OPEEKA

HOW P-CIS ENABLES COORDINATED CARE FOR MULTI-SYSTEM SERVED CHILDREN, YOUTH AND FAMILIES

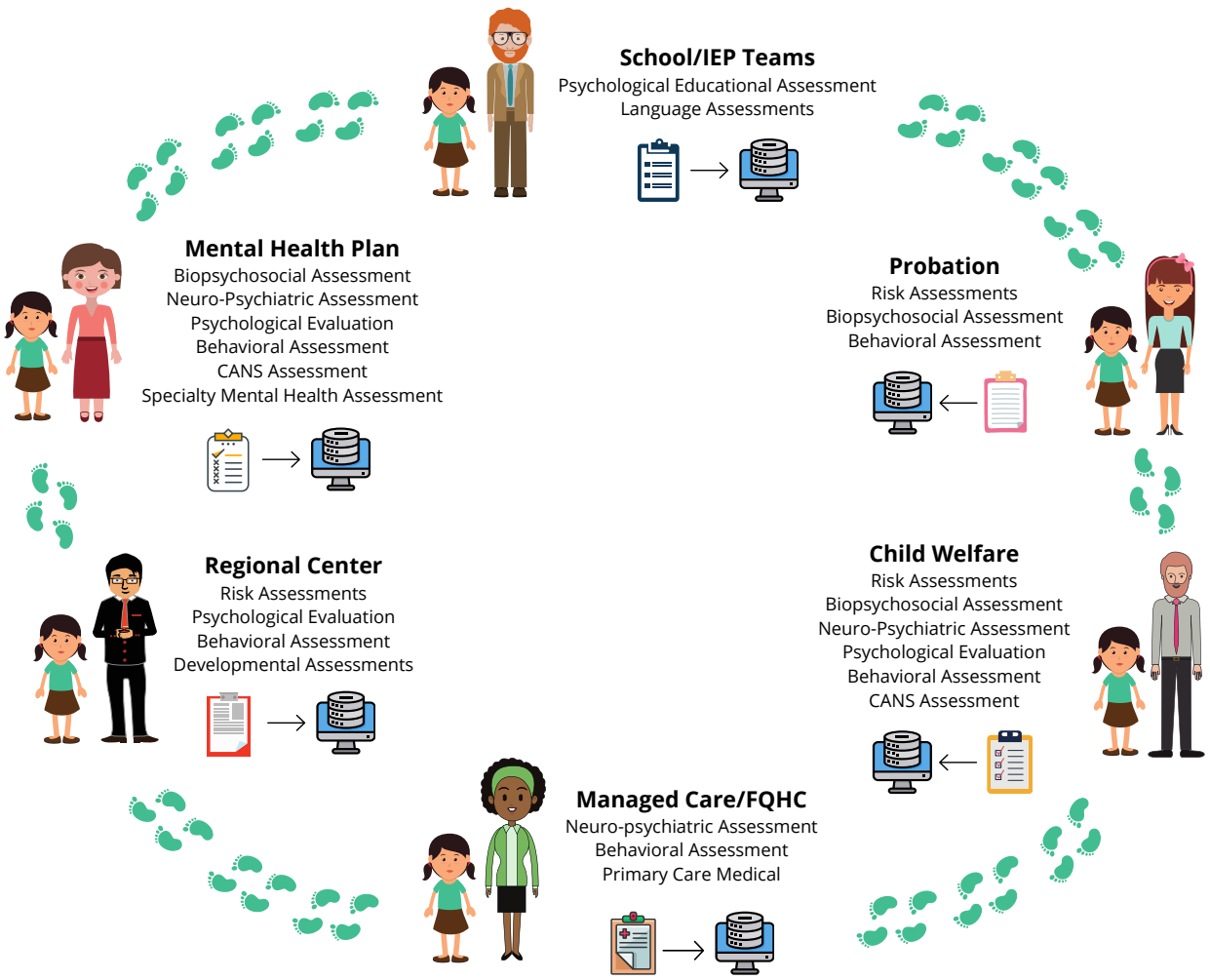
A FOCUS ON CALIFORNIA'S AB 2083 REQUIREMENTS

CONTENTS

This whitepaper begins a conversation about how to remove technology barriers from the system of care in order to support collaboration and coordination of care for multi-system served children/youth and families.

The Challenge

Children, youth, and families who are served by multiple public programs are often challenged to navigate an uncoordinated system of care by traveling to many different agencies and knocking on many different doors. To access care, children/youth and families must tell and re-tell their stories to many different people. Once in care, multiple programs collect duplicative information, provide competing care plans, often with opposing schedules. Children, youth, and families could achieve better outcomes through a better coordinated system of care.



A system of care is a spectrum of effective, community-based services and supports for children and youth with or at risk for mental health or other challenges, that is organized into a coordinated network with a supportive infrastructure, builds meaningful partnerships with families and youth, and addresses their cultural and linguistic needs, in order to help them to function better at home, in school, in the community, and throughout life (Stroul and Blau 2010, p61).

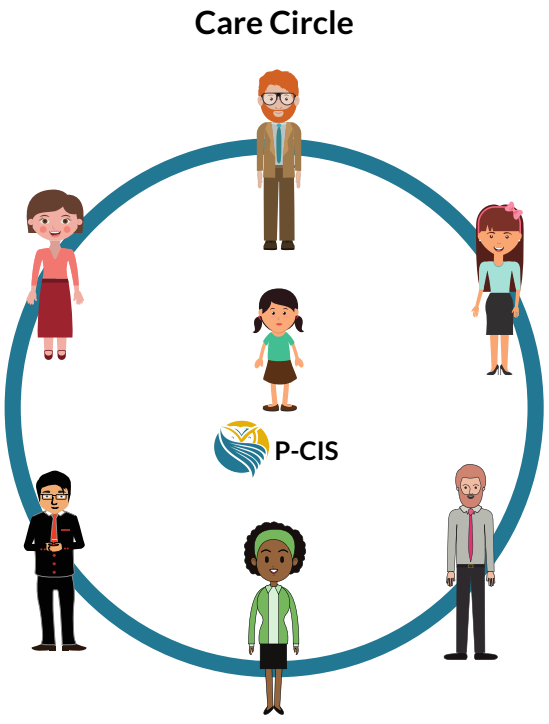
California's Assembly Bill 2083

In support of a unified System of Care, California's Assembly Bill 2083 (AB 2083, Chapter 815, Statutes of 2018) calls for a memorandum of understanding (MOU) between local partners including child welfare, regional center, county office of education, probation and county behavioral health. A Child and Youth System of Care Technical Assistance State Team was assembled to promote collaboration between communities across systems to meet needs of children, youth and families; to support timely access to trauma-informed services for children and youth; and to resolve technical assistance request by counties and partner agencies to meet the needs of children and youth.

