations Analyst/Solutions Engineer position. That position has two functions one is to deploy the Enterprise

Service BUS and the other is for ongoing integration development that will be needed for a project of this scope.

The Department's proposed new electronic crisis record system includes cloud-based technology solutions. Cloud based technology solution refers to on-demand services, computer networks, storage, applications and/or resources accessed via the internet and through a non-state service provider's shared cloud computing infrastructure. Additionally, this project will also include a community based solution that will integrate local provider data collection. This will include working with the Department's crisis services providers and to interface their electronic health care records with the new electronic crisis record system. It is also envisioned that this system will include geo-mapping features to identify the specific location of crisis services as they occur and provide reports and map visualization. This is especially important given that mobile crisis services may occur anywhere in the community. This system must be an electronic crisis record system that complies with federal substance use treatment data, security and privacy requirements as outlined in the federal code of regulations (C.F.R) Title 42 part 2. This project will include design work and programming that will include: data storage and reporting, case-management and treatment data modules, texting and multi-data implementation for the hotline service hub, and interoperability with statewide Health Information exchanges and CDHS enterprise service bus.

Table 4: Crisis System and Data and Health IT Infrastructure					
	FY 2019-20		FY 2020-21		
Description	**FTE**	**Estimated Costs**	**FTE**	**Estimated Costs**	**Notes**
One-time cost for Project Manager at Office of Information Technology (OIT)	0.9	$133,182	1.0	$0	Execute implementation of project. OIT Budget
Data Management IV at Colorado Department of Human Services (CDHS)	0.9	$83,156	1.0	$85,294	Execute implementation of project CDHS Budget
Identity and Access Management (IAM) Analyst	0.9	$82,658	1.0	$84,239	Implementation and operations. OIT Budget
Integrations Analyst/Solutions Engineer	0.9	$135,235	1.0	$141,604	Deploy the Enterprise Service BUS and ongoing integration development OIT Budget
One Identity Software for non-state users	0.0	$0	0.0	$22,500	Year 2 - $25 p/year per user x 900 estimated users ($25 x 900 = $22,500) These fees will be for external users of the system. OIT Budget
Independent Verification and Validation	0.0	$0	0.0	$100,000	The IV & V cost builds on the capital IT request this cost will expire in FY 2020-21. OIT Budget
Crisis System Monthly Maintenance	0.0	0.0	0.0	$84,000	On-going maintenance for the whole system regardless of number of users. In FY 2019-20 maintenance cost is requested in OIT Capital request. OIT Budget
Total	**3.6**	**$434,232**	**4.0**	**$517,637**	
Subtotal Office of Information Technology	**2.7**	**$351,075**	**3.0**	**$432,343**	OIT Budget
Subtotal Department of Human Services	**0.9**	**$83,156**	**1.0**	**$85,294**	CDHS Budget

OIT Senior Project Manager Position:
The OIT Project Manager shall manage and oversee all aspects of the development and implementation of this multi-platform and system technology initiative. The Project Manager is tasked with building the projects from original concept through final implementation by defining project scope and objectives, analyzing project requirements and determining the best approach to complete projects using existing and/or new approaches, developing detailed work plans, schedules, project estimates, resource plans, and status reports, managing the project budget, and developing plans for transition to operations. The Project Manager manages the integration of vendor tasks and tracks and reviews vendor deliverables.

OIT Integrations Analyst/Solutions Engineer Position:
Application Developer will provide design, development, unit testing, integration testing, user acceptance testing, production implementation and ongoing support of the OBH Crisis System. The position's primary objective is to provide the ability to transfer data between the OBH Crisis System to Colorado's Health Information Exchanges.

OIT Identity and Access Management Position:
The role would take over all provisioning, de-provisioning, account management, Single Sign One, Multi Factor Authentication auditing during implementation and operations.

OBH Business Analyst position (Data Management IV):
The OBH Business Analyst role is necessary to help complete a formal business requirements document as well as help to document the data fields that are part of the project. The BA defines and articulates the actual outcomes desired.

Two Additional Crisis FTE to align with Crisis Regions:
Two Program Administrator FTE are requested to improve contractual and fiscal monitoring of each contract region. This addition will allow the Department to cover each of the four geographic crisis services regions to increase day-to-day monitoring of the program. These additional staff will also be needed to work with the Department of Health Care Policy and Financing to develop quality improvement processes to improve efficiency in the program. Currently, the Department's Office of Behavioral Health, Division of Community Programs (OBH-C), has two FTE on program staff to monitor the statewide system.

Crisis Hotline/Text line Enhancements:
Text capacity for hotline/text line includes seven contract staff including five bachelor level triage specialists, one licensed crisis clinician, one program supervisor and 3.54 percent indirect costs. This cost is necessary to address the growing demand and need for children and youth demographic. As a compliment to this request, the Department submitted an OIT Capital Request to build a mobile application that will need ongoing maintenance beginning in FY 2020-21.

