Attachment A

CONSOLIDATED HUMAN SERVICES REPORTING

AS REQUIRED BY KING COUNTY ORDINANCE 18409,
SECTION 66, PROVISO P2

JANUARY 18, 2018

King County

Department of Community and Human Services

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CONSOLIDATED HUMAN SERVICES REPORTING

EXECUTIVE SUMMARY

With Ordinance 18409, the Metropolitan King County Council approved the 2017-2018 Biennial Budget on November 14, 2016. Included in that ordinance was a proviso calling for detailed analysis and a report from the County Executive on the feasibility of consolidated human services reporting. Section 66, Proviso P2 describes the Council's expectations:

> *The report shall include a description of how the executive would achieve consolidated reporting on human services programming funded by the veterans and human services levy, the mental illness and drug dependency sales tax, the Best Starts for Kids levy and human services programs in the community services division of the department of community and human services including, but not limited to, domestic violence survivor program services, civil legal aid services, older adult services and sexual assault program services.*

The budget proviso provided detailed requests for the analysis on the feasibility of consolidated reporting (see Appendix 1) with regard to dashboards, outcome reporting, data reporting by geographic areas, needs assessments, timelines and costs. Performance Measurement and Evaluation (PME) staff from the Department of Community and Human Services (DCHS) and other key staff spent several months carefully examining the current data systems supporting the many programs and services provided by DCHS, and in particular, those specifically called out in the budget proviso. This report responds to the questions posed by the Council proviso and provides detailed analysis of improvements and enhancements to the current DCHS data systems available to report on human services programs and services, and provides recommendations and next steps for how data consolidation may be improved for reporting in the future.

Current state

The majority of King County's human services are provided and/or coordinated by DCHS. The established mission statement captures the department's core values: *Provide equitable opportunities for people to be healthy, happy, self-reliant and connected to community.*

The services provided to clients – whether behavioral health, developmental disabilities, homelessness and housing, employment and education, veterans, children and youth, seniors or services for very vulnerable populations – all seek to achieve that mission statement. DCHS continually strives to improve services to individuals and populations most in need, which often includes looking at clients' needs and service delivery across multiple service systems. This report shares several examples of cross-system work, such as those who are homeless, who might be served by both Public Health—Seattle & King County (PHSKC) and DCHS.

DCHS has made significant efforts in recent years to align services and planning and to invest in a data collection and management system with a vision to follow clients across services and across services systems. This report describes those efforts. The Council's interest in a consolidated

human services reporting structure is in alignment with DCHS's previous and current efforts to improve cross system service coordination, evaluation and data reporting. Consolidated human services reporting as requested by the Council is feasible, with the necessary infrastructure and resources in place.

Approach

The proviso asks for the feasibility of consolidated reporting for county-funded initiatives and community service division programs. Accordingly, this report focuses on Best Starts for Kids (BSK), the Mental Illness and Drug Dependency (MIDD) dedicated sales tax, the Veterans and Human Services Levy (VHSL)/Veterans, Seniors and Human Services Levy (VSHSL) and proviso-named programs supported with county funds in the community services division: older adults services, civil legal aid, and services for survivors of domestic violence and sexual assault. Reporting on homelessness-related programs and services are largely captured in the Homeless Management Information System (HMIS). Separate data systems support Employment and Education Resources (EER) and other housing-related programs, such as the Housing Repair Program. Work continues in DCHS to integrate data systems. For purposes of this report, the staff analysis did not extend to primarily state-funded programs and services provided through the DCHS Developmental Disabilities Division, such as supported employment efforts, nor did it include the majority of the treatment services provided primarily with state funding for mental illness and substance use disorders coordinated by the DCHS Behavioral Health and Recovery Division. That does not mean there are not robust data reporting and performance measurement activities under way for those divisions and services, as there certainly are, but they were not requested in the proviso and are not included in this report. It is DCHS' long-term vision to develop a data system to track clients across all DCHS services.

This report speaks to current data consolidation efforts already under way and how those current efforts impact the specific requests in the proviso. Key among those data projects currently under way are the continuing integration of mental health and substance use disorder data systems in line with the state mandated integration of behavioral health and in preparation for the 2019-2020 integration of behavioral health and physical health for Medicaid clients. Another major data initiative under way, discussed in this report, is the data integration effort between DCHS and PHSKC, focused on reporting unique (de-duplicated) clients.

Feasibility Analysis and Findings

Staff completed the feasibility analysis step by step, as detailed and requested in the proviso. With adequate resources and time, staff believe at least some version of all of the requested elements can be realized. Feasibility and timelines for consolidated reporting are dependent on funding for information technology (IT) resources, including hiring additional staff, building and maintaining new data systems, updating current data systems and continuing funding for the DCHS-Public Health Data Integration Project.

The recommended start date for the consolidated reporting is 2022, dependent on all DCHS programs successfully transitioned to new reporting systems and collecting data on individuals, and the resource requirements outlined in this report have been satisfied. As discussed in the report, the VHSL data reporting has previously focused on program goals rather than individuals. To align more closely with both BSK and the MIDD, both of which use Results Based Accountability (RBA)

for measurement and reporting, the new VSHSL is making the significant shift to RBA as well. It is expected that 2020 will be the first year that all programs (including VSHSL programs) will have data on individuals served.

This timeline also accounts for the significant time, effort and resources currently dedicated to the state-mandated behavioral health and physical health integration initiative under way and the inflexible deadlines attached to that project. Further, the work to integrate DCHS and Public Health data greatly enhances the Council's consolidated and human services reporting wishes and it is advantageous to continue that project rather than to set it aside.

In looking at the feasibility of data reporting on geographic areas, DCHS PME staff found several challenges and generated recommendations for how best to address the Council's needs. Currently, while many contractors have multiple sites where services are provided, expenditures are captured and reported only by the primary business address of each contractor. Reporting funding according to the zip code where services are actually delivered is recommended and is feasible with updated contracting and data collection systems put in place to collect geographic information differently.

One of the more challenging areas of the analysis centered on the issue of needs assessments, which can be very time and resource intensive. By the time the gathering of information and analysis is complete, the needs may have already shifted (National Science Foundation, 1997 and the Center for Community and Health Development, University of Kansas, 2017). With adequate staffing, DCHS could report on the needs of small communities using qualitative methods and gather the desired information much quicker and that is the recommendation from the analysis.

A summary chart on feasibility, timelines and costs can be found as Appendix 2. Descriptions on the feasibility analysis are found in the body of the report.

Different areas of human services programs have their own data systems and requirements. While major work has taken place over the past five years to break down some of the barriers that serve to silo funding and data collection, many of those barriers still remain. Therefore, it requires resources to build data system infrastructure to continue to break down those barriers, and appropriate staffing levels to combine, analyze and present data and maintain a new and fully integrated system.

The cost for the consolidated reporting is estimated to be approximately $4.7 million, with additional annual maintenance costs of about $1 million beyond 2022. The costs come primarily from new IT infrastructure and the need for additional PME staff to manage new data resources and undertake the analyses for new consolidated reporting requirements.

Recommendations and Next Steps

DCHS recommends starting the consolidated reporting in 2022. Data on individuals will become available from the expanded VSHSL starting in 2019 and 2020 will be the first full year that data will be available from all three new or renewed initiatives (VSHSL, BSK, MIDD). The substantial staffing and resources in DCHS focused on data integration for the physical and behavioral health integration, mandated by the state, is to be completed by 2019 and will, therefore, have largely been completed enough to allow staff to turn to this effort.

DCHS agrees that it is vitally important to understand different needs across the populations in King County, however those populations may be defined. Previous extensive work to convene "community cafes" and similar community meetings and focus groups as part of the planning and implementation for BSK, MIDD renewal and VSHSL expansion and renewal were all undertaken with the goal of gathering vital information on current needs across King County from the perspective of the local residents of those areas. DCHS recommends leveraging existing data sources and outreach efforts across county government to assess unique needs, both for populations (e.g. seniors) and for geographic areas. This requires better coordination of outreach efforts and needs assessments within DCHS and in collaboration with other County departments. In conducting countywide assessments, it is important to define what questions the assessment needs to ask to gain the information that is sought. When an interest in the unique needs of a subgroup is identified where no data currently exists, DCHS recommends using qualitative methods (e.g. focus groups) targeting certain subgroups of the population or geographic area to best gather information to understand their needs.

DCHS looks forward to working with Executive and Council staff to develop a scope of work for the needs assessment project and continue to refine and improve data reporting proficiency.

PART I: BACKGROUND AND CURRENT STATUS

Ordinance 18409 approved by the Metropolitan King County Council on November 15, 2016 provides the final, detailed 2016-2017 Biennial Budget for King County. Included in that budget ordinance was a proviso calling for detailed analysis and a report from the County Executive on the feasibility of consolidated human services reporting.

Section 66, Proviso P2 of the ordinance, provides detail on the Council's expectation:

The report shall include a description of how the executive would achieve consolidated reporting on human services programming funded by the veterans and human services levy, the mental illness and drug dependency sales tax, the Best Starts for Kids levy and human services programs in the community services division of the department of community and human services including, but not limited to, domestic violence survivor program services, civil legal aid services, older adult services and sexual assault program services.

Performance Measurement and Evaluation (PME) staff from the Department of Community and Human Services (DCHS) and other key staff spent several months carefully examining the current data systems supporting the many programs and services provided by DCHS, and in particular, those specifically called out in the budget proviso. Section 66 of the proviso goes on to request feasibility studies and analyses for several approaches to consolidated reporting, which staff explored. This report responds to each of the questions posed by the Council proviso, with detailed analysis of improvements and enhancements to the current DCHS data systems available to report on human services programs and services and provides recommendations and next steps for how data consolidation may be realized.

Background

Mission Statement: Provide equitable opportunities for people to be healthy, happy, self-reliant and connected to community.

The Department of Community and Human Services (DCHS) provides leadership and regional coordination to a broad range of programs and services that help King County residents achieve and maintain healthier and more productive lives and work to strengthen our communities. Services are provided to tens of thousands of individuals each year, many of whom are served by multiple service systems. Most who receive services are low to very low-income residents and many are receiving services during a time in their lives when they are most vulnerable.