Among other requirements, AB 2083 calls for the following. This whitepaper discusses each point in subsequent chapters.

- Commitment to implementation of an integrated core practice model (Chapter 1)
- Processes for screening, assessment, and entry to care (Chapter 2)
- Processes for child and family teaming and universal service planning (Chapter 3)
- Recruitment and management of resource families and delivery of therapeutic foster care services (Chapter 4)
- Information and data sharing agreements (Chapter 5)
- Staff recruitment, training, and coaching (Chapter 6)
- Identify Gaps in Placement Types, Services, or Other Issues (Chapter 7)

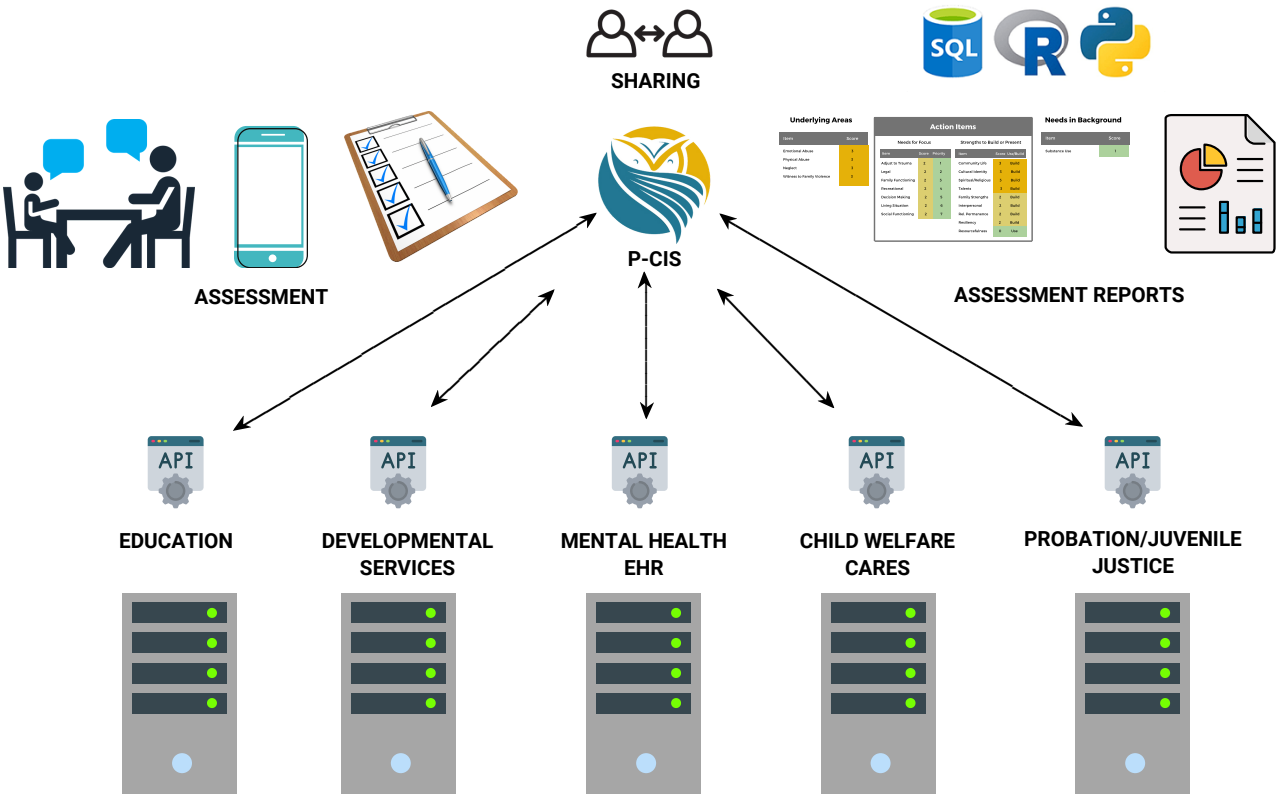
During the same time period, Opeeka's Person-Centered Intelligence Solution (P-CIS, /pieces/) was being designed by a local doctoral graduate (PhD) of the University of California, Berkeley, School of Social Welfare. Dr. Kate Cordell, Ph.D., M.P.H. has been serving California's System of Care as a technology and data consultant and a researcher for the last decade. Based on this experience, she set out to design a system that could remove the technological barriers that often inhibit collaboration and coordination across the system of care. Dr. Cordell has assembled a team of thought leaders, policy advisors, data scientists and computer engineers to build P-CIS. The team designed and built P-CIS so that technology could help put the person at the center of a system of care.



Person-Centered Intelligence Solution Overview

Opeeka's P-CIS is a HIPAA compliant, multi-tenant architecture solution that would allow care agencies to track outcomes over time, from an initial screen to post-care satisfaction surveys. Assessments are at the heart of every care system, helping to identify eligibility, level of care, rate of reimbursement, cultural preferences, level of need, areas of strength, functioning, past experiences, diagnosis, progress, satisfaction and final outcomes. P-CIS converts any type of questionnaire information into meaningful information at the point of care, mapping responses onto story maps and trajectories of resilience and recovery. P-CIS connects data directly to analysis engines, so that information gathered is immediately funneled into outcomes evaluation – so that care can be adjusted while people are still in care. See Opeeka's President's Whitepaper for more information about specific functionalities of P-CIS.

Designed to integrate with any platform or existing electronic record, P-CIS also unifies outcome tracking across the elements of care. Whether data is collected directly in P-CIS or through electronic records, P-CIS' prudently designed multi-tenancy allows organizations to judiciously share very specific information about people who are co-served, encouraging teaming, and coordinating efforts for multi-system and cross-county care. The inter-operability with electronic records means that staff will not need to find and log into yet another system of siloed information as P-CIS can launch from native electronic systems. P-CIS passes only the relevant and permissible information back to the electronic system of record, allowing audits to continue from within existing systems of authority, without change. However, because P-CIS supports HIPAA compliant multi-tenancy, this means that error-prone and burdensome secure file transfer to county or state authorities will become unnecessary, freeing staff time to support information where it makes the most impact – at the point of care.