Table 5: Crisis Hotline/Text line Enhancements FY 2019-20 and FY 2020-21				
Description	**Contract FTE**	**FY 2019-20**	**FY 2020-21**	**Notes**
Triage Specialists	5.0	$218,790	$218,790	
Crisis Clinicians	1.0	$53,820	$53,820	
Program Supervisor	1.0	$66,250	$66,250	
Subtotal Personnel	7.0	$338,860	$338,860	
Indirect Costs	3.54%	$12,000	$12,000	
Mobile App. Maintenance Cost		$0	$15,000	The mobile app maintenance cost builds on the capital IT request; the ongoing maintenance is an operating expense
Total		**$350,860**	**$365,860**	CDHS Budget

Pilots to connect Emergency Medical System (EMS)/911: Crisis hotline and mobile response, and co-responder projects:

This portion of the request will include an assessment of emergency medical services systems and technology needs. The Department in partnership with the Office of Information Technology will determine if OIT staff or a contractor consultant will be needed. This will be determined based upon the best resource that is familiar with EMS data systems and how to integrate with the Department's Crisis health information system. Post assessment three communities with EMS systems will pilot crisis health, co-responder and EMS information system integration. Finally, this section of the request will also include a program evaluation of the three pilot sites to inform the legislature if pilots should be expanded Statewide.

Table 6: Pilots to connect Crisis System, Co-Responder & Emergency Medical System (EMS)/911			
Description	**FY 2019-20 Estimated Costs**	**FY 2020-21 Estimated Costs**	**Notes**
Assessment of Emergency Medical Services Systems (EMS) and Technology Needs	$200,000	$0	Contractor will be charged with selecting EMS participants whose systems are capable of interfacing with the State HIE. This contractor will assess the technical interface issues that must be addressed in the connectivity of these systems.
Build EMS/ Crisis System Interface for 3 Pilot Sites	$0	$180,000	Connectivity function: $30,000 per interface with HIE X 3 sites+ $30,000 per interface with EMS systems X 3 Sites
Build EMS/ Crisis System Licenses for 3 Pilot Sites	$0	$150,000	One time license for the HIE Module: $50,000 per license X 3 sites
Program Evaluation	$0	$150,000	Allow for roll forward into FY 2021-22
Total	**$200,000**	**$480,000**	CDHS Budget

Table 7 illustrates the Long Bill appropriation and requested funding for FY 2019-20 and ongoing.

Table 7: Long Bill Appropriation and Requested Funding for FY 2019-20 Through FY 2021-22						
Line Item: (1) Executive Director's Office, Health, Life and Dental	**Total Funds**	**General Fund**	**Cash Funds**	**Reappropriated Funds**	**Federal Funds**	**FTE**
FY 2018-19 Appropriation (HB 18-1322)	$46,704,272	$33,413,551	$144,915	$10,364,095	$2,781,711	0
Requested Funding (or Spending Authority)	$31,708	$31,708	$0	$0	$0	0
FY 2019-20 Total Requested Appropriation	$46,735,980	$33,445,259	$144,915	$10,364,095	$2,781,711	**0**
FY 2020-21 Annualization of Prior Year Funding	$0	$0	$0	$0	$0	0
FY 2020-21 Total Requested Appropriation	$46,735,980	$33,445,259	$144,915	$10,364,095	$2,781,711	**0**
FY 2021-2022 Total Requested Appropriation	$46,735,980	$33,445,259	$144,915	$10,364,095	$2,781,711	**0**
Line Item: (1) Executive Director's Office, Short-term Disability	**Total Funds**	**General Fund**	**Cash Funds**	**Reappropriated Funds**	**Federal Funds**	**FTE**
FY 2018-19 Appropriation (HB 18-1322)	$473,000	$330,992	$8,592	$93,867	$39,549	0
Requested Funding (or	$592	$592	$0	$0	$0	0