The majority of DCHS programs and services are provided through contracts with community-based agencies. In fact, about 85 percent of the DCHS budget is contracted to community partners, with the overwhelming majority of contracts awarded through competitive processes to ensure alignment with Council-approved priorities and service plans. Direct services provided by DCHS staff accounts for about eight percent of the budget and administration for the remaining seven percent. About 340 DCHS employees work to ensure quality human services are provided to children, adults and families throughout King County.

The approved biennial budget for DCHS for 2017-2018 totals over $1.368 billion from multiple fund sources. Federal funds support housing and homelessness (primarily through U.S. Housing and Urban Development funding), employment and education, mental health and substance use disorder treatment (primarily Medicaid), developmental disabilities, and veterans. State funds support housing and homelessness, employment and education, mental health and substance use treatment (largely Medicaid and some non-Medicaid funds) and developmental disabilities. King County's General Fund currently contributes to behavioral health, homelessness, education and employment, and community services programs such as domestic violence and sexual assault survivor services, civil legal aid, and services for older adults.

The larger contributions of the County to human services are provided through dedicated property or sales tax revenues. These include the Veterans RCW Fund (state-mandated property tax collection required of all counties in Washington State to benefit veterans), dedicated millage for developmental disabilities and behavioral health, and several document recording fees with revenues dedicated to homeless housing and services. Three additional funds provide critical support for human services: the Mental Illness and Drug Dependency (MIDD) dedicated sales tax exclusively for use for behavioral health services and therapeutic courts; the voter-approved Veterans and Human Services Levy (VHSL), which supports veterans and military personnel and their families and other individuals and families in need; and the voter-approved Best Starts for Kids (BSK) Levy, which supports children of all ages to be healthy and achieve their full potential, as well as supports for healthy families and communities. The VHSL expires on December 3, 2017, but the voters approved an expanded Veterans, Seniors and Human Services Levy (VSHSL) beginning January 1, 2018.

The department also provides support to All Home, the body responsible for overseeing regional efforts to address homelessness.

Human services are provided or managed by the DCHS Director's Office, the Community Services Division (CSD), the Developmental Disabilities Division (DDD), and the Behavioral Health and Recovery Division (BHRD). For purposes of this report, only those BHRD services provided through the MIDD and only those DDD services provided through BSK are included. This is consistent with the proviso language.

A table describing current DCHS programs covered by this report is included in Appendix 3.

Alignment of Services and Funding

As noted above, DCHS is supported by a number of different fund sources. Many of those fund sources come with specific requirements as to how those funds may be spent, as well as data and reporting requirements. Funding and data siloes have long been a factor in human services. Efforts over the past two decades have sought to reduce or eliminate strict borders between different funds and reporting requirements, in an effort to increase service collaboration and information sharing for the benefit of clients and families and improving coordination of care.

Several major changes helped to bring about change. Prior to 1999, mental health services in King County were provided by the DCHS Mental Health Division. Substance use disorder

services were provided through Public Health—Seattle and King County. Data collected separately by the two departments showed that, although many clients had a dual diagnosis, they had to enroll in two service systems and their treatment services were not coordinated. Then-County Executive Ron Sims called for a merger of the two systems in DCHS to improve information sharing and service coordination. The merger also effectuated discussions about data gathering requirements, which were very different as were the confidentiality laws, and it has taken years to break down walls between the two systems. Twenty years later, Washington State is leading the charge for the integration of mental health and substance use disorder treatment and the next step of health care integration will bring together Medicaid physical and behavioral health by 2020.

Another significant factor in the evolution of human services in King County was the County's shrinking General Fund, caused by a structural defect in the state's revenue system for county governments. With the inability to raise revenues due to state legislative caps and facing rising mandated justice system costs, the County was forced to substantially reduce funding for human services beginning in 1999 and continuing for several years. The Great Recession that followed brought about significant state and federal cuts to behavioral health and the social safety net as well. Rather than moving to eliminate all non-mandated services, the Executive and Council went to the voters to raise funds for discretionary programs, including human services. The first such levy was the Veterans and Human Services Levy approved in 2005, providing King County with a much needed flexible fund source to help many of the county's most vulnerable and at-risk populations, and serving to fill in gaps where there was no state or county funding, knitting together what had become a tattered safety net.

It was also in 2005 that the Washington State Legislature passed the Omnibus Mental Health and Substance Abuse Act that authorized counties to levy a one-tenth of one percent sales and use tax to fund new or enhanced mental health, chemical dependency or therapeutic courts services. In 2007, the County Council approved the dedicated sales tax. The development of the service plan for the Mental Illness and Drug Dependency (MIDD) Fund was carefully crafted to augment, not duplicate, service areas already identified for funding by the VHSL.

The County's budget challenges also brought about innovative alternatives to detention and incarceration. Corrections, courts, law enforcement, public defense and the prosecutor's office came together with behavioral health treatment providers to strategize ways to better serve those individuals who entered the justice system primarily because of untreated mental illness or addictions. This effort included increased information sharing across all the disciplines, which had not previously been the case, and the development of shared goals, such as reductions in jail use, inpatient hospitalizations and other emergency care.

Another example of major system change is found in the region's efforts to come together to find countywide solutions to the problem of homelessness, beginning with the Committee to End Homelessness in 2005 and continuing with today's All Home. The first Homeless Management Information System (HMIS) was created – one that has been replaced in the past two years to significantly improve both data collection and reporting capabilities. What both the old and the new systems have in common is that every provider enters information into one central data

system from which system-wide analysis and reporting can be generated. Participation in the HMIS is a requirement in order for a provider to receive County-managed homelessness funding. Total agency participation has been especially useful in preparing required regional reporting on numbers and outcomes for the federal government, a condition of funding, and in helping to identify through new dashboard reports which providers are successful in achieving performance measurement goals in their contracts.

In 2015, with significant input from the community, King County Executive Dow Constantine developed a ballot measure to support the County's youngest residents. Best Starts for Kids was designed to provide funding to help every child born and raised in King County to have their very best start in life and the supports to grow up healthy, motivated and able to achieve their highest potential. The voters said "yes." Like the VHSL and the MIDD, this initiative crosses over many service systems and gathers and uses data and information to inform planning and budgeting and contracting decisions. Some of the BSK initiatives are contracted for or administered by PHSKC, with funding passed through DCHS to Public Health.

While each of the three initiatives was approved separately, the Implementation Plan for the new Best Starts for Kids initiative, the review and update process for the Service Improvement Plan for the MIDD, and the planning and strategizing for the potential renewal and expansion of the VHSL all occurred at the same time. It provided the perfect opportunity to look closely at the services, populations, goals and objectives of all three initiatives to ensure they supported and did not duplicate efforts. It was also an opportunity to look at best practices around outcomes, data systems, performance measures and reporting in an effort to make improvements across all three initiatives.

This exploration of services, goals and objectives across the three initiatives and across the CSD general funded programs included an examination for how and where these efforts support the Health and Human Services Transformation Plan and most especially, the County's Equity and Social Justice with the goal of ensuring seamless alignment and support for the core tenets of those framework documents.

Efficient and effective health and human services systems and service delivery require deliberate planning to leverage co-investment and programmatic coordination that meets the complexity of residents' needs without wasting resources or public trust through unnecessary duplication or inefficiencies. In December 2016, staff from the VHSL, MIDD and BSK conducted a provisional investment overlap analysis as part of the process of identifying intersections between the three funds. The discussions around services and outcomes coordination focused in three areas: awareness, alignment and integration.

- Awareness: Coordination in which two or more programs serving the same population exist and operate separately. Each monitors the activities of the others, but none substantially alters its own actions based on the actions of the others. Awareness is the lowest level of coordination.
- Alignment: Coordination in which two or more programs serving the same population exist separately, but operate with regard to the other programs. Aligned programs remain

formally separate, but will often substantially alter their own actions based on the actions of other aligned programs in order to avoid unintended duplication. Alignment is the intermediate level of coordination.

- Integration: Coordination in which two or more programs combine under unified command and control key aspects of their systems, resources and operations. Integrated programs may remain formally separate, but they become functionally joint in their systems and the community results they seek. Integrated programs have formalized systems for joint governance and plan their actions together. Integration is the highest level of coordination. Integration may occur in the context of a time-limited project or may be ongoing. Increased coordination beyond integration would yield a full merger of two or more programs into one entity or effort, such as the integration of mental illness and substance use disorder treatment services into one integrated managed care system.

The analysis of MIDD, BSK and VHSL programs identified areas of potentially overlapping BSK-VHSL investments in which supplantation[1] would need to be avoided, and areas of potential co-investments that did not implicate supplantation. The analysis did not identify likely MIDD-BSK supplantation, but did identify areas of potential co-investment. Co-investment and coordination between fund sources are critical in some cases to scale resources to requirements; to increase system stability through diversified funding; to create integrated systems of access, delivery, and measurement for residents accessing services from multiple county fund sources; and to align County investments with the County's Strategic Plan and ESJ priorities.

1. Investments in Intergenerational Activities

   Strategy, research and community engagement indicated strong interest in intergenerational programming in areas such as housing, promoting social inclusion and engagement and childcare. Kinship care is one example of an intergenerational approach that intersects BSK's early investments in services for young children and the VSHSL Older Adults strategy to reengage seniors in their community.

2. Housing Capital and Homeless Services

   Housing capital is an area of county investment where coordination of funds is already accomplished through DCHS's Housing and Community Development section. In addition, All Home is a coordinating entity that can promote alignment within homelessness investments by MIDD, BSK and VHSL.

[1] Supplantation is a concept in State law under which a government is or is not allowed to use new revenue to cover the costs of existing programs. The Legislature often adopts policies requiring new revenue to be used exclusively for new or expanded services. State law prohibits supplantation for some of the County's major revenue sources.

3. Integrating Community Partnerships

   BSK, MIDD and VSHSL are all moving toward models of continuous community partnership in designing, implementing and assessing programming. Episodic engagement by each initiative with the same general population of community-based providers and residents risks exhausting the capacity for local communities—geographic and cultural—and community-based providers to continue participating in these processes. Full community partnership would be to reduce repetitive outreach efforts and instead to integrate the community engagement efforts between MIDD, BSK and the VSHSL where possible.

