Necco Summary Report

Developing Capacity for Growth and Excellence

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Introduction

Necco is a private child-, youth-, and family-serving company that provides foster care in four states—Kentucky, Ohio, West Virginia, and Georgia. Established in 1996 by the Necco family, the company's mission is to build families for the children, youth, and adults it serves. In addition to foster care, Necco provides independent living services, behavioral health services, residential and outpatient services for individuals with developmental disabilities, and offers an alternatives to detention program. Necco leadership is committed to developing an organizational structure that promotes a culture of innovation and excellence.

In the fall of 2012, Necco engaged researchers at Chapin Hall at the University of Chicago to develop the company's administrative data resources into research evidence to build knowledge about their program performance. They also asked Chapin Hall to assess Necco's efforts to further develop organizational capacity for continuous quality improvement (CQI). This report will describe the activities involved in the collaboration between Chapin Hall and Necco. First, we characterize Necco's culture as a learning organization and its internal capacity for and commitment to evidence use and to CQI—both to strengthen their business practices as well as to monitor program performance. We then describe the development of the analytic resources and the identification of core program performance metrics. We conclude with some observations about each of these areas, and suggestions for continued quality improvement.

Necco's Engagement with Chapin Hall

Over the last several years, in an ongoing effort to improve outcomes of the populations they serve, public social service agencies have endeavored to improve the process by which they deliver services as well the quality of those services. Among the investments public agencies have made is a self-conscious effort to become "data driven." That is, public agencies have expended resources to build and improve their information systems so that those systems actively support ongoing program monitoring and quality assurance activities, while also providing empirical evidence that the organization is moving in a desirable direction.

Public social service agencies continue to engage with private partners in their efforts to deliver the best blend of services to their clients. Consistent with an overarching effort to get the best value for their investments, public agencies are increasingly relying on performance contracts as the means by which they engage with private partners. These contracts, structured in many different ways, are one important

way for public agencies to maintain a focus on improving outcomes while also ensuring the best possible return on investment. Generally, either the contract terms or the contract monitoring rely on a clearly developed system for tracking contract organizational performance as well as state-level performance.

Private partners are thus operating in an environment in which there is increasing pressure to demonstrate consistently strong outcomes as part of their contractual agreements. Many providers have already made investments in information systems and have well-developed quality assurance programs. However, some providers actively seek opportunities to move their business analytics to the next level by engaging with experts who have years of experience in using administrative data to support optimal performance and continuous program improvement. It is in this vein that Necco leadership contracted with researchers at Chapin Hall.

Through engagement with Chapin Hall, Necco leadership wanted to characterize outcomes associated with the core programs they offer their clients. They also wanted to pursue a deliberate strategy to build internal capacity to maximize the strategic investments they made in knowledge development. In this effort, Necco joined a cutting-edge group of entities that are deliberately building an organizational culture that promotes the use of evidence to guide specific program decisions, to aid in the development of company-wide priorities, and to track performance over time.

Organizational Context

We begin by describing Necco's own business strategy, including performance expectations and goals. Investing in the acquisition of research evidence is a strategic decision that organizations make to become better at what they do (Wulczyn et al 2016). Research evidence use (REU) in a cycle of continuous quality improvement (CQI) enables organizations to systematically examine and enhance their efforts. A *learning organization* has a climate and culture that promotes and reinforces both REU and CQI. To place Necco in the larger context of service agencies that use data to develop evidence, we provide a review of Necco's structures, processes, and culture to support research evidence use.

Necco's Business Strategy

In early 2013, Necco launched a company-wide initiative to focus on sustained business growth and development around program excellence. Necco formed a core strategy team to develop a comprehensive long-term plan to measure results on the key strategic objectives of the organization, with the mission of "We Build Families." Necco also formed six strategy theme teams with seven to nine team members representing a cross-section of talent, geography, job responsibilities, experience and knowledge. The theme teams were asked to create Necco's long-term strategic objectives and measures and to form workgroups to carry out initiatives to meet Necco's objective of becoming "the proven leader of building families by 2020." These activities were developed to align with Necco's self-described corporate culture and were focused on team-based learning and progressive leadership (see Figure 1).

Figure 1. Necco's Corporate Culture

The strategy team became certified in the Kaplan/Norton Balanced Scorecard and adopted a sustainability cycle for continuous quality improvement with the key tenets: measure, learn, execute, and repeat. Scorecard performance measures are completed and reviewed electronically in the EvolvCS database and automated electronically using Spider Strategies software and database management tools. The scorecards then cascade from the company to each state, office, and individual staff members. Each staff member has their own individual performance scorecard—designed to align with organizational strategic objectives—that is updated quarterly. Staff are also rewarded based upon scorecard results and all staff are given access to all scorecards, creating transparency and a feedback loop that supports the sustainability cycle. The Balanced Scorecard and sustainability cycle are evidence-based business strategies, demonstrating Necco's willingness to invest in REU-informed practices for internal self-improvement. In its review of Necco's organizational culture, Chapin Hall used the interviews and survey below to better understand the context in which Necco's business strategies operate.

Necco's Capacity for Promoting Research Evidence Use

In order to gain a broader understanding of how Necco operates as a *learning organization* and uses *research evidence* to inform and improve its programs, we collected qualitative data from Necco staff through both interviews and a staff survey. We interviewed one managing office program director in each of four states ($n = 4$), asking questions about the process of care for programs in that state, about how

staff at different levels interact with their Evolv database,[1] and about Necco's culture for learning and improvement. We surveyed staff at all levels of the organization ($n = 261$) asking for information about how they use Evolv and how the organization supports learning and innovation.[2]

Research Evidence Use

Broadly, REU involves any or all activities associated with the acquisition of research evidence, the processing of research evidence, and the application of research evidence (Honig & Coburn, 2008; Palinkas et al., 2011). REU enhances overall company performance and results in better outcomes for the vulnerable populations served by human service organizations (McBeath, Briggs, & Aisenberg,

An organization's capacity for REU can be divided into four key domains:
1. **Structures** for evidence collection
2. **Processes** to turn data into evidence
3. **Human capital** to support effective evidence use
4. An organizational **culture** that promotes learning and improvement

2009; Haskins, Wulczyn, & Webb, 2007). An increasing number of child welfare providers are collecting data, yet most do not process or apply their data as research evidence that can be utilized for CQI (Carrilio, 2008; Carman, 2007).

An organization's capacity for REU can be divided into four key domains: structures for evidence collection, processes to turn data into evidence, human capital to support effective evidence use, and a culture that promotes learning and improvement. In terms of *structures* to support REU, Necco has the internal capacity to expand and modify the Evolv database at will. Necco has also invested in Tableau data visualization software that allows the company to *process* its data and use it for performance management.

Necco has also made substantial investments in *human capital*, including creating the position for a business analytics director who manages the Evolv database, business intelligence analysts dedicated to performance management, and formally training staff at various levels on how to interact with the database. To better understand the company's *culture*—and gain a deeper understanding of structures, processes, and human capital—for evidence use, we interviewed staff in the four states where Necco operates

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[1] Evolv is the administrative database that contains program data, financial data, and electronic health records for all Necco clients. In addition to containing data used for program and performance monitoring, Evolv also functions as the case management system Necco staff use to document client treatment plans, goals and progress, program services, and other program activities.

[2] Full survey questions and results available upon request.

Staff Interviews on Structures and Processes for Research Evidence Use

Representatives from all four states where Necco operates indicated that Necco promotes a culture of data and evidence use and is increasingly emphasizing the role of data technologies. Respondents repeatedly indicated that team conversations are driven by data on cases, clients, and staff/program goals, and while the use of data evidence can sometimes place a burden on staff, it is widely accepted as the best practice for improving programs and impacts.

At the time of the interviews, respondents indicated that different states were at different stages in the rollout of the data management system Evolv. Although there was some variation in the specific data elements each managing office collected and input in Evolv, respondents indicated that the states use Evolv to record a range of data points, including: counts of children in care, disruption reasons, treatment plans, treatment goals, progress reports, diagnoses, and billing information. In all states, caseworkers are able to access Evolv and pull case-specific information on an as-needed basis; however, most respondents noted that caseworkers are generally busy and may have limited time to use Evolv. In several states, respondents noted that caseworkers sometimes feel burdened by data entry responsibilities and, as a result, may be less enthusiastic about the data systems.