CHAPTER 1: COMMITMENT TO IMPLEMENTATION OF AN INTEGRATED CORE PRACTICE MODEL

As early innovators, the California Department of Social Services (CDSS) and the Department of Health Care Services (DHCS) worked together to develop an Integrated Core Practice Model (ICPM) across Child Welfare and Mental Health. This ICPM identifies shared values, core components, and standards of practice for agencies serving children, youth, and families. P-CIS was built as a solution which supports the ten guiding principles of the ICPM. Discussed further and with examples in Opeeka's President's Whitepaper, P-CIS addresses each of these topics as briefly outlined below.

The CDSS & DHCS ICPM Guiding Principles Operationalized in P-CIS

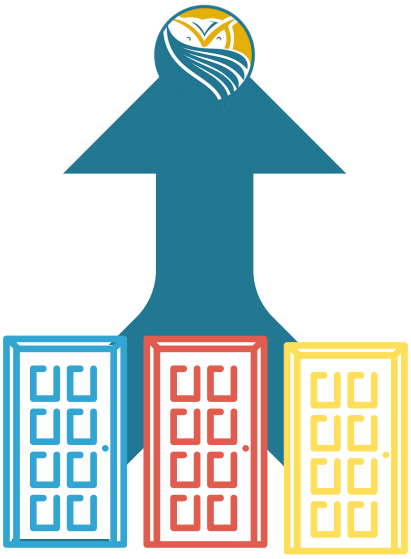
1. Family voice and choice	P-CIS tracks each individual's opinion and graphs perceptual differences over time.
2. Team-based	P-CIS helps multiple staff who may be assigned from different organizations to work together as a team.
3. Natural supports	P-CIS captures and tracks all family members and natural supports for a person in care. It also captures each support's responses on assessments.
4. Collaboration and integration	P-CIS supports multiple helpers from different agencies to work with the same information or shared records.
5. Community-based	P-CIS tracks person participation in residential and community-based settings. It automates algorithms which instantly produce recommendations for step-down care so that a person in residential care can return to lower-intensity community-based care more quickly.
6. Culturally respectful	P-CIS tracks any type and any number of affiliations (e.g., Tribe, Church, Wellness Center, Medicaid Status), preferred language, primary language, unlimited race/ethnicities, identified gender, sex, and sexual orientation. All of these options are customizable to meet local population needs.
7. Individualized	P-CIS encourages individualized care by helping staff quickly see when care is tracking along successful trajectories, encouraging nimble adjustment to care when needed.
8. Strengths-based	P-CIS tracks strengths present for each person as well as for a population. It also tracks strengths that can be built as a goal. On dashboards, staff can quickly see how strength-based the care is for a person, program, or entire agency.
9. Persistence	P-CIS Care Compare helps staff find what has worked for people with similar circumstances in the past. This supports care circles to continue to generate ideas on what might work for this person today.
10. Outcomes-based	P-CIS is an outcomes management solution. It converts assessment information into trajectories of resilience and recovery for individuals, groups, programs, staff, supervisors, agencies, counties, and states. P-CIS helps identify strengths and needs for individuals and for systems alike.

"The drive for improved outcomes and more efficient services for children, youth, and families receiving care from government supported systems requires improved tracking and data-informed decision-making at all levels — policy, program, and practice" (Kent and Lightbourne n.d.).

A child or youth's access to care can be difficult due to restricted pathways (e.g., families must enter care through the child welfare agency to access mental health related services because their health insurance won't cover the service needed), and limiting criteria for entry (e.g., people must have specific set of circumstances or diagnoses), with families turned away from service because they tried to access certain services through the 'wrong door' (Miller et al. 2012). When a child/youth presents for care, an agency might not know about or have access to the same screens or assessments already performed by another agency in the system of care. The child/youth and family must complete the same screens and assessments multiple times at different agencies to access a necessary part of care.

The process for screening, assessing and determination of care are specific to an agency and local population. These processes also adapt as policies and population needs adjust over time. A system which facilitates screening, assessment, and entry to care must be flexible to accommodate a wide variety of processes and must be adaptive to adjust over time. P-CIS manages any type of screen or assessment, applying level of care and rate determination algorithms to produce recommendations immediately upon completion. All of this functionality is flexibly customizable by organization administrators. When screening or assessment processes change, local agencies can directly adjust settings in P-CIS, and P-CIS implements the change in process across care - instantly.

Additionally, P-CIS supports sharing of screening, assessment, goals, and outcomes information within a Care Circle. When two or more agencies agree to collaborate to serve children/youth for certain types of care, each agency can designate exactly which programs/practices to share, which contingent screens/assessments to share, and which contingent questions to share for which individuals under which circumstances (e.g., release of information was obtained, a signed waiver was collected, informed consent was gathered.) In this way, when a child/youth presents for care, an agency that is part of a Care Circle in P-CIS can search for that person and access any legally shared screens, assessments, outcomes, and goals for that child/youth — for just the information that was not redacted. If the screen or assessment was recent, then the child/youth and family do not need to undergo another of the same type of screen or assessment. In addition, family goals can be shared and aligned. Any additional information can be shared back by partner agencies. Notes related to that screen or assessment will alert the care partner about complementary care, and the staff can work together to coordinate plans. Now, there is no 'wrong door,' because all doors lead to the person-centered care which is centralized in P-CIS.



No Wrong Door

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California has worked hard over the last years to implement successful child and family teaming processes, reflecting the evolving science behind evidence-based practice. Yet a practical integrated approach remains to be fully realized due to technological barriers and siloed organizations.

Current technology barriers result in:

- **Duplicate Efforts and Wasted Resources.** Duplicate assessments are being collected across agencies where data sharing is not technologically possible.
- **Uninformed Practice.** Important information which could inform practice never reaches the point of care in time.
- **Unsupported Data.** Local partners have local needs and may use different versions or altogether different screens/assessments/goals. When there are differences, this creates more barriers to capturing and sharing important information and data.
- **Uninformed System.** It is impossible to evaluate or monitor care for a whole child/youth and family because each agency in the system captures only one part of the overall well-being and safety of the child/youth and family.
- **Unsupported Collaboration.** System partners utilize different electronic systems to capture information, screens/assessments/goals on different timelines. They use different words to identify common tasks and practices. There is no universal system to support a collaborative workflow.

System of care partners are engaged and ready to collaborate in California, and recent legislation, including AB 2083 have made collaboration legally possible and encouraged. Removing technology barriers will allow system partners to work smarter, not harder.