4. Integrating Contracting, Contract Management and Contractor Data Reporting

   As with community partnership, contracting, contract management and contractor data reporting requirements present an opportunity to integrate between BSK, MIDD and the VSHSL where more than one of these funding sources contracts with the same provider or organization.

5. Aligning Performance Measurement Frameworks and Systems

   Another point of coordination is the opportunity to adopt common performance measurement frameworks and systems. Integrating contracting and data reporting would set the conditions for aligned performance measurement. An aligned performance measurement framework would use similar language to describe strategic goals and programming to describe how to achieve strategic goals. Both BSK and the MIDD are developing frameworks for planning and evaluation based on results, indicators and strategy areas based on the model of Results Based Accountability (RBA). RBA is a simple, common sense framework that starts with determining the desired end result – the difference a community (e.g., city, county) is trying to make – and works towards means-strategies for getting there. The VSHSL is looking to transition its performance measurement framework to RBA.

6. Integrating Veterans Programs

   The implementation of the VHSL elevated coordination with the King County Veterans Program (KCVP), moving from alignment to integration. RCW 73.08 requires each county in Washington to create a Veterans Assistance Program (VAP) to serve indigent veterans and in King County, that program is the KCVP. Alignment between KCVP and the VHSL allowed KCVP to go far beyond its original model of providing only periodic emergency funds to creating a model of case management and system connection in which KCVP case managers assess or refer every client for health care enrollment, employment readiness, housing assistance and income benefits as needed. Emergency funds are used in conjunction with levy-funded holistic client practices that promote veterans' movement towards improved health and self-sufficiency.

   The expanded VSHSL will provide the opportunity to further coordinate with KCVP and make it the hub for all King County-funded investments in veteran's services.

Areas of potential KCVP-VSHSL integration include citizen board structure, data system merger, contract oversight and management, performance measurement, community partnership, and policy development.

7. General Fund Investments in Human Services

   King County's General Fund currently provides annual funding for domestic violence and sexual assault survivor services, civil legal aid and older adult services. Unlike other areas of human services, this funding is allocated not by competitive process, but by the Council as part of the budget process. Where both the VHSL (and the new VSHSL) and the General Fund invest in the same service areas, the VSHSL may move beyond alignment to achieve integration in specific areas like contracting, contract monitoring, and performance measurement where an organization receives both VSHSL and General Fund funding. The prohibition against supplantation is at issue if the VSHSL were to begin funding programs in place of current General Fund funding.

Current Reporting Systems and Challenges

DCHS has many programs and services and multiple reporting systems. These reporting systems currently provide siloed data on each separate program. Adding all the people served in these different programs creates an inflated number of persons served as some would be duplicated. For example, an individual served in three different programs would be counted three times.

DCHS currently uses at least seven different data systems to collect and store data on program enrollment and performance (see Appendix 4). Contracting information is stored in at least three additional systems. Each of these data or contracting systems were developed for a specific use. Most of the systems collect data and maintain records on individuals at the time of service, others collect aggregate level performance reports provided by contractors on clients and services on a monthly, quarterly or semi-annual basis. Therefore, data are not collected using the same approaches across all systems. The data from different systems cannot easily be linked. In some cases, the data or contracting systems were prescribed when the programs were created, e.g., federal HUD requirements mandating participation in the homeless management information systems (HMIS). The individual requirements previously prescribed for certain programs and services created or exacerbated a very siloed data system and created barriers to system, services and data integration.

There are four essential data infrastructure needs that would enable DCHS to report the unique number of clients served and their demographics:

1) Collect and consolidate individual-level data across all DCHS programs.
2) Define consistent data standards across all DCHS programs.
3) Build and manage technology solutions to integrate data systems across DCHS and identify unique individuals.
4) Link databases with individual data to databases with contract/funding data.

The second section of this report describes DCHS's analysis of the feasibility of moving forward with data integration on this scale. Section II also examines in detail each of the elements requested in the Council proviso.

Vision for Data Collection and Analysis in DCHS

DCHS fully embraces a data-driven culture and values using data to understand the collective impact of the wide variety of programs administered by the department. The department has started planning for data infrastructure to achieve consolidated reporting. Below is a description of the work that has begun to plan and build the appropriate data infrastructure.

Collect common data across programs

Consolidating reporting across DCHS requires that the same type of data is collected across multiple initiatives. DCHS has begun this coordination by moving towards a common framework for planning for the MIDD, BSK, and VSHSL—Results Based Accountability (RBA).

The DCHS Performance Measurement and Evaluation team is working to align the two types of metrics used in the RBA framework: population-level indicators that guide the development of appropriate strategies and performance measures that measure program success.

When performance measures are standardized, DCHS's Performance Measurement and Evaluation team will be able to assess the collective impact of multiple programs that all aim to achieve similar outcomes.

Combine data from different systems

The effort to achieve consolidated reporting across the department requires the ability to collect and combine individual data records from different systems. DCHS has begun work to integrate data from siloed data systems that were developed for specific programs (see the DCHS Application Roadmap in Appendix 5).

Several recent projects have been launched to improve integration between these siloed data systems. The Behavioral Health and Recovery Division (BHRD)'s integrated data system is one such project. BHRD became the Behavioral Health Organization (BHO) on April 1, 2016, which administers mental health, substance use, and chemical dependency services for the Medicaid population in King County.

BHRD made great progress toward integrated individual-level data with the start of the BHO on April 1, 2016. As of that date, all mental health (MH) and substance use disorder (SUD) treatment data are stored in a single database. This database identifies unique individuals and matches all associated service and outcome data to a specific person.

Integrate data from different departments

A cross-departmental data integration project is currently under way between DCHS and Public Health—Seattle & King County (PHSKC) designed to remove silos and improve

coordination of health and human services. This information technology (IT) project, the DCHS-Public Health Data Integration Project, is jointly sponsored by DCHS and PHSKC. The DCHS-Public Health Data Integration Project will create an IT solution that links, integrates, and stores data at the individual level for DCHS and Public Health and builds foundation to integrate data with other King County departments. This effort supports the Health and Human Services Transformation Plan that calls for greater collaboration and coordination between the two departments. See Appendix 6 for more detail.

The DCHS-Public Health Data Integration Project has two primary goals. The first is to improve care coordination through tools such as client lookup for providers and the second is the creation of a data warehouse necessary to do consolidated business intelligence and reporting for individuals served across DCHS and PHSKC.

Fully Integrated Managed Care

In 2014, the Washington State Legislature passed ESSB 6312 calling for the integrated purchasing of mental health and substance use disorder (SUD) treatment services (collectively behavioral health) for the Medicaid program through a single managed care contract by April 2016, and for full integration of physical and behavioral health by January 2020. On April 1, 2016, King County BHRD became the Behavioral Health Organization (BHO) for the region, replacing the siloed Regional Support Network and Chemical Dependency Coordinator systems.

As King County has selected the "mid-adopter option" which involves acceleration of the physical/behavioral health integration timeline by one year, intensive planning is now under way for the transition to fully integrated managed care by no later than January 1, 2019. All Medicaid funding for physical and behavioral health services will be contracted by the state Health Care Authority (HCA) through a single managed care contract to eligible Managed Care Organizations (MCOs).[2] The current roles and responsibilities of BHOs will change, including the significant role King County has in the administration and delivery of behavioral health services as the BHO. The specifics of the future role of King County in the fully integrated managed care environment are being negotiated and will be finalized during a transition year in 2019.

1115 Medicaid Managed Care Waiver and Demonstration Project

In January 2017, the federal Centers for Medicaid and Medicaid Services (CMS) authorized an 1115 Medicaid waiver for Washington State. This contract between CMS and HCA provides flexibility for the state to test new, innovative models of care to improve outcomes and reduce overall Medicaid spending through a five-year demonstration by which Washington State could earn up to $1.5 billion over the five years, provided it meets negotiated performance measures, outcomes and cost savings.

[2] Includes current Medicaid MCOs such as Amerigroup, Community Health Plan of Washington, Coordinated Care, Molina and United Health Care.

King County's Accountable Community of Health (ACH) recently selected four projects it proposes to implement in our region to further the goals of the demonstration project.

The transition to fully integrated managed care and the concurrent implementation of waiver-related innovations are spurring a fundamental transformation of behavioral health data infrastructure at King County. Work is under way now to redesign DCHS' behavioral health data system to interface effectively with the various platforms used by the MCOs in ways that facilitate identification and evaluation of key outcomes in the categories of behavioral health, physical health, and social determinants of health such as housing, employment, and criminal justice system contact. Once completed and implemented in the fully integrated managed care environment, this work could yield new discoveries about the outcomes achieved by MIDD, BSK, and VSHSL's health-related programming.

PART II: FEASIBILITY ANALYSIS AND COST ESTIMATES

The Council proviso made specific requests for feasibility analyses on various approaches to consolidated reporting. Each is discussed in detail in Part II.

A. Analysis of feasibility of consolidated reporting through a stand-alone report or a reporting dashboard and a recommended start-date and frequency for the reporting cycle

Current Ability to Report Clients Served

DCHS currently reports the clients served through the MIDD and BSK annual reports. The VHSL also reports clients served through an annual report and expects to continue annual reporting for the new VSHSL.

Some clients will be served by all three initiatives or multiple programs within an initiative. Therefore, together these reports do not provide a unique count of the individuals served by DCHS. The reports do, however, describe the demographics of the clients that were served and their outcomes for each initiative separately.

Feasibility of Reporting Unduplicated Clients Served and Standardized Outcomes

Understanding the number of unique (unduplicated) individuals served by DCHS programs would allow DCHS to report on the number of individuals who are served across DCHS, understand how many individuals are served by multiple programs, and report the department-wide impact on unique individuals.

Reporting unique clients requires new data infrastructure. Especially important is creating the capacity to transition the contractors who currently provide aggregate reports to providing individual service and demographic records (approximately 110 contractors). The following table describes the essential data infrastructure needs that are required for analysts to report on unduplicated clients at a high level.