Furthermore, Evolv is a complex system, and there is a learning curve involved with gaining fluency in using it. Nonetheless, respondents all remarked on ways in which they can use Evolv to bring data and evidence into their work, such as reviewing reports at team meetings in order to examine trends and make informed decisions about ongoing work. Likewise, respondents also noted that they can use reports generated by Necco or their states to promote evidence-informed work. This approach towards data use is generally described as the domain of leadership and supervisors, although those leaders may choose to share reports with caseworkers in order to enhance their understanding of trends and patterns in the work.

In addition to Evolv, the respondents from the different states were also involved in the rollout of Tableau, a software for data visualization. Respondents expressed enthusiasm about the opportunities that Tableau provided to present data in engaging and intuitive ways; they described Tableau as a helpful tool. At the same time, most respondents indicated that they were still in the process of learning how to use Tableau, and their enthusiasm was primarily about its potential. Necco administrators added that since the interviews took place, all staff have gained access to Tableau. Additionally, Necco holds four "strategy support" trainings every month, geared towards performance management. The trainings may include use of Evolv, Tableau, and online scorecard software "Spider Strategies." The systems and trainings are available to all staff.

Necco as a Learning Organization

The literature on organizational theory suggests that successful, innovative organizations are able to continuously learn and adapt (Moynihan & Landuyt, 2009; Miller & Lin, 2010; Senge, 1990; Probst & Büchel, 1997; Garvin, Edmondson, & Gino, 2008). These learning organizations are characterized by a positive environment that encourages staff to learn, develops concrete processes to support learning, and has leadership that reinforces learning. Our consideration of the extent to which Necco manifests attributes of a leaning organization is based on both key informant interviews and the all-staff survey.

Staff Interviews on Organizational Learning Culture

Interviewees from all four states discussed the appeal and strength of Necco's unique organizational culture. Respondents suggest that Necco's strong culture comes in part from its emphasis on staff having a good work/life balance and taking time for their own families. This is facilitated by Necco's relaxed work climate, where staff have flexible schedules and substantial paid time off. In addition, Necco also fosters flexibility by supporting innovation; staff feel that they can use innovative approaches to solving problems they encounter. Necco provides substantial professional development opportunities to staff, as well as a great deal of consistent internal support for staff learning. Interviewees report that Necco has a laid back, comfortable atmosphere where staff members can be themselves and participate in fun team-building activities like office "happy hours."

The individuality of staff members is also valued in the course of the work, as Necco emphasizes open communication and the sharing of different perspectives. Respondents noted that at Necco, discussions function as a meritocracy: all good ideas are welcome, everyone has a voice in the conversation, and creativity is encouraged. All interviewees shared that Necco has a culture of high expectations. This applies both to staff—who are encouraged to grow, build skills and abilities, and progress in their own careers—and for the company as a whole, which is driven by introspection and an emphasis on improvement. Overall, respondents indicate that Necco is a great place to work and has a strong organizational culture for learning and growth.

Staff Survey Results

In order to characterize how Necco is set up to learn, grow, and adapt, we disseminated a survey to all Necco staff via SurveyMonkey (an online, open-source survey tool). This survey is based on one developed by Harvard Business School (Garvin et al., 2008) and included additional information about staff roles, demographics, and use of Evolv. A diverse set of staff members responded ($N = 261$), representing all states, managing offices, programs, and roles within the organization. The questions about the first two building blocks of a learning organization—learning environment and concrete

learning processes—asked staff to answer based on their personal experience working at Necco. The final section, on leadership, asks staff to respond based on the manager(s) to whom they report.

One indication of an organization's culture and climate is their staff retention rate. Child welfare organizations tend to have a high turnover rate and workers' perceptions of inclusion and commitment to the organization is linked to lower staff turnover (Hwang & Hopkins, 2012). Although we did not ask specifically about turnover, 21 percent of respondents at Necco indicated that they have been with the organization less than one year. Nearly 50 percent have been with the organization for three or more years (see table below). Based on Necco's internal records, the annualized staff turnover rate in July 2014 was 34.7 percent; in May 2016, it was 28.9 percent. Necco administrators suggested that the higher turnover rate in 2014 was related to the implementation of electronic health records and the Balanced Scorecard management system, and indicated that the rate has stabilized recently.

Table 1. Staff Length of Time at Necco

Length of time	n	%
Less than 1 year	53	21
1–2 years	82	33
3–4 years	42	17
5 or more years	74	30

The learning organization section of the survey is divided into three main domains: learning environment, concrete learning processes, and leadership that reinforces learning. Each of these domains has multiple questions on a 7-point Likert scale. Necco's results can be compared to standardized survey medians from the *Harvard Business Review* article "Is yours a learning organization?" (Garvin et al., 2008). With a few exceptions, Necco tends to be above the median.

Learning Environment

An organization's *learning environment* sets the foundation for its ability to improve. The organization must have a culture where staff are empowered, feel comfortable sharing their opinions and value the opinions of others, and are encouraged to think about new ideas and take risks. This section asked staff to respond based on their personal experience working at Necco. Overall, Necco's responses are about 4 percentage points—on a 100 point scale—above the standardized median on this domain. Necco is well above the median on "time for reflection" and "appreciation of differences"; it is slightly above the median on "psychological safety" (see Figure 2).

However, Necco falls about eight percentage points below the median on "openness to new ideas", which includes questions on valuing new approaches and an interest in better ways of doing things. There is a notable difference in openness to new ideas based on roles at Necco (see Figure 3). I general, respondents in leadership and managerial roles reported more openness to new ideas than frontline and support staff. This may have been influenced by the fact that during the time period this survey was administered, Necco was implementing new administrative strategies that required staff to try specific, new approaches to performance management.

Figure 2. Learning Environment: Necco Median Compared to Standardized Median

Learning Environment

Legend: Standardized median (grey), Necco median (red)

Categories (top to bottom): Time for reflection, Openness to new ideas, Appreciation of differences, Psychological safety, Composite
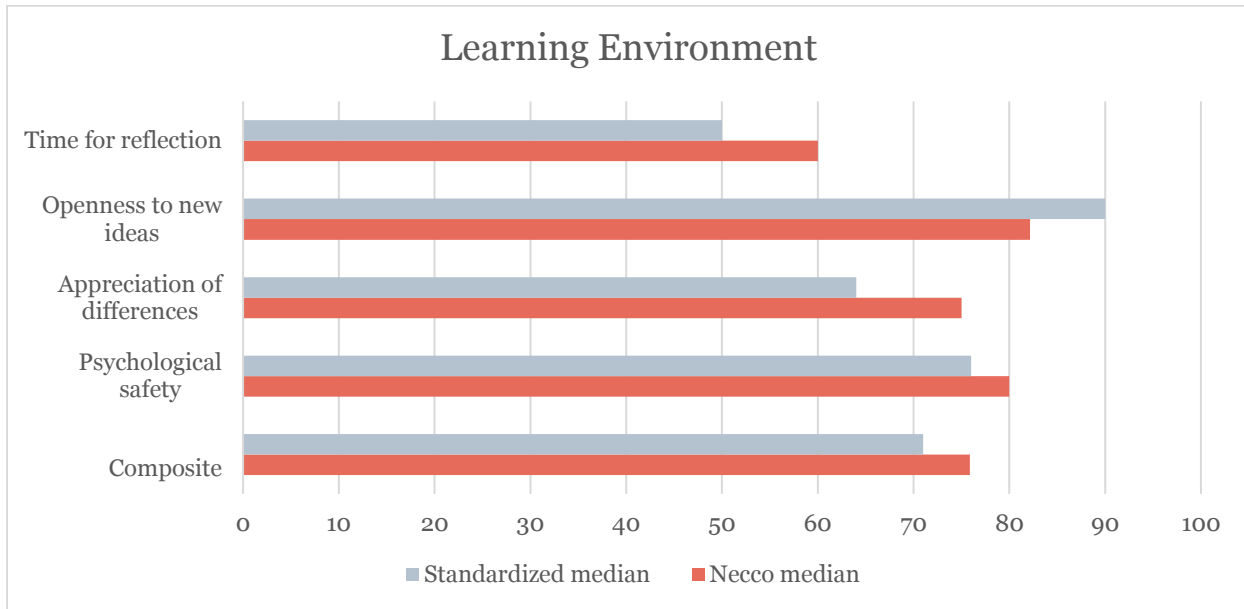
Figure 3. "Openness to New Ideas" from Learning Environment Domain