Technology barriers addressed by P-CIS:

No Duplication of Efforts. P-CIS fosters collaboration through its Care Circles. In Care Circles, agencies can set up sharing for sets of people and sets of questionnaire types and allow for the redaction by question as necessary. Since P-CIS uses a standardized data model for questionnaires, any type or version of assessment can be shared or unshared at any time. Sharing can happen between any participating partner agencies in Care Circle.

Informed Practice. Since P-CIS Care Circles support secure sharing of data and P-CIS Application Programming Interface (API) supports secure exchange of data between electronic record systems, information about children's/youth's and families' needs, strengths and circumstances can be available in real time at the point of care. P-CIS can ingest data from Department of Health Care Services, Department of Social Services, other departments, agencies, local electronic records and any other standardized data source. In this way, P-CIS will allow every child/youth and family to experience informed practice through a fully supported and integrated practice model.

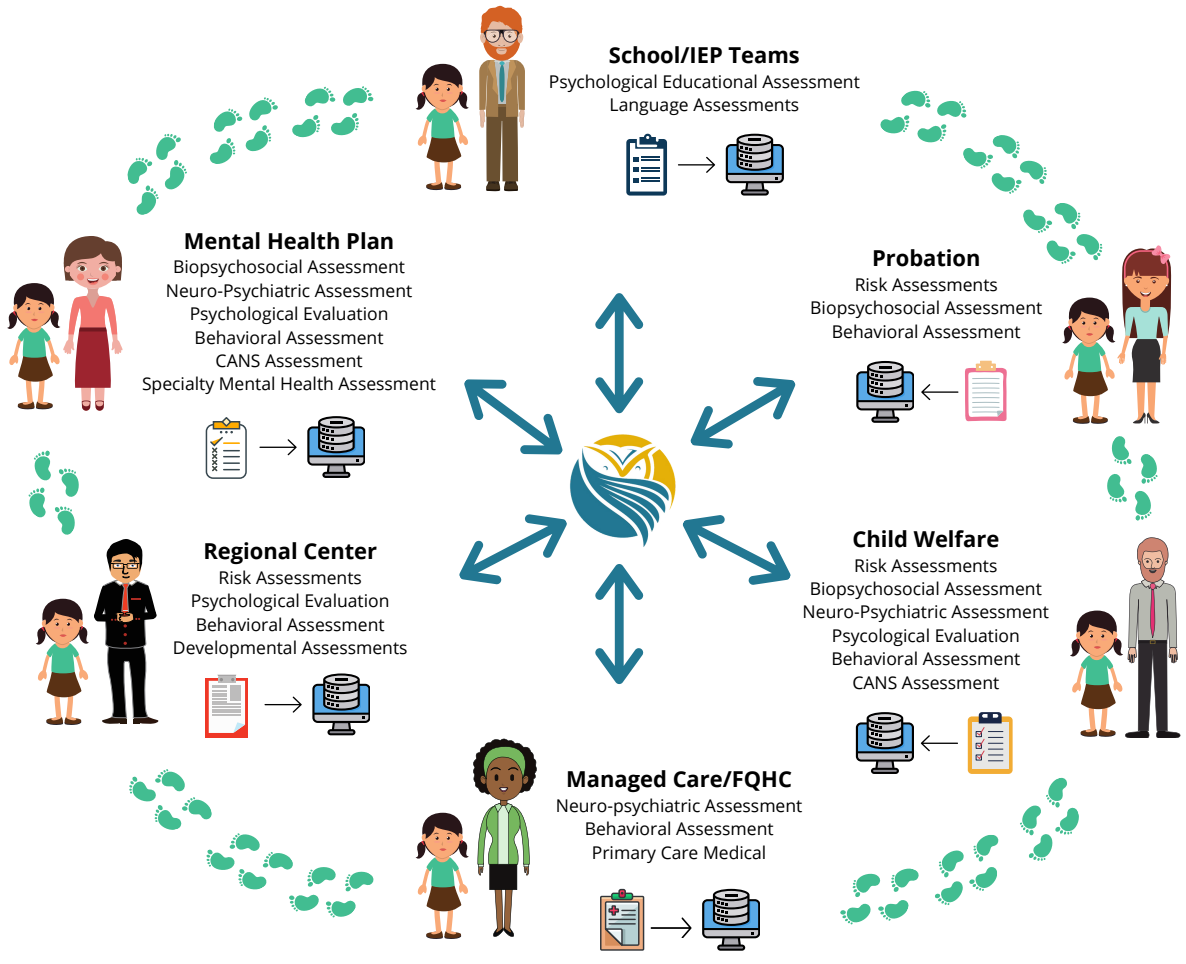
Supported Data. P-CIS supports any type of assessment or questionnaire and allows for multiple versions. In this way, local and state agencies can choose the assessments and the versions of assessment that are right to inform local practice. P-CIS standard and agnostic questionnaire system allows for easy calibration of nearly any type of assessment in just a few minutes. So not only does P-CIS support any version of the CANS, but it also supports any version of the Strengths and Difficulties Questionnaire (SDQ), the Pediatric Symptom Checklist (PSC), the Wraparound Fidelity Index (WIFI) and tens of thousands of other questionnaire types, including agency's own questions. P-CIS also captures youth voice, supported by an Invite to Complete functionality which allows staff to email questionnaires to youth, caregivers, supports and external workers for completion. P-CIS tracks whose voice each response represents.

Informed System. P-CIS acts as a central repository for all assessments, outcomes, and goals for the individual children/youth and families served by the system of care. Further, P-CIS integrates analytical engines of R and Python such that data funnels directly into customizable analytic processes. P-CIS comes with standard person-level, family-level, staff-level, program-level, county-level and state-level dynamic analytical dashboards powered by R and Python. In addition, local analytic staff can customize new evaluation models and dashboards through the P-CIS open analytical interface. In this way, staff can monitor system outcomes and algorithms for quality, performance, and bias. P-CIS supports any level of ongoing monitoring and supports higher level analytics such as regression, machine learning and artificial intelligence, as desired. P-CIS uniform data and automated analytical models support evidence-informed decisions at person/family, local, and state levels.