DCHS Data Infrastructure Needs	Status and Feasibility
Collect and consolidate individual-level data across all DCHS programs	Currently, DCHS is working with IT to design and implement individual-level data collection systems for programs that are new, currently submit aggregate data, or use technology not supported by IT to collect data. Note: Some programs, such as programs serving survivors of domestic violence, will not submit identifiable individual-level data due to concerns about client safety.
Define consistent data standards across all DCHS programs	DCHS will make efforts to align data elements collected across the department whenever possible, by the different systems. There will be some variation since state and federal requirements determine the data that are collected for some DCHS programs.

DCHS Data Infrastructure Needs	Status and Feasibility
Build and manage technology solutions to integrate data systems across DCHS and identify unique individuals	The DCHS-Public Health Data Integration Project will perform the following key functions that will allow it to integrate data from different DCHS data systems: 1. Extract the individual-level data from the multiple DCHS sources 2. Transform the different data extracts into a consistent format for storage and analysis 3. Load the data into a consolidated database (referred to as a data warehouse). Ongoing IT support is needed to maintain this type of system and to add new data systems that have not been built yet. The DCHS-Public Health Data Integration Project will also include a matching tool that will assign individuals a unique ID. This will allow analysts to count unique individuals and analyze these individuals' demographics and program enrollment. More time-intensive analyses will be needed to understand individual outcomes across DCHS programs. To support consolidated reporting, the DCHS data consolidation system/data warehouse needs to be query-able by analysts and include all DCHS programs.
Link databases with individual data to databases with contract/ funding data	To understand which individuals are served by specific funding sources requires that the individual-level databases are linked to contracting databases on funders, funds source, and service types. Current individual-level data systems do not include this feature, and will require a technology solution. Creating the link between individual-level data and contracting data requires IT development. Creating a single contracting system would reduce the staff time needed to report on programs funded by different sources.

In addition to these data infrastructure needs, there are several considerations in reporting unique clients and standardized outcomes. First, although DCHS will align the data elements collected across the department, there will be variations since state and federal requirements often determine the data that are collected from some programs.

Second, DCHS is committed to ensuring that data collection does not create barriers for clients accessing services. As a result, there are limitations on the ability to count unique individuals and report on their demographics and outcomes. For example, DCHS does not collect identifying information on clients seeking domestic violence services, and, therefore, is not able to report how many survivors of domestic violence are served by multiple initiatives.

Third, data quality and completeness are important factors that determine the degree to which unique clients can be identified. Data quality improves when agencies have technical assistance, sufficient staffing for data entry, and appropriate infrastructure to collect data easily and securely.

The process of reporting unique individuals described above focuses on consolidated reporting of individuals served by programs administered by DCHS. However, some BSK or VHSL clients are served in programs administered by PHSKC and the data are collected in multiple data collection systems in both departments. Data integration between DCHS and PHSKC will continue to be assessed and explored for continuous improvement to coordination of care and information sharing and reporting efforts, in support of the principles of the Health and Human Services Transformation Plan.

Dashboards and Stand Alone Report

It takes approximately six months for DCHS staff to validate data, link across data systems, prepare data for analysis, conduct analyses, and prepare clear visualizations after data are submitted by contractors via a new data system. Once the data infrastructure requirements are met, reporting by either dashboard or a standalone report is possible.

While a dashboard or standalone report both require staff time to prepare data for presentation, a dashboard requires less time since the data presentation software Tableau facilitates digital data visualization best-practices. A standalone report would require three months of additional time for editing, design layout, and circulation to the Executive Office.

Since DCHS analysts already have annual reporting duties required for MIDD, BSK and VSHSL, linking data from multiple systems and creating a consolidated data dashboard or report in the same time period for this new purpose will require additional staffing.

Recommended Start Date

The recommended start date is July 1, 2022. That is when it is anticipated that unduplicated data and standardized outcomes from DCHS programs can be reported in one dashboard. VSHSL programs will begin collecting individual-level data for new contracts beginning in 2019. Therefore, 2020 will be the first year that individual-level data will be available from all DCHS programs specified in this proviso response. This time frame also allows for the completion of the data infrastructure projects described above.

Frequency of reporting cycle

DCHS recommends consolidated reporting on an annual basis for three reasons:

1. Initiatives already have more frequent report for continuous quality improvement.
2. Consolidated reporting requires additional staff time, in addition to meeting current reporting requirements by initiative.

3. Sufficient time is needed to detect trends, changes and improvements, especially in individual-level outcomes. For example, for some programs funded through the MIDD, outcomes were often not in the desired direction until the third year after clients began services before the intervention began to demonstrate positive outcomes. Therefore, it is important to allow time to monitor and track data over longer periods of time to show positive changes.

B. Analysis of feasibility of including in any consolidated reporting what programs were funded during the reporting cycle and the number of people served during the reporting cycle. The analysis should also include a description of disaggregated data, such as sex, race, ethnicity, or age, regarding individuals served that the department of community and human services determines would be appropriate for reporting during the cycle.

With the completion of data infrastructure requirements described in Section II A, DCHS will be able to report on the programs that were funded, the number of people served and disaggregated data by race. Additional systems need to be developed to report on the following:

1. **Programs that were funded**
   Currently, contracting and finance data are stored in multiple databases. Reporting on what programs were funded is available, but will require compiling data from various sources. An integrated contracting system and performance system is needed to improve DCHS's ability to report on all the programs that are funded.

2. **Number of people served**
   As part of the DCHS-Public Health Data Integration Project, all current individual-level data systems will be linked and unique individuals will be assigned a unique ID. With continued support, new data systems needed for consolidated reporting could also be linked to the DCHS-Public Health Data Integration Project. This will enable DCHS to report on the number of unique clients served once all programs are collecting individual-level data (expected in 2019).

   As described above, DCHS's count of the unique number of people served is feasible, with some limitations. For example, if collecting identifying information could pose barriers to seeking services or is waived (e.g., individuals seeking domestic violence survivor services or civil legal services), DCHS will not collect data from individuals seeking these services. Individuals can also decline to give their identifying information. In these cases, individuals without identifying information who are served by multiple programs will be counted multiple times.

3. **Disaggregation of data by sex, race, ethnicity or age**
   DCHS is committed to collecting data that can reveal disproportionality in the individuals who are served or their outcomes. An essential step to disaggregating data by important demographics is standardizing the demographics that are collected. DCHS will begin the

process of aligning demographic data collection and creating consistent broad demographic categories wherever possible by December 31, 2018. Some of DCHS's data systems have prescribed data elements. For example, the Homeless Management Information System (HMIS)'s data standards are defined by U.S. Department of Housing and Urban Development and behavioral health Medicaid claims data have required data elements determined by Washington State. For this reason, variation will still exist and DCHS will align reporting whenever possible.

DCHS is currently making the transition to an individual-level data collection process for programs that currently collect aggregated program data, such as the VHSL in collaboration with DCHS program staff and service providers. To disaggregate data by sex, race, ethnicity, or age, DCHS must collect individual-level data. Program staff and service providers recognize the value of collecting individual-level data to better serve clients. In order to make a transition, DCHS needs to continue to provide support for providers to build capacity to collect and report data on individuals.

New BSK programs without an existing data system that are administered by DCHS will also collect individual-level data as service activity begins. Launching these programs requires developing similar data system infrastructure and collaboration and capacity building with service providers and DCHS program staff.

C. Analysis of feasibility of including outcome data for each of the specified human services programming or programs identified in subsection A. 1. of this proviso

Performance measurement and evaluation for BSK, MIDD and the new VSHSL utilize the RBA framework described in Part I. In the RBA framework, performance measures are categorized into three domains listed below:

1. How much did we do? Quantity of the service provided, such as number of clients served or number of activities by activity type.

2. How well did we do it? Quality of the service provided, such as timeliness of services, satisfaction with services or whether a program was implemented as intended.

3. Is anyone better off? Quantity of individuals that are better off and how they are better off, such as the percentage of individuals with improved health and well-being or with increased skills, knowledge or changed behaviors.

Program outcomes are described as performance measures that seek to answer the question, "Is anyone better off?" A significant amount of work has been undertaken by DCHS to align performance measure data by type of services and programs when possible.

Once performance measures are standardized, sufficient time must pass before outcome data are available from programs. Many programs last more than one year and performance measures that can answer the question "Is anyone better off" are typically collected at

program exit. Some outcome data, such as future involvement in the criminal justice system, graduation from high school, or job retention are measured after program exit. Program outcomes are reported when they are available, which will vary depending on the program.

D. Analysis of feasibility of selecting and recommending on the selection of five to ten indicators that could be used to measure progress toward desired county population-level impact across all of the human services programming or programs identified in subsection A. 1 of the proviso that would be included in any consolidated reporting

DCHS will use the RBA framework to identify population-level indicators in collaboration with program staff, community providers and stakeholders. RBA acknowledges that it takes the collective efforts of many stakeholders to change the conditions of the community. Stakeholders and program staff will be engaged to determine what changes the County wants to see and how the changes can be measured with each partner's contribution.

The purpose of population-indicators is to describe the collective aims of DCHS programs and track whether the County is making progress towards the desired results over the long term. The RBA framework suggests that population-indicators should be selected based on three criteria:

1. Communication Power: Indicators should be easily understandable to a diverse audience.
2. Proxy Power: Indicators should measure something of importance.
3. Data Power: Indicators should be based on reliable data that can feasibly be collected.

The DCHS PME team will collaborate with program staff, community stakeholders and service providers to choose five to ten indicators based on the three criteria described above that capture the main results that DCHS aims to achieve through programming. This collaboration process could be completed by the end of 2018.

Population-level indicators could be updated annually. DCHS will use the most recent year of available data in these updates. Population-level data typically has a lag time of up to two years after data collection is complete until data become available. It is also important to consider that this type of data cannot be examined for some priority populations, such as individuals with serious mental illness or individuals who do not have stable housing, since current quantitative surveys do not typically capture data from these individuals.

E. Analysis of the feasibility of selecting and recommendations on the selection of geographic areas for reporting on geographic expenditure data during each reporting cycle, including recommendations on whether funding should be reported according to the location of the primary entity being funded or the location of where services are actually delivered

It is important to understand the geographic areas that are served and whether the current service sites align with population needs. Based on the current DCHS reporting systems, DCHS can only report the contractors who were funded. However, since many contractors have multiple service sites, the contractor alone does not indicate the location of service.