Spending Authority)						
FY 2019-20 Total Requested Appropriation	$473,592	$331,584	$8,592	$93,867	$39,549	**0**
FY 2020-21 Annualization of Prior Year Funding	$0	$0	$0	$0	$0	0
FY 2020-21 Total Requested Appropriation	$473,592	$331,584	$8,592	$93,867	$39,549	**0**
FY 2021-2022 Total Requested Appropriation	$473,592	$331,584	$8,592	$93,867	$39,549	**0**
Line Item: (1) Executive Director's Office, Amortization Equalization Disbursement	**Total Funds**	**General Fund**	**Cash Funds**	**Reappropriated Funds**	**Federal Funds**	**FTE**
FY 2018-19 Appropriation (HB 18-1322)	$14,272,038	$9,956,150	$255,862	$2,888,743	$1,171,283	0
Requested Funding (or Spending Authority)	$15,584	$15,584	$0	$0	$0	0
FY 2019-20 Total Requested Appropriation	$14,287,622	$9,971,734	$255,862	$2,888,743	$1,171,283	**0**
FY 2020-21 Annualization of Prior Year Funding	$0	$0	$0	$0	$0	0
FY 2020-21 Total Requested Appropriation	$14,287,622	$9,971,734	$255,862	$2,888,743	$1,171,283	**0**
FY 2021-2022 Total Requested Appropriation	$14,287,622	$9,971,734	$255,862	$2,888,743	$1,171,283	**0**
Line Item: (1) Executive Director's Office, Supplemental Amortization Equalization Disbursement	**Total Funds**	**General Fund**	**Cash Funds**	**Reappropriated Funds**	**Federal Funds**	**FTE**
FY 2018-19 Appropriation (HB 18-1322)	$14,272,038	$9,956,150	$255,862	$2,888,743	$1,171,283	0
Requested Funding (or Spending Authority)	$15,584	$15,584	$0	$0	$0	0
FY 2019-20 Total Requested Appropriation	$14,287,622	$9,971,734	$255,862	$2,888,743	$1,171,283	**0**
FY 2020-21 Annualization of Prior Year Funding	$0	$0	$0	$0	$0	0
FY 2020-21 Total Requested Appropriation	$14,287,622	$9,971,734	$255,862	$2,888,743	$1,171,283	**0**
FY 2021-2022 Total Requested Appropriation	$14,287,622	$9,971,734	$255,862	$2,888,743	$1,171,283	**0**
Line Item: (8) Office of Behavioral Health, (A) Community Behavioral Health Administration, Personal Services	**Total Funds**	**General Fund**	**Cash Funds**	**Reappropriated Funds**	**Federal Funds**	**FTE**

FY 2018-19 Appropriation (HB 18-1322)	$6,410,562	$1,939,649	$553,343	$904,733	$3,012,837	74.5
Requested Funding (or Spending Authority)	$348,623	$348,623	$0	$0	$0	3.6
FY 2019-20 Total Requested Appropriation	$6,759,185	$2,288,272	$553,343	$904,733	$3,012,837	**77.2**
FY 2020-21 Annualization of Prior Year Funding	$102,695	$102,695	$0	$0	$0	-0.6
FY 2020-21 Total Requested Appropriation	$6,861,880	$2,390,967	$553,343	$904,733	$3,012,837	**80.2**
FY 2021-2022 Total Requested Appropriation	$6,861,880	$2,390,967	$553,343	$904,733	$3,012,837	**80.2**
Line Item: (8) Office of Behavioral Health, (A) Community Behavioral Health Administration, Operating Expenses	**Total Funds**	**General Fund**	**Cash Funds**	**Reappropriated Funds**	**Federal Funds**	**FTE**
FY 2018-19 Appropriation (HB 18-1322)	$323,404	$27,429	$61,998	$16,266	$217,711	0
Requested Funding (or Spending Authority)	$22,140	$22,140	$0	$0	$0	0
FY 2019-20 Total Requested Appropriation	$339,891	**$43,916**	**$61,998**	**$16,266**	**$217,711**	**0**
FY 2020-21 Annualization of Prior Year Funding	-$19,290	-$19,290	$0	$0	$0	0
FY 2020-21 Total Requested Appropriation	$320,601	$24,626	$61,998	$16,266	$217,711	**0**
FY 2021-2022 Total Requested Appropriation	$320,601	$24,626	$61,998	$16,266	$217,711	**0**
Line Item: (8) Office of Behavioral Health, (D) Integrated Behavioral Health Services, Behavioral Health Crisis Response Telephone Hotline	**Total Funds**	**General Fund**	**Cash Funds**	**Reappropriated Funds**	**Federal Funds**	**FTE**
FY 2018-19 Appropriation (HB 18-1322)	$27,893,709	$23,506,902	$4,386,807	$0	$0	0
Requested Funding (or Spending Authority)	$550,860	$550,860	$0	$0	$0	0
FY 2019-20 Total Requested Appropriation	$28,244,569	**$23,857,762**	**$4,386,807**	**$0**	**$0**	**0**
FY 2020-21 Annualization of Prior Year Funding	$295,000	$295,000	$0	$0	$0	0
FY 2020-21 Total Requested Appropriation	$28,539,569	$24,152,762	$4,386,807	$0	$0	**0**
FY 2021-2022 Total Requested Appropriation	$28,539,569	$24,152,762	$4,386,807	$0	$0	**0**