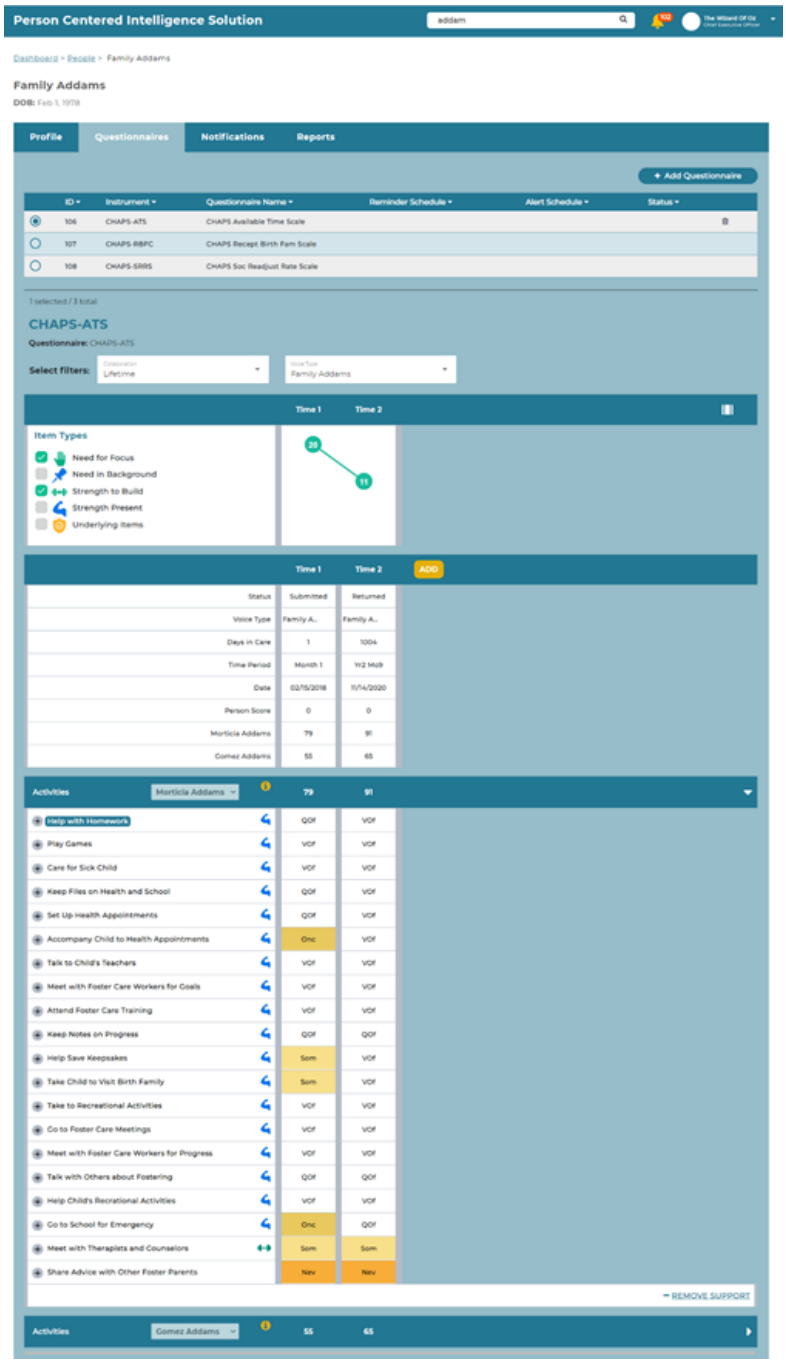
All models built in P-CIS by Opeeka or local staff are built with a combination of SQL, Python and R code. Therefore, all statistical models built in P-CIS can be exported from P-CIS and implemented in any other system which supports these universal languages. In this way, all development of custom models can be retained through any transition to any other system which supports these standard languages.

Supported Collaboration. P-CIS serves as the interoperable glue between all types of electronic records used by agencies in a system of care. Acting as a data super highway, P-CIS not only supports uniform data exchange, it also provides secure and judicial sharing of information on one child/youth or sets of children/youth and families. In addition, it provides useful transformation and visualization of data to inform individual care as well as system performance. With P-CIS, everyone in the System of Care can work from the same information supporting coordination of assessments, care planning, and outcome monitoring and goals between system partners.

P-CIS Unifies a Circle of Care for Child and Family Teaming and Universal Service Planning

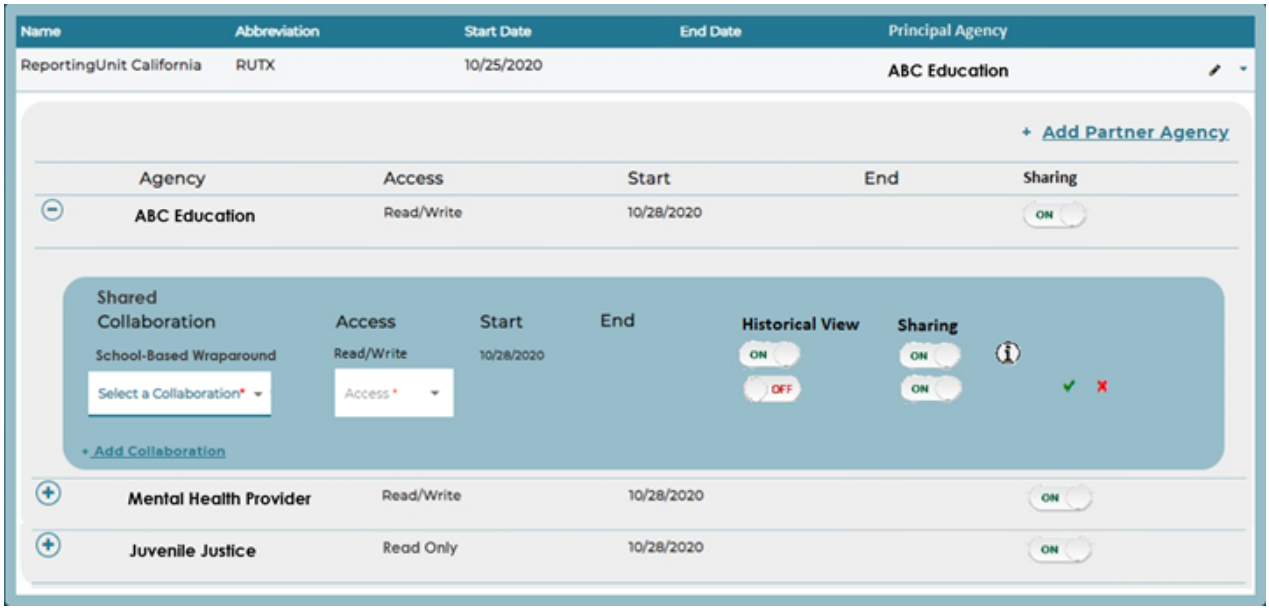


P-CIS supports assessment of potential resource families as well. P-CIS has been used to assess foster families with the Casey Foster Families CHAP Assessments for Available Time Scale, Receptivity to Birth Family Connections, and Social Readjustment Rating Scale. P-CIS has also assessed foster families with the SAFE Psychological Inventory. P-CIS converts foster family responses on multiple types of assessments and questionnaires into readable story maps and tracks changes on responses over time. In addition, P-CIS can match children/youth to resource families based on child/youth needs and resource family strengths to address those needs.