DCHS recommends two strategies for understanding where clients were served and how resources were distributed:

1) All contractors designate a broad service area that they intend to serve during the contracting process
2) Data systems are updated to collect the zip code where clients were served.

Both of these strategies are feasible and both will require coordination across DCHS and funding to update data systems. The table below describes the measures that could be reported using each strategy and the limitations and feasibility of each.

Strategy	**Measure that this strategy would allow DCHS to report**	**Limitations**	**Feasibility**
All contractors designate a broad service area that they intend to serve during the contracting process	Number of contractors who serve clients in a given region of the county and the funding associated with each of those contracts. Note: Funding cannot be apportioned to a specific region	This information is not collected in current data systems. Data systems would all have to be changed to collect this information. Geography would be described in broad regions (e.g, Seattle, South King County)	With time for DCHS-wide coordination and funding for data systems updates, it is feasible to collect intended service area data for each project
Data systems are updated to collect the zip code where clients were served	Number of clients served in each zip code	This information is not collected in current data systems. Data systems would all have to be changed to collect this information.	With time for DCHS-wide coordination and funding for data system updates, it is feasible to report the number of clients served in each zip code In order to protect client confidentiality, zip codes will be combined into larger geographic areas if the number of clients served is small.

Strategy	Measure that this strategy would allow DCHS to report	Limitations	Feasibility
Reporting geographic areas that a contractor intends to serve as described by their contract	Describes geographic area defined in the contract (Some contracts already contain this information.)	Geography would be described in broad regions (e.g, Seattle, South King County) (Not all contracts contain this information.)	All future contracts could contain this information, but that transition will take several years. Geography could be reported in broad regions,

F. Analysis of feasibility of reporting on a county-wide need in a way that encompasses the needs that the programs in the proviso response are aimed at meeting and that includes a way to measure:

(1) the needs of smaller communities within larger geographic areas that may experience disproportionately negative well-being outcomes that might be obscured by their existence within a larger geographic area in which the majority of the population experiences higher than-average well-being outcomes

(2) the needs of individuals, particularly children and youth, who might reside in more-affluent areas of the county but whose potential needs might not be correlated to their or their parents' socioeconomic status, such as the need for early screening and access to behavioral healthcare

Understanding the needs of clients and communities is critical to designing and providing services to meet those needs. To assess the county-wide need for DCHS programs would require an assessment of a very wide range of human service needs, including housing, employment, behavioral health, youth development, developmental delays and developmental disabilities, domestic violence and sexual assault survivor supports, older adults, and civil legal aid. Other needs that may provide important context to delivering services, such as community safety and transportation, should also be assessed.

Social science researchers (National Science Foundation, 1997; Center for Community Health and Development at the University of Kansas, 2017) typically use four strategies to assess needs:[3]

1. **Complete population records:** Complete administrative records from sources such as birth certificates, death certificates, school enrollment data, in-patient hospital billing information, and jail bookings.

[3] National Science Foundation. *User-Friendly Handbook for Mixed Methods* Evaluations. August 1997; Center for Community Health and Development at the University of Kansas. *Community Tool Box: Chapter 3 Assessing Community Needs and Resources.* Retrieved from http://ctb.ku.edu/en.

2. **Surveys**: Samples of people's responses are used to estimate what the responses would be for the entire population. For example, about one in 38 U.S. households receive an invitation to participate in the American Community Survey each year. These data are used to estimate household income, rates of poverty, labor force participation, and housing data for the entire population.
3. **Service system data**: Data such as 2-1-1 call line or program waitlists can indicate the needs of individuals who are seeking services.
4. **Focus groups, interviews and observations**: Traditional qualitative methods include focus groups, interviews and observations. Qualitative data are good at uncovering the reasons or "why" behind the trends seen in quantitative data. For example, if quantitative data finds that women are more likely to drop out of a particular program than men, a focus group with 10 women that recently dropped out of the program would help to identify and learn more about their reasons for leaving.

All of the above strategies have different strengths and utilities. For example, defining the scope of the program is often done through surveys or complete population records. These strategies can quantify the number of people who might be needing a certain service. Qualitative strategies such as focus groups, interviews and observations can complement the surveys and population records by providing causes and nuances of their needs.

Current needs assessment strategies used in DCHS

Currently, DCHS tracks population-level trends from complete population records and surveys, monitors service system data, and conducts community outreach as part of its planning process. For example, DCHS uses American Community Survey data to understand income, poverty and employment by race and ethnicity and uses Coordinated Entry for All data to understand and improve access to homeless housing services.

The current needs assessment strategies can be enhanced. First, DCHS does not systematically conduct ongoing qualitative analyses, due to the high cost of this type of assessment. DCHS needs to balance spending its limited resources on assessments to examine the needs of small communities or subgroups whose needs may not be illustrated using current methods, with spending resources on service delivery to address known needs.

The second important aspect to consider in conducting needs assessment is the time it takes to conduct the survey, which could limit the ability to capture emergent needs in a timely manner. Complete population records and surveys are typically released 1.5 years after the data collection occurred since compiling and preparing data for release is time intensive. Similarly, qualitative data collection takes significant time to collect and analyze.

It is challenging for DCHS to detect the unique needs of smaller communities within larger geographic areas and the needs of individuals who may be living in more affluent areas for the following reasons:

1. The surveys use the responses of a few to represent responses by a larger group; therefore, results are averages rather than precise counts of need.

2. Due to privacy concerns that an individual could be identified, population-level data on small geographic areas or small numbers of people cannot be reported.

3. Collecting new qualitative data requires additional staff to conduct outreach, recruit participants, administer focus groups and analyze qualitative data.

Enhancing current needs assessment efforts

There are several ways to enhance current needs assessment efforts to improve the ability to capture the diverse and unique needs of the community.

1. Develop a systematic qualitative research approach

Systematic, qualitative research could enable the department to better assess and measure needs. Qualitative research most accurately captures community needs when the following principles are followed:

- Structured qualitative research methods are used.
- Outreach is conducted to communities that have historically been disenfranchised or do not have strong advocates.
- Results are shared with participants to ensure that needs have been captured accurately and their voices are valued.

Feasibility: Thorough outreach and qualitative analysis is possible with appropriate staffing and resources. Although qualitative research enables in-depth analysis of needs and root causes, data collection and analysis can take months and may not be the best approach for urgent or time-sensitive needs.

DCHS estimates that the cost, including King County staff time, to conduct a single focus group is approximately $6,000 per ten-person focus group in a given language.[4] Equity and social justice considerations are critical in determining which populations should inform the outreach; the cost to make them accessible is secondary. Meaningful analysis on a single topic would likely require multiple focus groups. The number of focus groups needed would also depend on the geographic area of interest.

The timeline for these projects should account for any competing priorities that community partners have to balance to participate. DCHS recommends hiring additional dedicated staff to support outreach, recruitment and coordination of these projects.

[4] This estimate is based on the budget for Public Health—Seattle & King County focus groups on nutrition labeling conducted in 2007-2008 and the pricing information from a community-based organization that facilitates focus groups in multiple languages.

2. **Ongoing coordinated outreach and data collection for DCHS**

An individual or organization's needs rarely fall neatly within a single DCHS funding stream and can change over time. Outreach and focus groups could be used by DCHS for planning, to identify root cause issues, and to ensure disproportionately impacted communities are heard and their needs addressed. Ongoing efforts could also be used to analyze how needs change over time and how services should be adjusted.

Feasibility: Ongoing outreach and coordination is possible with additional full-time staff. Currently, both BSK and VSHSL have budgeted for ongoing community engagement. In addition to these staff members, this effort would require additional staff to coordinate efforts across the department and ensure that needs that are not the focus of BSK or VSHSL are also captured. An additional FTE would cost approximately $155,000 annually including wages, benefits, and the central rate.

3. **Improve coordination with other needs assessment efforts**

In addition to coordinating needs assessments within DCHS, there are many organizations conducting needs assessments in King County. PHSKC conducts several required needs assessments that can be either general or focus deeply on a specific topic. Examples of a general needs assessment include a Community Health Needs Assessment, due every three years and conducted in partnership with all King County nonprofit hospitals. Needs assessment have been conducted by local community-based organizations, social services organizations and health care organizations. When developing the 2016 Regional Health Improvement Plan, the King County Accountable Community of Health (ACH) reviewed 54 needs assessments and community engagement reports that had been completed in King County during the previous five years alone.

There are also needs assessments conducted by other King County departments. For example, the development of the King County Equity and Social Justice Strategic Plan included community engagement at over 100 sessions with 233 community partners from July to Sept 2015.

This may also be an opportunity to partner with PHSKC and other King County departments on some of the qualitative work, taking advantage of their experience, capacity and expertise in this type of work. Such collaboration could help to leverage internal partnerships for mutual gain in gathering geographic or population information.

Feasibility: Improving coordination with other needs assessment efforts is feasible. Synthesizing needs captured in other needs assessments requires ongoing monitoring and outreach to partner organizations. This method relies on the questions and outreach strategies defined by partner organizations or other King County departments.

This type of effort would require at least 0.5 FTE to coordinate with other initiatives, build relationships with partner agencies and synthesize results. An additional 0.5 FTE would cost approximately $77,000 annually including wages, benefits, and central rate.

G. Analysis of the cost of the consolidated human services reporting examined in response to this proviso

Consolidated reporting will build upon tools and techniques developed in the IT infrastructure projects that are currently under way, as well as require design and implement additional technology. Therefore, the timeline is dependent on the completion of these early projects. The timeline is also dependent on securing funding for new IT projects and additional staff to manage the IT projects and complete the analyses.

Appendix 7 identifies the capabilities, estimated resource needs and overall timeline for achieving the consolidated reporting objectives. The information provided by KCIT is considered to be Rough Order of Magnitude (ROM) numbers, not official KCIT estimates (which require a greater understanding of the scope and requirements). However, these ROM estimates will provide some idea of the effort and resources involved in meeting the proviso requirements.

The costs come primarily from new IT infrastructure costs and the need for additional DCHS PME staff to manage new data resources and undertake the analyses for new consolidated reporting requirements. The following summarizes the costs of consolidated reporting.

Consolidated Reporting Design and Build: Approximately $2,590,000 over three years (2018 through 2020).