Openness to New Ideas

Categories (top to bottom): Standardized median, Corporate team (n = 14), Manager (n = 26), Foster parent worker (n = 25), Supervisor (n = 9), Support staff (n = 28), Direct service (n = 125)
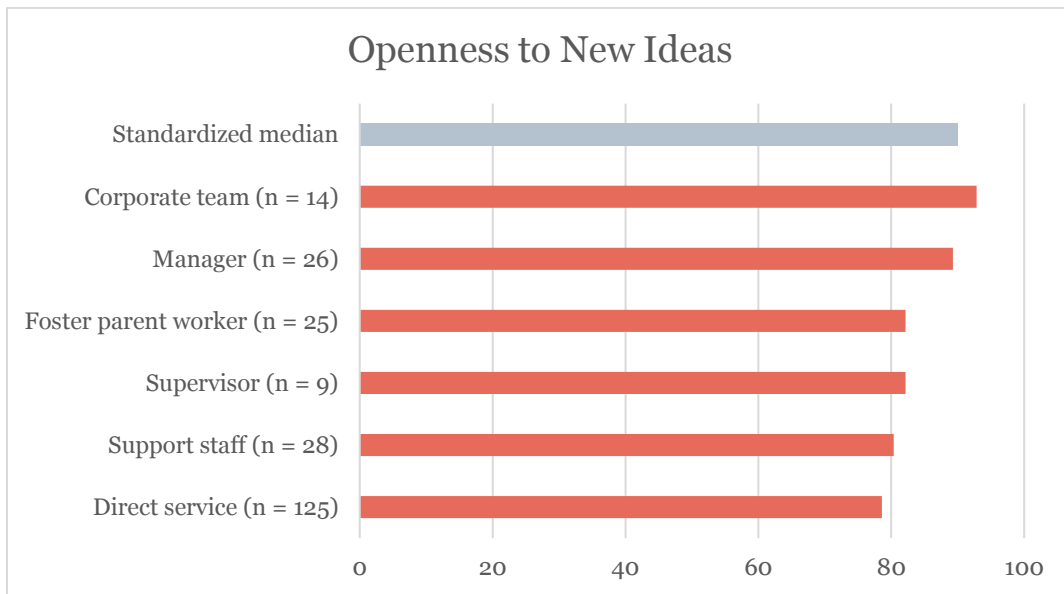
Concrete Learning Processes

While a strong learning environment indicates potential for growth, an organization must also have concrete learning processes to identify and solve problems. These include structures for information collection and transfer as well as processes for training, analysis, and experimentation. This survey section asked staff to respond based on their personal experience working at Necco. Necco's overall composite on this domain is about 5 percentage points higher than the standardized median. Necco's responses are well above the median for "experimentation," and slightly above the median for "analysis"

and "information collection and transfer." Necco is slightly below the median for "training," indicating that staff responded that they do not always receive adequate training when starting or transitioning to a new job. Necco administrators added that the company recently created a new position for instructional design and training. Necco is also moving toward a more blended learning environment by encouraging staff to use a new online training site (digitalchalk.com).

Figure 4. Concrete Learning Processes: Necco Median Compared to Standardized Median

Concrete Learning Processes

Legend: ■ Standardized median ■ Necco median
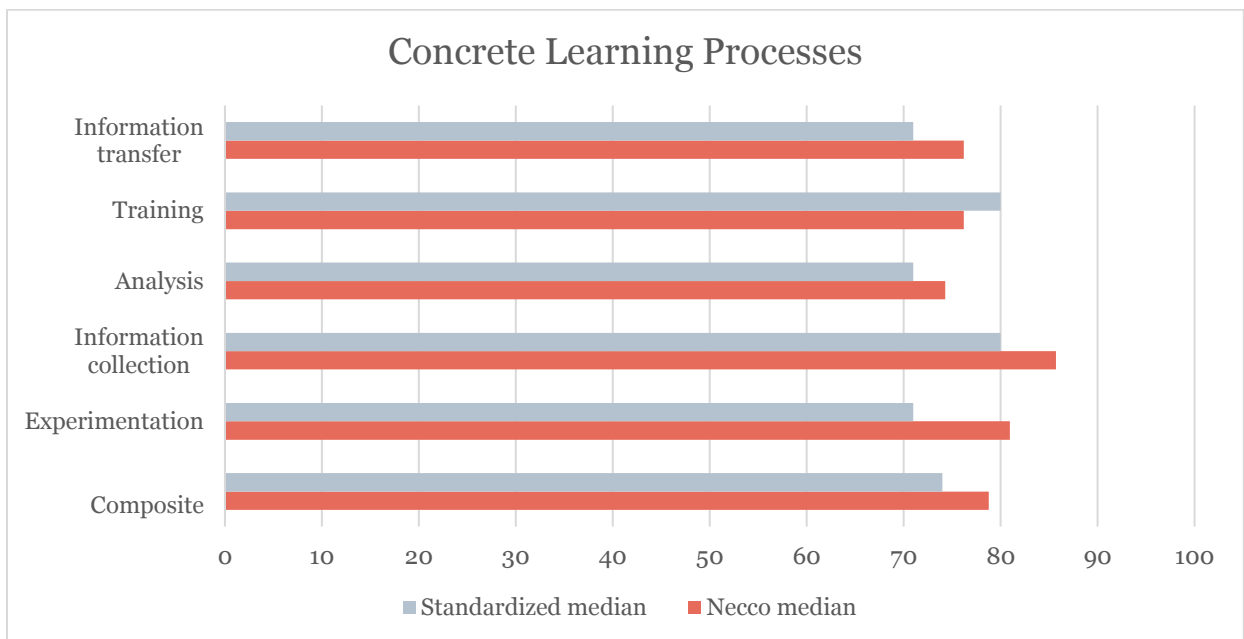
Leadership that Reinforces Learning

Leadership can promote learning by demonstrating that they value staff contribution, engaging staff in open discussions, and emphasizing learning—problem solving, knowledge generation and dissemination—as an organizational priority. The leadership domain has relatively few questions. Staff were asked if the managers they report to support learning by asking questions and listening to staff, and providing time and resources for identifying and addressing challenges. A large majority (77%) of staff responded that their managers often or always invite input from others. A somewhat smaller majority (64%) indicated that their managers often or always establish forums and provide time and resources for identifying problems and organizational challenges. Overall, Necco staff responses are about 4 percentage points higher than the standardized average.

Figure 5. Leadership that Reinforces Learning: Necco Median Compared to Standardized Median
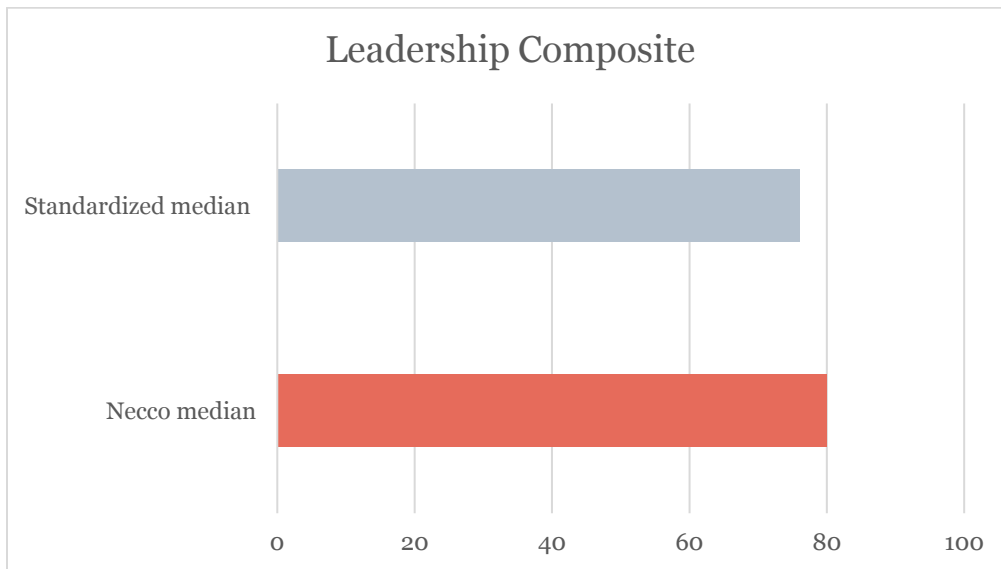
Continuous Quality Improvement Activities