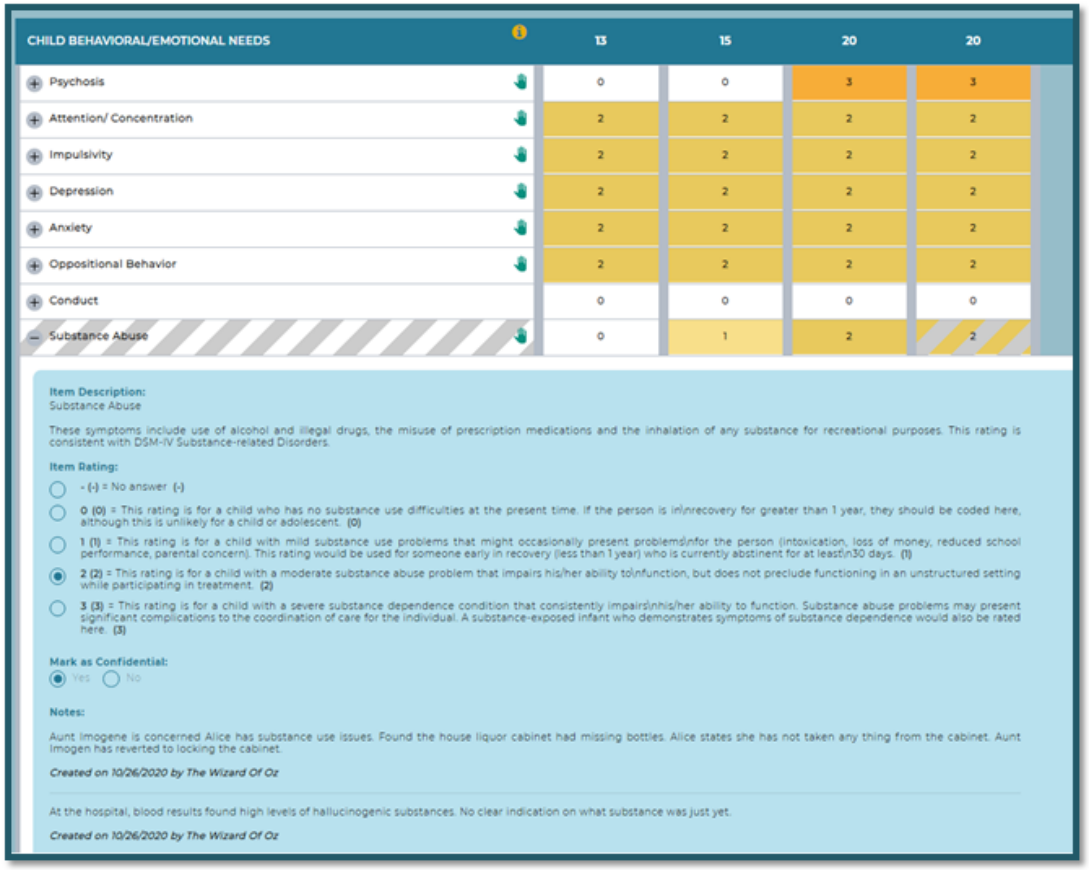
P-CIS applies two types of matching approaches: a rules-based approach and a learning method. The rules-based approach is calibrated based on logical decisions of what types of needs would match best to which type of family circumstances. The learning models learn over time whether those assumptions were accurate. Learning models recommend matches based on how children/youth with similar circumstances have progressed while with families who had similar questionnaire response patterns. In this way, both practice judgement and historical experience inform decisions for therapeutic foster care placement and services.

P-CIS supports information and data sharing agreements. In California, a few counties have established their MOUs. For counties with MOUs, P-CIS can be used to establish professional Care Circles, which bring together agencies to legally share information. In P-CIS sharing is managed by each agency's Organization Administrator using the following steps.



1. A Principal Agency establishes a Care Circle and adds partner agencies to the Care Circle.
    a. In this example, ABC Education is the Principal Agency. ABC Education has added Mental Health Provider and Juvenile Justice to the Care Circle.

2. Next, ABC Education adds its School-based Wraparound program as a Collaboration. Sharing is on. Any screens or assessments assigned to this program will be shared for people enrolled in the program during the time of enrollment. No question responses marked as confidential will be shared.



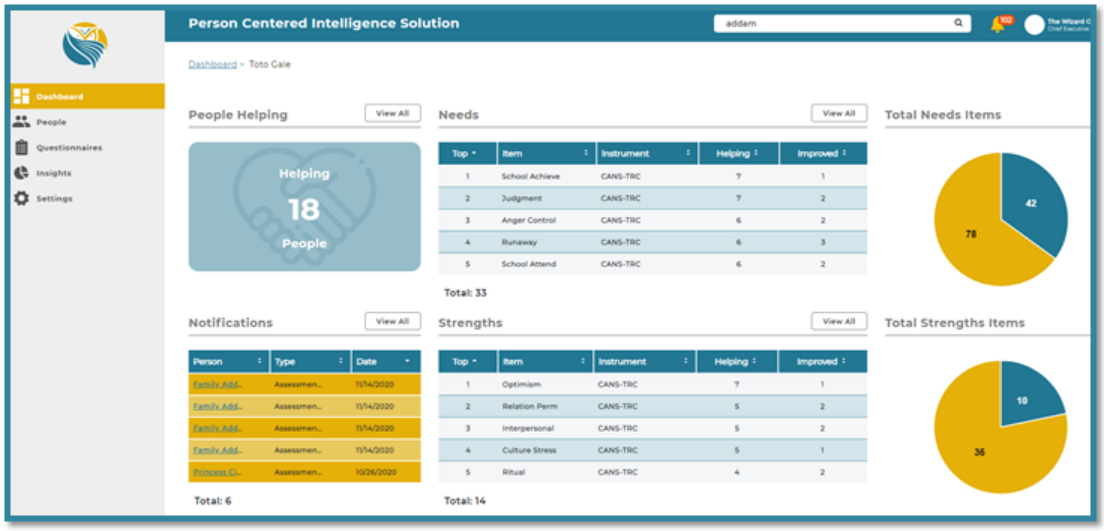
3. Next, when the partner agencies log in and see the new Care Circle, they can choose to share back any of their programs to the Care Circle.