Consolidated Reporting Maintenance, Reporting and Refinement: Approximately $1,045,000 per year beginning in 2020, with complete reporting of department outcomes realized by 2022. The maintenance costs for these two years total approximately $2,090,000.

Needs Assessment: Examples of cost for the need assessment are provided under F of the proviso response. The estimated cost will vary depending on scale and type of need assessment strategy that will be used, which is described in detail under Section F.

PART III: RECOMMENDATIONS AND NEXT STEPS

Consolidated reporting on the initiatives, programs and services supported by King County that fall under the category of "human services" is feasible and promotes the department's goals on transparency. There are barriers to how quickly the work can be completed, some of which are more flexible than others. There are resource issues that must be addressed to move the efforts forward, particularly during a time when mandated projects are consuming considerable staff time and effort.

Priority needs assessment work can begin immediately, folded into current and ongoing outreach and engagement efforts. Utilizing an equity and social justice focused community engagement process to understand the needs of unique populations and geographic areas is critically important to service planning. DCHS recommends leveraging existing data sources and county efforts to assess unique needs, both for populations (e.g. seniors) and for geographic areas, rather than attempting to conduct a massive, countywide human services needs assessment. This report also calls for better coordination of outreach efforts and needs assessments within DCHS and between DCHS and other county departments when outreach is planned to the same groups. In conducting countywide assessments, it is important to define clearly what information is needed and what questions the assessment needs to ask to effectively gain that information.

DCHS recommends starting the consolidated reporting in 2022. This will allow time for the transformation of the VSHSL and the expanded areas of service, notably older adults services, into the results-based accountability model to align it with the other county-funded human services initiatives (BSK and the MIDD). Data on individuals will become available from the expanded VSHSL starting in 2019 and 2020 will be the first year data will be available from all three new or renewed initiatives. The substantial staffing and resources currently focused on the data integration for physical and behavioral health system integration will be primarily completed by this time.

Proviso Requiring the Consolidated Human Services Reporting

Ordinance 18409
Section 66 Lines 696-751

P2 PROVIDED FURTHER THAT:
Of this appropriation, $100,000 shall not be expended or encumbered until the executive transmits a report on consolidated human services reporting with a motion accompanying the report that should acknowledge receipt of the report and reference the subject matter, the proviso's ordinance, ordinance section and proviso number in both the title and body of the motion and a motion acknowledging receipt of the report is passed by the council.

A. 1. The report shall include a description of how the executive would achieve consolidated reporting on human services programming funded by the veterans and human services levy, the mental illness and drug dependency sales tax, the Best Starts for Kids levy and human services programs in the community services division of the department of community and human services including, but not limited to, domestic violence survivor program services, civil legal aid services, older adult services and sexual assault program services.

2. The report shall include, but not be limited to:

a. an analysis of the feasibility of consolidated reporting on the specified human services programming or programs identified in subsection A. 1. of this proviso through a stand-alone report or a reporting dashboard and a recommended start-date and frequency for the reporting cycle;

b. an analysis of the feasibility of including in any consolidated reporting what programs were funded during the reporting cycle and the number of people served during the reporting cycle. The analysis should also include a description of disaggregated data, such as sex, race, ethnicity, or age, regarding individuals served that the department of community and human services determines would be appropriate for reporting during the cycle;

c. an analysis of the feasibility of including in any consolidated reporting outcome data for each of the specified human services programming or programs identified in subsection A. 1. of this proviso;

d. an analysis of the feasibility of selecting and recommendations on the selection of five to ten indicators that could be used to measure progress toward desired county population-level impact across all of the human services programming or programs identified in subsection A. 1 of this proviso that would be included any consolidated reporting;

e. An analysis of the feasibility of selecting and recommendations on the selection of geographic areas for reporting on geographic expenditure data during each reporting cycle, including recommendations on whether funding should be reported according to the location of the primary entity being funded or the location of where services are actually delivered;

f. an analysis of the feasibility of reporting on county-wide need in a way that encompasses the needs that the programs in the proviso response are aimed at meeting and that includes a way to measure:

(1) the needs of smaller communities within larger geographic areas that may experience disproportionately negative well-being outcomes that might be obscured by their existence within a larger geographic area in which the majority of the population experiences higher than-average well-being outcomes; and

(2) the needs of individuals, particularly children and youth, who might reside in more-affluent areas of the county but whose potential needs might not be correlated to their or their

parents' socioeconomic status, such as the need for early screening and access to behavioral healthcare; and

g. an analysis of the cost of the consolidated human services reporting examined in response to this proviso.

B. The executive must file the report and work plan and a motion required by this proviso by January 18, 2018, in the form of a paper original and an electronic copy with the clerk of the council, who shall retain the original and provide an electronic copy to all councilmembers, the council chief of staff and the lead staff for the health, housing and human services committee, or its successor.

Consolidated Reporting Analysis Summary and Work

Component of consolidated reporting	Feasibility and recommendations	Timeline
A) Analysis of feasibility of consolidated reporting through a stand-alone report or a reporting dashboard and a recommended start-date and frequency for the reporting cycle	Reporting on unique clients served by MIDD, VSHSL, BSK programs administered by DCHS and other human services programs is feasible with investments to support the following data system infrastructure: 1) Collect client-level data across all DCHS programs 2) Define consistent data standards across all DCHS programs to overcome fragmentation 3) Build and manage technology solutions to integrate data systems across DCHS and de-duplicate unique clients Link databases with client data to databases with contract/funding data	Recommended start date is 2022. Begin building data collection systems in 2018 to prepare for client-level data collection for all programs where individual-level data collection is appropriate beginning in 2019*. Additional time will be needed to train providers and observe changes in outcomes.
B) Analysis of feasibility of including in any consolidated reporting what programs were funded during the reporting cycle and the number of people served during the reporting cycle.	With the appropriate data infrastructure described in section A it is feasible to report data that is disaggregated by sex, race, ethnicity, or age.	Recommended start date is 2022. Begin building data collection systems in 2018 to prepare for client-level data collection for all programs where individual-level data collection is appropriate beginning in 2019*. Additional time will be needed to train providers and observe changes in outcomes.
C) Analysis of feasibility of including outcome data for each of the specified human services programming or programs identified in subsection A. 1. of this proviso	With sufficient staff time and appropriate data infrastructure, outcome data can be reported for the human services programs administered by DCHS.	Sufficient time must pass for participants to achieve program outcomes. The earliest that some outcomes will be collected consistently is 2019*.

Component of consolidated reporting	Feasibility and recommendations	Timeline
D) Analysis of feasibility of selecting and recommending the selection of five to ten indicators that could be used to measure progress toward desired county population-level impact across all human services programming or programs identified in subsection A. 1 of this proviso	It is feasible for DCHS to align population-level indicators for different initiatives and recommend five to ten indicators for the department to track.	Indicators can be selected and the most recent data available can be reported by the end of 2018. The most recent data available will often have been collected several years prior.
E) Analysis of the feasibility of selecting and recommendations on the selection of geographic areas for reporting on geographic expenditure data during each reporting cycle, including recommendations on whether funding should be reported according to the location of the primary entity being funded or the location of where services are actually delivered	There are several ways to report on geographic expenditures including: primary business address of contractors, geographic service area defined in the contract, complete address of service delivery site, zip code of service delivery, or service delivery sites and estimated amount of funds allocated to each site. DCHS can currently report the primary business address of contractors. To report geographic expenditures in another way requires updating data systems.	The timeline will depend on the strategy that is chosen*.

Component of consolidated reporting	Feasibility and recommendations	Timeline
F) Analysis of feasibility of reporting on a county-wide need in a way that encompasses the needs that the programs in the proviso response are aimed at meeting and that includes a way to measure: 1) the needs of smaller communities within larger geographic areas 2) the needs of individuals, particularly children and youth, who might reside in more-affluent areas of the county but whose potential needs might not be correlated to their or their parents' socioeconomic status	It is not feasible to report the needs of small geographic communities using current needs assessment strategies. DCHS identified three strategies that could enhance the current needs assessment strategies: Develop a systematic qualitative research approach, ongoing coordinated outreach and data collection across DCHS, improved coordination with other needs assessment efforts.	Timeline will differ depending on which strategies are chosen to enhance current data collection efforts and funding for appropriate staffing.
G) Analysis of the cost of the consolidated human services reporting examined in response to this proviso	Appendix 7 provides a budget estimate of $2,590,000 to design and build the data infrastructure and analysis capability to do consolidated human services reporting and an annual estimate of approximately $1,045,000 to maintain the system, dashboards and conduct analysis of the consolidated data.	

*This timeline is contingent on adequate funding for KCIT support.