Adapted from industrial process management and quality control, the continuous quality improvement (CQI) framework is finding widespread application in health and social services. CQI is a deliberate, iterative, problem-solving process that connects investments in the process of care, the quality of care, and the capacity to deliver care with fidelity to the outcomes an organization or program hopes to achieve on behalf of the people it serves (Wulczyn, Alpert, Orlebeke & Haight 2014). Figure 6 depicts this process as a cycle (sometimes characterized as the plan-do-study-act cycle) in which each phase is characterized by activities that rely on evidence to move to forward. The CQI process relies on structures for evidence collection, processes for turning data into evidence, and feedback on process and outcome indicators. At face value, CQI is analogous to the "sustainability cycle" to measure, learn, execute, and repeat—described in the section on Necco's business strategy. We will now discuss Necco's efforts to parallel their sustainability cycles in efforts to monitor and sustain continuous improvements in program outcomes. In that context, we describe that set of activities as part of CQI efforts focused specifically on program monitoring and performance improvement.

Figure 6. The Cycle of Continuous Quality Improvement

PLAN

Define problem & outcome
Develop theory of change
Design/select intervention

ACT

Adjust intervention as needed

DO

Implement intervention
Monitor implementation

Process of care
investments

Quality of care
investments

Investments in
capacity

Measure outcomes
Provide feedback

STUDY
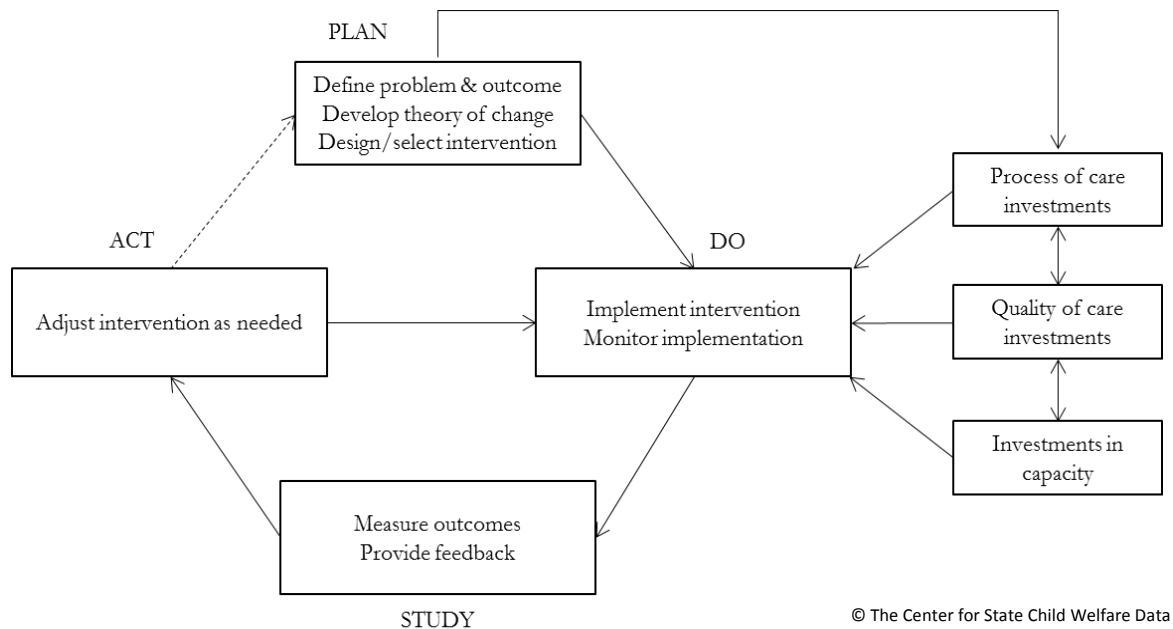
Engagement with Chapin Hall bolstered Necco's efforts to provide ongoing and easily accessible information to leadership about key performance outcomes (we describe this in more detail in the next section). This information would then be available to leaders to support general and specific efforts to improve program outcomes. In addition to developing the analytic tools, we will continue to work with Necco leadership to incorporate the use of performance metrics into their ongoing quality assurance program. As briefly described below, this effort includes data reviews and presentations, consulting on data and program quality improvement, and providing on-site analytic training to central and local office leadership.

Data Reviews and Presentations

During scheduled meetings, we regularly review analysis from the analytic databases with Necco staff. This includes working with Necco data management staff to ensure that analytic files accurately capture Necco's program data, which has also resulted in enhancements to Necco's Evolv database. We have developed and presented metrics produced from analytic files to Necco leadership and staff, including via webinars and an in-person meeting at Necco corporate headquarters.

Consulting and Technical Assistance

As part of the engagement with Necco, we provide ongoing consulting on quality improvement and data management. This involves meetings with various staff on an as-needed basis and participation in a performance measurement workgroup. We also provide technical assistance around best practices in

measurement, survey design, and logic model development. Ongoing consultation with Necco's analytics team resulted in adjustment to data collection strategies, data cleaning/quality efforts, and additions to the Chapin Hall analytic files. We have participated in a series of workgroup meetings, the purpose of which was to define program specific metrics for use in Necco's self- monitoring of program performance.

Advanced Analytics Training

In October 2015, our team led a condensed Advanced Analytics training for Necco state directors. Advanced Analytics is a class developed (with support from Casey Family Programs) by researchers at Chapin Hall's Center for State Child Welfare Data, and has been offered regularly since 2007. The course has been developed for public and private company child welfare managers who work directly with information resources and who are in a position to influence the use of information in their organization. It is targeted specifically at those in leadership positions who are empowered to promote best practices in measurement and evidence-based decision making within their child welfare agencies.

The coursework is designed to cover best practices in performance measurement for child welfare. To that end, Necco participants learned not only how to identify and conduct analyses required to fuel the CQI process, but also how to recognize typical pitfalls that lead to the incorrect use of administrative data. To maximize relevance and transfer of learning, the lessons drew explicit links between analytic concepts and techniques and their real world implications for performance monitoring and CQI decision making. To promote skill building, participants worked through in-class group and independent exercises using their own analytic data file.

Necco Analytic Products

Our engagement with Necco resulted in two main products: child and foster parent analytic files from which program profile reports can be generated and program performance metrics. Each of these activities is described in this section, along with a summary of the resulting products.

Analytic File Development

As noted earlier, Necco maintains a centralized data system (Evolv) containing individual-level information on the children and families from the four states they serve. The Chapin Hall team worked with Necco data management staff to extract information from this database that can be used to develop individual-level analytic files that together constitute Necco's Analytic Database. We continue to work with Necco counterparts to ensure that the analytic files contain the information necessary to track program data at the individual client level.

This process began with a data audit to determine the structure of Necco's data files and ensure data quality. Files received from Necco include placement data (including child/family demographic data) and program data (including relevant program enrollments, services provided, goals, and outcomes). In close consultation with Necco staff, we developed routines to extract data from various Necco Evolv tables and to apply certain rules in order to create discrete files that can be combined to permit longitudinal analysis of children who have been placed in care with Necco. A second set of files was developed to support analysis of Necco-recruited foster homes that have opened and may have had child placements.

Using statistical analysis software (SAS) and analytic steps that had been previously designed and developed by researchers at Chapin Hall, Necco's raw data was used to create "client," "event," and "spell" files. The client file contains demographic information on Necco's clients (i.e., children or foster parents) that does not change over time. The event file contains all relevant placement, case management, and discharge events during the client's time with Necco. The spell file is an analytic file that combines client and event files to summarize a client's full service experience from entry to discharge. The file is updated every six months with data tables extracted from Evolv and securely transferred to Chapin Hall. The periodic file updates also offer an opportunity to refine and expand file capacity. For example, we recently added a variable to summarize changes in level of care throughout a spell.