4. Assigned staff will see their own records and the shared records of the same people from other agencies, identified by a sharing symbol.

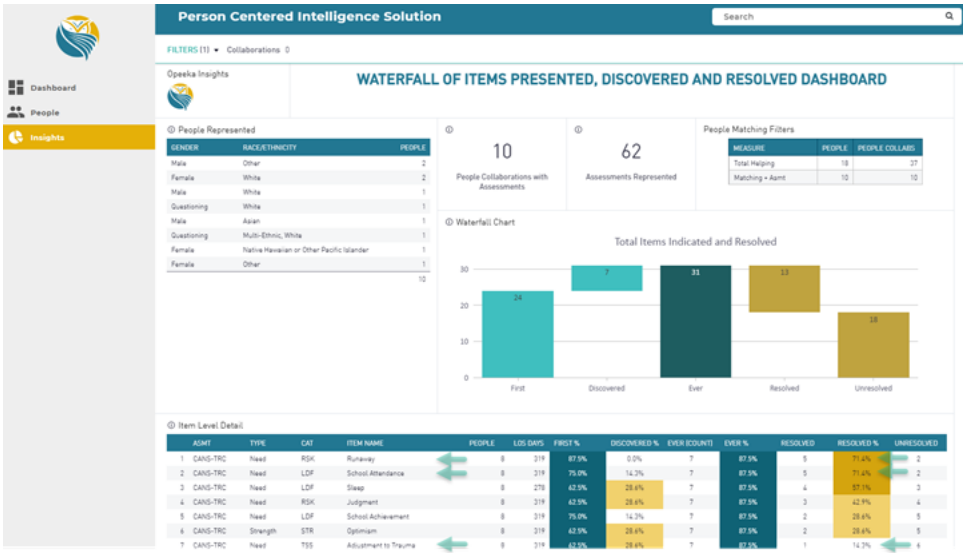
5. Once sharing is stopped, the shared records disappear from shared partners' view. No information is retained.

By helping staff to recognize their own strengths, matching them with children/youth for whom they do well, and providing targeted coaching and training, agencies can improve staff recruiting, engagement, and retention. P-CIS identifies staff strengths, training needs and coaching opportunities in multiple ways.

First, staff themselves and their supervisors can review a dashboard of people they are helping along with particular areas of focus. As a supervisor of Toto Gale, in this example, I can log into P-CIS and access his view of his dashboard to see he is helping 18 children/youth. He is helping seven youth with school achievement, one of whom has met the goal. For strengths, he is helping to build Optimism for seven youth, one of whom has met the goal. I can see in the pies that Toto is focusing more on areas of need than on building areas of strength. This could be a coaching opportunity for Toto.



Similarly, staff themselves and their supervisors can review dynamic insights for people they have helped. We can quickly see that fewer of the people that Toto is helping are resolving an Adjustment to Trauma area of need. It may be that Toto could benefit from some additional training for trauma-informed care. We can also see that Toto has a strength in helping youth address needs of runaway behavior and school attendance. This is an area to celebrate for Toto, and it is an opportunity for leadership to share his successful approaches with other staff. In the future, matching youth with these circumstances with Toto will help both Toto and youth he helps be successful.

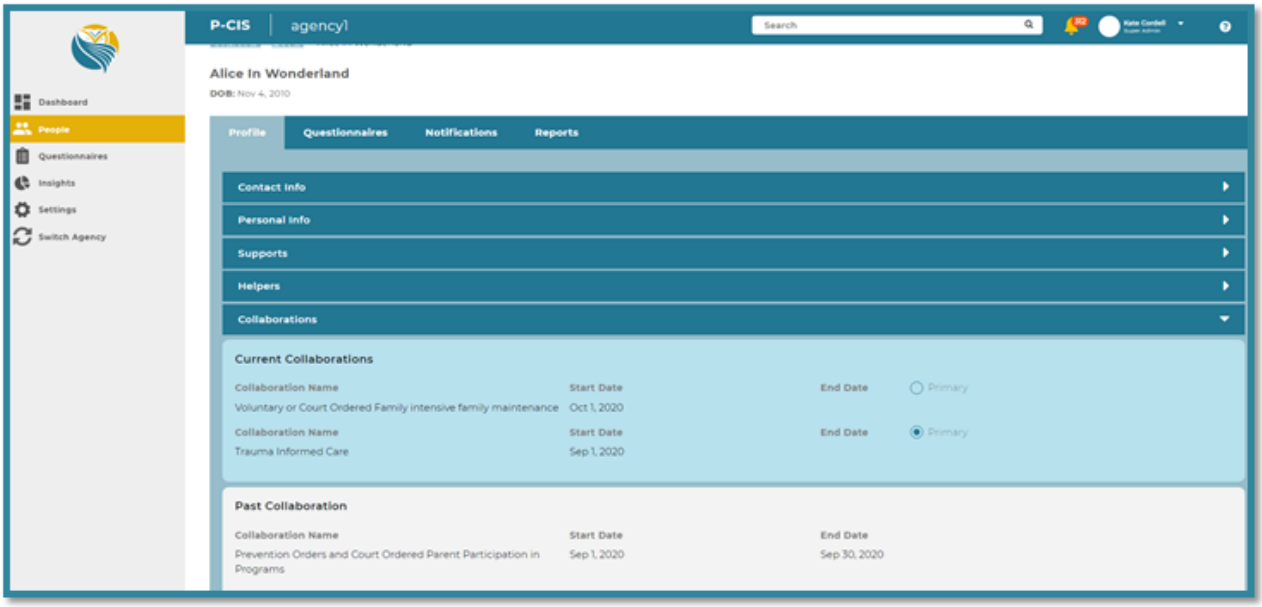


AB 2083 called for recommendations to address gaps in placement and services for children/youth in foster care who experienced severe trauma. In October of 2020, a report for Recommendations to The Legislature on Identified Placement and Service Gaps for Children And Youth In Foster Care Who Have Experienced Severe Trauma put forth a plan. The plan includes three phases.