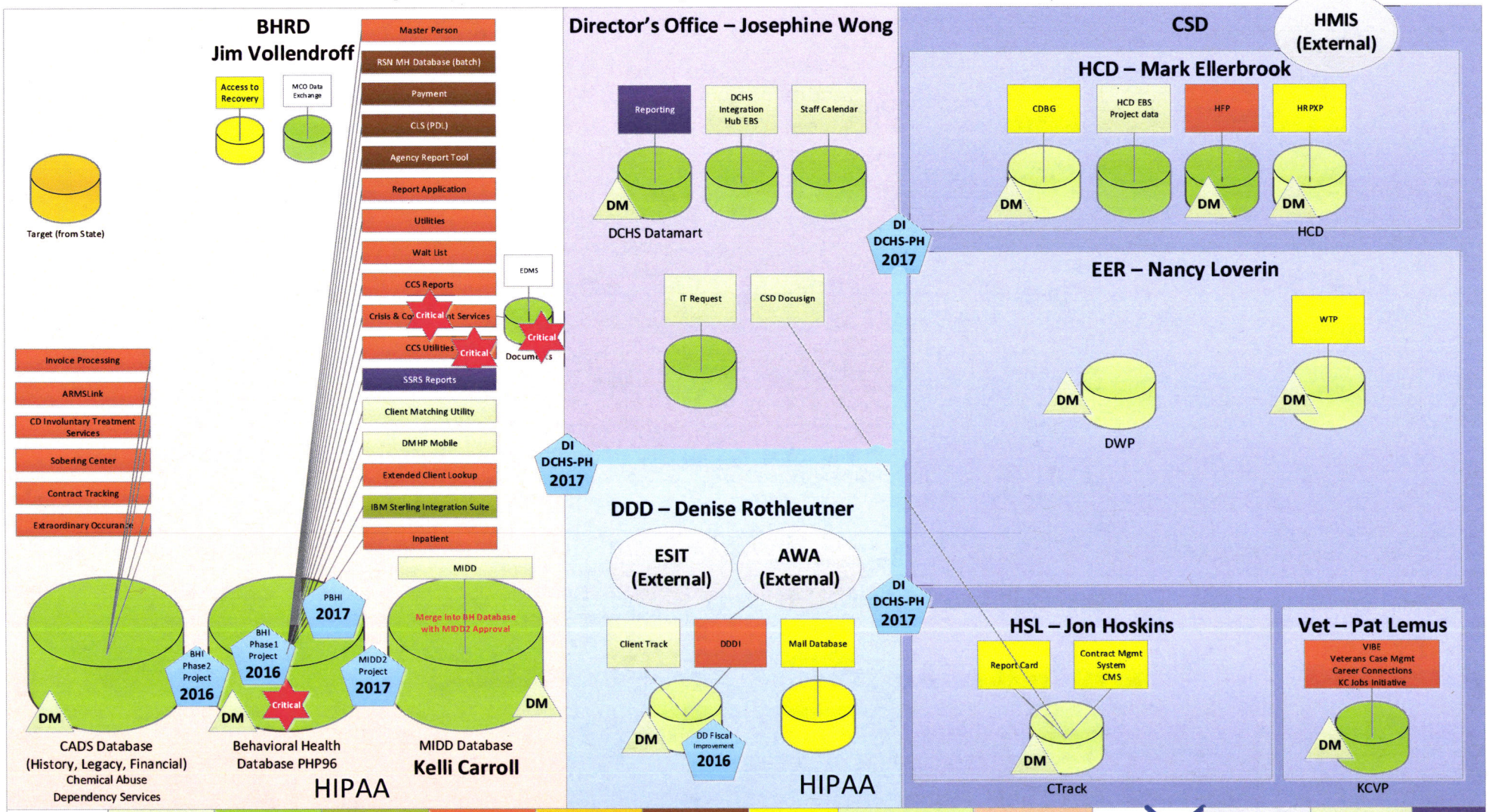
List of Programs and Services Included in this Proviso Report

INITIATIVES/DIVISION	PROGRAM
Mental Illness and Drug Dependency	
Crisis Diversion	Outreach and Engagement
	Services and Treatment
	Youth Services Continuum
Prevention and Intervention	Screening and Assessments
	Education and Training
	Community-Based Behavioral Health Treatment
Recovery and Reentry	Housing
	Care during Transitions
	Community Supports
System Improvements	Community Access
	Workforce Development
Therapeutic Courts	
Best Starts for Kids	
Prenatal to Age Five	Innovation Fund Programs
	Home-Based Services
	Community-Based Parent Supports
	Information for Parents/Caregivers on Healthy Development
	Child Care Health Consultation
	Early Intervention Services
	System Building for Infant/Early Childhood Mental Health
	Workforce Development
	Investment in Public Health's Maternal/Child Health Services
	Help Me Grow Framework-Caregiver Referral System
Ages Five to Twenty-Four	Trauma-Informed Schools and Organizations
	Restorative Justice Practices
	Healthy Relationships and DV Prevention for Youth
	Quality Out-of-School Time Programs
	Youth Leadership and Engagement Opportunities
	Mentoring
	Family Engagement Support
	Positive Identity Development
	School Based Health Centers
	Healthy and Safe Environments
	Screening and Early Intervention for Mental Health and Substance Use Disorder
	Helping Young Adults Successfully Transition into Adulthood
	Stopping the School to Prison Pipeline (School supports, employment supports)
Communities of Opportunity	
Youth and Family Homelessness Prevention Initiative	

Veterans and Human Services Levy	
Supporting veterans and their families to build stable lives and strong relationships	King County Veterans Program Outreach and Engagement Veterans employment and training Contracted PTSD (Post-Traumatic Stress Disorder) treatment/ Military Sexual Trauma Veterans Justice Support for military families
Ending homelessness through outreach, prevention, permanent supportive housing and employment	Outreach and Engagement Housing Capital Housing Stability Program Support Services for Housing Criminal Justice Initiatives Employment and Training
Improving health through the integration of medical and behavioral health services	Behavioral Health Integration Veteran and Trauma Competency Training Health care reform system design and implementation Depression Intervention for Seniors (PEARLS) Facilitation of ongoing partnerships Client Care Coordination
Strengthening families at risk	Home Visiting Maternal Depression Screening Parent Education and Support Passage Point Information and Referral
DCHS Administration	
	All Home
Housing and Community Development	
	Community Development Housing Finance Program Housing Repair Homeless Housing Program
Employment & Education Resources	
	Youth Programs Adult Programs
Community Services Operating	
	Domestic Violence Survivor Services Sexual Assault Victim Services Civil Legal Aid Services Older Adult Services Homeless Prevention and Emergency Services

Department of Community and Human Services - Applications

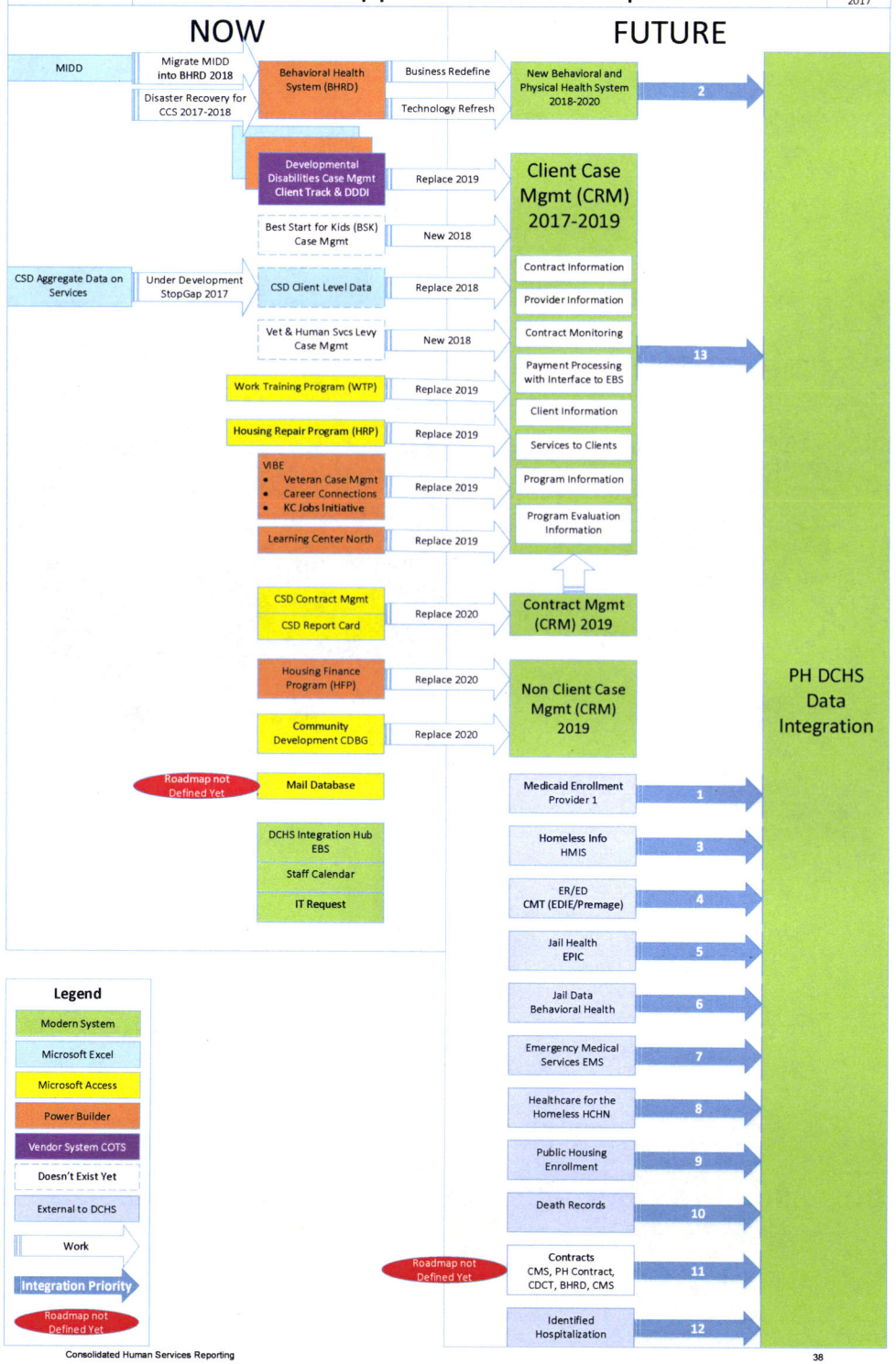
Jim Keller
8/30/2017



LEGEND	MS .Net	SQL DB	Java	Power Builder	Informix	Informix 4GL	MS Access	MS Access Converted SQL	Lightswitch	Inactive	External Systems	DM Data Mart	SSRS SSAS
	Technology OK	Repl if App Replaced	Replace	Replace	Replace	Replace	Replace	Replace	Removed			Inactive	