As noted above, Necco currently has two types of analytic files: a client spell file and foster parent spell file. These files are used to produce Necco's performance metrics and program profile reports that are available as standalone reports. In addition, Necco leadership can create dynamic reports from the spell files by uploading it to their Tableau server.[3] Using Tableau, Necco leadership generate queries from the spell file and display the results in graphics that easily communicate key performance metrics for Necco's programs to internal and external audiences. Since the processing has been finalized, every six months we recreate the two analytic products (child and foster parent spell files). Updated child files are transferred back to Necco, uploaded to their Tableau server, and available for use in routine reporting as well as for specific queries.

Foster Parent Spell File Development

Our team at Chapin Hall used principles typically applied to client analytic files to create a new type of analytic file—a foster parent spell file. Whereas the child spell file provides summary information about the experiences of child placed in a Necco foster home from placement to discharge, the foster parent spell file provides summary information about Necco's network foster homes—from initial application to home closure. Necco leadership is interested in learning about how the company recruits parents, the characteristics of their foster homes (e.g. race and income), how long parents stay with the company, and what kind of outcomes they achieve for children and youth. We have created a preliminary file that has basic information about application, certification, child placement, and exit events. It also links information about parent demographics and referral source, although this information has not been consistently collected for all foster parents. We provide basic information extracted from the foster parent spell file further in a later section.

Program Performance Metrics

Following the development of the analytic database, we worked with our Necco counterparts to assist in the development of key metrics that can accurately track Necco's performance on core outcomes related to program goals. This effort was integrated with the newly launched business strategy that included a performance-based management team, one workgroup of which was the Outcomes and Performance Measures workgroup. Currently, Necco's Balanced Scorecard measures discharge outcomes—based on exit cohorts—with the goal of at least 70 percent successful outcomes (permanency achieved or progress toward program goals). The scorecard also tracks how close to the actual date data is entered, with a goal of 5 days for service events and 2 days for intakes and discharges. The Outcomes and Performance

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[3] Referred to earlier, Tableau is a proprietary software focused on data visualization to support business intelligence.

Measures workgroup, which included the Chapin Hall team, was charged with developing additional metrics that could supplement those on the Balanced Scorecard, and would serve to measure program specific performance.

Our approach in the construction of the metrics followed best practices in measurement, adhering to the four principles highlighted in a journal article that articulates essential elements of integrating administrative data into systematic efforts to improve child welfare outcomes (Lery, Haight, & Alpert, 2016). The four principles were:

1. The process of improvement starts with a question.

2. Converting data to evidence requires discipline.

3. The continuous quality improvement cycle demands evidence at each stage.

4. Certain techniques for arranging and analyzing data can maximize evidence yield.

A database on its own is not *evidence*—it contains pieces of information that must go through a process of intentional analysis to become meaningful. It all starts with a question that propels the analyst toward the most appropriate method of analysis. This process of converting data into evidence must also follow scientific standards, including correct identification of the study population (i.e., the denominator) and using an appropriate window of time (i.e., an entry cohort) to measure change. When these first two principles are met, the resulting evidence can be used to make decisions at all stages of the CQI cycle: define the problem (plan), implement an intervention to address the problem (do), examine how well the intervention is performing (study), and adjust the intervention as necessary (act) (see Figure 6). Finally, using certain techniques (e.g., analytic spells files either alone or in combination with data visualization software) to organize the data can make evidence generation more productive by enabling program stakeholders to ask and answer specific questions and identify opportunities for change.

The core performance metrics for Necco's main programs—Foster Care, Independent Living, Alternatives to Detention, In-Home Services, and Necco Residential Center—were developed with these principles in mind. The analytic database was constructed so that meaningful summary metrics could be generated both through SAS programs and off of the Tableau server. Each metric was developed so that it answered a specific question about program performance and so that it could be displayed to show variation over time, across offices, or by child attributes. This synchronizes well to the performance improvement cycle which calls for evidence at each stage, allowing improvements to be targeted and evaluated over time.

Below, we briefly describe each of the programs for which we developed metrics and provide a table summarizing the current program metrics. To give a sense of the size of each program, we start each section with a table displaying recent entries into the program, broken out by each for the four states Necco works with. Corresponding data can be requested separately. These data establish a baseline for Necco's performance.[4]

Performance Metrics: Foster Care

Necco strives to place children in the least restrictive setting possible and maintain safety during care. The foster care program promotes placement stability (i.e., fewer foster home moves) and the shortest duration of care necessary to achieve permanency. By providing supportive services during foster care placements, Necco endeavors to improve the well-being and functioning of their clients. In terms of outcomes at discharge, the goal is to achieve permanency, including reunification whenever possible. The core performance metrics for foster care are summarized in Table 2.

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[4] It is important to note that as a private company, Necco works in partnership with public counterparts—including, in some cases, the courts—to meet the needs of children in their care. Necco has influence over many aspects of the care their clients receive, yet their decisions may be constrained by external forces.
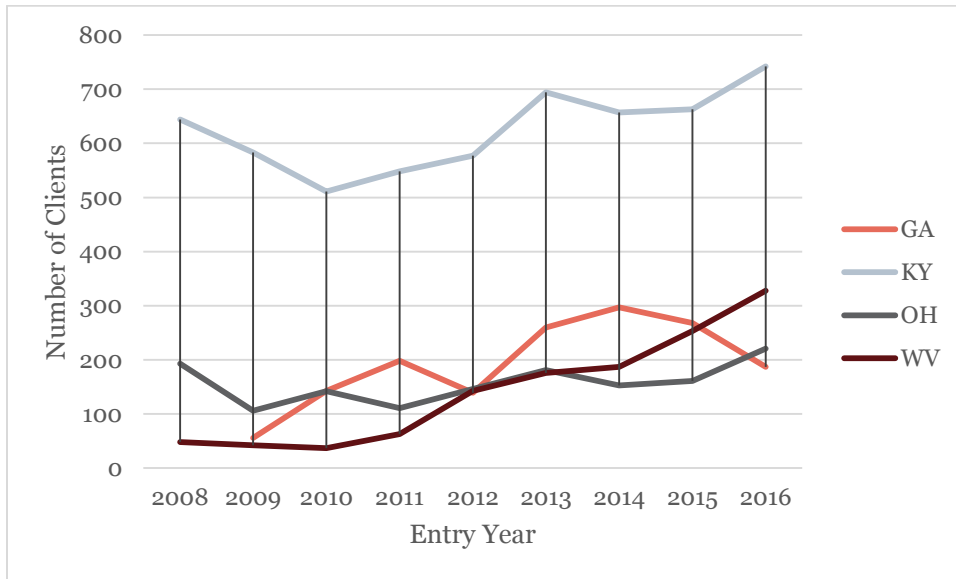
Figure 2. Foster Care Entry Cohorts by State

Table 2. Foster Care Performance Metrics

Metric	Numerator (N) and Denominator (D)
Improved functioning	**Question: How effective is Necco at meeting the treatment plan goals for children placed in foster care?** N: Every child who stayed through their first treatment plan review whose treatment goals had been met. D: All youth who enter foster care, by managing office.
Length of stay/length to permanency	**Question: What is the likelihood that children served in the foster program will exit to permanency within 1 year? Within 5 years?** N: Cumulative exits by exit type within 1 and 5 years D: All youth who enter foster care, by entry cohort and jurisdiction.
Placement stability	**Question: Typically, how often do children placed in foster care disrupt?** N: Number of moves during placement spell. D: Number of entries, by managing office and age at entry.
Reunification /permanency	**Question: What are the exit outcomes for children placed in foster care?** N: Number of exits by exit reason. D: Number of entries by managing office.

Performance Metrics: Independent Living

Youth aged 18 and older are referred to the Independent Living program from the child welfare and/or juvenile justice systems in each state, or from Necco's own foster care program. The state and court

system, with input from youth, must agree to the recommitment or extension of care. Youth are expected to have a safe and stable experience while in independent living, acquire skills to live independently, and discharge to a stable living arrangement. Figure 8 shows Independent Living entry cohorts by state. Then, Table 3 summarizes the core performance metrics for independent living.