- Phase I: Mapping Current Continuum and Identifying State and Local Data
- Phase II: Local Capacity Gap Determinations Related to Placement Settings and Service Networks
- Phase III: Planning to Address Identified Capacity Gaps Using System of Care Approach

Phase I: Mapping Current Continuum and Identifying State and Local Data

In phase 1, stakeholders developed a resource document, the Continuum of Care for Children in Out of Home Settings. In order to create a more complete picture for a child/youth, P-CIS can exchange information with electronic records to track the start and end dates for each of the out-of-care settings across different agencies in the system of care. In the example here, Alice and her family were placed in Prevention Orders by Probation Agency from September 1-30. Then on October 1, Alice and family started on Court Ordered Family Maintenance with Child Welfare Agency. Meanwhile, Alice was participating in Trauma Informed Care program with Behavioral Health Agency.



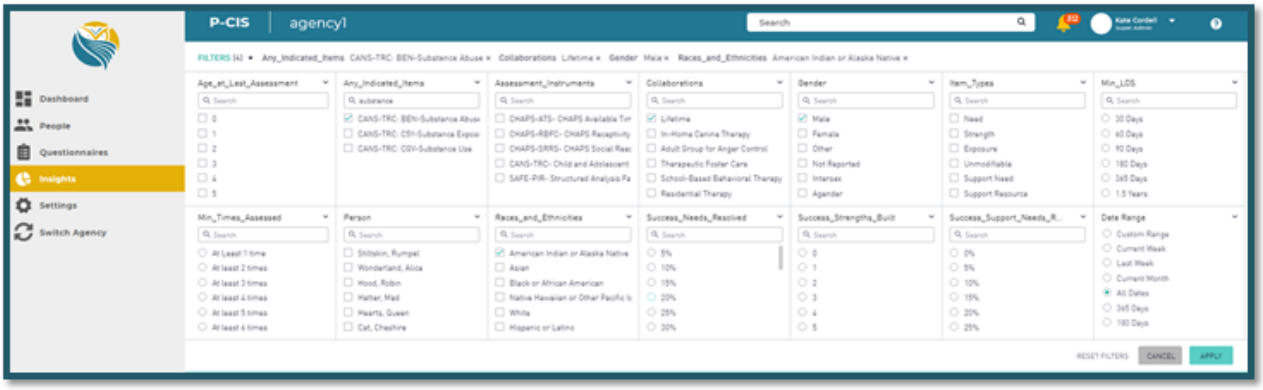
Phase 1 also identified data sources for sharing. P-CIS uses a process Opeeka developed called **Inquisitive Data Exchange**. Inquisitive Data Exchange standardizes sharing into blocks of questions. Identifying a block of information to request from a partner is a simple as creating a questionnaire. Imagine that one agency is asking another agency about the things they need to know. Each piece of information is organized into a question and response. Questionnaires group together information to exchange by themes and categories. They also provide a description of each "question" that one agency would like to ask another (e.g., what services were provided? How many school detentions occurred?). Responses can be multiple choice, free text, dates and numeric ranges. This structure standardizes the exchange of nearly every type of information and displays groups of related pieces of information succinctly together, color coding responses where helpful.

This format for information sharing is also helpful because it operationalizes the sharing of information into a very natural communicative exchange based on asking questions and receiving answers. This eases the burden of communication about what data to exchange because one agency simply needs to formulate a question and the other simply needs to provide a response on a predetermined schedule (e.g., daily, weekly, monthly, annually). Once the exchange parameters are calibrated, P-CIS acts as the coordinator to organize the questions and responses between each electronic record system. With P-CIS, data exchange is a simple as asking a question.

Phase II: Local Capacity Gap Determinations Related to Placement Settings and Service Networks

In Phase II, California will identify local capacity gaps for placement settings and service networks. P-CIS is designed to recognize individual, population and sub-population patterns of strength, needs, traumatic experience, circumstance, cultural preference, supports and care circle. P-CIS dynamic insights allow users to drill into specific sub-populations to instantly identify most common circumstances, areas addressed and areas unaddressed – minutes after data is captured or exchanged. See Opeeka's President's Whitepaper for more information about the standard dynamic insights: Waterfall of Items Presented, Discovered and Resolved, Patterns and Priorities of Success, and Care Compare.

P-CIS embeds advanced analytics powered by Python and R to uncover significant findings through higher level statistical approaches, such as regression, classification, hierarchical analysis (students in classrooms in counties — or youth in programs in counties), longitudinal or any other approach desired. With P-CIS as the hub for Inquisitive Data Exchange, no file export is needed to support evaluation efforts. Analytic staff can log into a P-CIS Analytics Space to perform any type of gap analysis on live and historic data. Because of the standardized and highly structured format of data exchange, P-CIS cleans, merges and transforms data minutes after it is collected or exchanged. Data is then available to R and Python engines for evaluations which can be driven by selections from drop-down filters or research notebooks, alike. Imagine running a model to identify the most common unmet need while considering age, race, gender, strengths, supports and services. Imagine selecting to run the model for only children/youth who experienced commercial sexual exploitation. What is their most common unmet need? Which service or support most often helped address that need and in which geographical areas is it available on a map? P-CIS will provide these insights and more.



Phase III: Planning to Address Identified Capacity Gaps Using System of Care Approach

In phase III, a multi-year plan will address capacity gaps. The Insights in P-CIS can be calibrated to monitor this plan. Once Insights dashboards are developed by analytical staff, the Insights can be democratized to one or more roles of user throughout the state. Users who log in will have access to Insights but for only the people they can access. This means that everyone can analyze their own population's needs from the same dashboard – automatically. No further development is needed because P-CIS's HIPAA compliant data access automatically applies democratization to all Insights. At any level of access, the dashboards will only analyze the people that the user can access. Rolling out one dashboard will provide insight into tens of thousands of sub-populations within minutes after launch. As Phase III rolls out staff can track changes to population trends in real time for the people they help.

CONCLUSION

Children/youth and families deserve the best practice and care possible. If MOUs can be established between agencies in a system of care, siloed data should not be held prisoner, and technology should not be the enemy of collaboration and coordination of care. Opeeka is ready to pilot data sharing with no/low-sensitive data exchange to demonstrate the promise which can be later rolled out to moderate/high sensitive data The P-CIS system was built for just this purpose, and we can now address many of the current challenges that currently exist.

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