DRAFT DCHS Application Roadmap

Jim Keller 11/15/ 2017



King County Integrated Care Data Hub

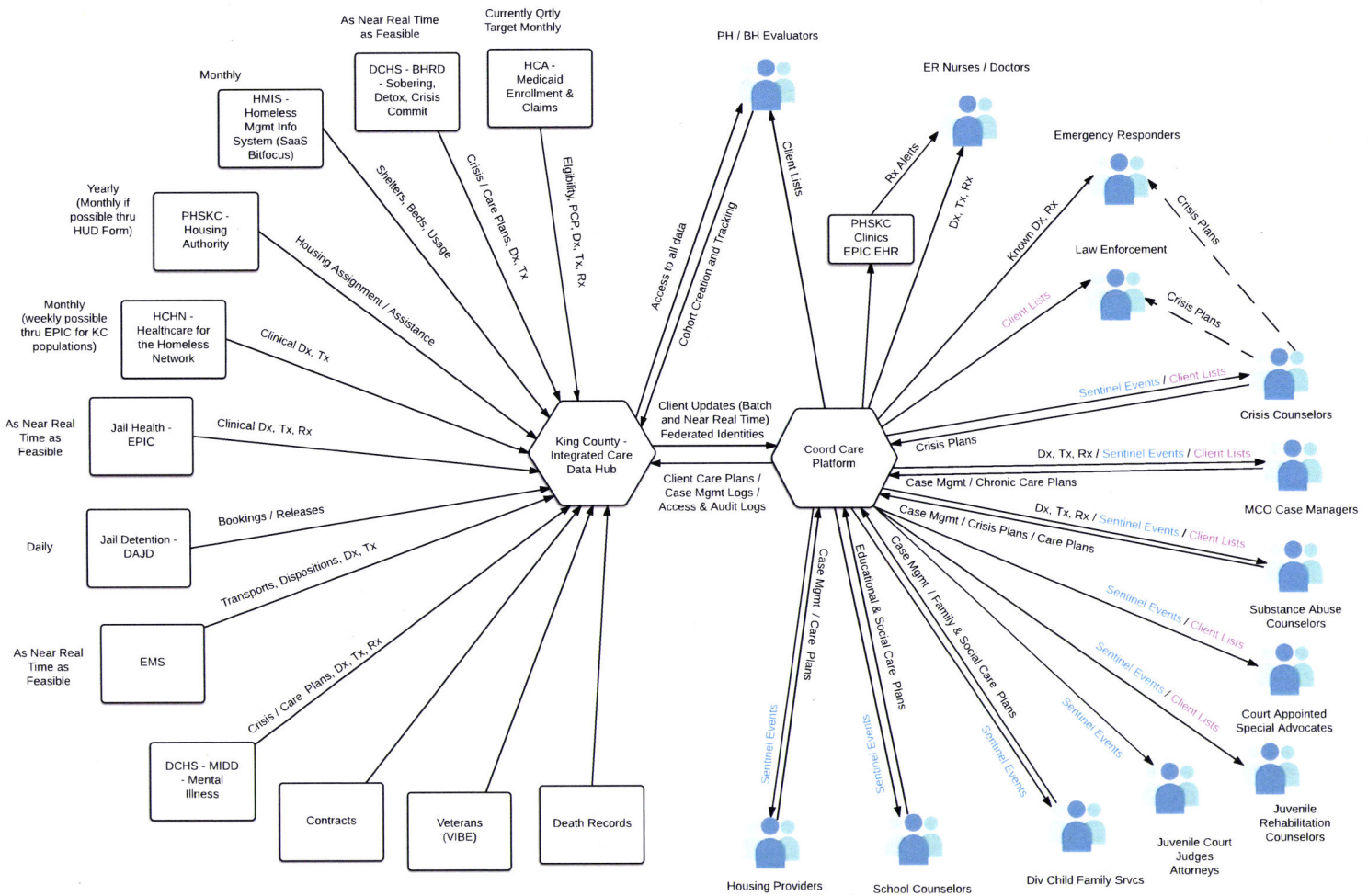
Conceptual Data Flow Diagram

Boxes on left represent source data systems with anticipated update cycles

The King County Integrated Care Data Hub will compile a Master Client Index, and Analytical Workbench, by ingesting and linking data.

Many Personas are anticipated needing access to the comprehensive client profiles and lists. Laws and regulations do allow for sharing of specific data for specific needs and role based access control to well classified data is required.

The KC Data Hub and Coordinated Care Hub will require careful interface and integration planning to map and load data correctly. It will need to federate identities of authorized user Personas to access client data. We will want to receive frequent data updates and log files for monitoring and tracking outcomes.



Coordinated Care Platform

There are a few Coordinated Care Platform vendors in the market. CMT - Edie / Premanage is a SaaS offering from Collective Medical Techologies providing Coordinated Care Planning / Case Management / Alerts and Notifications and adhoc client query list generating capabilities. It is currently being used at King County for certain programs. Including alerts to ER staff on Rx use of Clients.

Pathways Hub is also a platform being used or considered by different regional and state entities.

Sentinel Events are real-time alerts to service providers and case managers notifying of significant client care events occuring.

Client Lists are standard reports allowing care providers to select and filter on predefined parameters. Allows care providers to group clients into work plans for outreach and interventions

Consolidated Reporting Budget Estimates[1]

Functionality/Objective	Description	Resources Required	Cost Estimate	Timeline
Collect and managed individual - level data across all DCHS programs	Currently, DCHS is working with IT to design client-level data collection systems for programs that are new, collect aggregate data, or use technology not supported by IT to collect data. These data systems should be user friendly, secure, and validate data that are entered into the system.	KCIT Project Management. Proof of Concept, RFP, implementation Business analyst, requirements, testing, QA Data Architect solution design Data collection software adaption COTS consolidated data systems Annual Licensing – data users Annual system administration 2019 2022 Annual configuration refinements (KCIT or Vendor)	**Design/Build $1,590,000** 1 FTE IT Project Manager$220,000 1 FTE IT Data Architect $250,000 .75 FTE IT Business Analyst $160,000 COTS adaption, configuration implementation, User training, legacy data $800,000 1.0 FTE DCHS-PME Data Resource Manager -User Requirements, Use case testing, project liaison $160,000 **Ongoing $500,000** Licensing users $350 to $600 per year CRM 125-150 users $75,000 Annual system support – CRM Vendor $125,000 Annual system support KCIT $300,000	Proof of concept early 2018 RFP 2018-2019 Build 2019-2020 Refine/Maintenance 2021-2022
Develop consistent data standards including standardized data elements, definitions, and data structure	DCHS will make efforts to align data elements collected across the department whenever possible. There will be some variation since state and federal requirements determine the data that are collected for some DCHS programs.	IT/PME planners, program managers to establish protocols, develop recode technology. Ongoing maintenance of the standards.	**Design/Build $95,000** .25 FTE IT Data Architect $65,000 .25 FTE DCHS-PME Data Specialist $30,000 **Ongoing $20,000** .125 FTE DCHS-PME Data Specialist $20,000	Design Fall 2017 to Fall 2018 Maintain 2019-2022

[1] Budget estimates provided in this matrix are for illustrative purposes only. The information provided by KCIT is considered to be Rough Order of Magnitude (ROM) numbers, not official IT estimates (which require a greater understanding of the scope and requirements). However, these ROM estimates will provide some idea of the effort and resources involved in meeting the proviso requirements. The budget estimates do not include the costs for the needs assessments as the costs will vary depending on scale and type of need assessment strategy that will be used.

Functionality/Objective	**Description**	**Resources Required**	**Cost Estimate**	**Timeline**
Build and manage technology solutions to integrate data systems across DCHS in a data warehouse, query, identify and de-duplicate unique clients	The DCHS Project will build off the technology and tools developed as part of the DCHS-PH Data Integration project. The consolidated reporting solution will replicate some features, yet create a DCHS specific data warehouse for reporting and analysis purposes. The DCHS project technological solution must perform three functions: 1. Extract the data from the multiple DCHS sources 2. Transform the different data extracts into a consistent format for storage and analysis 3. Load the data into a consolidated database (referred to as a data warehouse). Maintaining this type of system requires ongoing resources and IT support.	Project manager, and application developer and DCHS program managers to establish data protocols, build editing and recode technology specifically for DCHS individual data project Application architect to build batch data import, recode and storage technology solution DCHS PME Data Resource Manager to maintain upload structure, and refine routines, provide technical assistance to contractors.	**Design/Build $500,000** .75 FTE IT Data Architect $200,000 .50 FTE IT Business Analyst, Testing QA $120,000 .25 FTE IT Project manager $60,000 .75 DCHS-PME User Requirements, Use case testing, project liaison $120,000 **Ongoing $230,000** Annual system support – KCIT $150,000 Annual system support .5 FTE DCHS PME Data Resource manager $80,000	Design/Build 2018-2020 Refine/Maintenance 2021-2022
Link databases with client data to databases with contract/funding data	Technical solution to insert contract ID into client and service data submissions. Master data set of DCHS contracts and specific data elements for analysis	DCHS maintain master contract data sets, Contract program ID maintenance, updates and linkages to individual data. Integrate in data warehouse.	**Design/Build $265,000** .75 FTE IT Data Architect $200,000 .75 FTE DCHS-PME Data Specialist $65,000 **Ongoing $20,000** .125 FTE DCHS-PME Data Specialist $20,000	Design/Build 2019-2020 Refine/Maintenance 2020-2022

Functionality/Objective	**Description**	**Resources Required**	**Cost Estimate**	**Timeline**
Capability for analysts and managers to query and analyze the data for regular reporting, performance dashboards and ad hoc analyses	Easily queried and analyzed data storage and data management structure Business Intelligence (BI) interface Create and maintain data and indicator dashboards Answer queries for data stakeholders, researchers.	Easily queried and analyzed data storage and data management structure Business Intelligence (BI)/Statistical interface PME evaluation staff effort to design and replicate dashboards, answer stakeholder researcher queries.	**Design/Build $140,000** .25 FTE IT Data Architect $65,000 .50 FTE DCHS-PME Evaluation Staff $70,000 BI/Statistical software $5,000 **Ongoing $275,000** 2.0 FTE DCHS-PME Evaluators $270,000 BI Licenses/Maintenance agreements $5,000	Design/Build 2020-2021 Refine/Maintenance 2021-2022

Functionality	**Design/Build**	**Annual Maintenance (Maintenance costs for 2021 and 2022)**	**Total 2018-2022 (design/build and 2 years of maintenance)**
Collect and manage individual data	$1,590,000	$500,000 per year ($1,000,000)	**$2,590,000**
Develop and maintain data standards	$95,000	$20,000 per year ($40,000)	**$135,000**
Integrate Data, Matching ID's, Data Warehouse	$500,000	$230,000 per year ($460,000)	**$960,000**
Link individual data with contracting/funding systems	$265,000	$20,000 per year ($40,000)	**$305,000**
BI, Data Analysis, Extract Interfaces	$140,000	$275,000 per year ($550,000)	**$690,000**
Total	**$2,590,000**	**$1,045,000 per year ($2,090,000)**	**$4,680,000**