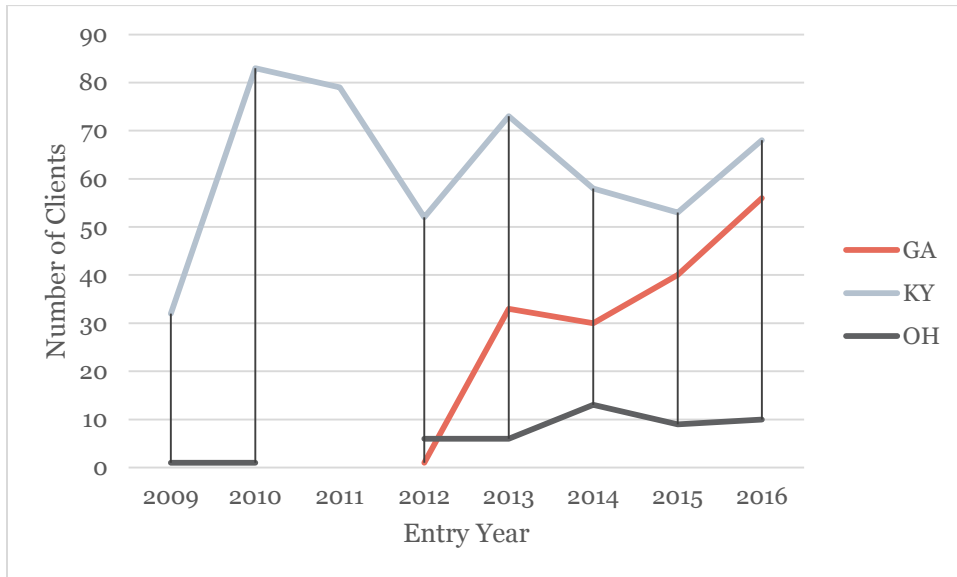**Figure 3. Independent Living Entry Cohorts by State**

Table 3 Independent Living Performance Metrics

Metric	Numerator (N) and Denominator (D)
Percentage of youth that leave care with a stable living arrangement	**Question: Do youth served in the IL program exit with a stable living arrangement?** N: Number of youth who leave IL with a stable living arrangement. D: Youth 18+ who enter IL program (as transfer from Necco foster care or as a new referral).
Percentage of youth that leave care with employment	**Question: What is the likelihood that youth discharged from IL will be employed at exit?** N: Number of youth who leave IL with employment. D: Youth 18+ who enter IL program (as transfer from Necco foster care or as a new referral).
Percentage of youth that leave care either enrolled in school or vocational program or having completed their educational objective	**Question: What are likely educational outcomes for youth exiting IL?** N: Number of youth who leave IL enrolled in or completed an education program. D: Youth 18+ who enter IL program (as transfer from Necco foster care or as a new referral).
Voluntary vs involuntary discharges/Planned vs unplanned	**Question: How likely is it that a youth served in IL will experience a planned discharge?** N: Number of youth who leave IL with a planned discharge. D: Youth 18+ who enter IL program (as transfer from Necco foster care or as a new referral).

Performance Metrics: Alternatives to Detention

Youth are referred to this program as an alternative to secure detention/confinement for nonviolent youth. Youth will complete the length and terms of their placement without committing additional offenses. Necco has two alternatives to detention (ATD) programs: supervised foster care and home detention with tracking. These programs currently operate in Kentucky. Youth in home detention are able to remain in their home with regular contact from a Necco ATD Coordinator and electronic monitoring (i.e., ankle bracelet tracking). The ATD coordinator has daily phone contact with the youth, and at least one face-to-face contact at random times and (if applicable) locations (e.g., school, home, work, etc.) to hold the youth accountable. Supervised foster care is a short-term placement in a home with trained therapeutic foster parents, with additional supervision from Necco case managers. Youth remain in the foster home until adjudication or until a permanent placement can be made. The core performance metrics for ATD are summarized in the table below. In Figures 9 and 10, and Tables 4 and 5, we show ATD care entry cohorts by state.

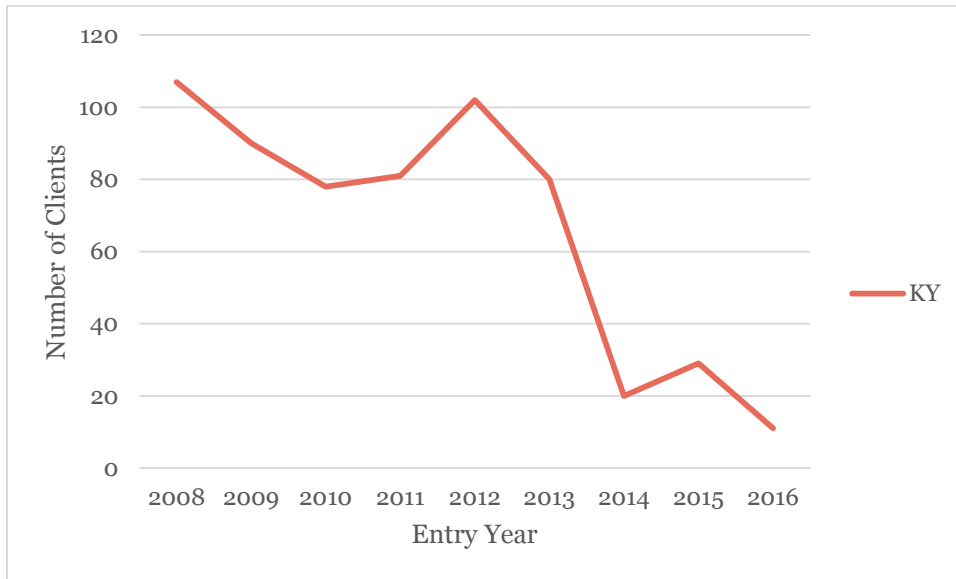**Figure 4. Alternatives to Detention Tracking Entry Cohorts in Kentucky**

Table 4. Alternatives to Detention Ankle Monitoring Performance Metrics

Metric	Numerator (N) and Denominator (D)
Percentage of youth are removed from the program for either a violation of program rules, AWOL, or reoffending	**Question: What are the exit reasons for youth served in the ATD program?** N: Number of youth who exited for either a program violation, law violation or was AWOL at the time of discharge. D: All youth who entered ATD Tracking by entry cohort year.
Percentage of youth who successfully complete the terms of their service	N: Number of youth who with Successfully Completed Program as the exit reason. D: All youth who entered ATD Tracking by entry cohort.
Youth discharged to more restrictive setting	N: Number of youth discharged to detention. D: All youth who entered ATD Tracking by entry cohort.

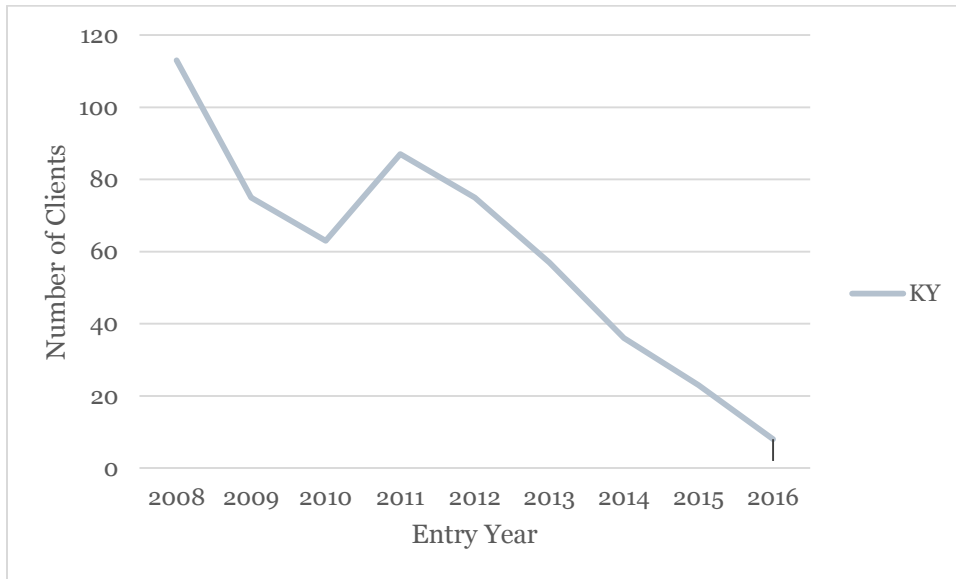**Figure 5. Alternatives to Detention Foster Care in Kentucky**

Table 5. Alternatives to Detention Supervised Foster Care Performance Metrics

Metric	Numerator (N) and Denominator (D)
	Question: What are the exit reasons for youth served in the ATD Foster Care program?
Percentage of youth are removed from the program for either a violation of program rules, AWOL, or reoffending	N: Number of youth who excited for either a program violation, law violation or was AWOL at the time of discharge. D: All youth who entered ATD Foster Care by entry cohort.
Percentage of youth committed to Department for Community Based Services during ATD placement/committed long-term	N: Number of youth discharged to custody of DCBS for foster care placement. D: All youth who entered ATD Foster Care by entry cohort.
Percentage of youth who successfully complete the terms of their service	N: Number of youth with "successfully completed program" (defined as not terminating services early for a program violation) as the exit reason. D: All youth who entered ATD Foster Care by entry cohort.
Youth discharged to more restrictive setting	N: Number of youth discharged to detention. D: All youth who entered ATD Foster Care by entry cohort.

Performance Metrics: In-Home Services

Youth and families are referred to this program from the child welfare system with the goal of the family remaining intact. Clients can receive in-home services exclusively or in addition to another Necco

program (e.g., foster care). This program includes behavioral health services, case management, community access and supports, and family preservation services. Figure 11 shows in-home services entry cohorts by state. The core performance metrics for in-home services are summarized in Table 6.
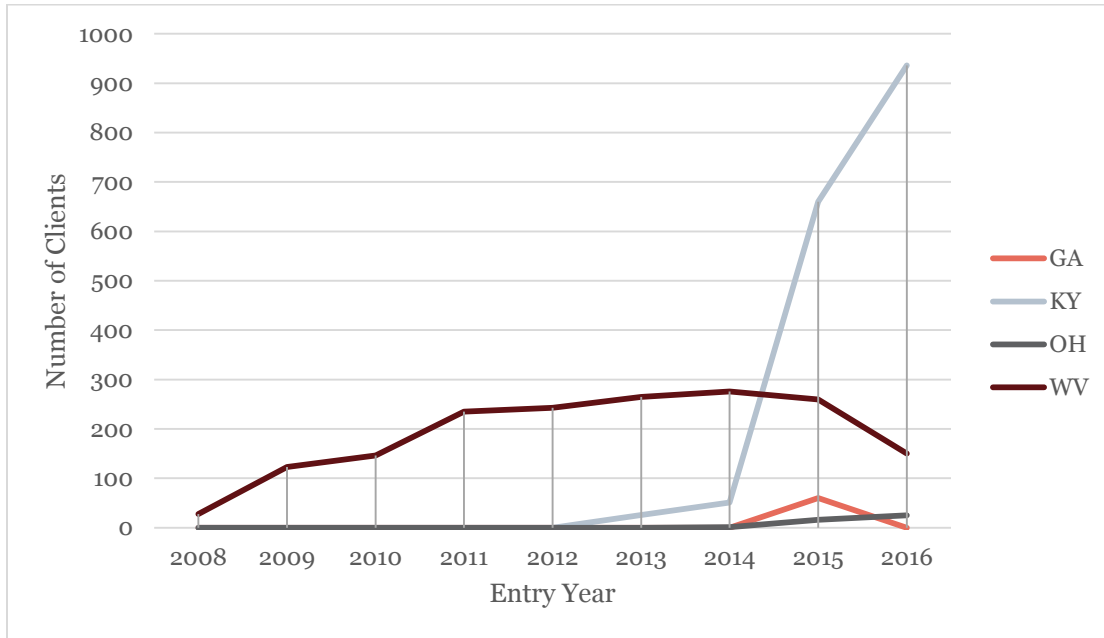
Figure 6. In-Home Services Entry Cohorts by State

Table 6. In-Home Services Performance Metrics

Metric	*Numerator (N) and Denominator (D)*
Decreased out of home placements	**Question: What are the outcomes for children/families served by in the In Home Services program?** N: Number of in-home spells that do not end with out of home placement D: All spells that start or end with in-home services by entry cohort.
Reunification	N: Number of in-home spells that end with reunification D: All spells that start or end with in-home services.

Performance Metrics: Necco Residential Center

While Necco strives to place clients in less restrictive family homes (i.e., foster care), some children, youth, and young adults need residential care and treatment. Necco has one residential center in Ohio. The center's goal is to provide a safe and stable environment while providing care and to discharge to the

least restrictive care. Figure 12 shows residential entry cohorts for Ohio. Table 7 summarizes the core performance metrics for residential care.
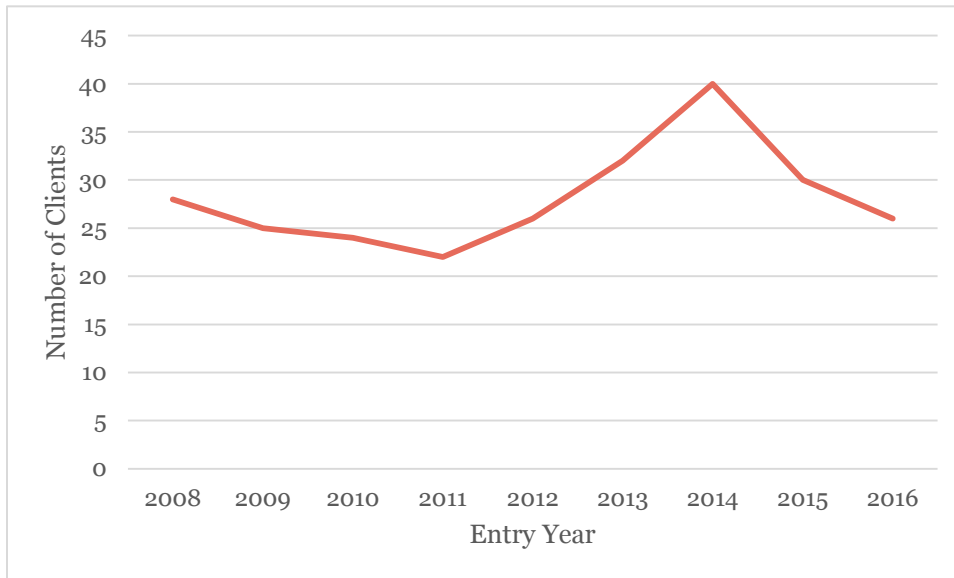
Figure 7. Residential Entry Cohorts in Ohio

Table 7. Necco Center Residential Performance Metrics

Metric	Numerator (N) and Denominator (D)
Change in level of care	**Question: How likely is it that a Necco center resident will experience a level change?** N: Living situation/discharge type for residential spells. D: All spells with a first placement in residential by entry cohort.
Percentage of youth that achieved their permanency goal	**Question: What are the outcomes for clients served in the Necco center?** N: Exit reason/outcome for residential spells. D: All spells with first, second, or last placements in residential by entry cohort.

Foster Parent Spell File

While it is still early in the development of the foster parent spell file, we have generated a preliminary file with basic information about foster homes that open and have placements every year, the outcomes of those placements, and if and why foster homes close. Figure 13 shows the number of new foster homes

with at least one child or youth placement opening by year. The number of new homes opening has been declining in recent years in Kentucky and increasing in West Virginia. The figure below shows foster home exits during the same period. The majority of homes remain open, and the most common reason for exit is that the parents are no longer interested in fostering. This preliminary data is a sample of the kinds of questions the foster parent spell file can answer; we continue to work with the file to provide more information about the dynamics of the foster home network and the placements referred to them.

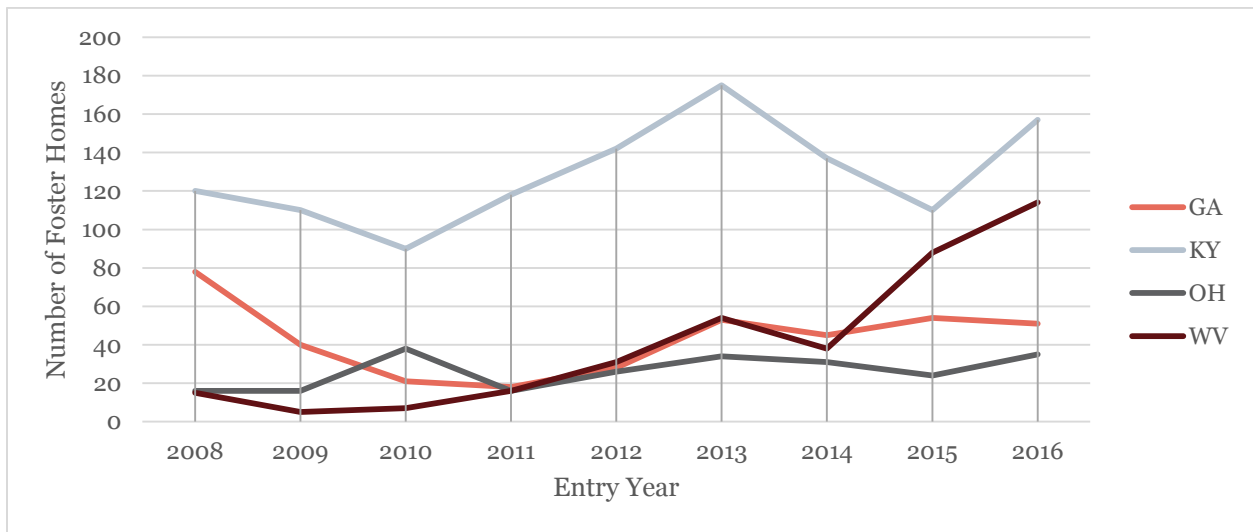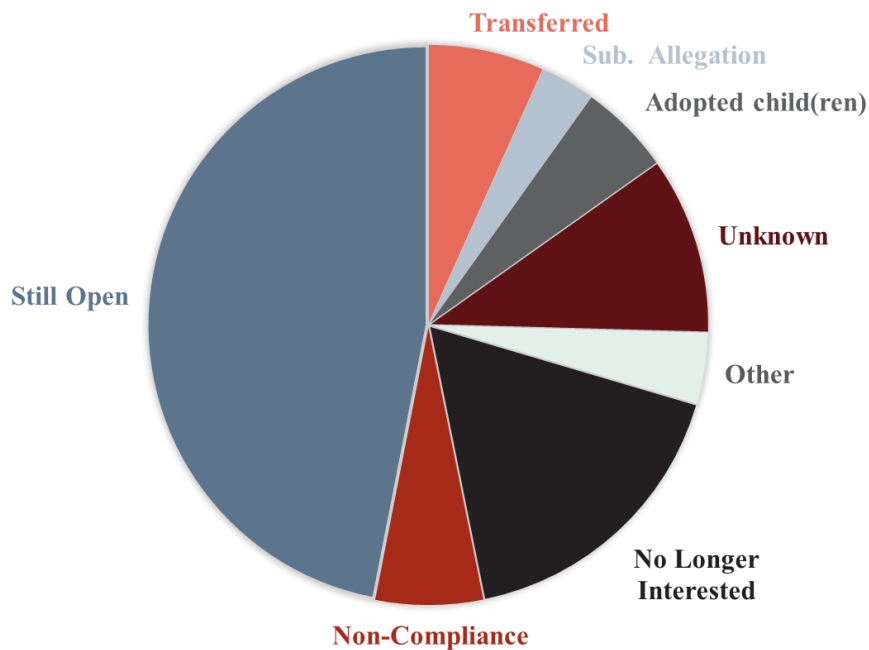**Figure 8. Number of Foster Homes Opening, by Year**

Figure 9. Foster Home Closing Reasons, All Homes Opened for Placement between 2008–16

Conclusions

Necco has taken a number of critical steps to become better at what they do—improving outcomes for the children, youth, and families they serve. For the past four years, we have worked together to enhance the company's capacity for research evidence use, to establish and generate baseline performance metrics, and to survey Necco's culture for learning and ongoing improvement. This effort, coupled with Necco's significant investments in growth and development strategy, business intelligence, data infrastructure, and internal human capital has resulted in a company that has prioritized both the acquisition of knowledge as well as its incorporation into business and program decisions.

Capacity for Research Evidence Use

Organizations invest in acquiring, processing, and applying research evidence in order to understand current practice and identify ways to improve it. Following a data audit, Necco made database enhancements to collect more meaningful information. Our team then converted the raw data into analytic files, enabling Necco to acquire research evidence. In terms of processing evidence, we have worked together to develop and analyze performance metrics using best practices. Additionally, we have promoted Necco's internal skills for evidence processing through an Advanced Analytics training and provided ongoing technical assistance on how to manipulate the analytic files. In the vein of continuous quality improvement, we continue to work with our Necco counterparts in their ongoing efforts to apply research evidence to recognize promising practices, as well as to identify opportunities for program improvements.

Organizational Culture for Learning and Growth

The ability to learn and adapt is associated with more successful businesses. In order to understand Necco's culture for learning and quality improvement, we conducted staff interviews and a survey. The results of this research indicate that Necco is well positioned to learn, grow, and adapt as an organization. Staff indicated that Necco has an inclusive culture where differences are appreciated, although within their specific programs some respondents also noted that the organization may not always be open to implementing new ideas. Necco also has strong processes for information collection and experimentation, although staff suggested that both new and experienced staff would benefit from more training. Staff indicated that their manager(s) promote learning by encouraging and accepting input from others;

managers can enhance these efforts by devoting time and resources to discussing organizational challenges.

Performance Measurement

To establish baseline performance, the Chapin Hall team created analytic files that Necco can manipulate internally, and, in addition, drafted preliminary program profile reports. The analytic files allow Necco to track longitudinal performance at the program, managing office, and state levels. We continue to produce performance metrics tables on a biannual basis and Necco works with the analytic files internally using Tableau software. This allows Necco to incorporate outcome measures into company performance monitoring, to track program performance over time, and to look for trends to identify strengths and areas for improvement. The program profile reports compare Necco's performance to local and national standards. The first set of reports for foster care and independent living suggest that Necco is performing at or above these standards.

Suggestions for Continued Improvement

As Necco strives to set and achieve greater performance standards, we have several suggestions to maintain and improve quality. Necco can build on the work to establish baseline performance metrics by integrating them into a well-defined CQI program for client services. Necco currently has a sustainability cycle model for improvement related to Balanced Scorecard efforts. However, the sustainability cycle is about Necco's overall performance as a business, and we suggest that Necco develop program-specific CQI efforts that focus on the services they provide and articulate more directly the outcomes those programs generate. This would include developing program-specific logic models to articulate how programs—or even programs within programs (foster care, independent living, etc.)—are conceived of and then structured to produce specific outcomes. This process is key to locating variations that might lead to program innovation or adaptation in the effort to continually improve performance.

Furthermore, Necco can continue to build and expand the longitudinal database, reproducing current metrics and adding new data elements into the analytic file. As programs grow and expand, thoughtful consideration about what leadership needs to *know* to continue strong performance can inform how to expand the file so that it can produce the evidence necessary for monitoring, oversight, and continuous improvement. Necco's significant investment in an "evidence infrastructure" situates them well to not only build that knowledge base but also to make it available to both leadership and staff. This infrastructure—from Necco's emphasis on performance management to its providing all staff access to Tableau and the information contained in it, to training and education opportunities like Advanced Analytics—reinforces the strides Necco has made to becoming a high-functioning learning organization.

Finally, continuing to provide staff at all levels with access to research evidence, training them in its use, and encouraging to them to be guided by what they observe and learn will strengthen the capacity of all Necco employees. And that increased capacity, in turn, will mean that Necco's existing strong internal processes that promote experimentation and innovation will benefit from the contributions of staff whose ideas are grounded in evidence.

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